



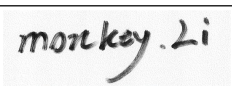
Appendix B

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

Product Name: Speaker box

Test Model: PWR12

Environmental Conditions

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



B.1 DTS Bandwidth

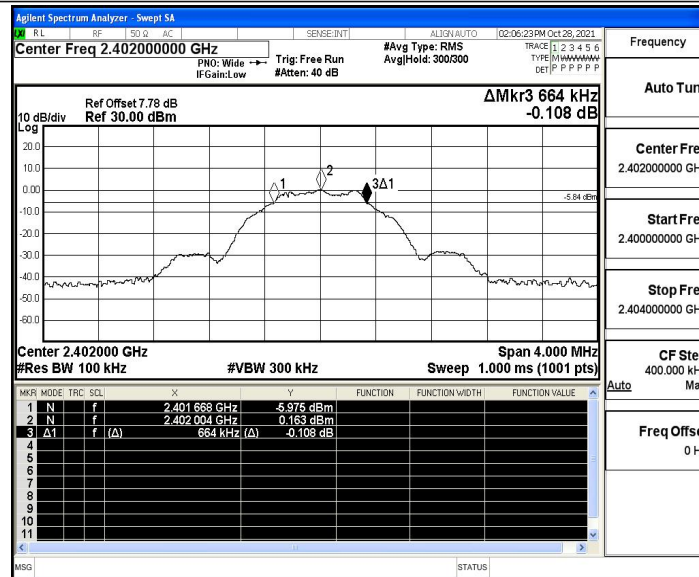
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.664	2401.668	2402.332	≥ 0.5	PASS
		2440	0.680	2439.664	2440.344	≥ 0.5	PASS
		2480	0.692	2479.652	2480.344	≥ 0.5	PASS

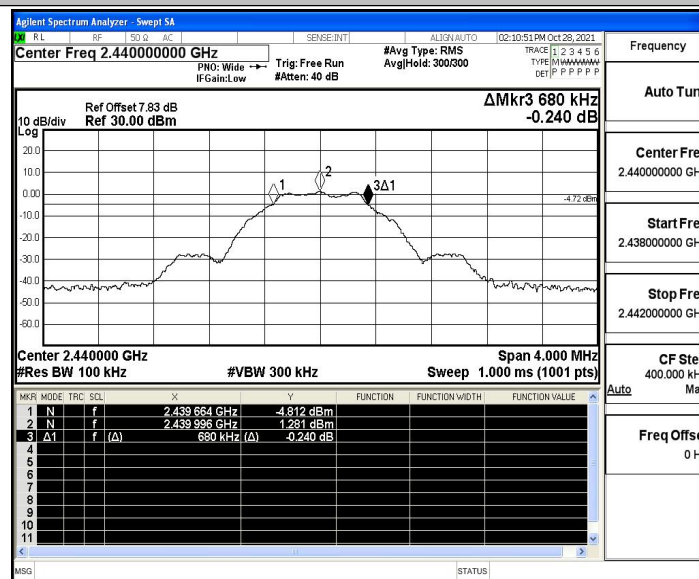


Test Graphs

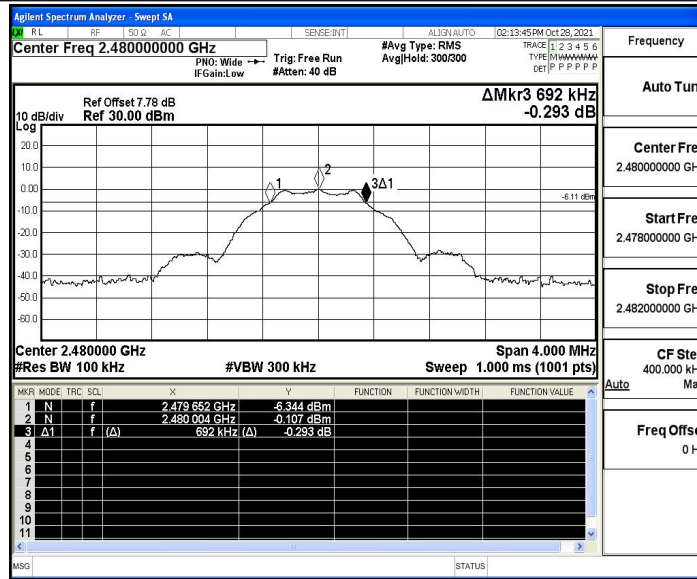
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.2 Occupied Channel Bandwidth

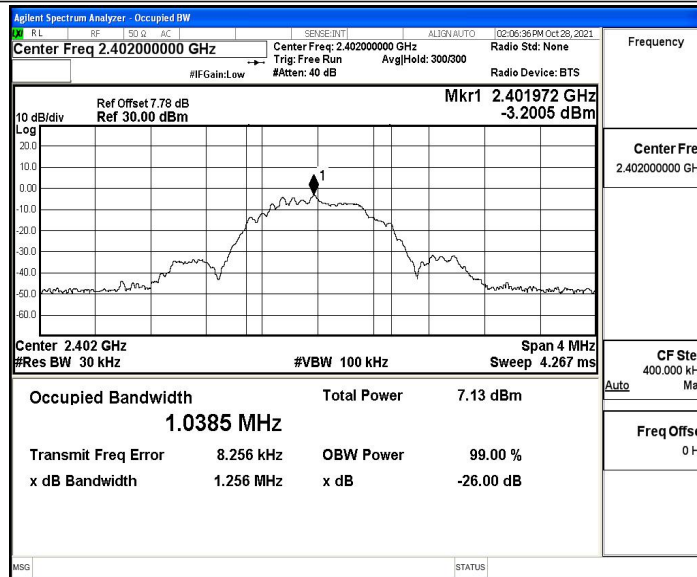
Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0385	2401.489	2402.528	---	PASS
		2440	1.0371	2439.490	2440.527	---	PASS
		2480	1.0401	2479.487	2480.527	---	PASS

