



Appendix A

RF Test Data for BT LE V4.2(DTS) (Conducted Measurement)

Product Name: bluetooth remote control

Trade Mark: N/A

Test Model: Pali M5 BLE

Environmental Conditions

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



A.1 DTS Bandwidth

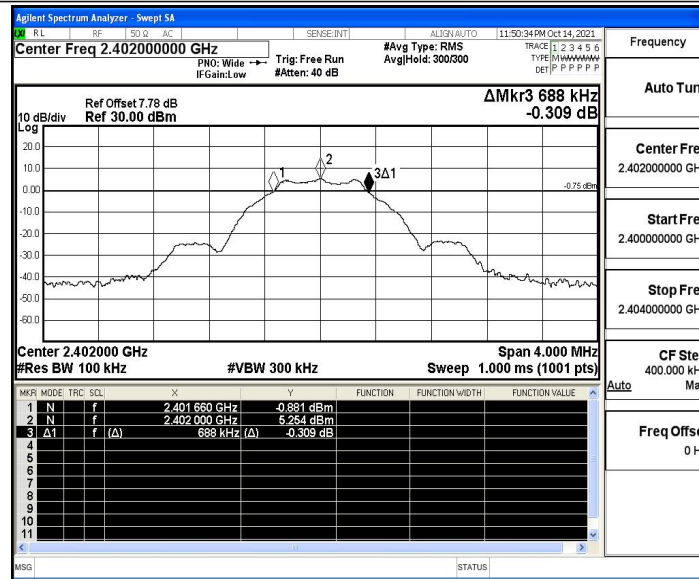
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.688	2401.660	2402.348	≥0.5	PASS
		2440	0.676	2439.660	2440.336	≥0.5	PASS
		2480	0.676	2479.660	2480.336	≥0.5	PASS

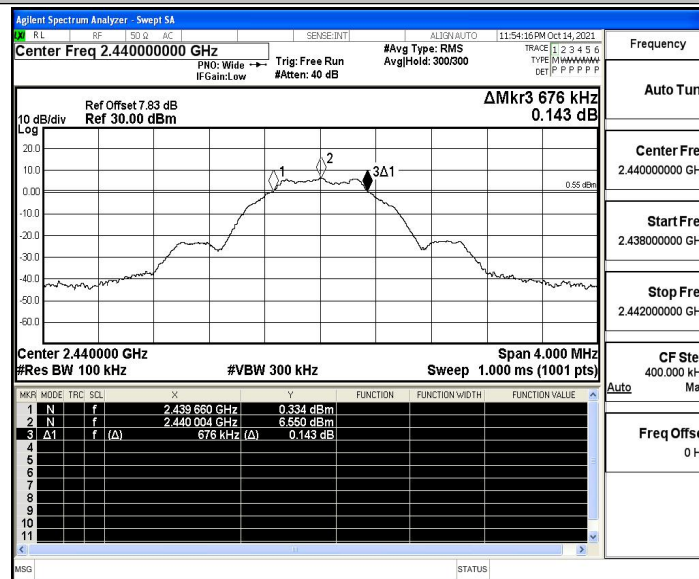


Test Graphs

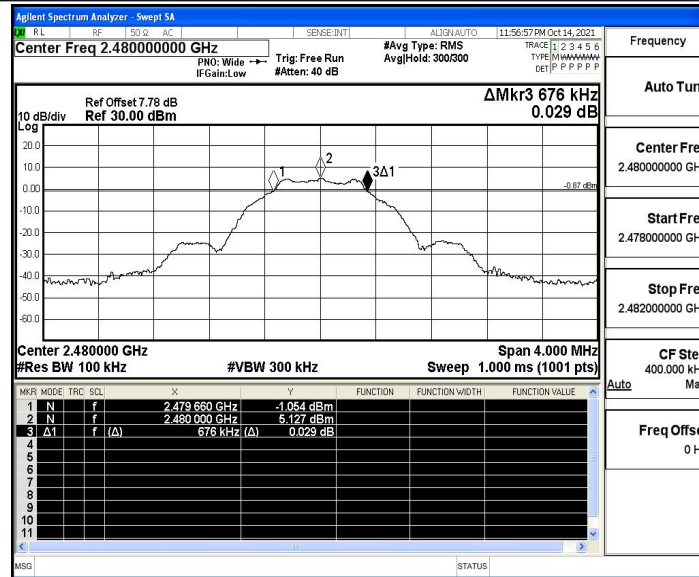
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.2 Maximum peak conducted output power

