



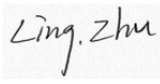
Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Smart POS

Test Model: WIZARPOS Q2

Environmental Conditions

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



B.1 DTS Bandwidth

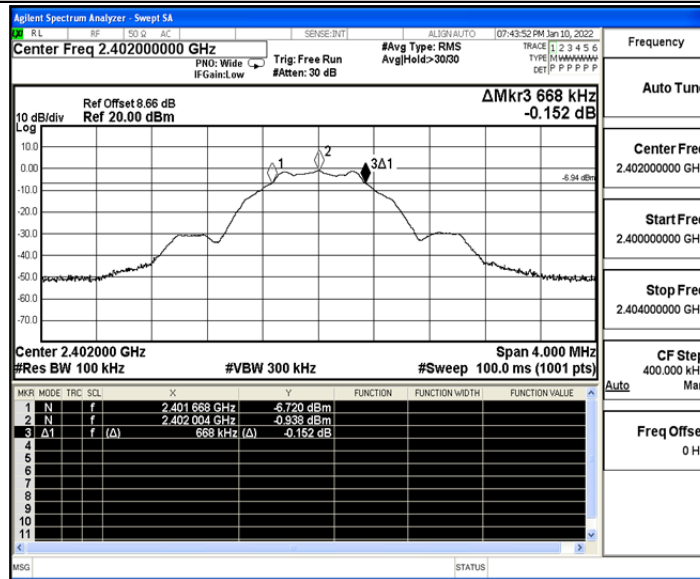
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.668	2401.668	2402.336	0.5	PASS
		2440	0.664	2439.668	2440.332	0.5	PASS
		2480	0.668	2479.664	2480.332	0.5	PASS

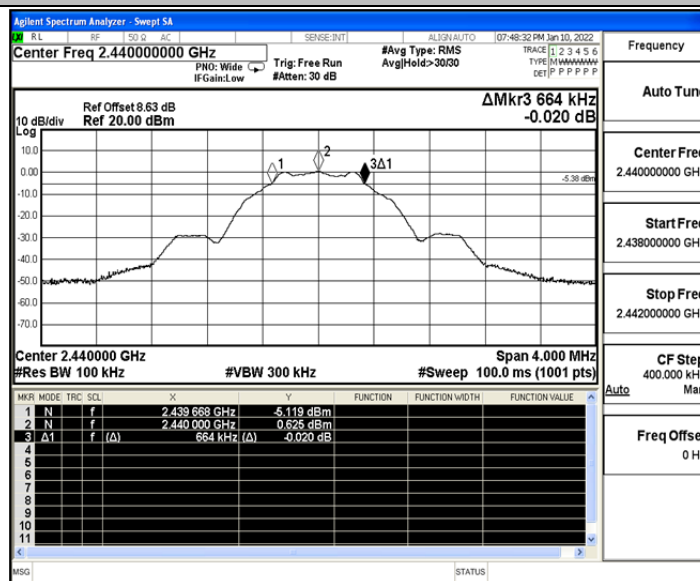


Test Graphs

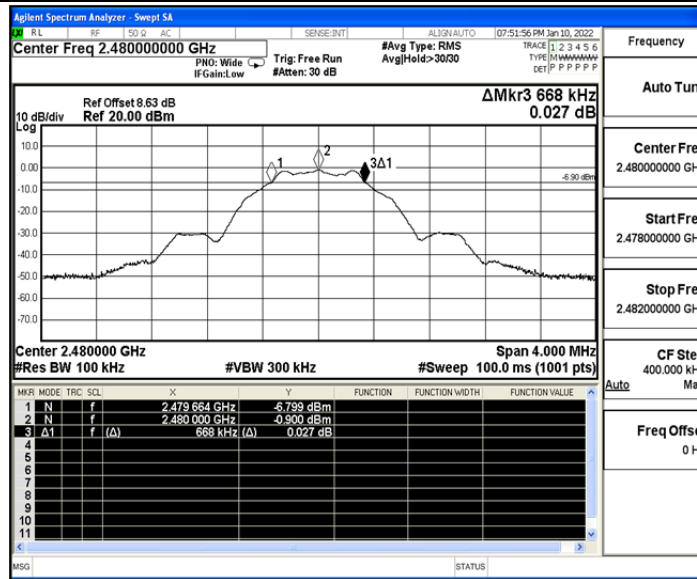
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.2 Maximum peak conducted output power

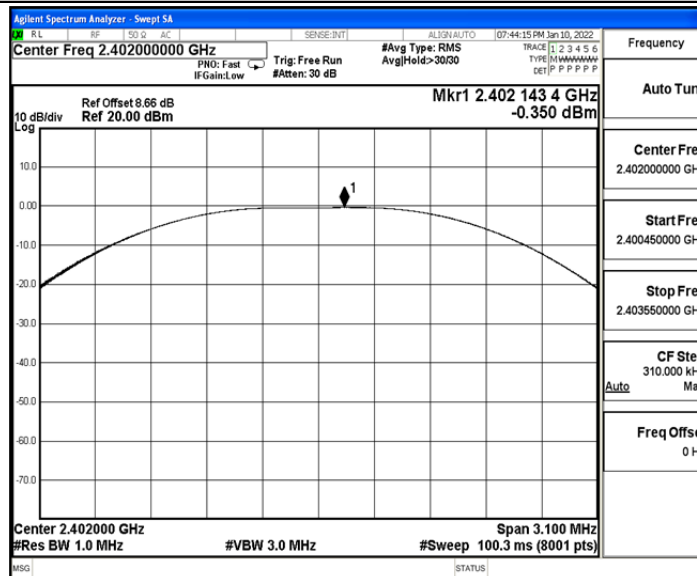
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.35	≤30	PASS
		2440	1.16	≤30	PASS
		2480	-0.34	≤30	PASS

