





Appendix B

RF Test Data for BT LE V5.0 (DTS) (Conducted Measurement)

Product Name: Bluetooth Speaker

Test Model: CF10

Environmental Conditions

Temperature:	23.7°C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	 Mark Chen
Supervised by:	 Li Huan



B.1 DTS Bandwidth

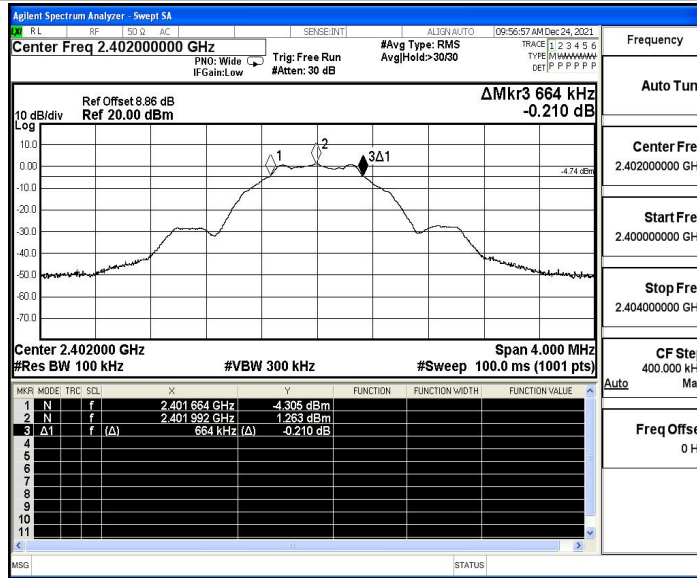
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.664	2401.664	2402.328	0.5	PASS
		2440	0.668	2439.660	2440.328	0.5	PASS
		2480	0.668	2479.660	2480.328	0.5	PASS

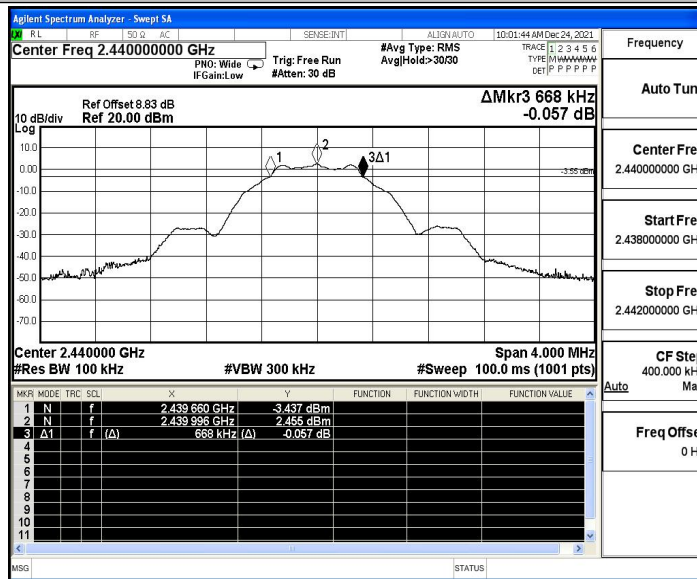


Test Graphs

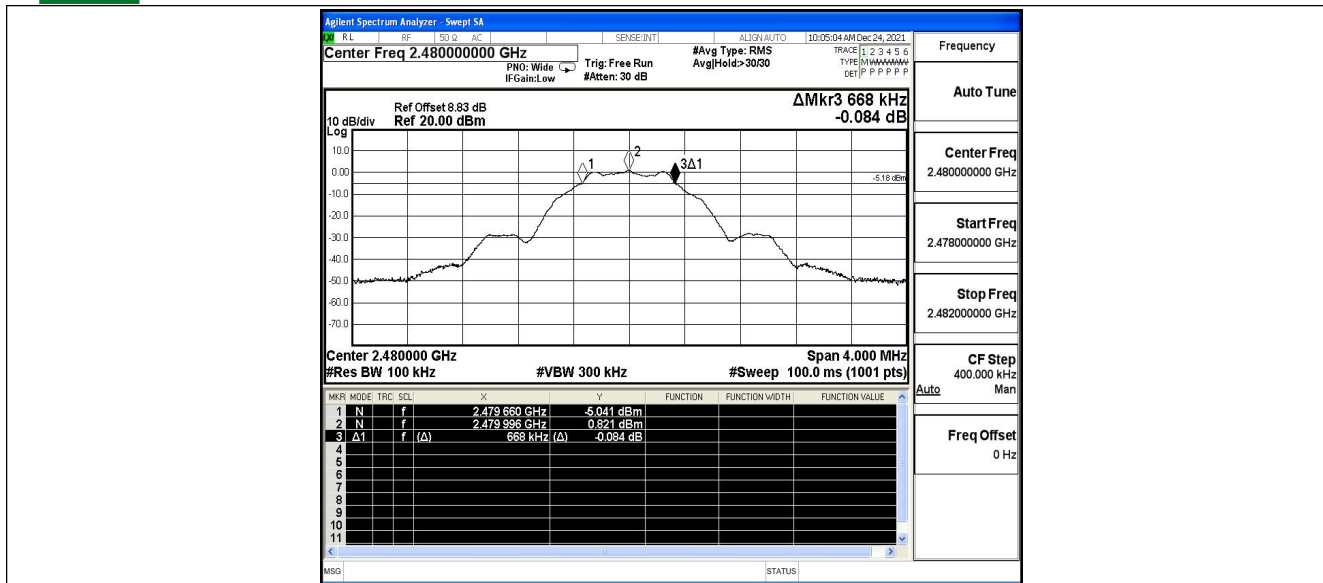
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.2 Maximum peak conducted output power

