



Appendix B

RF Test Data for BT V5.2(Conducted Measurement)

Product Name: Urbanista Lisbon

Test Model: Urbanista Lisbon

Environmental Conditions

Temperature:	21.6 ° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

B.1 6dB Bandwidth

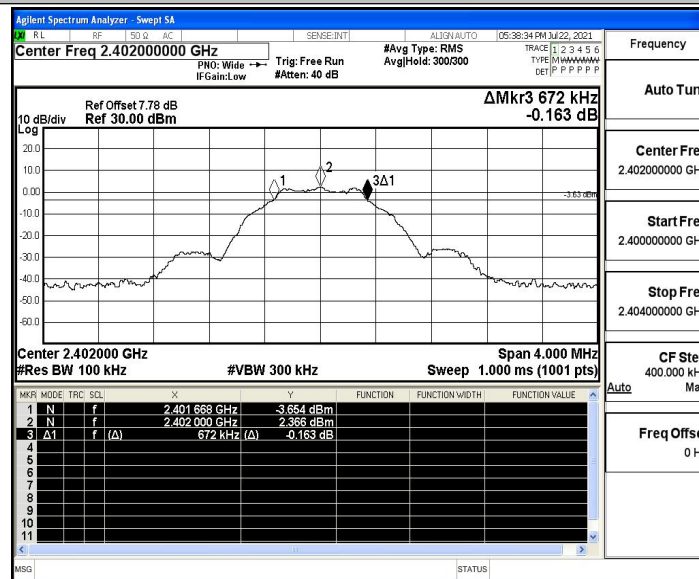
Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.672	2401.668	2402.340	≥0.5	PASS
		2440	0.692	2439.656	2440.348	≥0.5	PASS
		2480	0.676	2479.660	2480.336	≥0.5	PASS

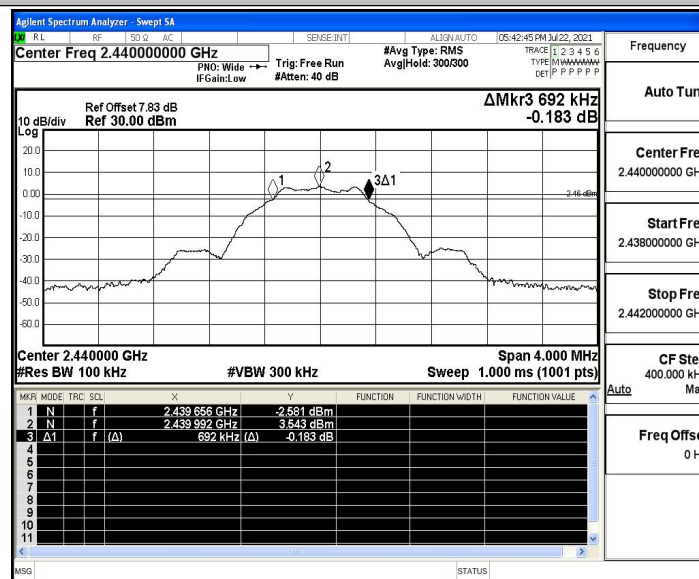


Test Graphs

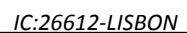
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