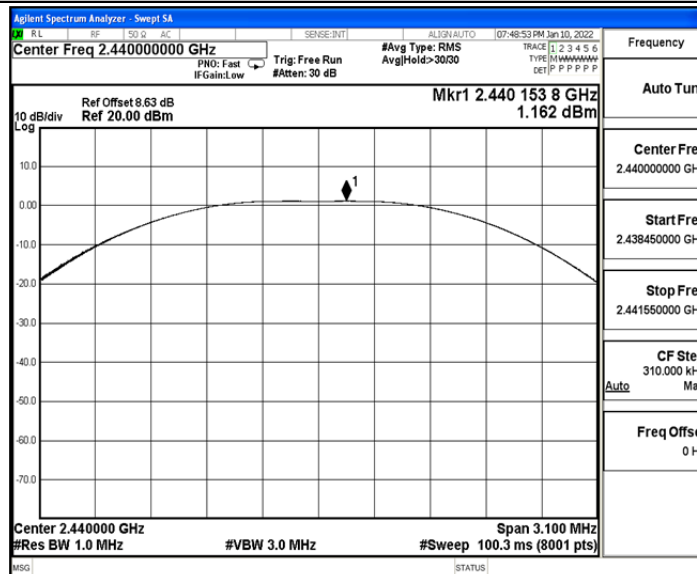


Test Graphs

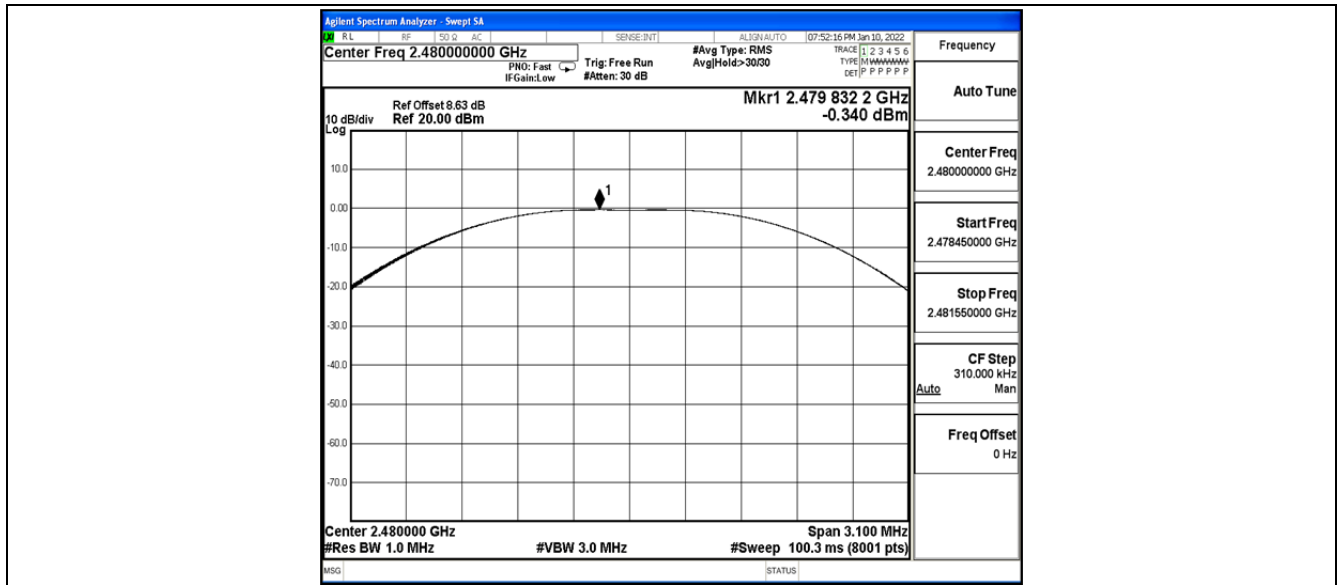
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.3 Maximum power spectral density

