



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: STAGE STATION SOUND SYSTEM

Test Model: COMPACT-1500

Environmental Conditions

Temperature:	21.1° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Wunder. Wu
Supervised by:	Libu

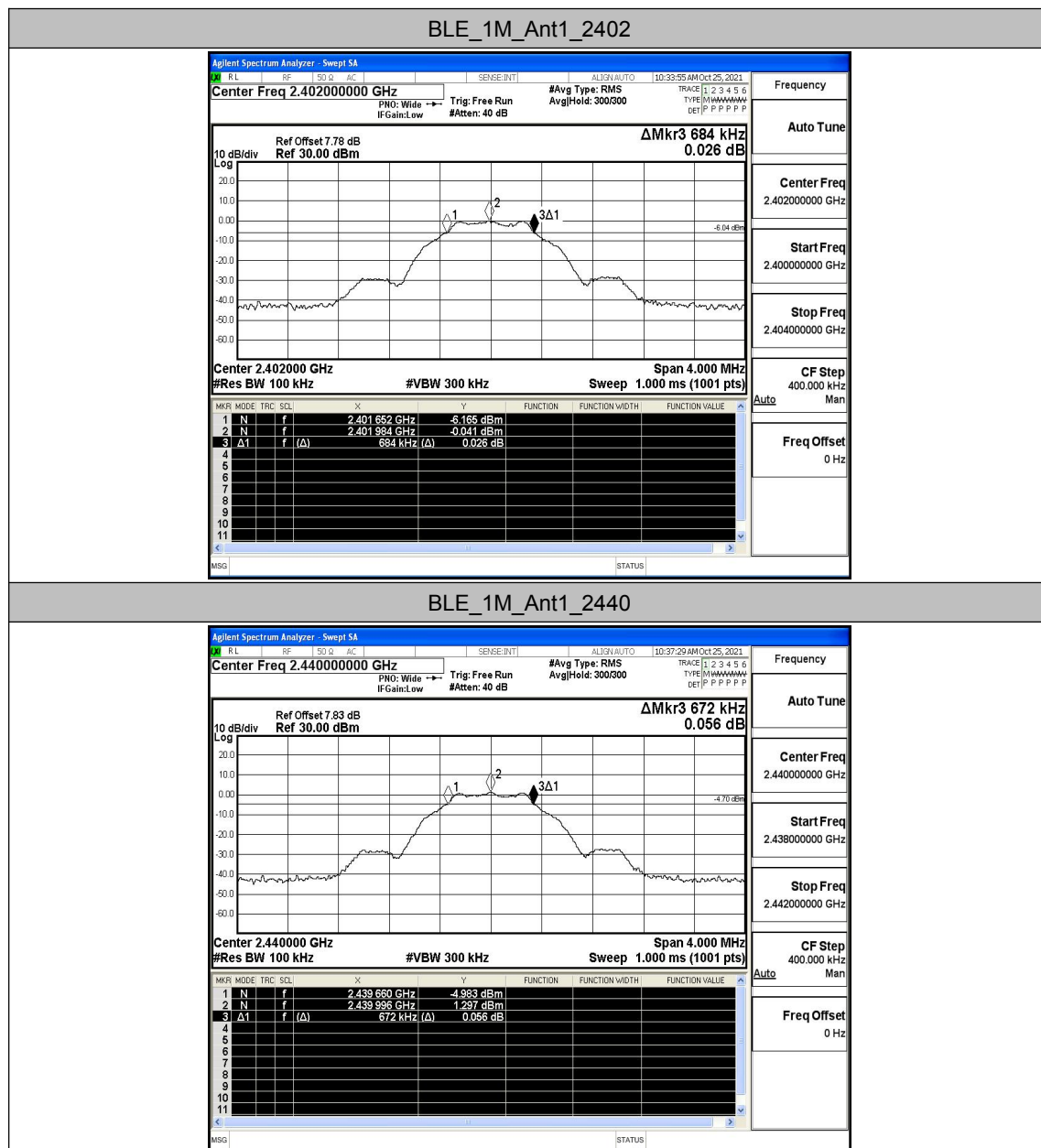


B.1 6dB Bandwidth

Test Result

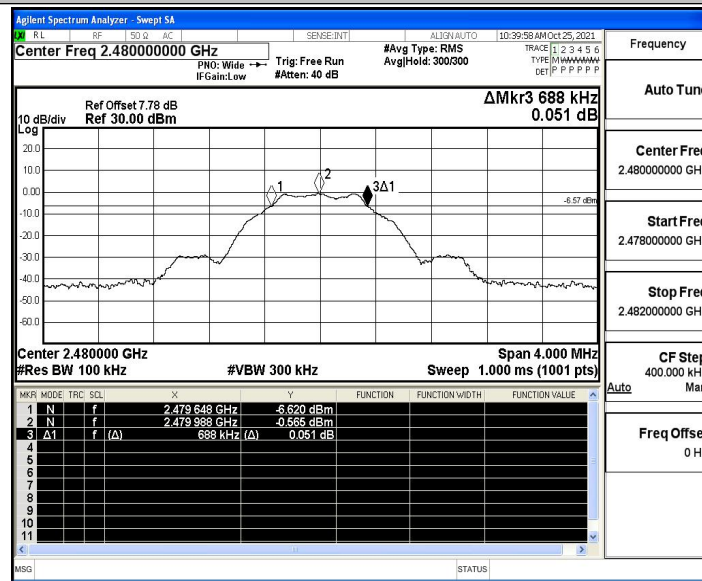
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.684	2401.652	2402.336	≥0.5	PASS
		2440	0.672	2439.660	2440.332	≥0.5	PASS
		2480	0.688	2479.648	2480.336	≥0.5	PASS

