



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: TV Remote

Test Model: RC20

Environmental Conditions

Temperature:	22.4° C
Relative Humidity:	53.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

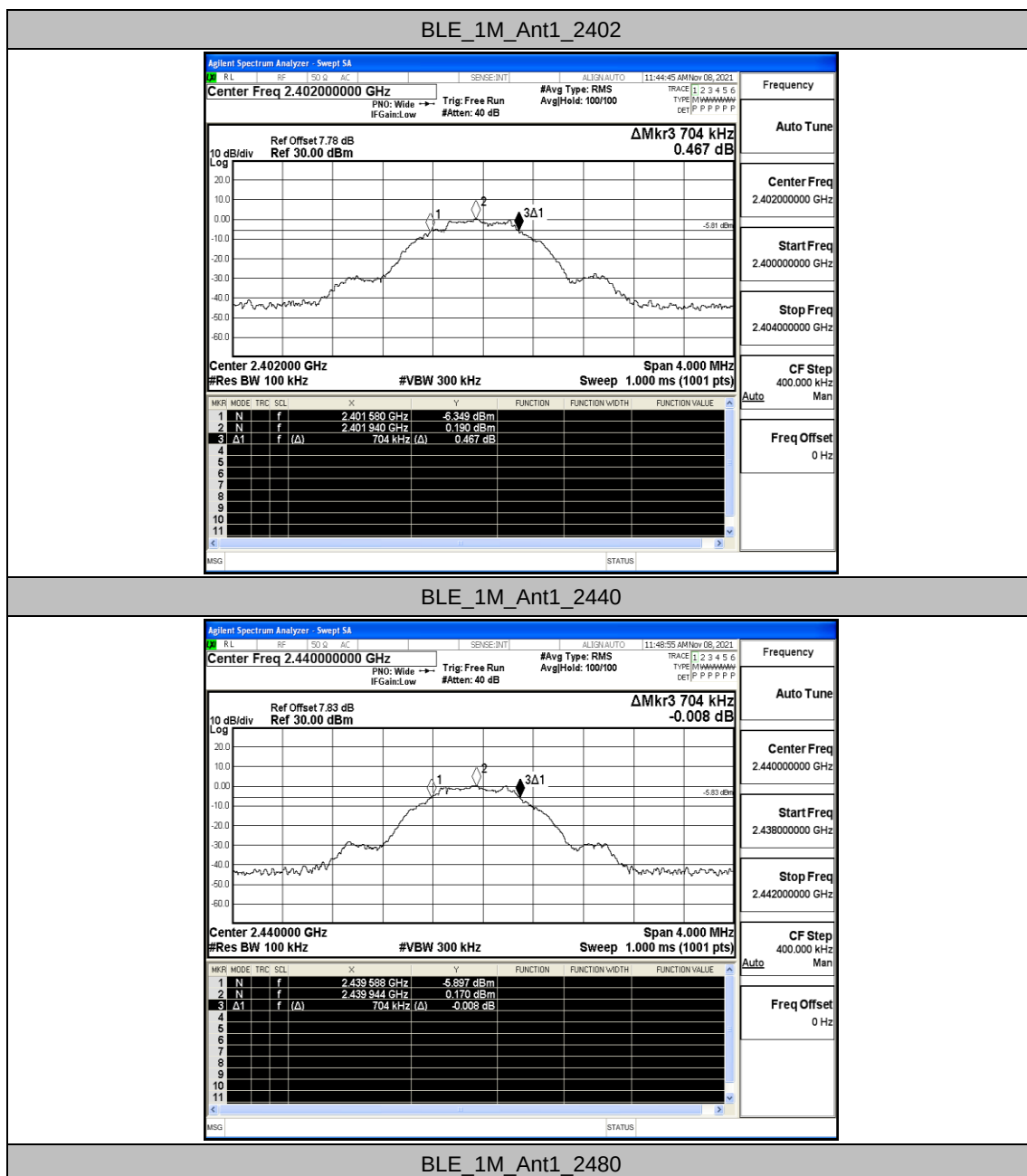


B.1 6dB Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.704	2401.580	2402.284	0.5	PASS
		2440	0.704	2439.588	2440.292	0.5	PASS
		2480	0.700	2479.592	2480.292	0.5	PASS