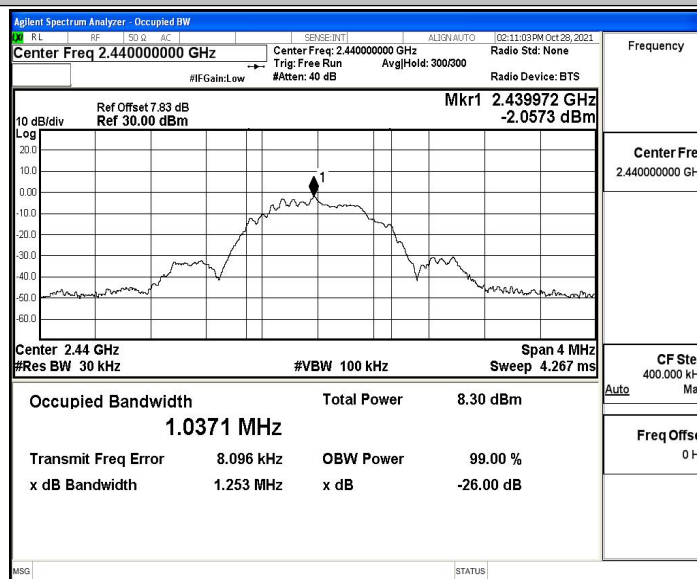


Test Graphs

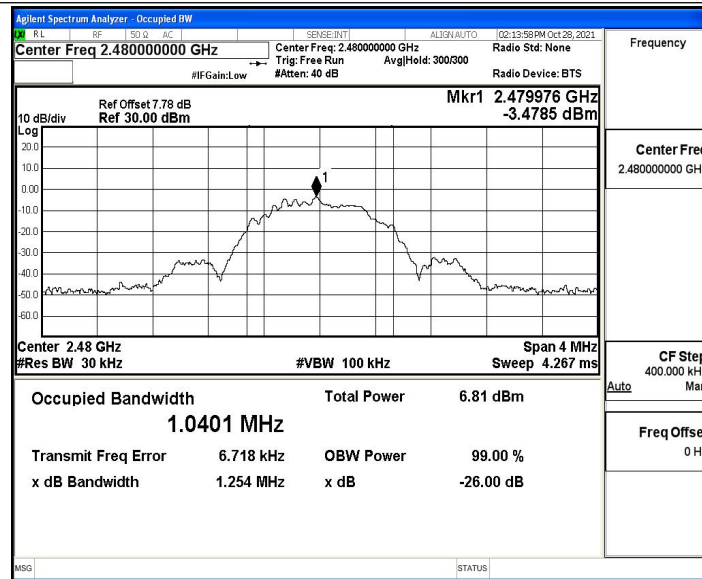
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.3 Maximum peak conducted output power

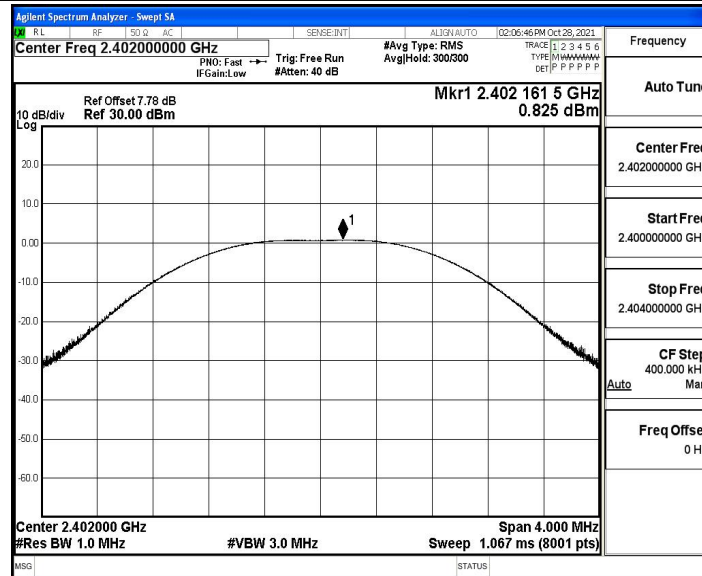
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.83	≤ 30	PASS
		2440	1.96	≤ 30	PASS
		2480	0.5	≤ 30	PASS

