



Appendix A

RF Test Data for BLE (Conducted Measurement)

Product Name: Pet GPS Tracker

Test Model: EV-202G

Environmental Conditions

Temperature:	21.1° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan

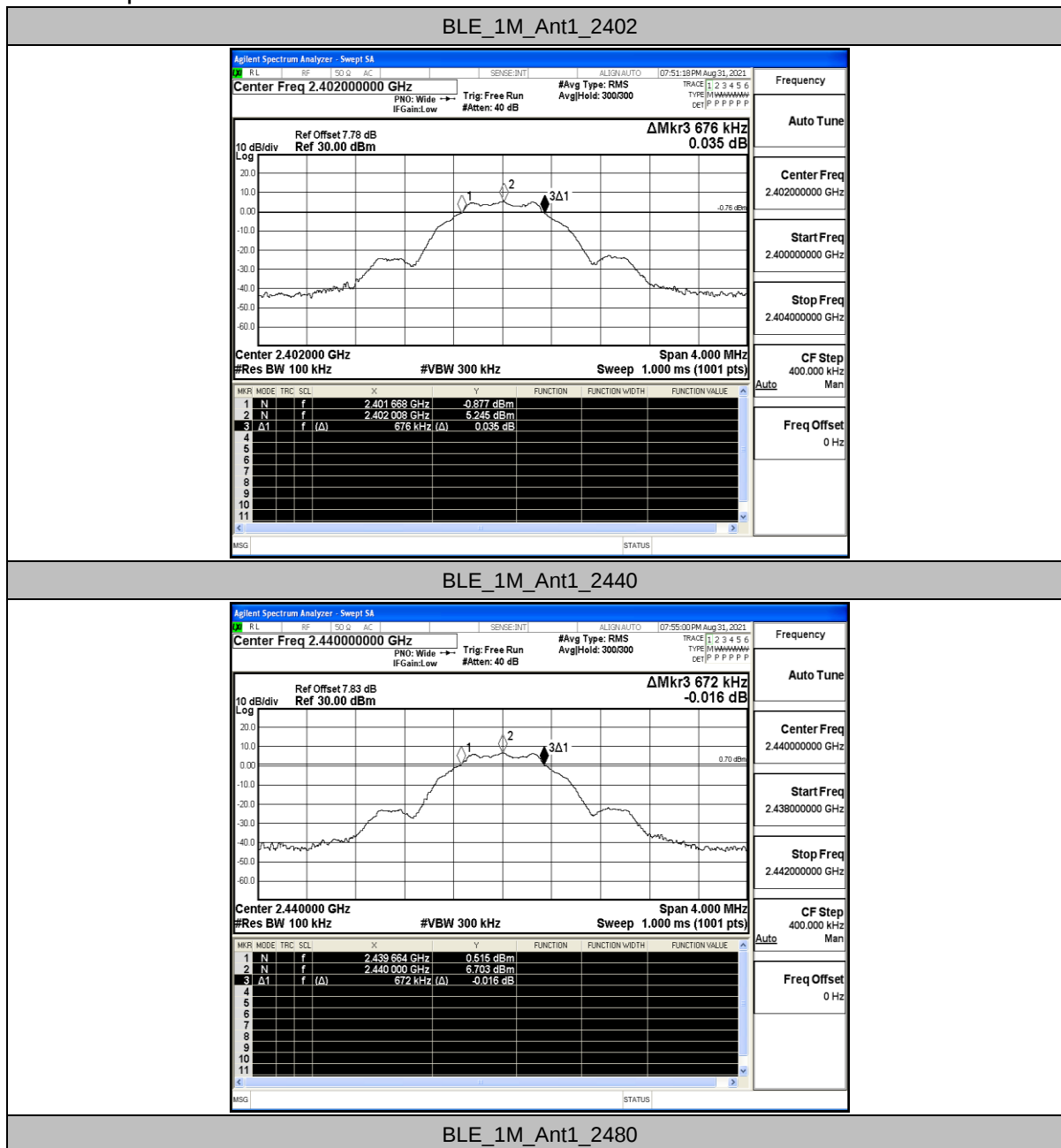


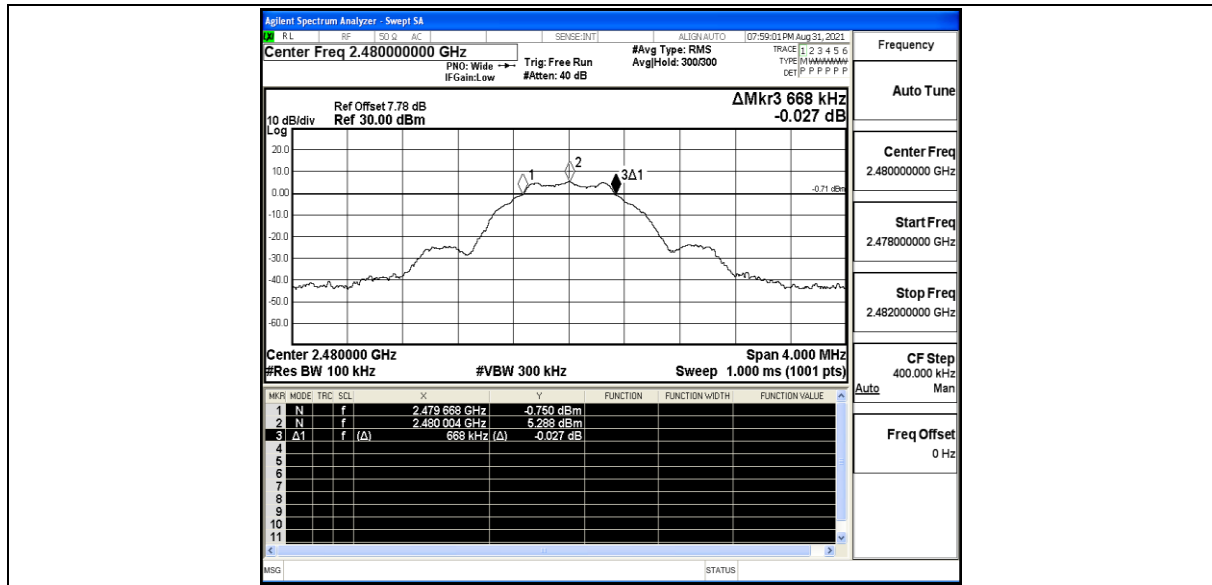
A.1 6dB Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.676	2401.668	2402.344	≥0.5	PASS
		2440	0.672	2439.664	2440.336	≥0.5	PASS
		2480	0.668	2479.668	2480.336	≥0.5	PASS

