



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Car audio

Test Model: SBB-75136

Environmental Conditions

Temperature:	23.7° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Monkey Li
Supervised by:	Li huan

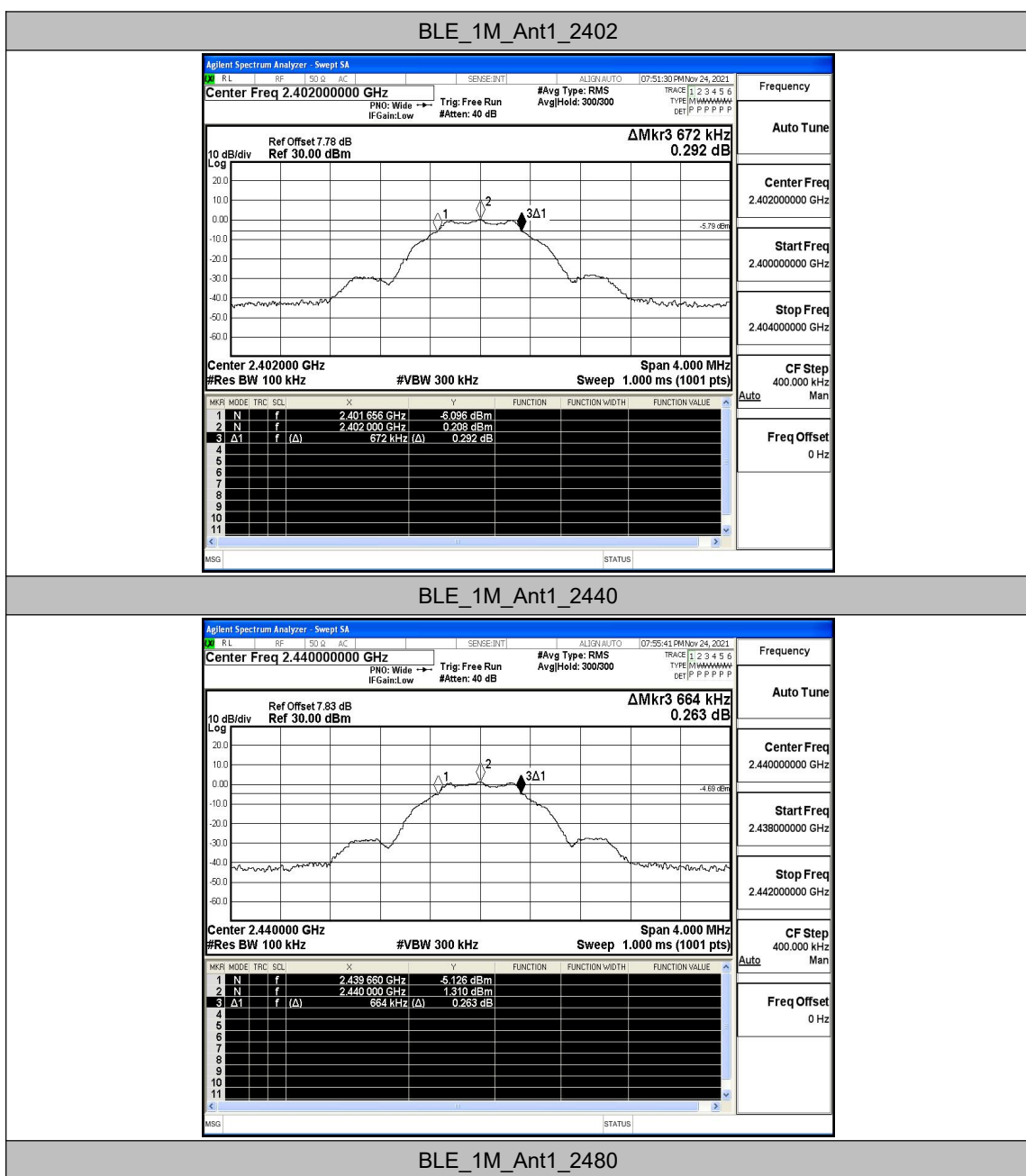


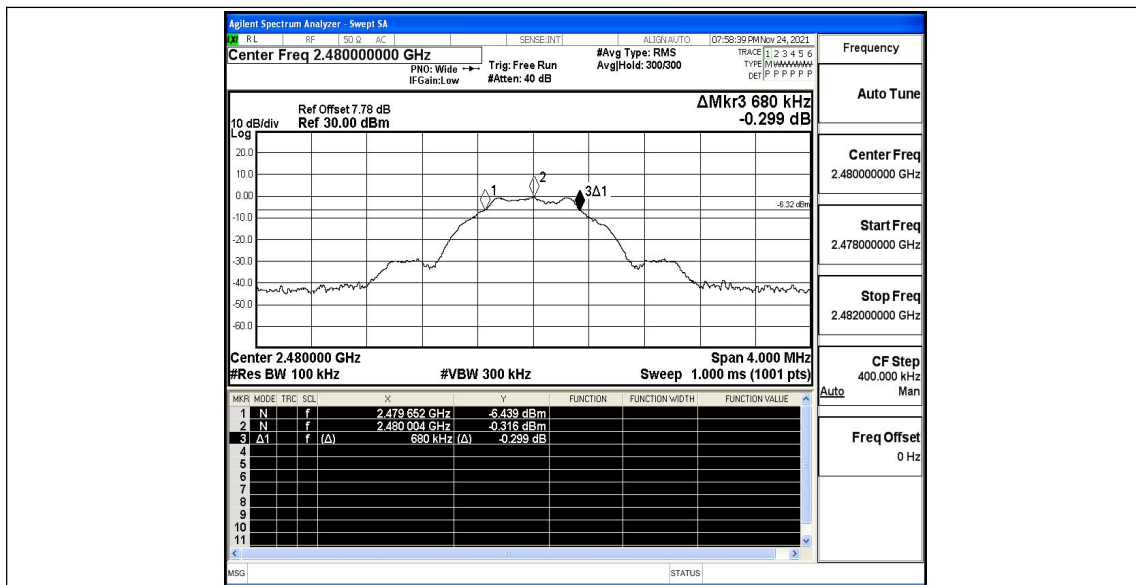
B.1 6dB Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.672	2401.656	2402.328	≥0.5	PASS
		2440	0.664	2439.660	2440.324	≥0.5	PASS
		2480	0.680	2479.652	2480.332	≥0.5	PASS