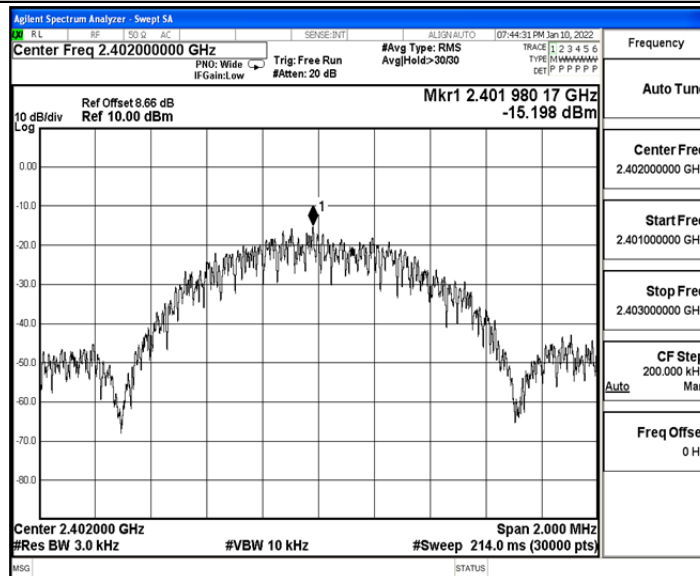
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.2	≤8.00	PASS
		2440	-13.62	≤8.00	PASS
		2480	-15.29	≤8.00	PASS

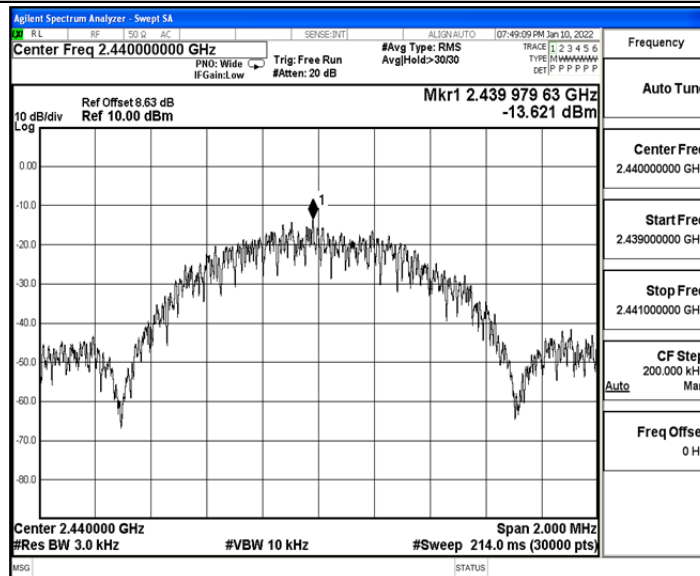


Test Graphs

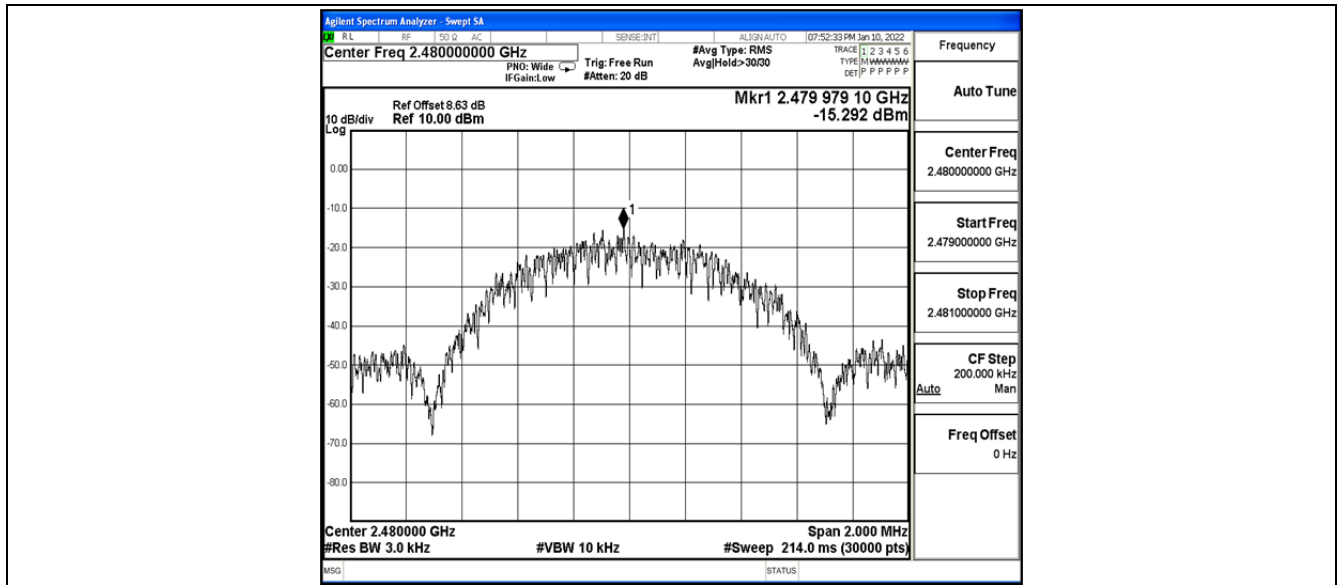
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.4 Band edge measurements