Test Graphs





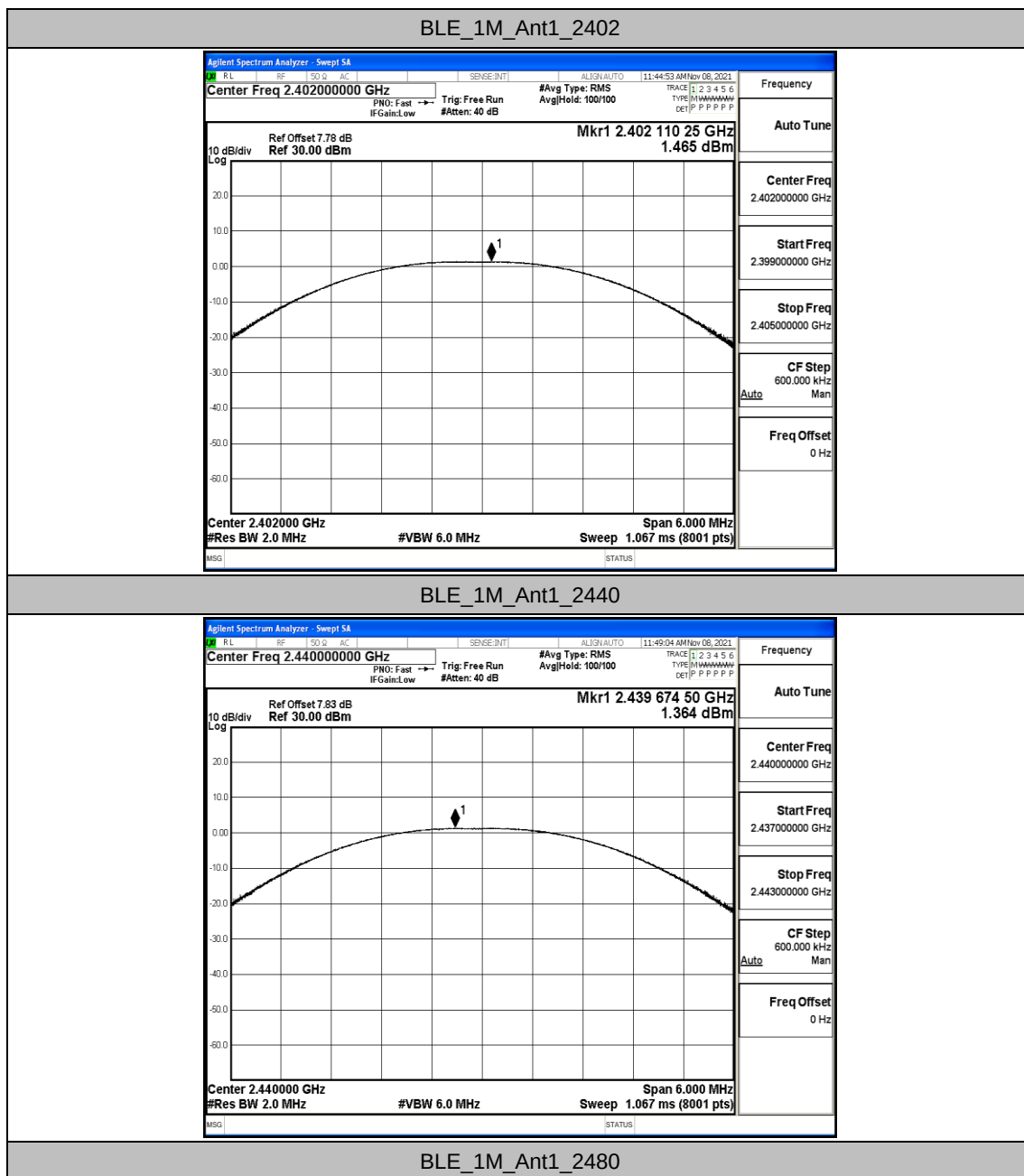


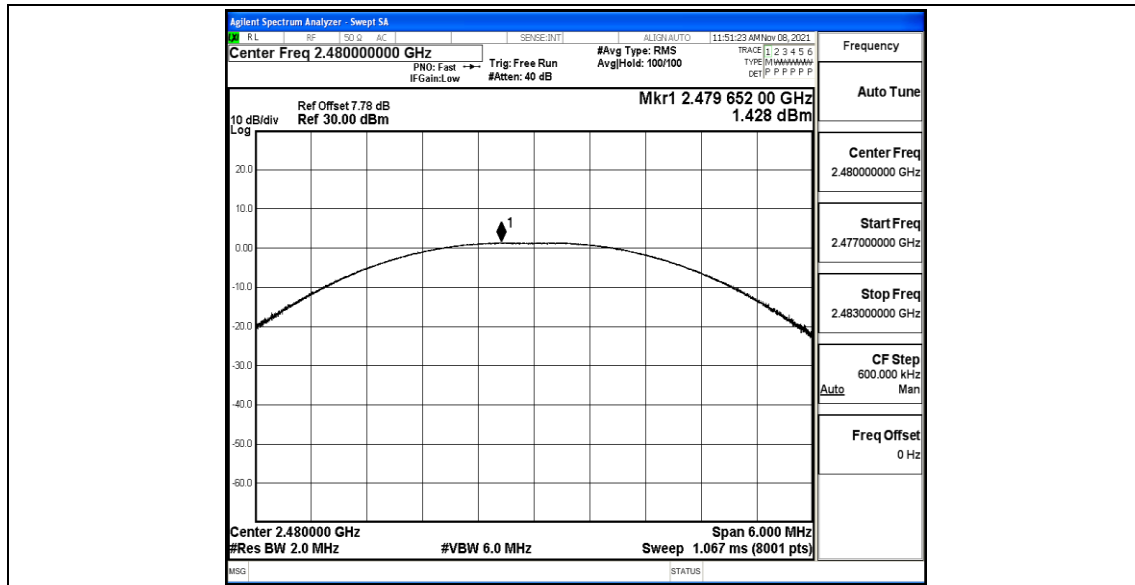
B.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.47	≤30	PASS
		2440	1.36	≤30	PASS
		2480	1.43	≤30	PASS

