



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Massage chair

Test Model: N-0002T

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Wunder Wu
Supervised by:	Li Huan

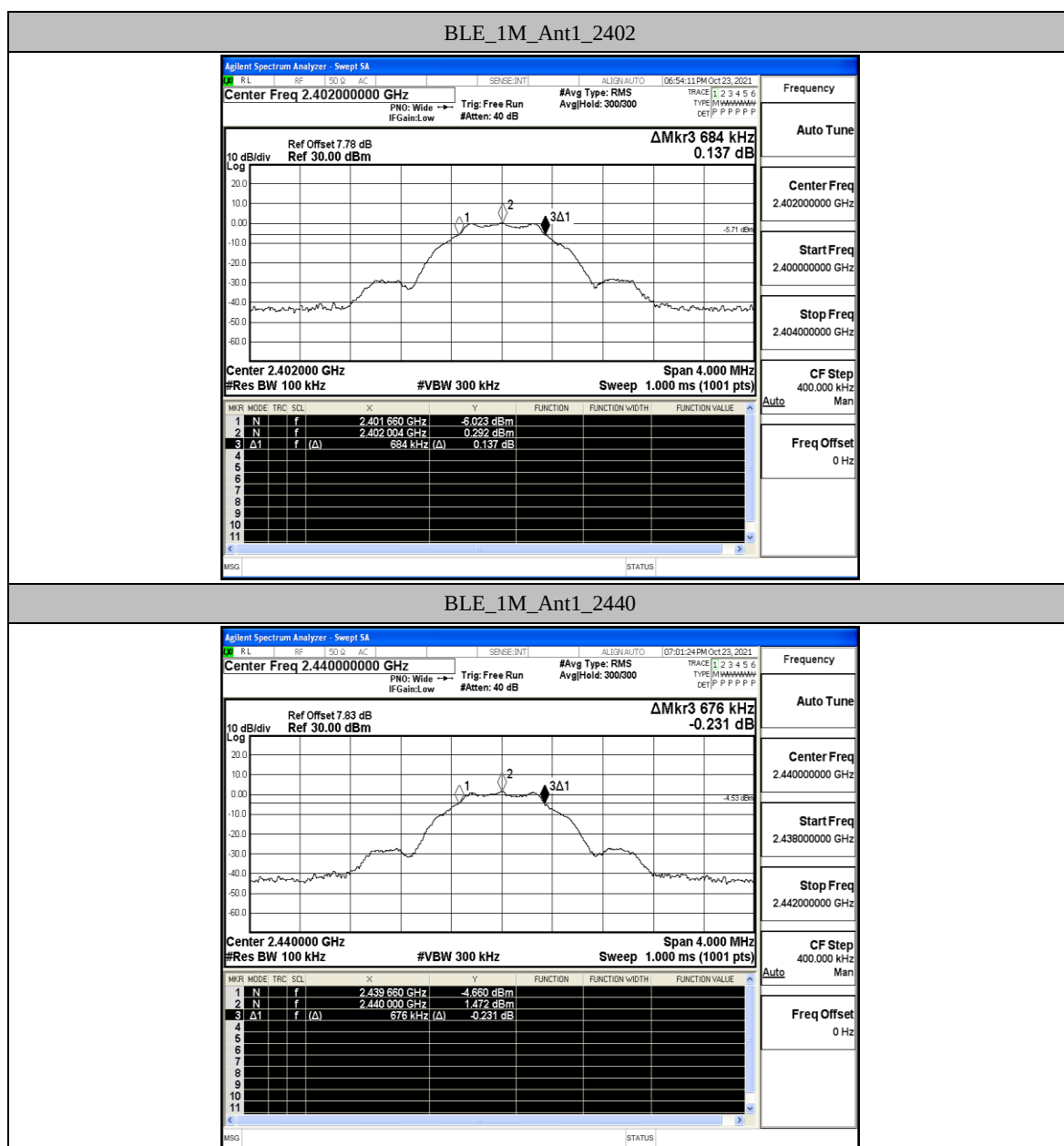


B.1 6dB Bandwidth

Test Result

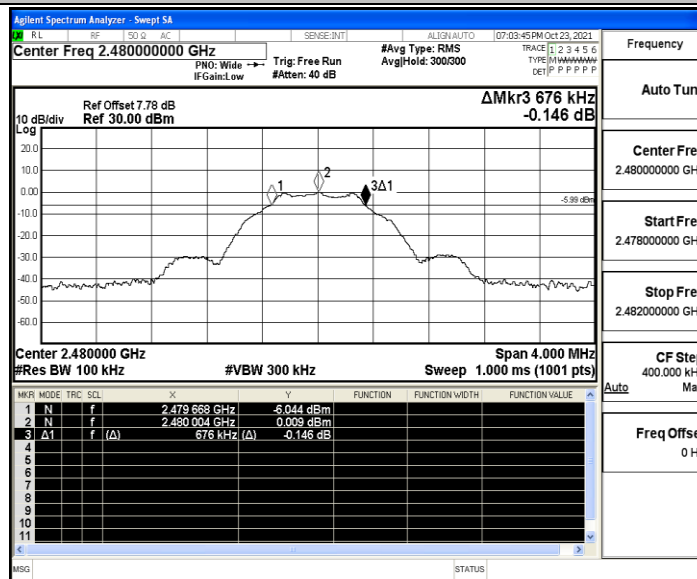
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.684	2401.660	2402.344	≥ 0.5	PASS
		2440	0.676	2439.660	2440.336	≥ 0.5	PASS
		2480	0.676	2479.668	2480.344	≥ 0.5	PASS

