



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: STAGE & STUDIO SPEAKER

Test Model: PADH15BTA

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	<i>kayHu</i> Kay Hu
Supervised by:	<i>LiHuan</i> Li Huan





B.1 DTS Bandwidth

Test Result

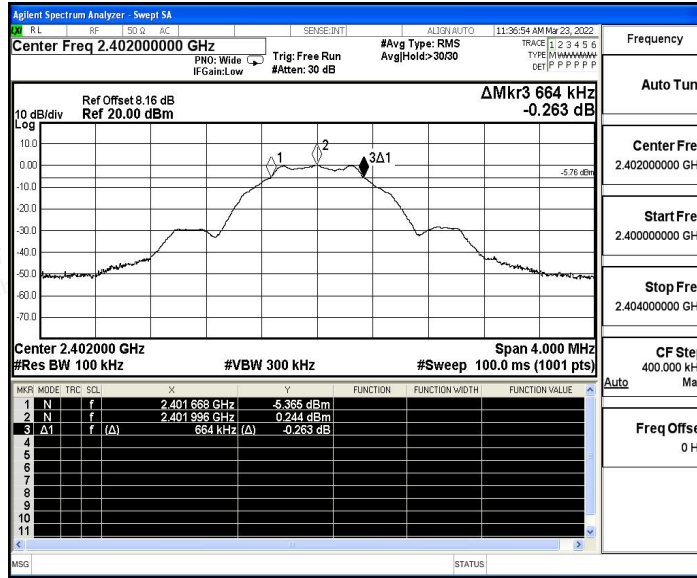
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.664	2401.668	2402.332	0.5	PASS
		2440	0.668	2439.664	2440.332	0.5	PASS
		2480	0.668	2479.664	2480.332	0.5	PASS