Test Graphs





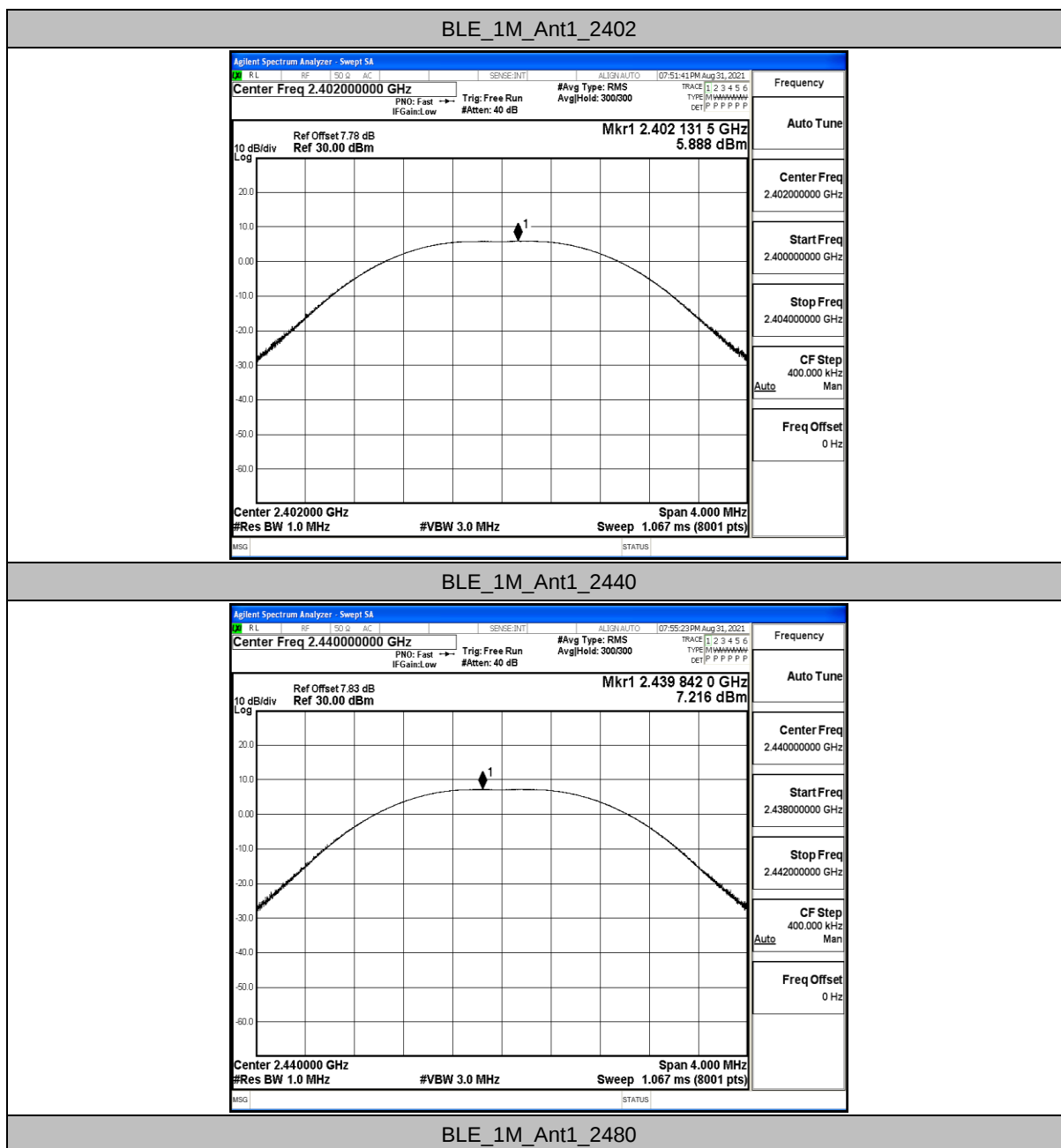


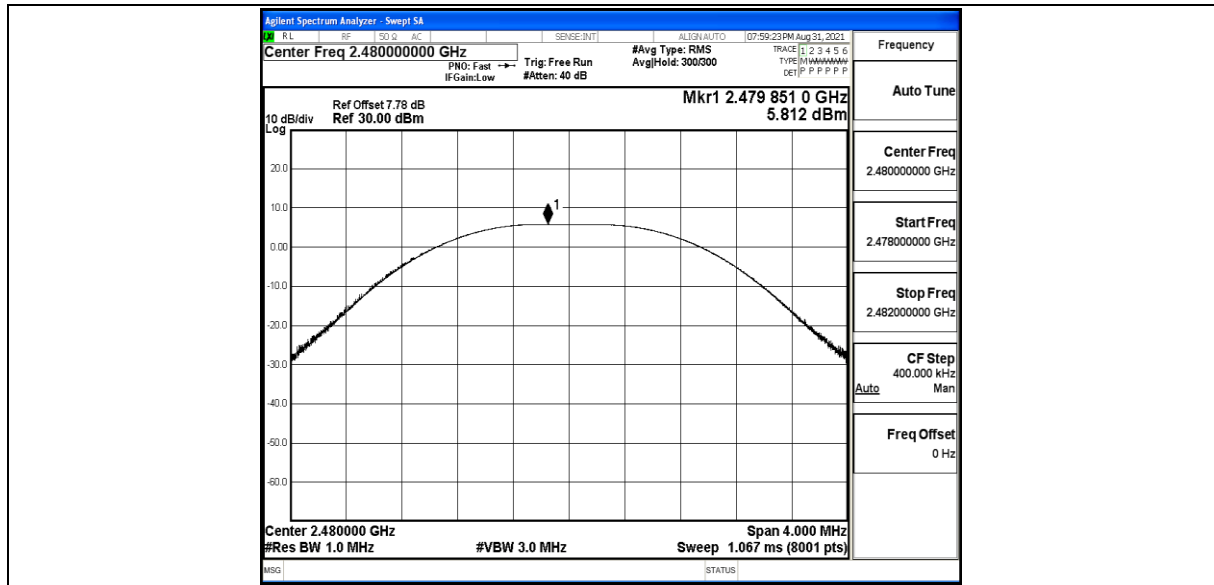
A.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	5.89	≤30	PASS
		2440	7.22	≤30	PASS
		2480	5.81	≤30	PASS