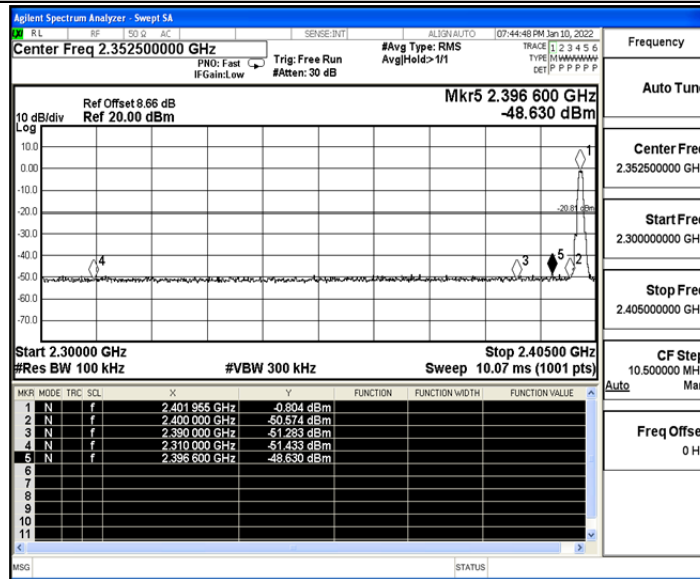
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.81	-48.63	≤-20.81	PASS
		High	2480	-0.77	-47.72	≤-20.77	PASS

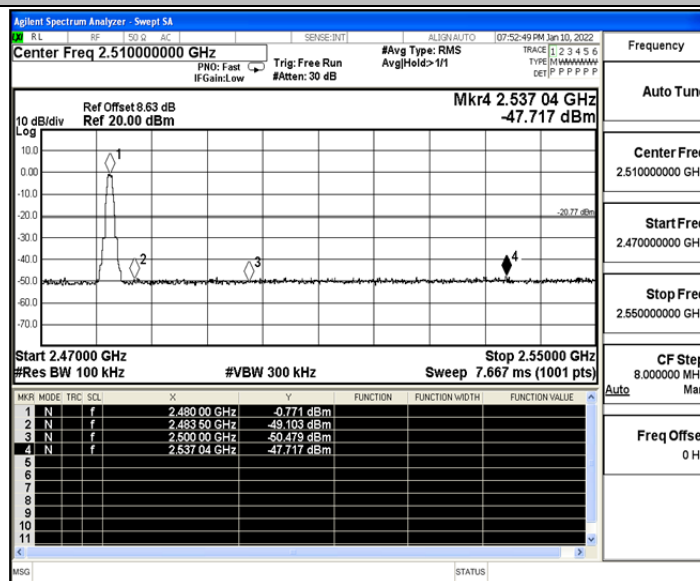


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





B.5 Conducted Spurious Emission

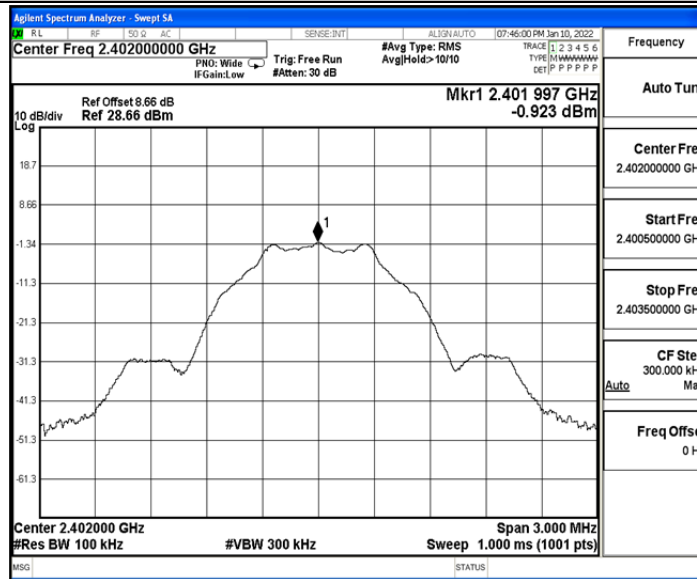
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.92	-0.92	---	PASS
			30~1000	-0.92	-60.84	≤ -20.92	PASS
			1000~26500	-0.92	-46.05	≤ -20.92	PASS
		2440	Reference	0.63	0.63	---	PASS
			30~1000	0.63	-60.52	≤ -19.37	PASS
			1000~26500	0.63	-46.3	≤ -19.37	PASS
		2480	Reference	-0.89	-0.89	---	PASS
			30~1000	-0.89	-60.41	≤ -20.89	PASS
			1000~26500	-0.89	-45.04	≤ -20.89	PASS