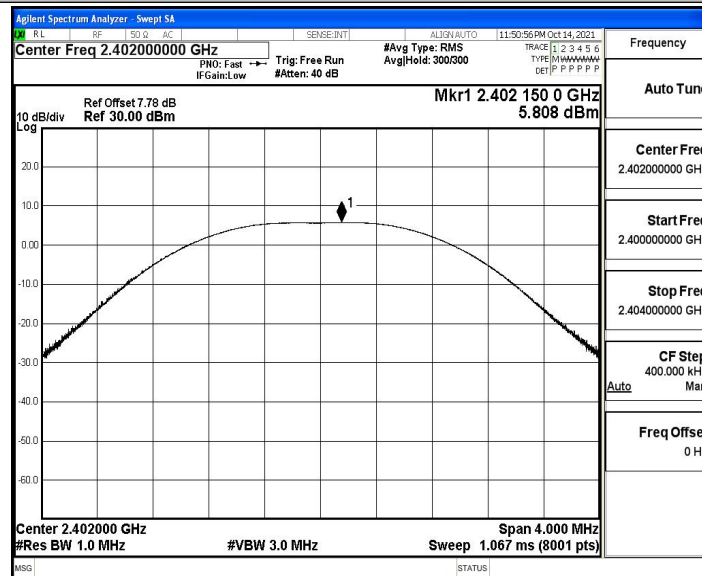
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	5.81	≤30	PASS
		2440	7.07	≤30	PASS
		2480	5.69	≤30	PASS

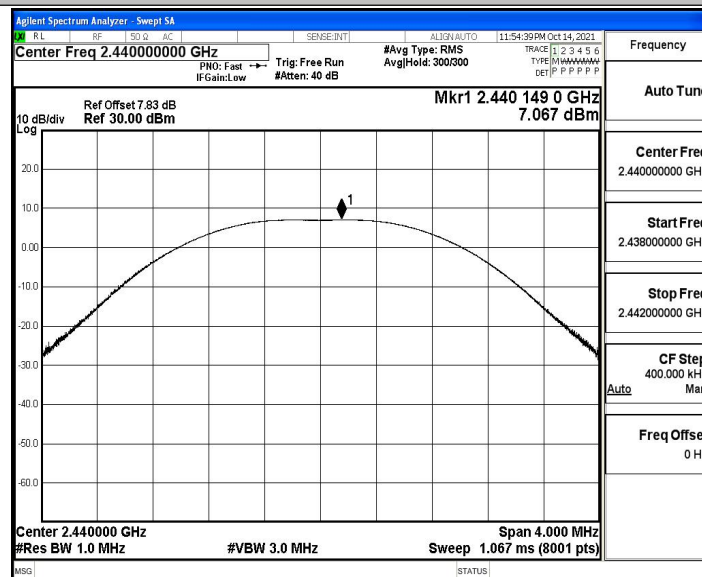


Test Graphs

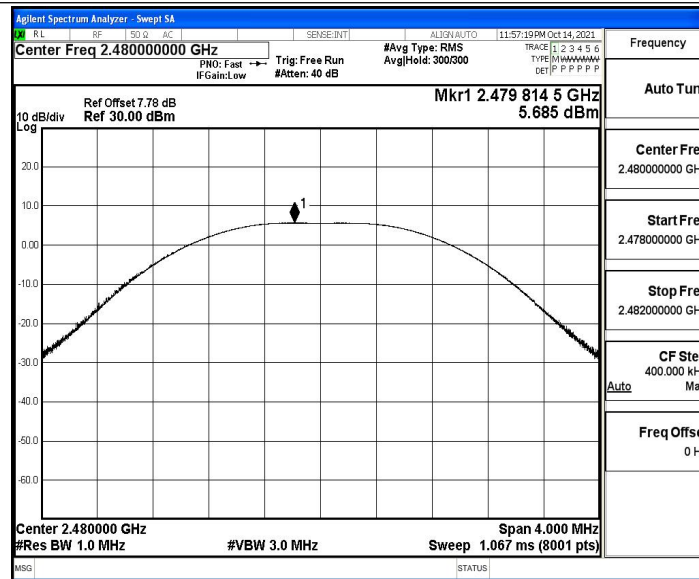
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.3 Maximum power spectral density