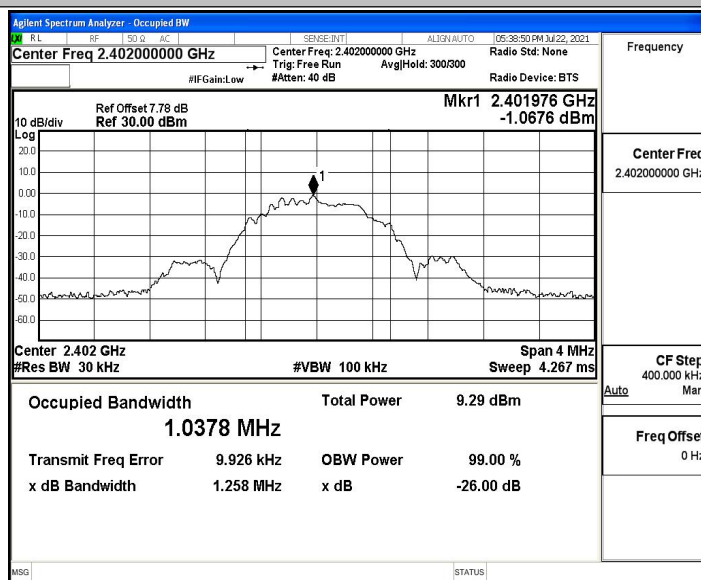
B.2 Occupied Channel Bandwidth

Test Result

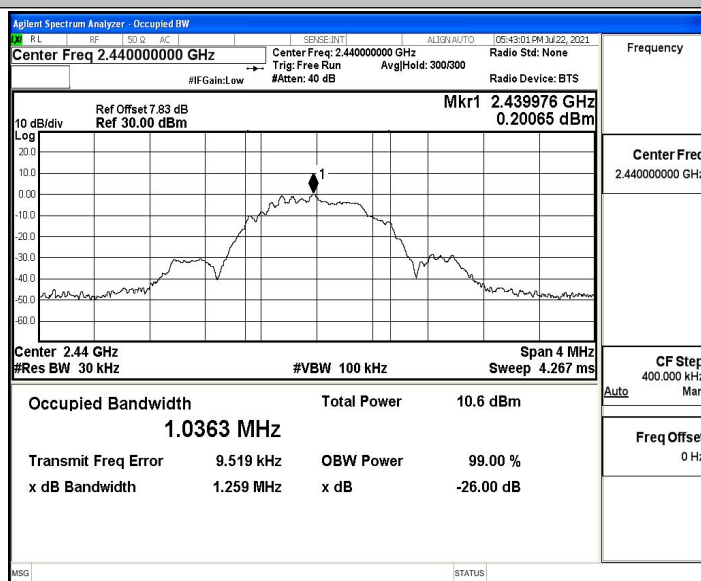
Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0378	2401.491	2402.529	---	PASS
		2440	1.0363	2439.491	2440.528	---	PASS
		2480	1.0370	2479.490	2480.527	---	PASS

Test Graphs

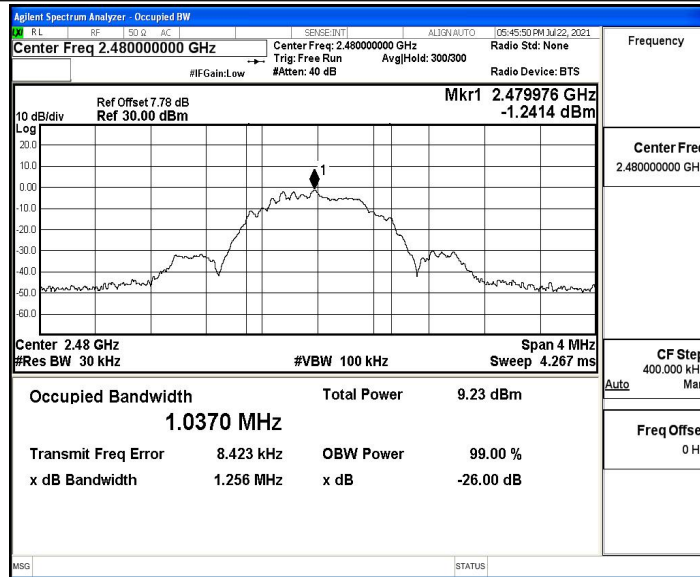
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





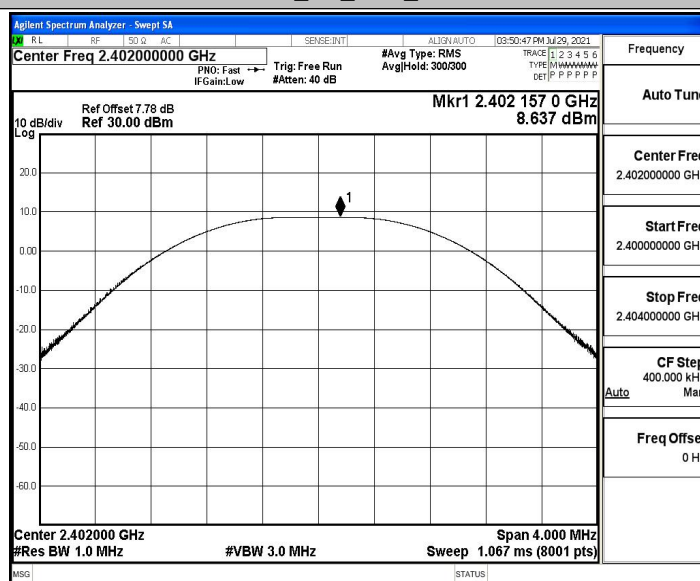
B.3 Maximum conducted output power

Test Result

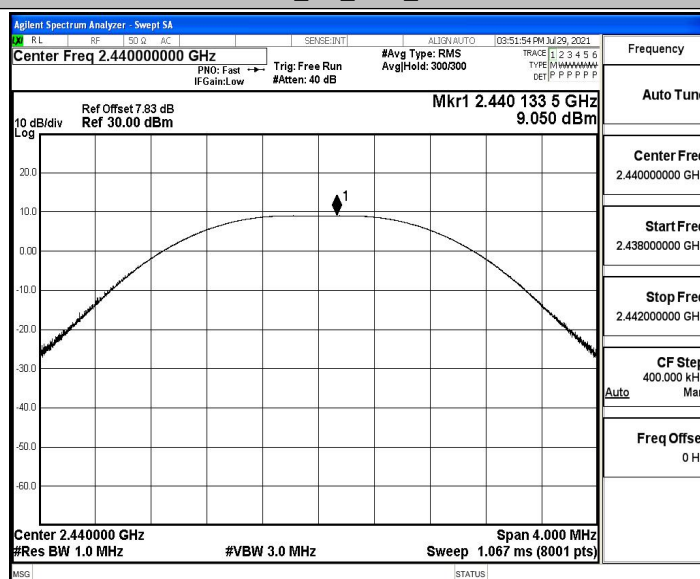
Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	8.64	≤30	PASS
		2440	9.05	≤30	PASS
		2480	9.24	≤30	PASS