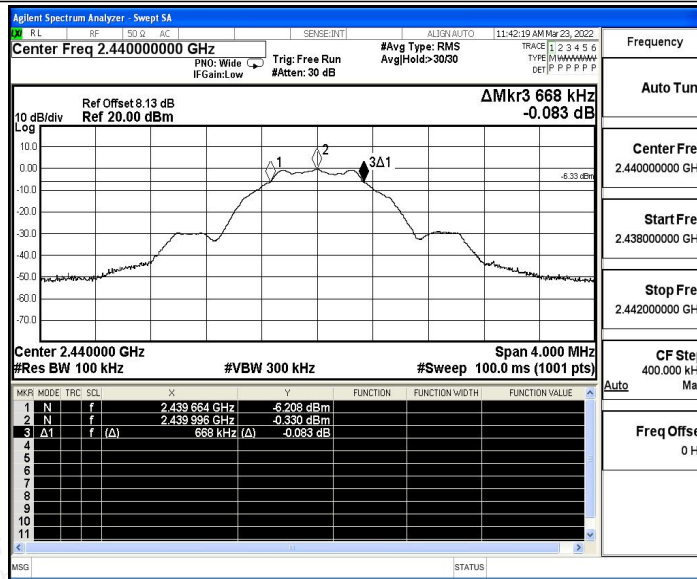


Test Graphs

BLE_1M_Ant1_2402

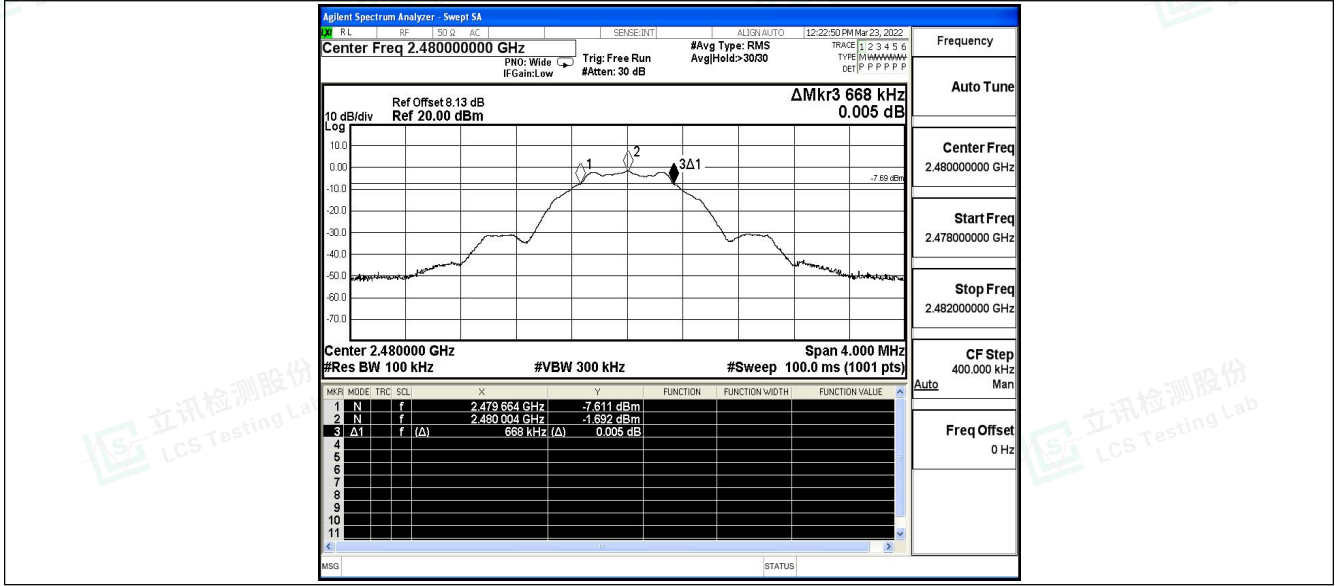


BLE_1M_Ant1_2440



BLE_1M_Ant1_2480







B.2 Maximum peak conducted output power

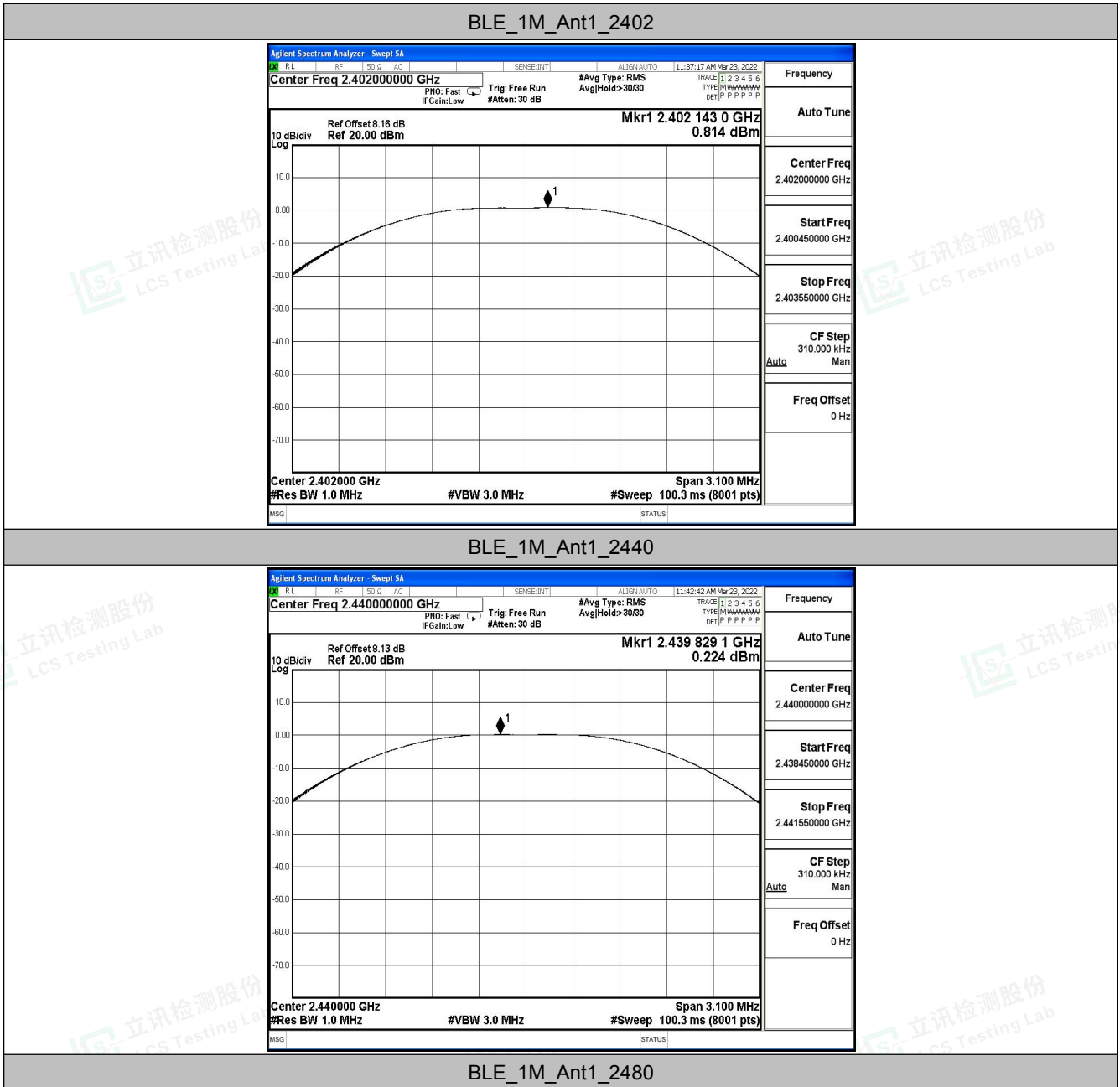
Test Result

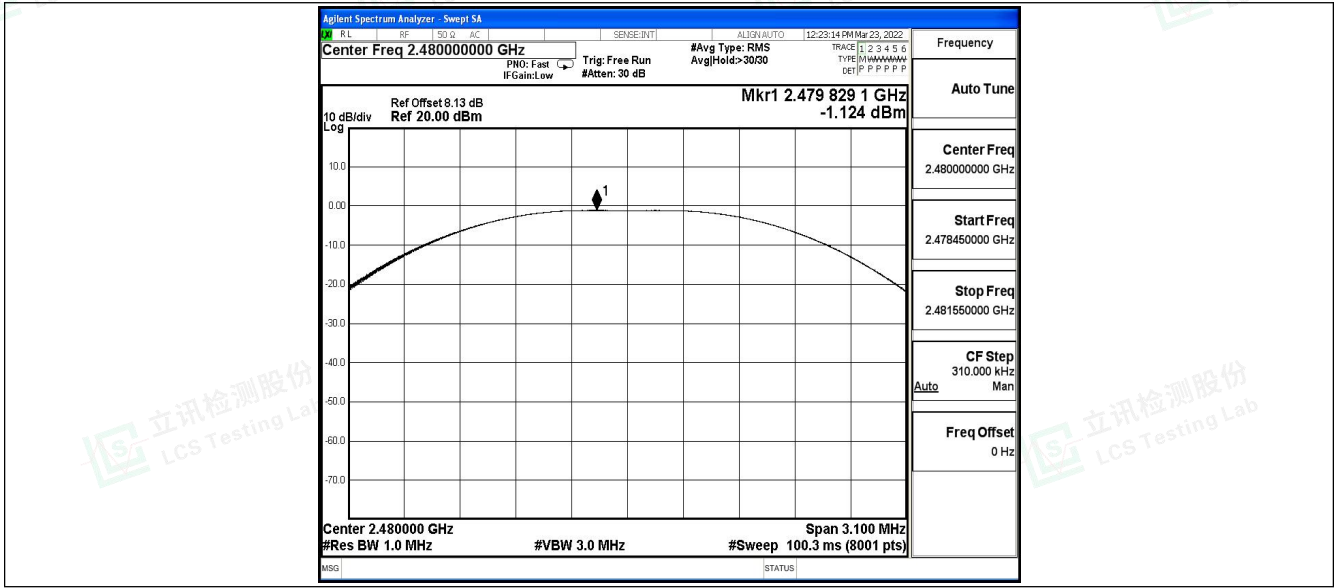
