



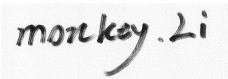
Appendix B

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

Product Name: Wireless Earbuds

Test Model: EB1

Environmental Conditions

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



B.1 DTS Bandwidth

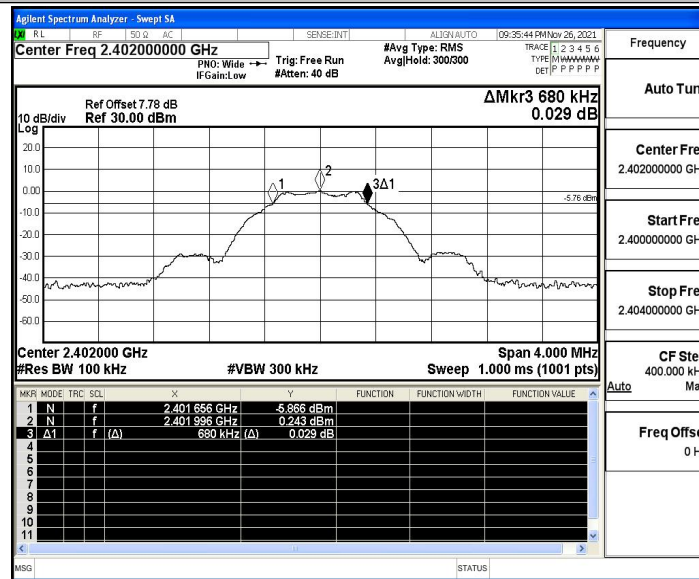
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.680	2401.656	2402.336	≥ 0.5	PASS
		2440	0.672	2439.660	2440.332	≥ 0.5	PASS
		2480	0.688	2479.652	2480.340	≥ 0.5	PASS

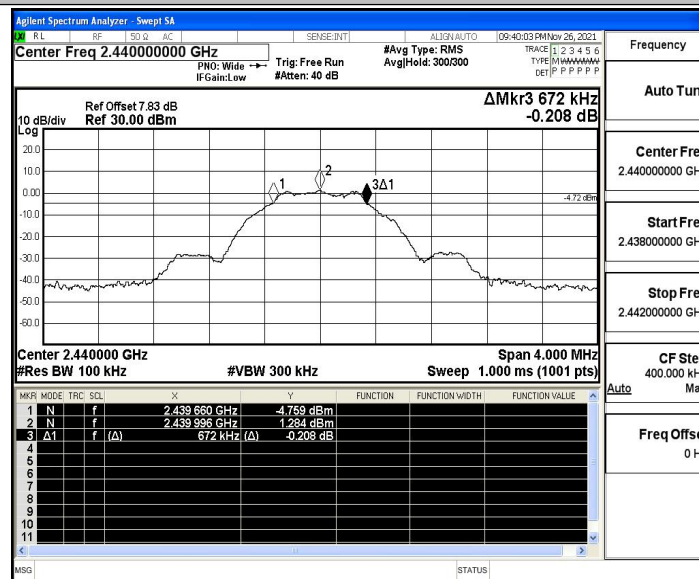


Test Graphs

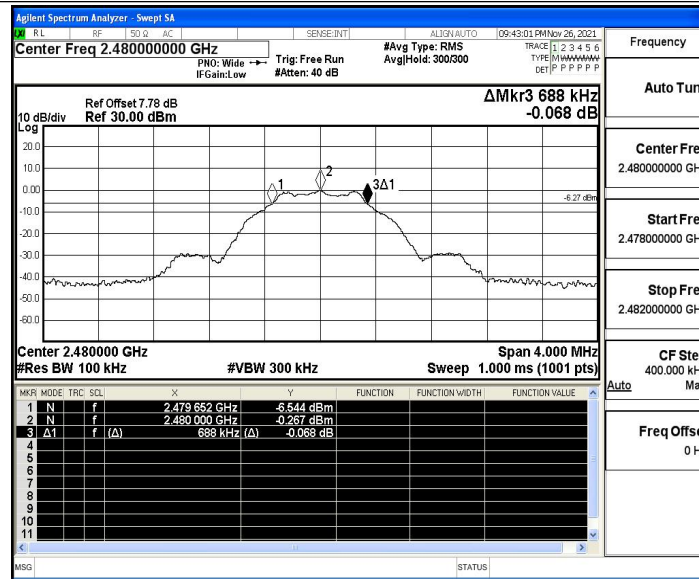
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.2 Maximum peak conducted output power