Test Graphs





BLE_1M_Ant1_2480



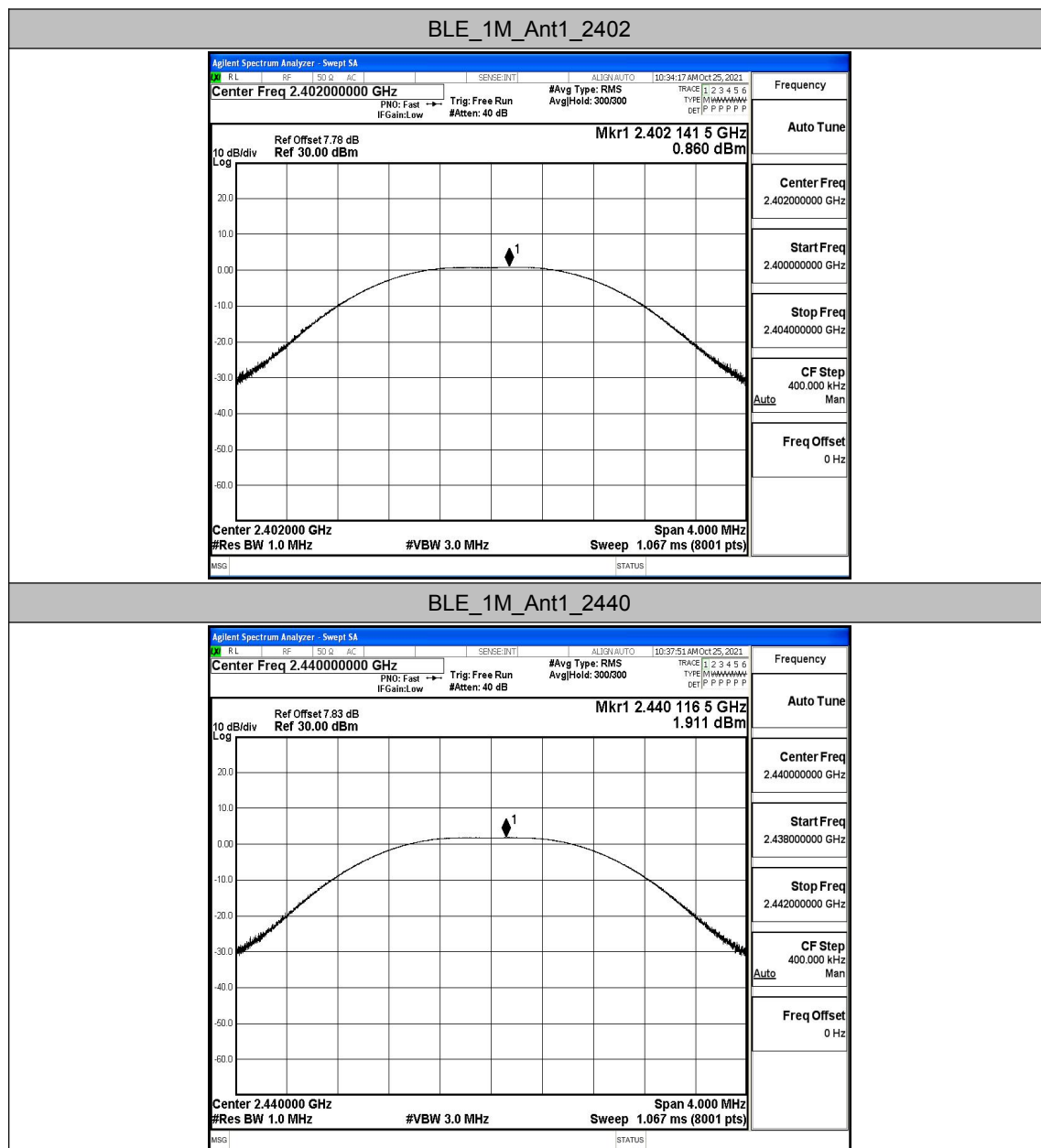


B.2 Maximum conducted output power

Test Result

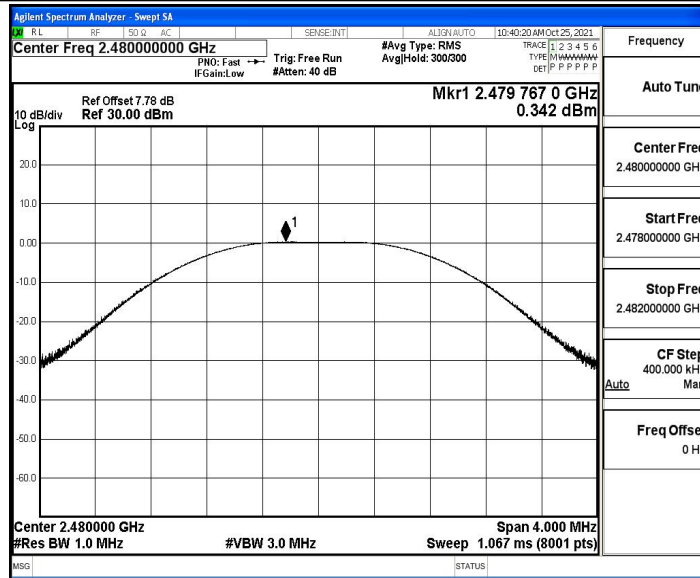
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.86	≤30	PASS
		2440	1.91	≤30	PASS
		2480	0.34	≤30	PASS