Test Graphs





BLE_1M_Ant1_2480



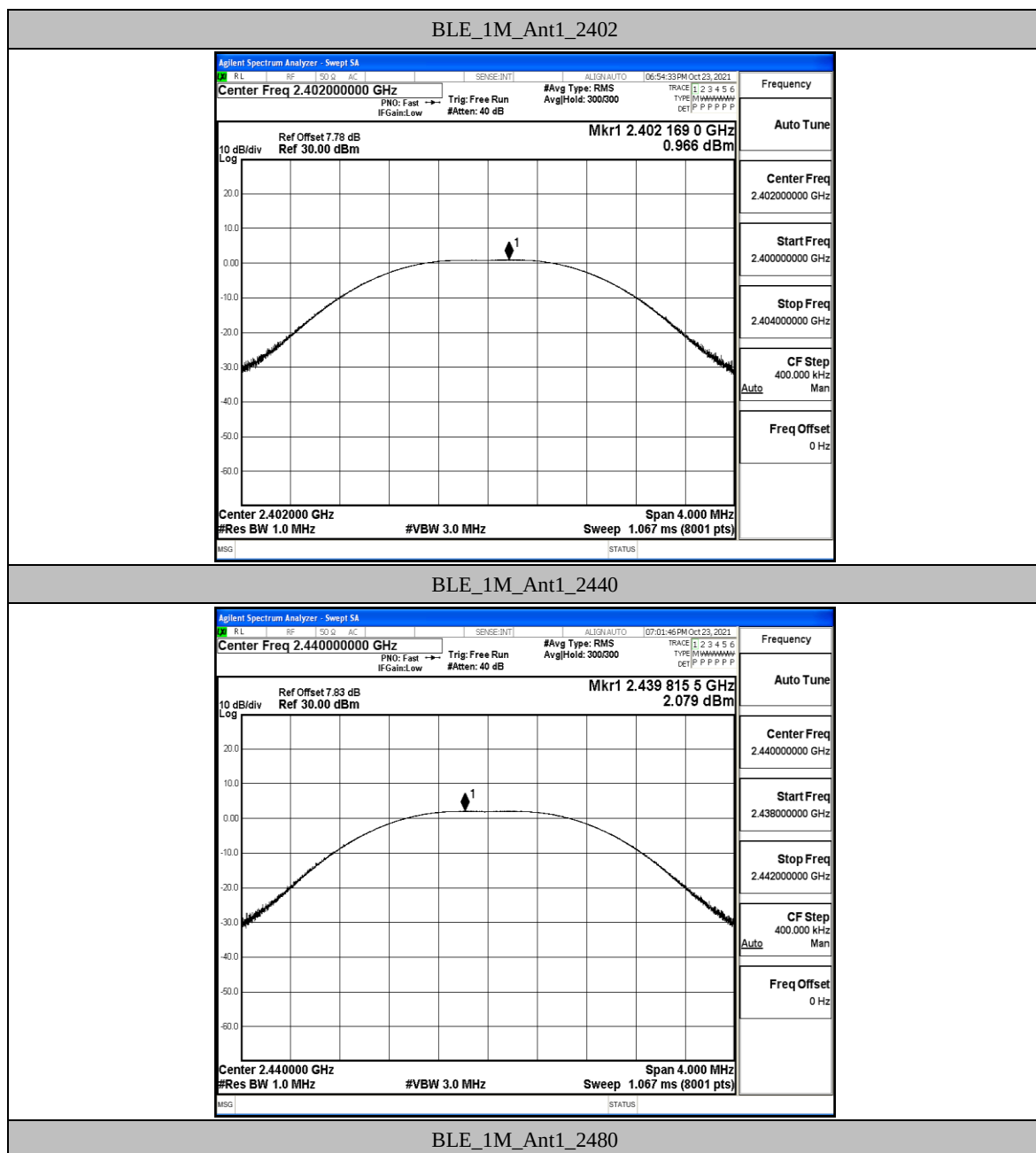


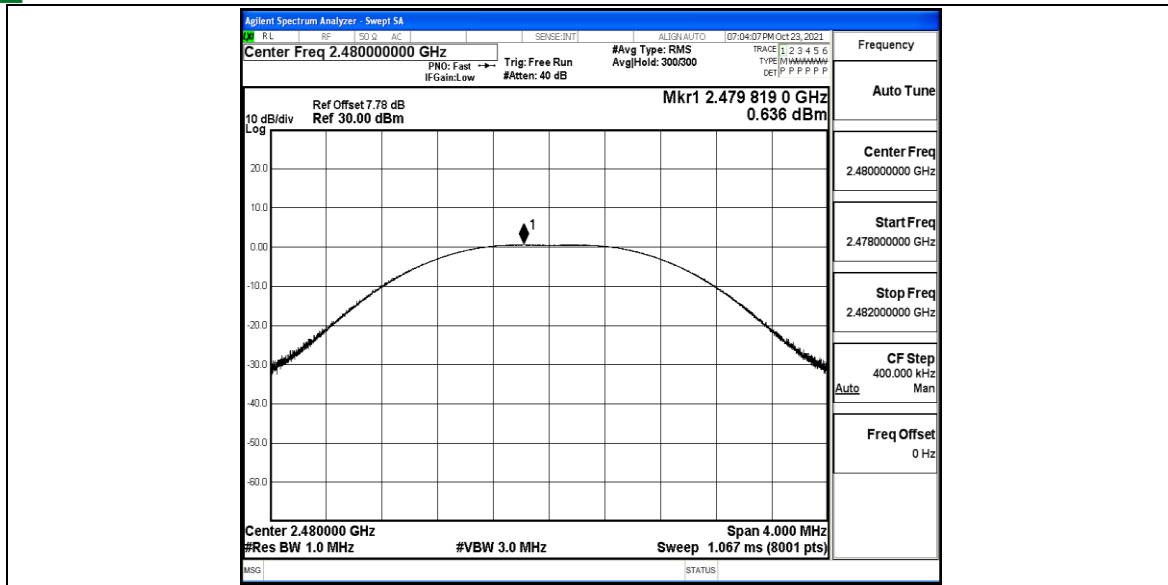
B.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.97	≤30	PASS
		2440	2.08	≤30	PASS
		2480	0.64	≤30	PASS