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.81	≤30	PASS
		2440	0.22	≤30	PASS
		2480	-1.12	≤30	PASS





Test Graphs







B.3 Maximum power spectral density

Test Result

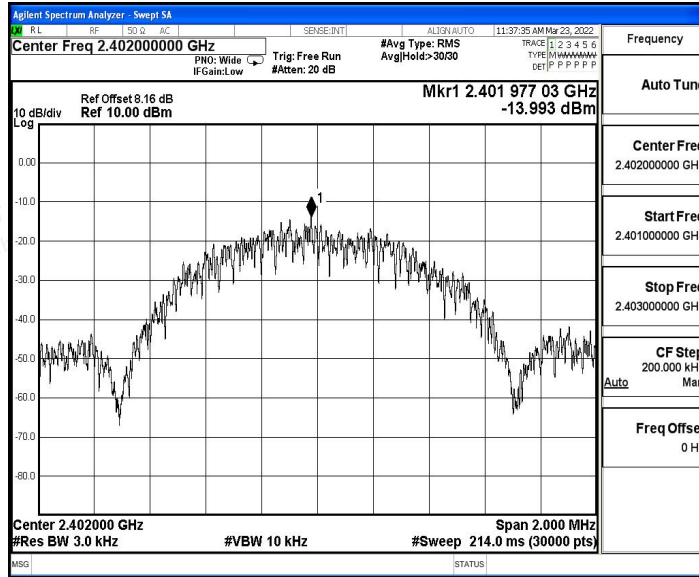
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.99	≤8.00	PASS
		2440	-14.53	≤8.00	PASS
		2480	-15.97	≤8.00	PASS