Test Graphs





BLE_1M_Ant1_2480



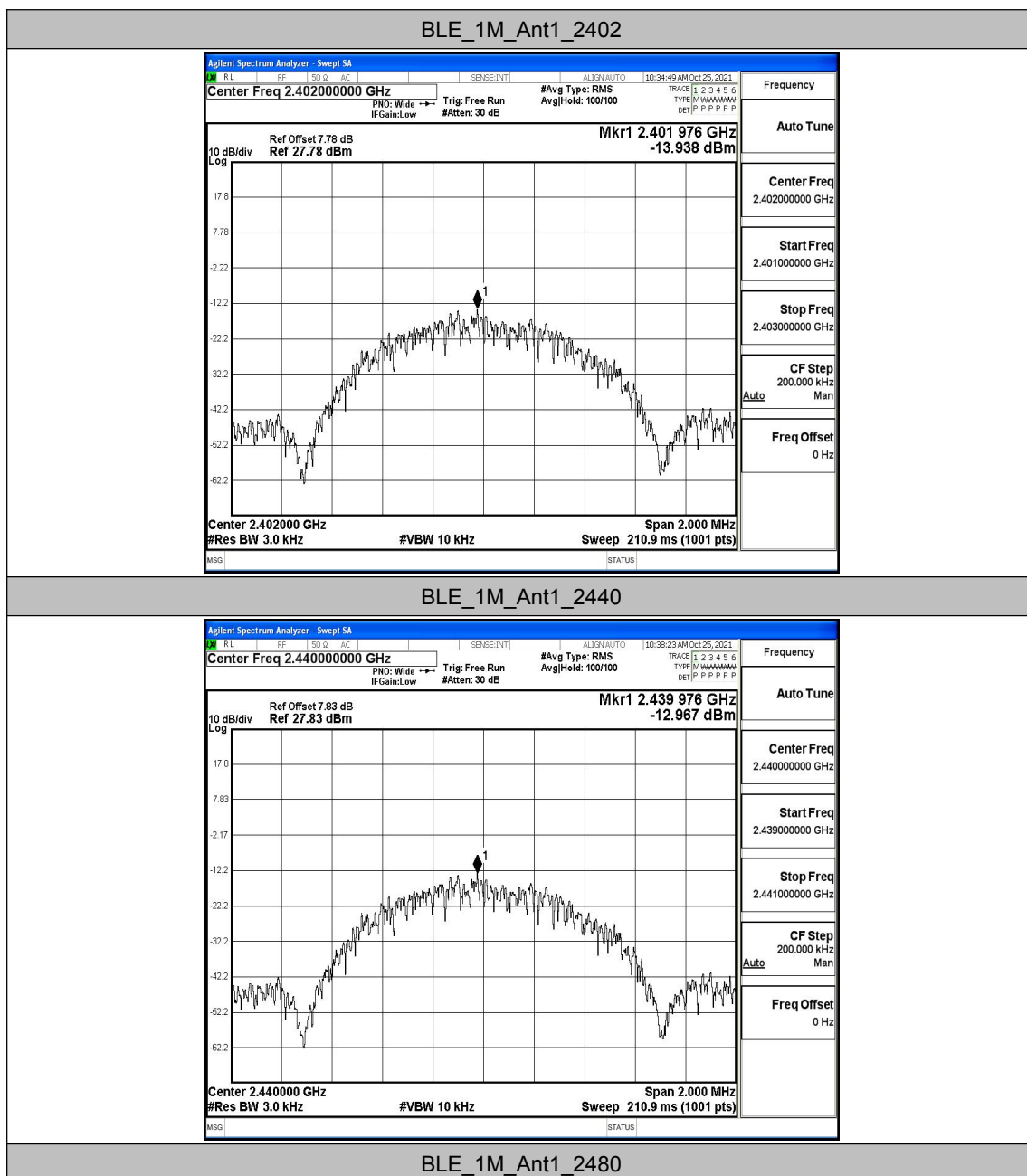


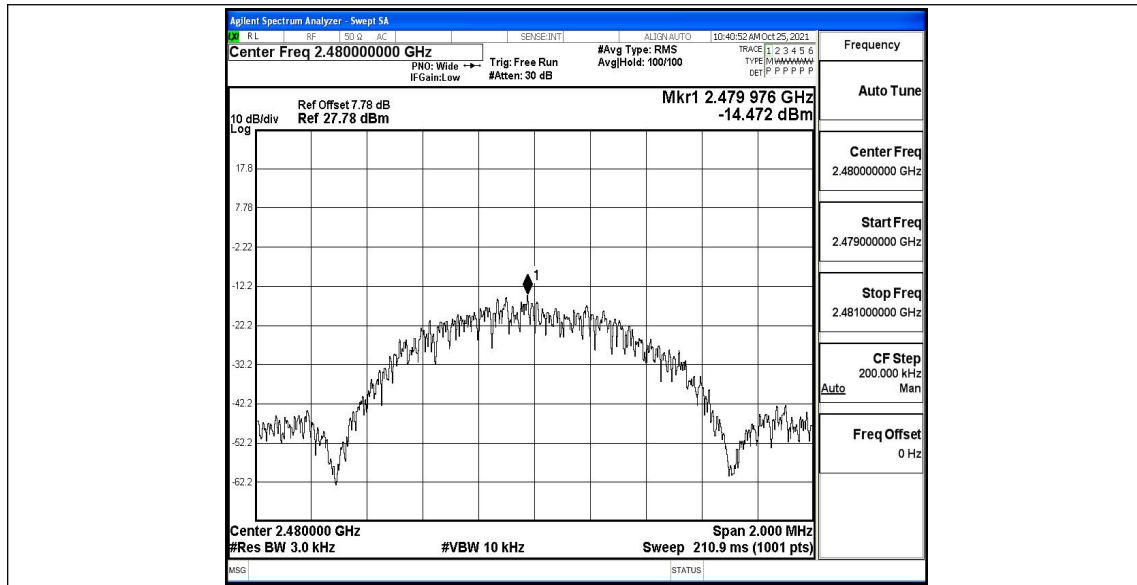
B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.94	≤8	PASS
		2440	-12.97	≤8	PASS
		2480	-14.47	≤8	PASS

