



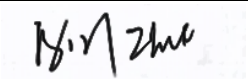
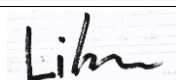
Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Wireless Charger Music Lamp

Test Model: BL1

Environmental Conditions

Temperature:	23.4° C
Relative Humidity:	51.3%
ATM Pressure:	100.0 kPa
Test Engineer:	
Supervised by:	



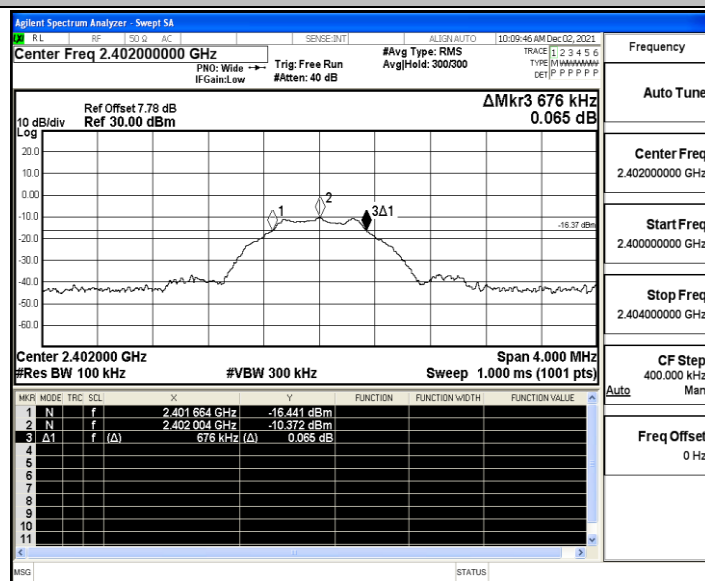
B.1 6dB Bandwidth

Test Result

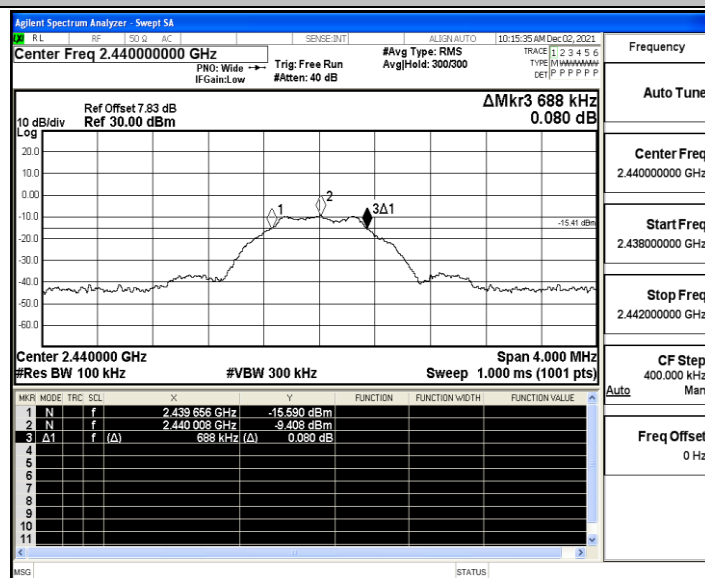
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant	2402	0.676	2401.664	2402.340	≥ 0.5	PASS
		2440	0.688	2439.656	2440.344	≥ 0.5	PASS
		2480	0.668	2479.668	2480.336	≥ 0.5	PASS

