



Appendix A

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

Product Name: smart watch

Trade Mark: N/A

Test Model: B1

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan



A.1 DTS Bandwidth

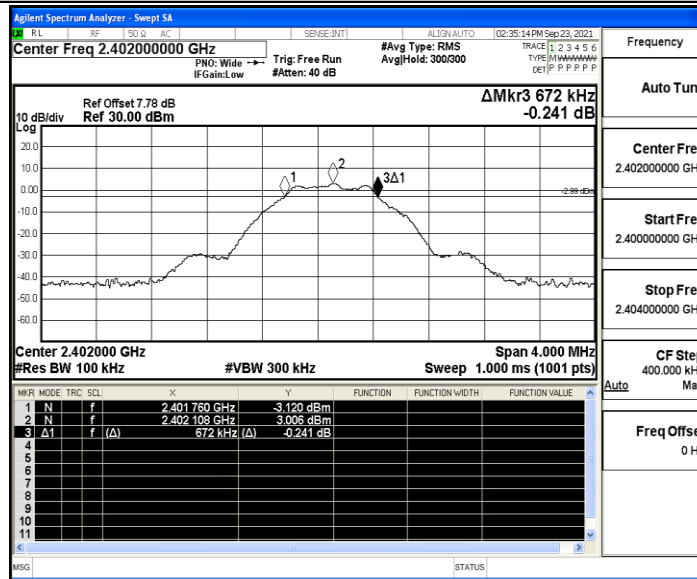
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.672	2401.760	2402.432	≥0.5	PASS
		2440	0.668	2439.764	2440.432	≥0.5	PASS
		2480	0.672	2479.760	2480.432	≥0.5	PASS

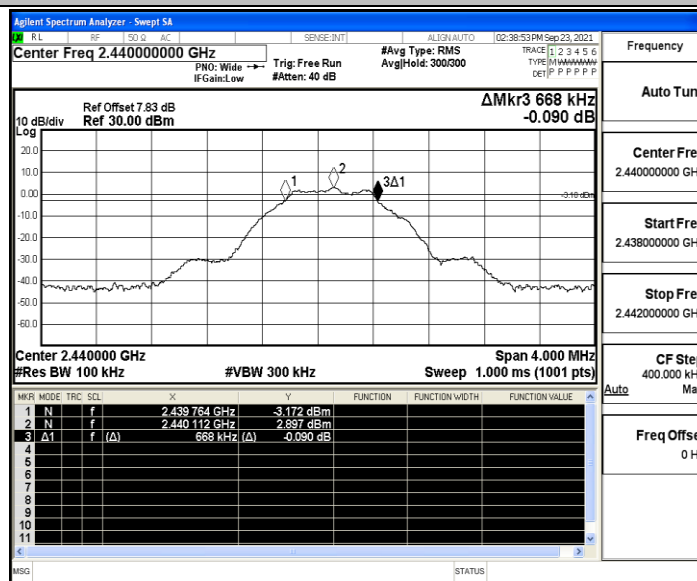


Test Graphs

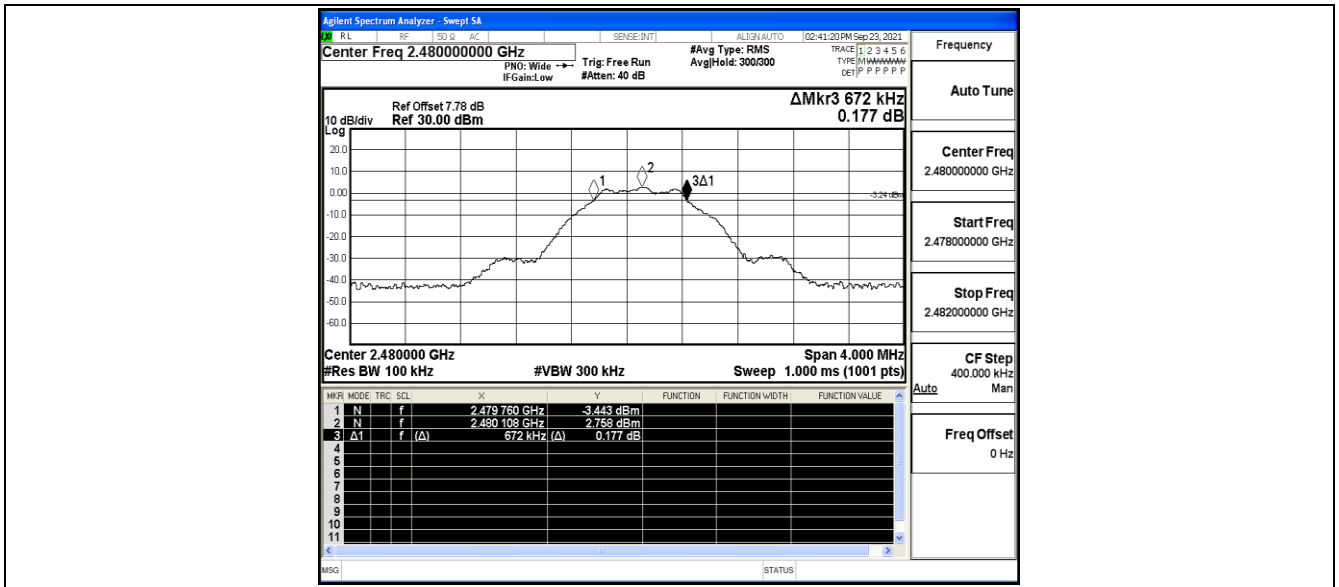
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.2 Maximum peak conducted output power