Test Graphs





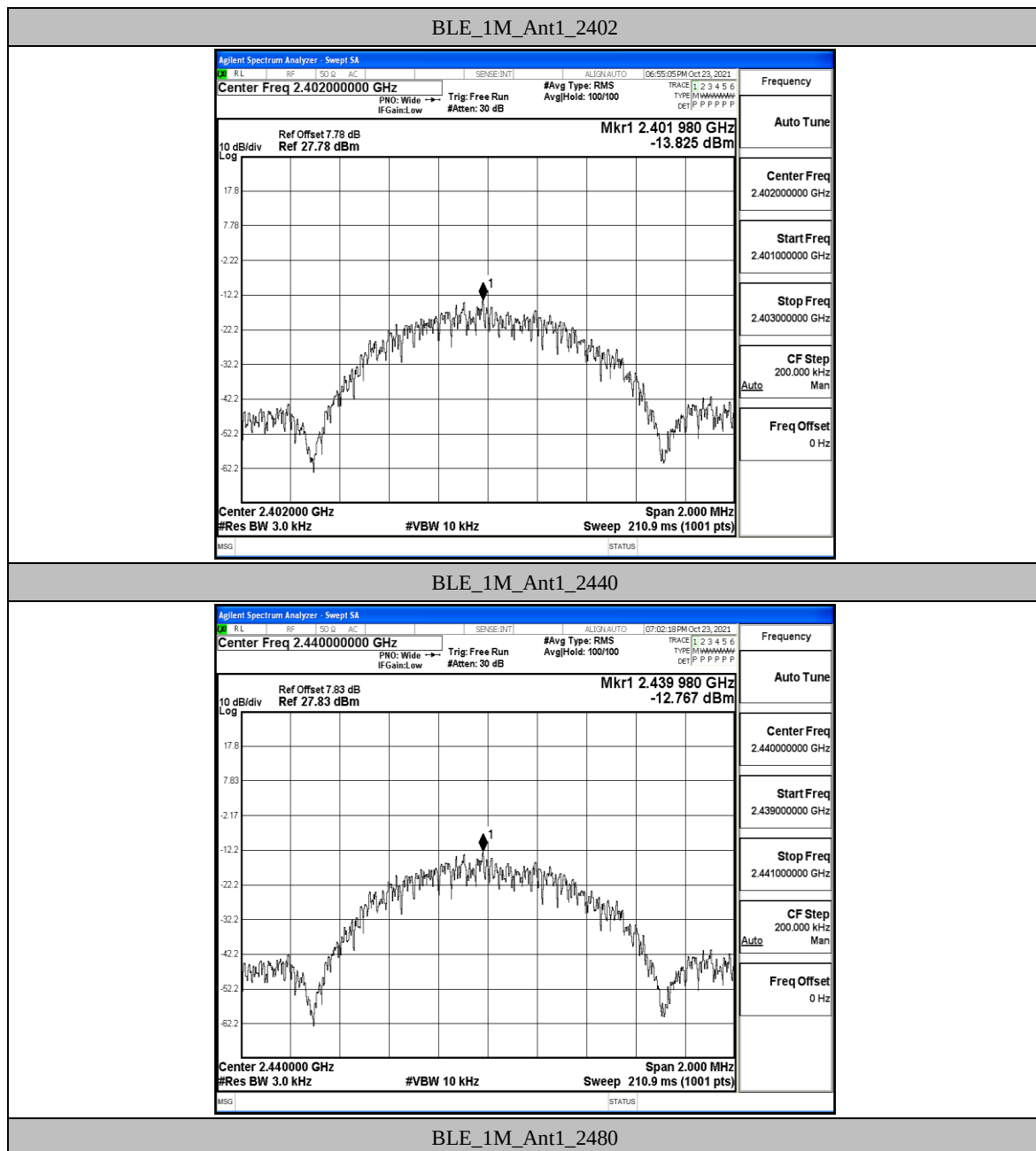


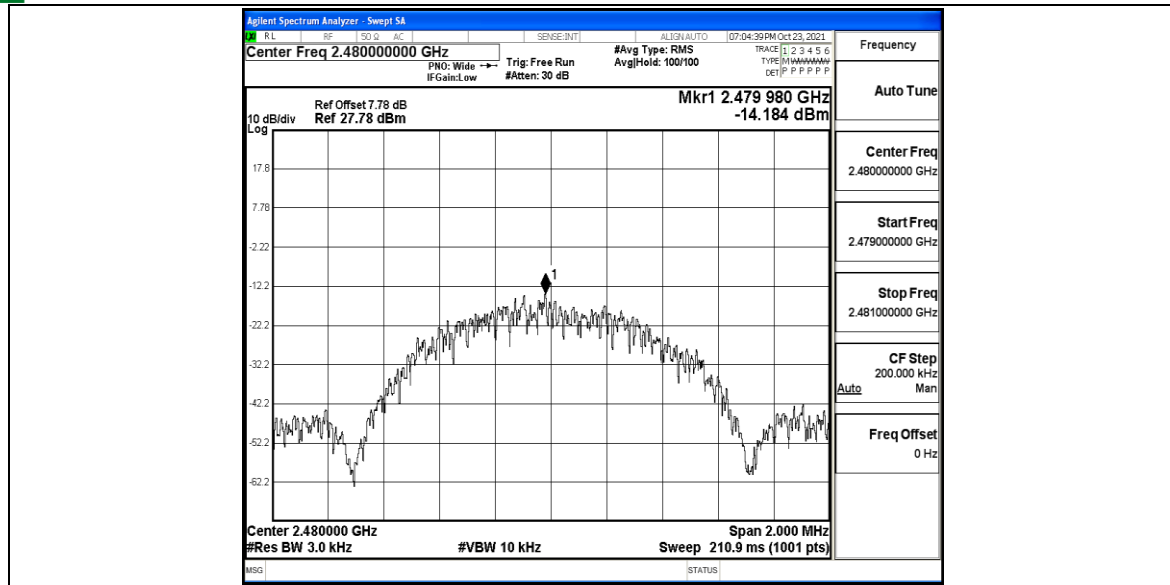
B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.83	≤8	PASS
		2440	-12.77	≤8	PASS
		2480	-14.18	≤8	PASS