Test Graphs

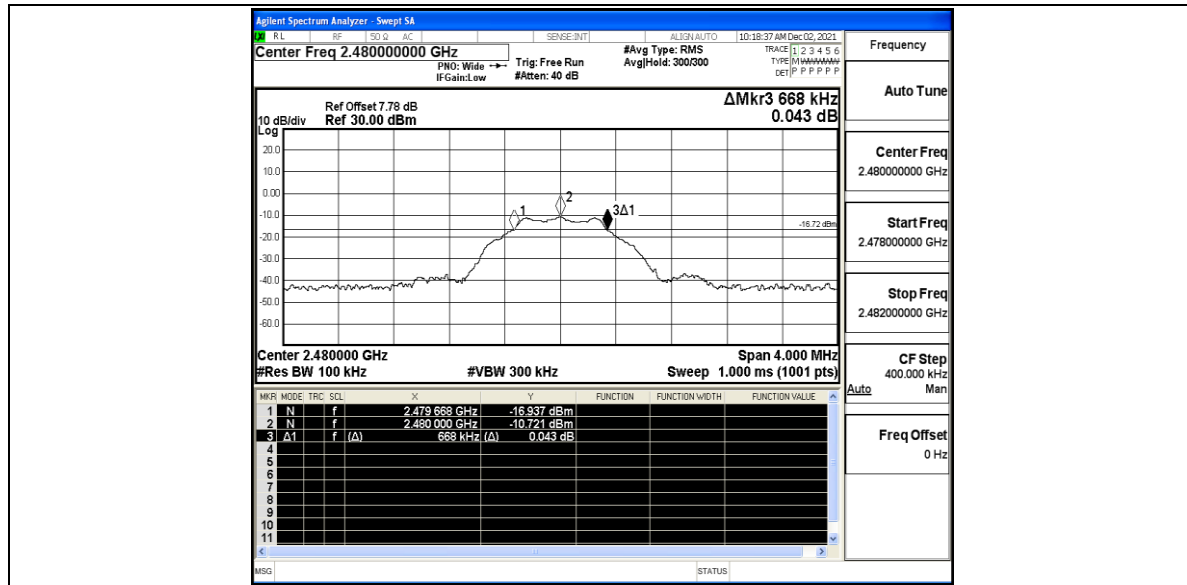
BLE_1M_Ant_2402



BLE_1M_Ant_2440



BLE_1M_Ant_2480



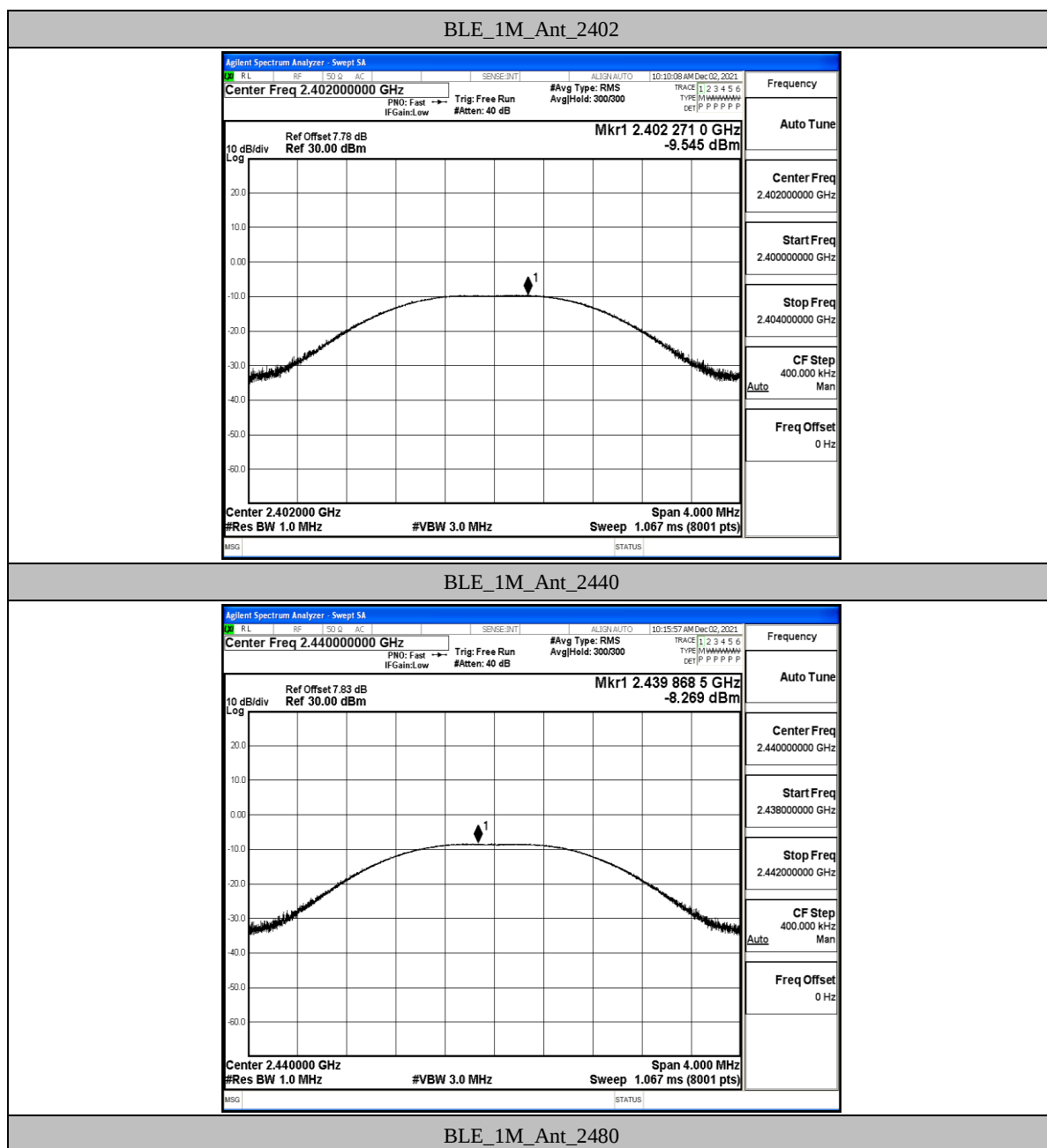


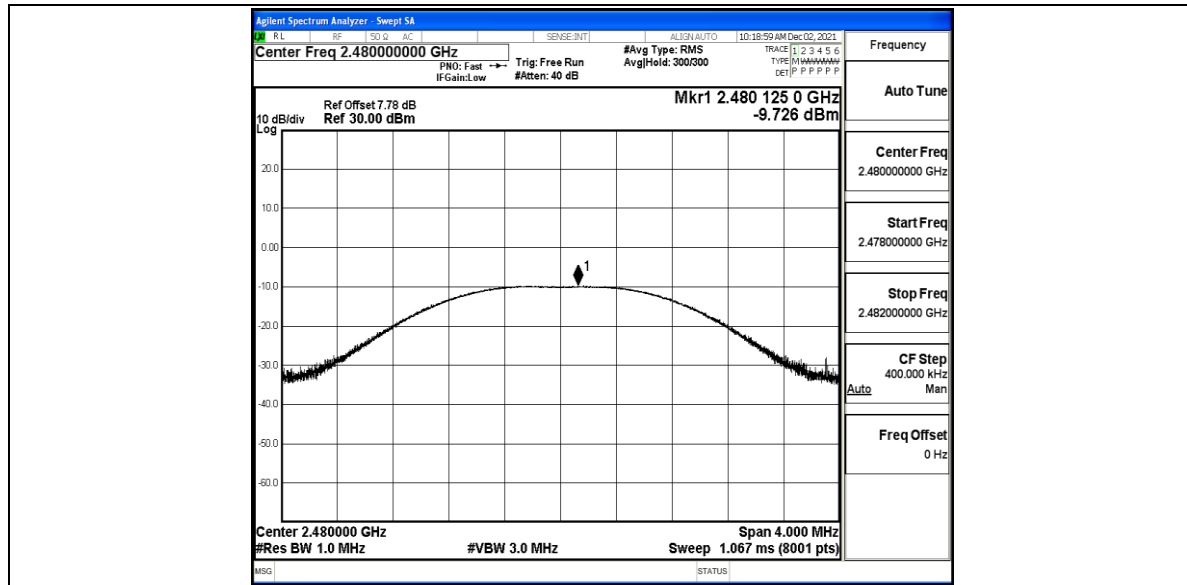
B.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant	2402	-9.55	≤30	PASS
		2440	-8.27	≤30	PASS
		2480	-9.73	≤30	PASS