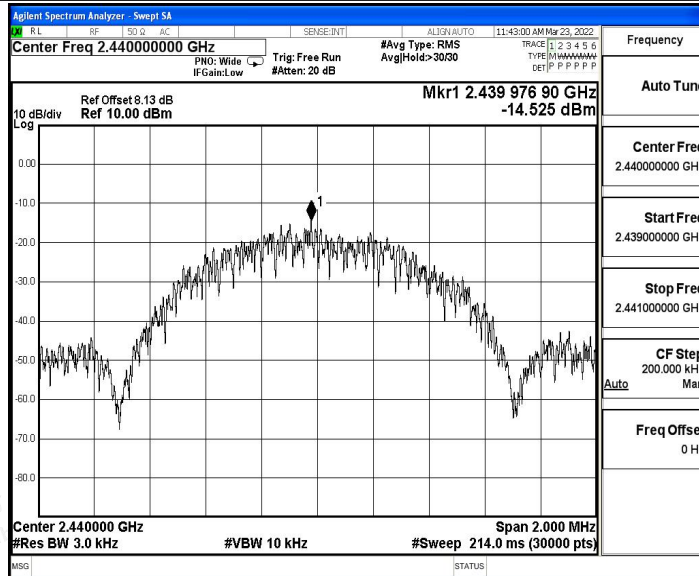


Test Graphs

BLE_1M_Ant1_2402

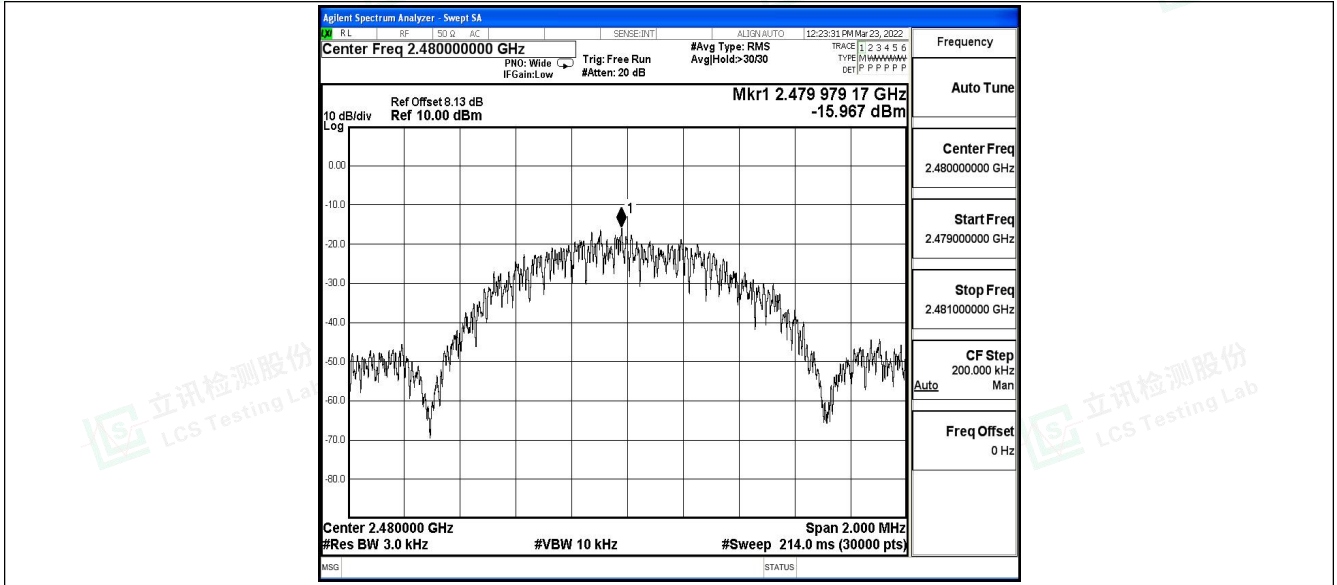


BLE_1M_Ant1_2440



BLE_1M_Ant1_2480







B.4 Band edge measurements

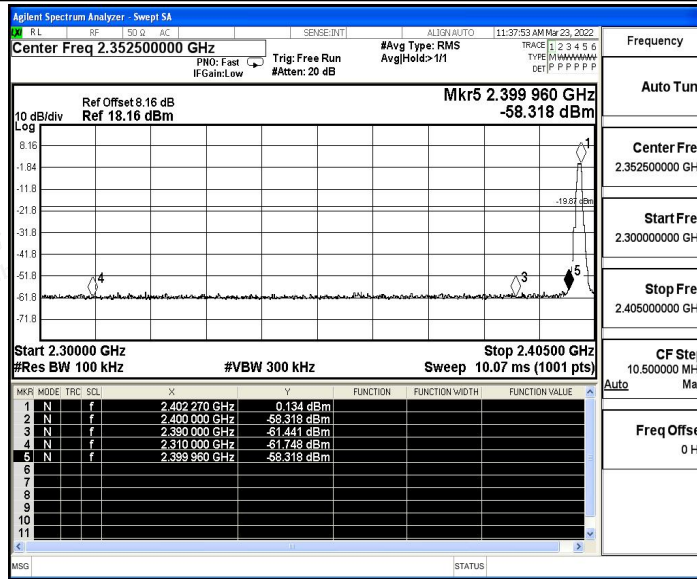
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.13	-58.32	≤-19.87	PASS
		High	2480	-1.58	-58.1	≤-21.58	PASS

