



Appendix B

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

Product Name: Speaker box

Test Model: PWRP3

Environmental Conditions

Temperature:	23.7℃
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan



B.1 DTS Bandwidth

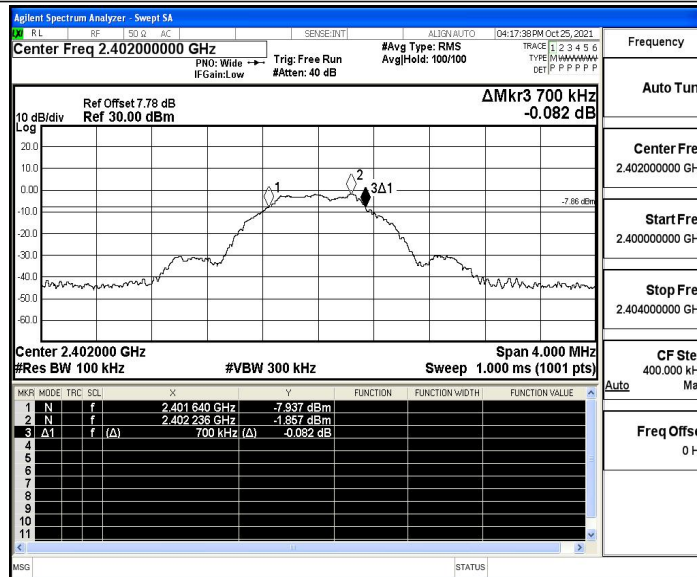
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.700	2401.640	2402.340	0.5	PASS
		2440	0.664	2439.668	2440.332	0.5	PASS
		2480	0.668	2479.660	2480.328	0.5	PASS

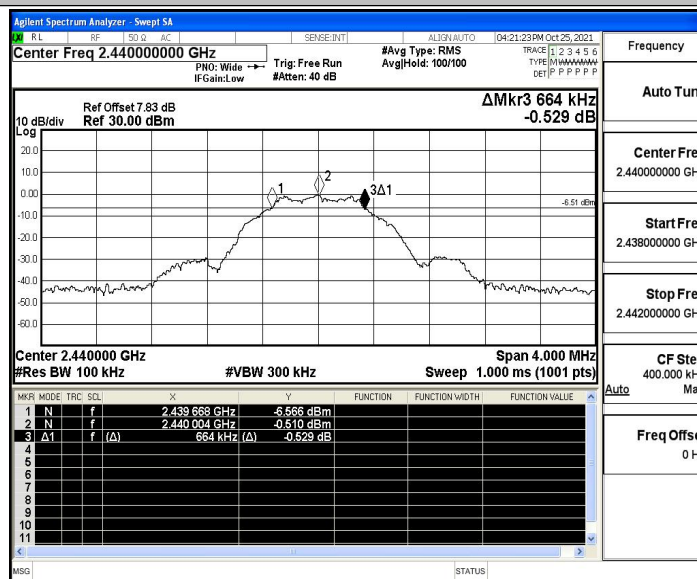


Test Graphs

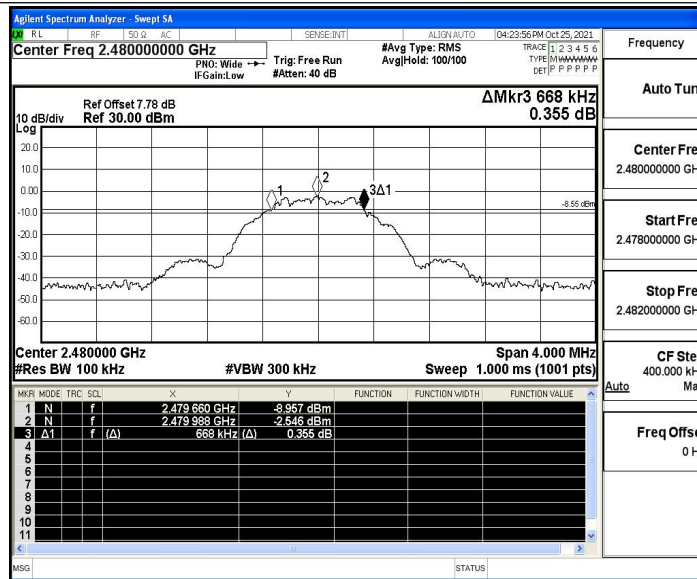
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.2 Maximum peak conducted output power