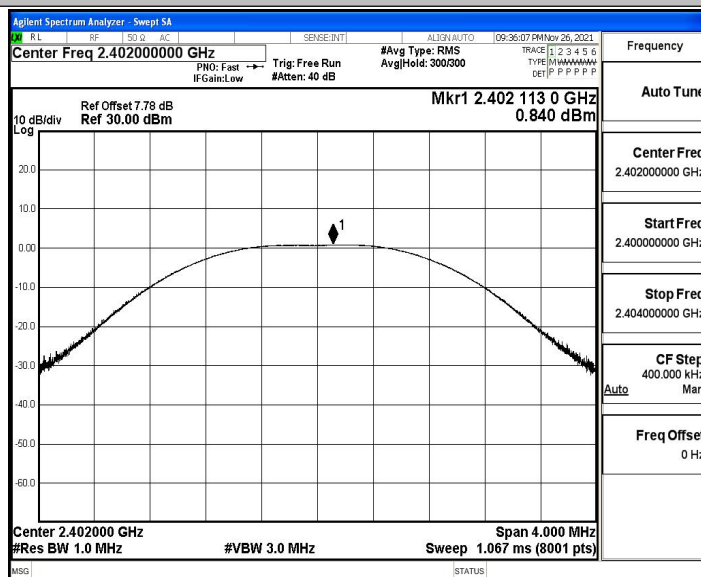
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.84	≤ 30	PASS
		2440	1.89	≤ 30	PASS
		2480	0.37	≤ 30	PASS

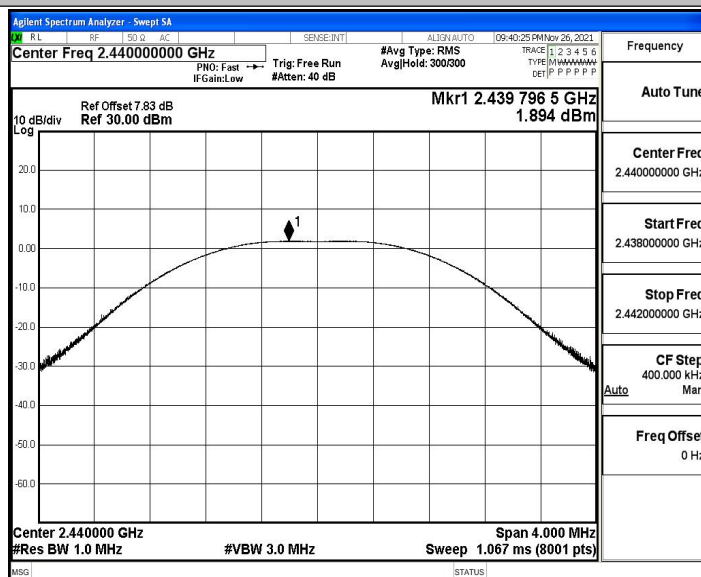


Test Graphs

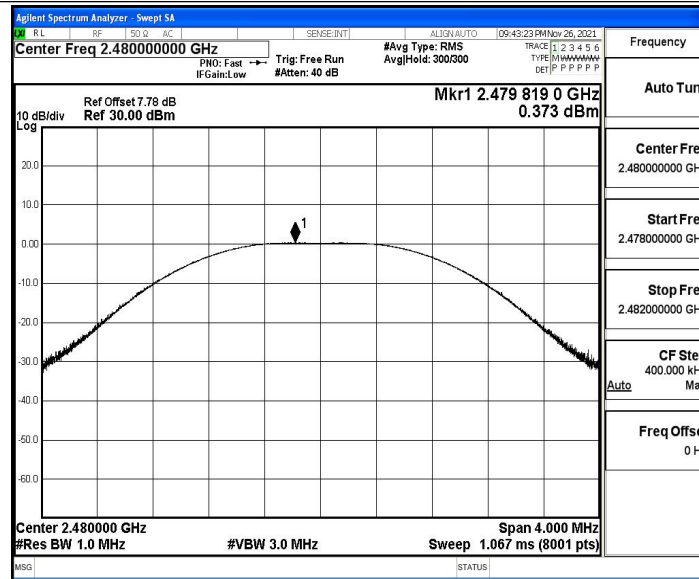
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.3 Maximum power spectral density