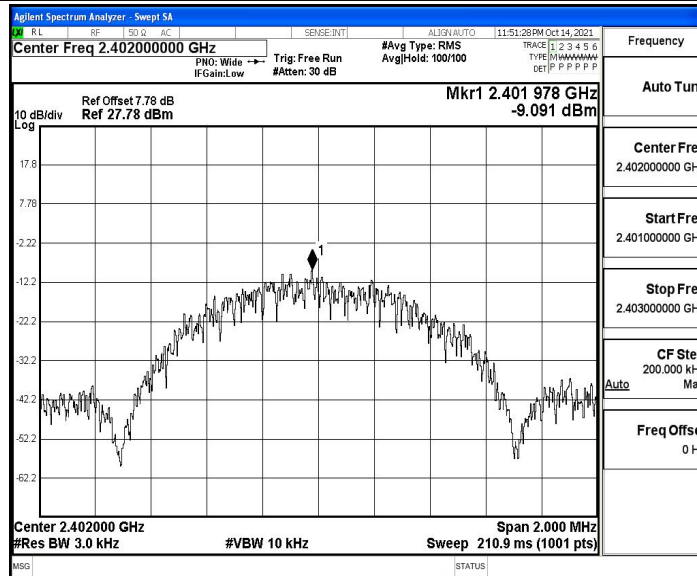
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.09	≤8	PASS
		2440	-7.68	≤8	PASS
		2480	-9.07	≤8	PASS

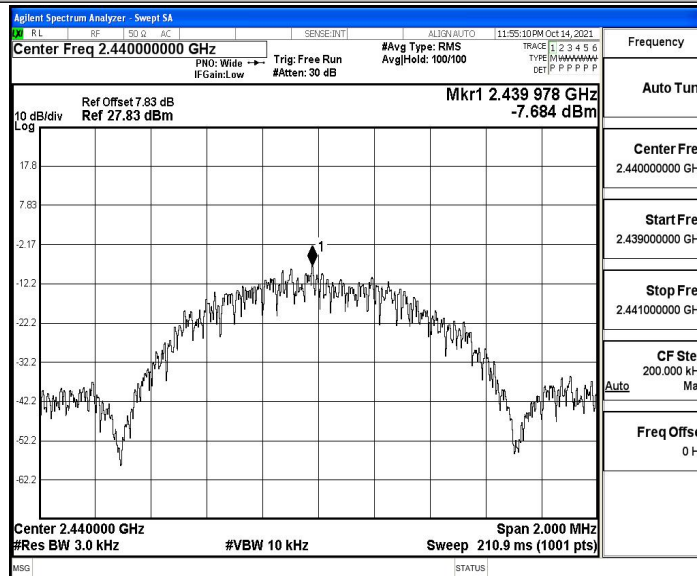


Test Graphs

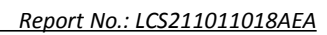
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.4 Band edge measurements

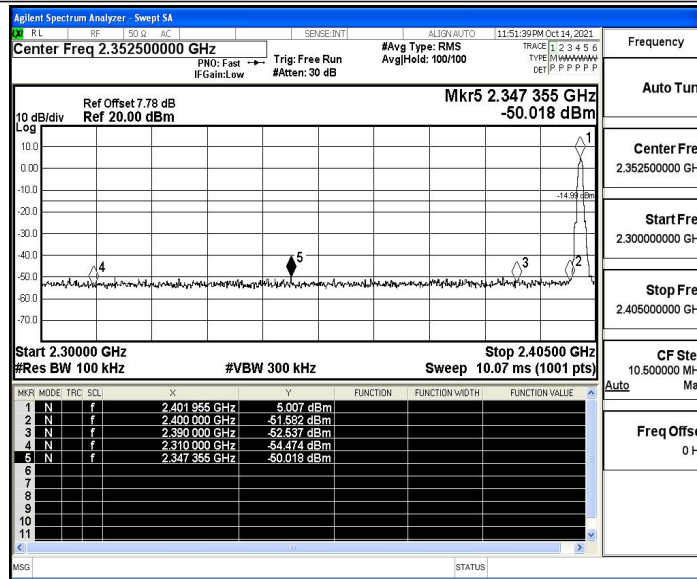
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	5.01	-50.02	≤ -14.99	PASS
		High	2480	5.14	-45.23	≤ -14.86	PASS