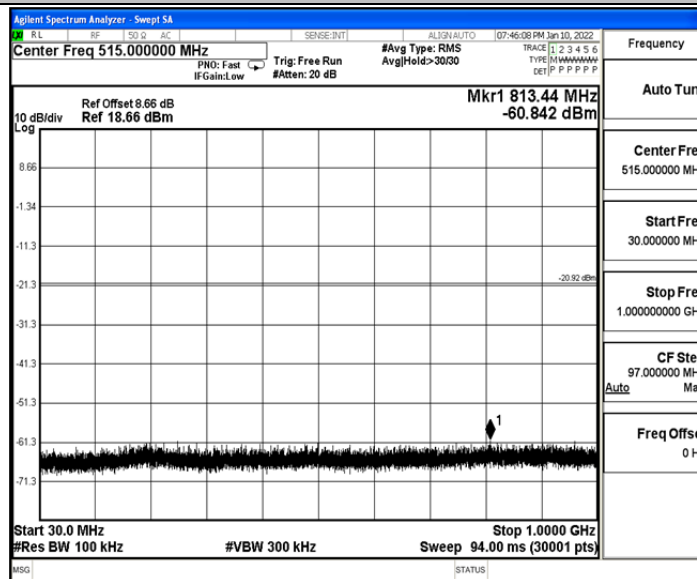


Test Graphs

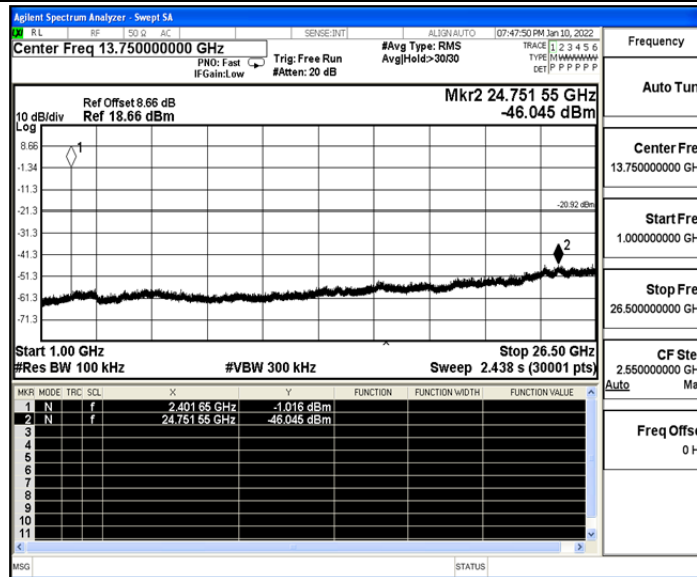
BLE_1M_Ant1_2402_0~Reference



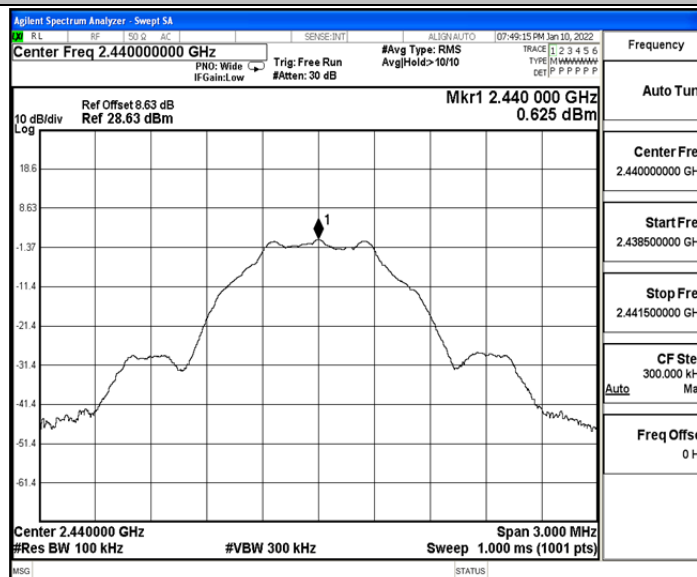
BLE_1M_Ant1_2402_30~1000



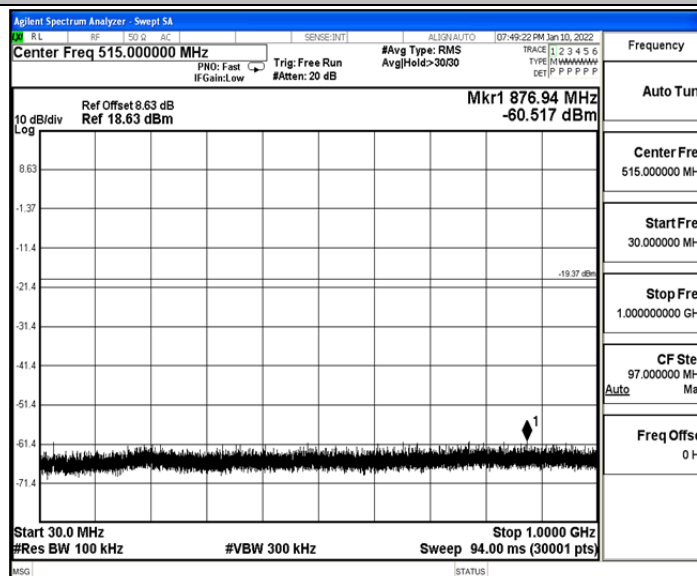
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