Test Graphs





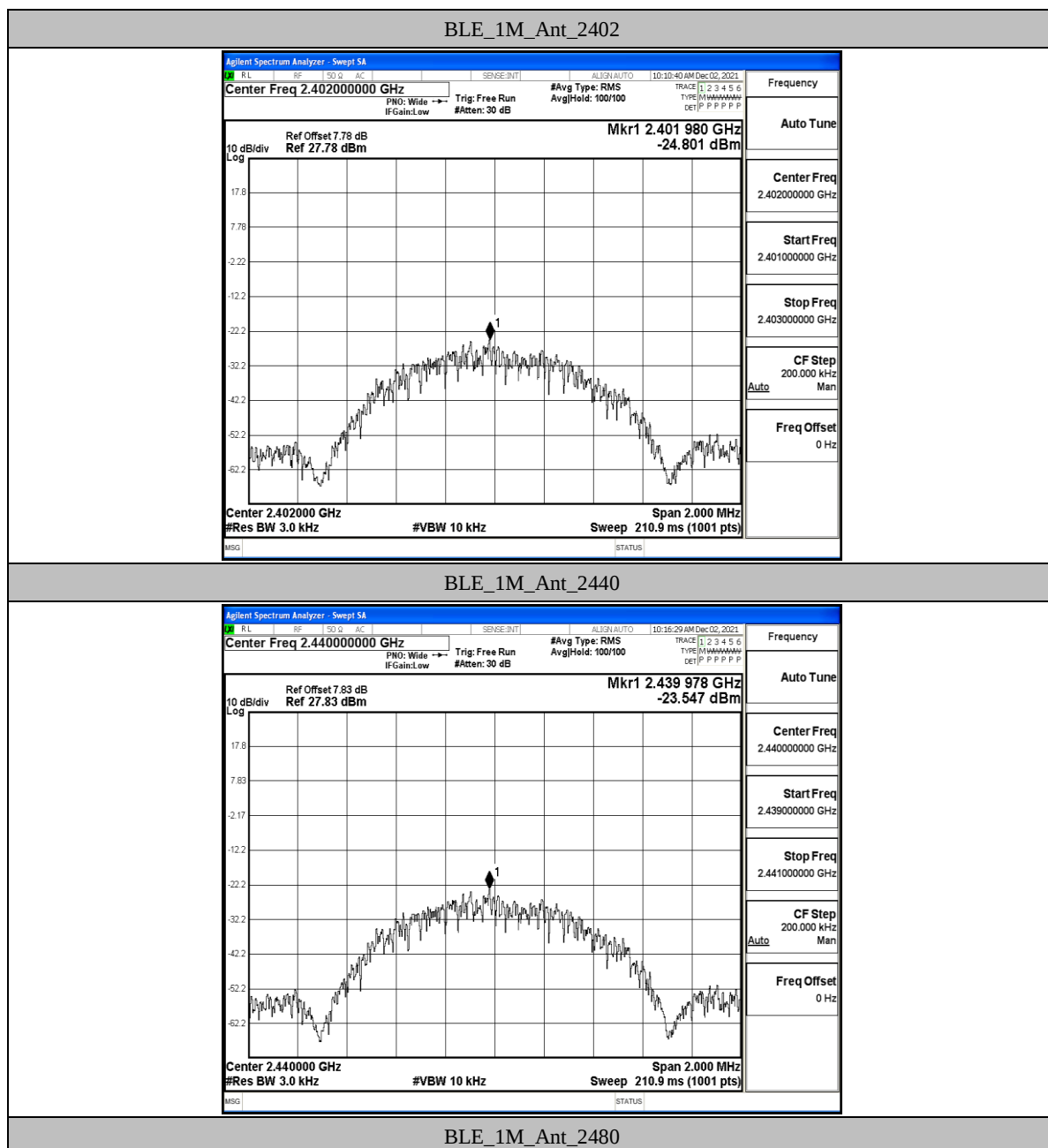


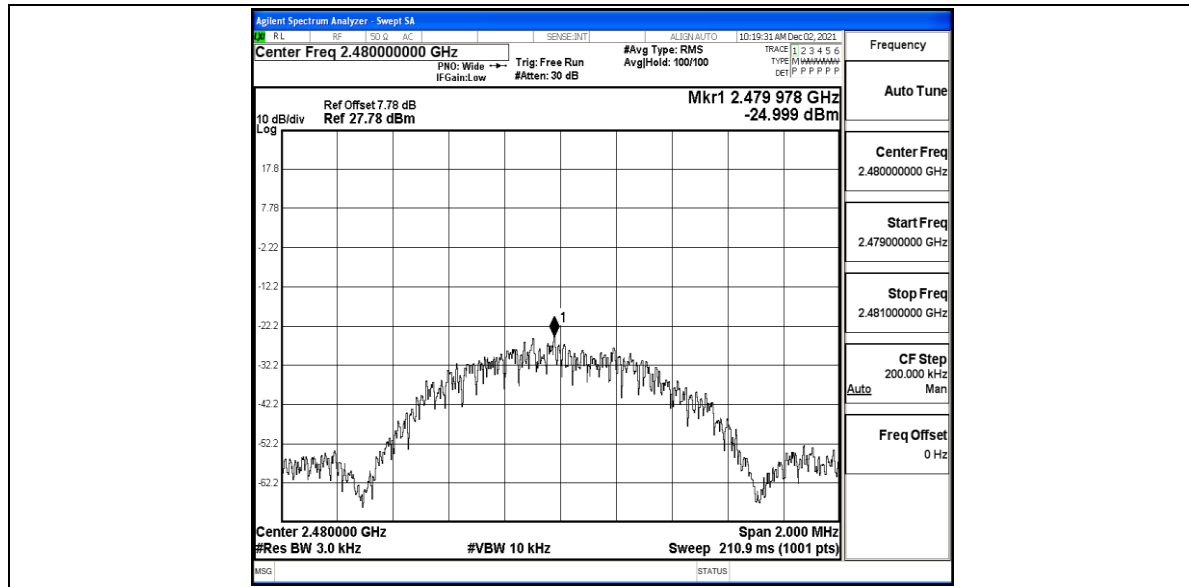
B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant	2402	-24.80	≤ 8	PASS
		2440	-23.55	≤ 8	PASS
		2480	-25.00	≤ 8	PASS