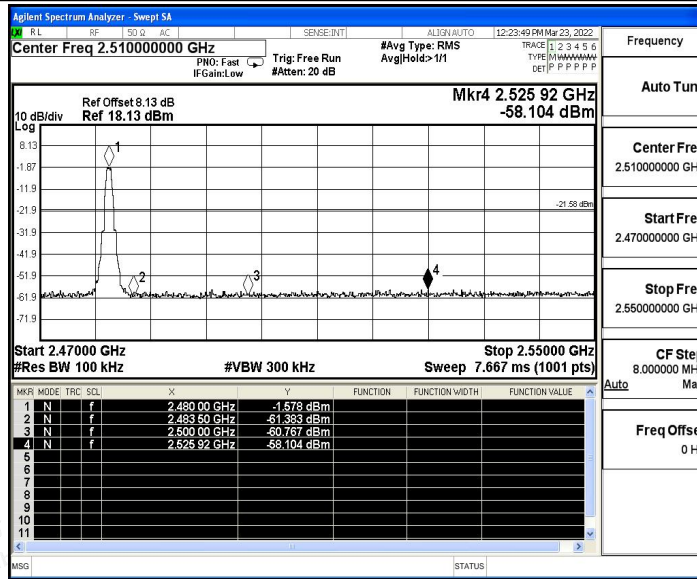


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



B.5 Conducted Spurious Emission

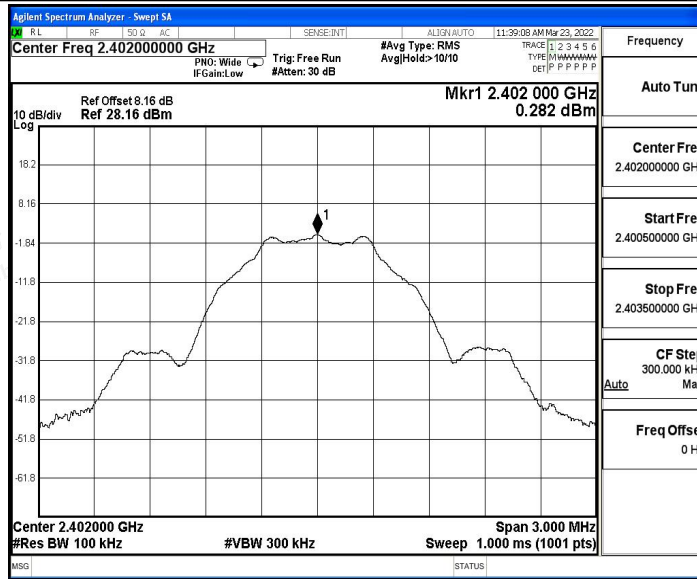
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.28	0.28	---	PASS
			30~1000	0.28	-61.41	≤-19.72	PASS
			1000~26500	0.28	-46.61	≤-19.72	PASS
		2440	Reference	-0.32	-0.32	---	PASS
			30~1000	-0.32	-61.24	≤-20.32	PASS
			1000~26500	-0.32	-46.99	≤-20.32	PASS
		2480	Reference	-1.65	-1.65	---	PASS
			30~1000	-1.65	-60.79	≤-21.65	PASS
			1000~26500	-1.65	-46.97	≤-21.65	PASS