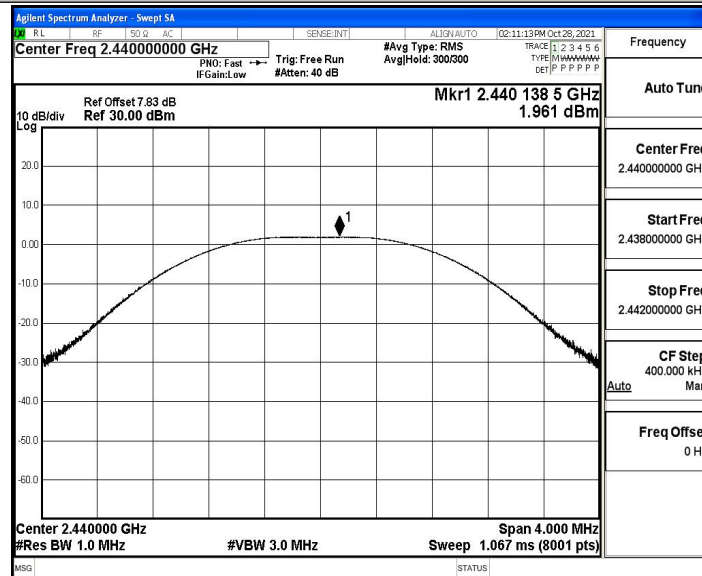


Test Graphs

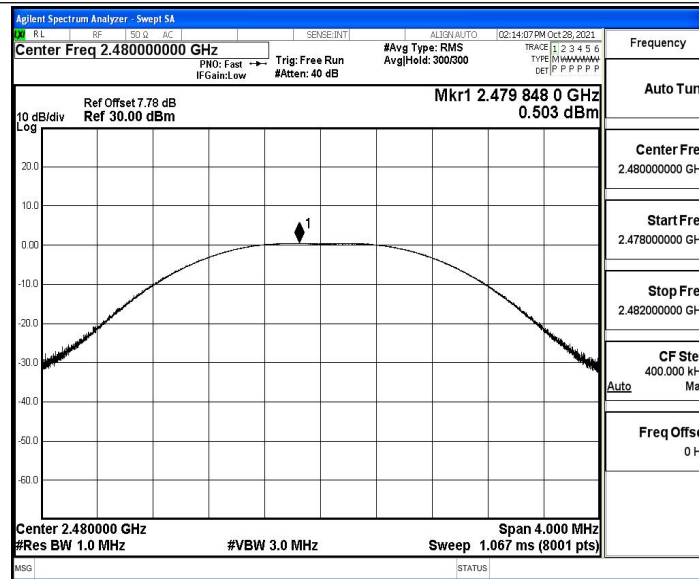
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.4 Maximum power spectral density

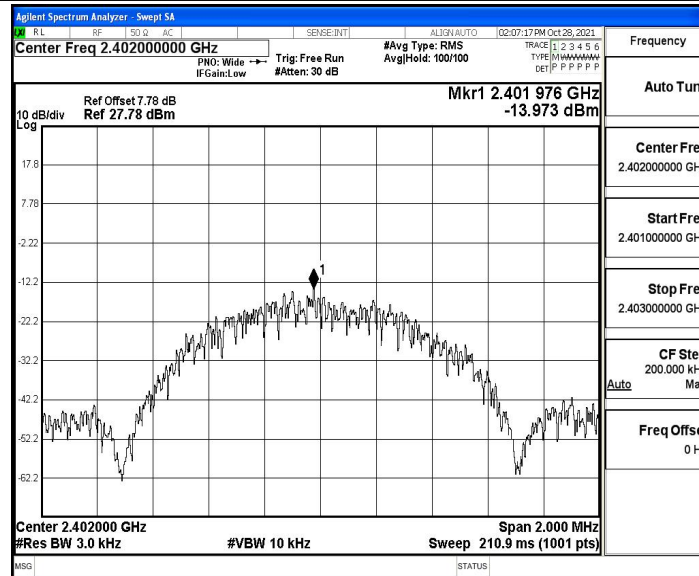
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.97	≤8	PASS
		2440	-12.9	≤8	PASS
		2480	-14.38	≤8	PASS