Test Graphs

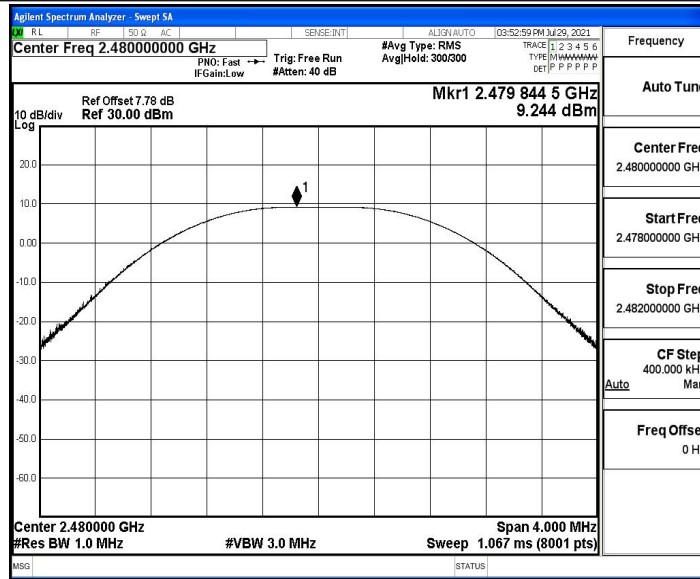
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





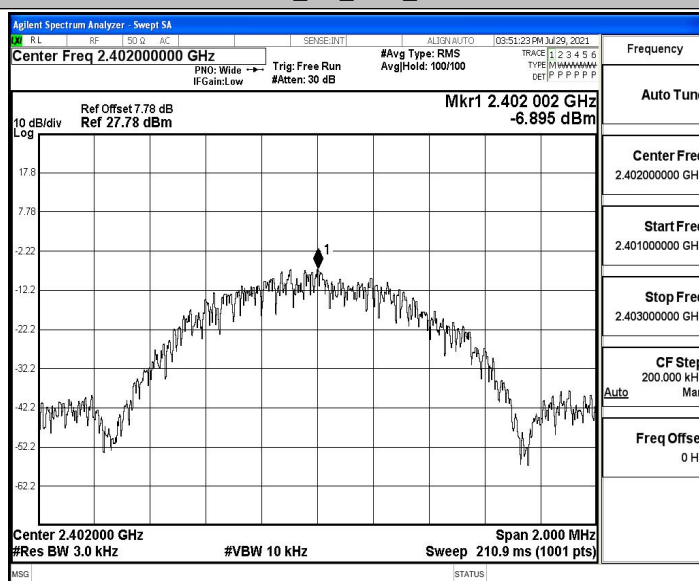
B.4 Maximum power spectral density

Test Result

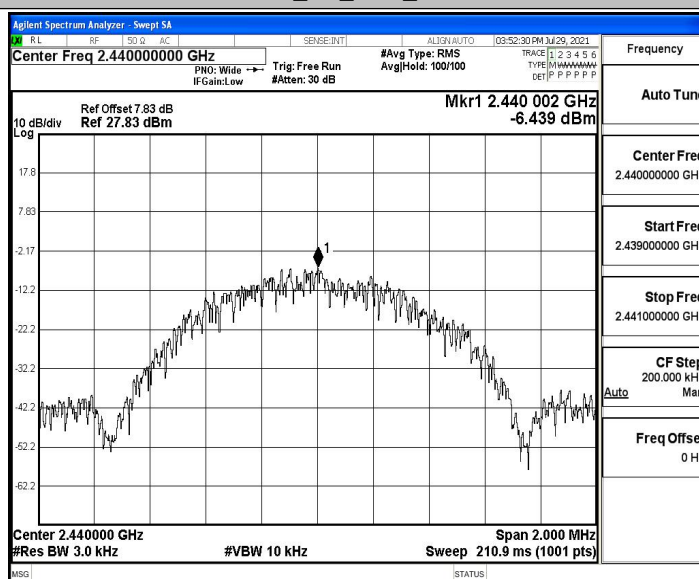
Test Mode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-6.9	≤8	PASS
		2440	-6.44	≤8	PASS
		2480	-6.29	≤8	PASS