Test Graphs



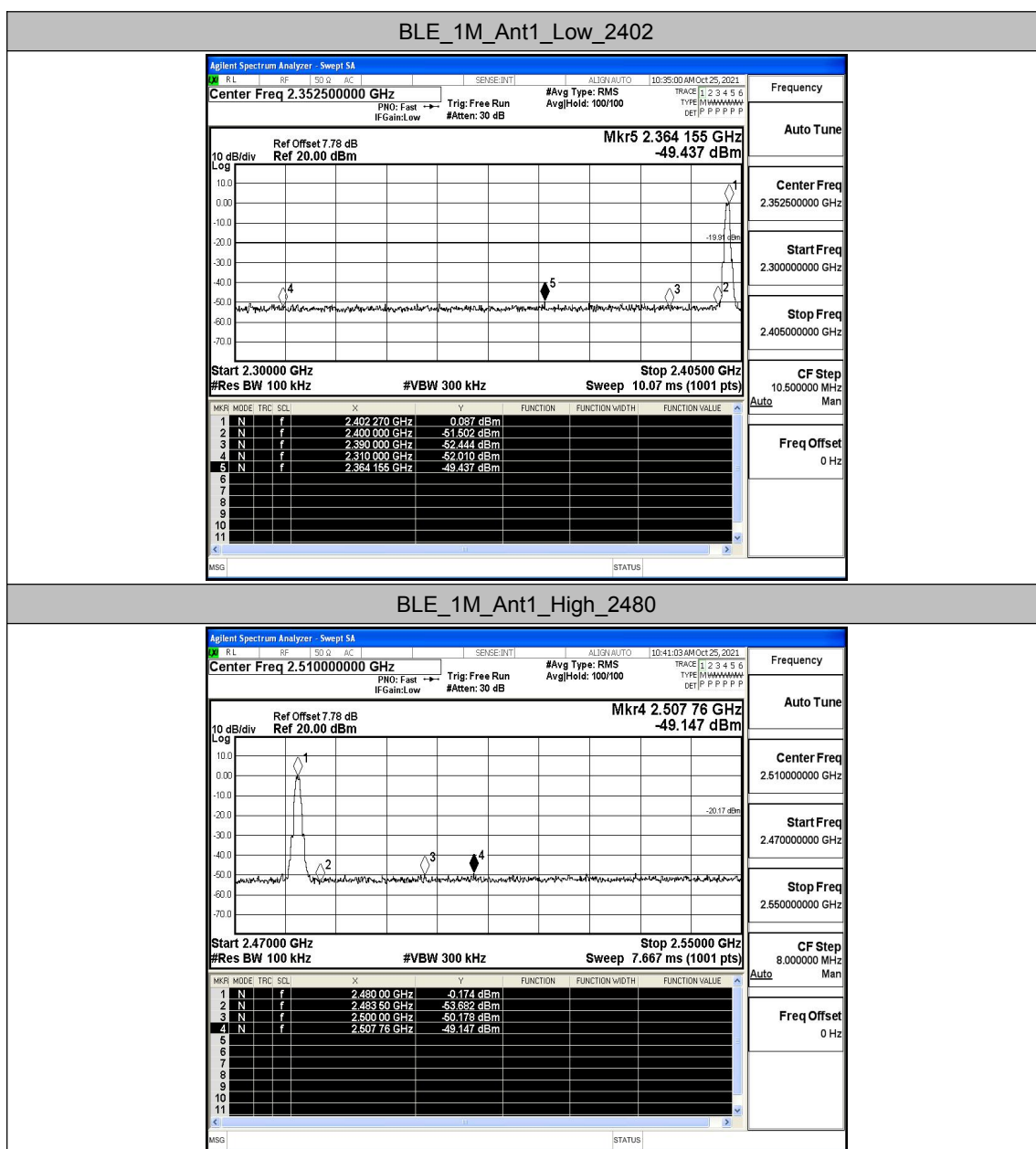


B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.09	-49.44	≤-19.91	PASS
		High	2480	-0.17	-49.15	≤-20.17	PASS