Test Graphs





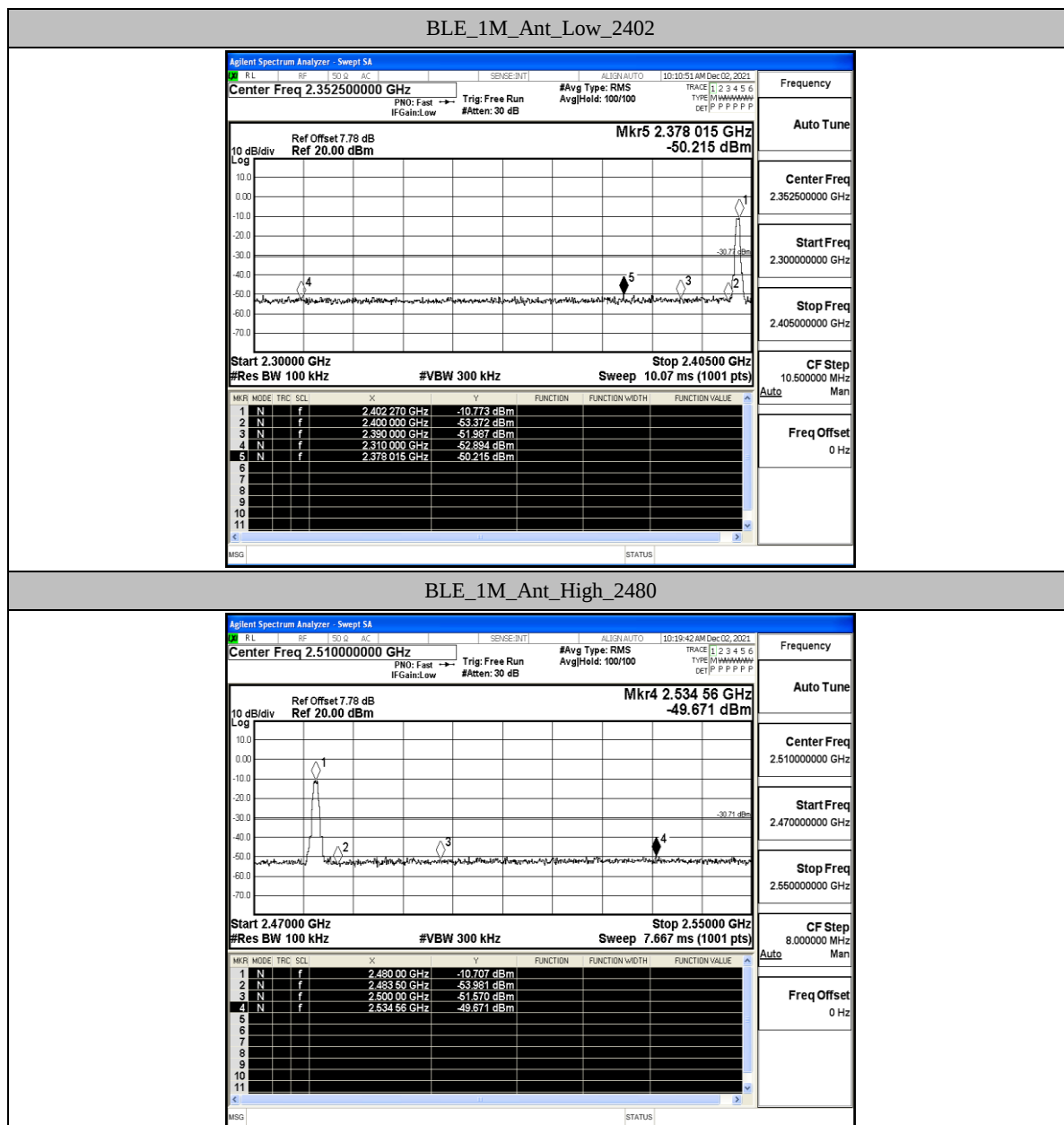


B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant	Low	2402	-10.77	-50.22	≤ -30.77	PASS
		High	2480	-10.71	-49.67	≤ -30.71	PASS

