



Appendix B

RF Test Data for BT LE V4.0(DTS) (Conducted Measurement)

Product Name: HyTabPlus

Trade Mark: HYUNDAI

Test Model: HT10LB3MBKWW

Environmental Conditions

Temperature:	21.5 ° C
Relative Humidity:	52.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Ken He
Supervised by:	Li Huan



Appendix B.1: DTS Bandwidth

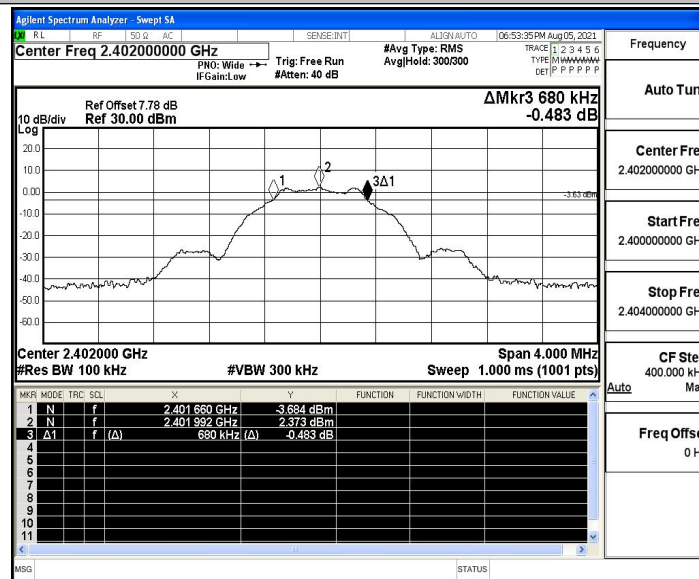
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.680	2401.660	2402.340	≥0.5	PASS
		2440	0.676	2439.668	2440.344	≥0.5	PASS
		2480	0.672	2479.664	2480.336	≥0.5	PASS

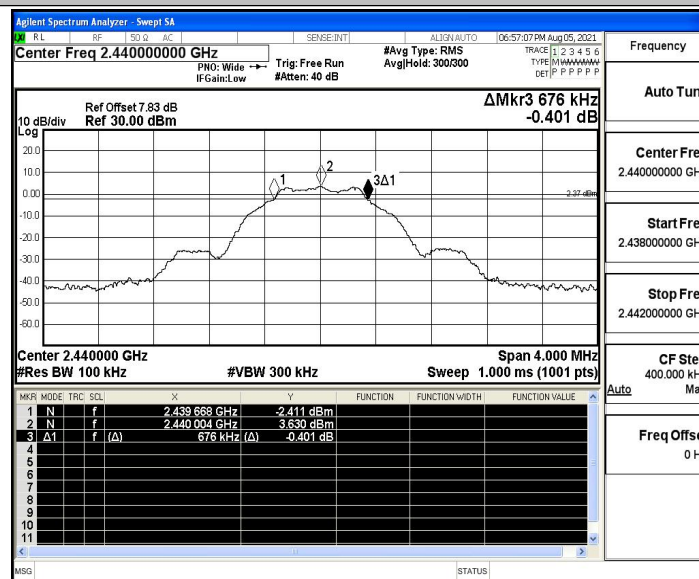


Test Graphs

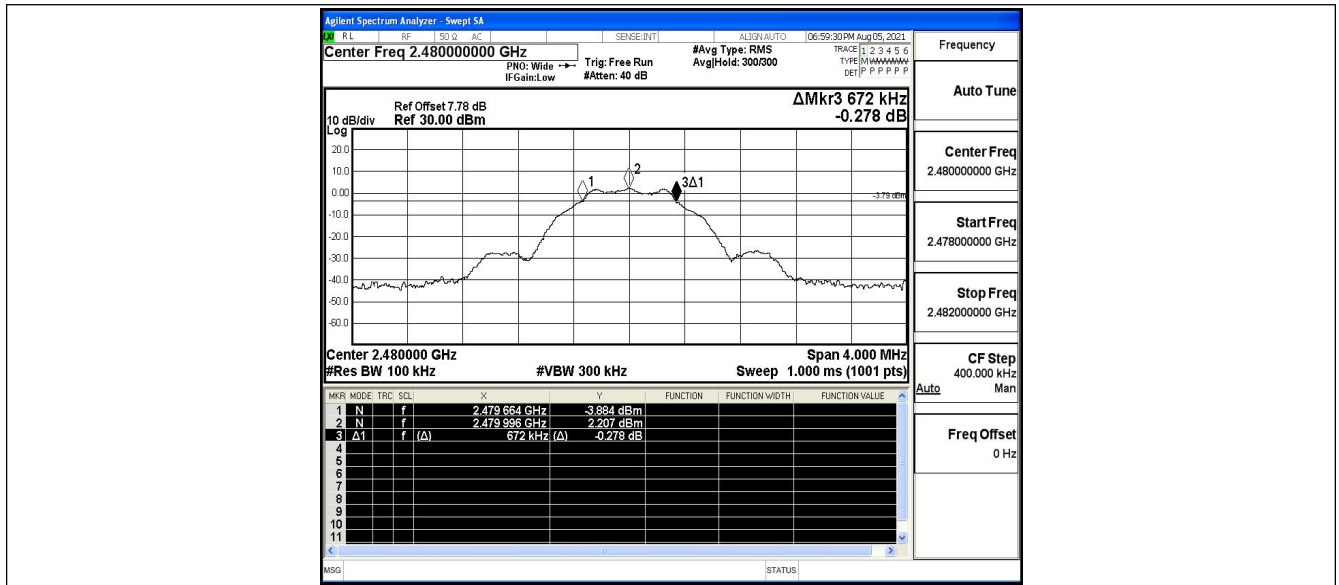
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