Test Graphs





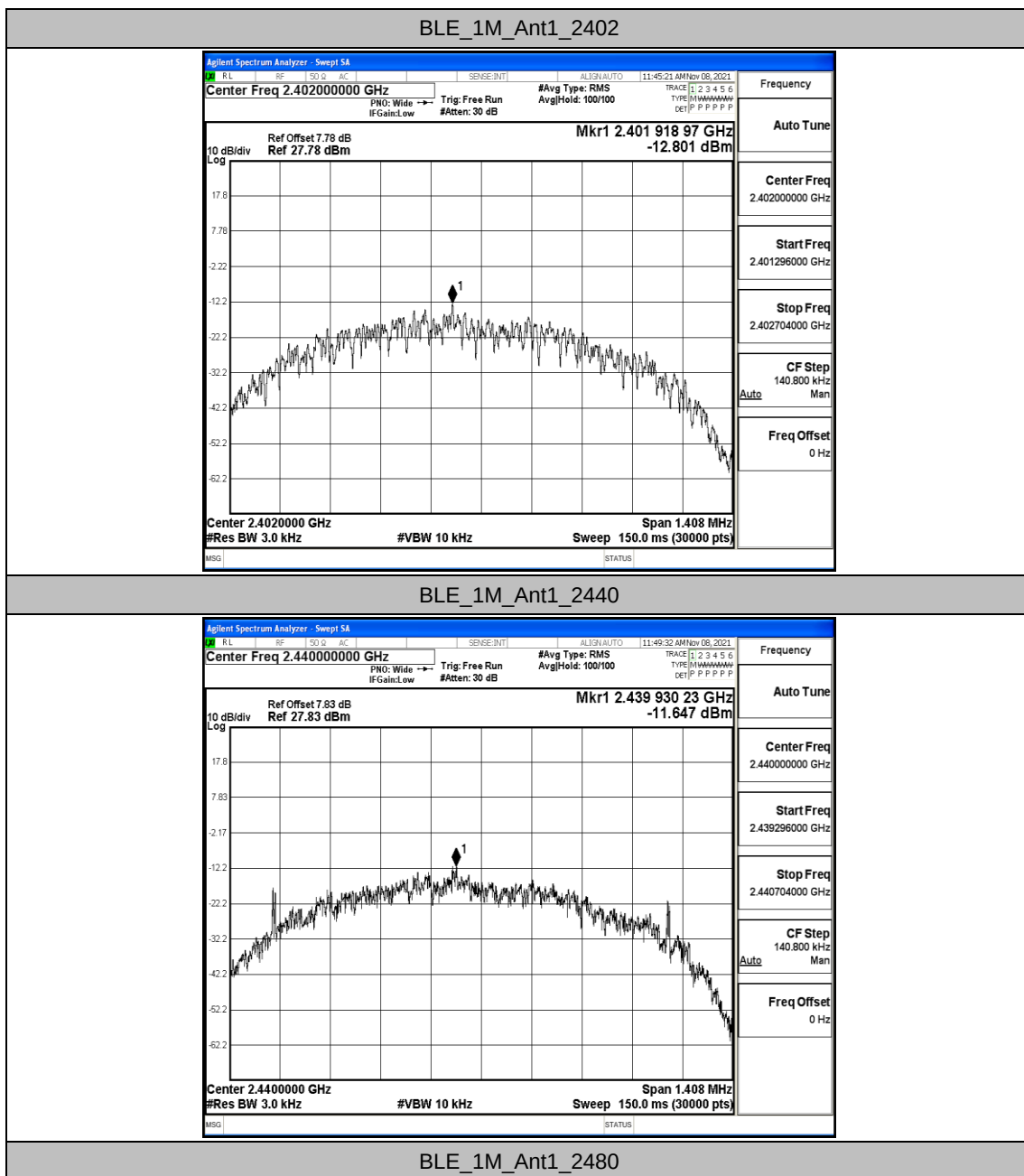


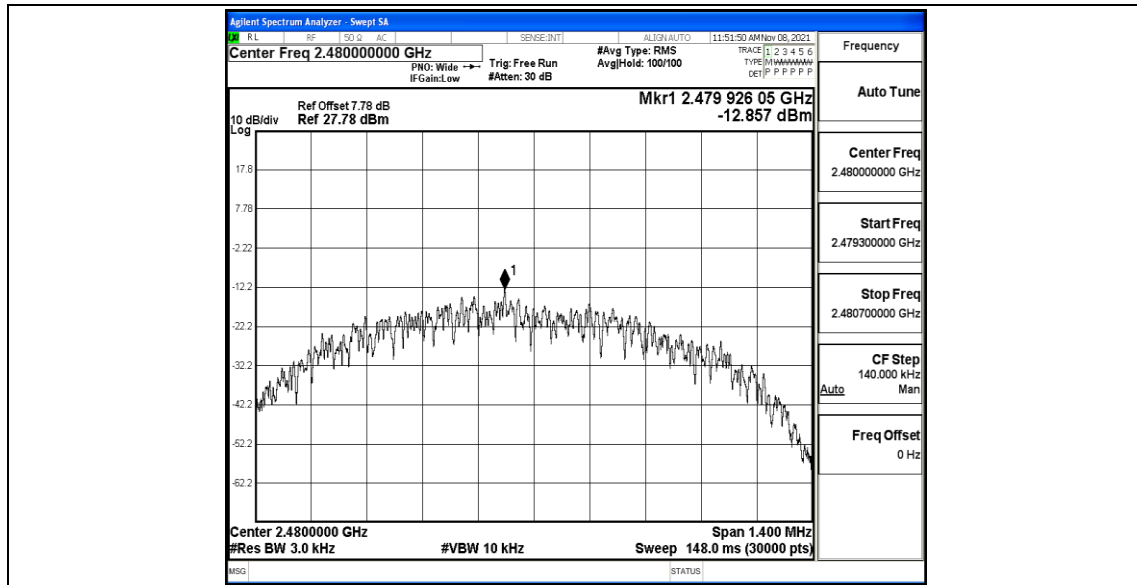
B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-12.8	≤8	PASS
		2440	-11.65	≤8	PASS
		2480	-12.86	≤8	PASS