Test Graphs





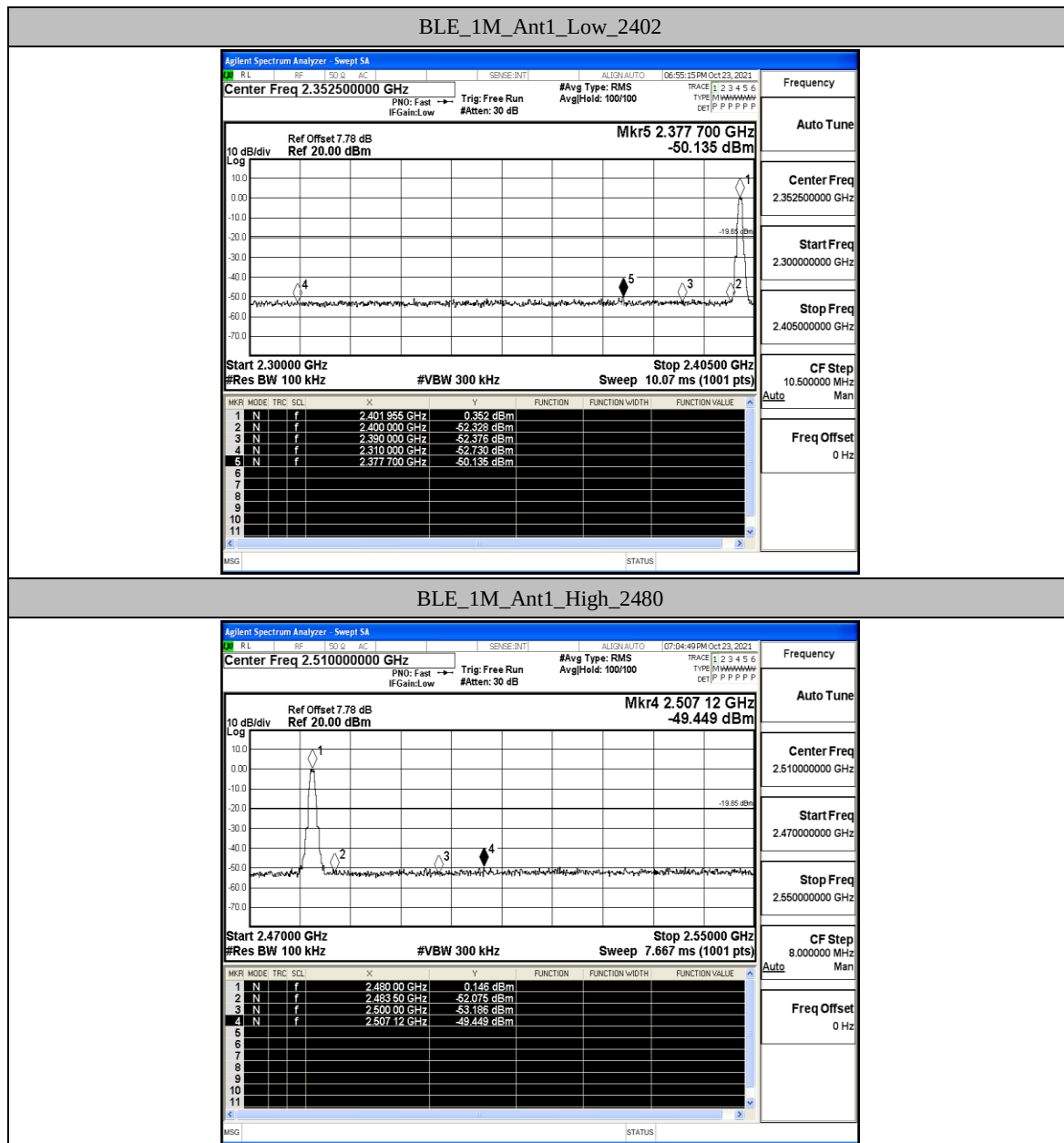


B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.35	-50.14	≤ -19.65	PASS
		High	2480	0.15	-49.45	≤ -19.85	PASS