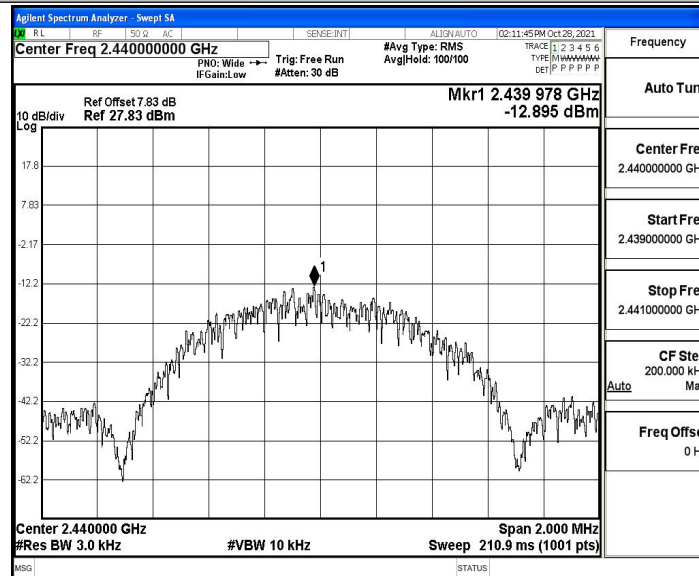


Test Graphs

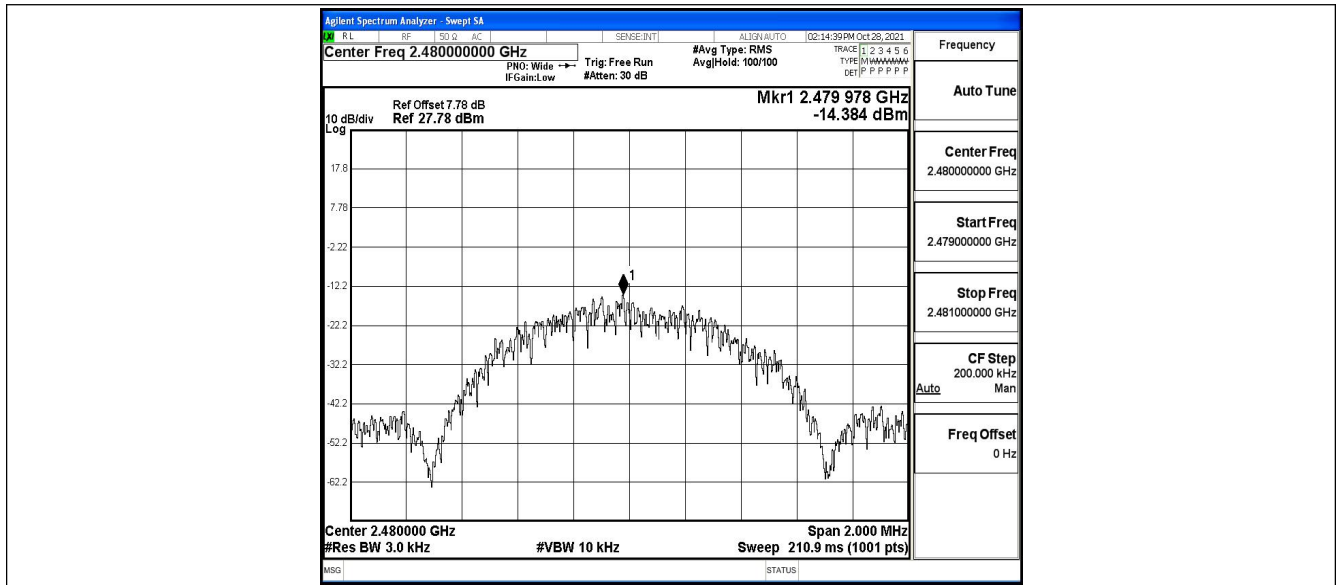
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.5 Band edge measurements

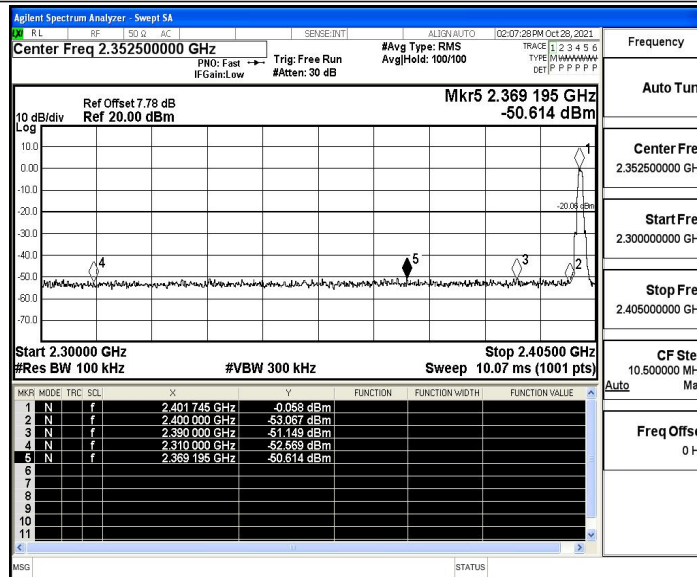
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.06	-50.61	≤-20.06	PASS
		High	2480	-0.40	-48.75	≤-20.4	PASS