Appendix B.2: Maximum peak conducted output power

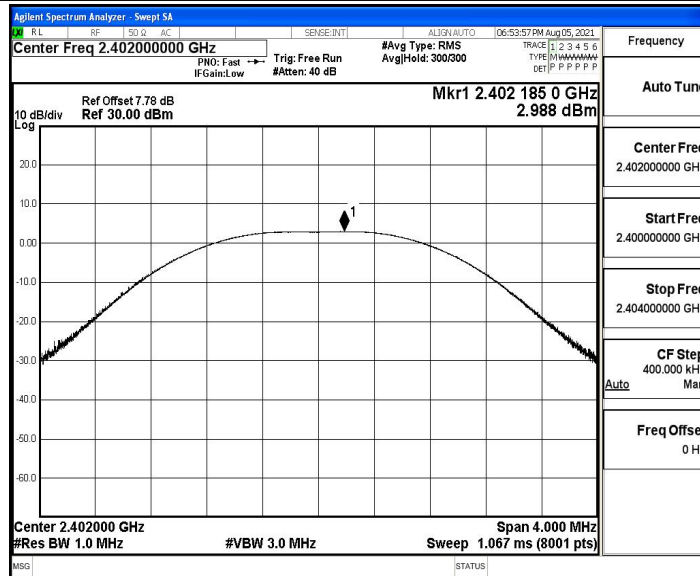
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	2.99	≤30	PASS
		2440	4.21	≤30	PASS
		2480	2.85	≤30	PASS

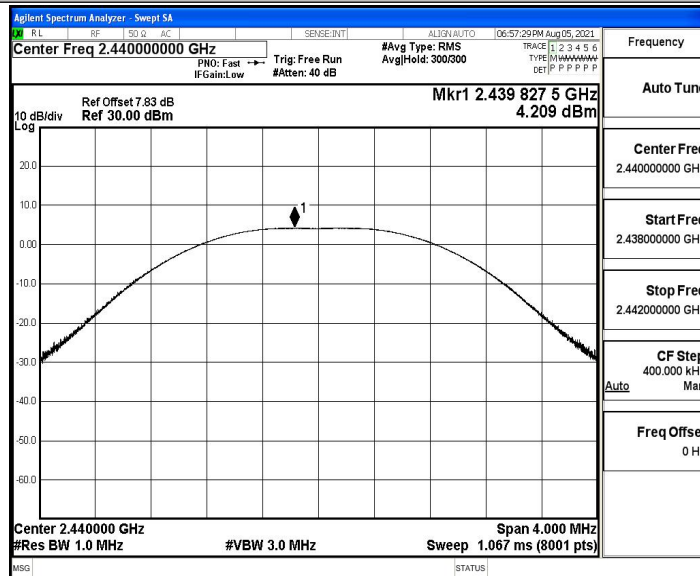


Test Graphs

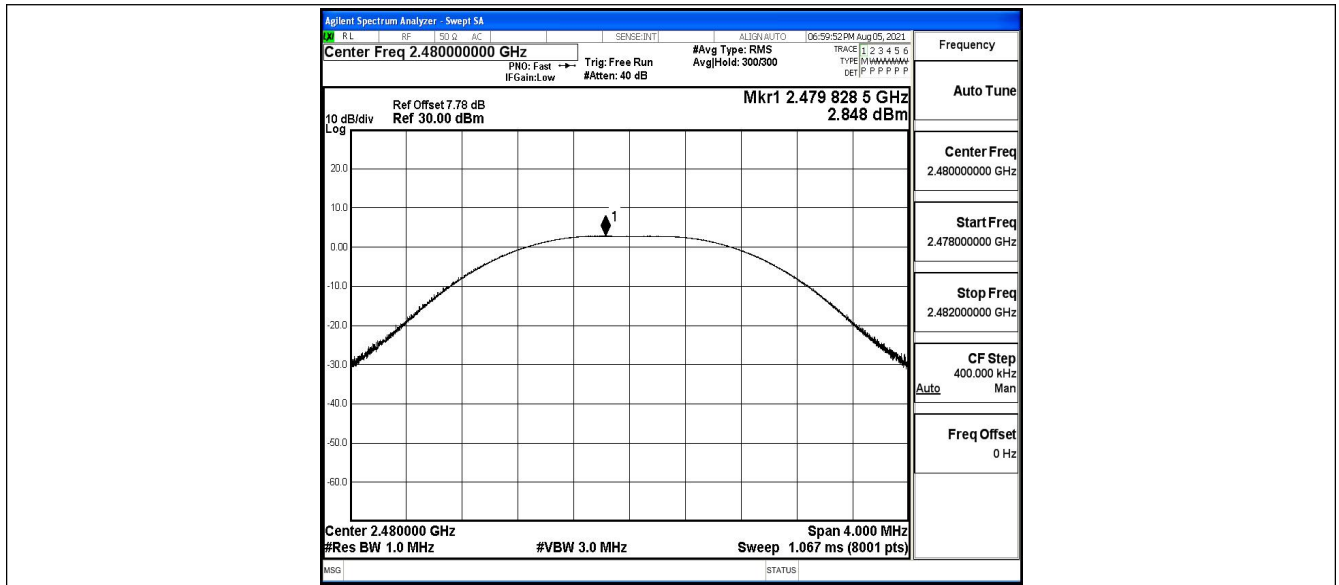
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