Test Graphs





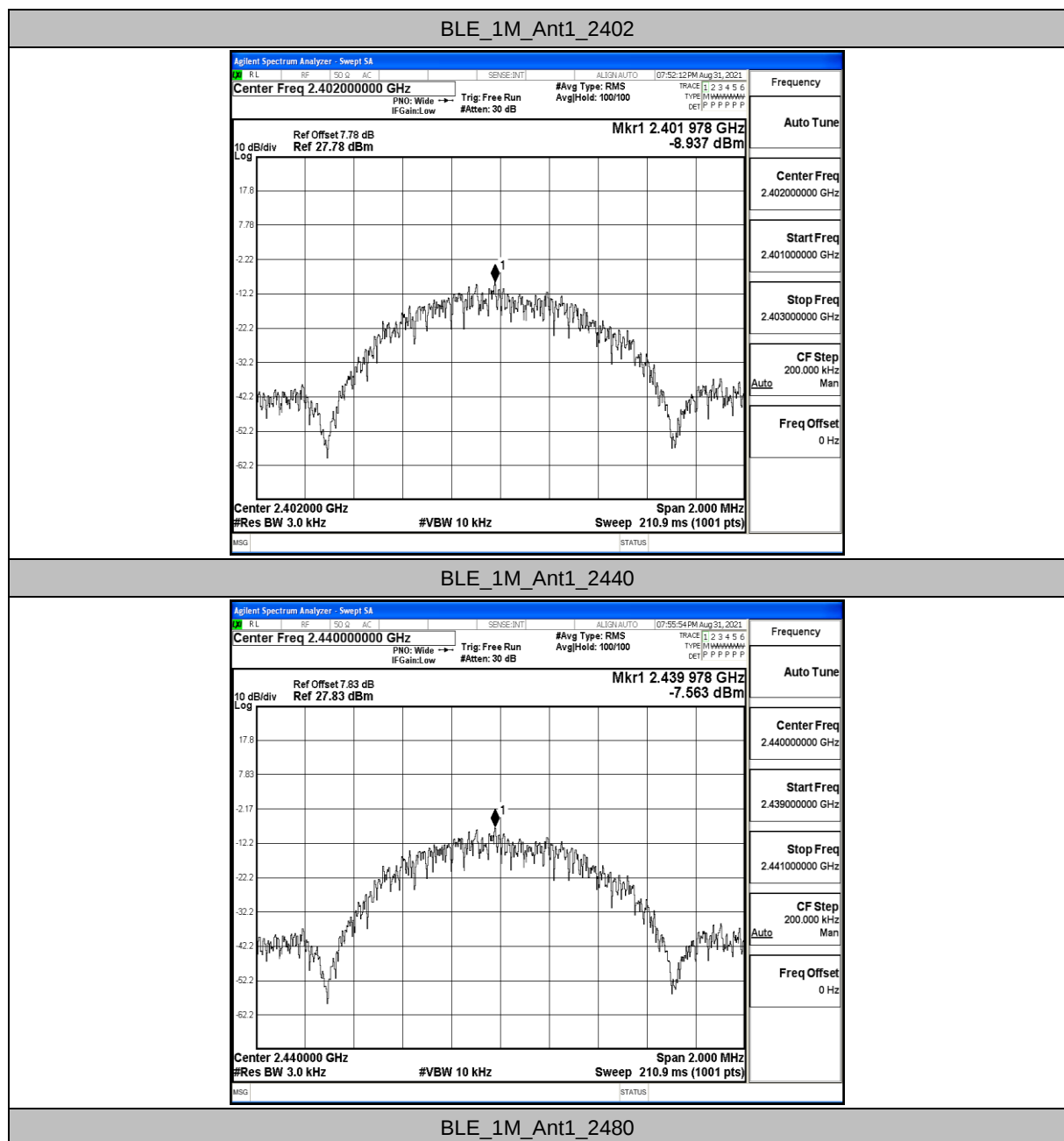


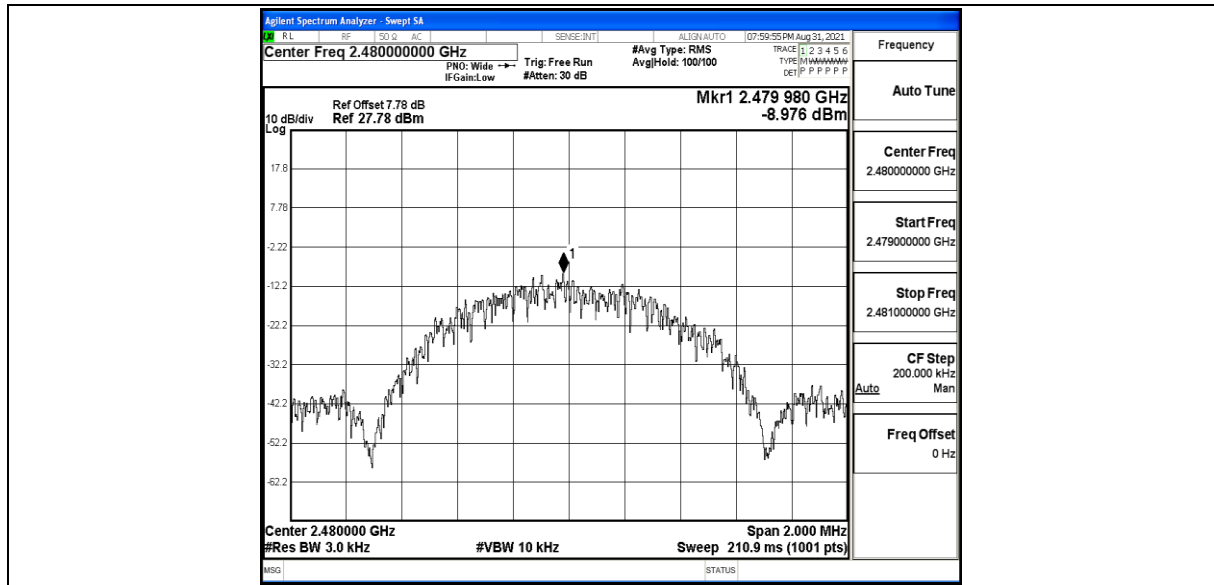
A.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-8.94	≤8	PASS
		2440	-7.56	≤8	PASS