Test Graphs

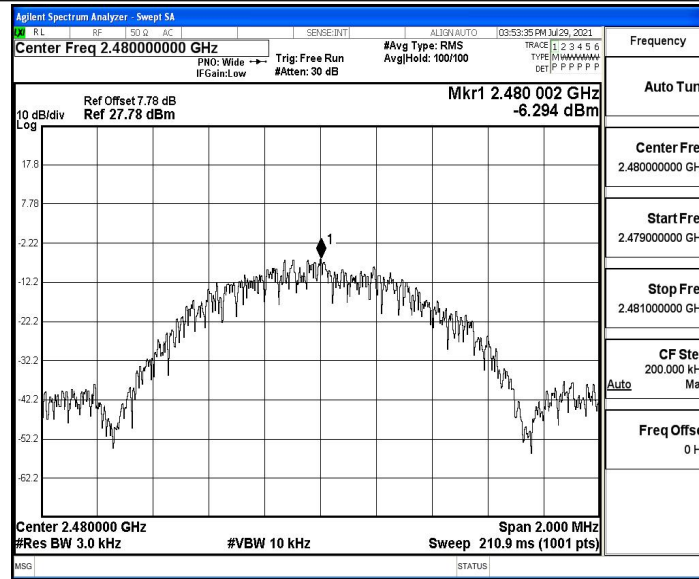
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





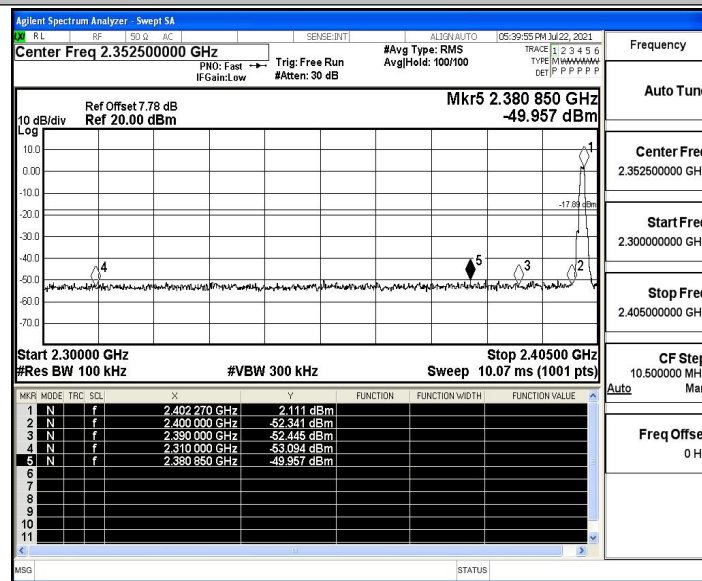
B.5 Band edge measurements

Test Result

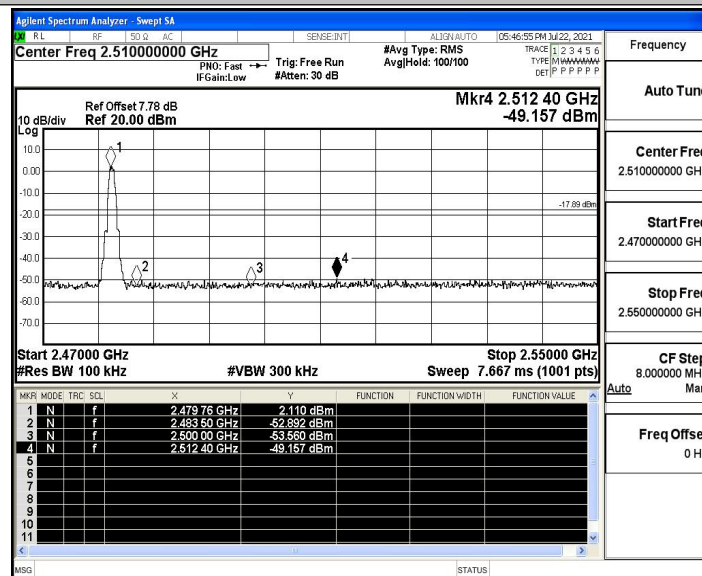
Test Mode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	2.11	-49.96	≤-17.89	PASS
		High	2480	2.11	-49.16	≤-17.89	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