Test Graphs





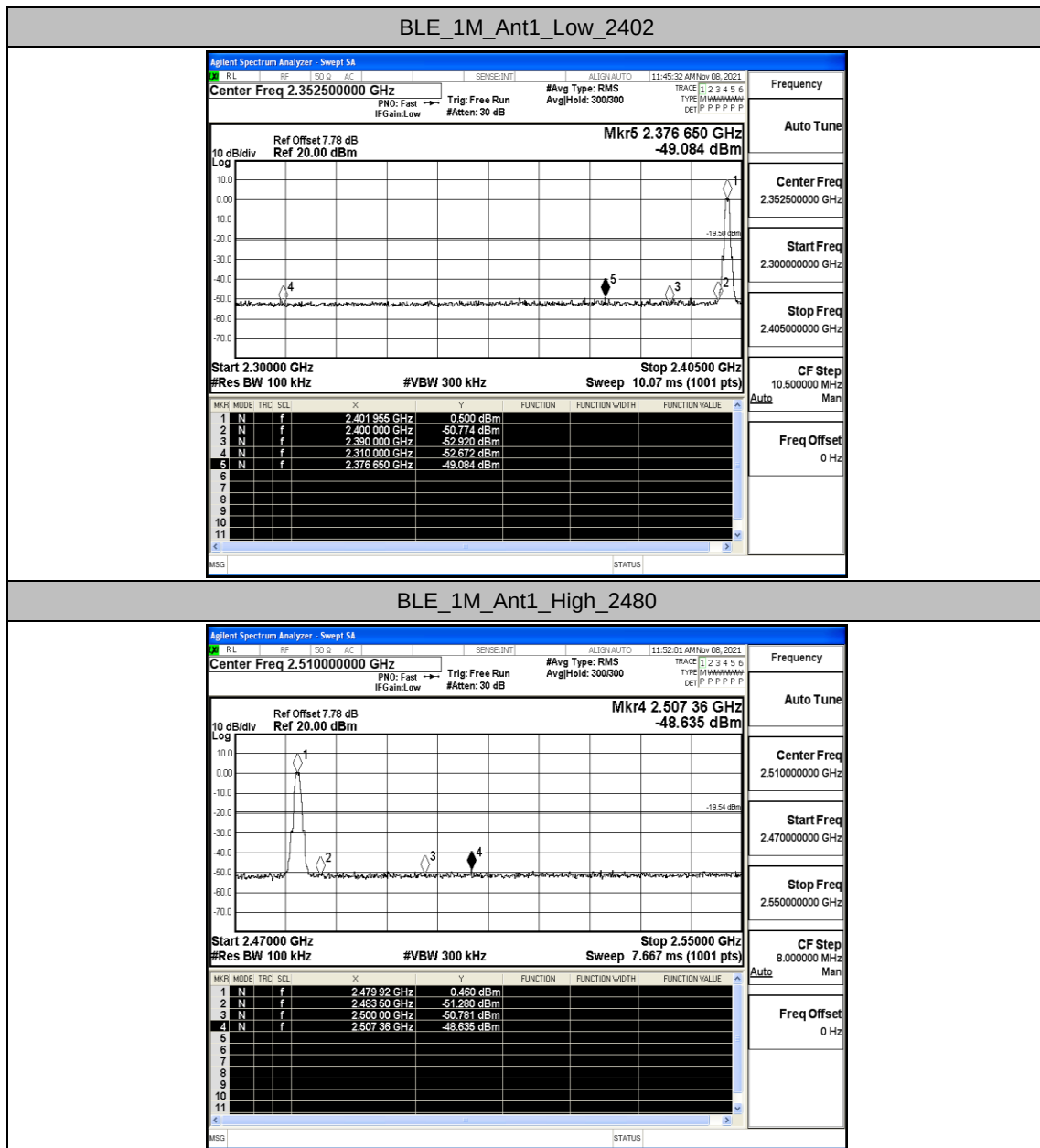


B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.50	-49.08	≤-19.5	PASS
		High	2480	0.46	-48.64	≤-19.54	PASS