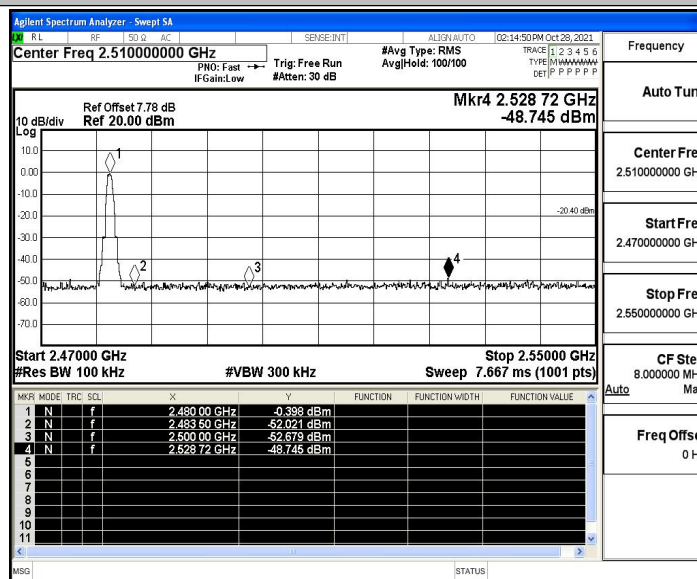


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





B.6 Conducted Spurious Emission

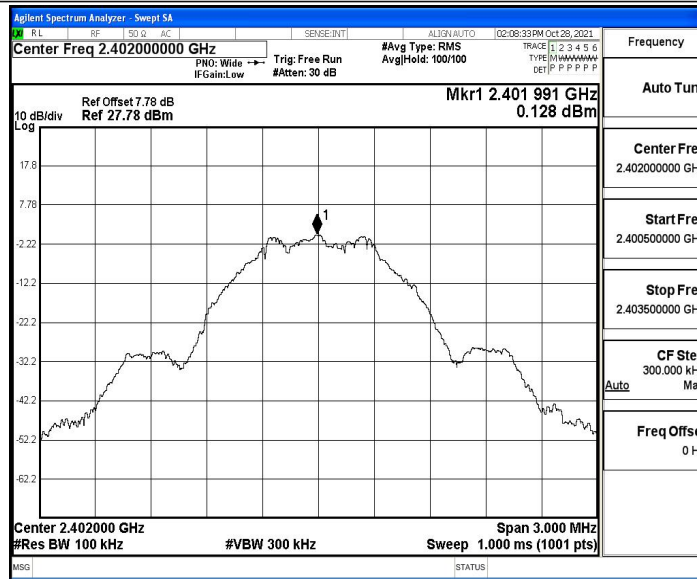
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.13	0.13	---	PASS
			30~1000	0.13	-62.09	≤-19.87	PASS
			1000~26500	0.13	-47.29	≤-19.87	PASS
		2440	Reference	1.26	1.26	---	PASS
			30~1000	1.26	-61.85	≤-18.74	PASS
			1000~26500	1.26	-47.53	≤-18.74	PASS
		2480	Reference	-0.59	-0.59	---	PASS
			30~1000	-0.59	-61.77	≤-20.59	PASS
			1000~26500	-0.59	-47.53	≤-20.59	PASS