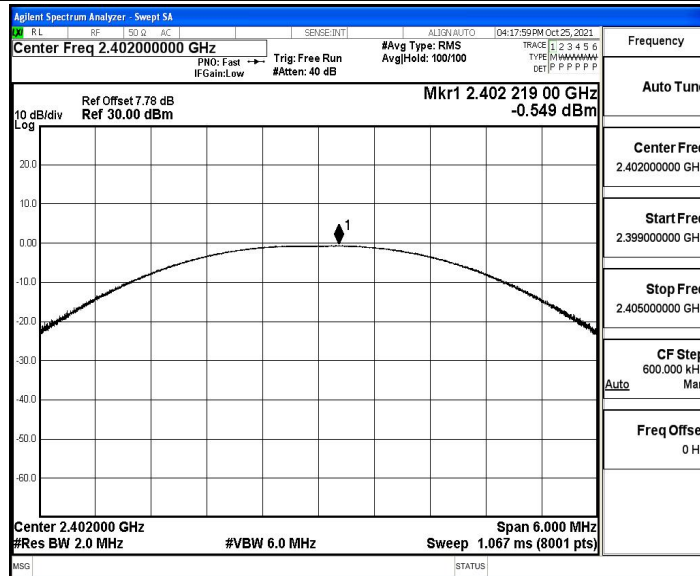
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.55	≤30	PASS
		2440	0.28	≤30	PASS
		2480	-1.54	≤30	PASS

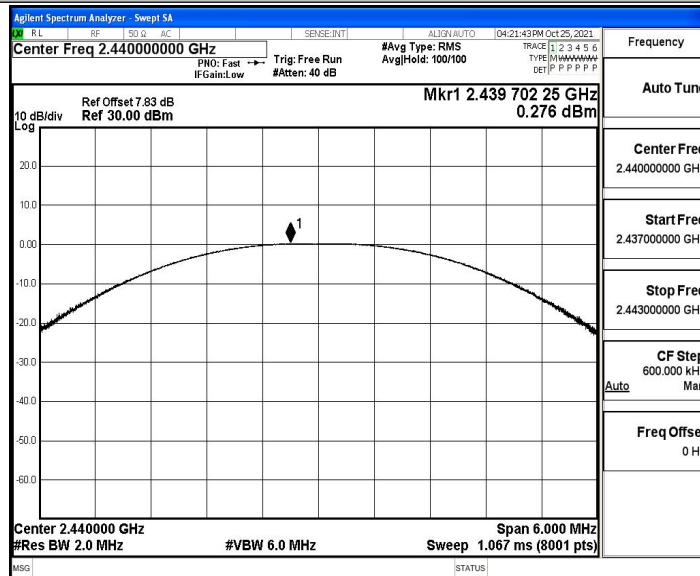


Test Graphs

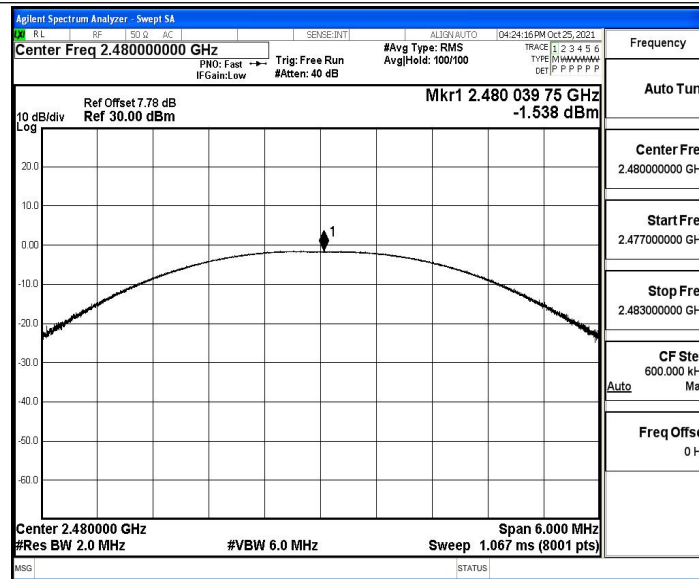
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.3 Maximum power spectral density

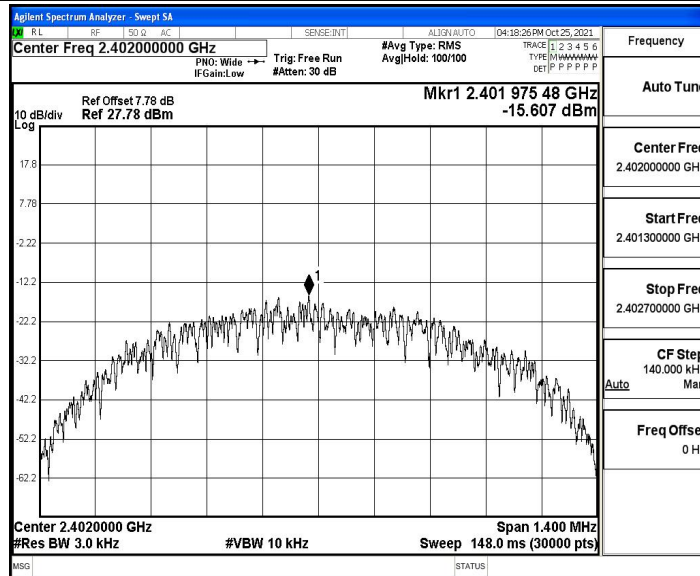
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.61	≤8	PASS
		2440	-14.77	≤8	PASS
		2480	-16.49	≤8	PASS