Test Graphs



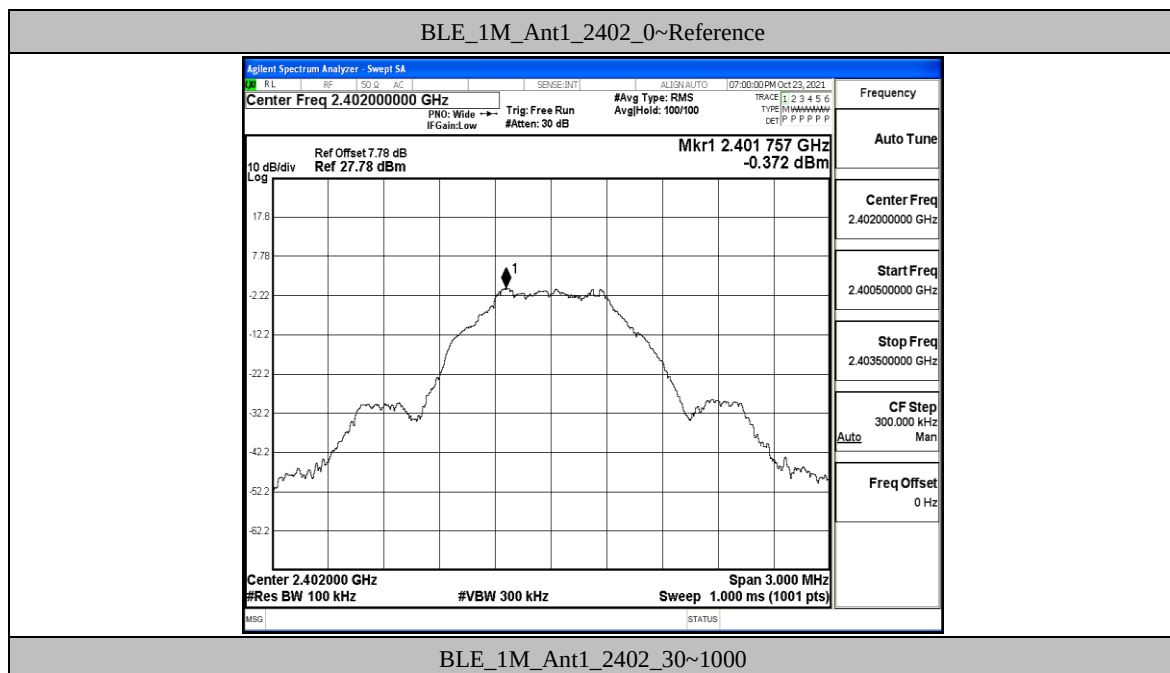


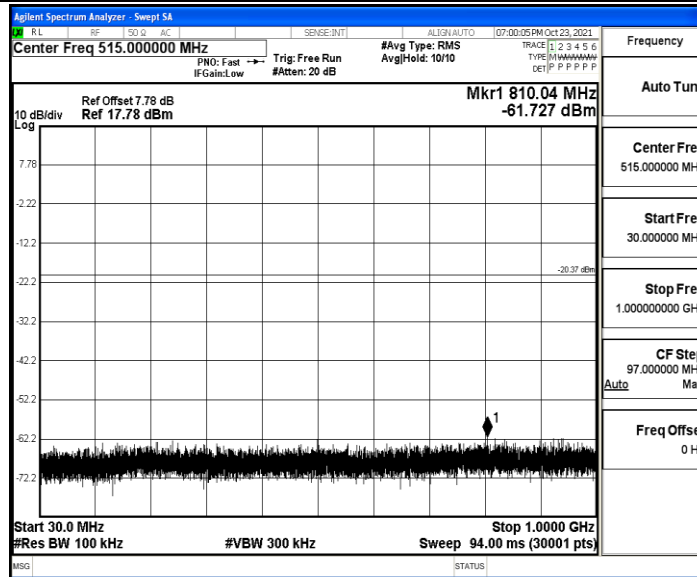
B.5 Conducted Spurious Emission

Test Result

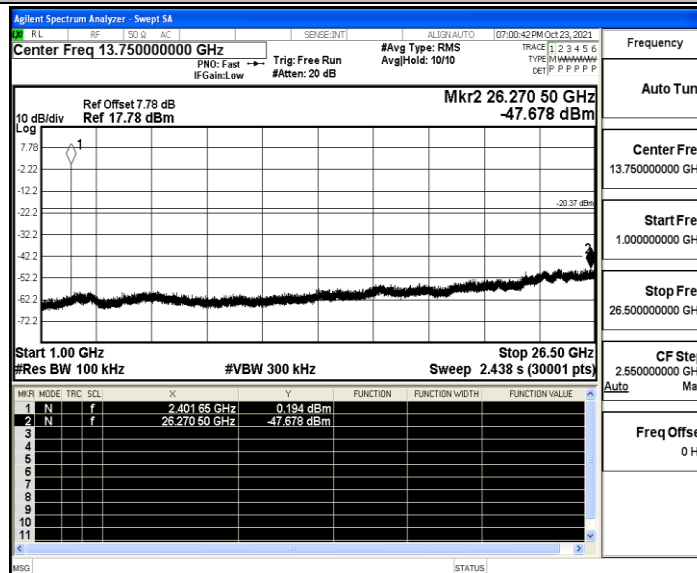
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.37	-0.37	---	PASS
			30~1000	-0.37	-61.73	≤ -20.37	PASS
			1000~26500	-0.37	-47.68	≤ -20.37	PASS
		2440	Reference	1.43	1.43	---	PASS
			30~1000	1.43	-60.99	≤ -18.57	PASS
			1000~26500	1.43	-46.91	≤ -18.57	PASS
		2480	Reference	-0.01	-0.01	---	PASS
			30~1000	-0.01	-61.89	≤ -20.01	PASS
			1000~26500	-0.01	-47.34	≤ -20.01	PASS