Appendix B.3: Maximum power spectral density

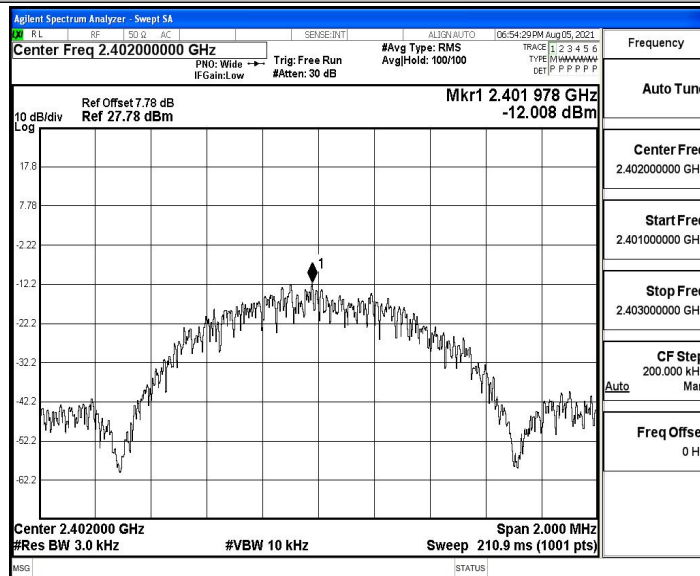
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-12.01	≤8	PASS
		2440	-10.59	≤8	PASS
		2480	-11.98	≤8	PASS

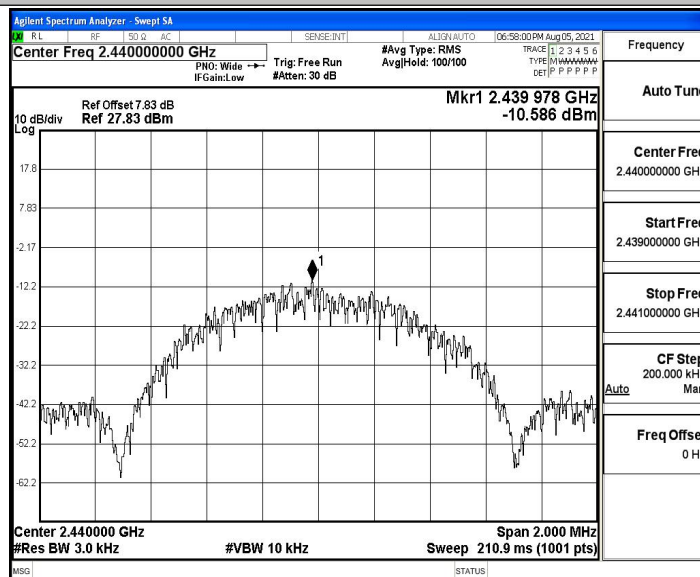


Test Graphs

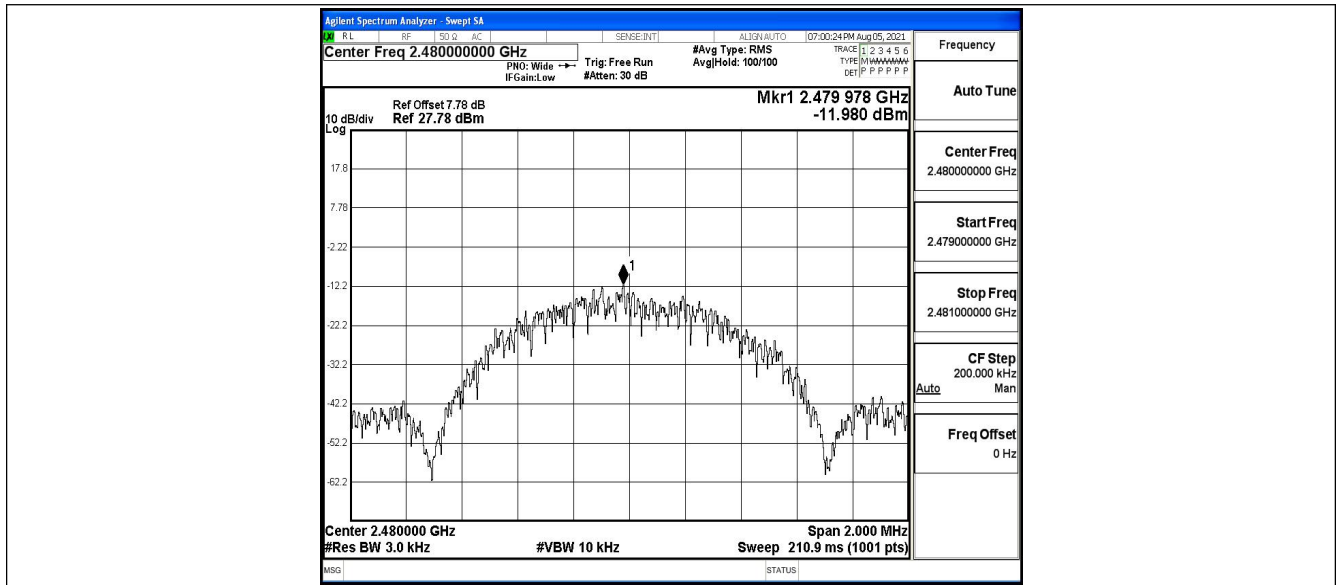
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