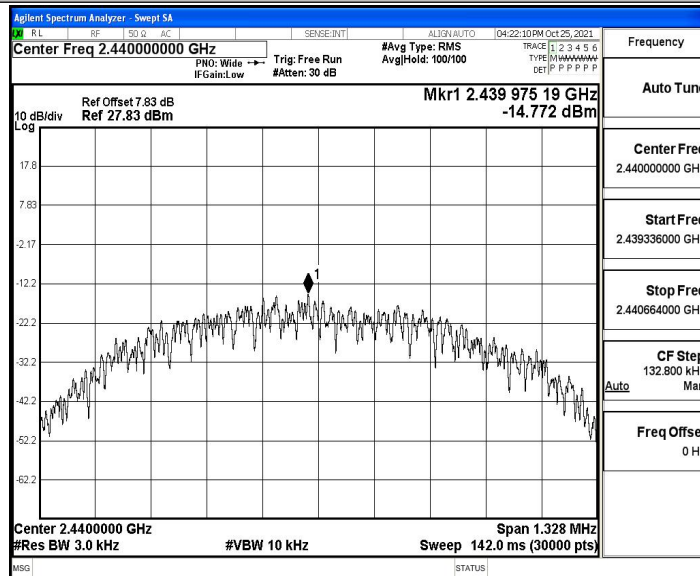


Test Graphs

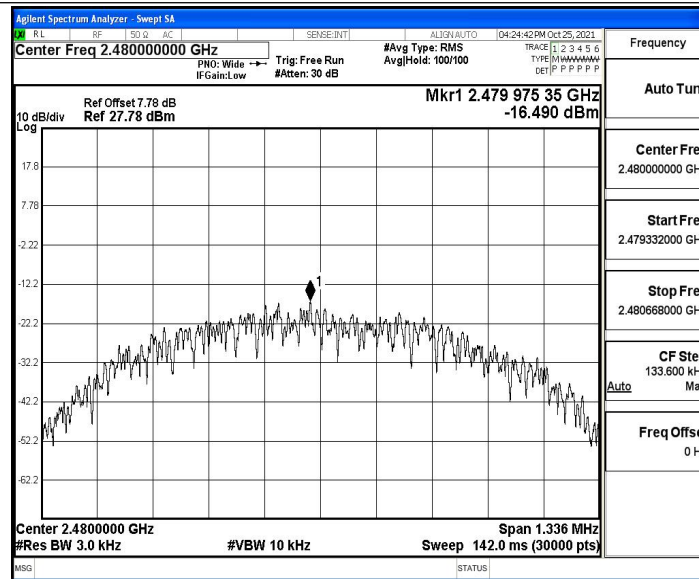
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.4 Band edge measurements

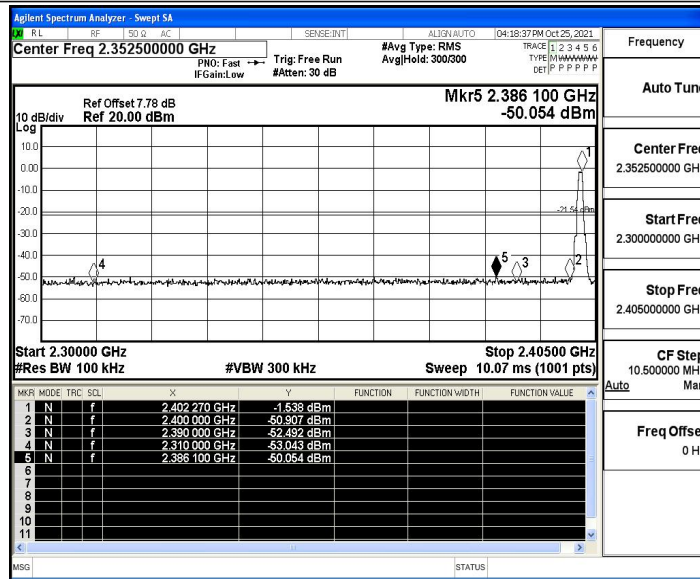
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.54	-50.05	≤ -21.54	PASS
		High	2480	-2.25	-48.6	≤ -22.25	PASS