Test Graphs



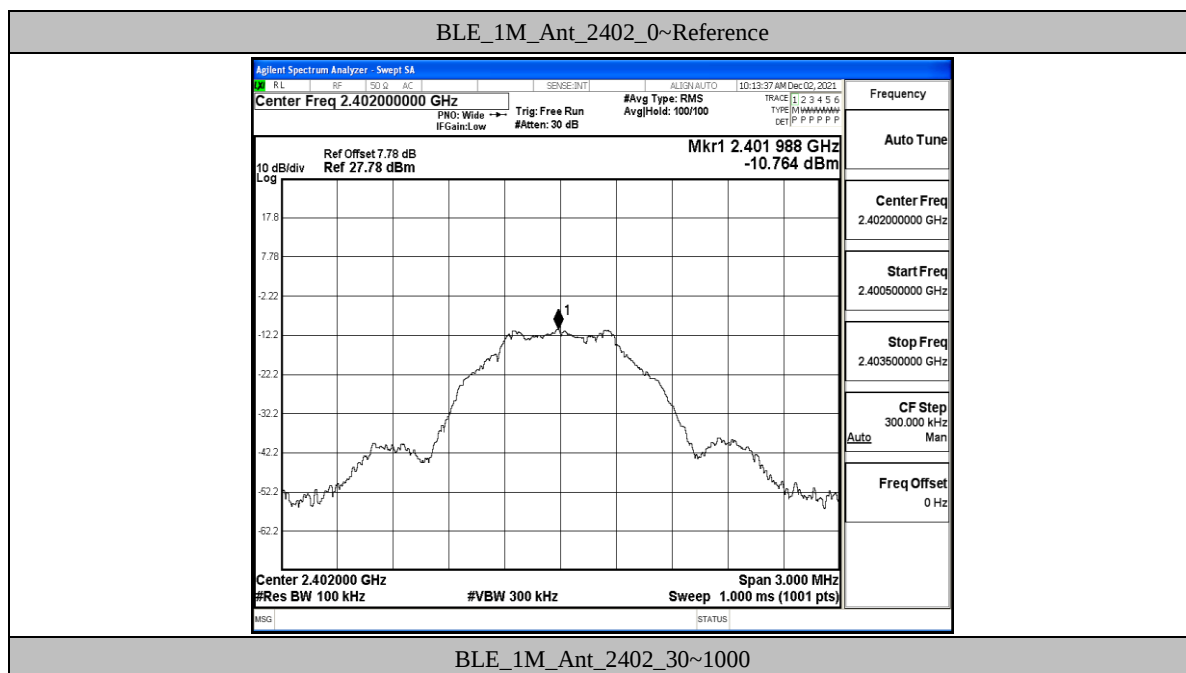


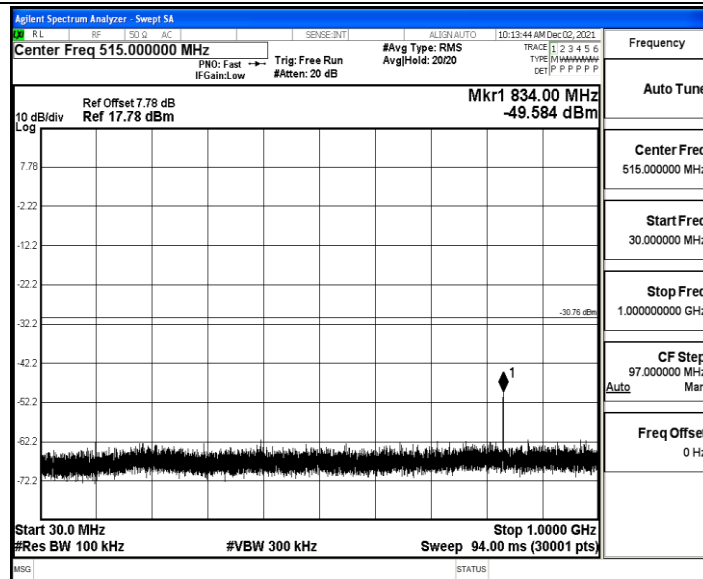
B.5 Conducted Spurious Emission

Test Result

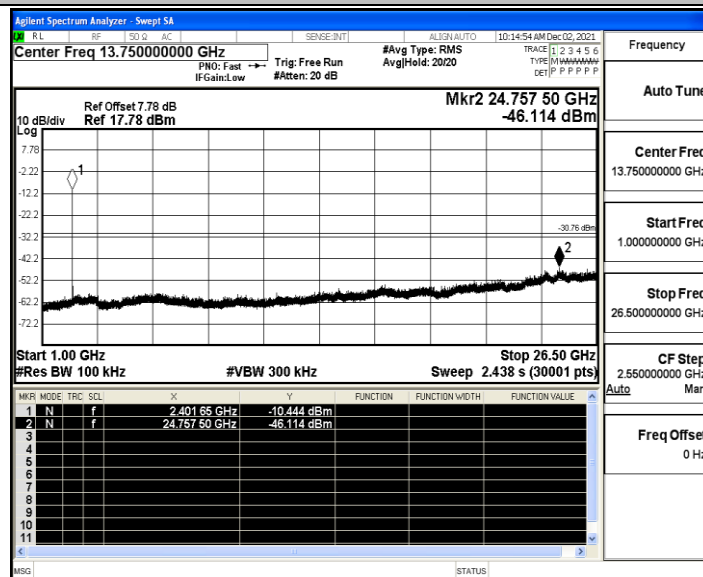
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant	2402	Reference	-10.76	-10.76	---	PASS
			30~1000	-10.76	-49.58	≤ -30.76	PASS
			1000~26500	-10.76	-46.11	≤ -30.76	PASS
		2440	Reference	-9.34	-9.34	---	PASS
			30~1000	-9.34	-62.16	≤ -29.34	PASS
			1000~26500	-9.34	-46.41	≤ -29.34	PASS
		2480	Reference	-10.75	-10.75	---	PASS
			30~1000	-10.75	-61.18	≤ -30.75	PASS
			1000~26500	-10.75	-47.67	≤ -30.75	PASS