Appendix B.4: Band edge measurements

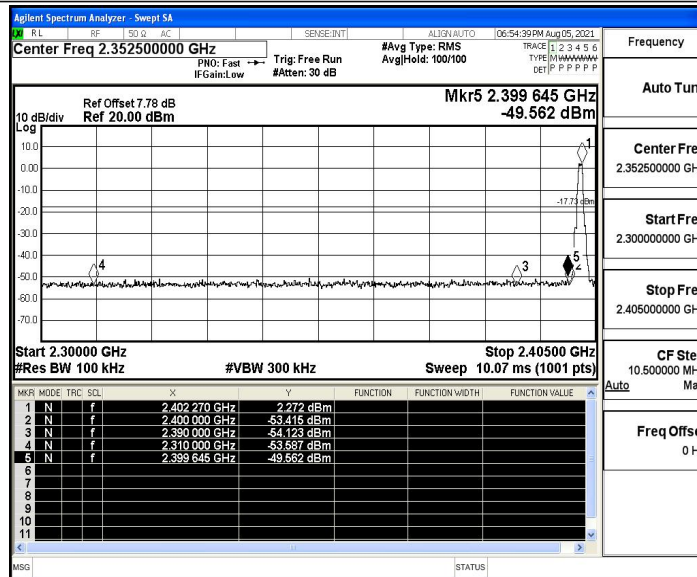
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	2.27	-49.56	≤ -17.73	PASS
		High	2480	2.14	-48.33	≤ -17.86	PASS

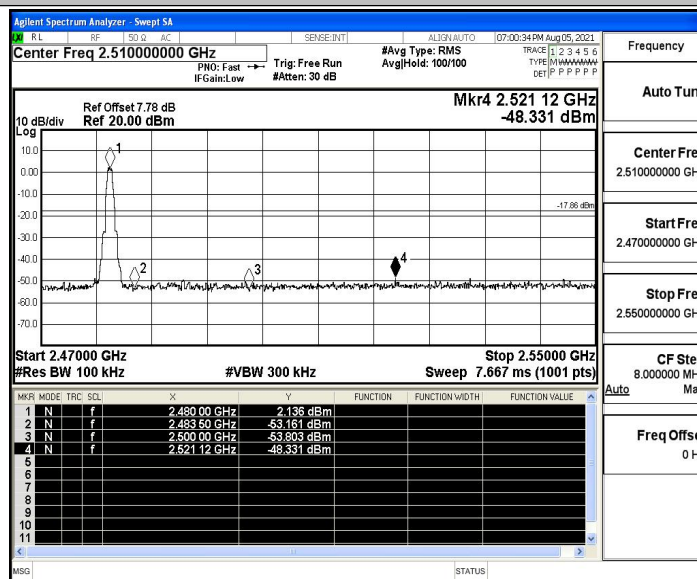


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





Appendix B.5: Conducted Spurious Emission

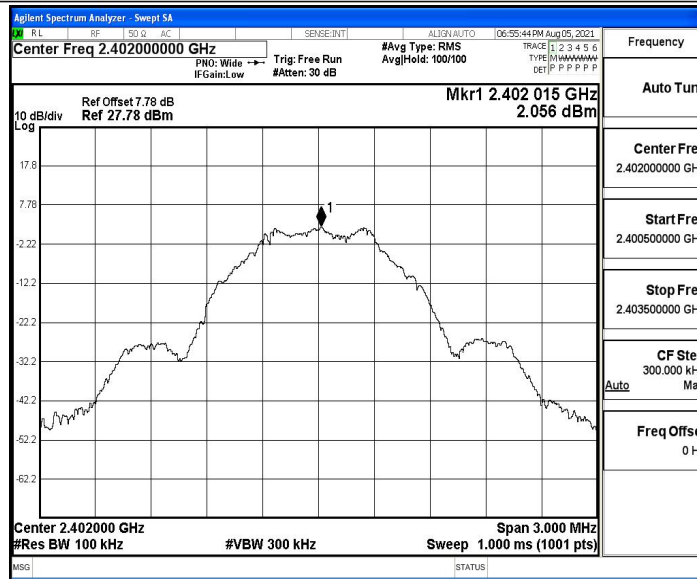
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	2.06	2.06	---	PASS
			30~1000	2.06	-61.78	≤ -17.94	PASS
			1000~26500	2.06	-47.37	≤ -17.94	PASS
		2440	Reference	3.62	3.62	---	PASS
			30~1000	3.62	-61.29	≤ -16.38	PASS
			1000~26500	3.62	-47.19	≤ -16.38	PASS
		2480	Reference	2.25	2.25	---	PASS
			30~1000	2.25	-61.57	≤ -17.75	PASS
			1000~26500	2.25	-47.04	≤ -17.75	PASS