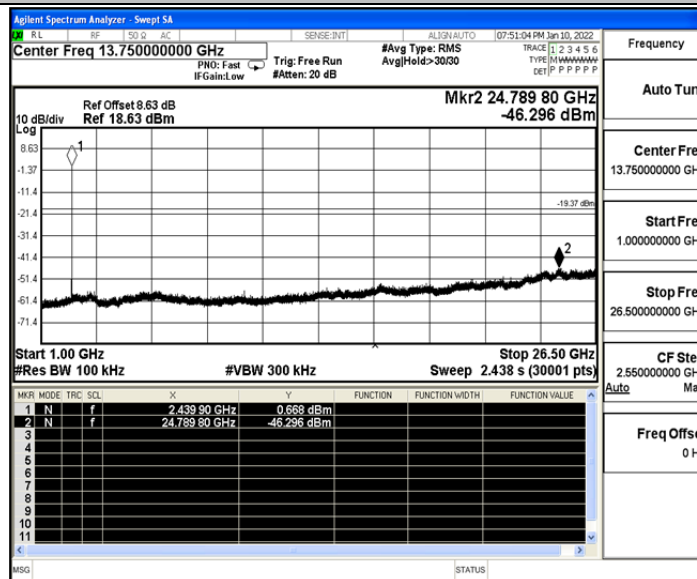


BLE_1M_Ant1_2440_30~1000

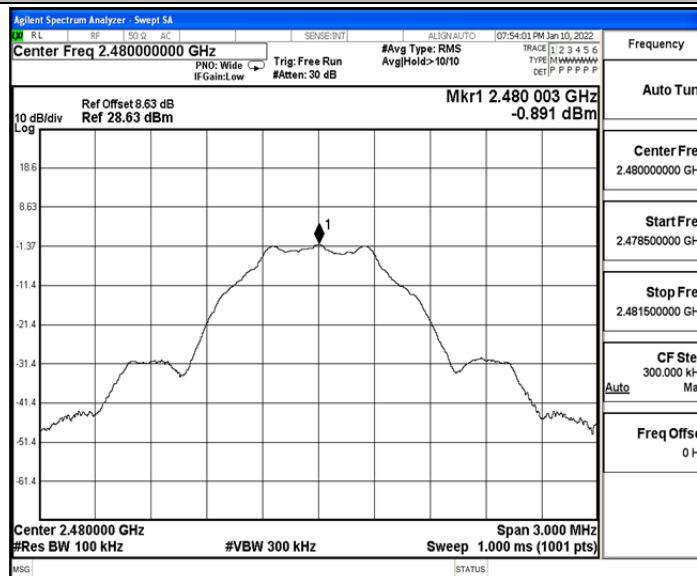




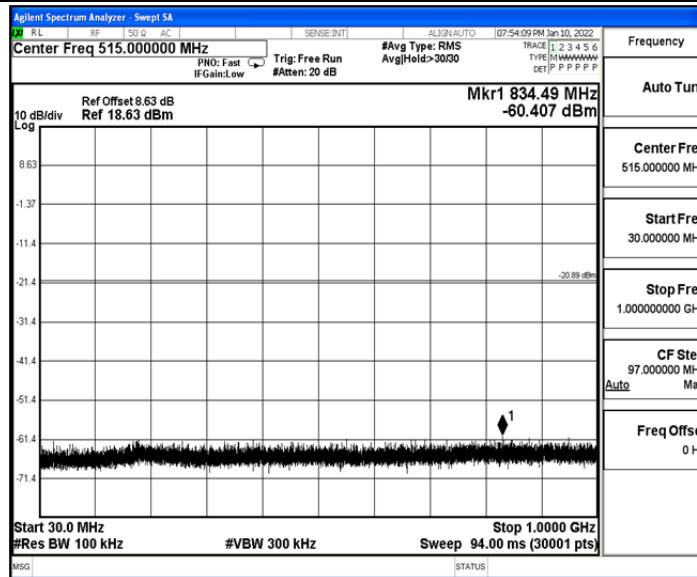
BLE_1M_Ant1_2440_1000~26500



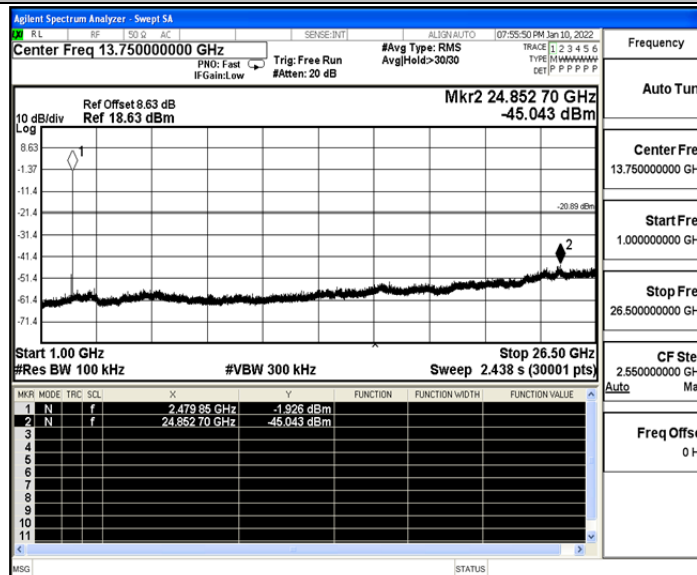
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