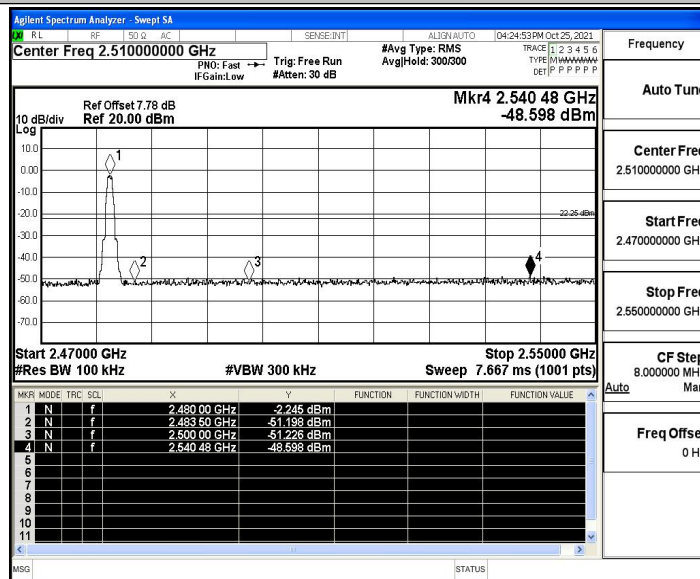


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





B.5 Conducted Spurious Emission

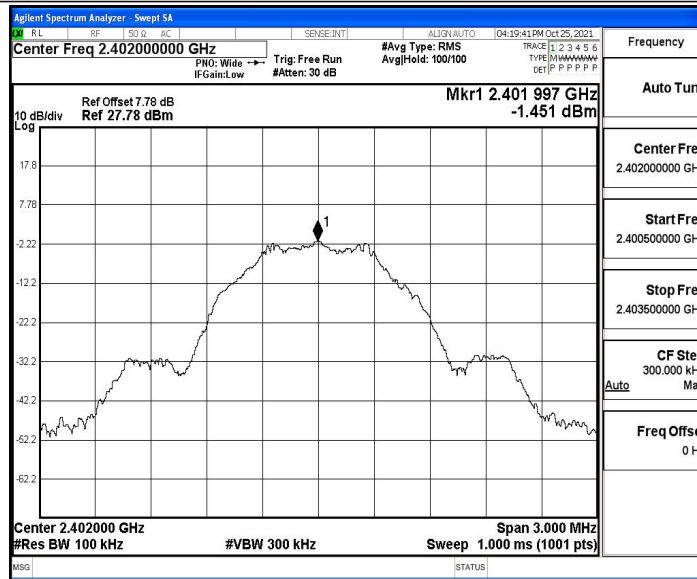
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-1.45	-1.45	---	PASS
			30~1000	-1.45	-61.86	≤ -21.45	PASS
			1000~26500	-1.45	-47.19	≤ -21.45	PASS
		2440	Reference	-0.86	-0.86	---	PASS
			30~1000	-0.86	-60.59	≤ -20.86	PASS
			1000~26500	-0.86	-47.09	≤ -20.86	PASS
		2480	Reference	-2.38	-2.38	---	PASS
			30~1000	-2.38	-62.02	≤ -22.38	PASS
			1000~26500	-2.38	-47.6	≤ -22.38	PASS