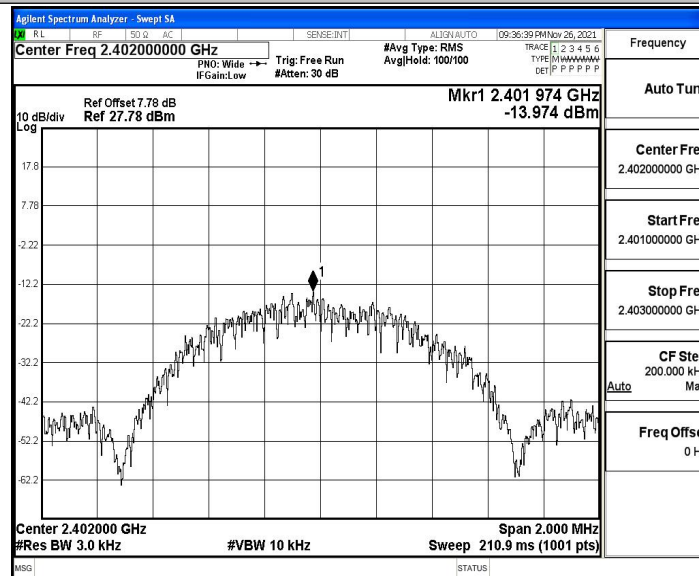
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.97	≤8	PASS
		2440	-13.78	≤8	PASS
		2480	-14.43	≤8	PASS

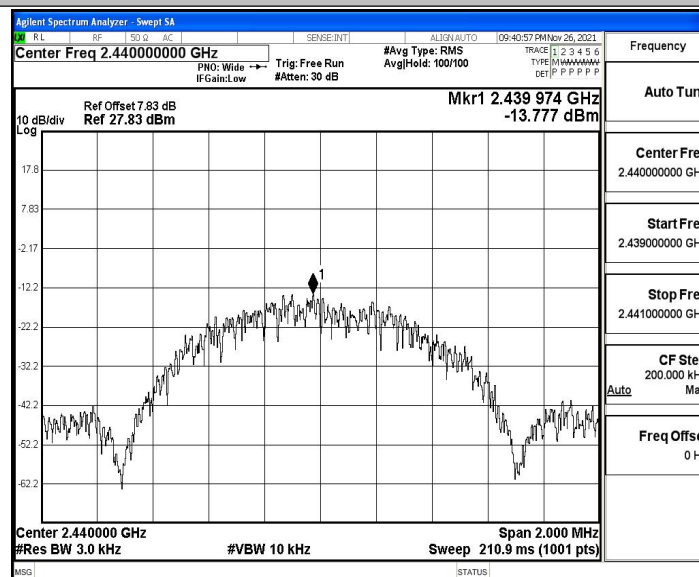


Test Graphs

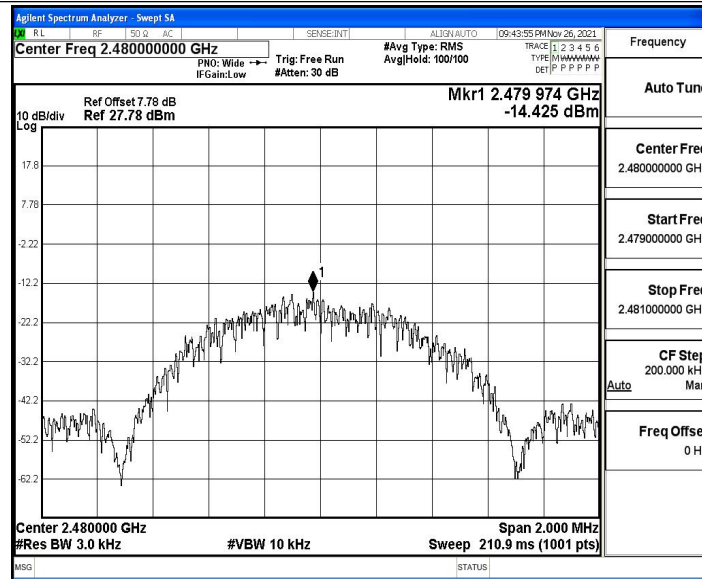
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.4 Band edge measurements

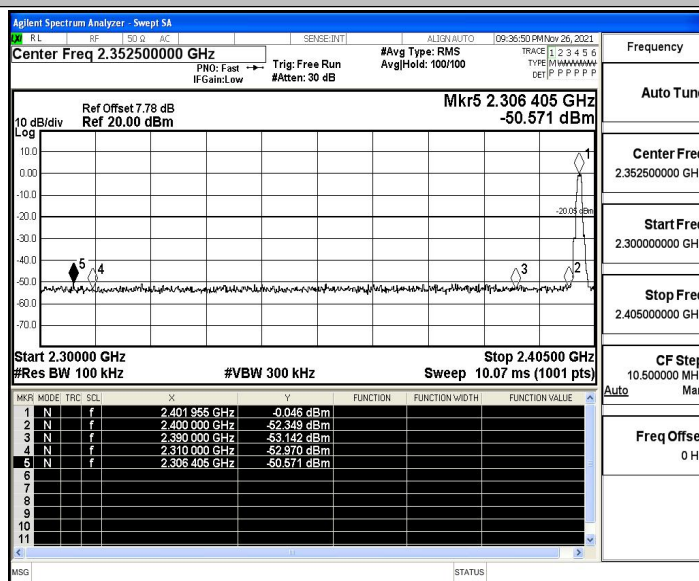
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.05	-50.57	≤ -20.05	PASS
		High	2480	-0.22	-48.99	≤ -20.22	PASS