Test Graphs

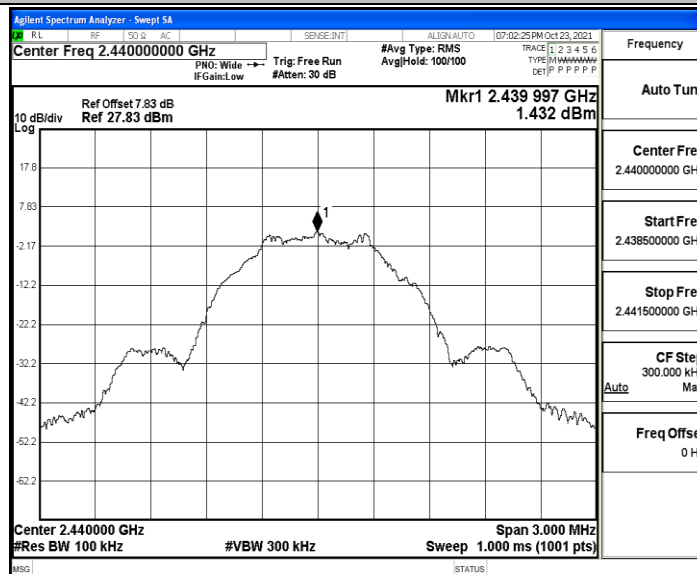




BLE_1M_Ant1_2402_1000~26500

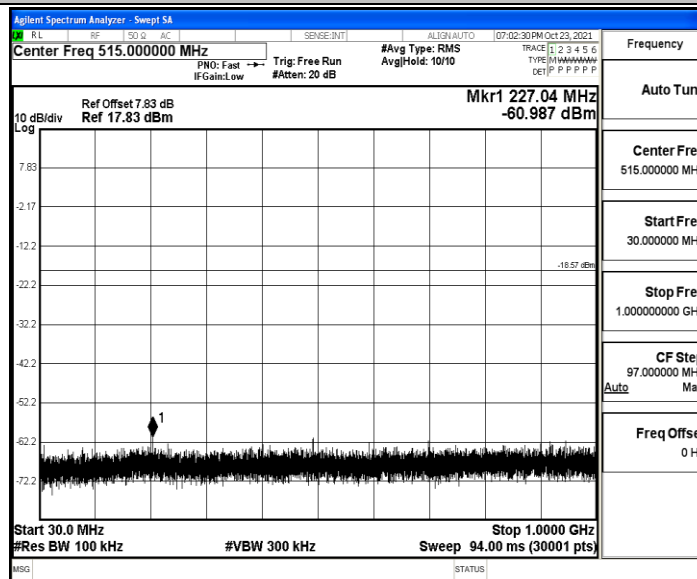


BLE_1M_Ant1_2440_0~Reference

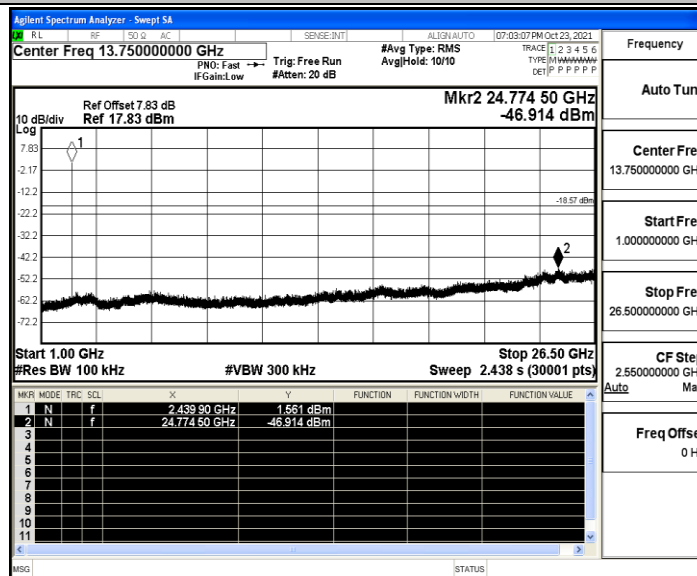




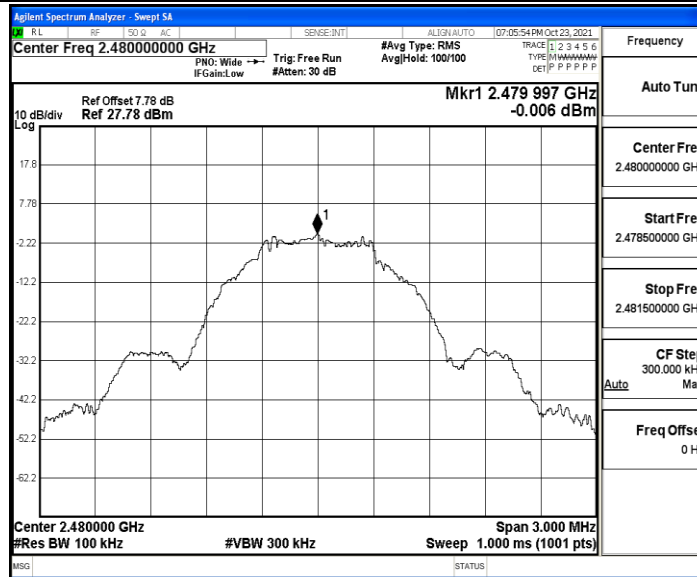
BLE_1M_Ant1_2440_30~1000



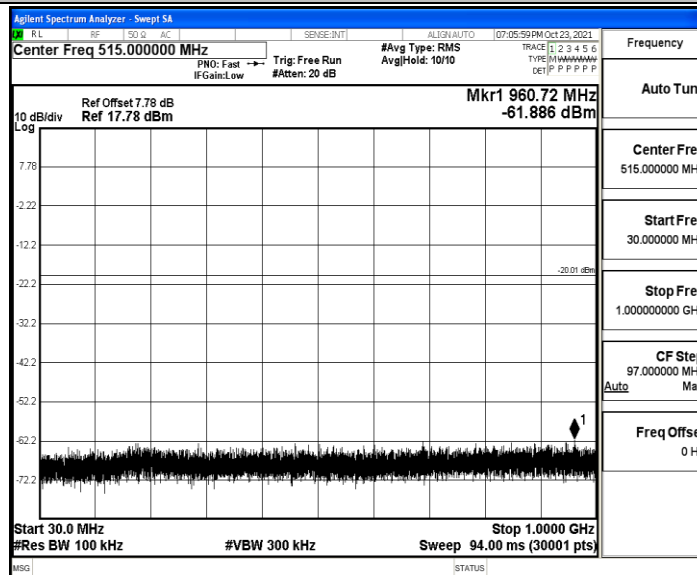
BLE_1M_Ant1_2440_1000~26500



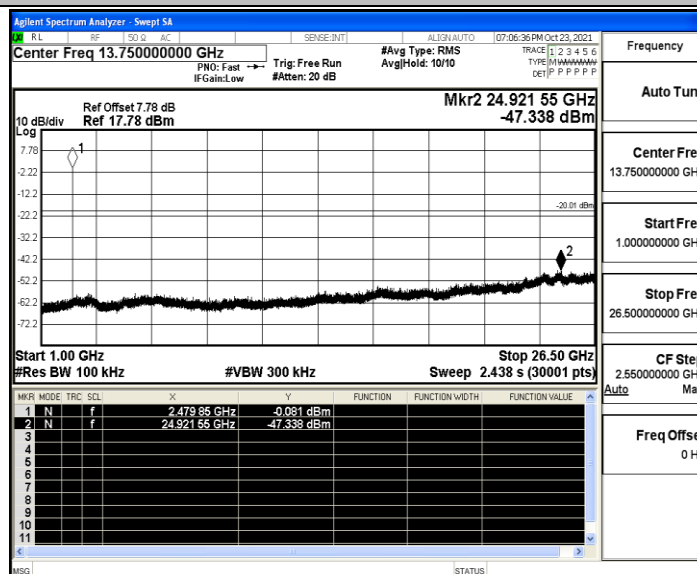