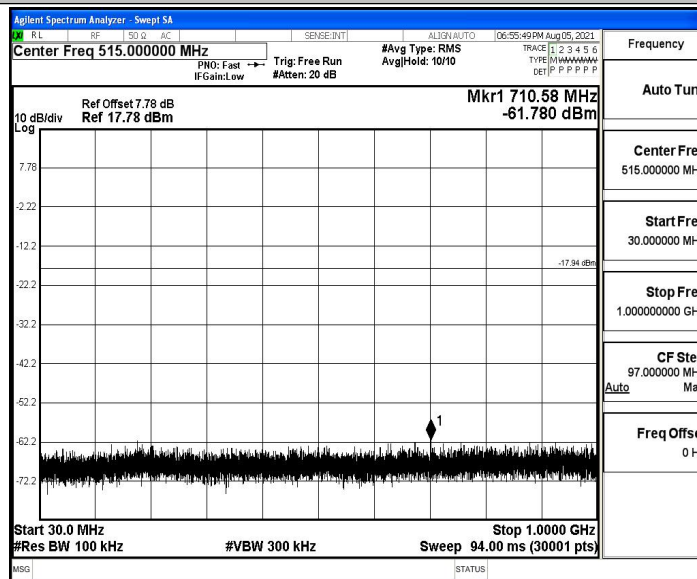


Test Graphs

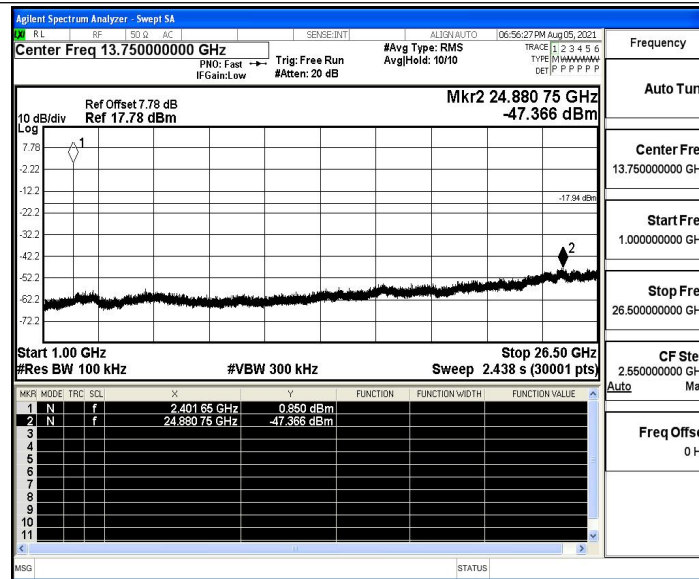
BLE_1M_Ant1_2402_0~Reference



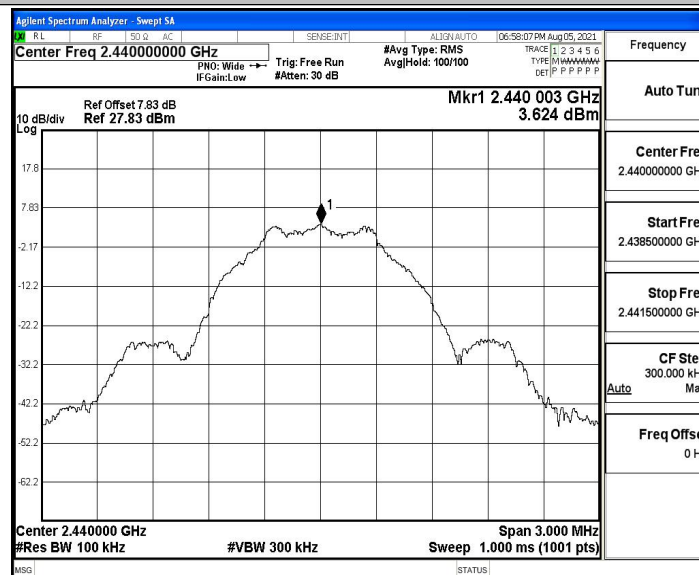
BLE_1M_Ant1_2402_30~1000



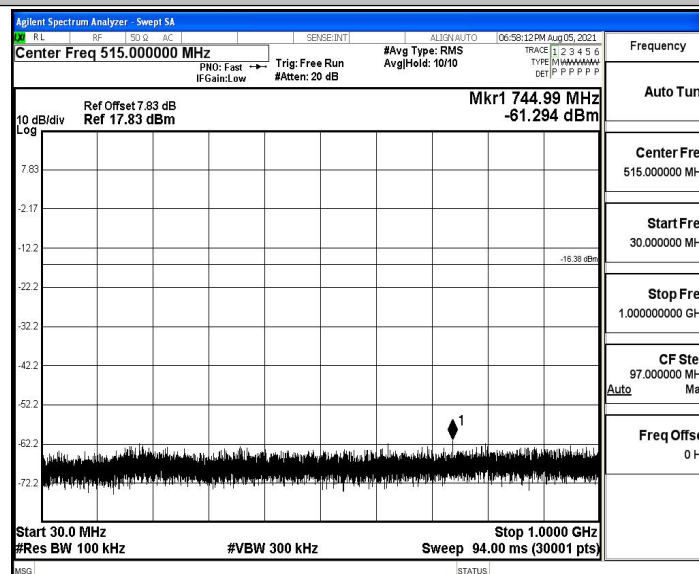
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