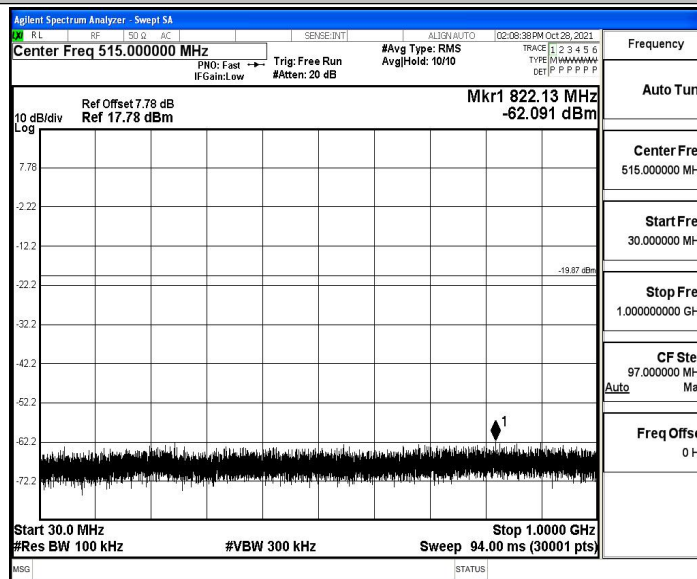


Test Graphs

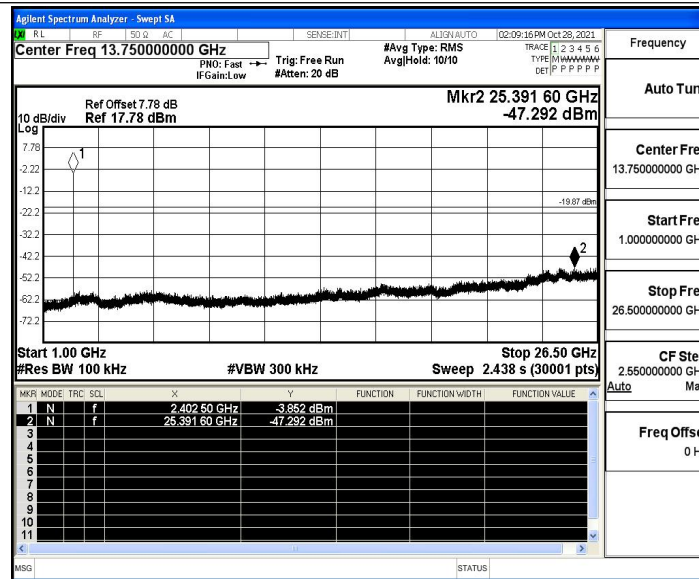
BLE_1M_Ant1_2402_0~Reference



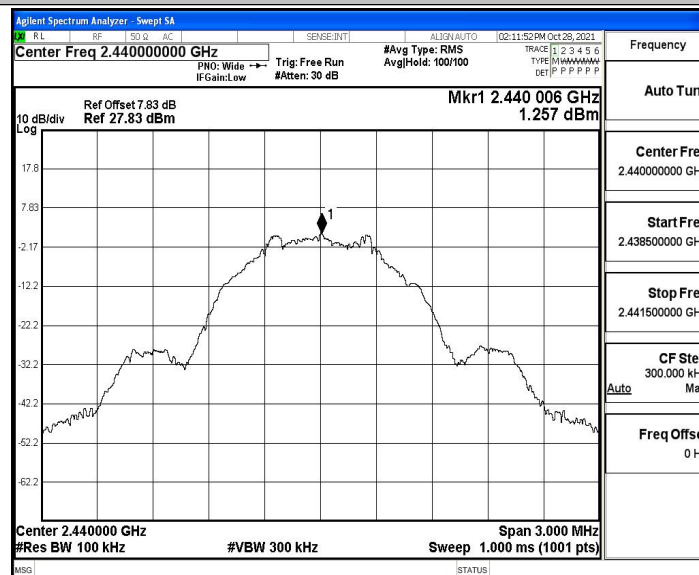
BLE_1M_Ant1_2402_30~1000



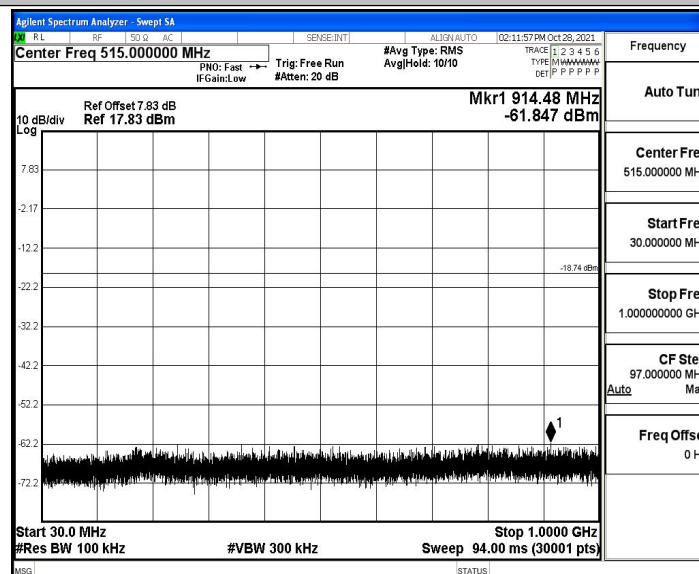
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