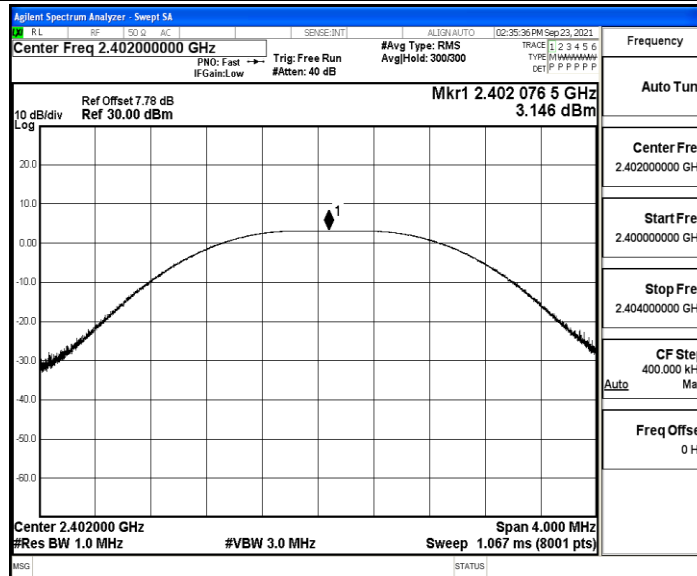
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	3.15	≤30	PASS
		2440	3.04	≤30	PASS
		2480	2.92	≤30	PASS

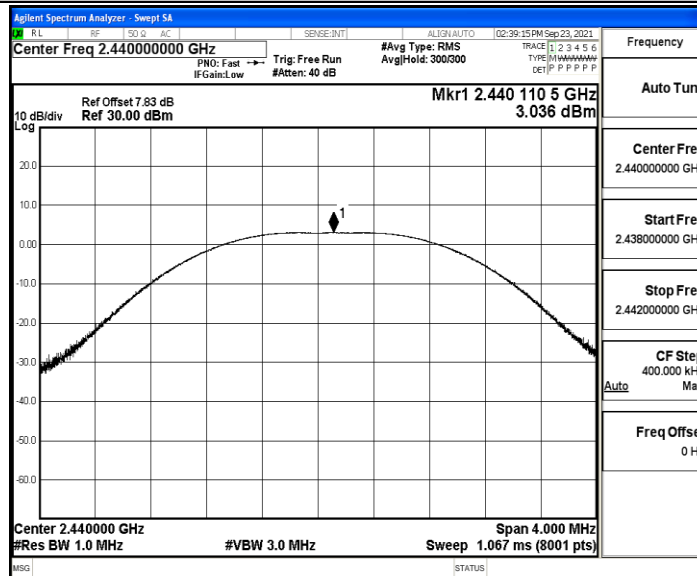


Test Graphs

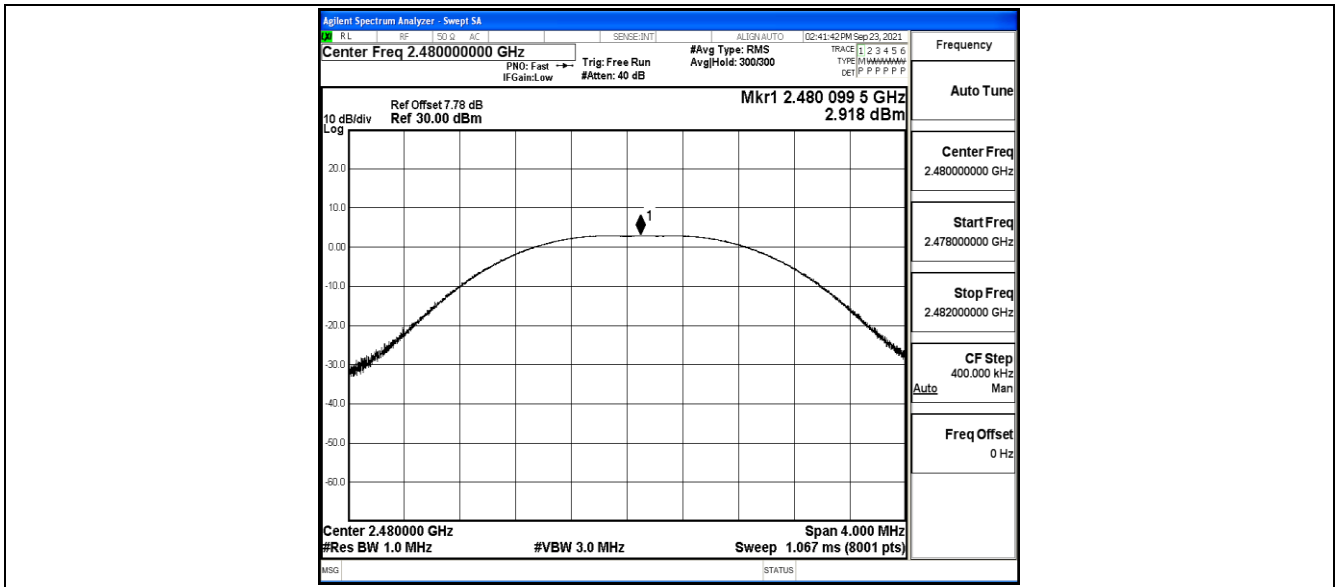
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.3 Maximum power spectral density