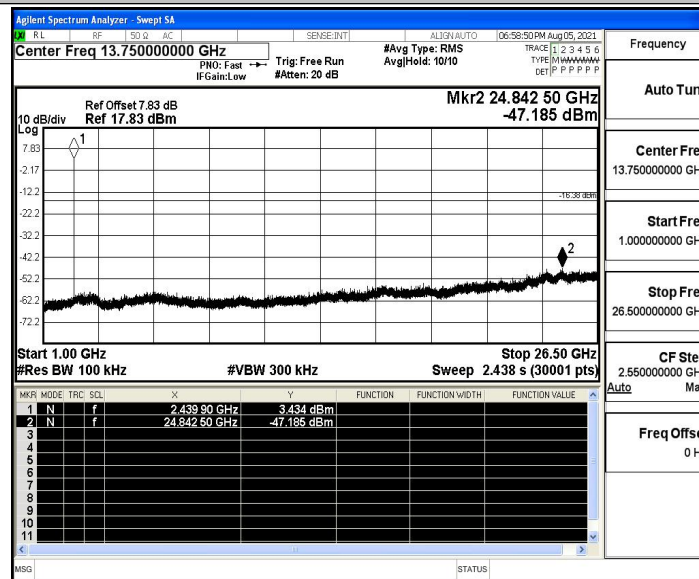


BLE_1M_Ant1_2440_30~1000

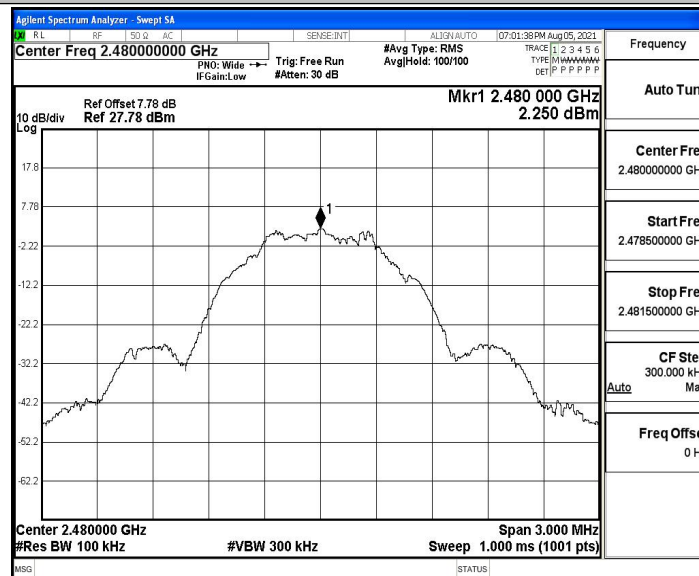




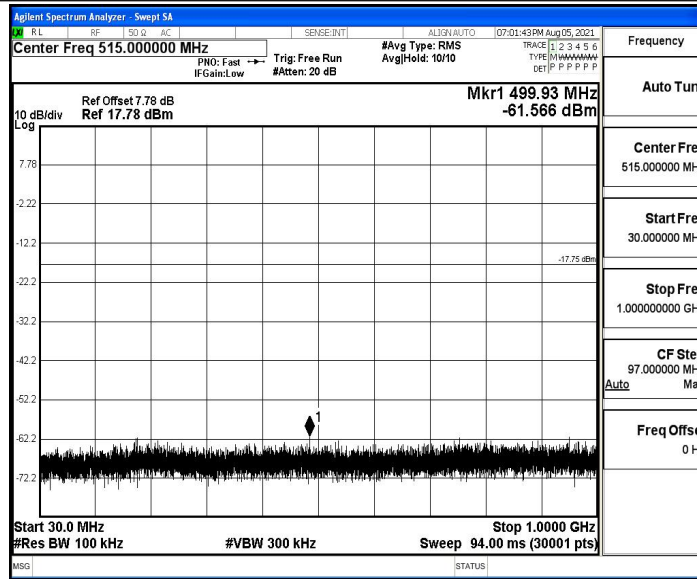
BLE_1M_Ant1_2440_1000~26500



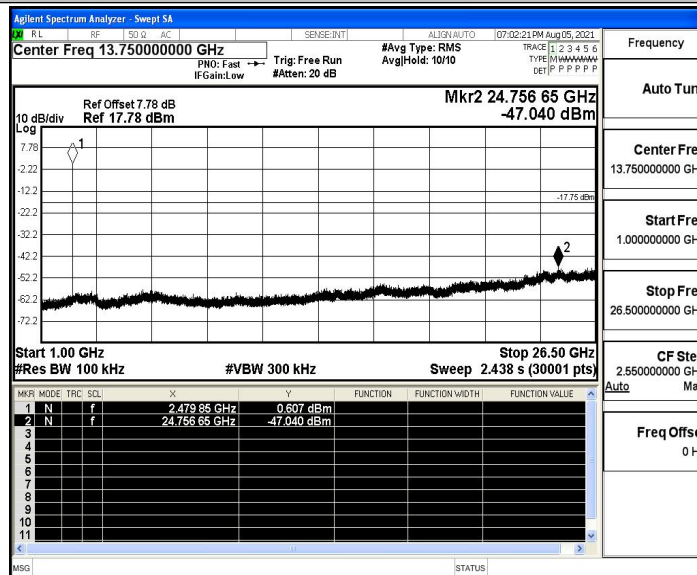
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