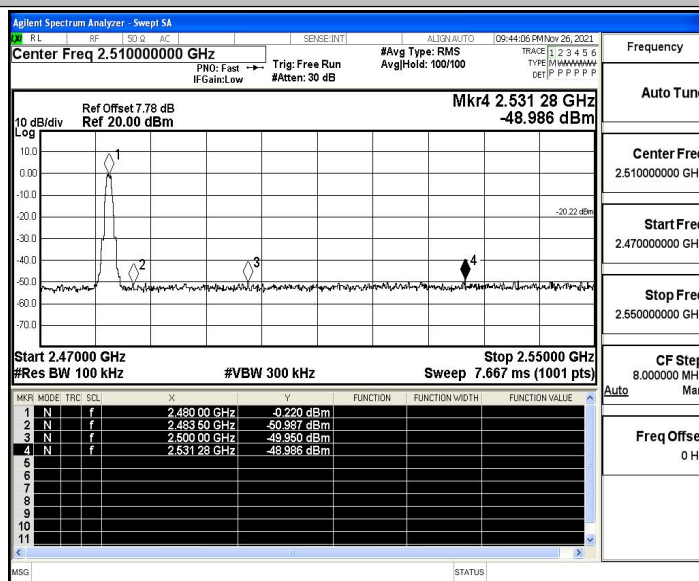


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





B.5 Conducted Spurious Emission

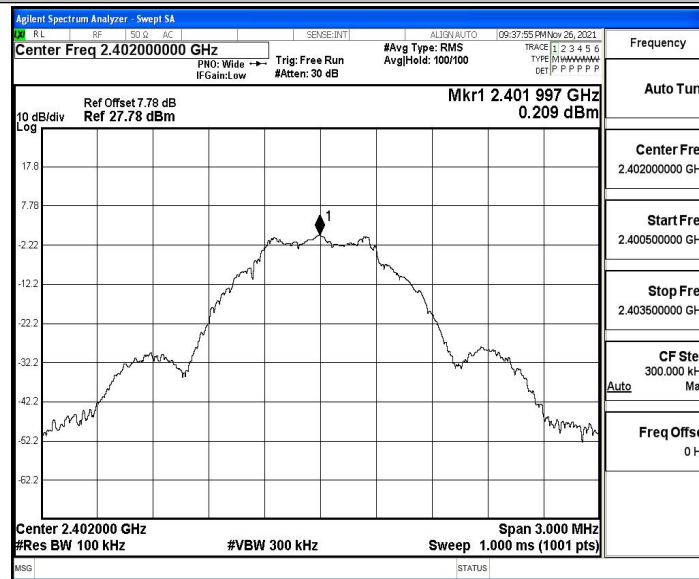
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.21	0.21	---	PASS
			30~1000	0.21	-61.85	≤ -19.79	PASS
			1000~26500	0.21	-46.7	≤ -19.79	PASS
		2440	Reference	1.13	1.13	---	PASS
			30~1000	1.13	-61.52	≤ -18.87	PASS
			1000~26500	1.13	-46.68	≤ -18.87	PASS
		2480	Reference	-0.28	-0.28	---	PASS
			30~1000	-0.28	-61.87	≤ -20.28	PASS
			1000~26500	-0.28	-46.88	≤ -20.28	PASS