Test Graphs





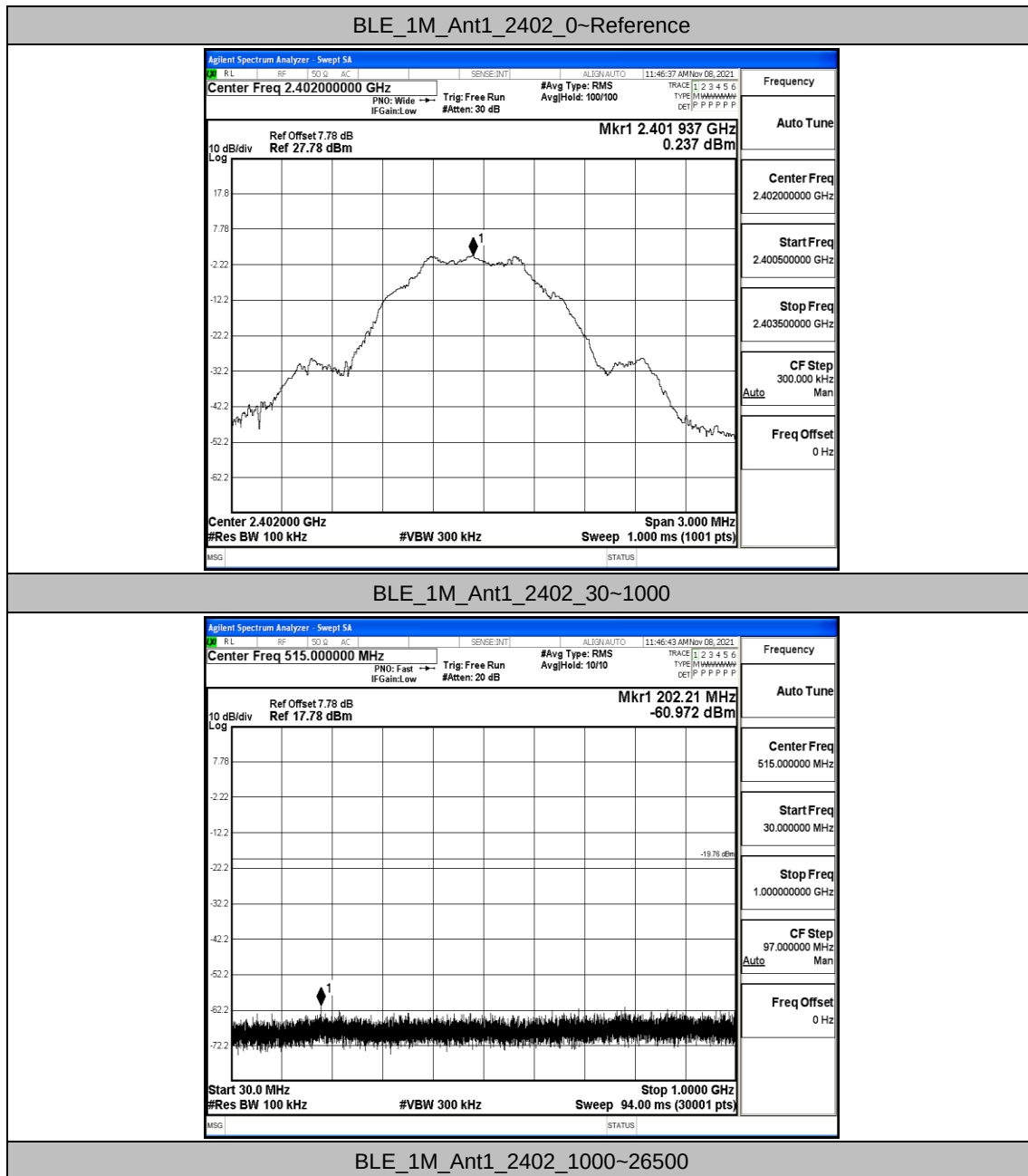
B.5 Conducted Spurious Emission

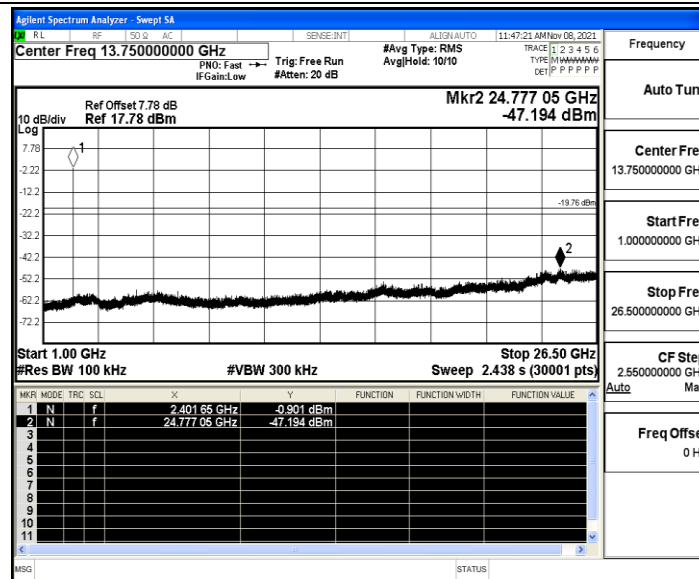
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.24	0.24	---	PASS
			30~1000	0.24	-60.97	≤-19.76	PASS
			1000~26500	0.24	-47.19	≤-19.76	PASS
		2440	Reference	0.11	0.11	---	PASS
			30~1000	0.11	-61.72	≤-19.89	PASS
			1000~26500	0.11	-47.09	≤-19.89	PASS
		2480	Reference	0.04	0.04	---	PASS
			30~1000	0.04	-61.58	≤-19.96	PASS
			1000~26500	0.04	-47.73	≤-19.96	PASS