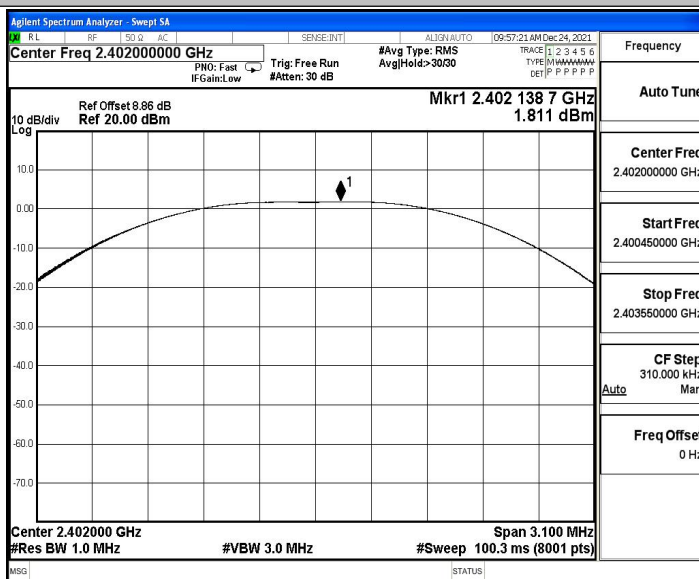
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.81	≤30	PASS
		2440	2.4	≤30	PASS
		2480	1.06	≤30	PASS

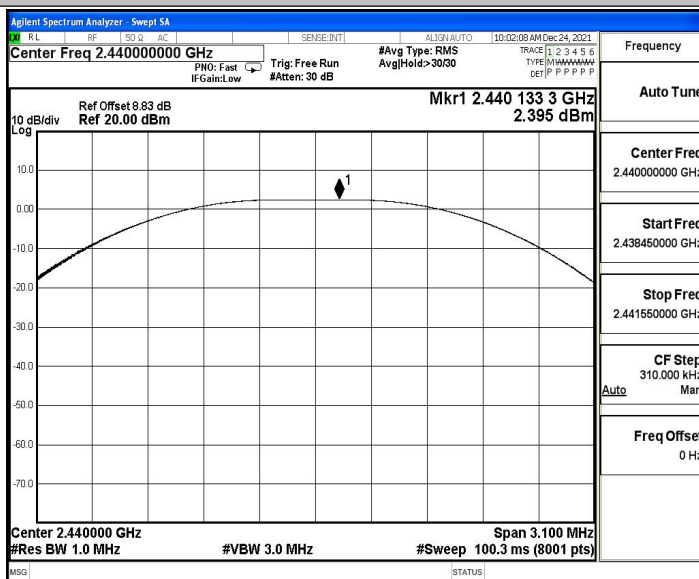


Test Graphs

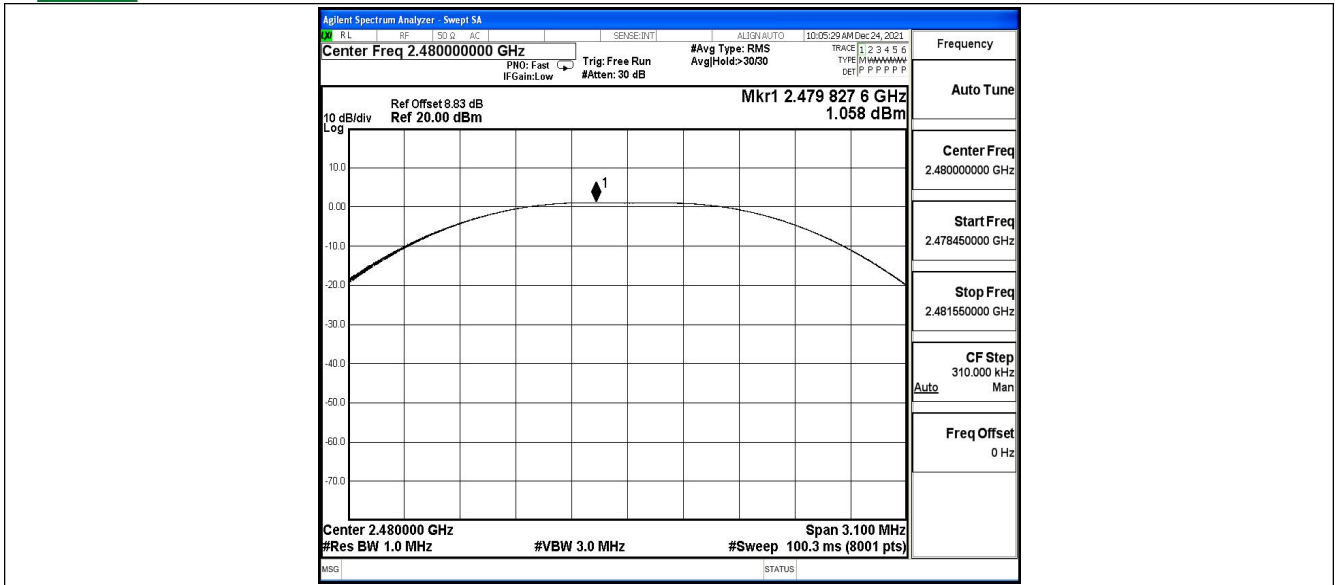
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.3 Maximum power spectral density