		2480	-8.98	≤8	PASS

Test Graphs





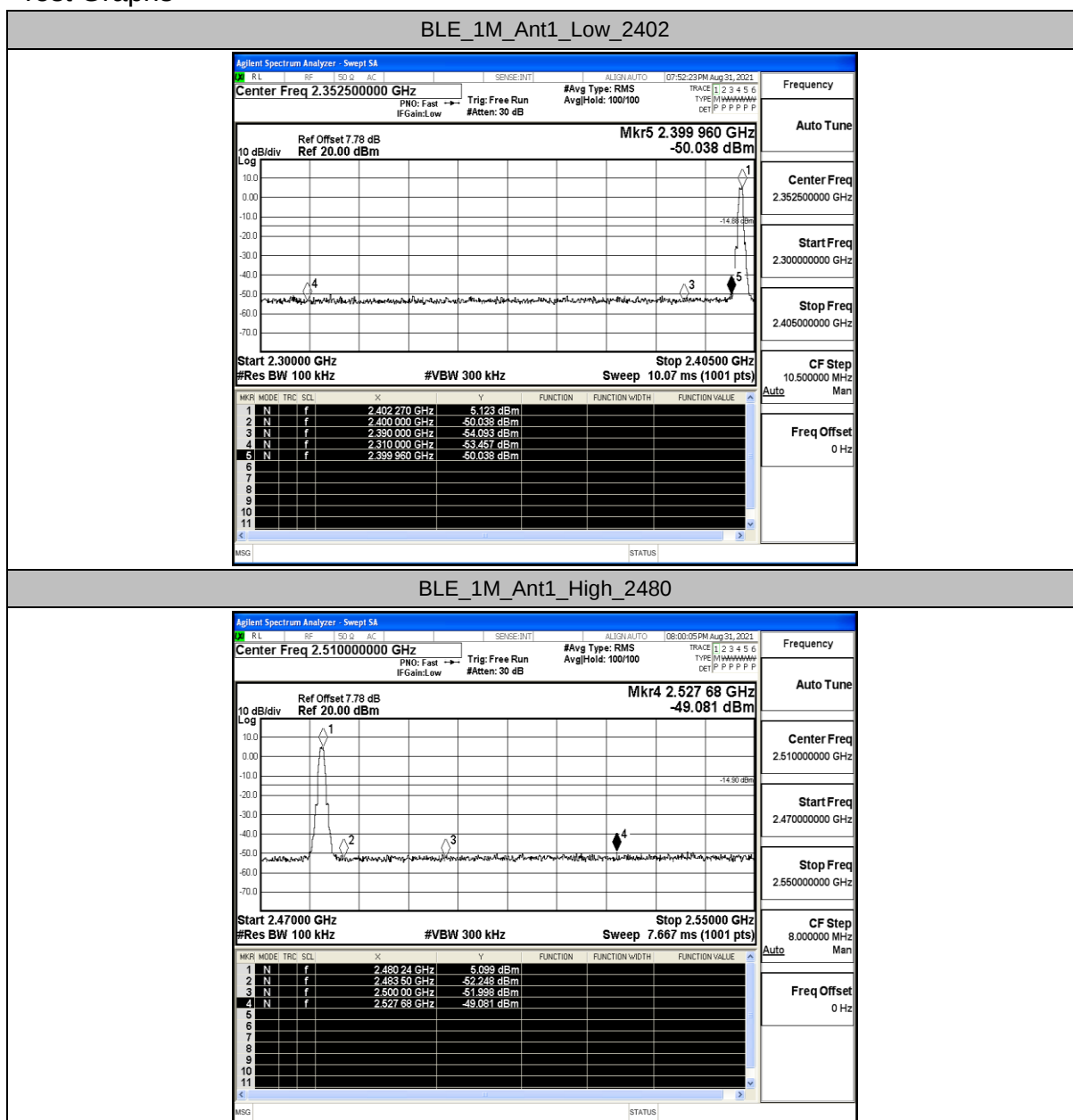


A.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	5.12	-50.04	≤-14.88	PASS
		High	2480	5.10	-49.08	≤-14.9	PASS