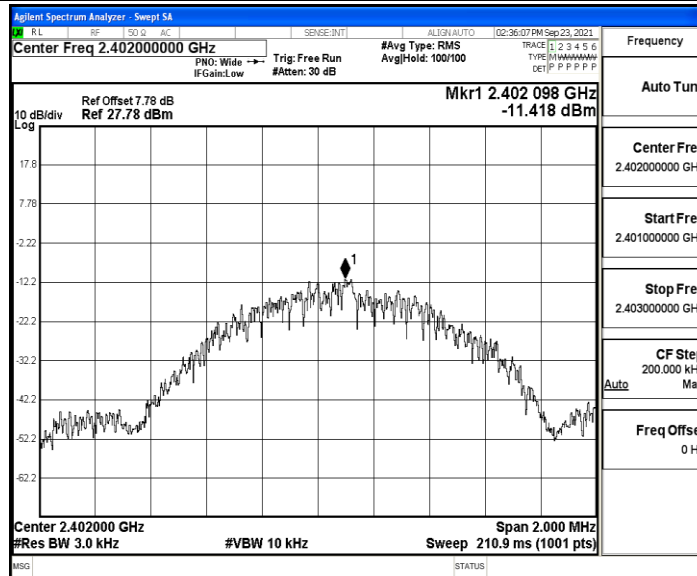
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-11.42	≤8	PASS
		2440	-11.54	≤8	PASS
		2480	-10.96	≤8	PASS

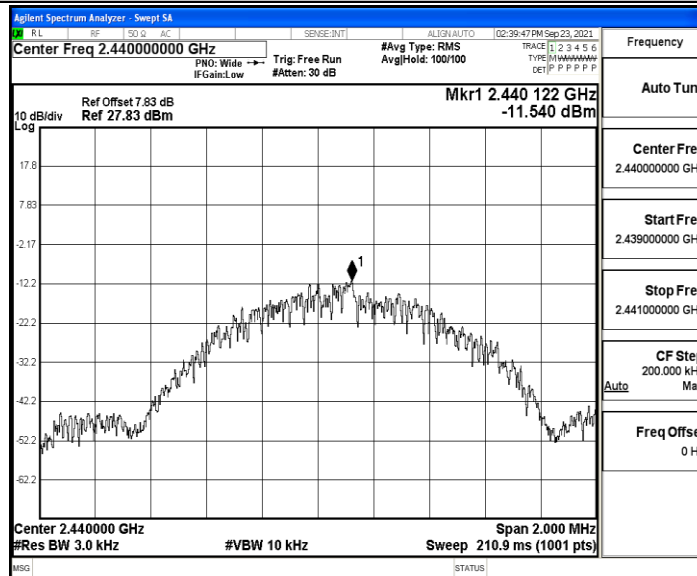


Test Graphs

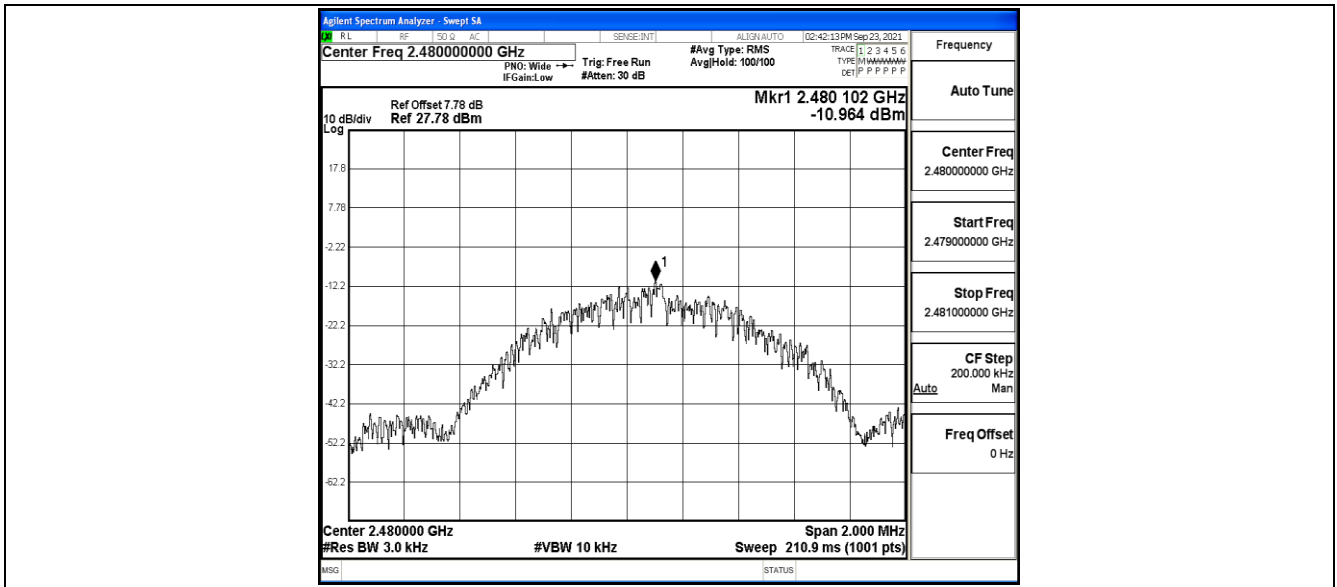
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.4 Band edge measurements