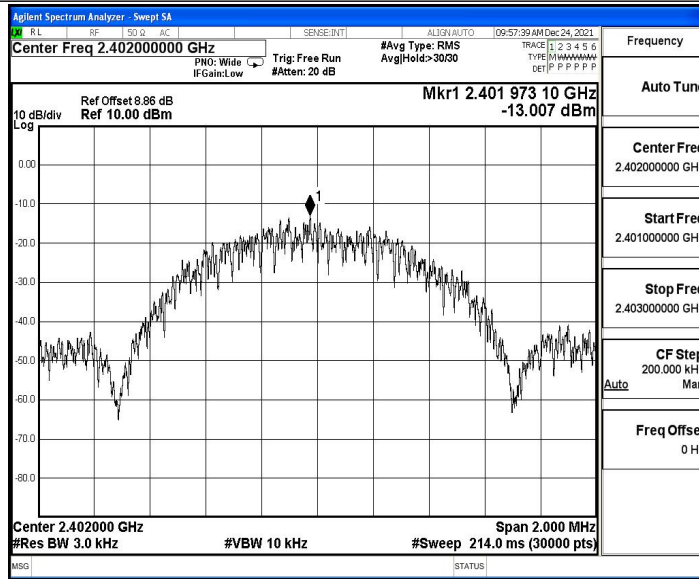
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.01	≤8.00	PASS
		2440	-11.71	≤8.00	PASS
		2480	-13.43	≤8.00	PASS

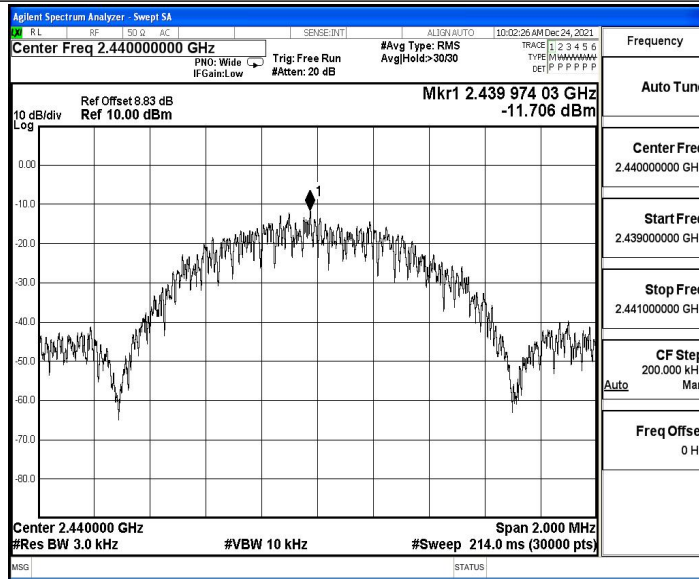


Test Graphs

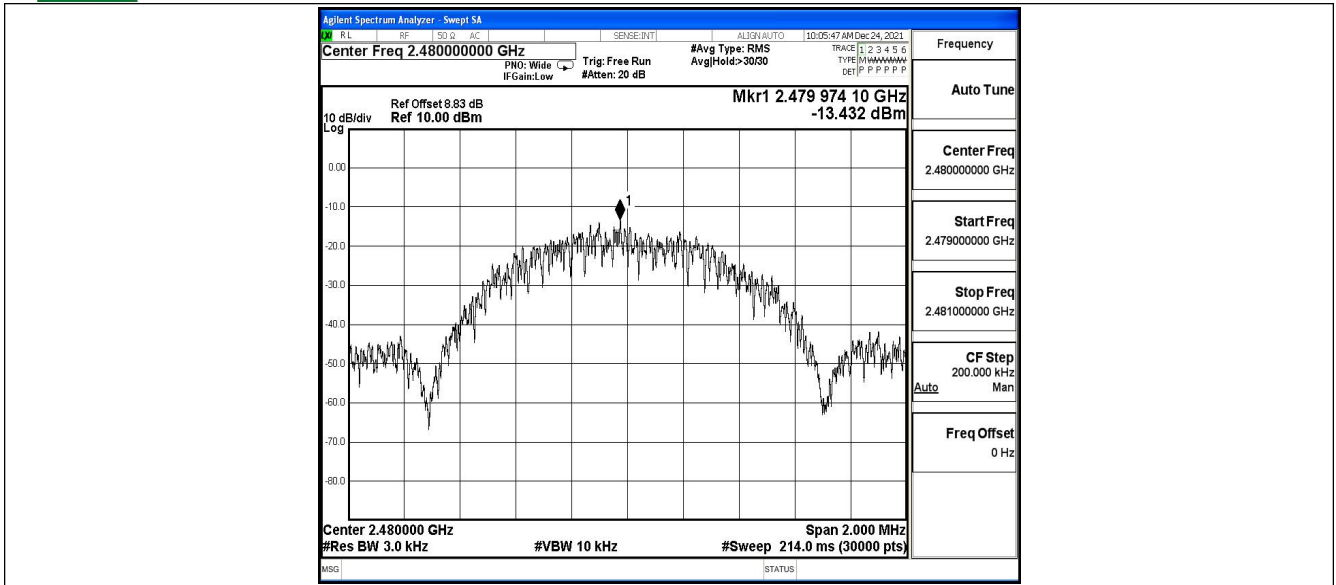
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.4 Band edge measurements