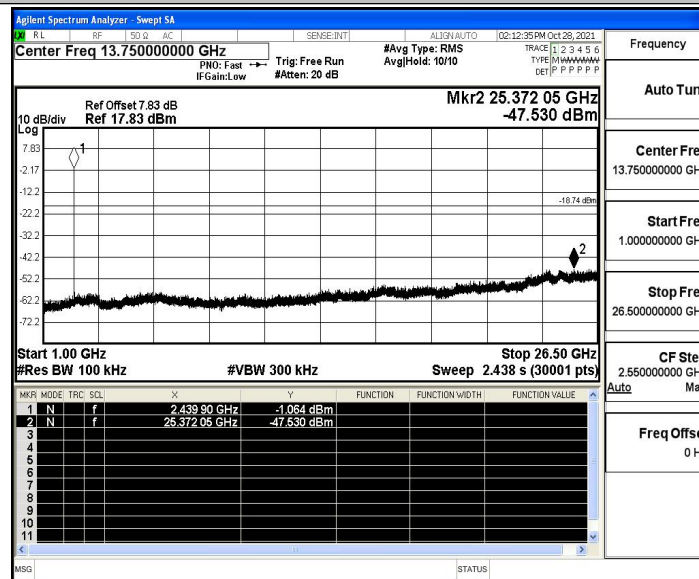


BLE_1M_Ant1_2440_30~1000

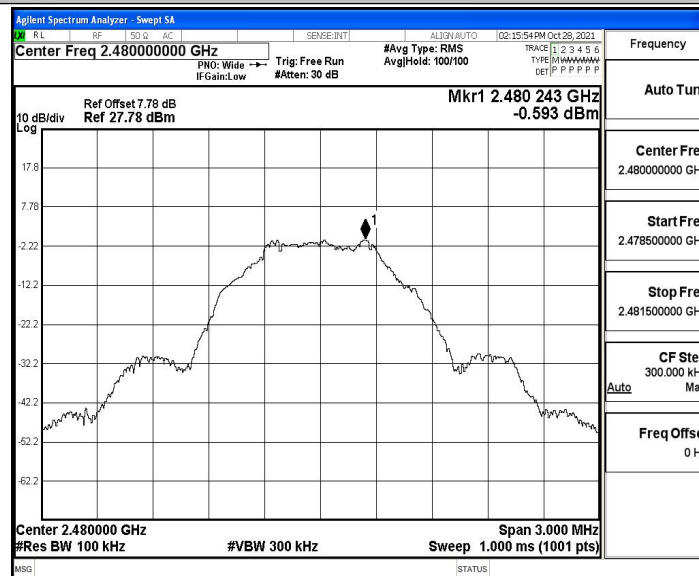




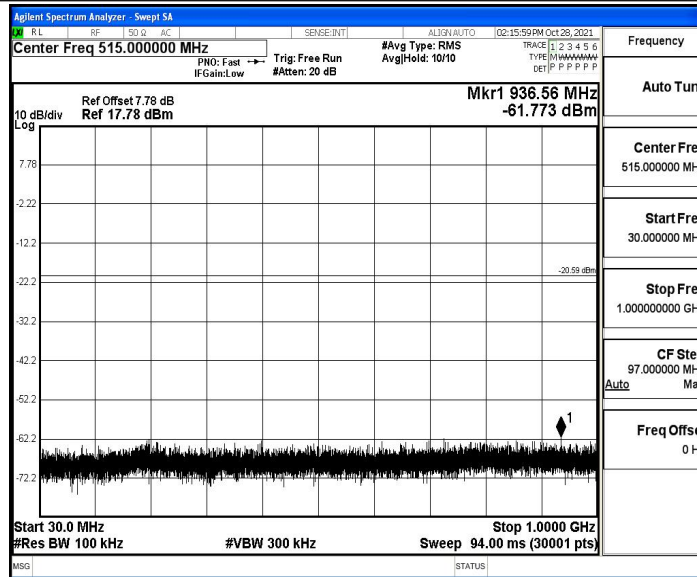
BLE_1M_Ant1_2440_1000~26500



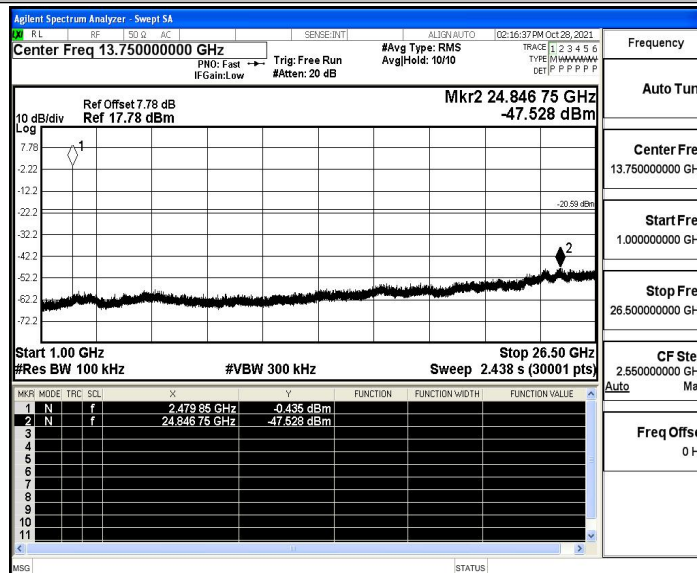
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