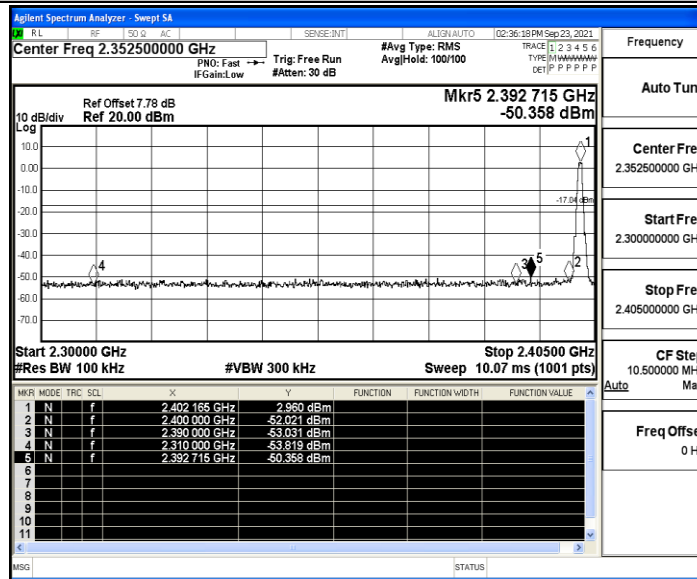
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	2.96	-50.36	≤ -17.04	PASS
		High	2480	2.81	-48.7	≤ -17.19	PASS

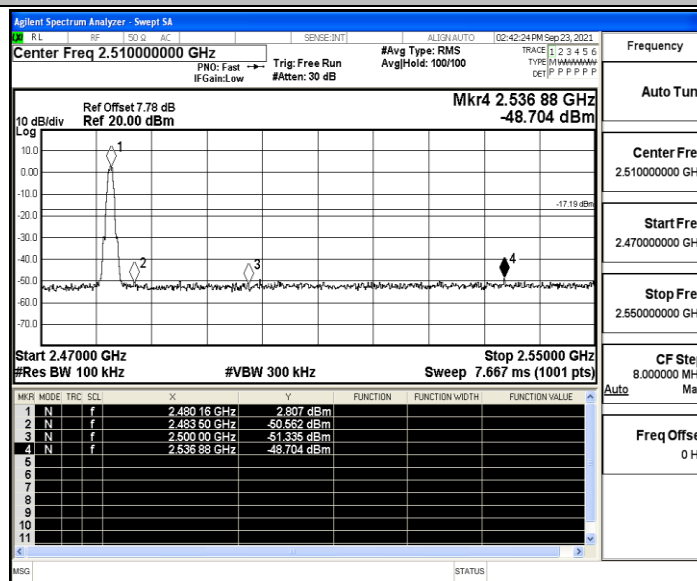


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





A.5 Conducted Spurious Emission

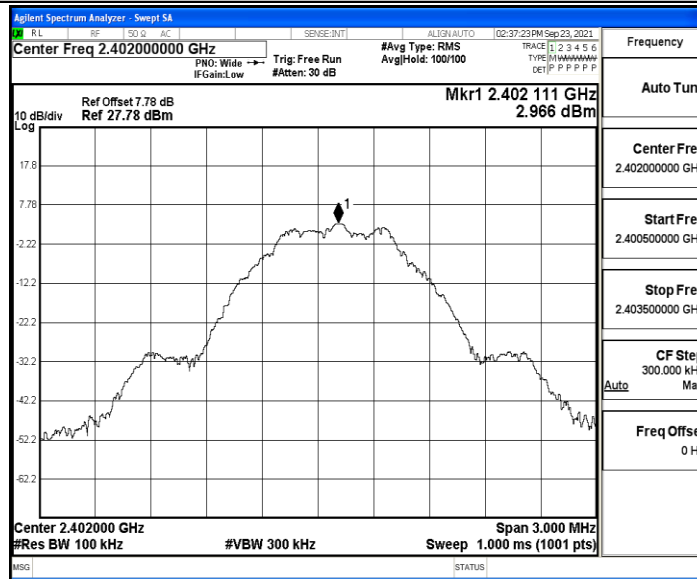
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	2.97	2.97	---	PASS
			30~1000	2.97	-62.01	≤ -17.03	PASS
			1000~26500	2.97	-47.52	≤ -17.03	PASS
		2440	Reference	2.86	2.86	---	PASS
			30~1000	2.86	-61.66	≤ -17.14	PASS
			1000~26500	2.86	-47	≤ -17.14	PASS
		2480	Reference	2.74	2.74	---	PASS
			30~1000	2.74	-61.87	≤ -17.26	PASS
			1000~26500	2.74	-47.4	≤ -17.26	PASS