Test Graphs



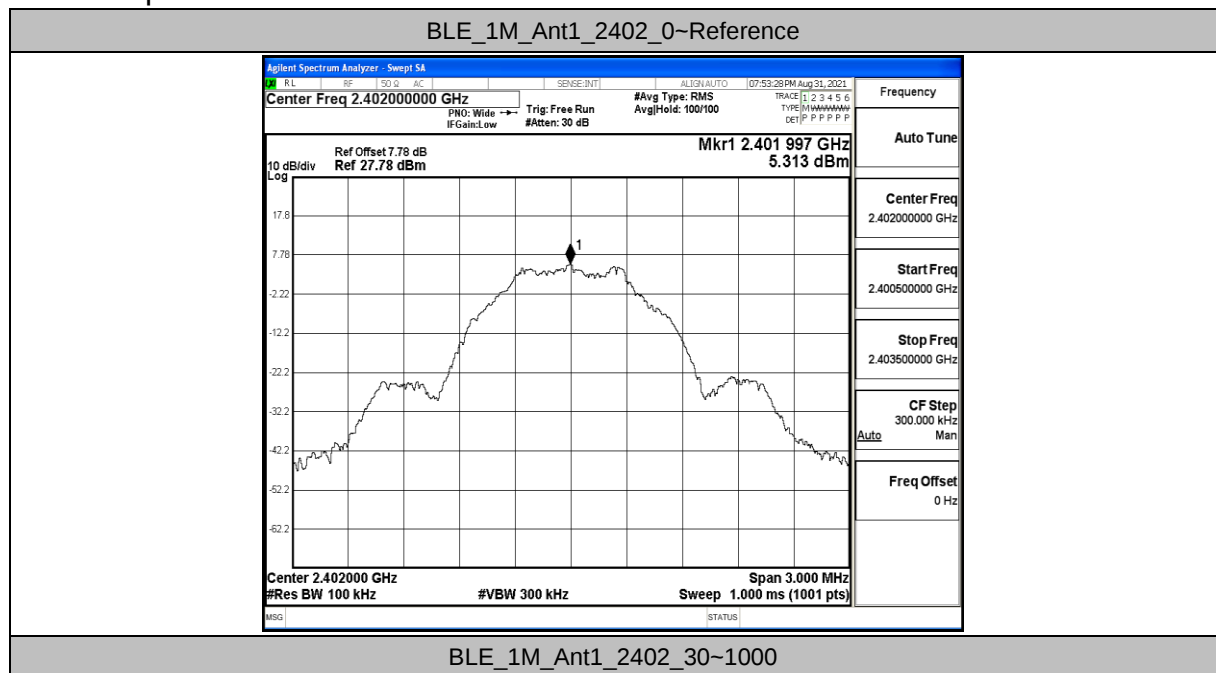


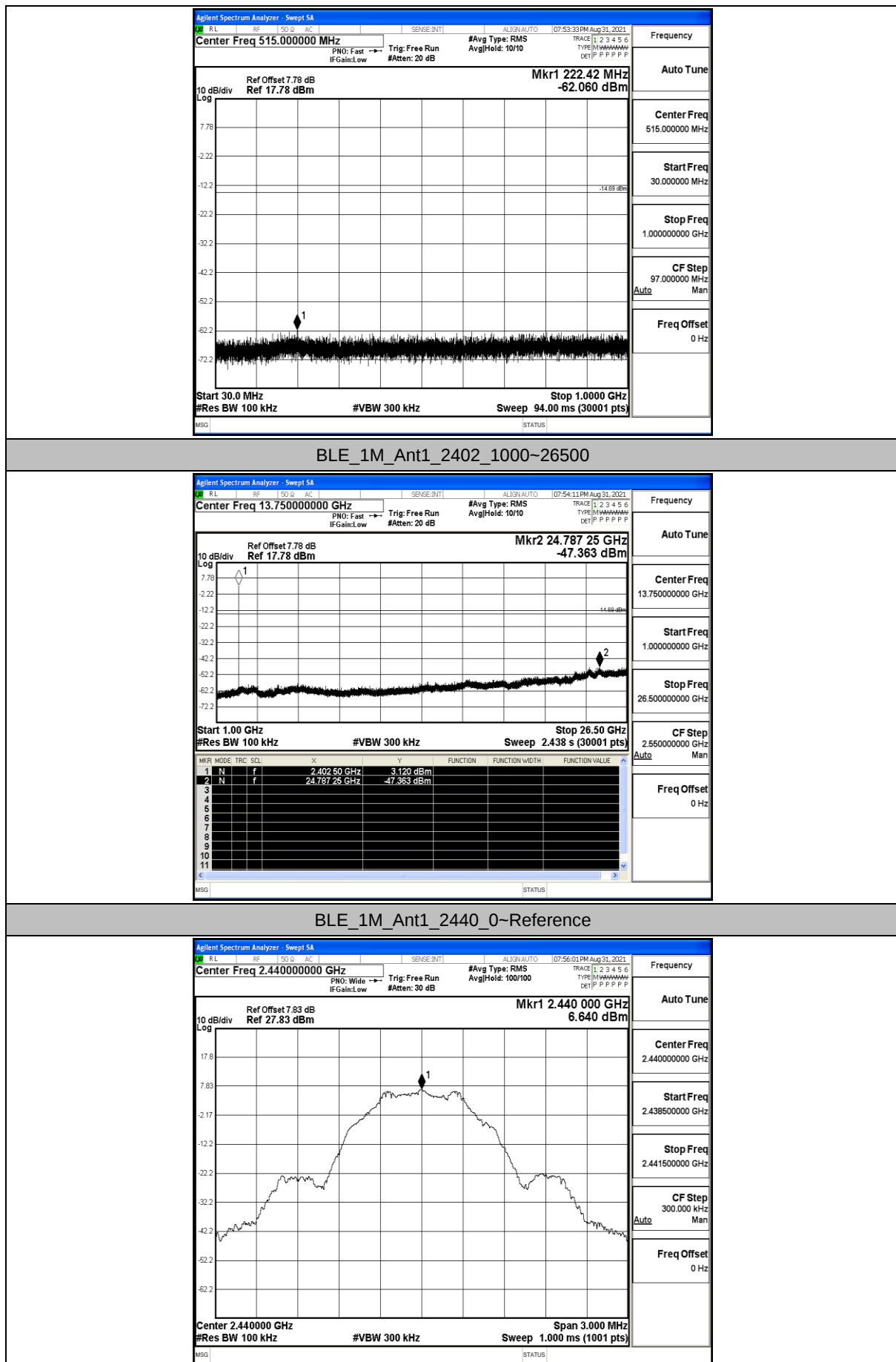
A.5 Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	5.31	5.31	---	PASS
			30~1000	5.31	-62.06	≤-14.69	PASS
			1000~26500	5.31	-47.36	≤-14.69	PASS
		2440	Reference	6.64	6.64	---	PASS
			30~1000	6.64	-62.21	≤-13.36	PASS
			1000~26500	6.64	-47.17	≤-13.36	PASS
		2480	Reference	4.91	4.91	---	PASS
			30~1000	4.91	-61.48	≤-15.1	PASS
			1000~26500	4.91	-47.39	≤-15.1	PASS