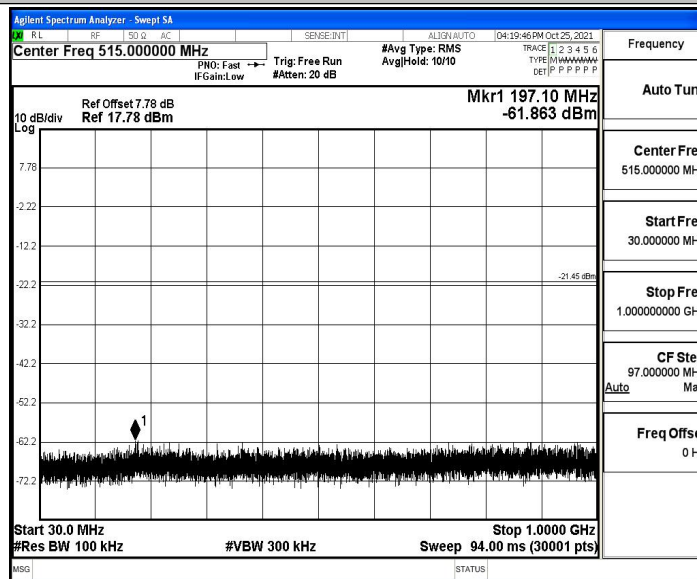


Test Graphs

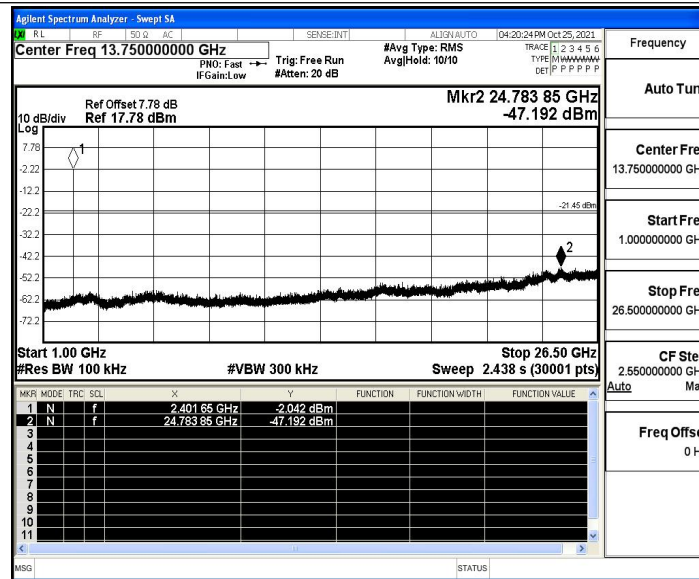
BLE_1M_Ant1_2402_0~Reference



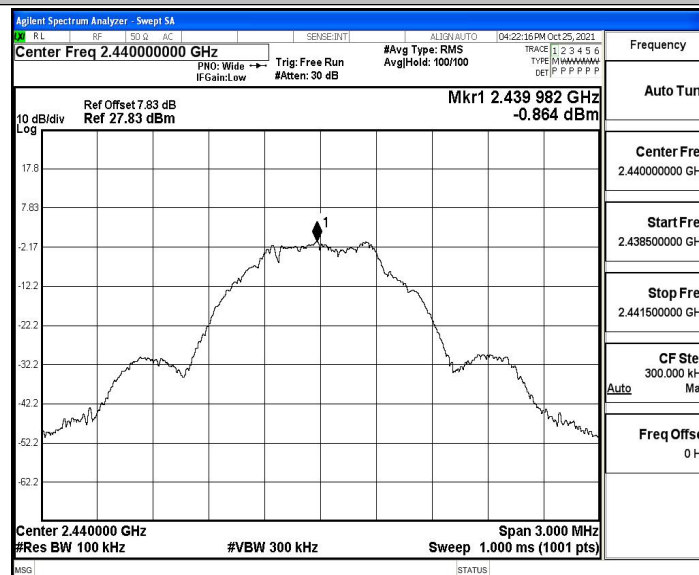
BLE_1M_Ant1_2402_30~1000



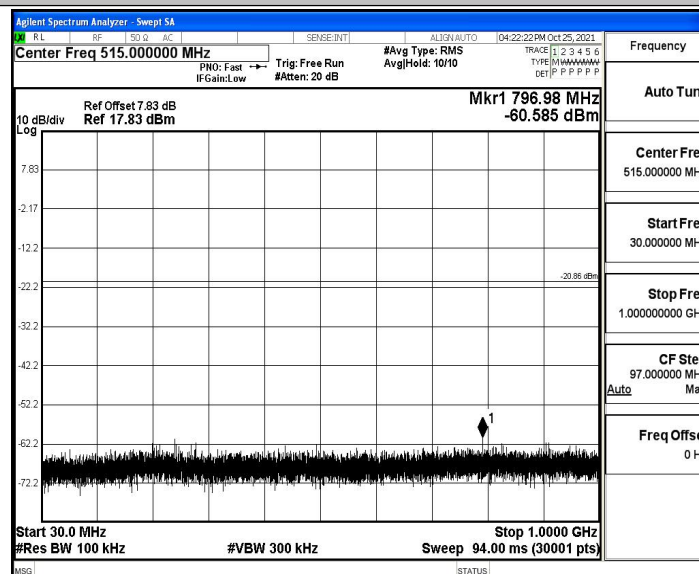
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