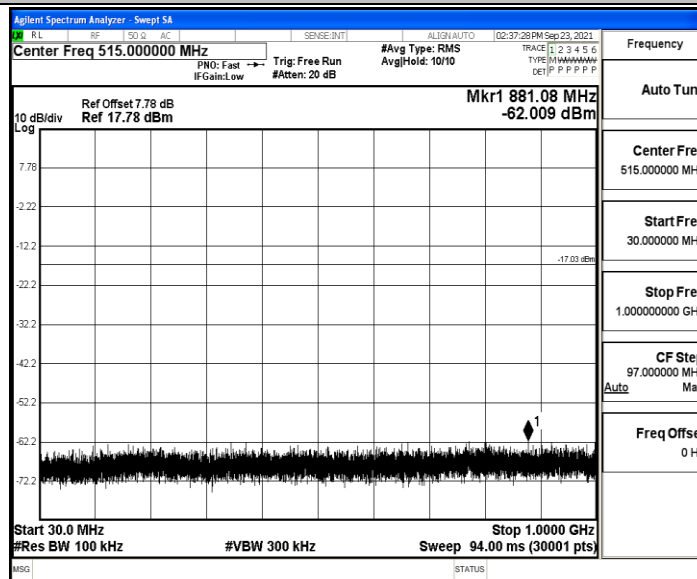


Test Graphs

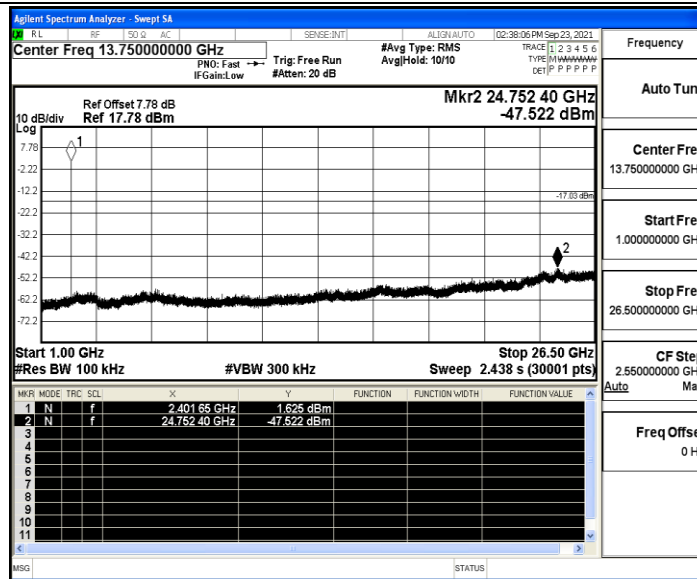
BLE_1M_Ant1_2402_0~Reference



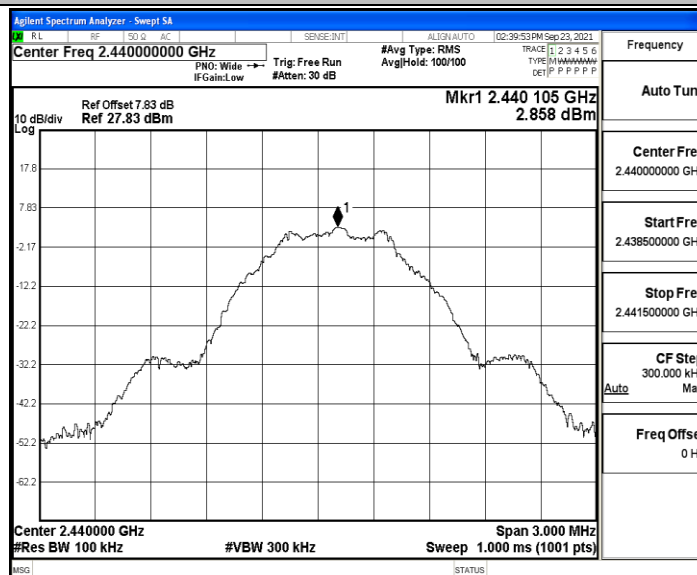
BLE_1M_Ant1_2402_30~1000



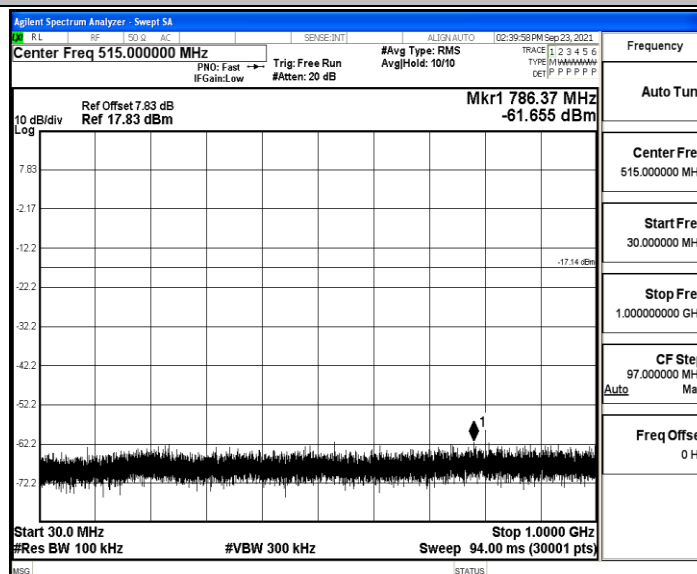
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