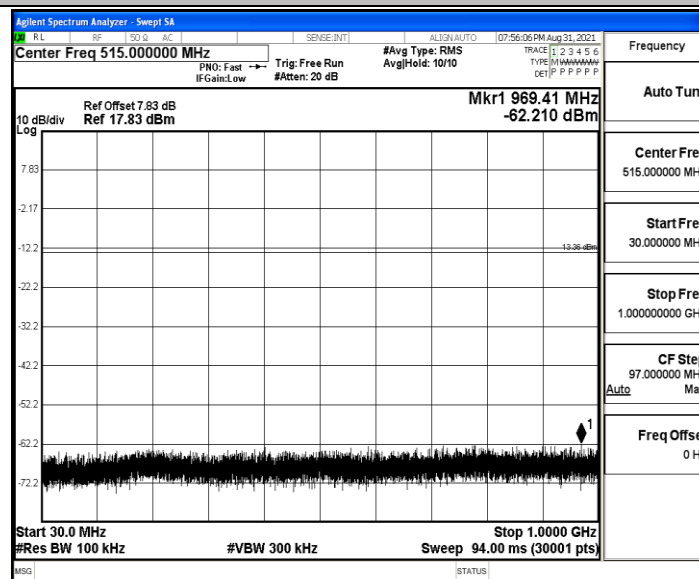
Test Graphs



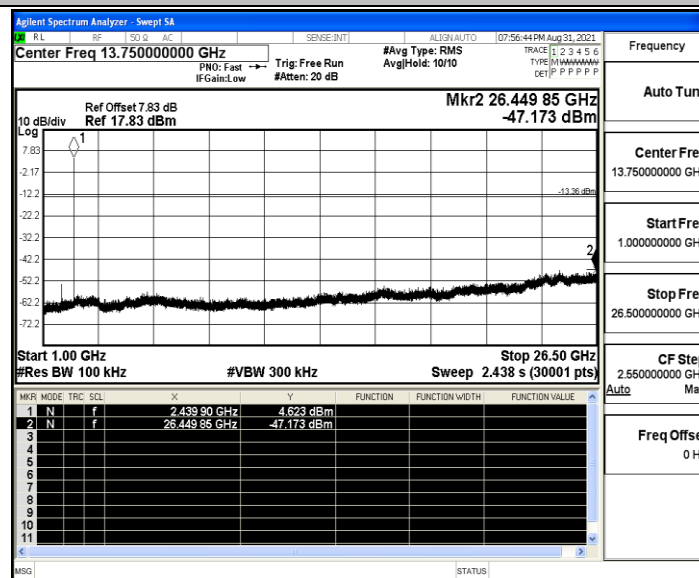




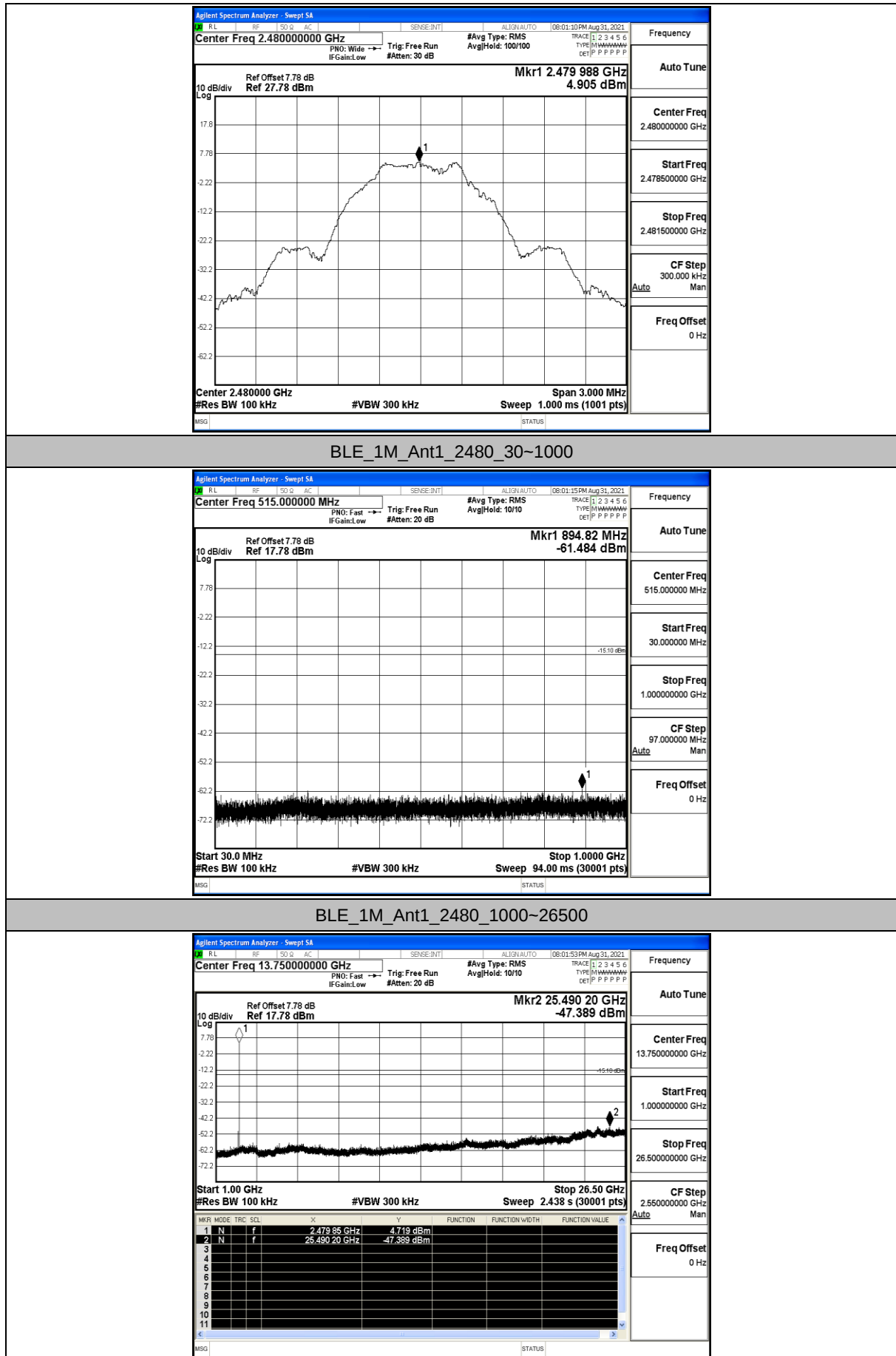
BLE_1M_Ant1_2440_30~1000



BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference





A.6 Duty Cycle

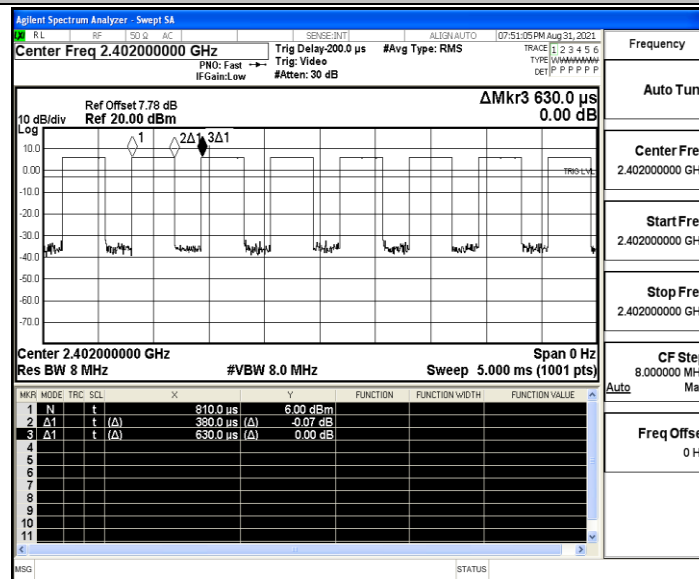
Test Result

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

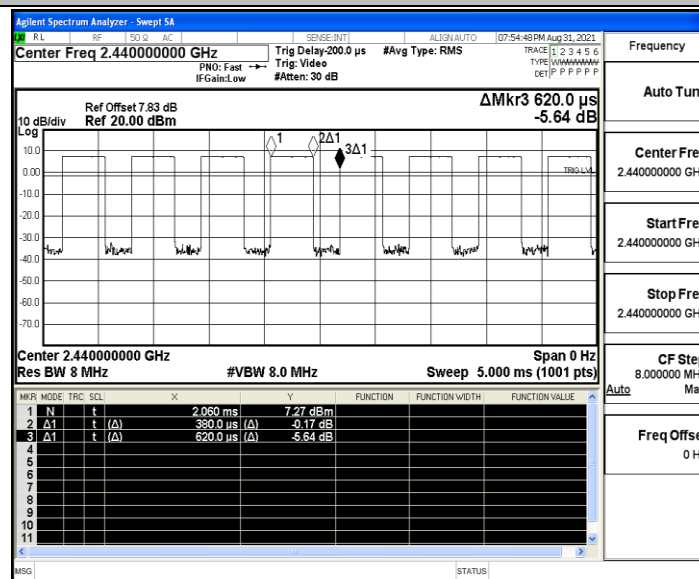


Test Graphs

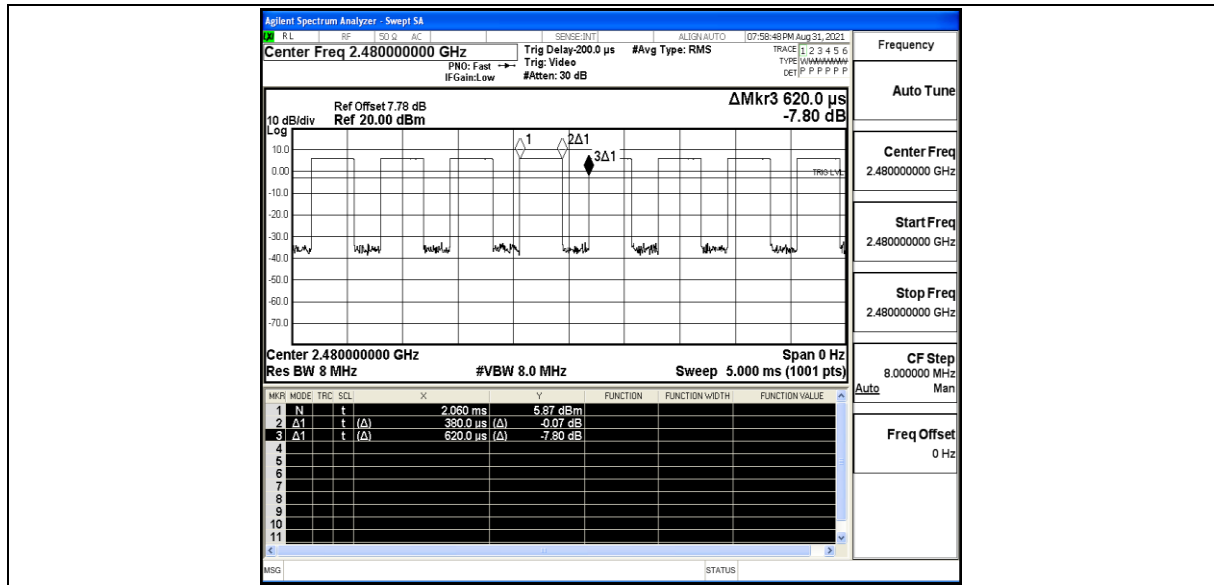