B.6 Conducted Spurious Emission

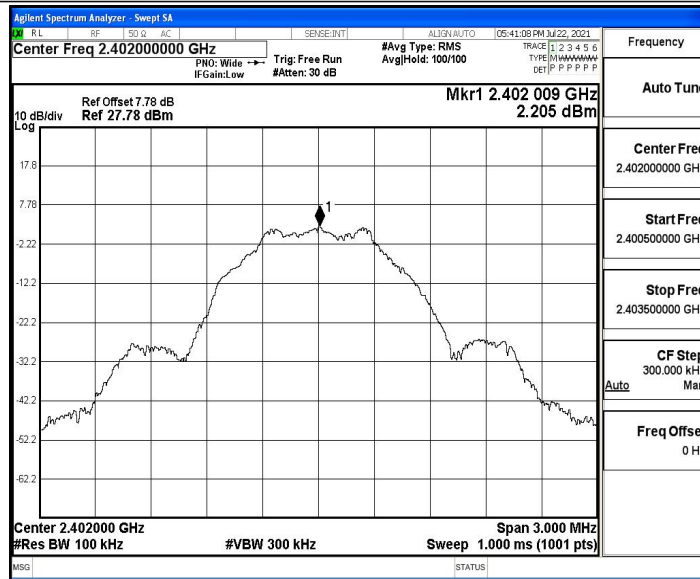
Test Result

Test Mode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	2.21	2.21	---	PASS
			30~1000	2.21	-61.55	≤ -17.8	PASS
			1000~26500	2.21	-47.07	≤ -17.8	PASS
		2440	Reference	3.58	3.58	---	PASS
			30~1000	3.58	-61.84	≤ -16.42	PASS
			1000~26500	3.58	-47.47	≤ -16.42	PASS
		2480	Reference	2.26	2.26	---	PASS
			30~1000	2.26	-61.79	≤ -17.74	PASS
			1000~26500	2.26	-47.76	≤ -17.74	PASS