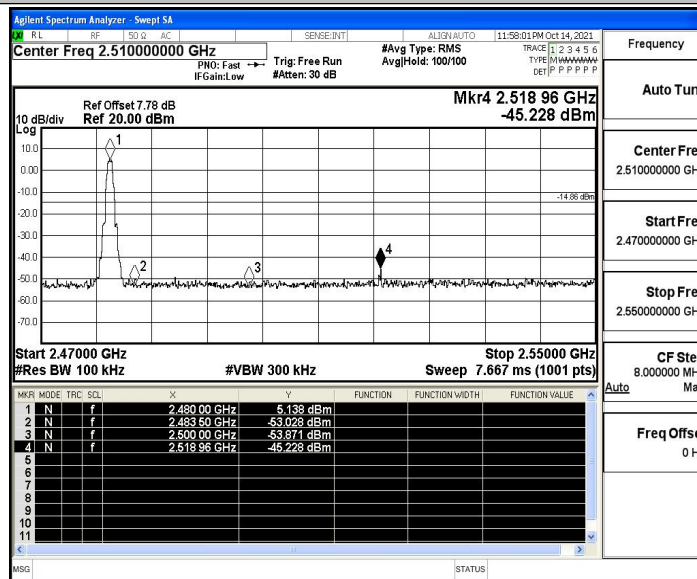


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





A.5 Conducted Spurious Emission

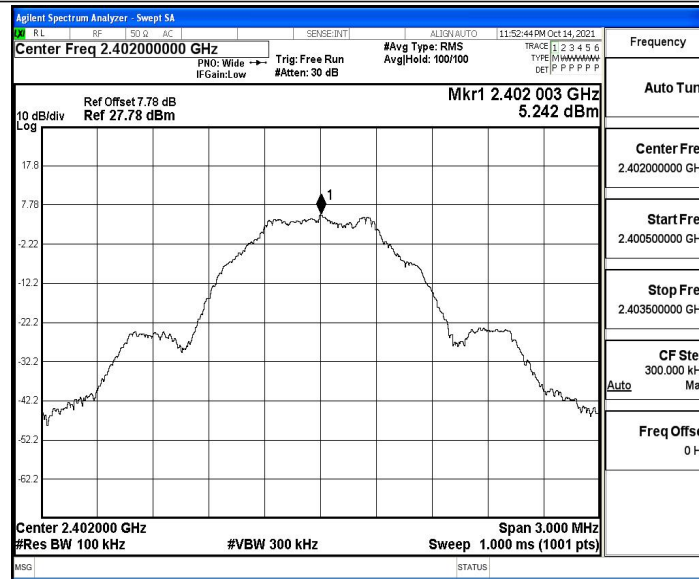
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	5.24	5.24	---	PASS
			30~1000	5.24	-61.48	≤-14.76	PASS
			1000~26500	5.24	-47.57	≤-14.76	PASS
		2440	Reference	5.95	5.95	---	PASS
			30~1000	5.95	-62.11	≤-14.05	PASS
			1000~26500	5.95	-48.08	≤-14.05	PASS
		2480	Reference	5.16	5.16	---	PASS
			30~1000	5.16	-62.16	≤-14.84	PASS
			1000~26500	5.16	-46.79	≤-14.84	PASS