B.6 Duty Cycle

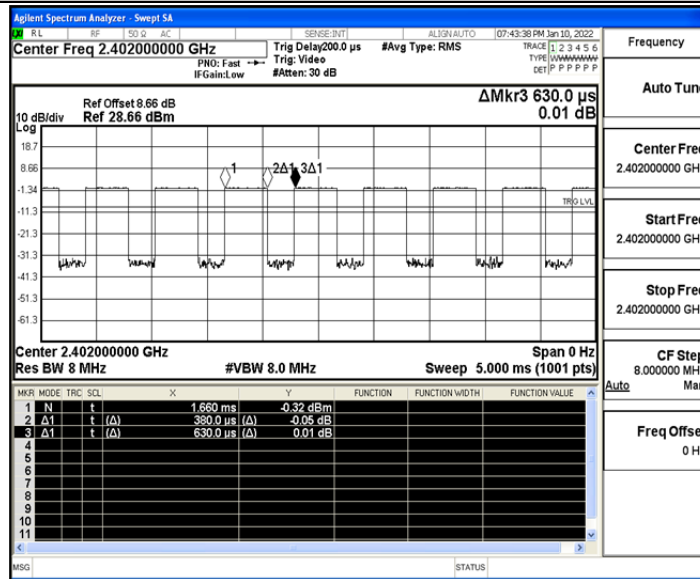
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.38	0.63	0.6032	60.32	2.20	---	---
		2440	0.38	0.63	0.6032	60.32	2.20	---	---
		2480	0.38	0.63	0.6032	60.32	2.20	---	---