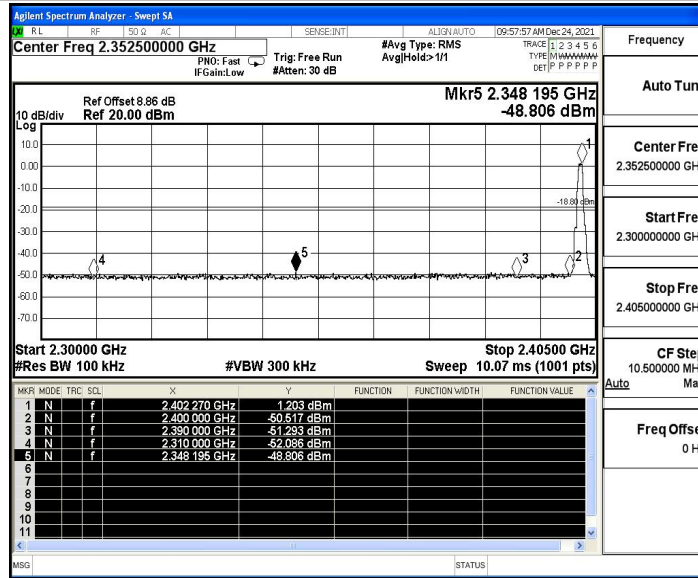
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.20	-48.81	≤-18.8	PASS
		High	2480	0.98	-47.21	≤-19.02	PASS

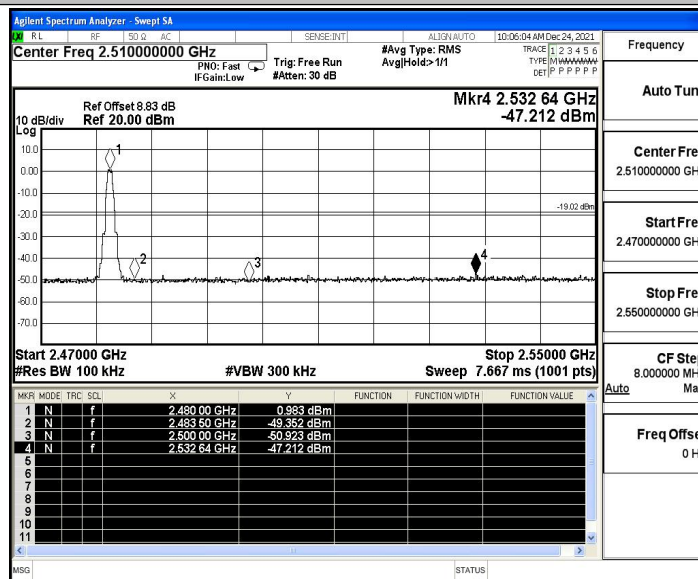


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





B.5 Conducted Spurious Emission

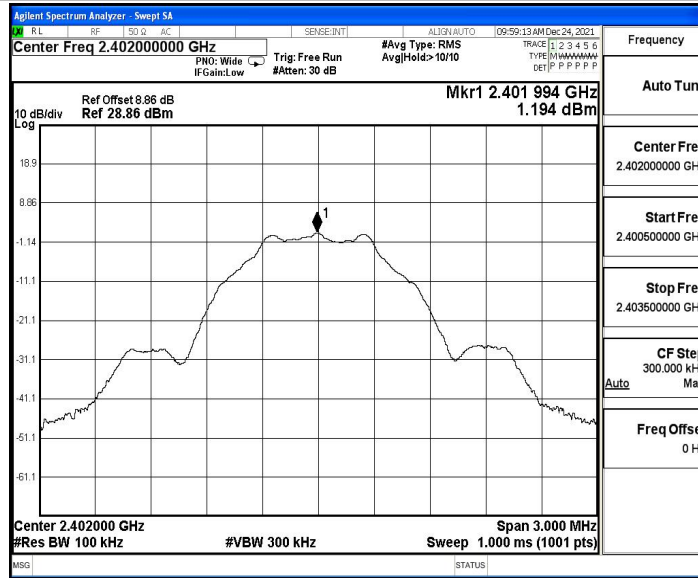
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	1.19	1.19	---	PASS
			30~1000	1.19	-60.4	≤-18.81	PASS
			1000~26500	1.19	-46.2	≤-18.81	PASS
		2440	Reference	2.52	2.52	---	PASS
			30~1000	2.52	-40.26	≤-17.48	PASS
			1000~26500	2.52	-45.75	≤-17.48	PASS
		2480	Reference	0.71	0.71	---	PASS
			30~1000	0.71	-59.88	≤-19.29	PASS
			1000~26500	0.71	-46	≤-19.29	PASS