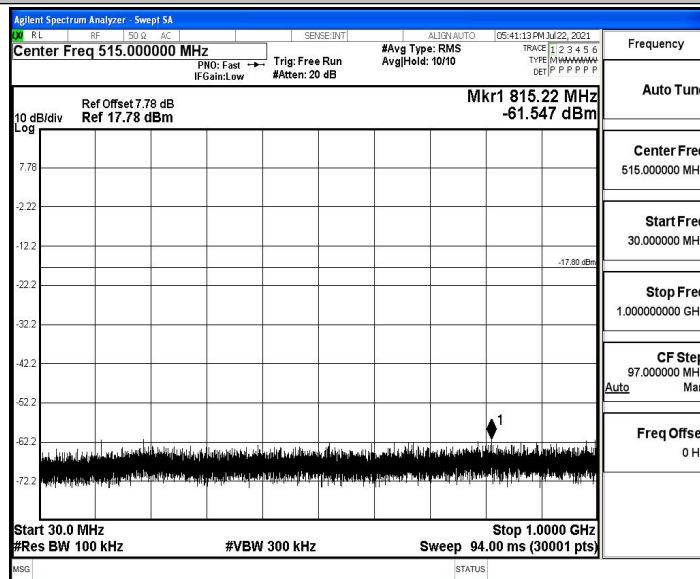


Test Graphs

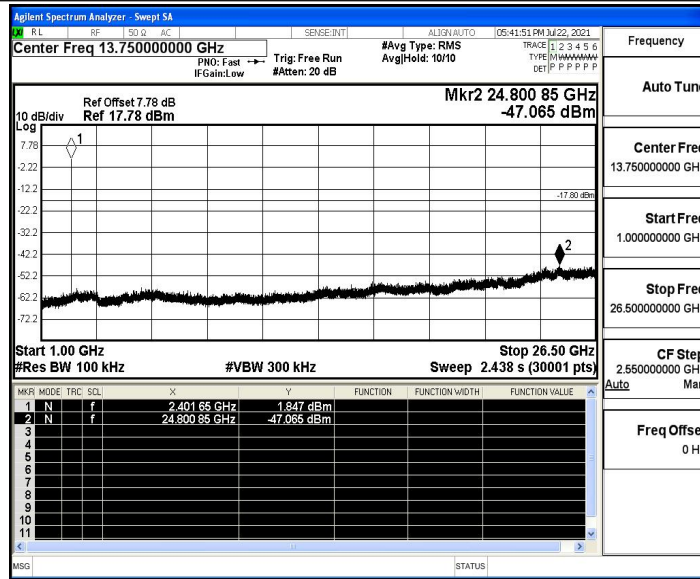
BLE_1M_Ant1_2402_0~Reference



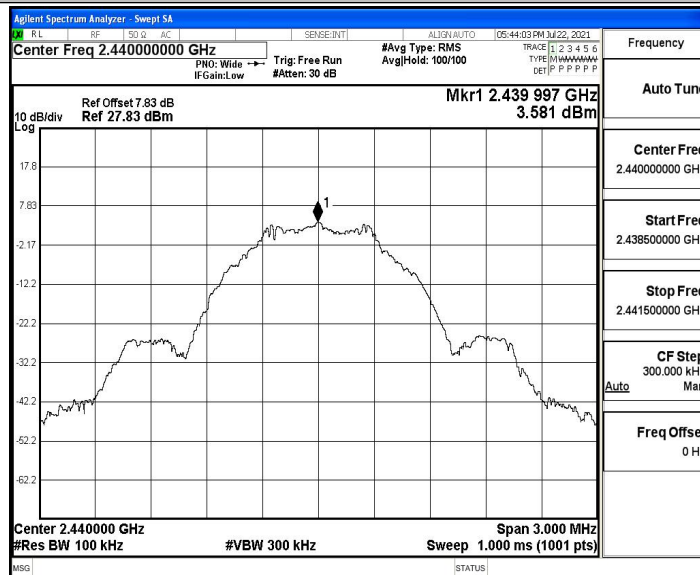
BLE_1M_Ant1_2402_30~1000



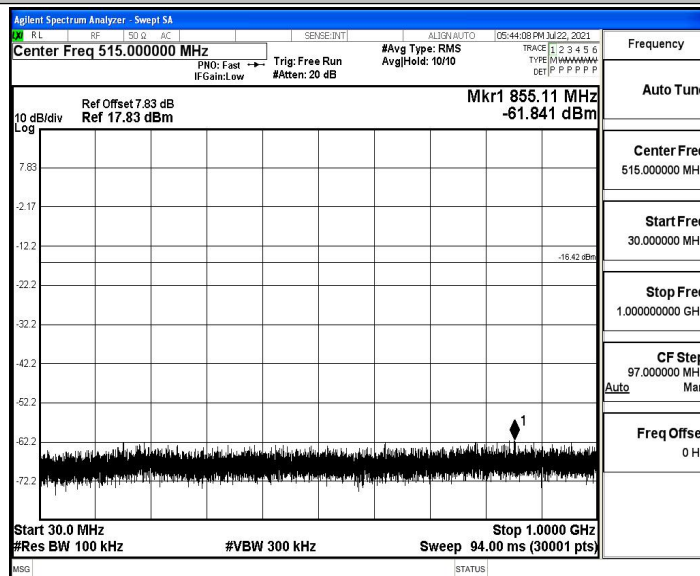
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