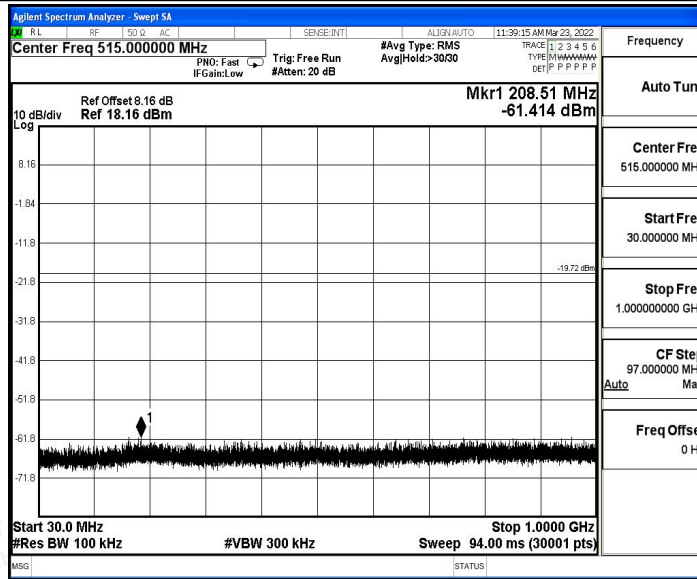


Test Graphs

BLE_1M_Ant1_2402_0~Reference

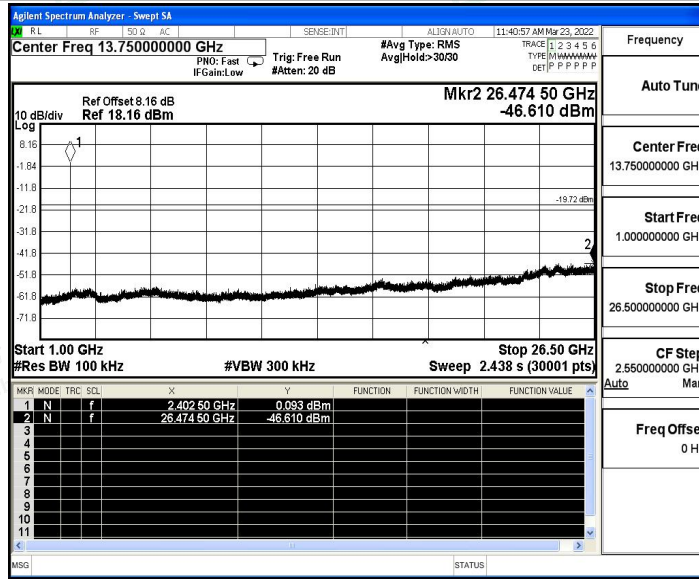


BLE_1M_Ant1_2402_30~1000

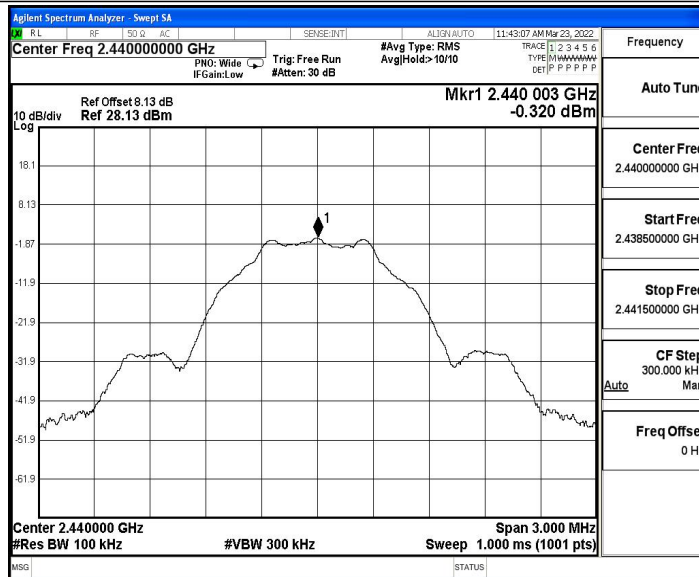


BLE_1M_Ant1_2402_1000~26500



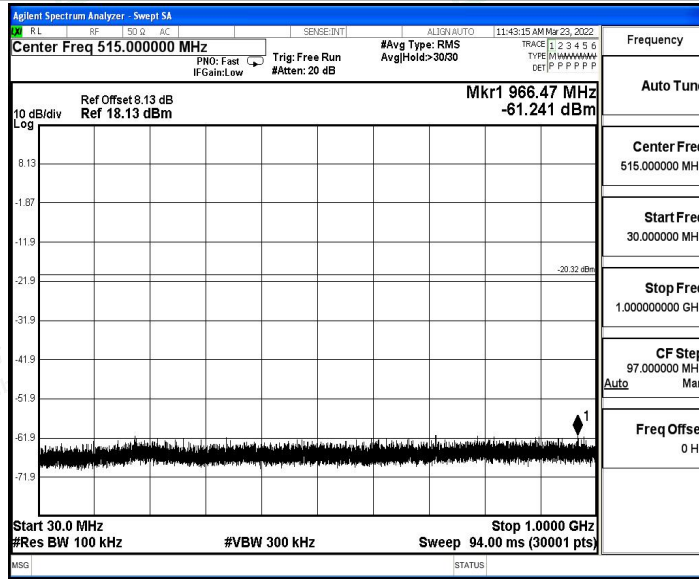


BLE_1M_Ant1_2440_0~Reference

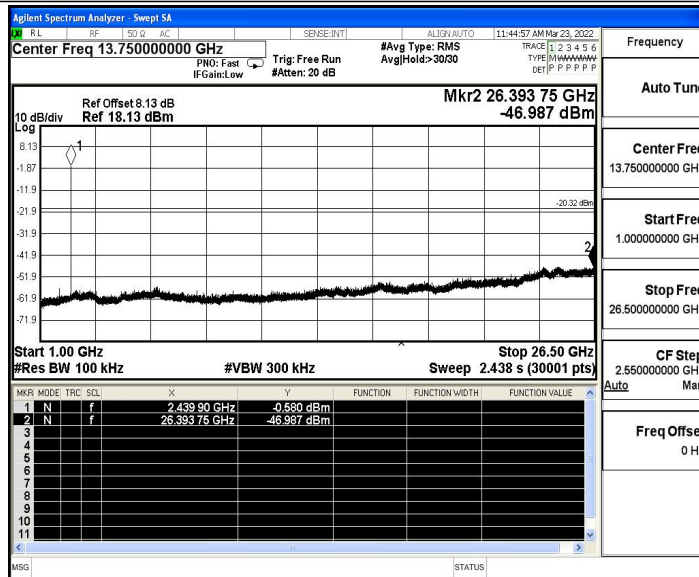


BLE_1M_Ant1_2440_30~1000



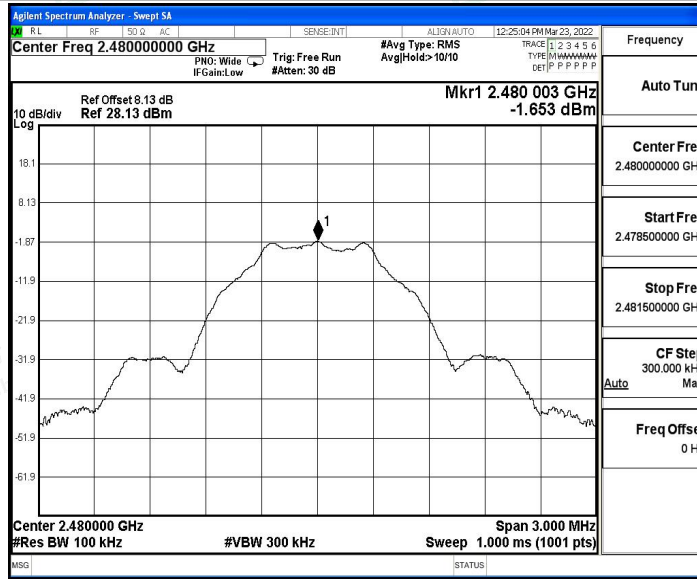