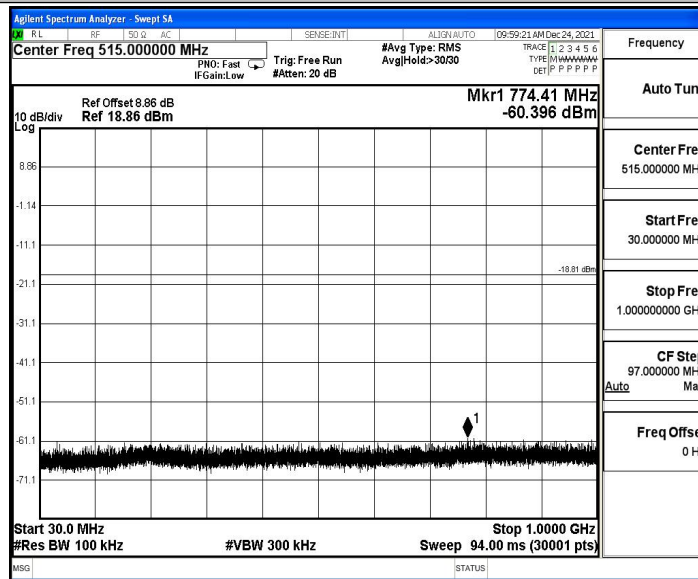


Test Graphs

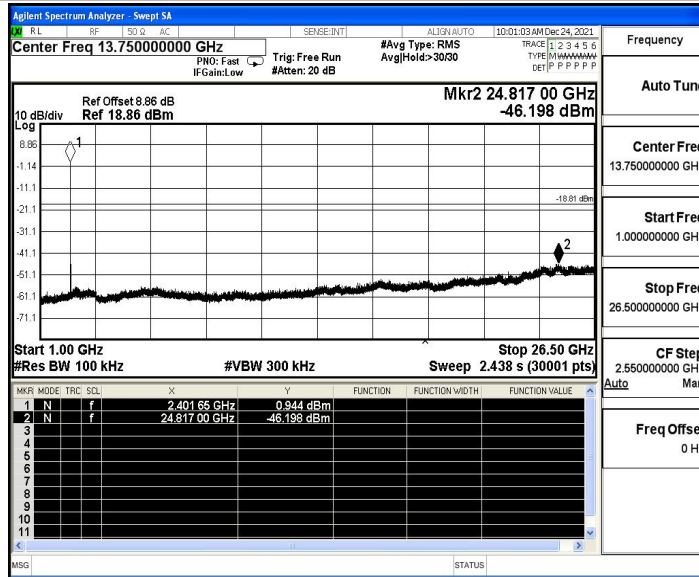
BLE_1M_Ant1_2402_0~Reference



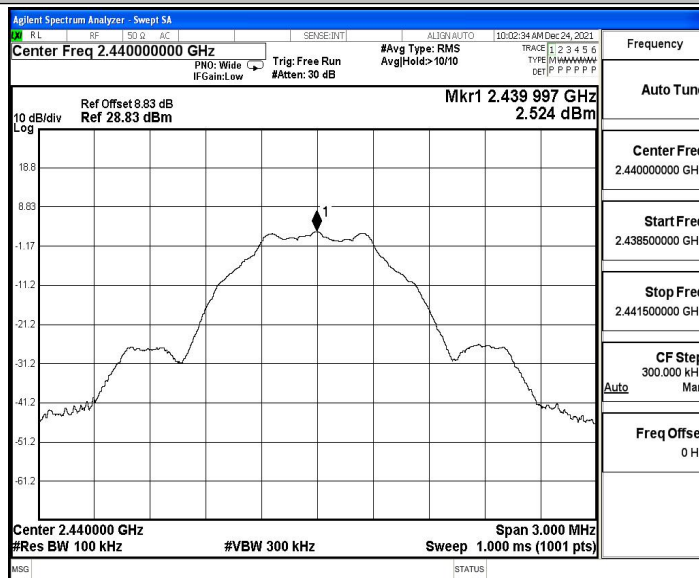
BLE_1M_Ant1_2402_30~1000



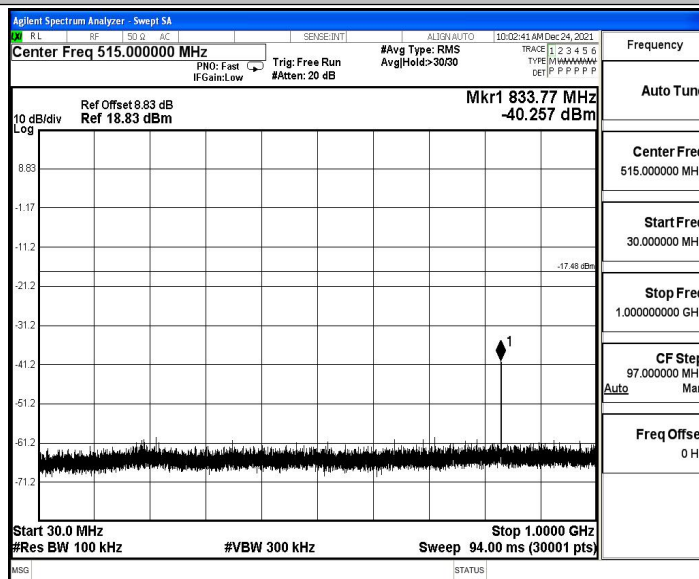
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