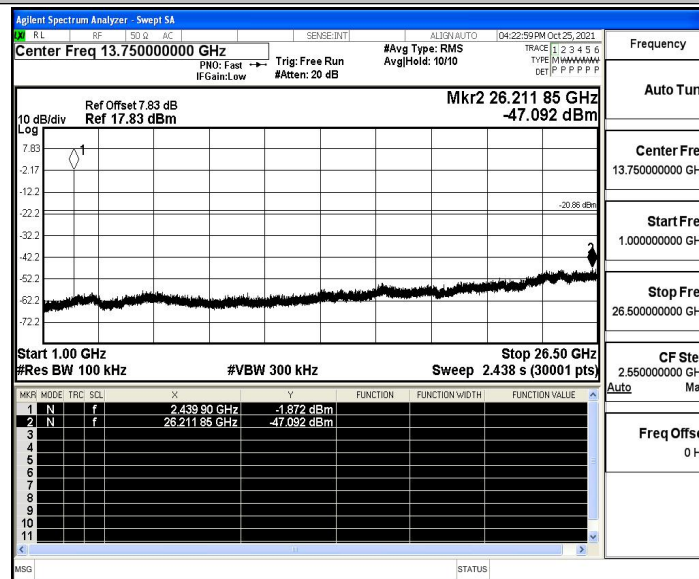


BLE_1M_Ant1_2440_30~1000

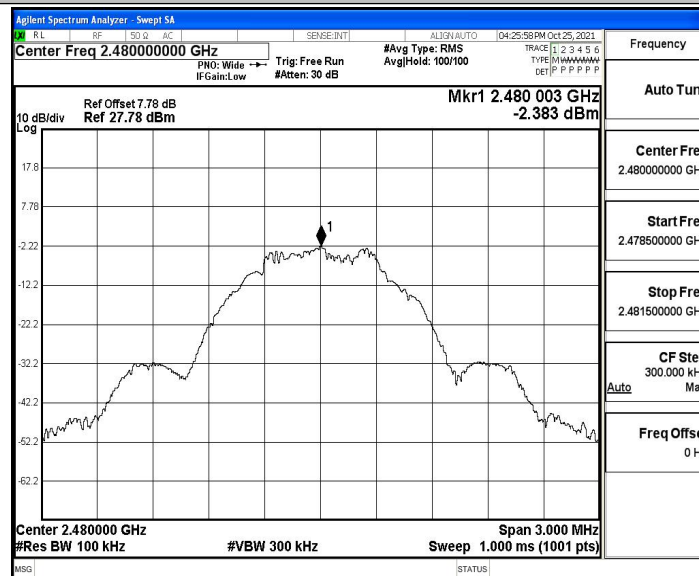




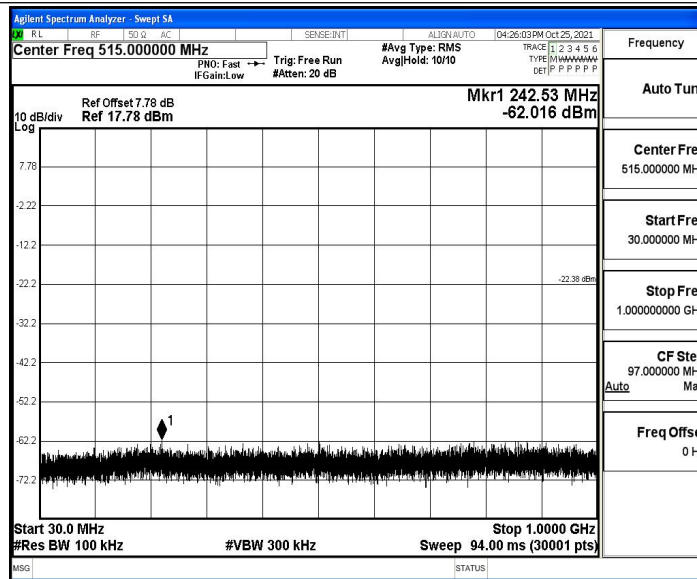
BLE_1M_Ant1_2440_1000~26500



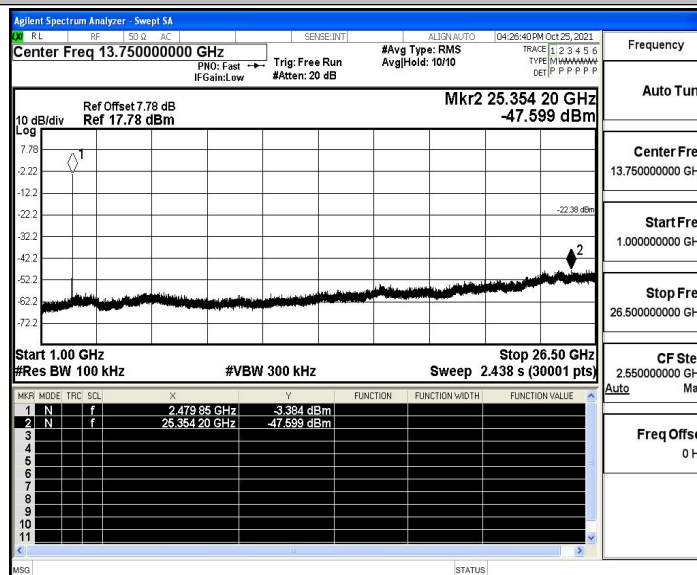
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