Test Graphs

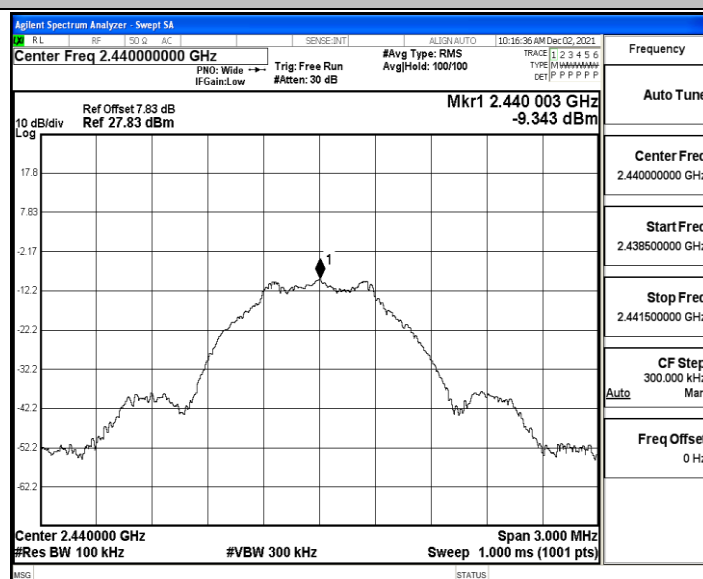




BLE_1M_Ant_2402_1000~26500

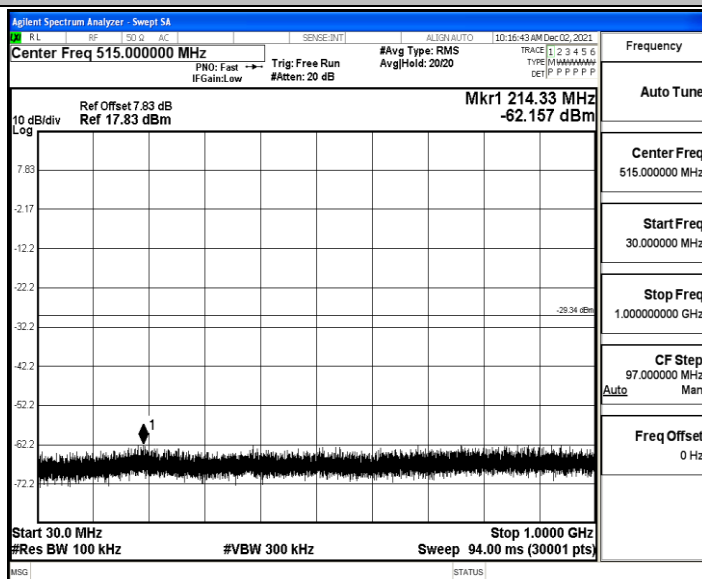


BLE_1M_Ant_2440_0~Reference

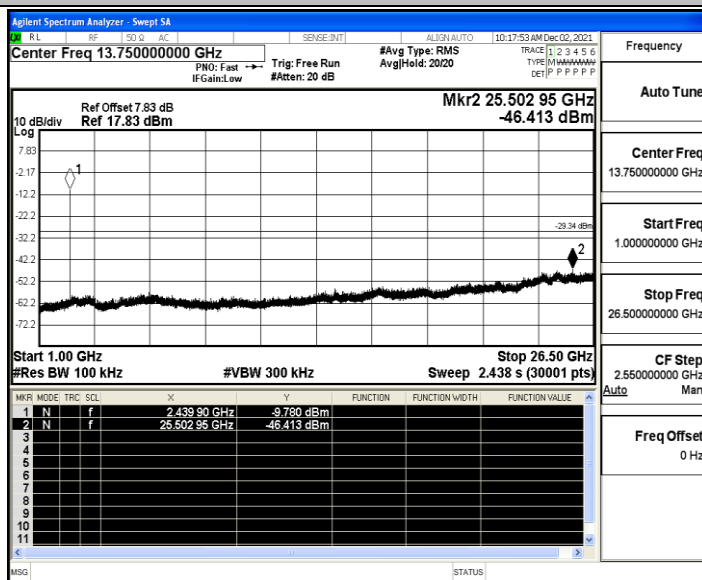




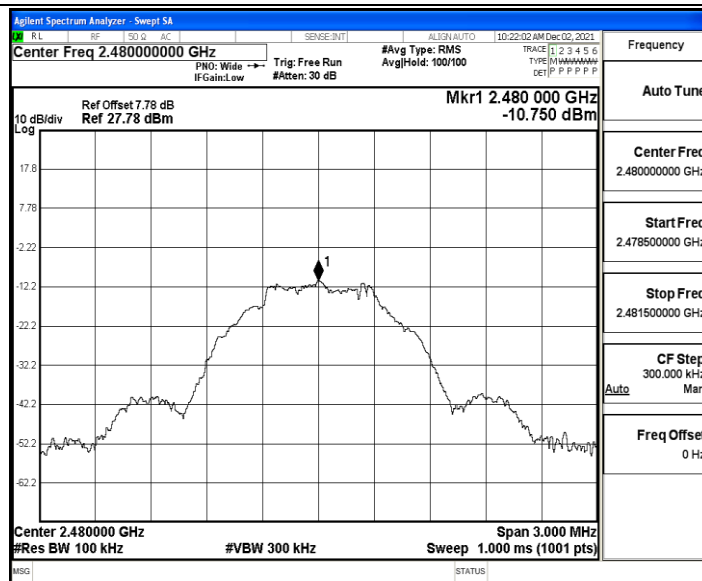
BLE_1M_Ant_2440_30~1000



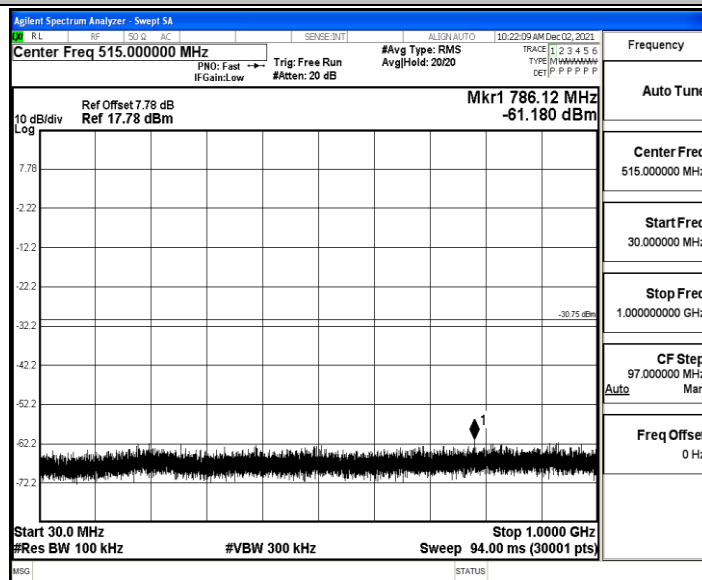
BLE_1M_Ant_2440_1000~26500



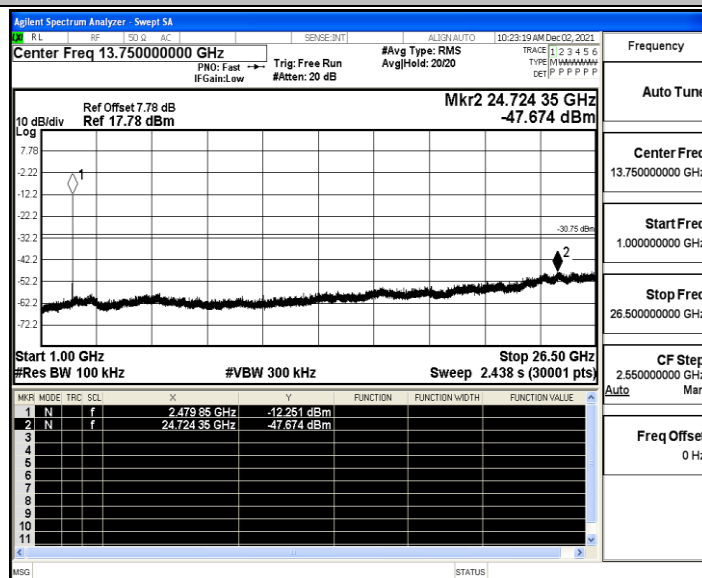