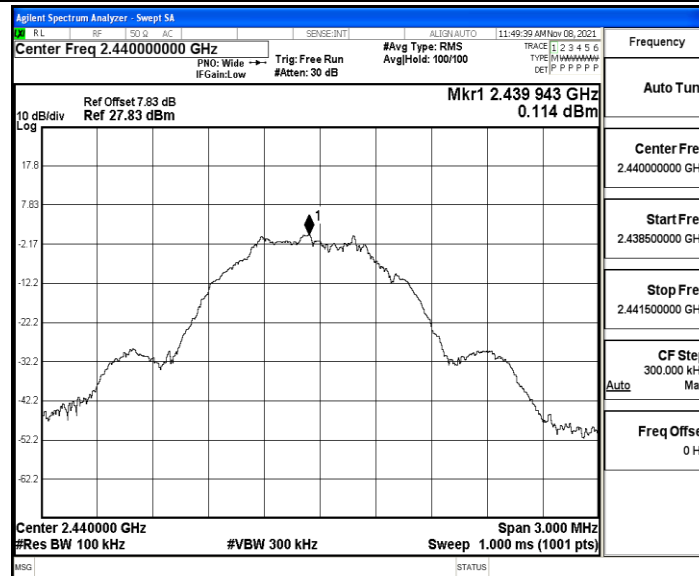


Test Graphs

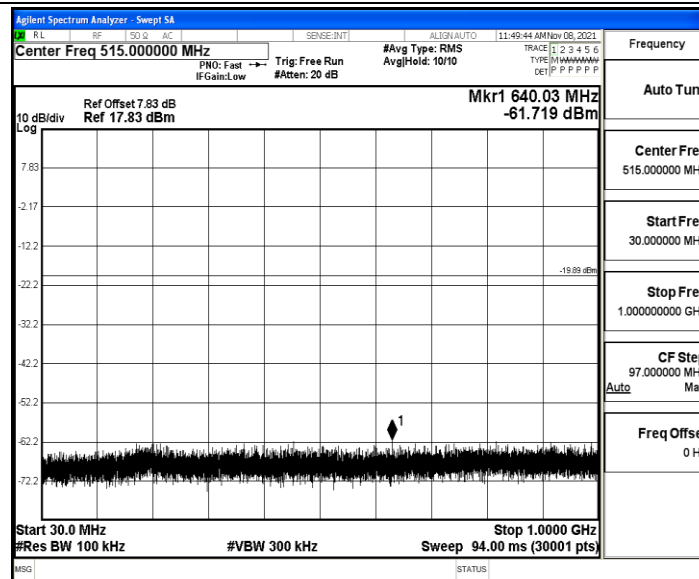




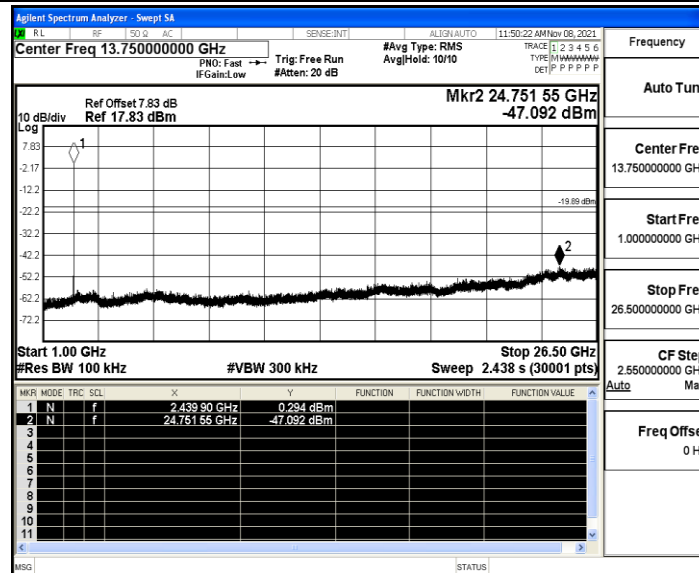
BLE_1M_Ant1_2440_0~Reference



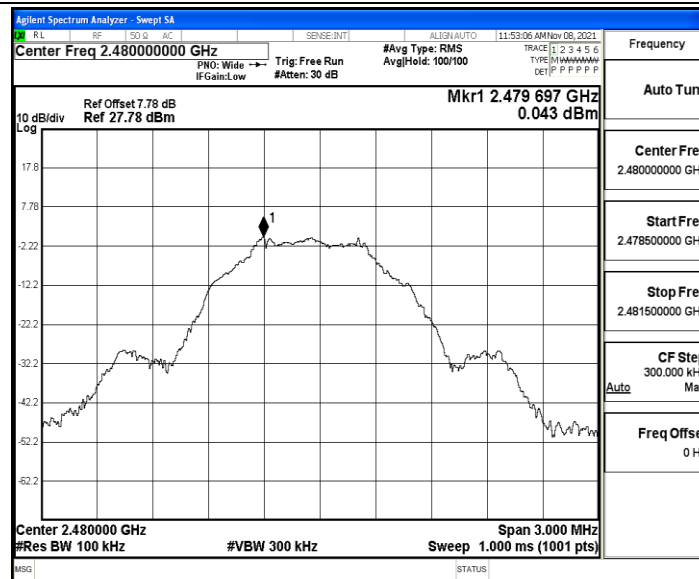