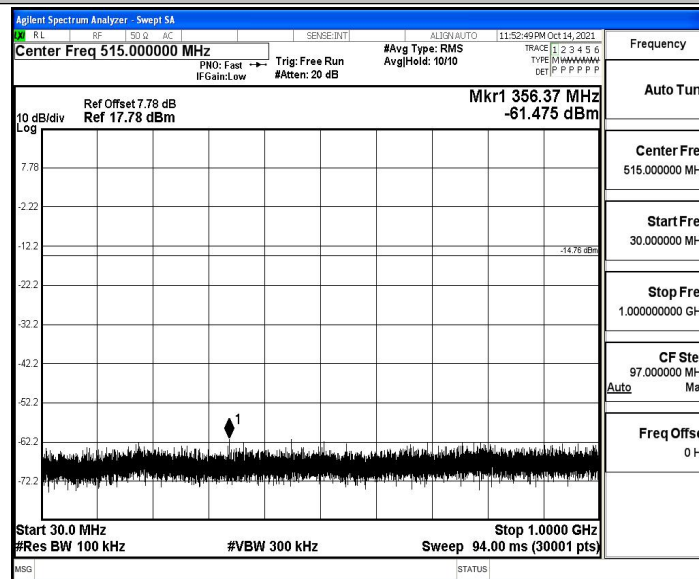


Test Graphs

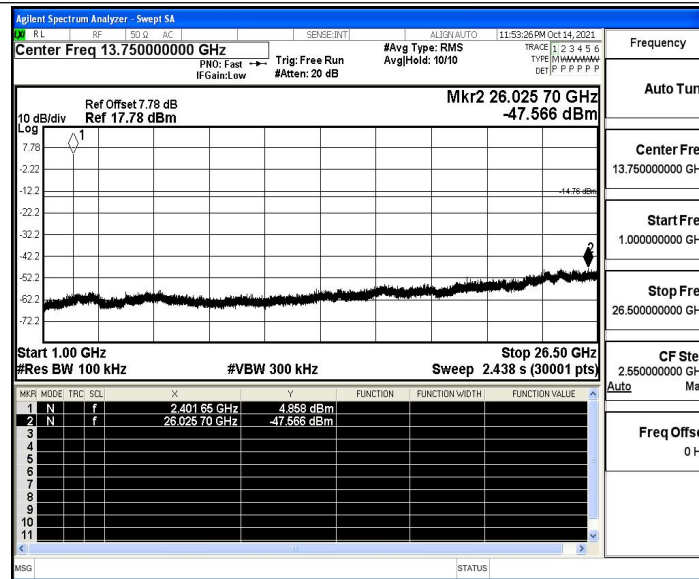
BLE_1M_Ant1_2402_0~Reference



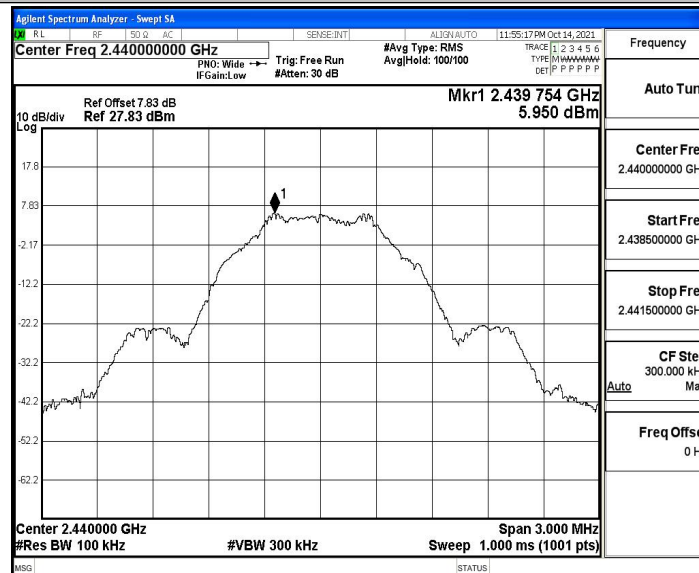
BLE_1M_Ant1_2402_30~1000



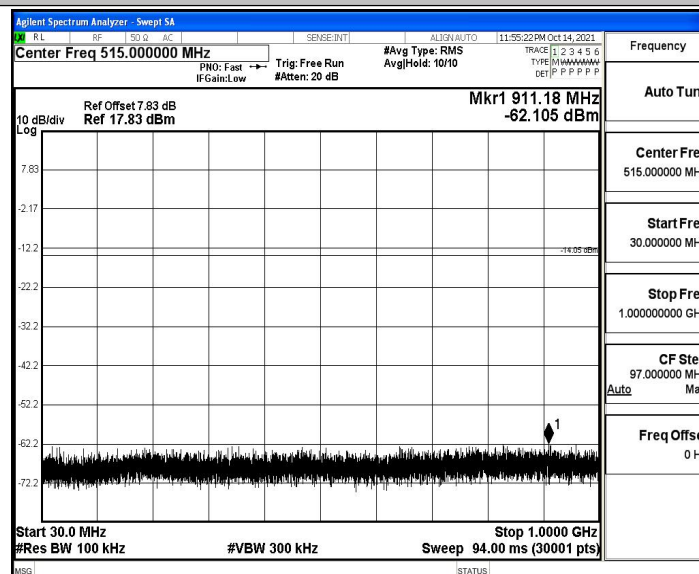
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