Test Graphs



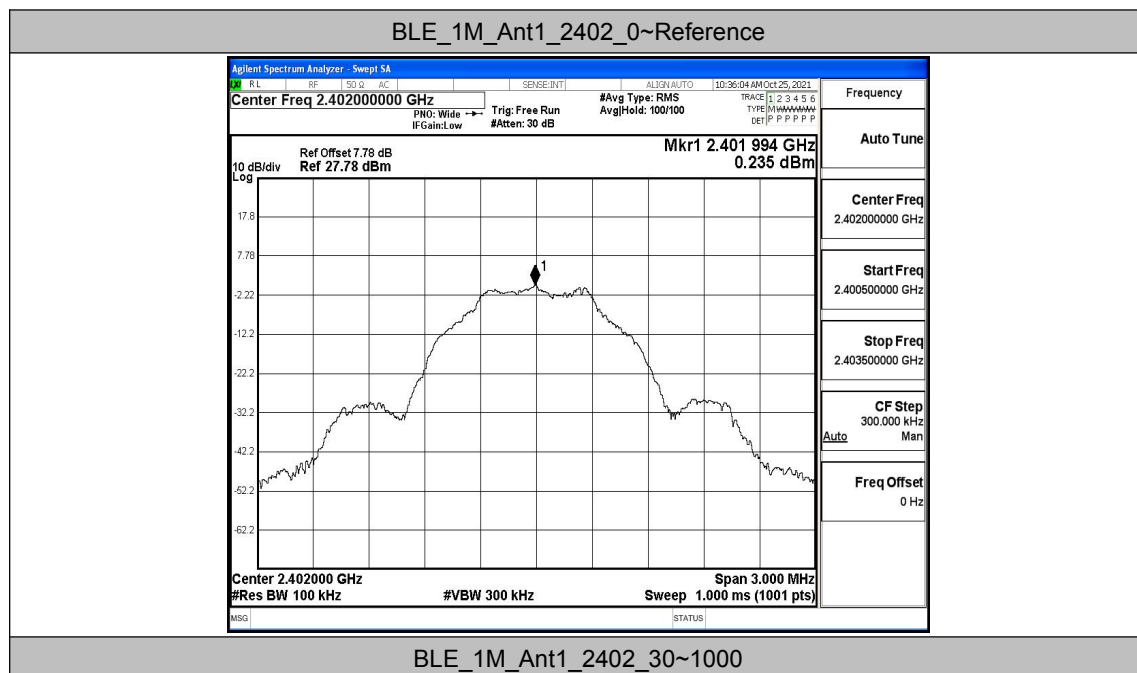


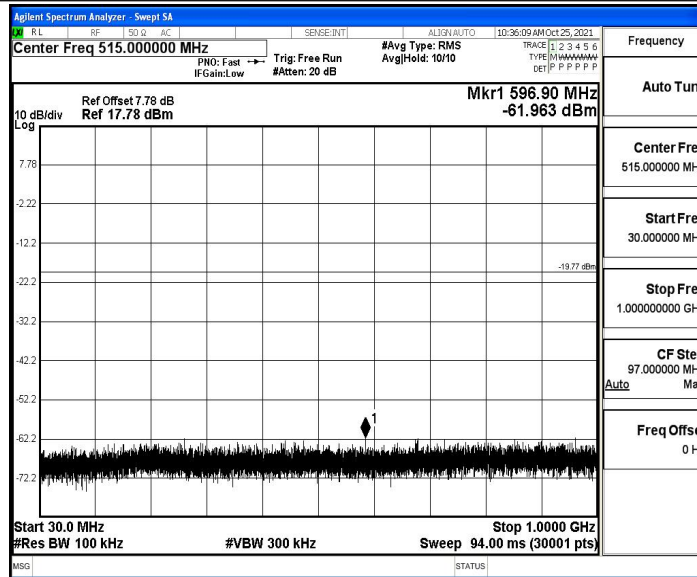
B.5 Conducted Spurious Emission

Test Result

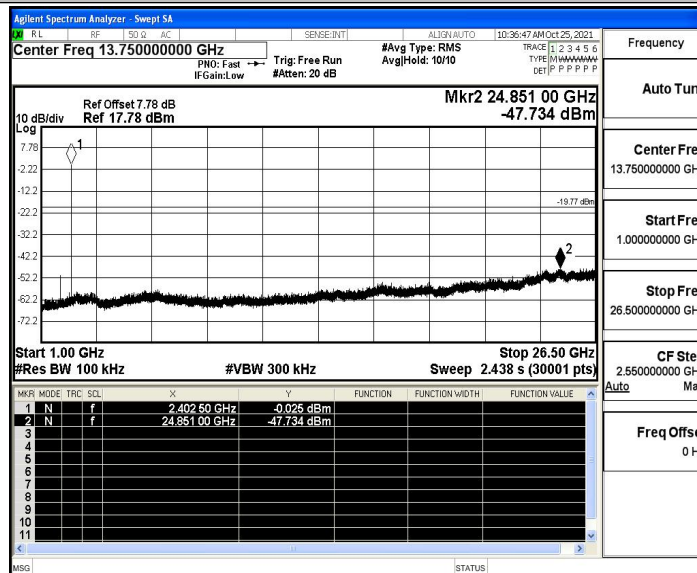
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.24	0.24	---	PASS
			30~1000	0.24	-61.96	≤-19.77	PASS
			1000~26500	0.24	-47.73	≤-19.77	PASS
		2440	Reference	0.87	0.87	---	PASS
			30~1000	0.87	-61.94	≤-19.13	PASS
			1000~26500	0.87	-47.03	≤-19.13	PASS
		2480	Reference	-0.77	-0.77	---	PASS
			30~1000	-0.77	-61.98	≤-20.77	PASS
			1000~26500	-0.77	-47.19	≤-20.77	PASS