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



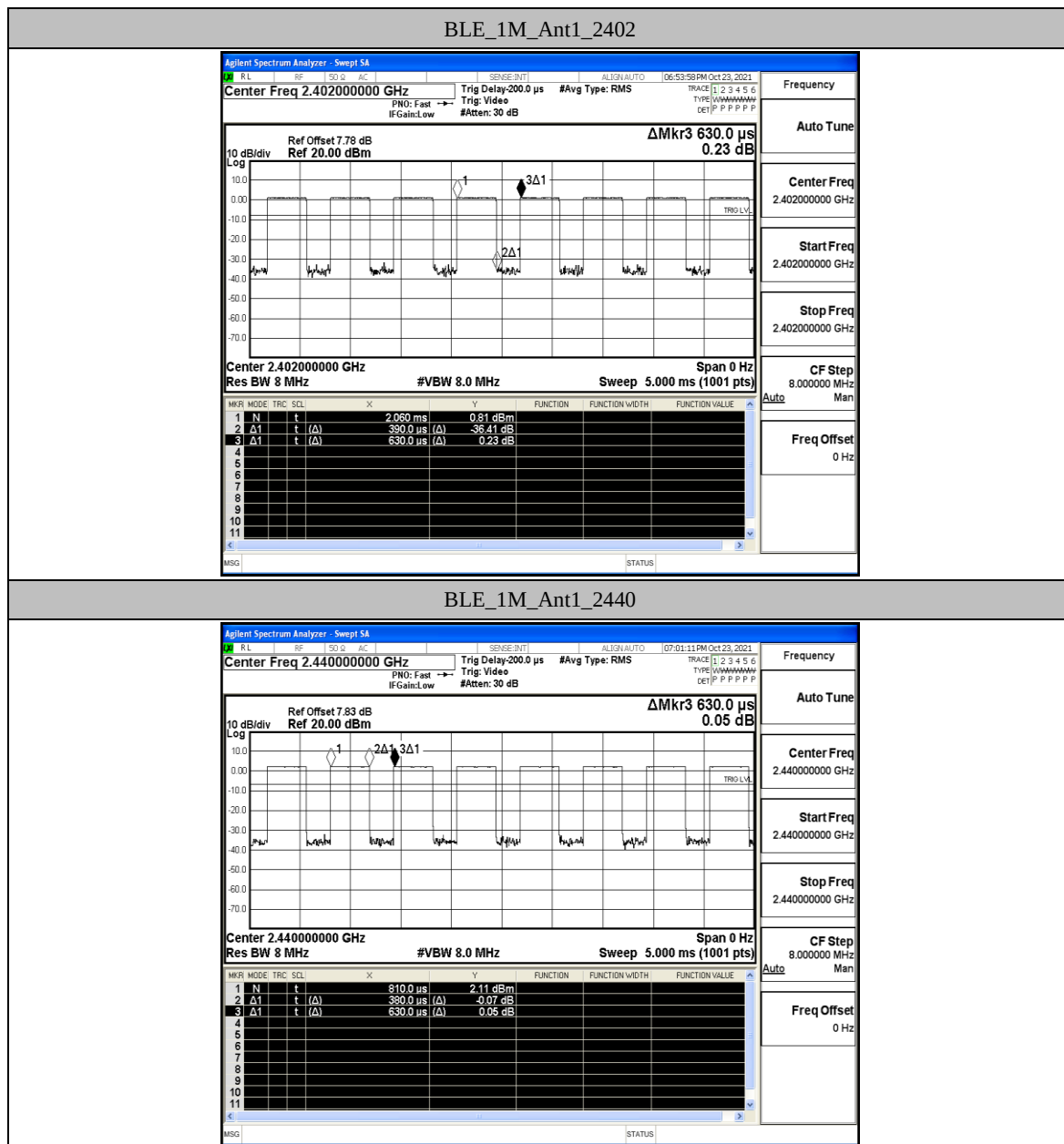


B.6 Duty Cycle

Test Result

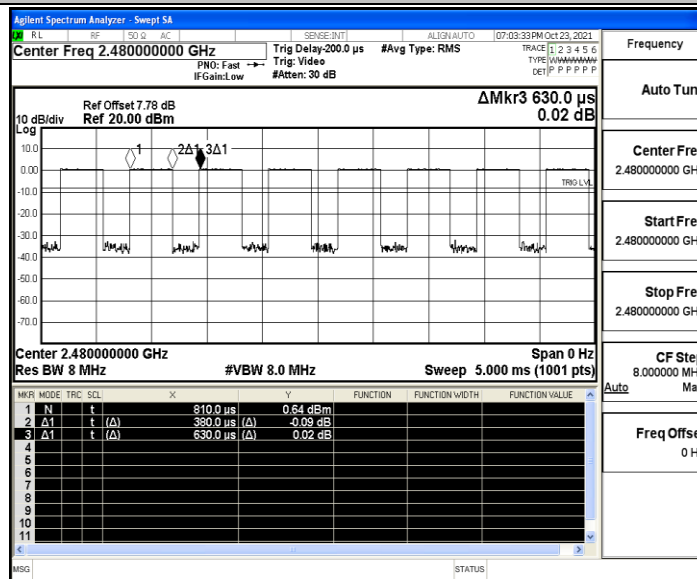
TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.39	0.63	0.6190	61.90	2.08	---	PASS
		2440	0.38	0.63	0.6032	60.32	2.20	---	PASS
		2480	0.38	0.63	0.6032	60.32	2.20	---	PASS