BLE_1M_Ant_2480_0~Reference



BLE_1M_Ant_2480_30~1000



BLE_1M_Ant_2480_1000~26500



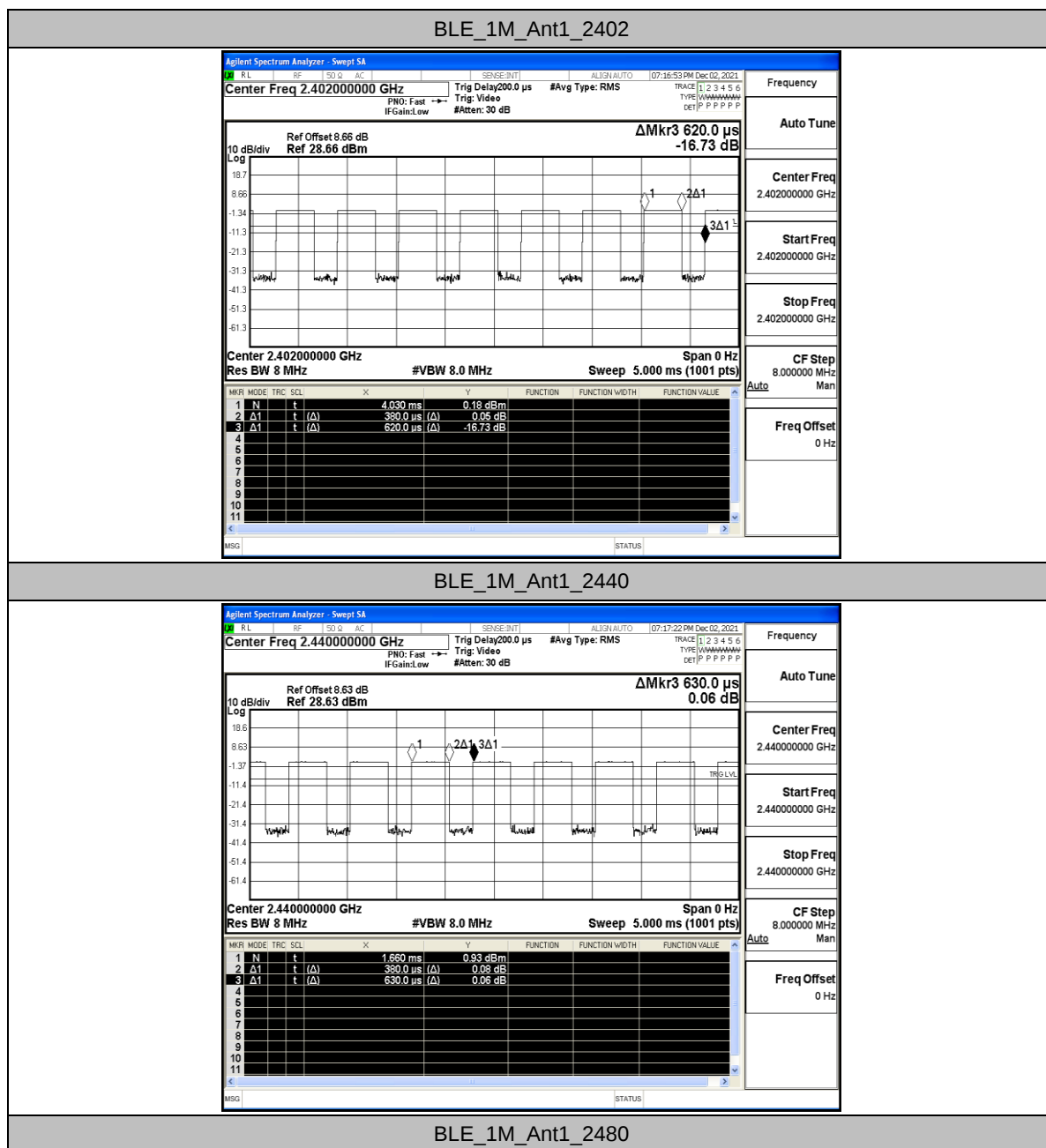


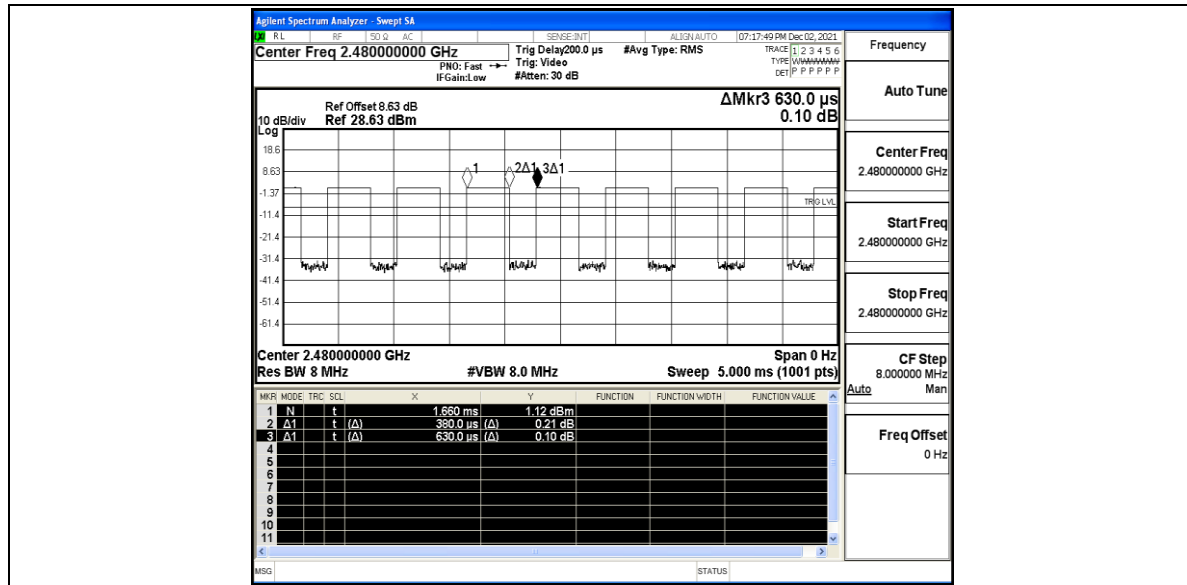
B.6 Duty Cycle

Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant	2402	0.38	0.62	0.6129	61.29	2.13	---	---
		2440	0.38	0.63	0.6032	60.32	2.20	---	---
		2480	0.38	0.63	0.6032	60.32	2.20	---	---