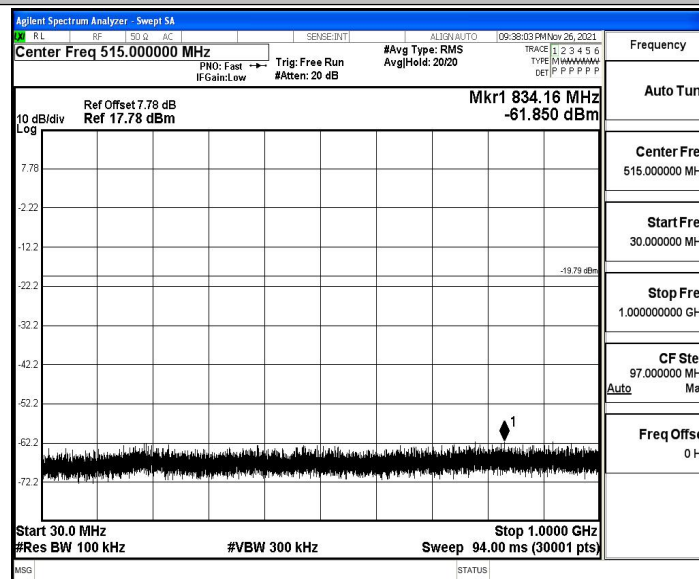


Test Graphs

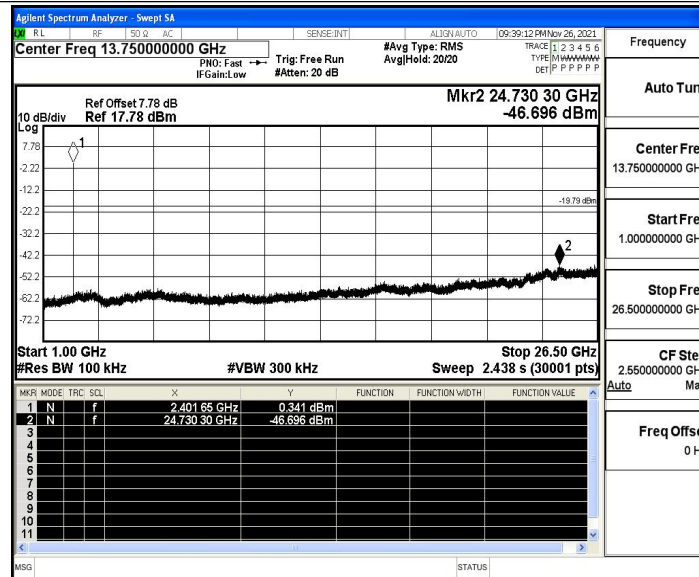
BLE_1M_Ant1_2402_0~Reference



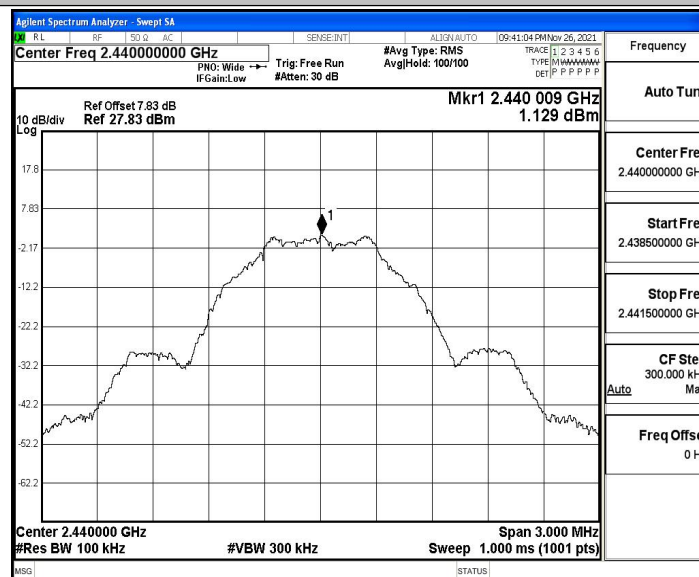
BLE_1M_Ant1_2402_30~1000



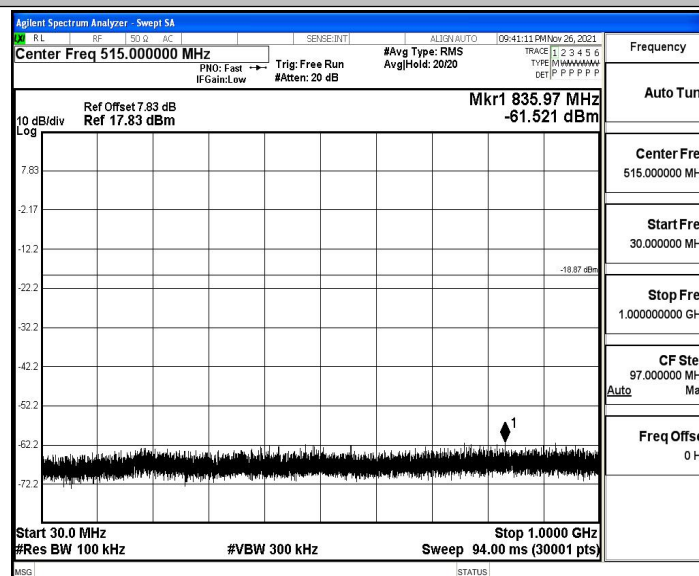
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