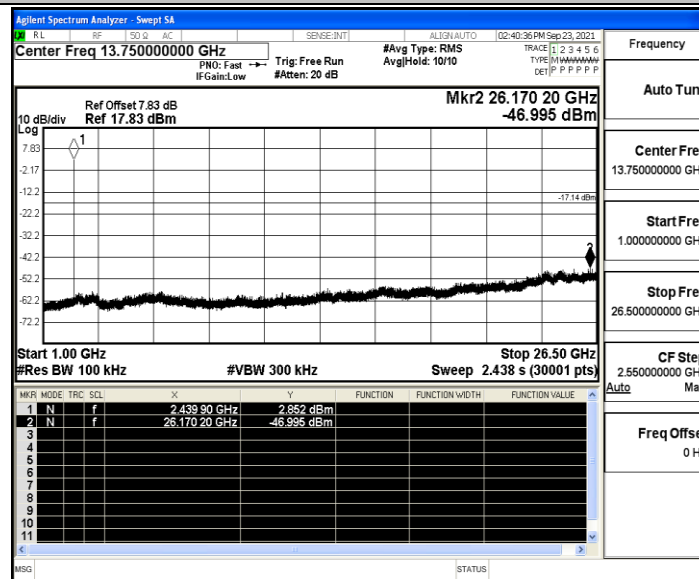


BLE_1M_Ant1_2440_30~1000

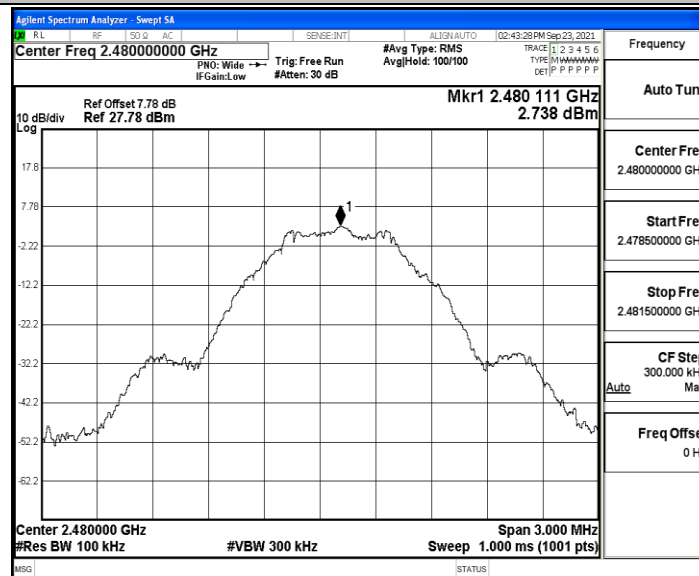




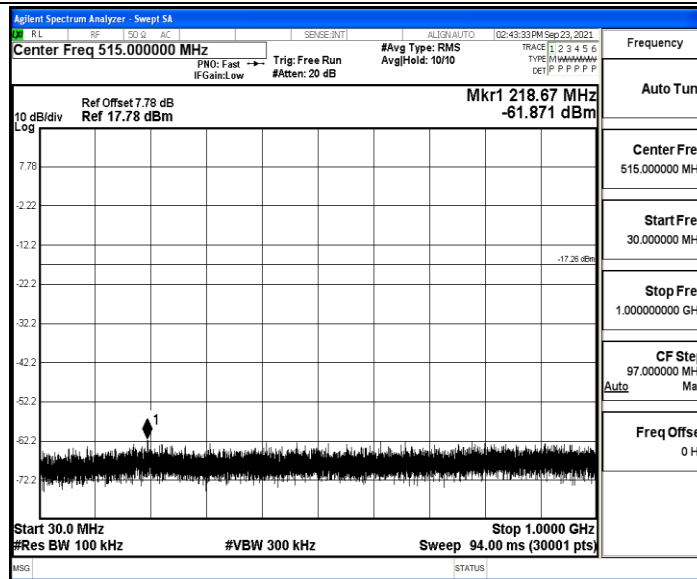
BLE_1M_Ant1_2440_1000-26500



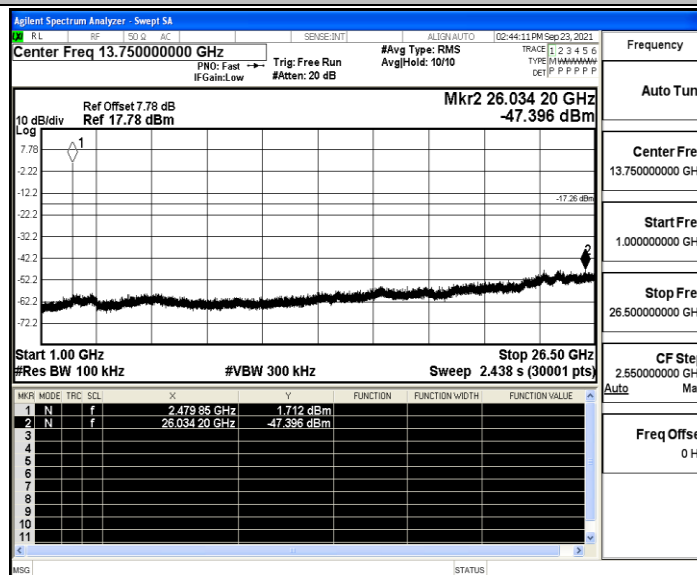
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





A.6 Duty Cycle

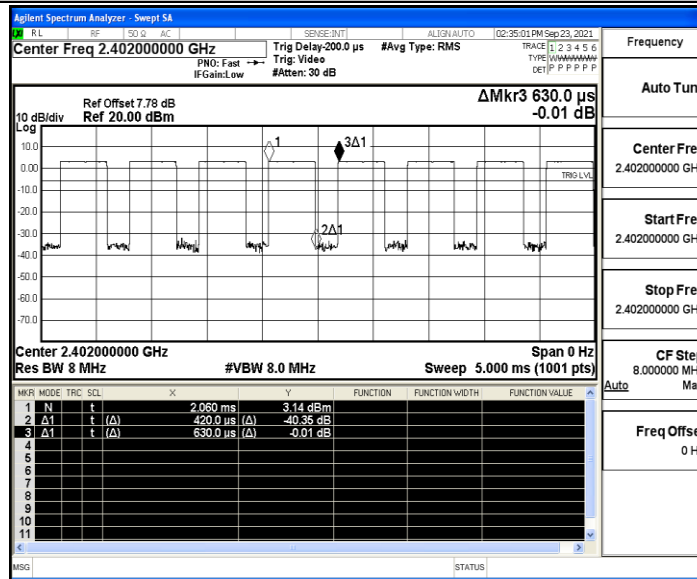
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.42	0.63	0.6667	66.67	1.76	---	PASS
		2440	0.42	0.63	0.6667	66.67	1.76	---	PASS
		2480	0.41	0.62	0.6613	66.13	1.80	---	PASS

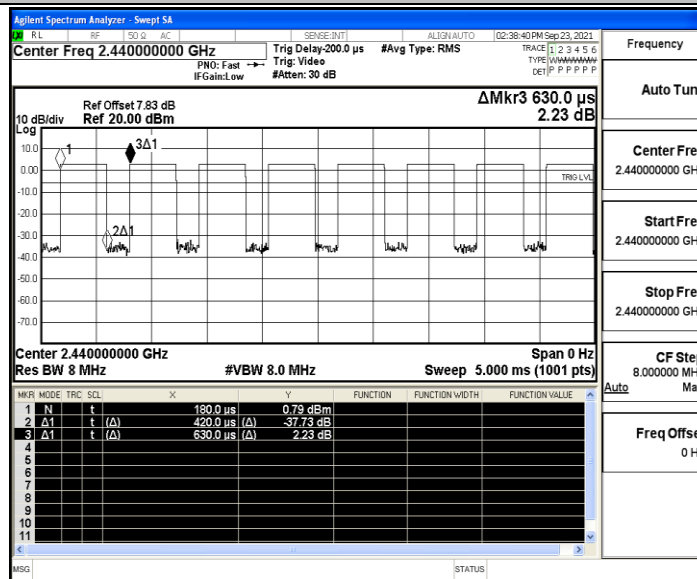


Test Graphs

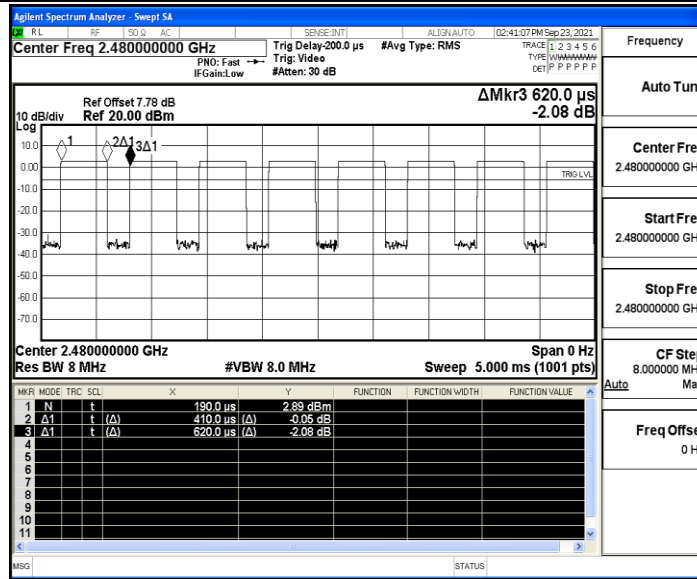
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.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	-48.69	≤-41.20	46.51	≤54	PASS
				AV	2389.355	-47.71	≤-41.20	47.49	≤54	PASS
				AV	2390.000	-48.11	≤-41.20	47.09	≤54	PASS
				Peak	2310.000	-40.95	≤-21.20	54.25	≤74	PASS
				Peak	2379.590	-39.1	≤-21.20	56.10	≤74	PASS
				Peak	2390.000	-41.06	≤-21.20	54.14	≤74	PASS
		High	2480	AV	2483.500	-45.9	≤-41.20	49.30	≤54	PASS
				AV	2483.520	-45.9	≤-41.20	49.30	≤54	PASS
				AV	2500.000	-47.52	≤-41.20	47.68	≤54	PASS
				Peak	2483.500	-42.02	≤-21.20	53.18	≤74	PASS
				Peak	2484.080	-38.75	≤-21.20	56.45	≤74	PASS
				Peak	2500.000	-40.75	≤-21.20	54.45	≤74	PASS