B.6 Duty Cycle

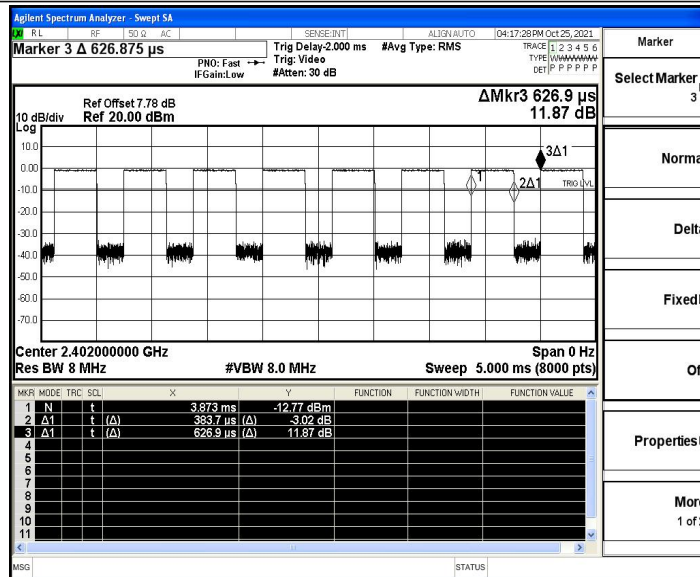
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.39	0.63	0.6190	61.90	2.08	---	PASS
		2440	0.39	0.63	0.6190	61.90	2.08	---	PASS
		2480	0.39	0.63	0.6190	61.90	2.08	---	PASS

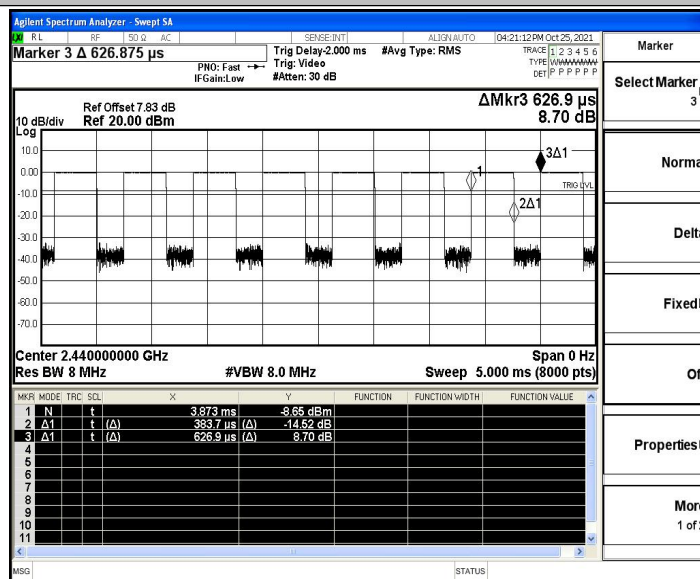


Test Graphs

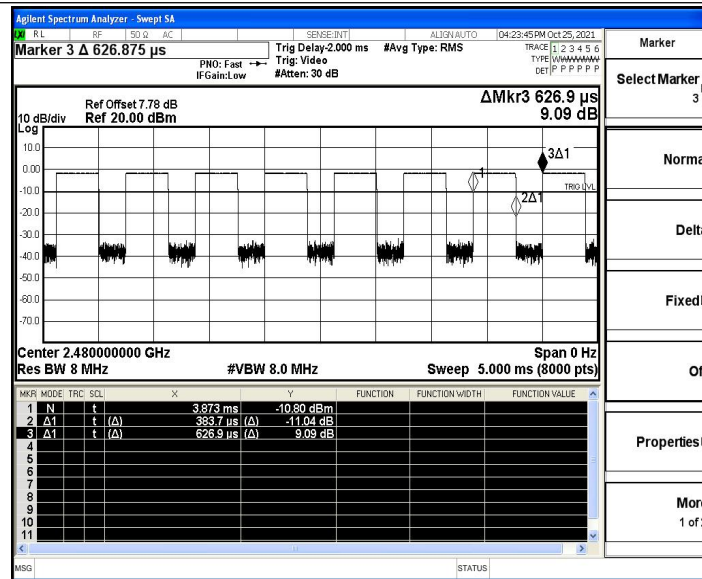
BLE_1M_Ant1_2402



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	-48.24	≤-41.20	46.96	≤54	PASS
				AV	2385.365	-47.67	≤-41.20	47.53	≤54	PASS
				AV	2390.000	-47.9	≤-41.20	47.30	≤54	PASS
				Peak	2310.000	-40.82	≤-21.20	54.38	≤74	PASS
				Peak	2387.045	-38.69	≤-21.20	56.51	≤74	PASS
				Peak	2390.000	-41.44	≤-21.20	53.76	≤74	PASS
		High	2480	AV	2483.500	-47.5	≤-41.20	47.70	≤54	PASS
				AV	2497.360	-47.13	≤-41.20	48.07	≤54	PASS
				AV	2500.000	-47.3	≤-41.20	47.90	≤54	PASS
				Peak	2483.500	-41.13	≤-21.20	54.07	≤74	PASS
				Peak	2489.920	-38.73	≤-21.20	56.47	≤74	PASS
				Peak	2500.000	-42.14	≤-21.20	53.06	≤74	PASS