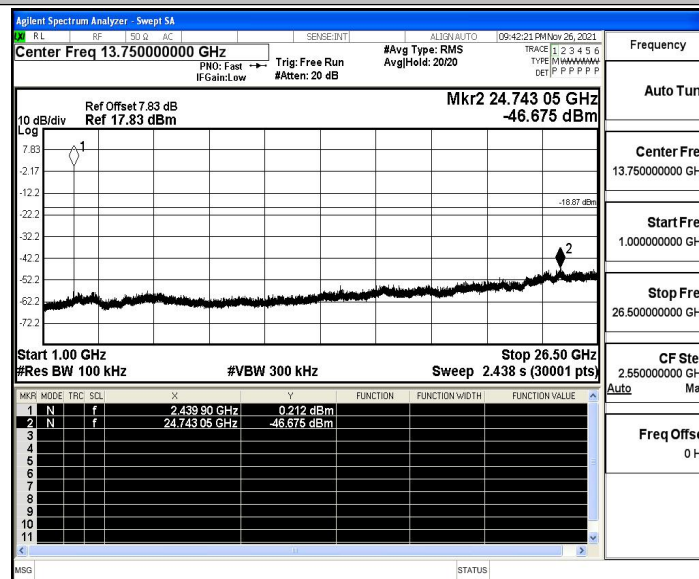


BLE_1M_Ant1_2440_30~1000

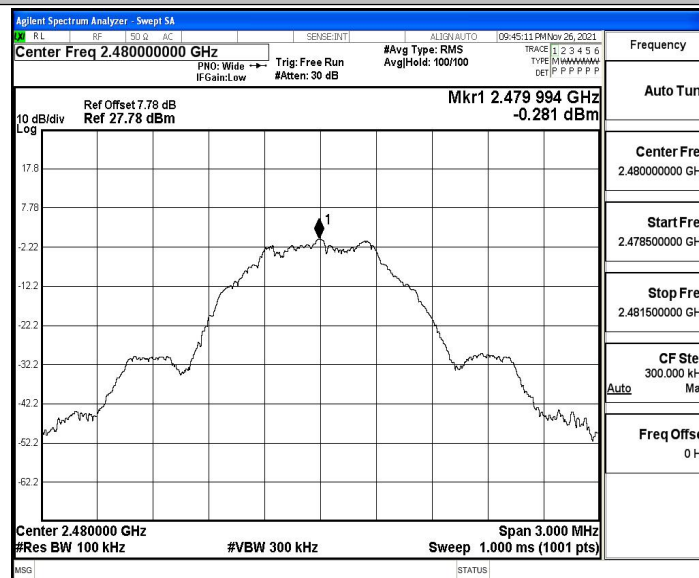




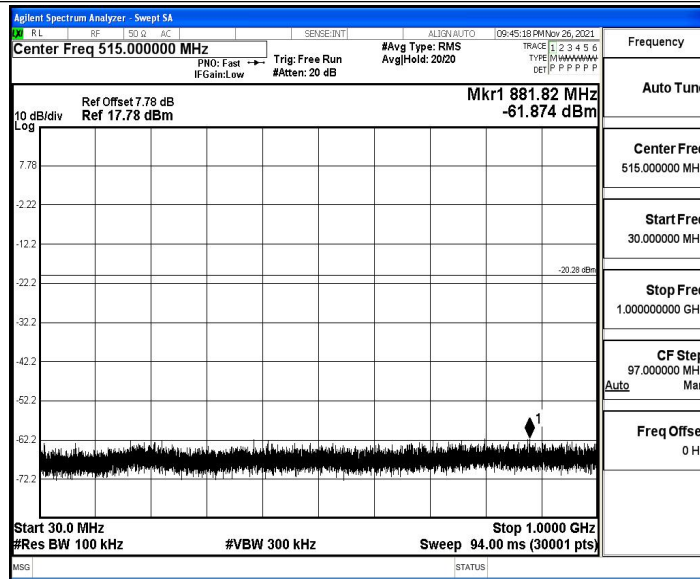
BLE_1M_Ant1_2440_1000~26500



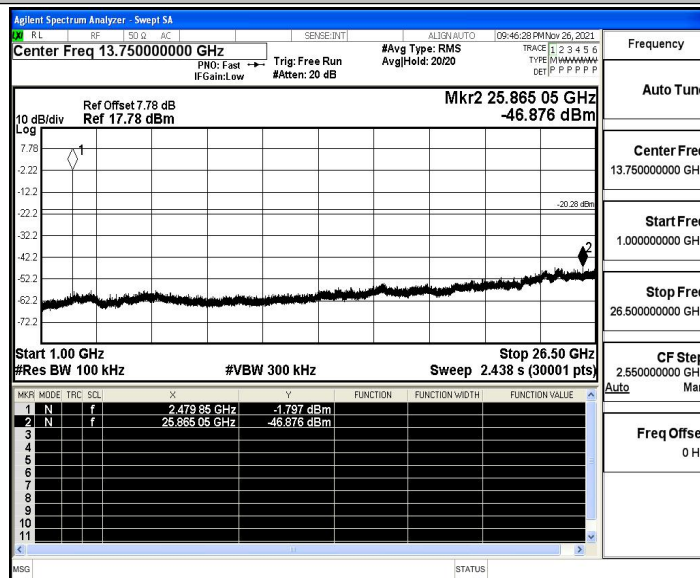
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