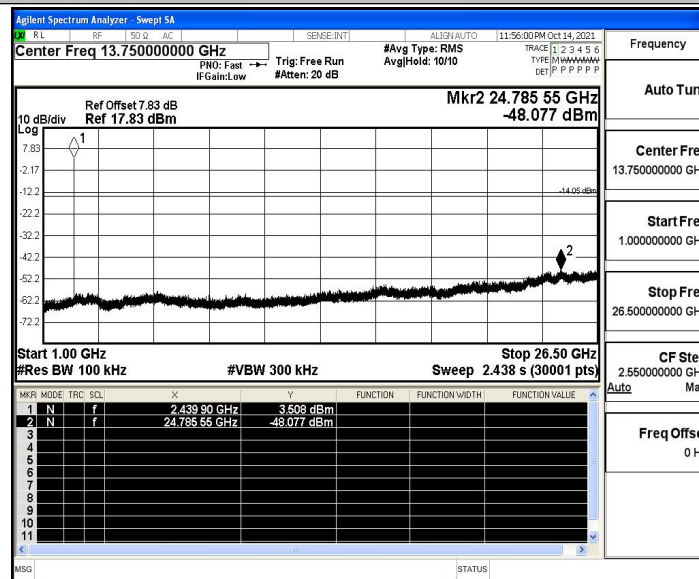


BLE_1M_Ant1_2440_30~1000

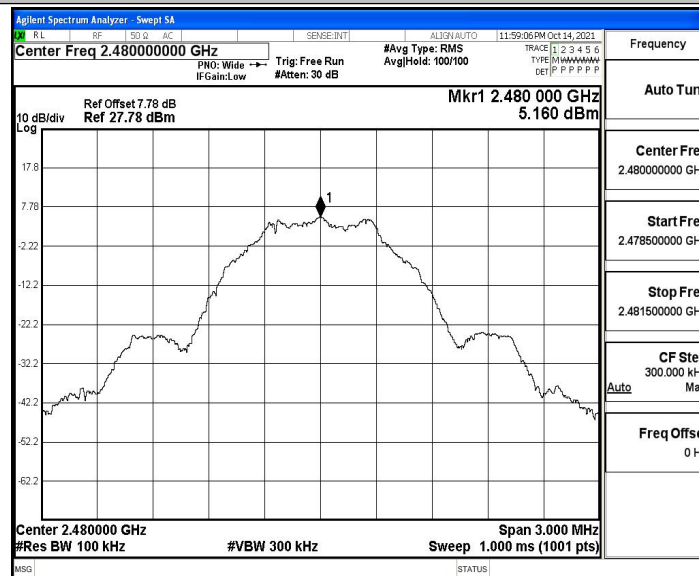




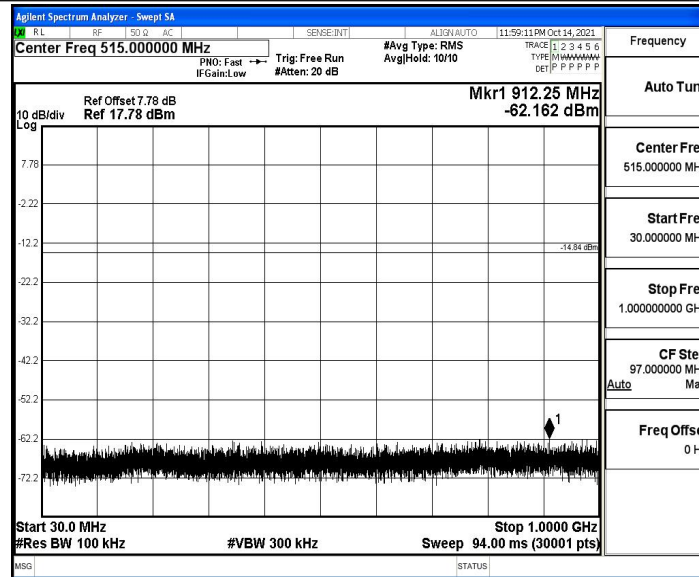
BLE_1M_Ant1_2440_1000~26500



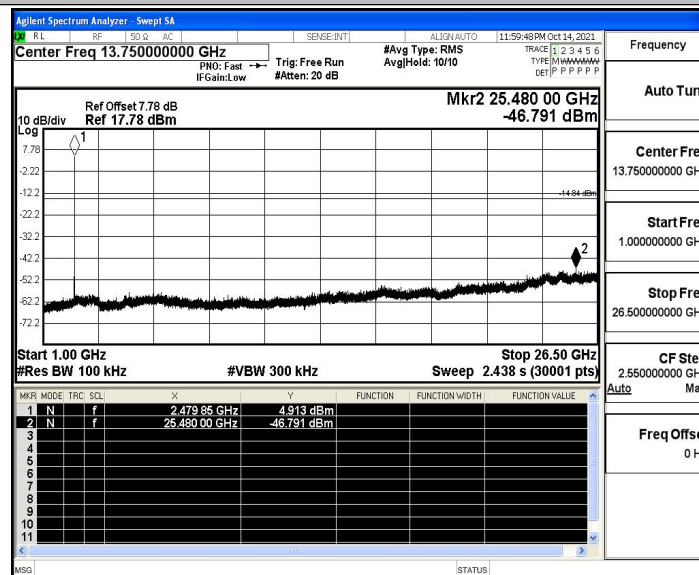
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