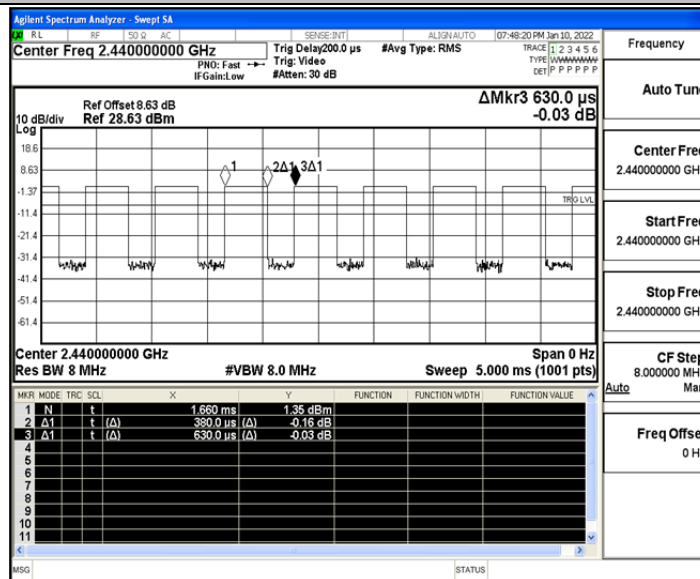


Test Graphs

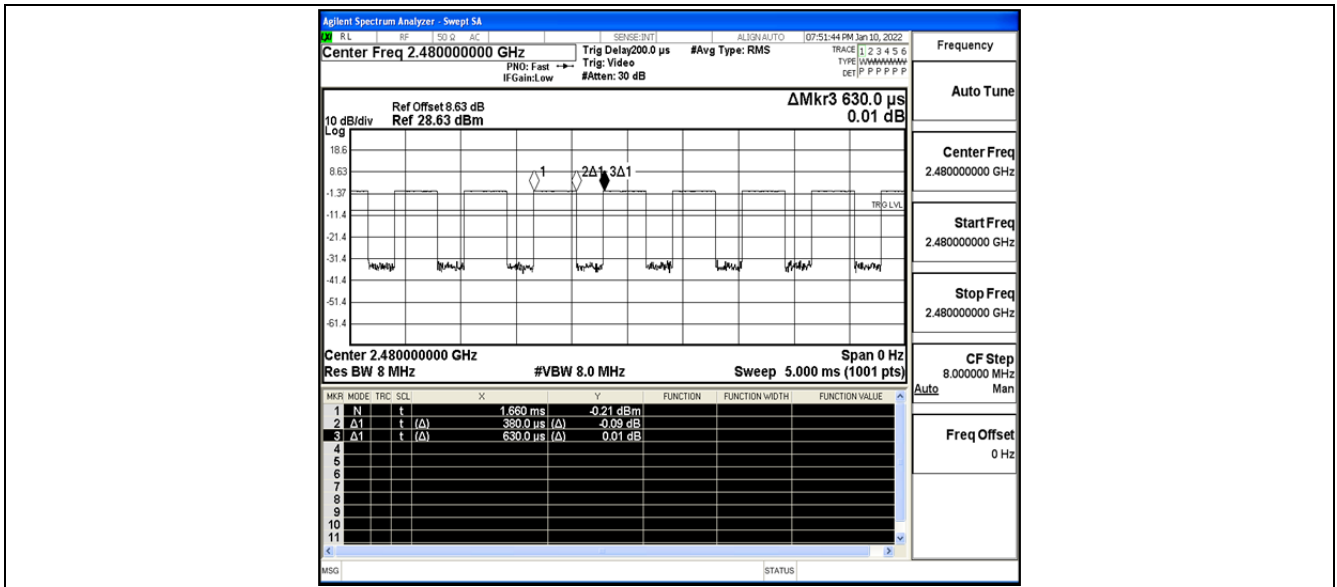
BLE_1M_Ant1_2402



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	-47.4	≤-41.20	47.80	≤54	PASS
				AV	2377.595	-46.65	≤-41.20	48.55	≤54	PASS
				AV	2390.000	-47.13	≤-41.20	48.07	≤54	PASS
				Peak	2310.000	-37.92	≤-21.20	57.28	≤74	PASS
				Peak	2373.920	-36.94	≤-21.20	58.26	≤74	PASS
				Peak	2390.000	-39.55	≤-21.20	55.65	≤74	PASS
		High	2480	AV	2483.500	-46.41	≤-41.20	48.79	≤54	PASS
				AV	2483.520	-46.41	≤-41.20	48.79	≤54	PASS
				AV	2500.000	-46.55	≤-41.20	48.65	≤54	PASS
				Peak	2483.500	-37.87	≤-21.20	57.33	≤74	PASS
				Peak	2489.680	-35.75	≤-21.20	59.45	≤74	PASS
				Peak	2500.000	-38.05	≤-21.20	57.15	≤74	PASS

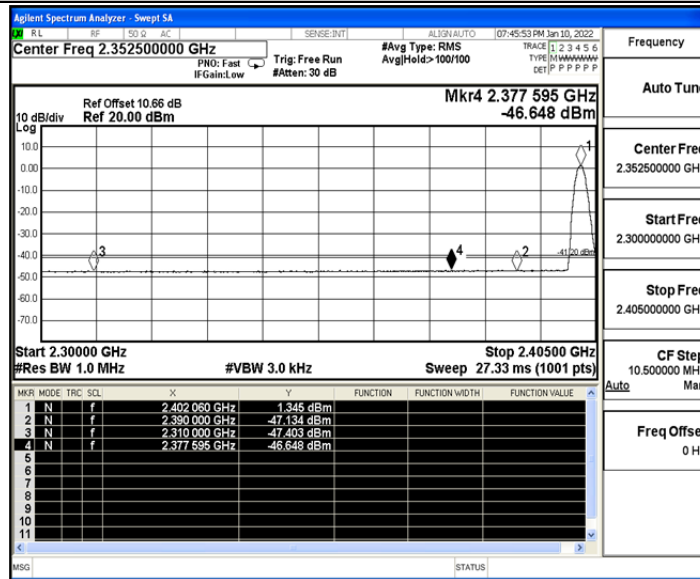
Note:

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.

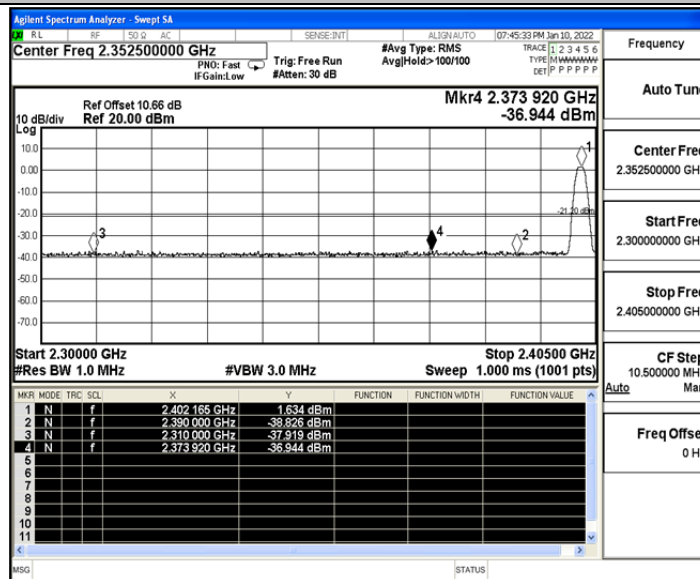


Test Graphs

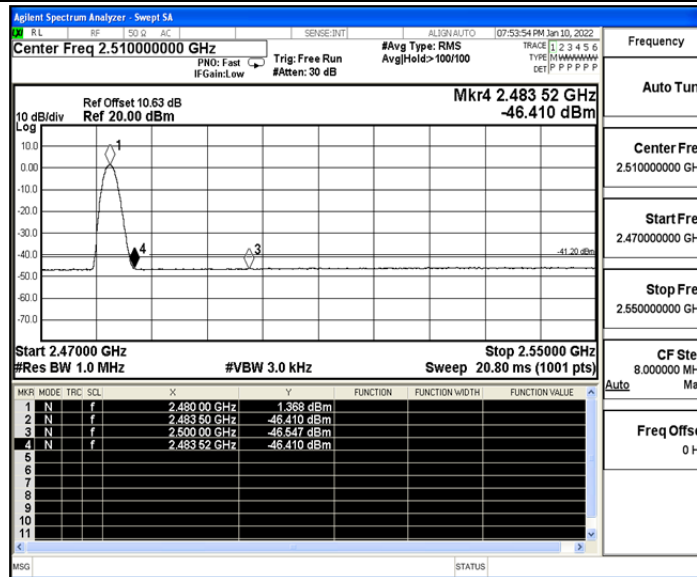
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