BLE_1M_Ant1_2440_1000~26500

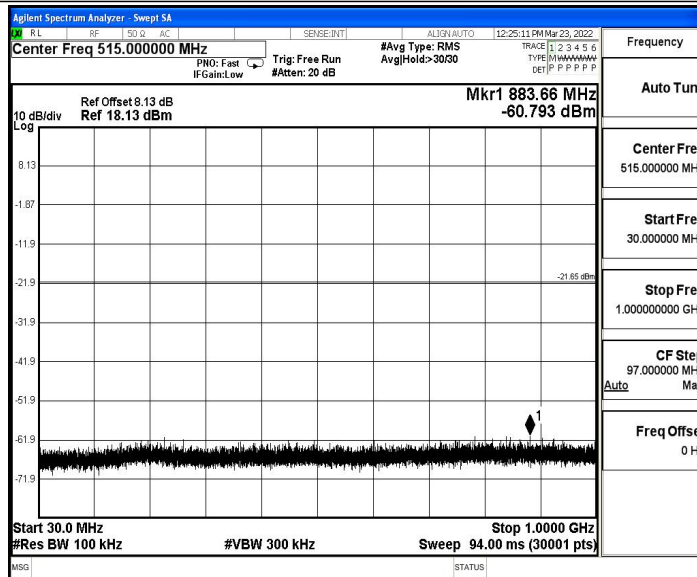


BLE_1M_Ant1_2480_0~Reference



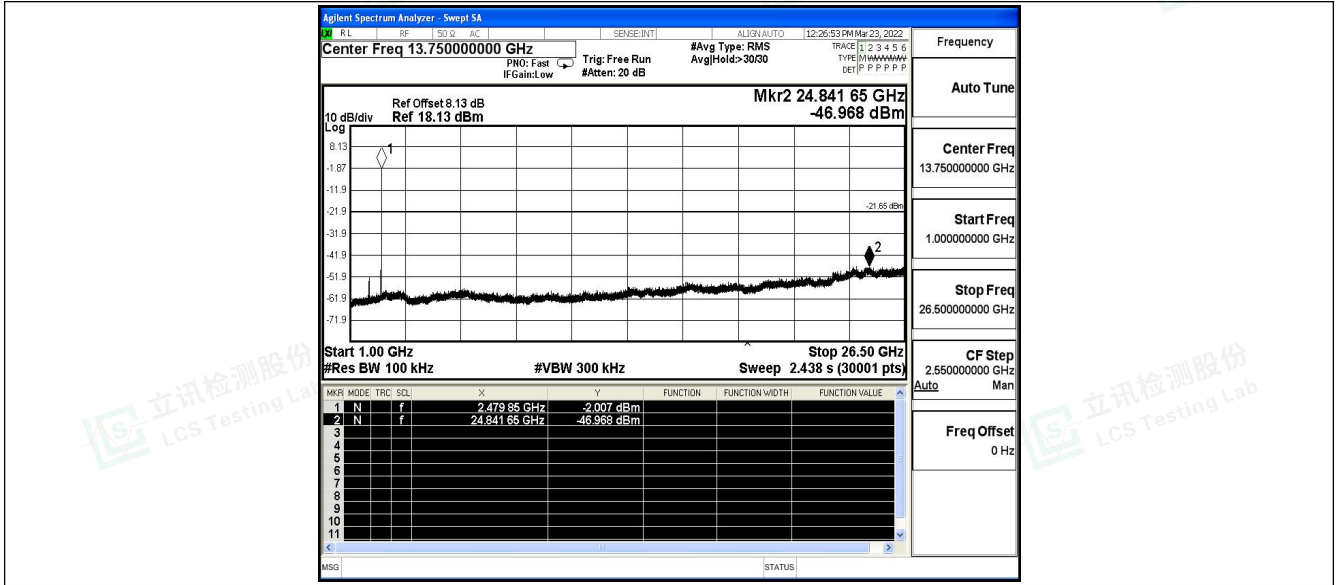


BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500







B.6 Duty Cycle

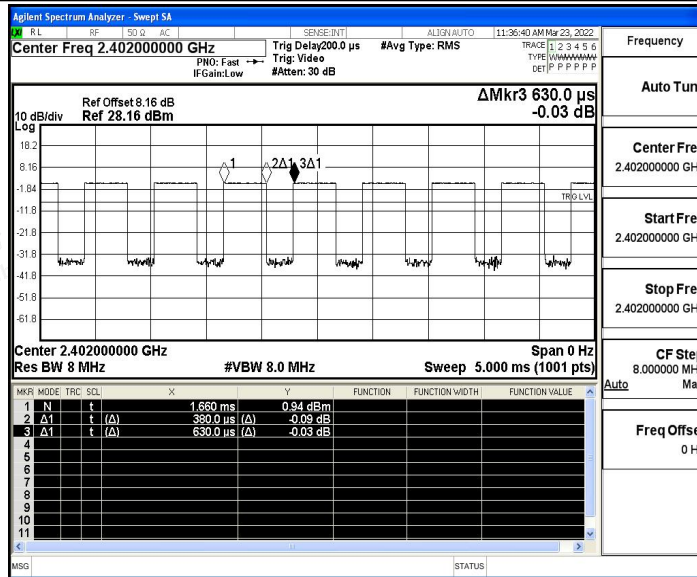
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	1/T[kHz]
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