A.6 Duty Cycle

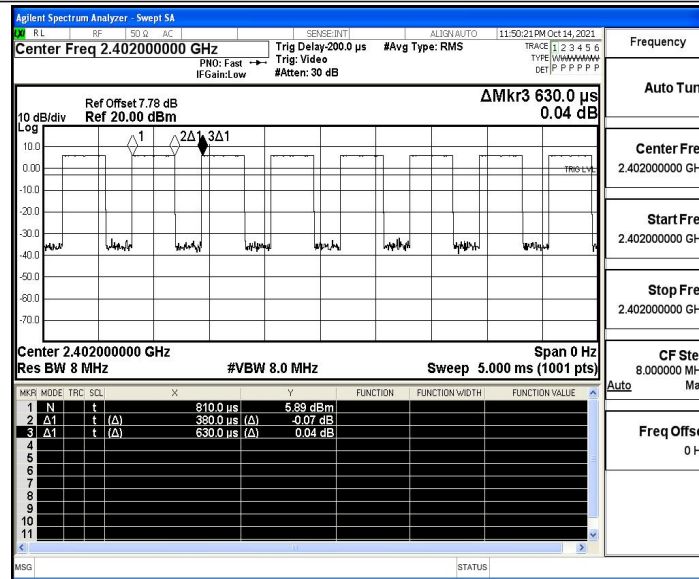
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.38	0.63	0.6032	60.32	2.20	---	PASS
		2440	0.38	0.62	0.6129	61.29	2.13	---	PASS
		2480	0.38	0.62	0.6129	61.29	2.13	---	PASS

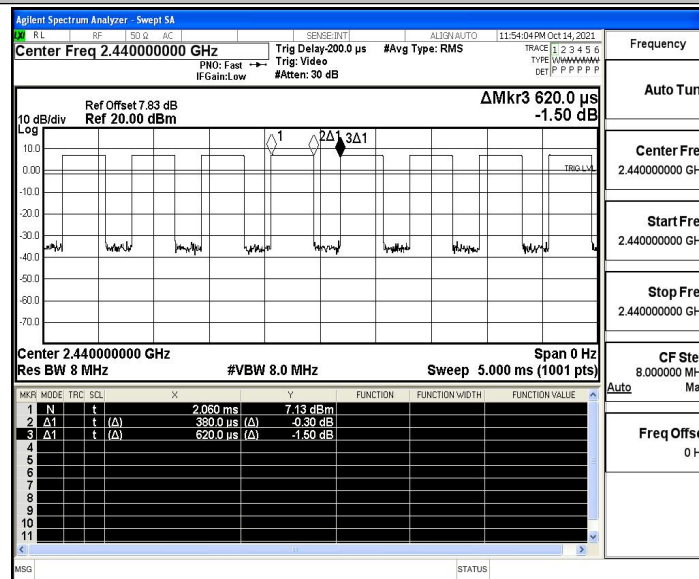


Test Graphs

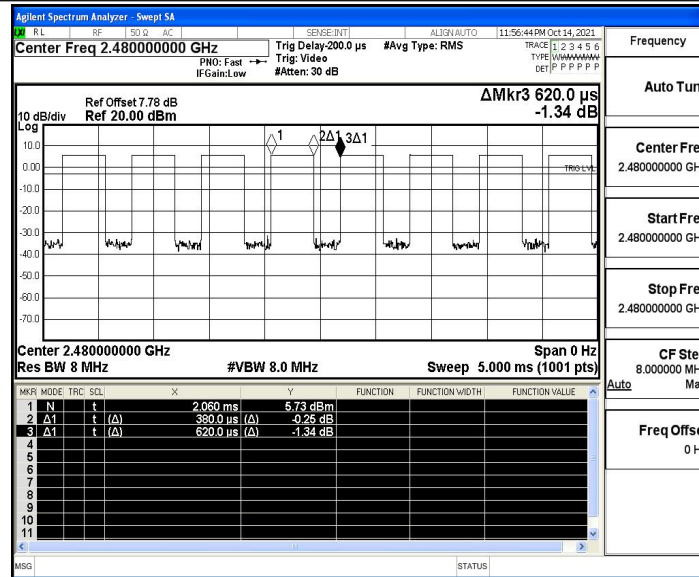
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