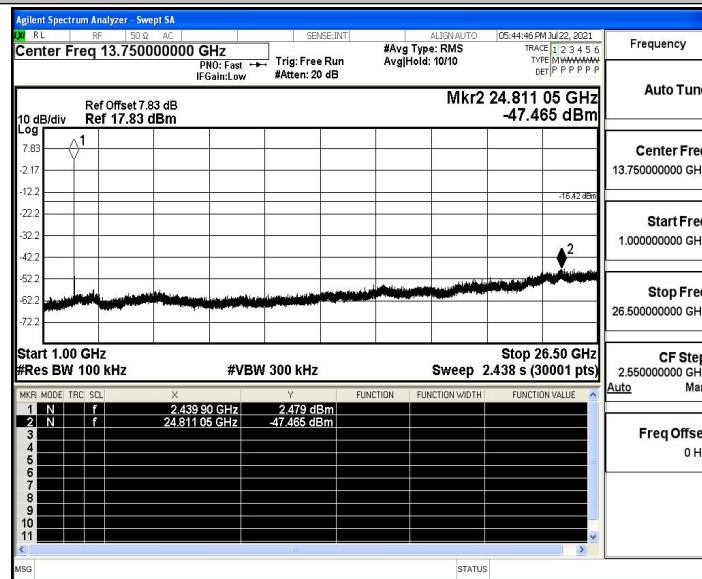


BLE_1M_Ant1_2440_30~1000

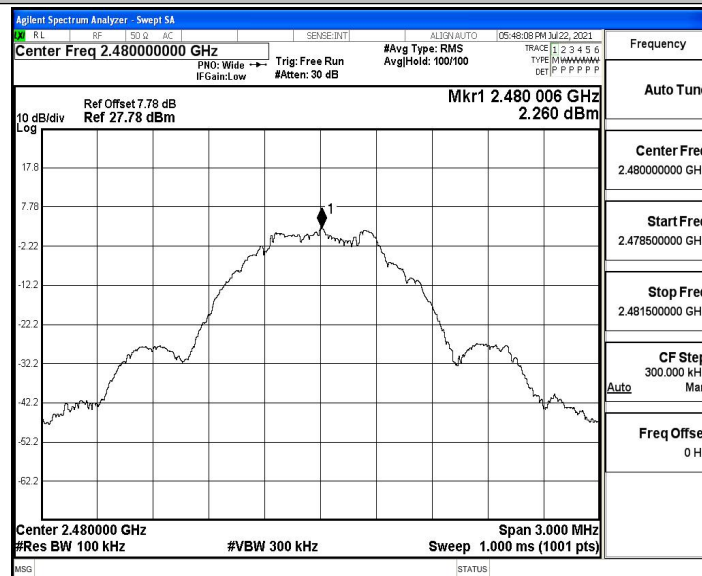




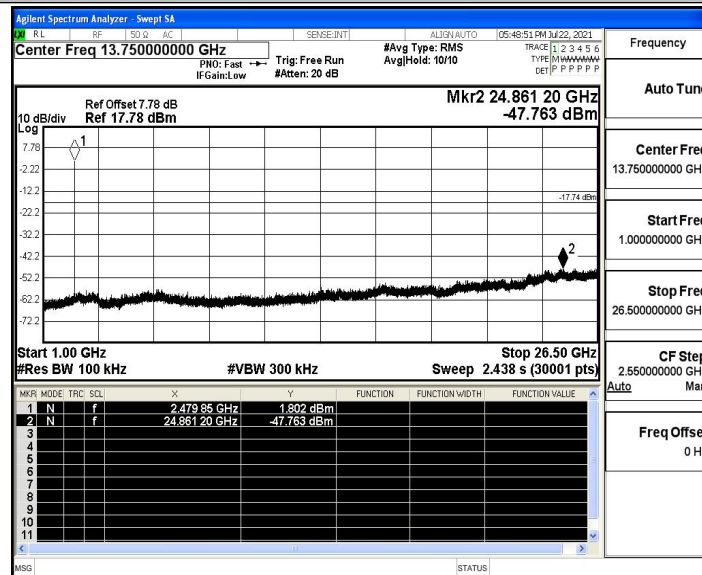
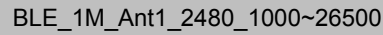
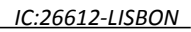
BLE_1M_Ant1_2440_1000~26500