Test Graphs







B.7 Emissions in Restricted Bands

Test Result

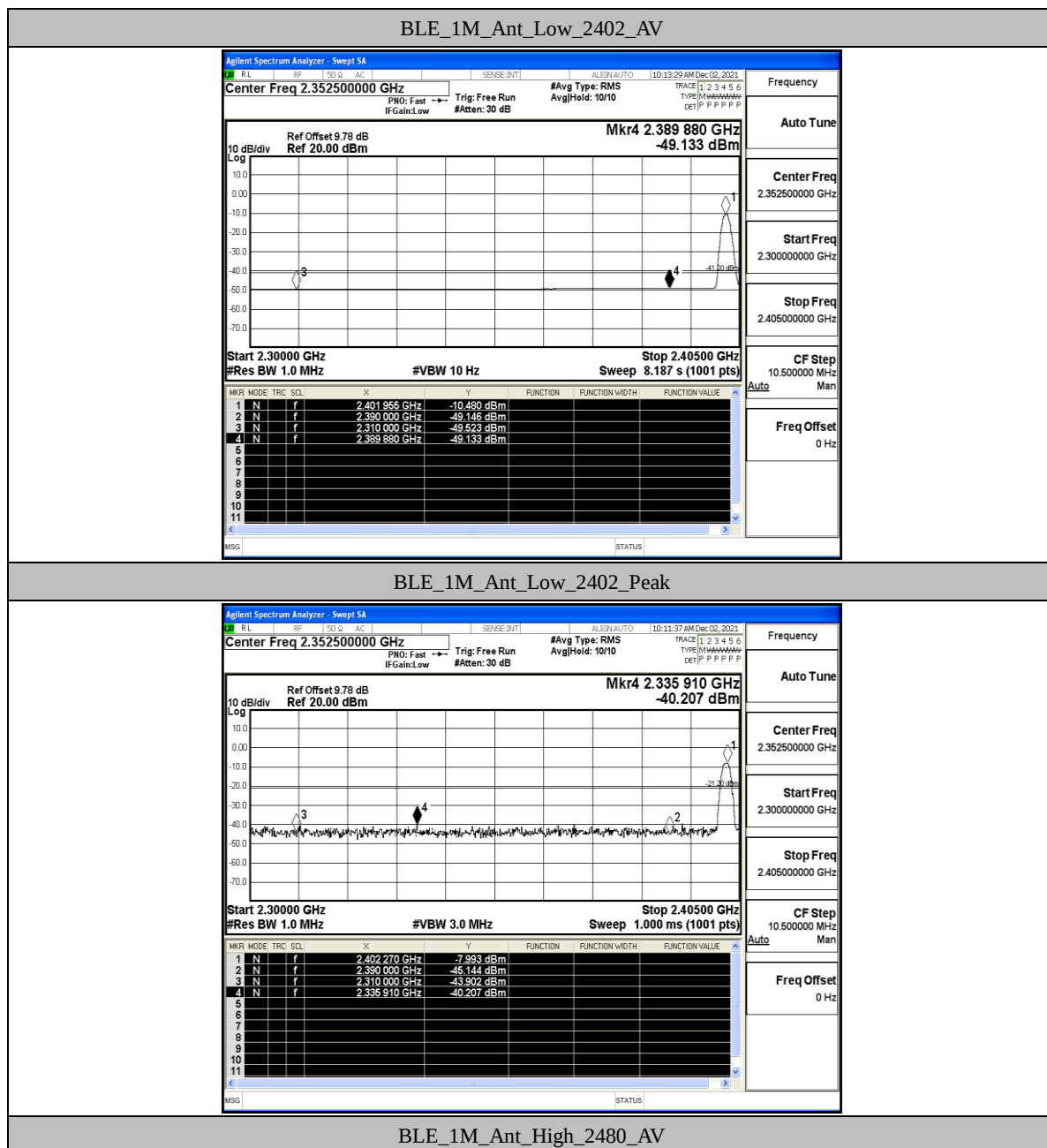
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant	Low	2402	AV	2310.000	-49.52	≤ -41.20	45.68	≤ 54	PASS
				AV	2389.880	-49.13	≤ -41.20	46.07	≤ 54	PASS
				AV	2390.000	-49.15	≤ -41.20	46.05	≤ 54	PASS
				Peak	2310.000	-43.9	≤ -21.20	51.30	≤ 74	PASS
				Peak	2335.910	-40.21	≤ -21.20	54.99	≤ 74	PASS
				Peak	2390.000	-45.14	≤ -21.20	50.06	≤ 74	PASS
		High	2480	AV	2483.500	-48.73	≤ -41.20	46.47	≤ 54	PASS
				AV	2499.200	-48.54	≤ -41.20	46.66	≤ 54	PASS
				AV	2500.000	-48.56	≤ -41.20	46.64	≤ 54	PASS
				Peak	2483.500	-43.4	≤ -21.20	51.80	≤ 74	PASS
				Peak	2491.280	-39.05	≤ -21.20	56.15	≤ 74	PASS
				Peak	2500.000	-43.86	≤ -21.20	51.34	≤ 74	PASS

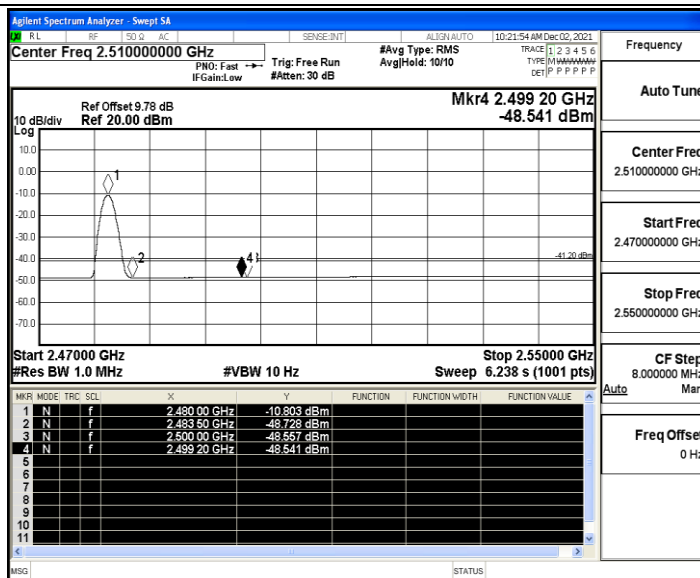
Note:

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_Ant_High_2480_Peak