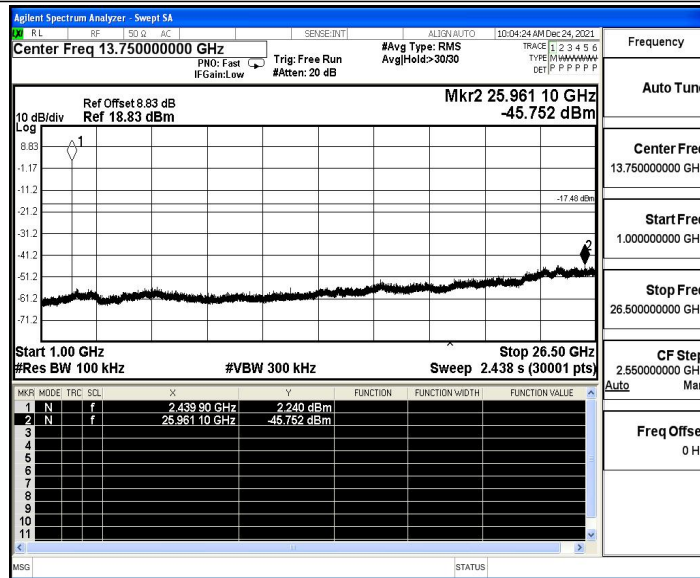


BLE_1M_Ant1_2440_30~1000

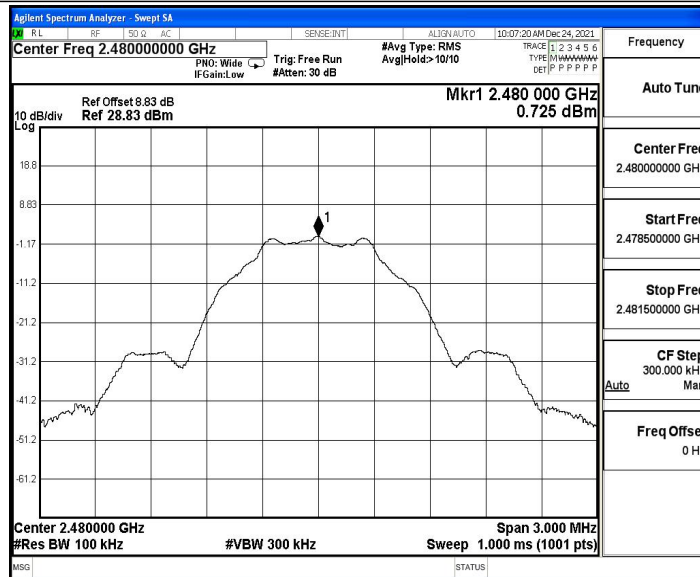




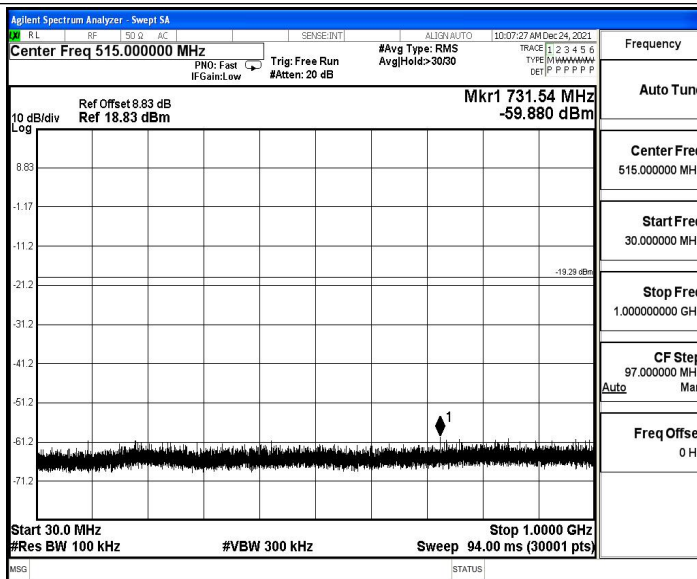
BLE_1M_Ant1_2440_1000~26500



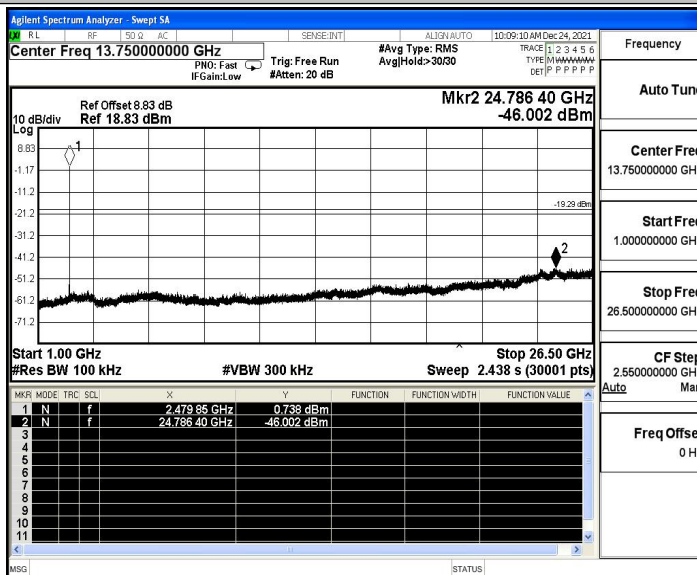
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