Appendix B.6: Duty Cycle

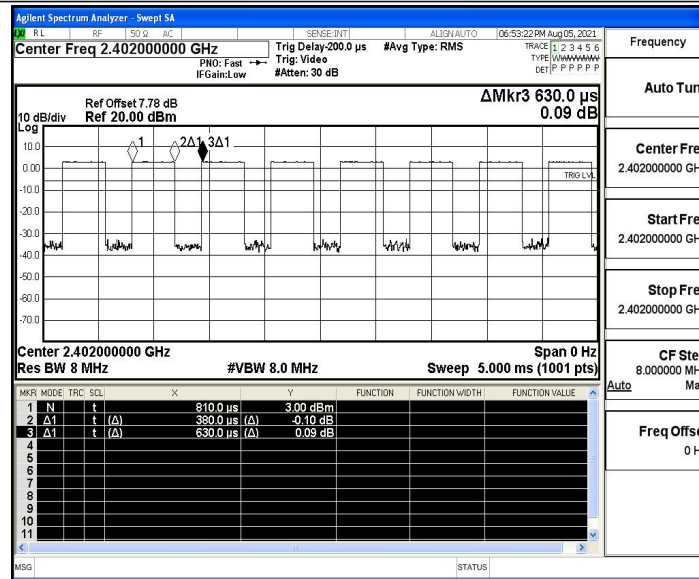
Test Result

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

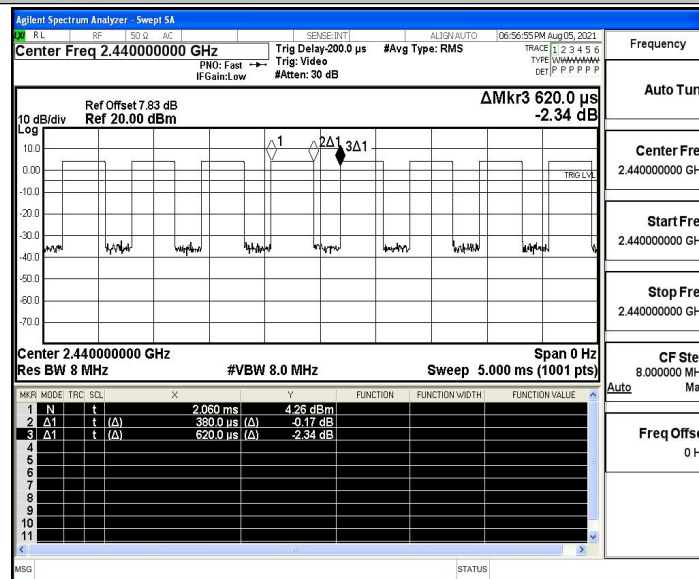


Test Graphs

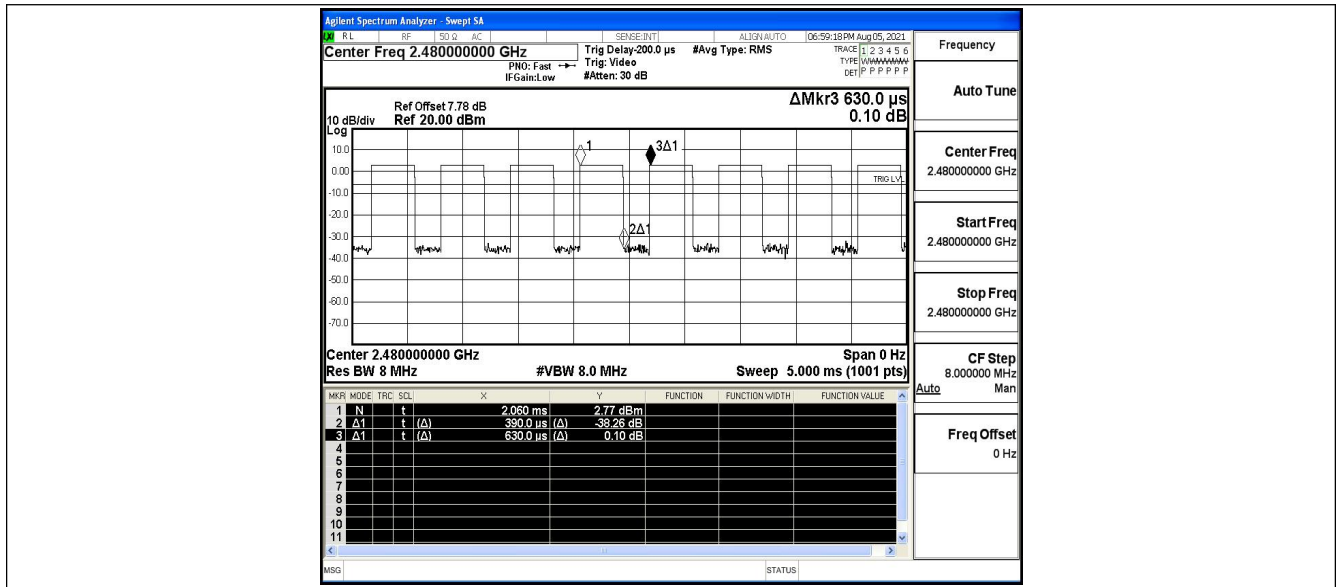
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