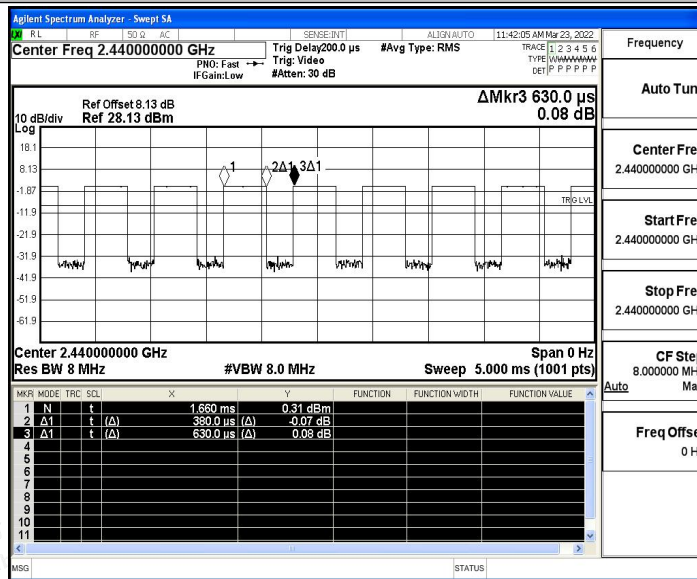


Test Graphs

BLE_1M_Ant1_2402

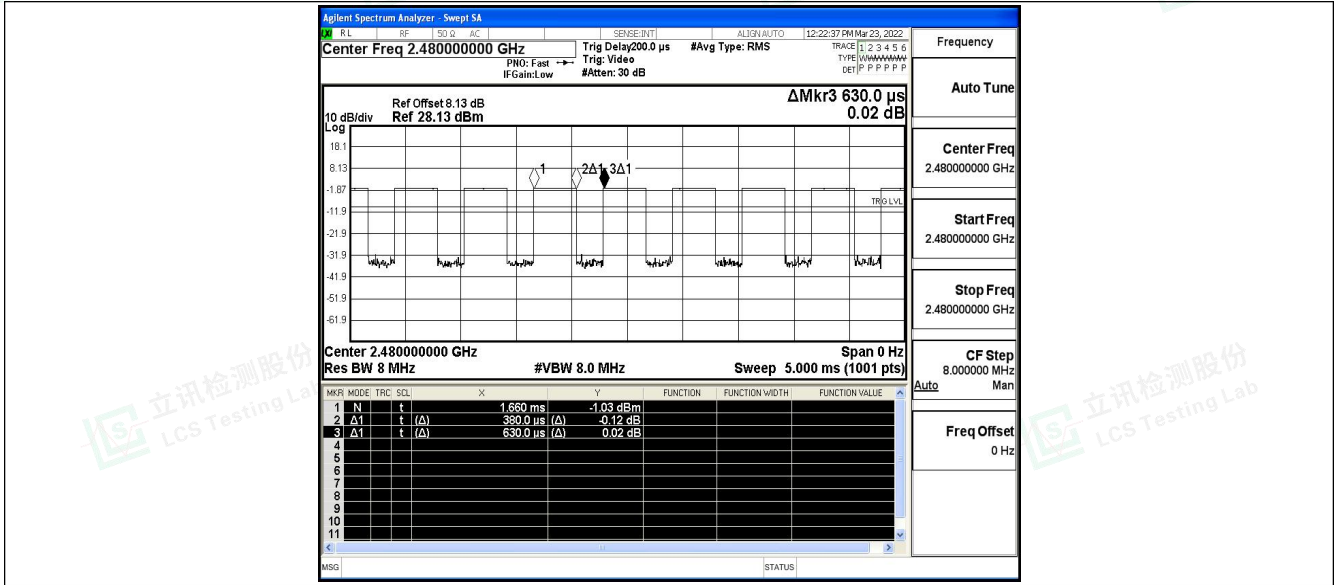


BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





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_1M	Ant1	Low	2402	AV	2310.000	-57.91	≤-41.20	37.29	≤54	PASS
				AV	2389.355	-56.99	≤-41.20	38.21	≤54	PASS
				AV	2390.000	-57.51	≤-41.20	37.69	≤54	PASS
				Peak	2310.000	-48.62	≤-21.20	46.58	≤74	PASS
				Peak	2347.775	-47	≤-21.20	48.20	≤74	PASS
				Peak	2390.000	-49.11	≤-21.20	46.09	≤74	PASS
		High	2480	AV	2483.500	-54.06	≤-41.20	41.14	≤54	PASS
				AV	2483.520	-54.06	≤-41.20	41.14	≤54	PASS
				AV	2500.000	-56.62	≤-41.20	38.58	≤54	PASS
				Peak	2483.500	-47.99	≤-21.20	47.21	≤74	PASS
				Peak	2498.080	-46.66	≤-21.20	48.54	≤74	PASS
				Peak	2500.000	-48.51	≤-21.20	46.69	≤74	PASS

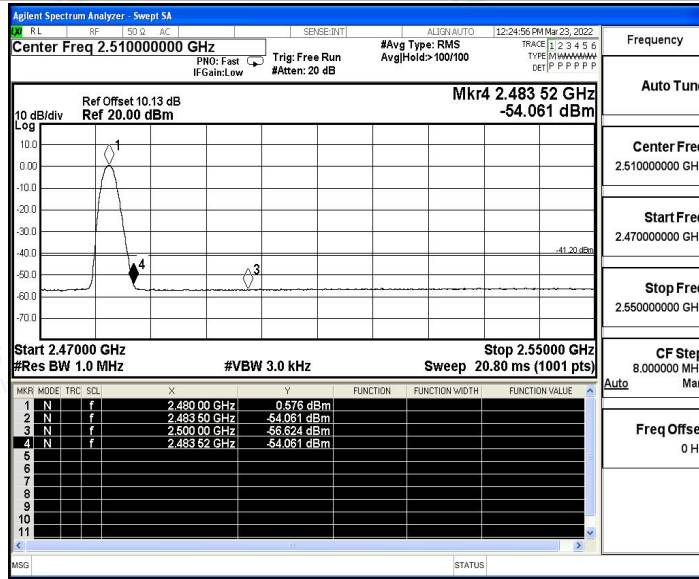
Note:

- The Antenna Gain is compensated in the graph.
- 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_1M_Ant1_High_2480_Peak