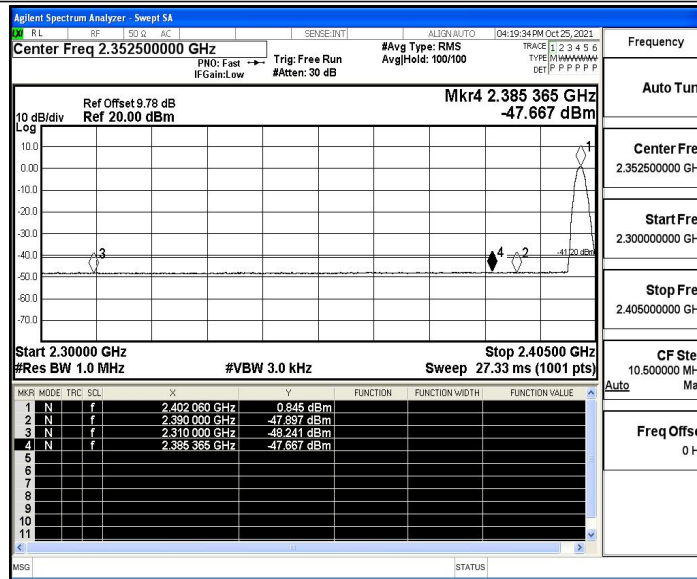
Note:

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.

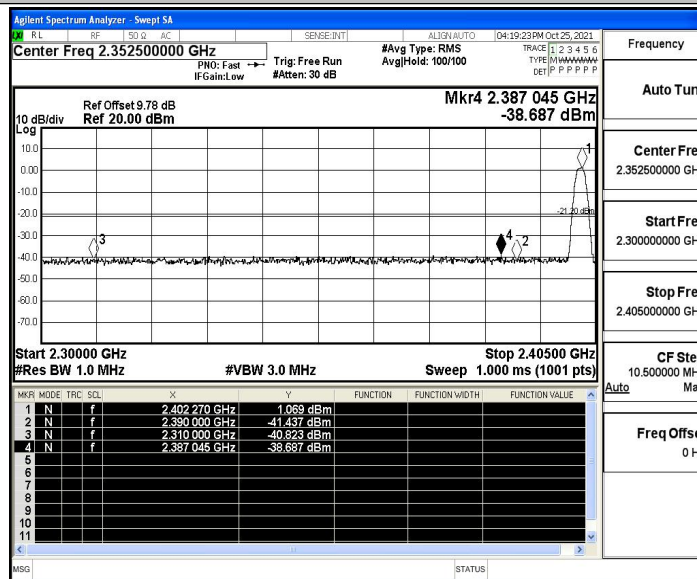


Test Graphs

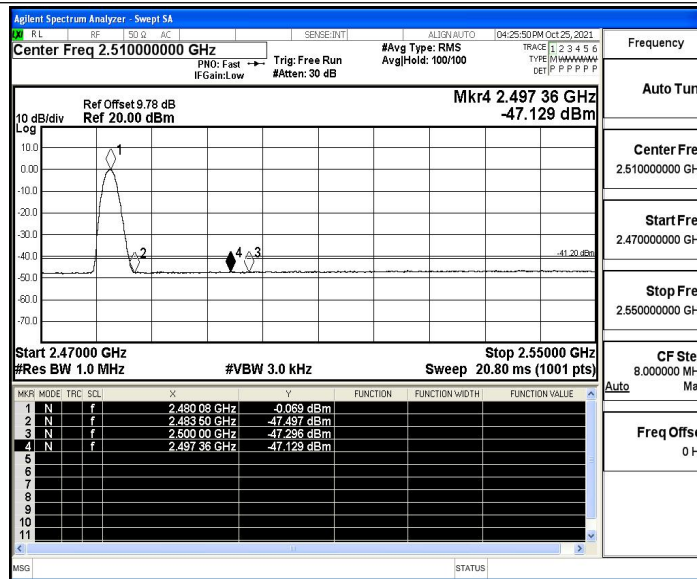
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