BLE_1M_Ant1_2440_30~1000



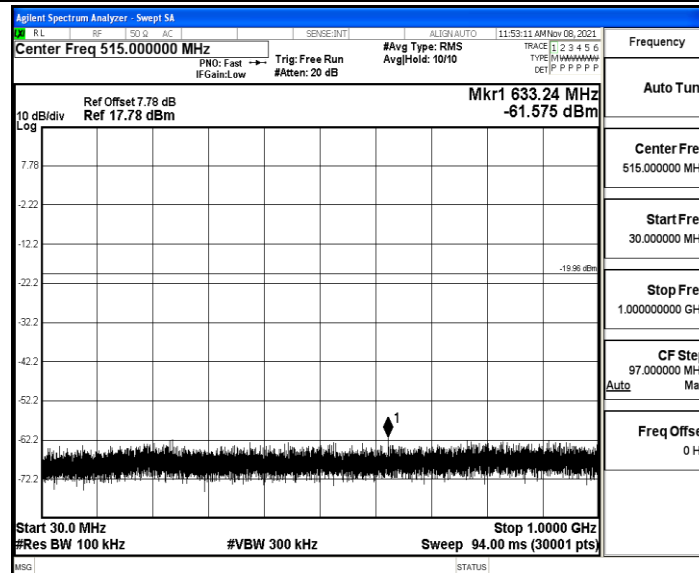
BLE_1M_Ant1_2440_1000~26500



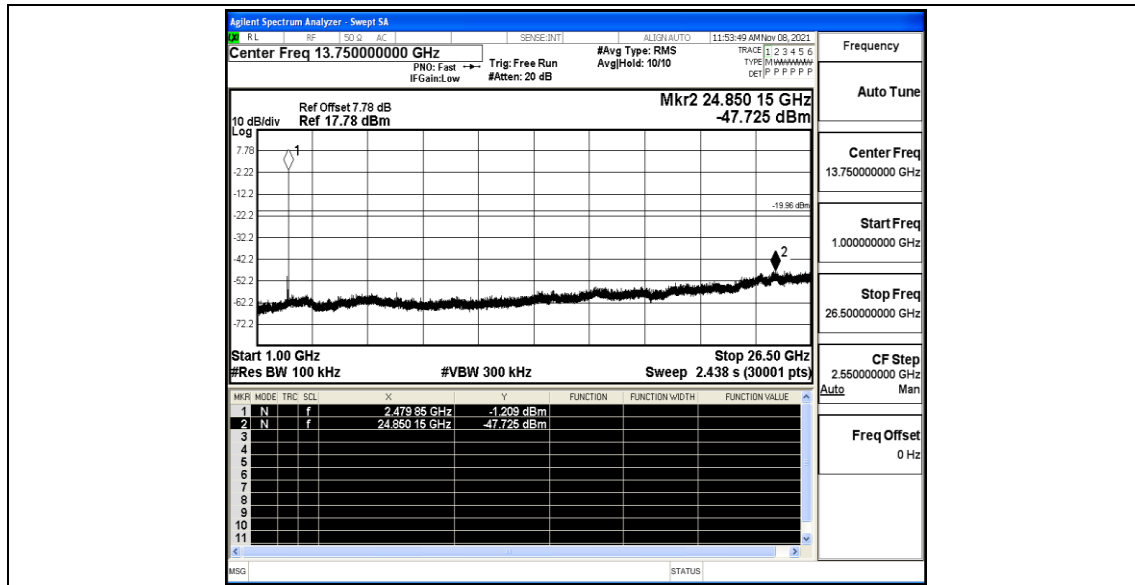
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