B.6 Duty Cycle

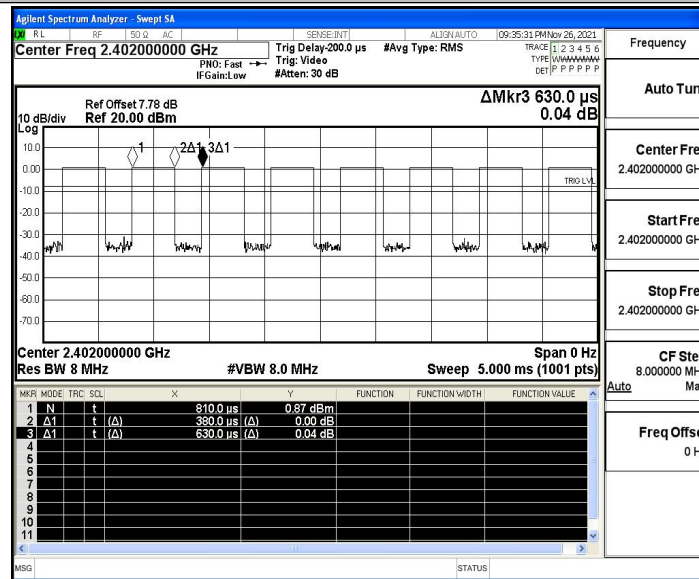
Test Result

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	---	PASS
		2440	0.39	0.63	0.6190	61.90	2.08	---	PASS
		2480	0.38	0.62	0.6129	61.29	2.13	---	PASS

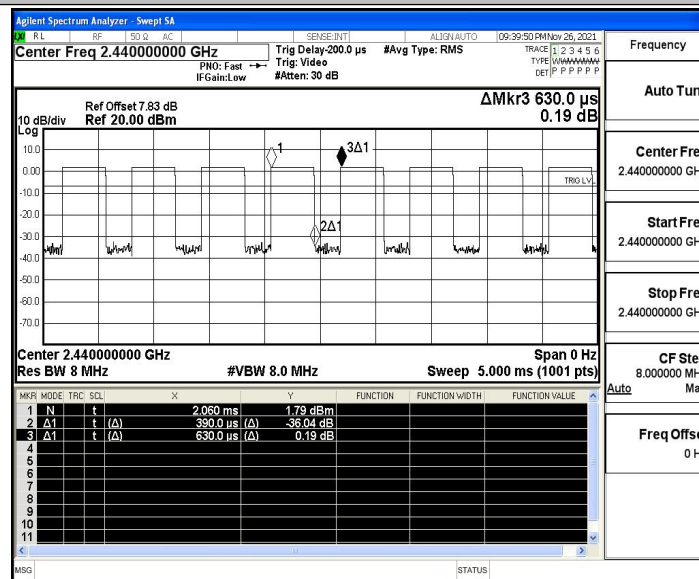


Test Graphs

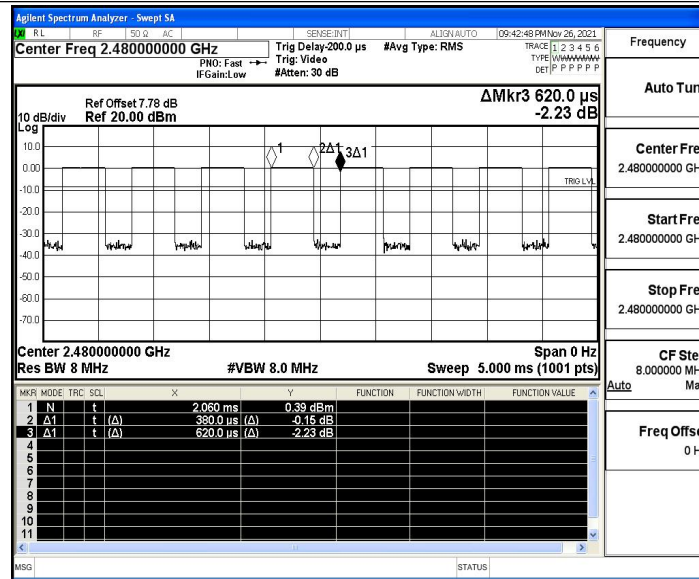
BLE_1M_Ant1_2402



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	-48.45	≤-41.20	46.75	≤54	PASS
				AV	2364.575	-47.84	≤-41.20	47.36	≤54	PASS
				AV	2390.000	-48.14	≤-41.20	47.06	≤54	PASS
				Peak	2310.000	-42.64	≤-21.20	52.56	≤74	PASS
				Peak	2384.210	-38.32	≤-21.20	56.88	≤74	PASS
				Peak	2390.000	-41.45	≤-21.20	53.75	≤74	PASS
		High	2480	AV	2483.500	-47.31	≤-41.20	47.89	≤54	PASS
				AV	2493.440	-47.09	≤-41.20	48.11	≤54	PASS
				AV	2500.000	-47.7	≤-41.20	47.50	≤54	PASS
				Peak	2483.500	-42.9	≤-21.20	52.30	≤74	PASS
				Peak	2486.720	-38.24	≤-21.20	56.96	≤74	PASS
				Peak	2500.000	-39.17	≤-21.20	56.03	≤74	PASS