B.6 Duty Cycle

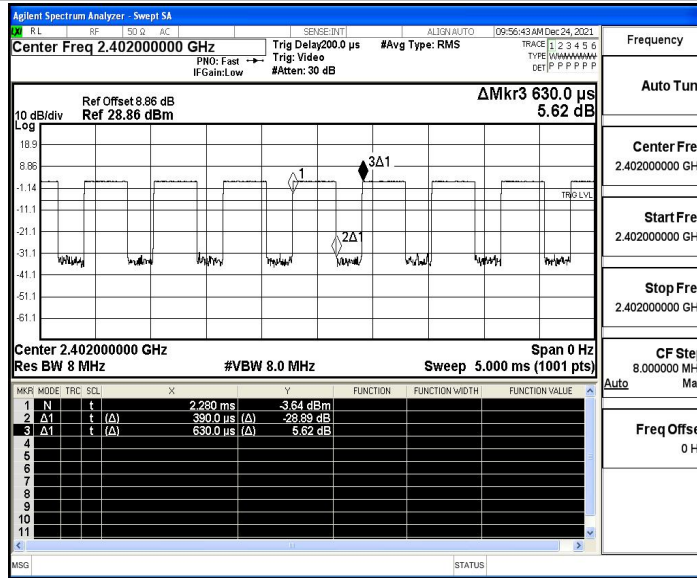
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Minimum VBW(KHz)	Limit	Verdict
BLE_1M	Ant1	2402	0.39	0.63	0.6190	61.90	2.08	2.56	---	---
		2440	0.39	0.63	0.6190	61.90	2.08	2.56	---	---
		2480	0.39	0.63	0.6190	61.90	2.08	2.56	---	---