Appendix B.7: Emissions in Restricted Bands

Test Result

TestMode	Antenna	Channel Name	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	48.99	≤54	PASS
				AV	2387.150	-47.62	≤-41.20	49.61	≤54	PASS
				AV	2390.000	-48.1	≤-41.20	49.13	≤54	PASS
				Peak	2310.000	-42.25	≤-21.20	54.98	≤74	PASS
				Peak	2354.915	-38.85	≤-21.20	58.38	≤74	PASS
				Peak	2390.000	-40.34	≤-21.20	56.89	≤74	PASS
		High	2480	AV	2483.500	-47.08	≤-41.20	50.15	≤54	PASS
				AV	2484.240	-47.07	≤-41.20	50.16	≤54	PASS
				AV	2500.000	-47.45	≤-41.20	49.78	≤54	PASS
				Peak	2483.500	-40.87	≤-21.20	56.36	≤74	PASS
				Peak	2485.360	-38.31	≤-21.20	58.92	≤74	PASS
				Peak	2500.000	-40.76	≤-21.20	56.47	≤74	PASS

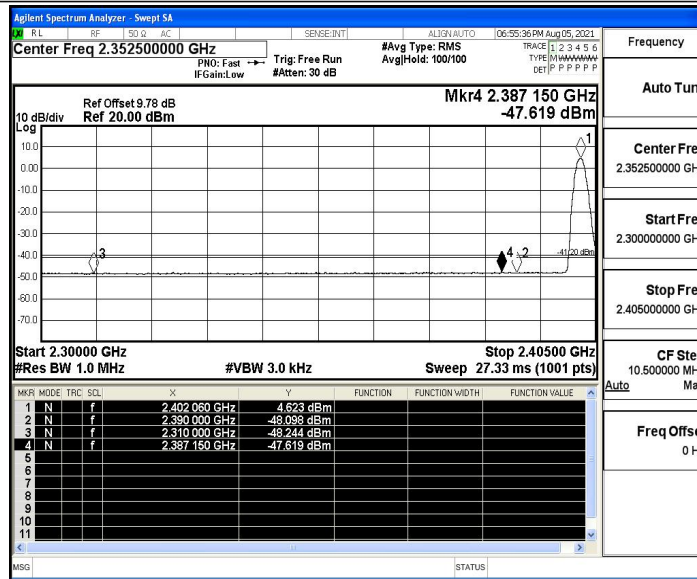
Note:

1. 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.

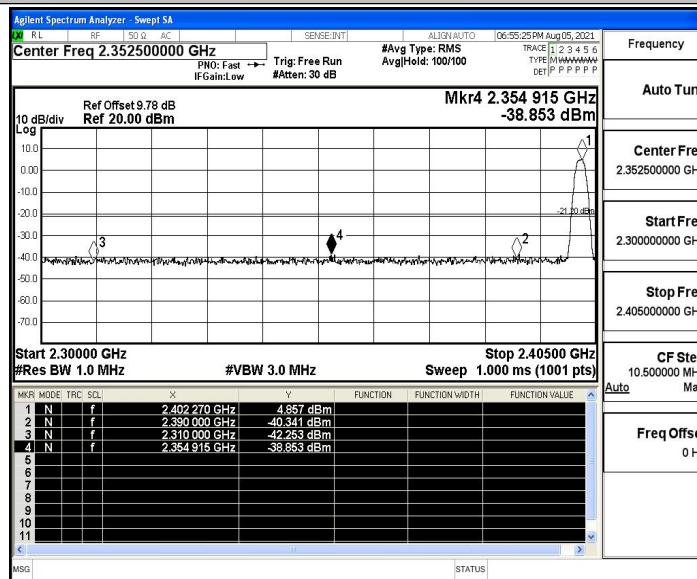


Test Graphs

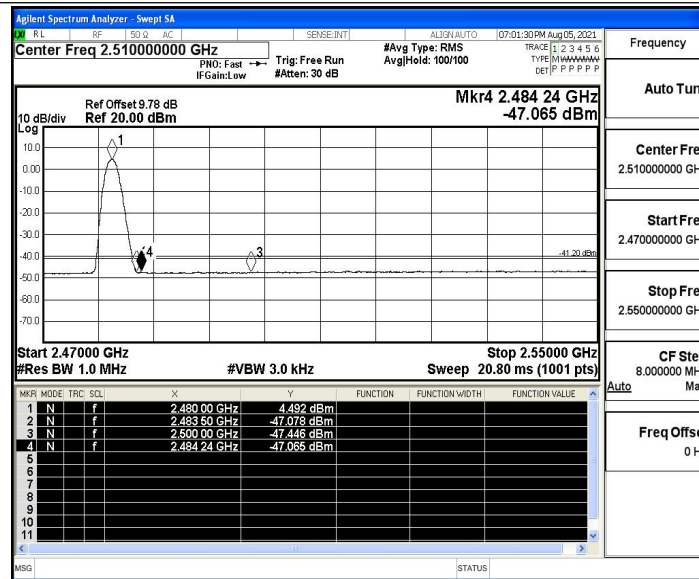
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