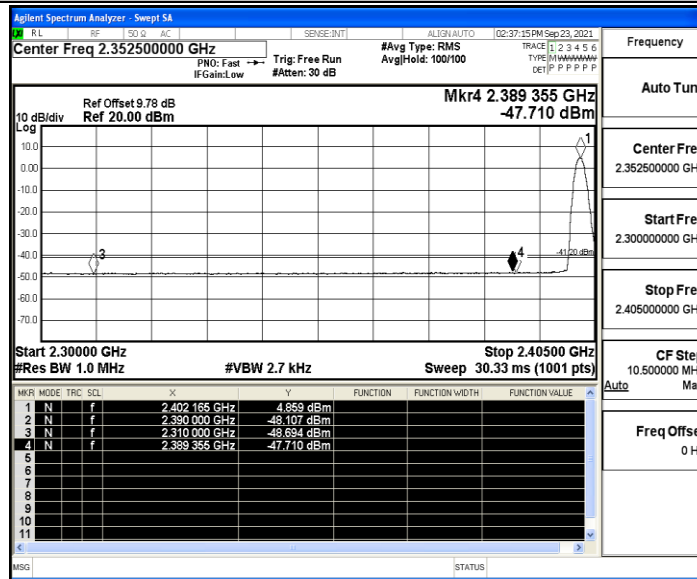
Note:

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.

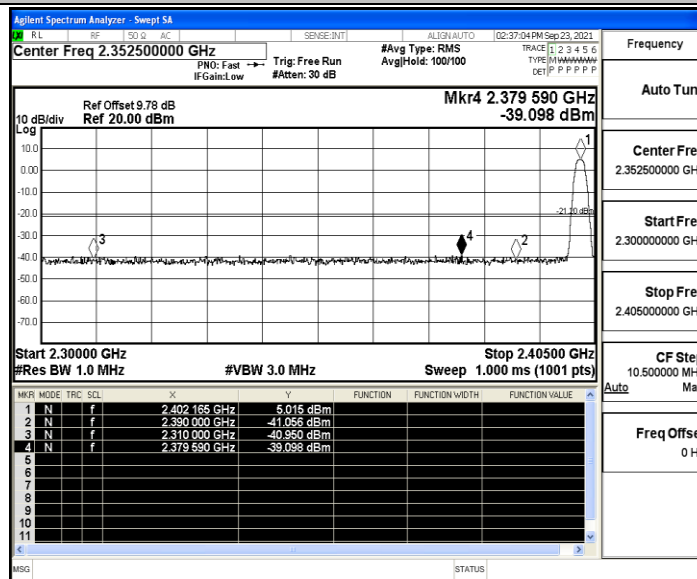


Test Graphs

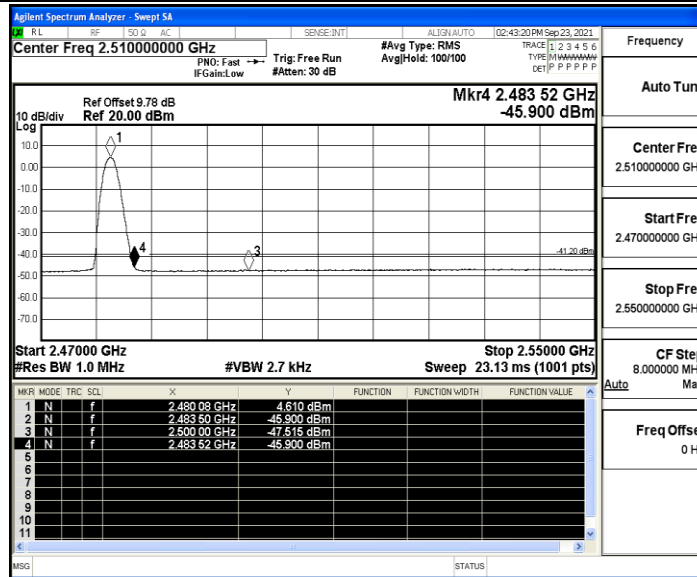
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