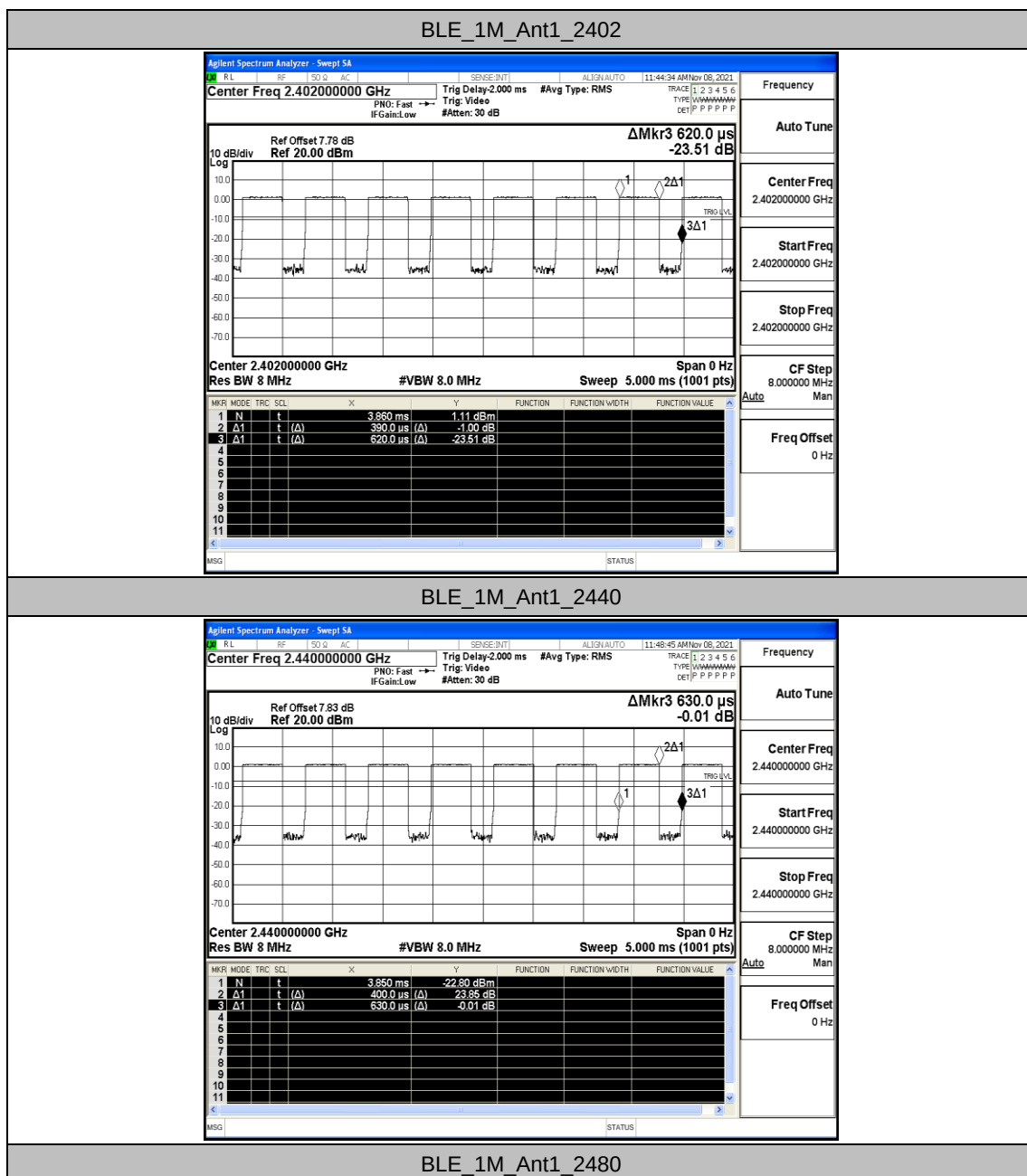


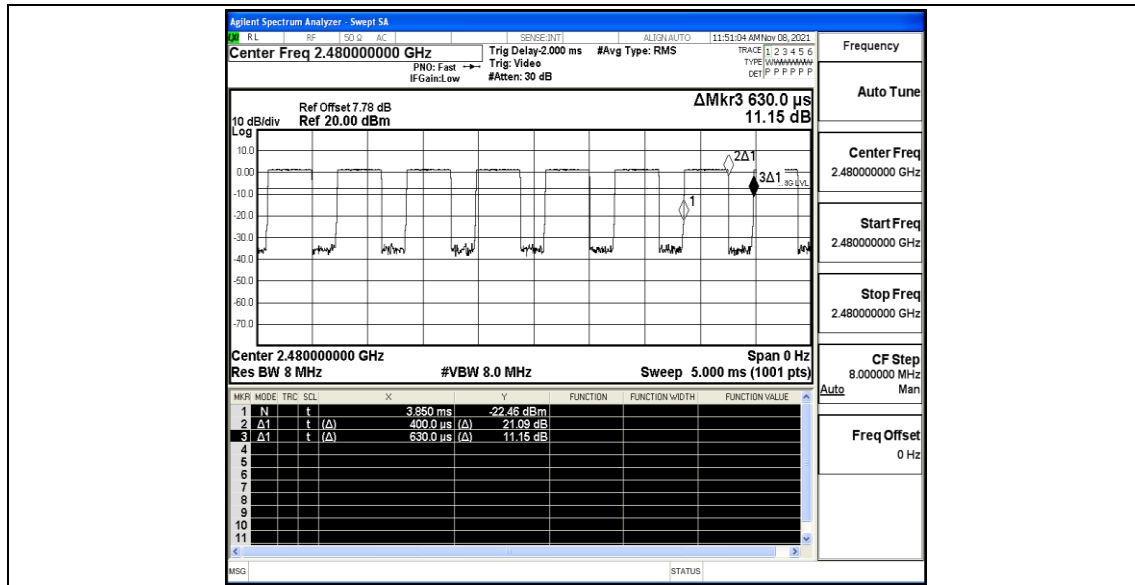
B.6 Duty Cycle

Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.39	0.62	0.6290	62.90	2.01	---	PASS
		2440	0.40	0.63	0.6349	63.49	1.97	---	PASS
		2480	0.40	0.63	0.6349	63.49	1.97	---	PASS

Test Graphs







B.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	-48.21	≤-41.20	46.99	≤54	PASS
		AV	2382.950	-47.64	≤-41.20	47.56	≤54	PASS
		AV	2390.000	-48.12	≤-41.20	47.08	≤54	PASS
		Peak	2310.000	-42.19	≤-21.20	53.01	≤74	PASS
		Peak	2349.035	-38.77	≤-21.20	56.43	≤74	PASS
		Peak	2390.000	-40.32	≤-21.20	54.88	≤74	PASS
	2480	AV	2483.500	-47.13	≤-41.20	48.07	≤54	PASS
		AV	2492.320	-47.09	≤-41.20	48.11	≤54	PASS
		AV	2500.000	-47.59	≤-41.20	47.61	≤54	PASS
		Peak	2483.500	-37.98	≤-21.20	57.22	≤74	PASS
		Peak	2483.520	-37.98	≤-21.20	57.22	≤74	PASS
		Peak	2500.000	-40.12	≤-21.20	55.08	≤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