Test Graphs

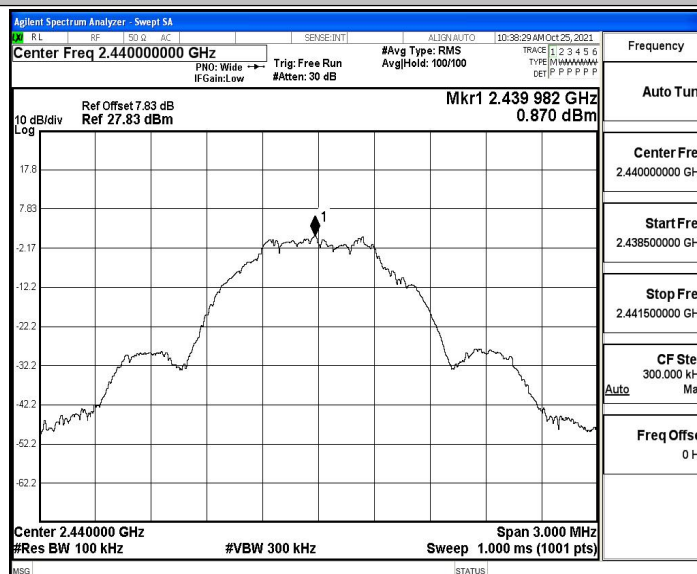




BLE_1M_Ant1_2402_1000~26500

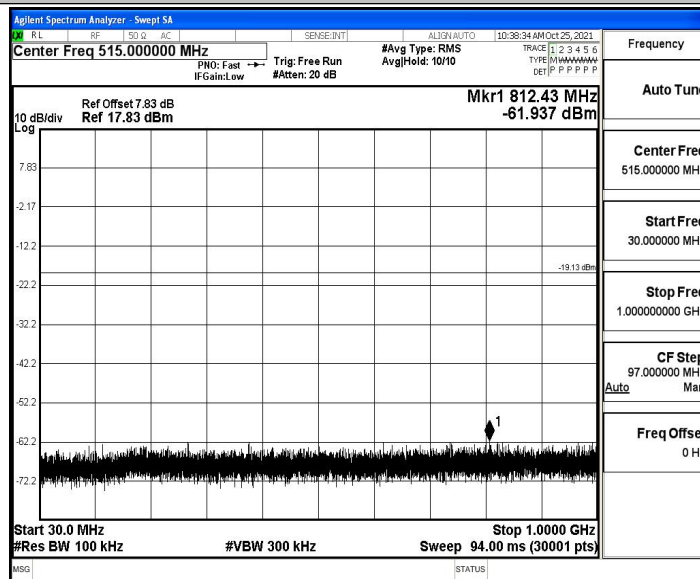


BLE_1M_Ant1_2440_0~Reference

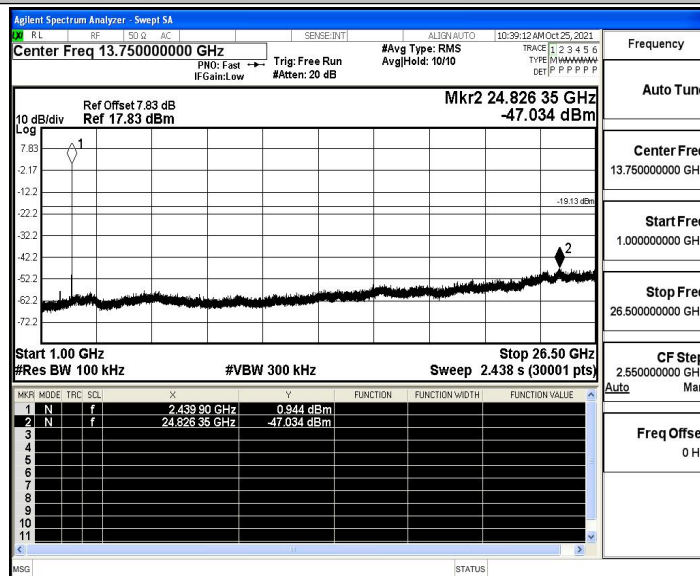




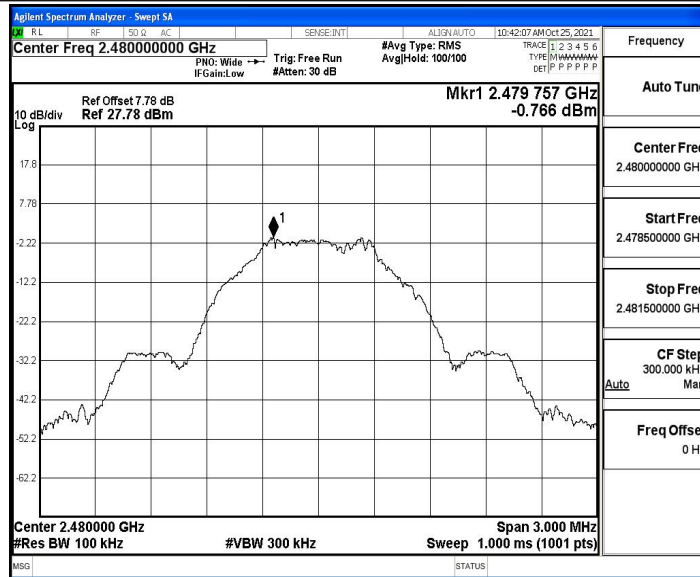
BLE_1M_Ant1_2440_30~1000



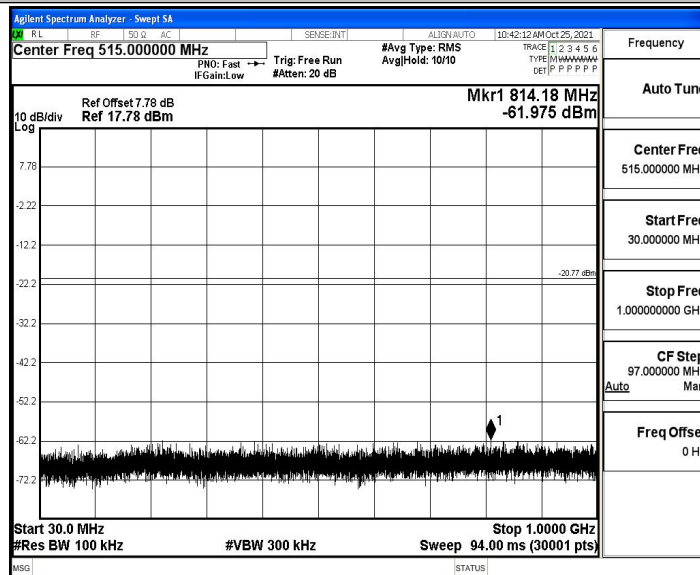
BLE_1M_Ant1_2440_1000~26500



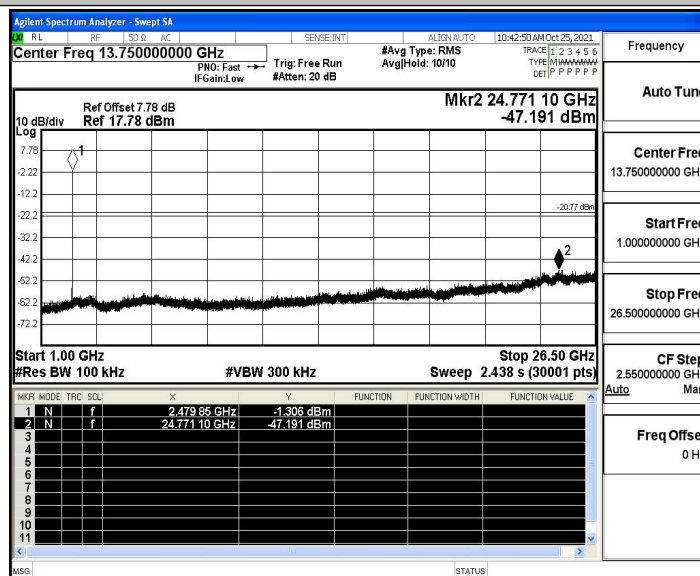