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.7 Emissions in Restricted Bands

Test Result

TestMode	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	2402	AV	2310.000	-48.36	≤-41.20	46.84	≤54	PASS
		AV	2388.620	-47.6	≤-41.20	47.60	≤54	PASS
		AV	2390.000	-48.13	≤-41.20	47.07	≤54	PASS
		Peak	2310.000	-42.9	≤-21.20	52.30	≤74	PASS
		Peak	2339.690	-39.51	≤-21.20	55.69	≤74	PASS
		Peak	2390.000	-41.61	≤-21.20	53.59	≤74	PASS
	2480	AV	2483.500	-46.07	≤-41.20	49.13	≤54	PASS
		AV	2483.520	-46.07	≤-41.20	49.13	≤54	PASS
		AV	2500.000	-47.59	≤-41.20	47.61	≤54	PASS
		Peak	2483.500	-40.58	≤-21.20	54.62	≤74	PASS
		Peak	2497.680	-38.61	≤-21.20	56.59	≤74	PASS
		Peak	2500.000	-41.09	≤-21.20	54.11	≤74	PASS

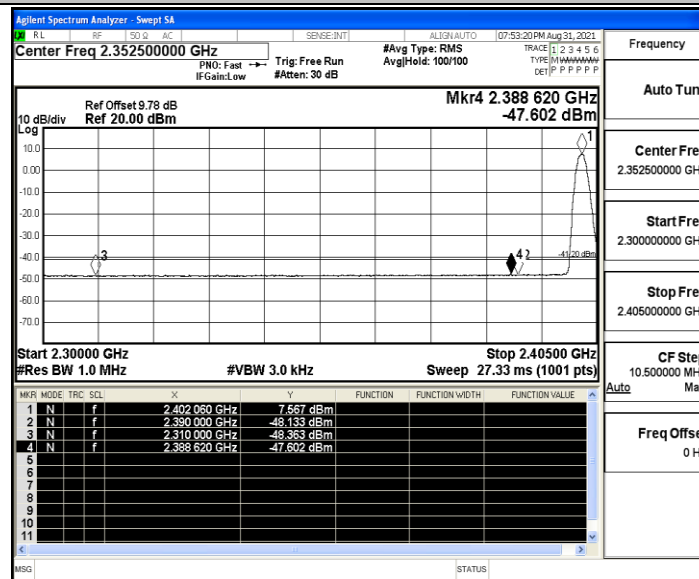
Note:

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.

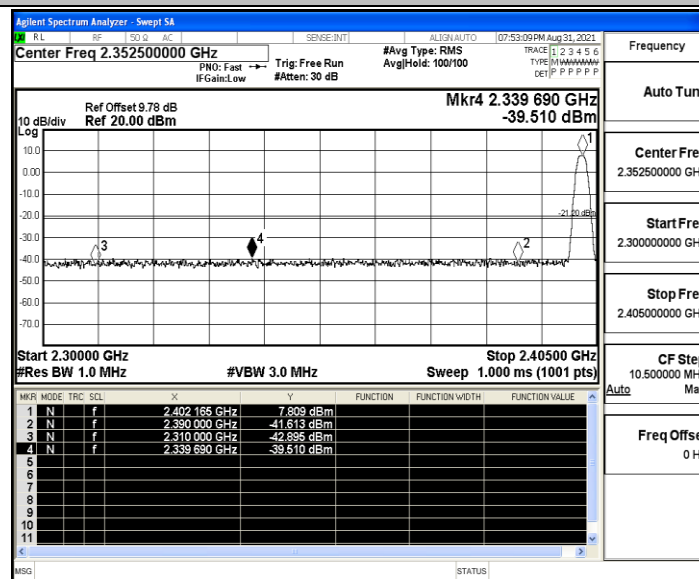


Test Graphs

BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV