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	-48.33	≤-41.20	46.87	≤54	PASS
				AV	2385.470	-47.61	≤-41.20	47.59	≤54	PASS
				AV	2390.000	-48.08	≤-41.20	47.12	≤54	PASS
				Peak	2310.000	-40.7	≤-21.20	54.50	≤74	PASS
				Peak	2383.160	-38.08	≤-21.20	57.12	≤74	PASS
				Peak	2390.000	-41.02	≤-21.20	54.18	≤74	PASS
		High	2480	AV	2483.500	-46.01	≤-41.20	49.19	≤54	PASS
				AV	2483.520	-46.01	≤-41.20	49.19	≤54	PASS
				AV	2500.000	-47.59	≤-41.20	47.61	≤54	PASS
				Peak	2483.500	-41.23	≤-21.20	53.97	≤74	PASS
				Peak	2485.760	-37.92	≤-21.20	57.28	≤74	PASS
				Peak	2500.000	-41.9	≤-21.20	53.30	≤74	PASS

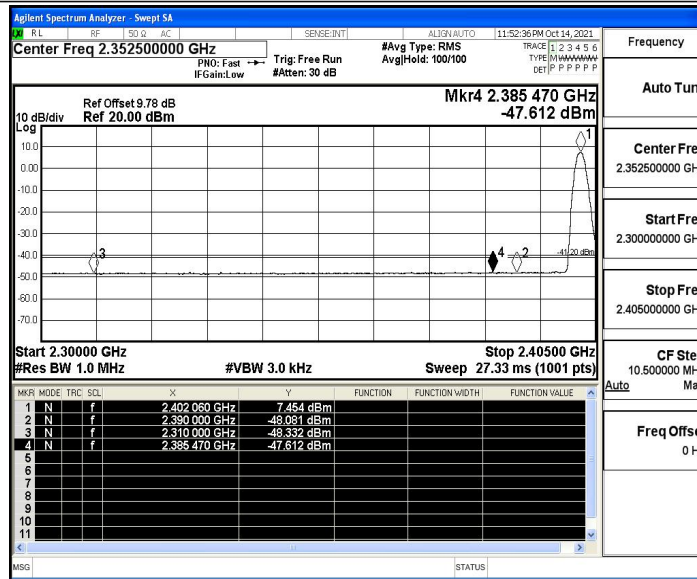
Note:

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.

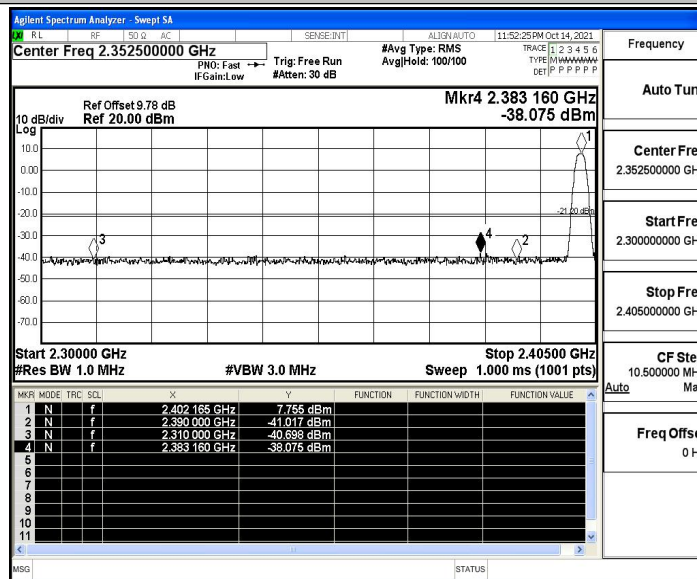


Test Graphs

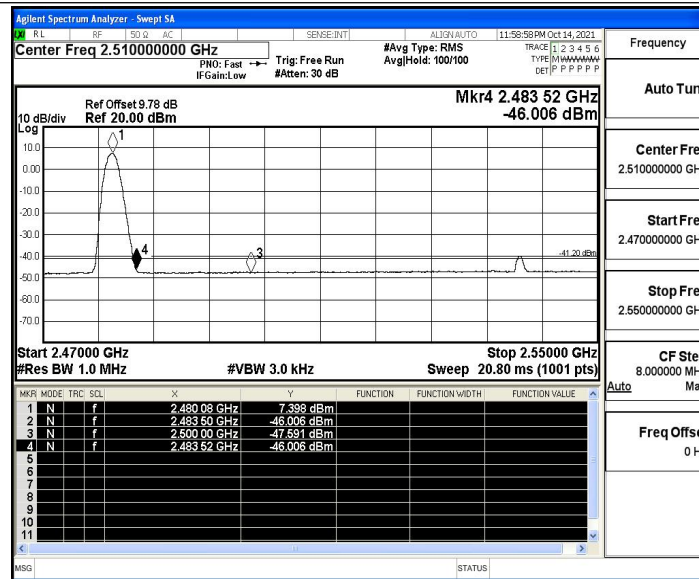
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