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



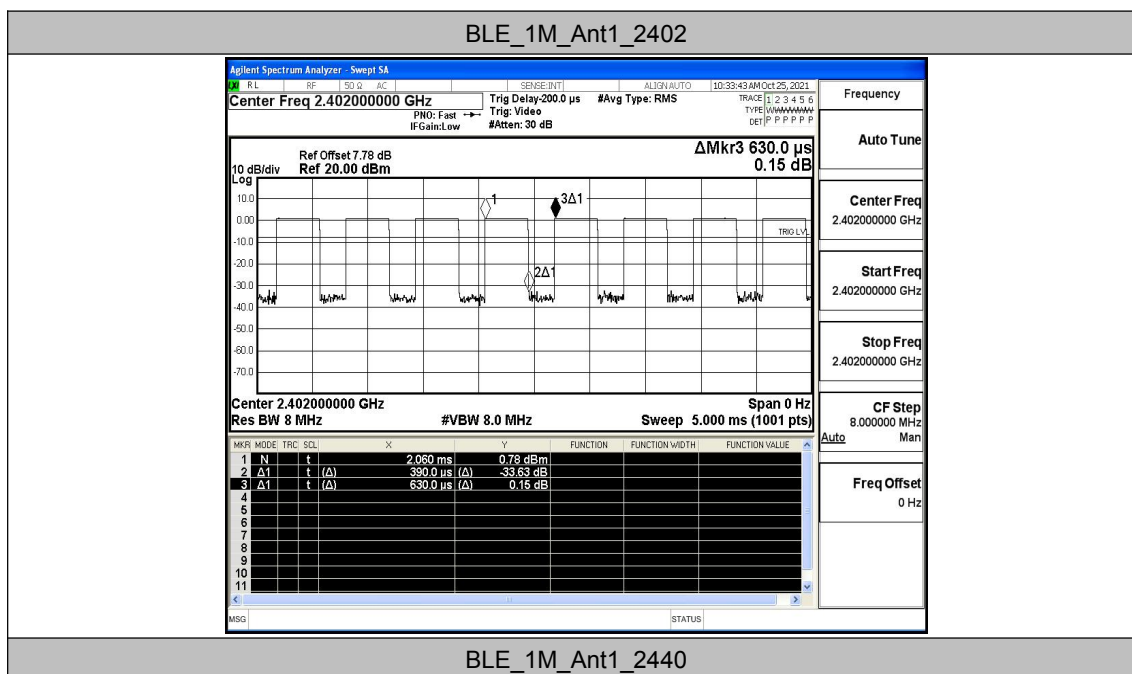


B.6 Duty Cycle

Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Minimum VBW(KHz)	Limit	Verdict
BLE_1M	Ant1	2402	0.39	0.63	0.6190	61.90	2.08	2.56	---	PASS
		2440	0.39	0.63	0.6190	61.90	2.08	2.56	---	PASS
		2480	0.39	0.63	0.6190	61.90	2.08	2.56	---	PASS