Test Graphs





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	-48.38	≤-41.20	46.82	≤54	PASS
				AV	2389.250	-47.82	≤-41.20	47.38	≤54	PASS
				AV	2390.000	-48.26	≤-41.20	46.94	≤54	PASS
				Peak	2310.000	-42.52	≤-21.20	52.68	≤74	PASS
				Peak	2312.075	-38.38	≤-21.20	56.82	≤74	PASS
				Peak	2390.000	-41.05	≤-21.20	54.15	≤74	PASS
		High	2480	AV	2483.500	-47.16	≤-41.20	48.04	≤54	PASS
				AV	2483.520	-47.16	≤-41.20	48.04	≤54	PASS
				AV	2500.000	-47.55	≤-41.20	47.65	≤54	PASS
				Peak	2483.500	-42.04	≤-21.20	53.16	≤74	PASS
				Peak	2496.640	-38.82	≤-21.20	56.38	≤74	PASS
				Peak	2500.000	-39.19	≤-21.20	56.01	≤74	PASS

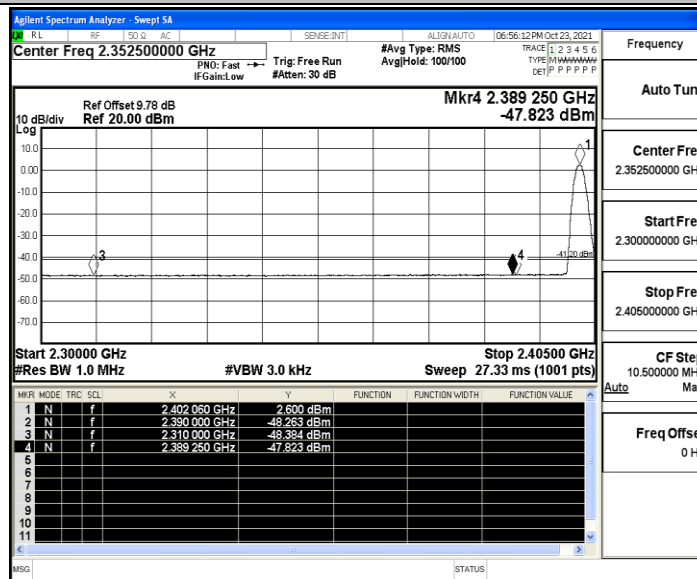
Note:

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.

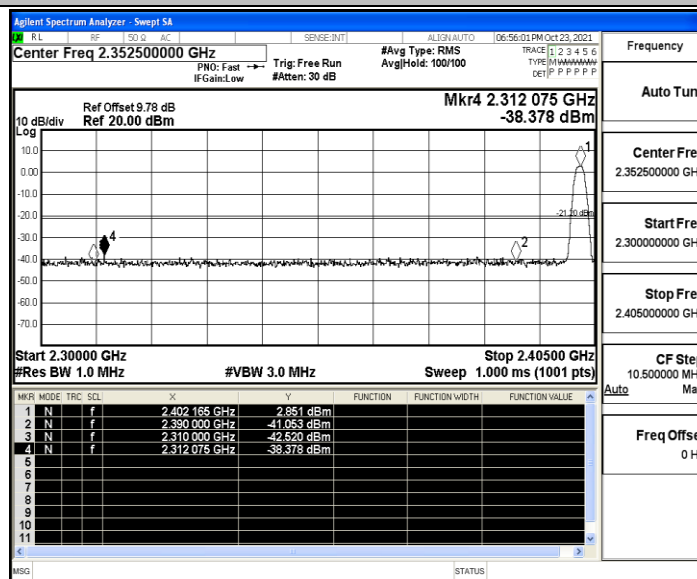


Test Graphs

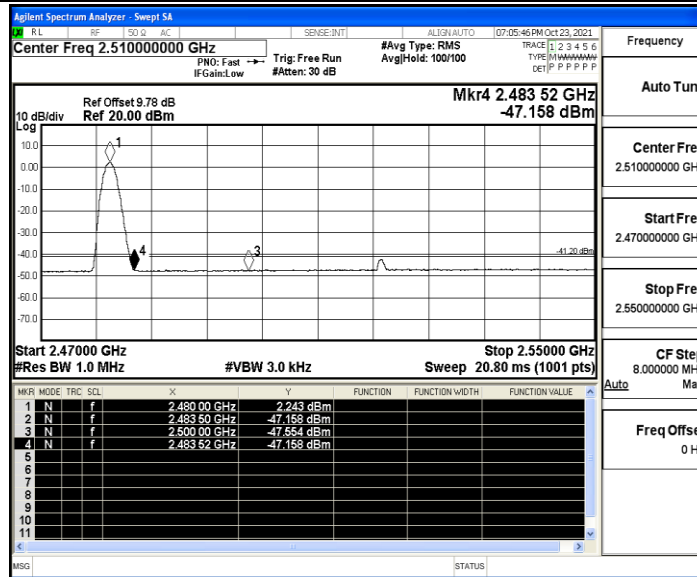
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