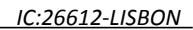


BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000

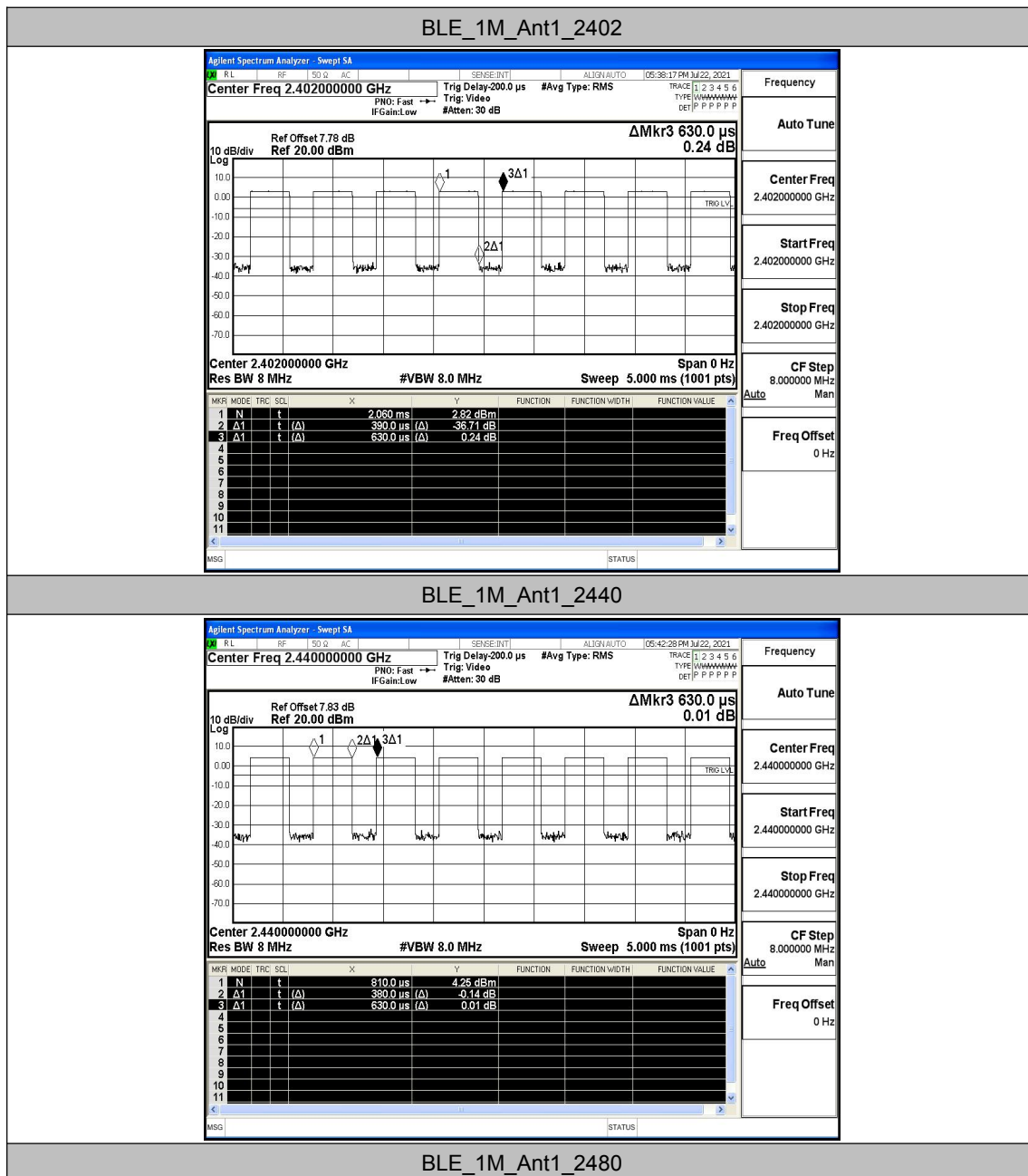


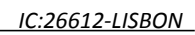


Test Result

Test Mode	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	0.38	0.63	0.6032	60.32	2.20	---	PASS
		2480	0.39	0.63	0.6190	61.90	2.08	---	PASS

Test Graphs







B.8 Emissions in Restricted Bands

Test Result

Test Mode	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	-48.28	≤-41.20	46.92	≤54	PASS
				AV	2382.635	-47.33	≤-41.20	47.87	≤54	PASS
				AV	2390.000	-47.9	≤-41.20	47.30	≤54	PASS
				Peak	2310.000	-42.07	≤-21.20	53.13	≤74	PASS
				Peak	2371.190	-37.74	≤-21.20	57.46	≤74	PASS
				Peak	2390.000	-41.15	≤-21.20	54.05	≤74	PASS
		High	2480	AV	2483.500	-47.04	≤-41.20	48.16	≤54	PASS
				AV	2498.720	-46.85	≤-41.20	48.35	≤54	PASS
				AV	2500.000	-47.37	≤-41.20	47.83	≤54	PASS
				Peak	2483.500	-41.59	≤-21.20	53.61	≤74	PASS
				Peak	2490.240	-37.92	≤-21.20	57.28	≤74	PASS
				Peak	2500.000	-38.68	≤-21.20	56.52	≤74	PASS

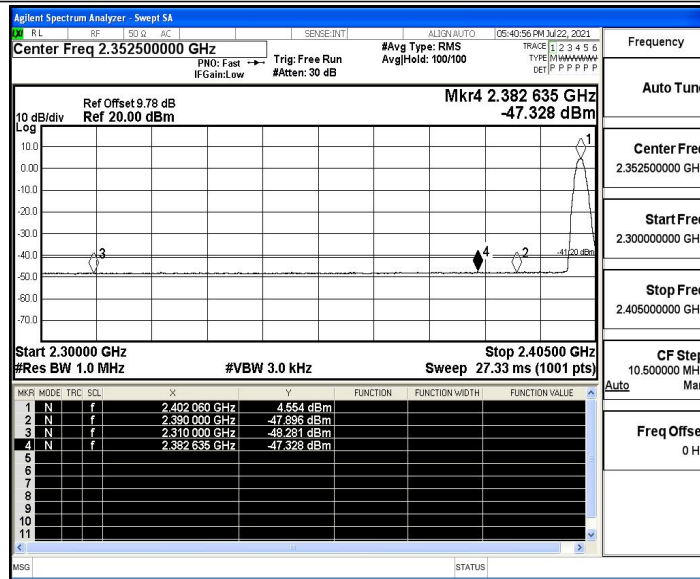
Note:

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.

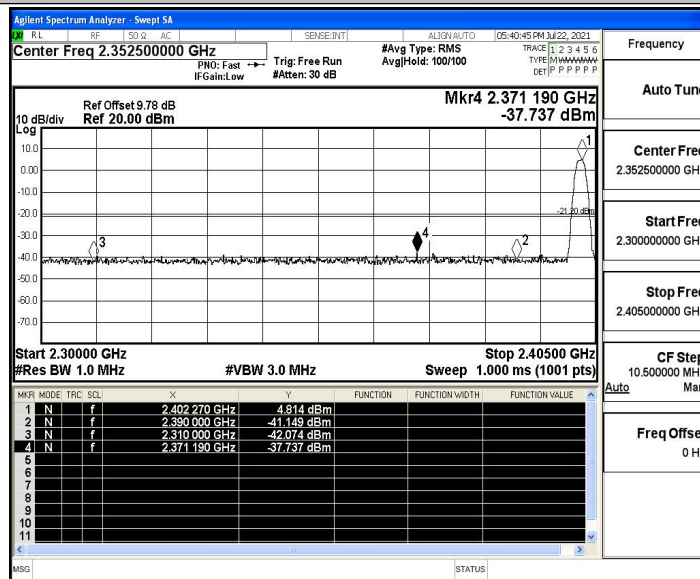


Test Graphs

BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV