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	Ant1	Low	2402	AV	2310.000	-48.29	≤-41.20	46.91	≤54	PASS
				AV	2380.850	-47.33	≤-41.20	47.87	≤54	PASS
				AV	2390.000	-48.06	≤-41.20	47.14	≤54	PASS
				Peak	2310.000	-41.14	≤-21.20	54.06	≤74	PASS
				Peak	2329.085	-39.15	≤-21.20	56.05	≤74	PASS
				Peak	2390.000	-41.49	≤-21.20	53.71	≤74	PASS
		High	2480	AV	2483.500	-47.33	≤-41.20	47.87	≤54	PASS
				AV	2491.120	-47.03	≤-41.20	48.17	≤54	PASS
				AV	2500.000	-47.43	≤-41.20	47.77	≤54	PASS
				Peak	2483.500	-42.1	≤-21.20	53.10	≤74	PASS
				Peak	2484.000	-38.16	≤-21.20	57.04	≤74	PASS
				Peak	2500.000	-41.17	≤-21.20	54.03	≤74	PASS

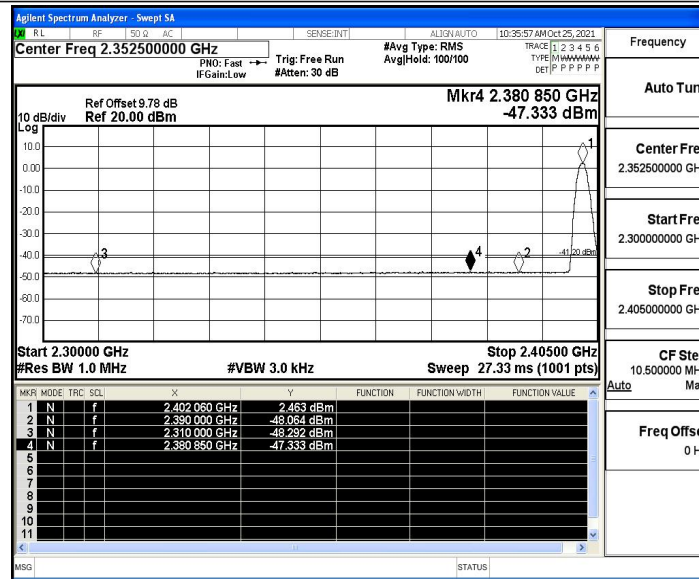
Note:

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.

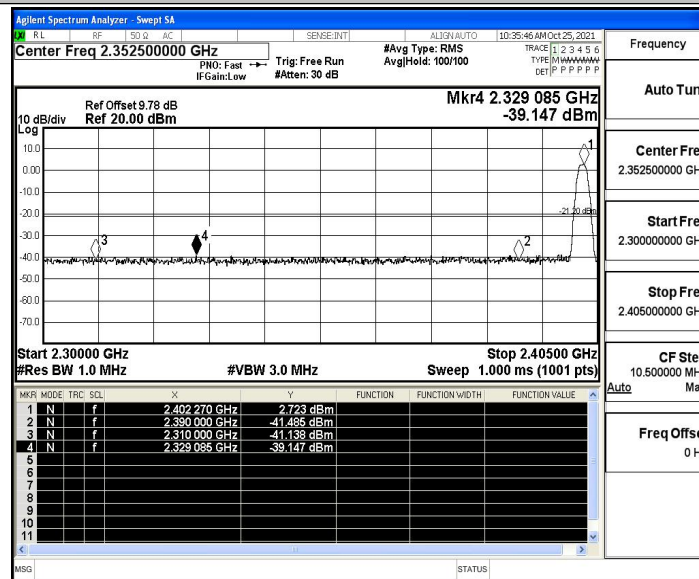


Test Graphs

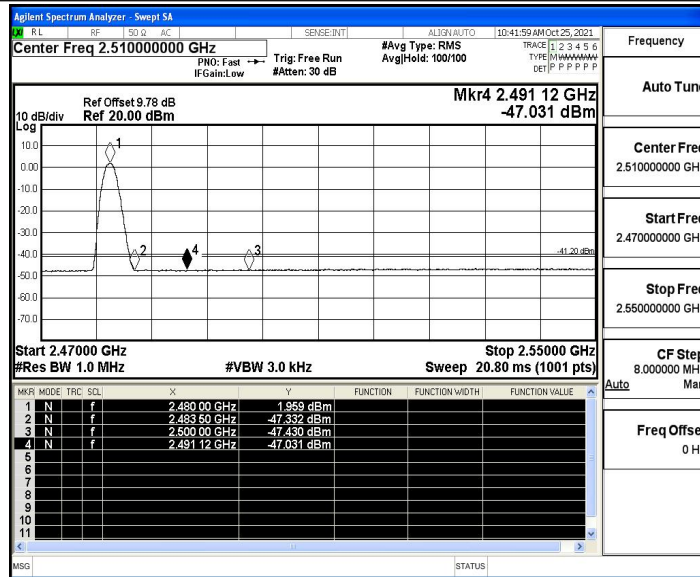
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