B.7 Duty Cycle

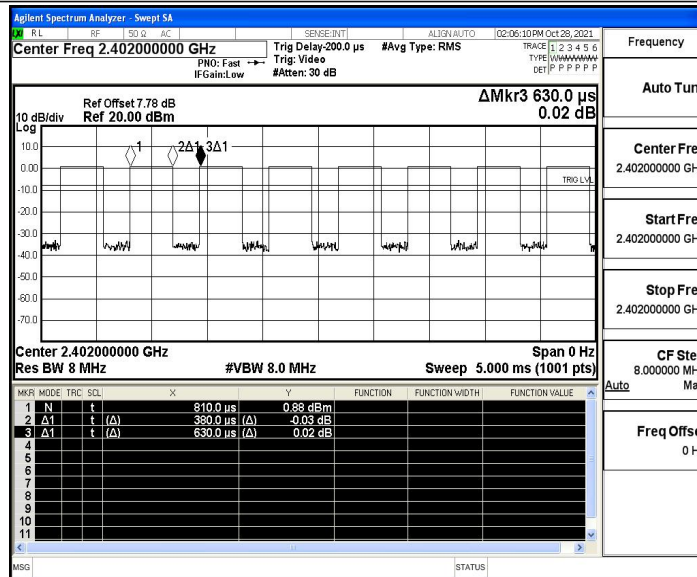
Test Result

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

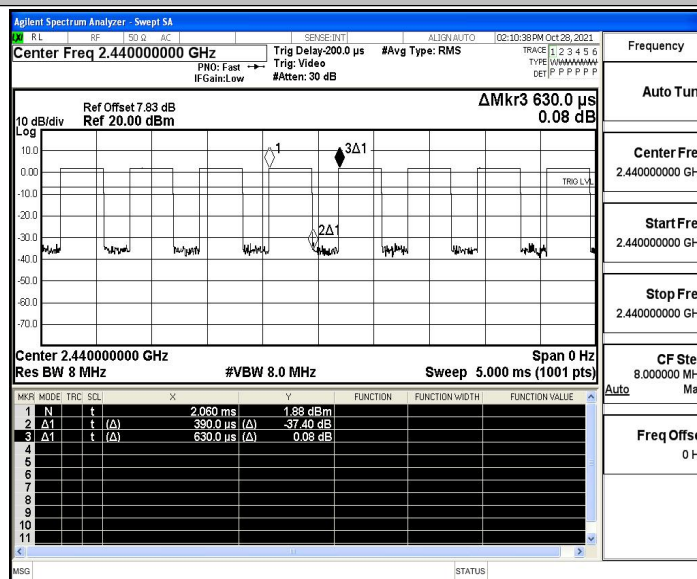


Test Graphs

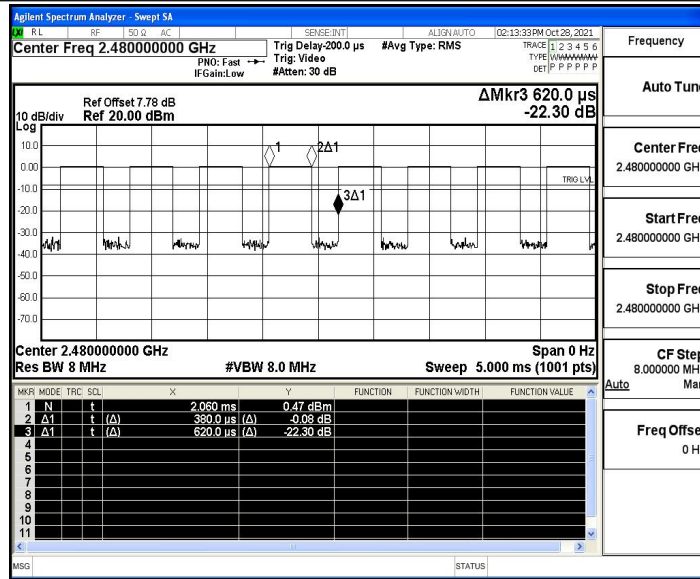
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.8 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	-48.44	≤-41.20	46.76	≤54	PASS
				AV	2375.600	-47.39	≤-41.20	47.81	≤54	PASS
				AV	2390.000	-48.04	≤-41.20	47.16	≤54	PASS
				Peak	2310.000	-43.21	≤-21.20	51.99	≤74	PASS
				Peak	2366.150	-38.9	≤-21.20	56.30	≤74	PASS
				Peak	2390.000	-41.8	≤-21.20	53.40	≤74	PASS
		High	2480	AV	2483.500	-47.17	≤-41.20	48.03	≤54	PASS
				AV	2499.920	-47.12	≤-41.20	48.08	≤54	PASS
				AV	2500.000	-47.38	≤-41.20	47.82	≤54	PASS
				Peak	2483.500	-41.84	≤-21.20	53.36	≤74	PASS
				Peak	2491.200	-39.02	≤-21.20	56.18	≤74	PASS
				Peak	2500.000	-40.73	≤-21.20	54.47	≤74	PASS

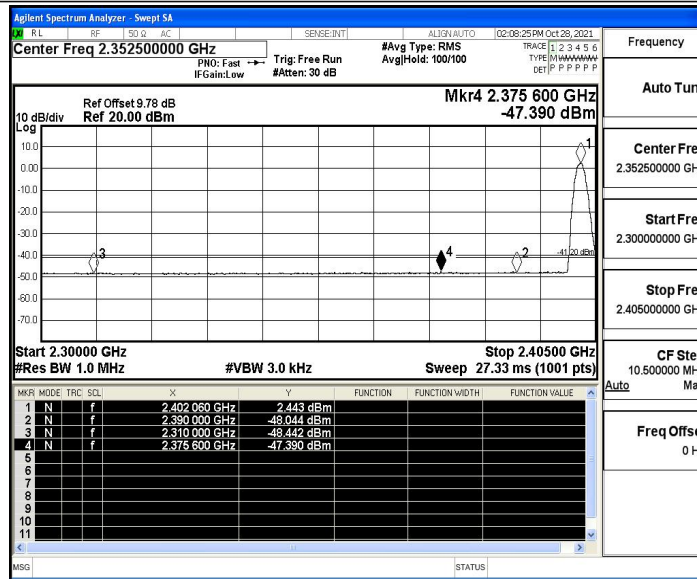
Note:

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.

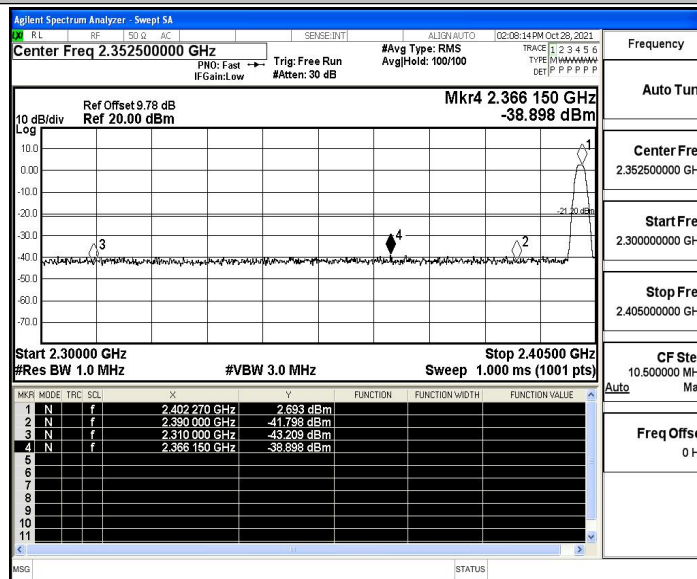


Test Graphs

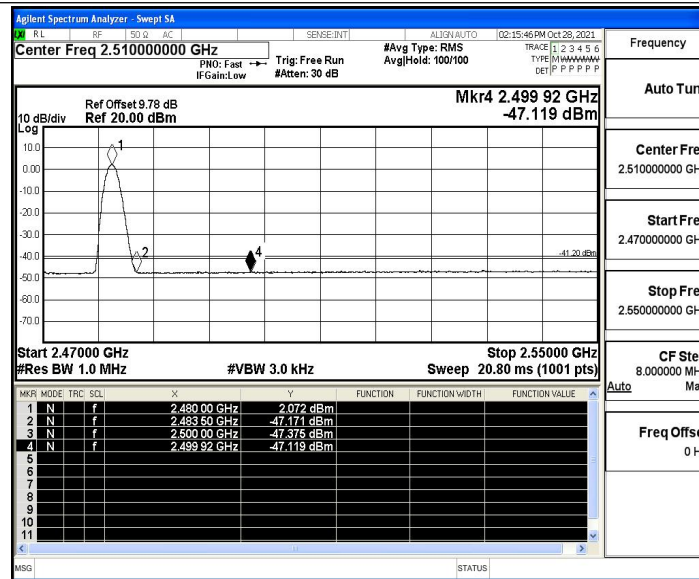
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