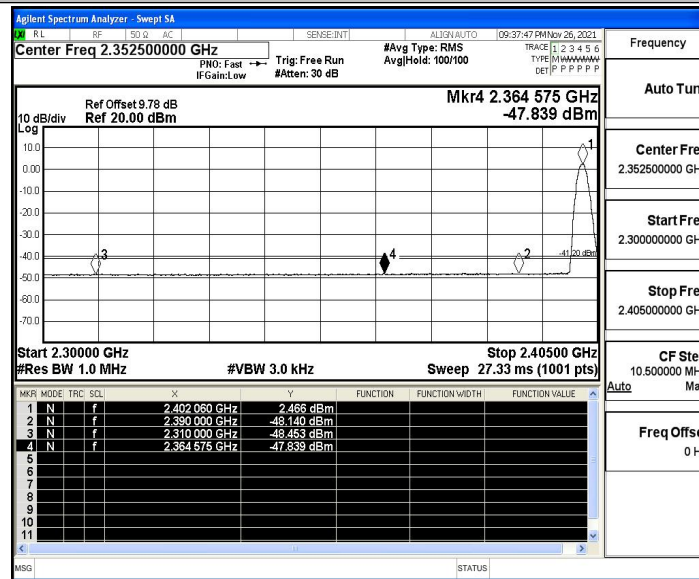
Note:

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.

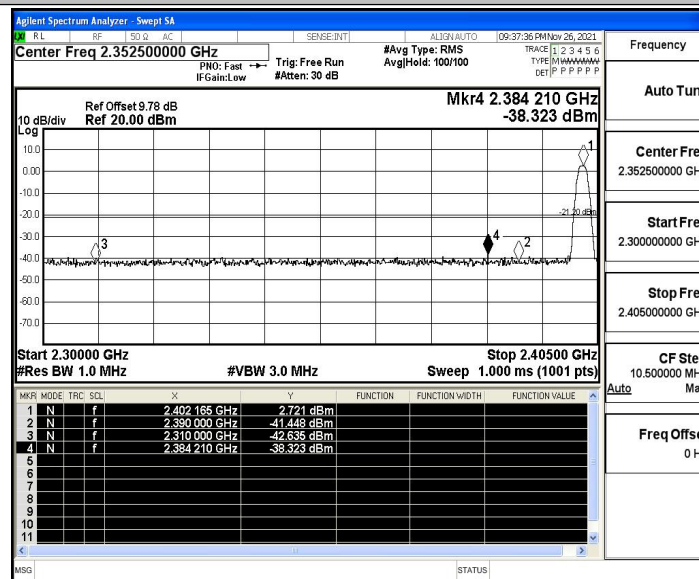


Test Graphs

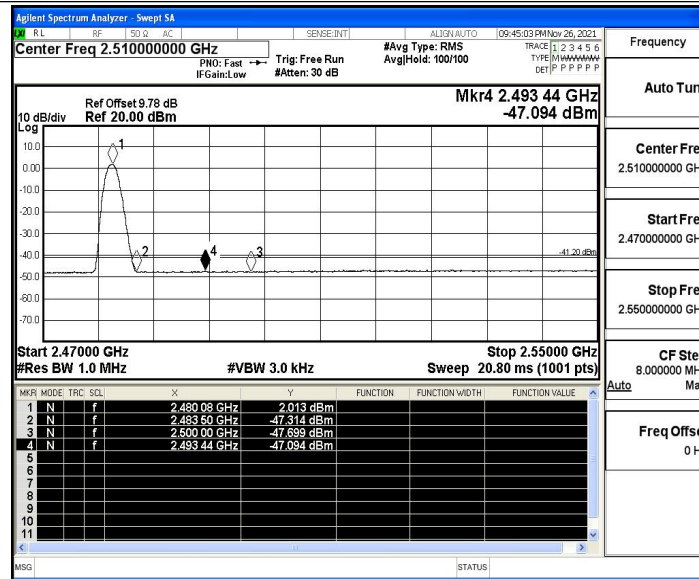
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