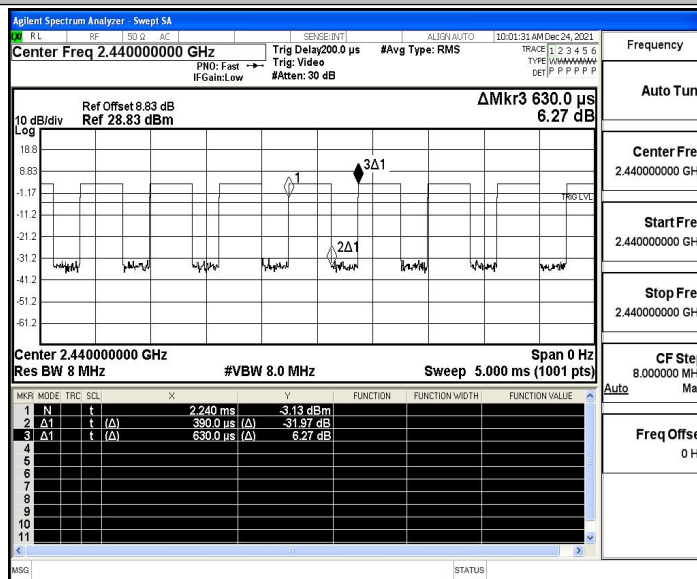


Test Graphs

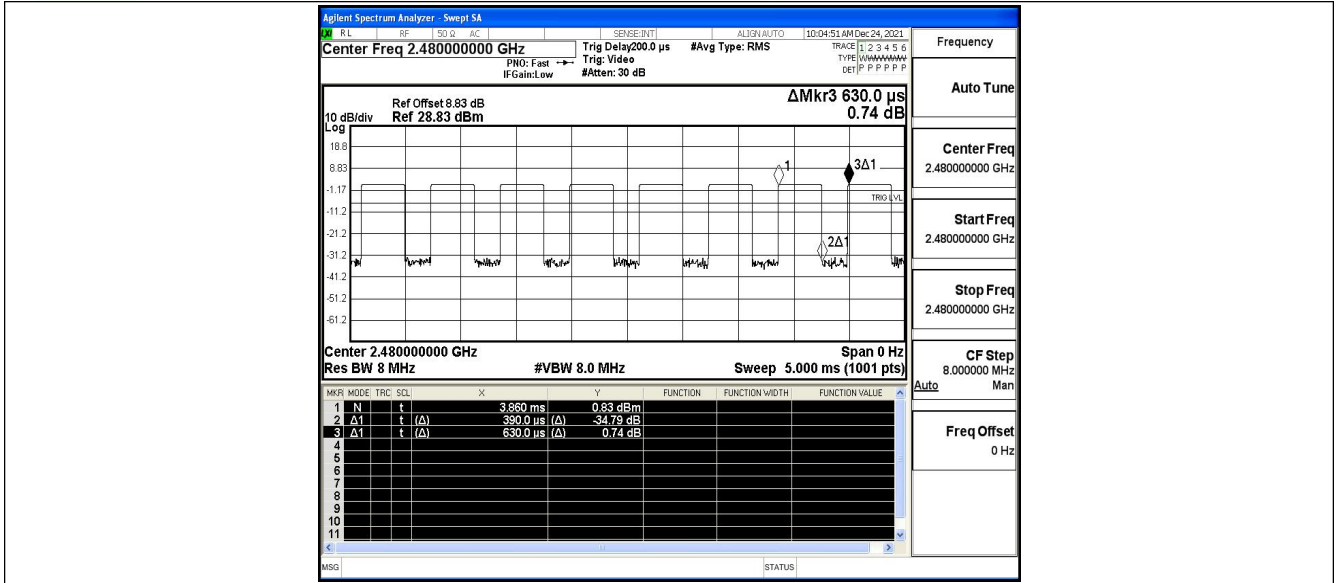
BLE_1M_Ant1_2402



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	-47.25	≤-41.20	47.95	≤54	PASS
				AV	2370.980	-46.29	≤-41.20	48.91	≤54	PASS
				AV	2390.000	-46.71	≤-41.20	48.49	≤54	PASS
				Peak	2310.000	-38.83	≤-21.20	56.37	≤74	PASS
				Peak	2330.765	-36.01	≤-21.20	59.19	≤74	PASS
				Peak	2390.000	-37.34	≤-21.20	57.86	≤74	PASS
		High	2480	AV	2483.500	-46.17	≤-41.20	49.03	≤54	PASS
				AV	2499.680	-45.97	≤-41.20	49.23	≤54	PASS
				AV	2500.000	-46.28	≤-41.20	48.92	≤54	PASS
				Peak	2483.500	-37.99	≤-21.20	57.21	≤74	PASS
				Peak	2485.440	-35.15	≤-21.20	60.05	≤74	PASS
				Peak	2500.000	-37.32	≤-21.20	57.88	≤74	PASS

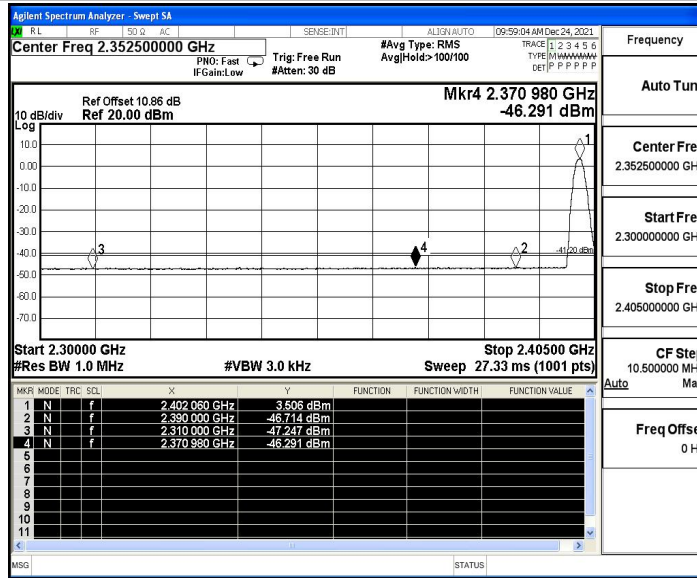
Note:

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.

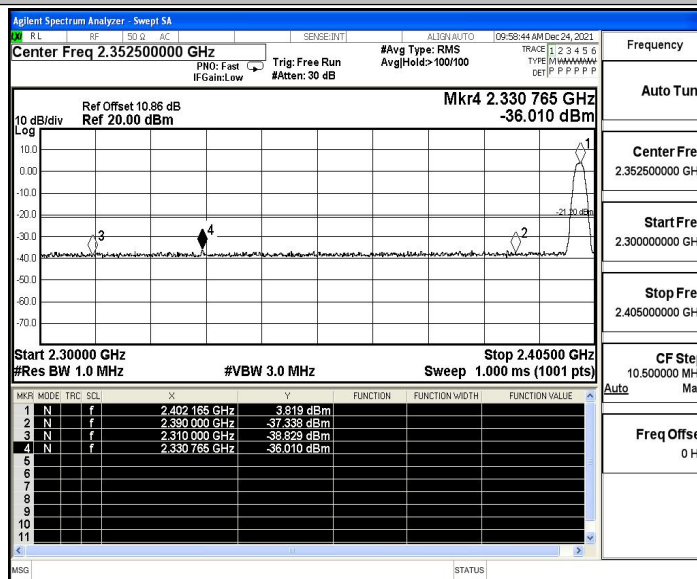


Test Graphs

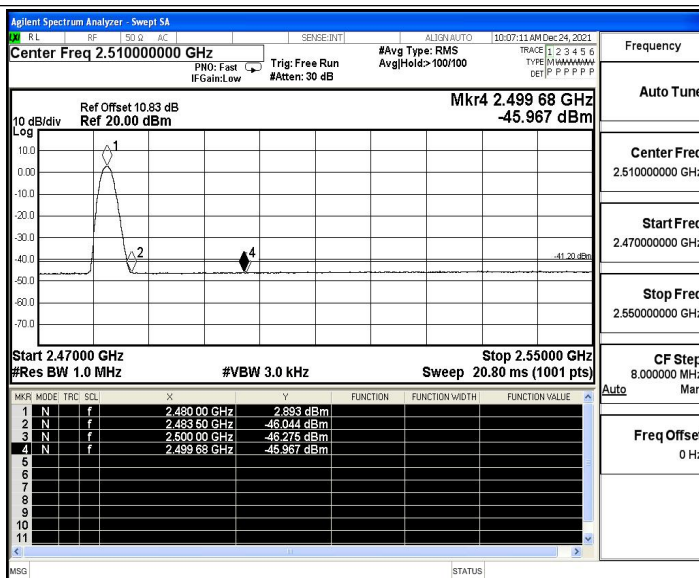
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