Test Graphs





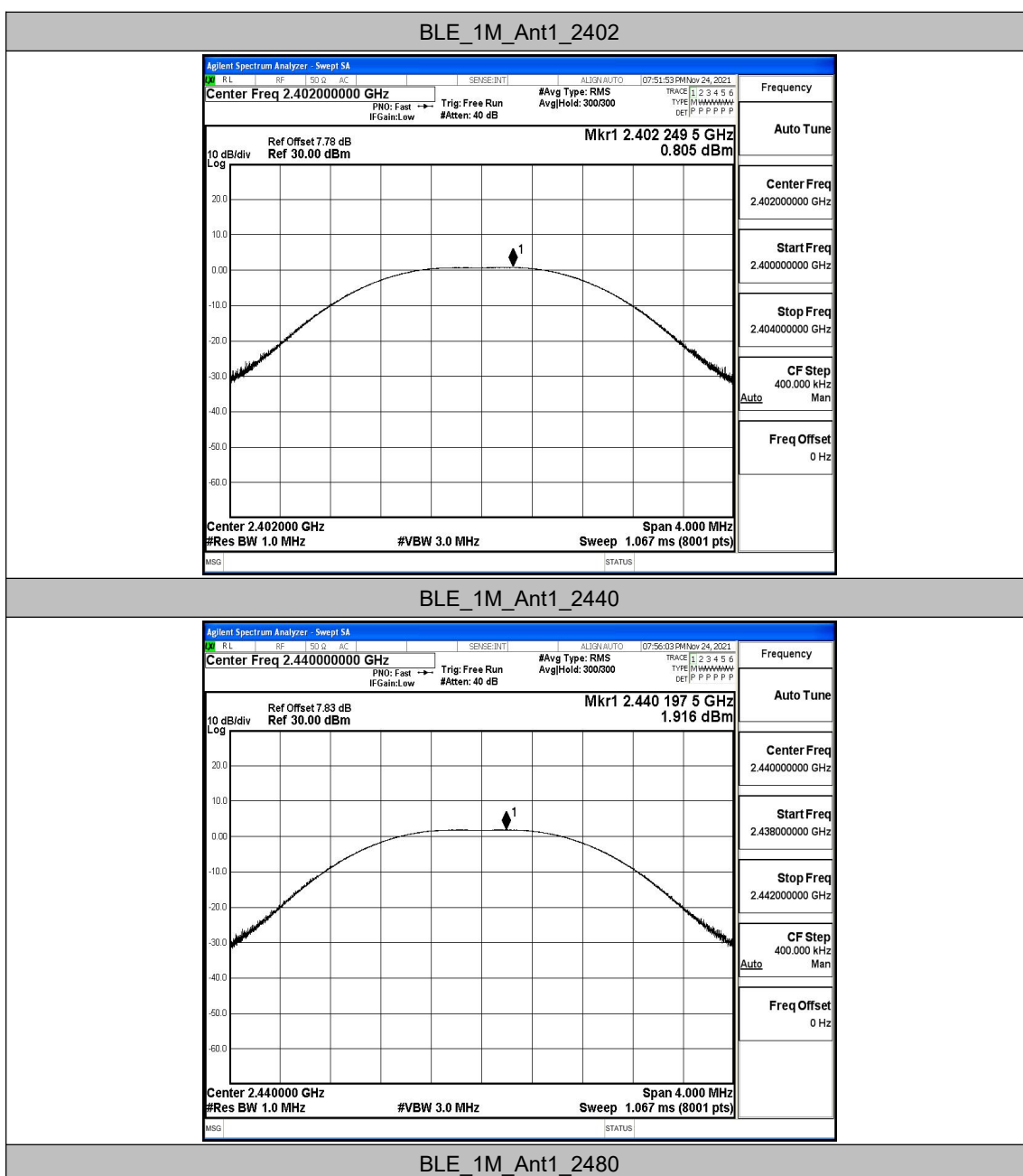


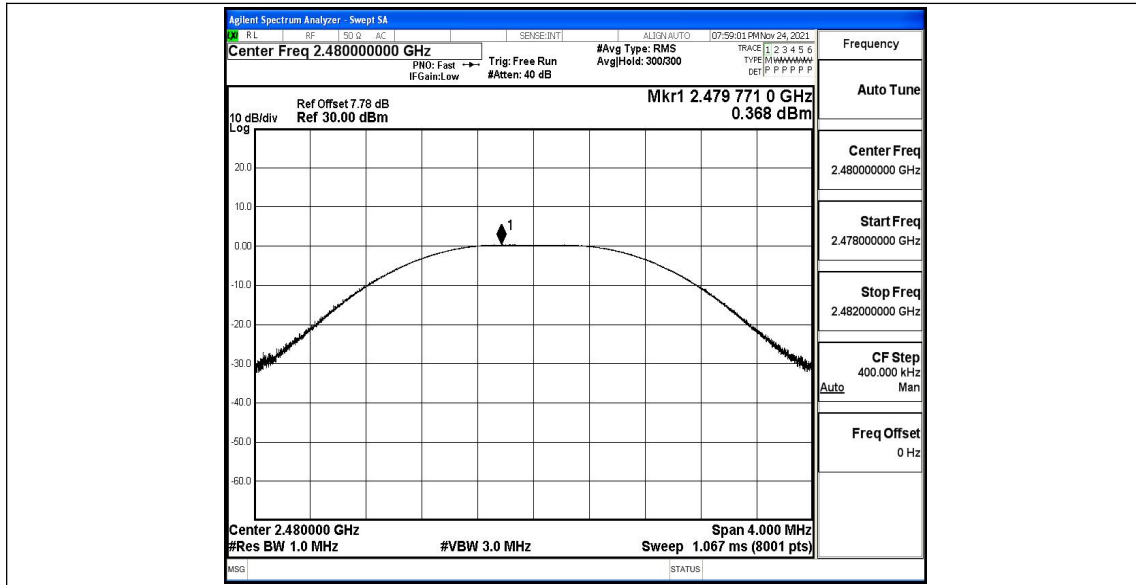
B.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.81	≤30	PASS
		2440	1.92	≤30	PASS
		2480	0.37	≤30	PASS

Test Graphs





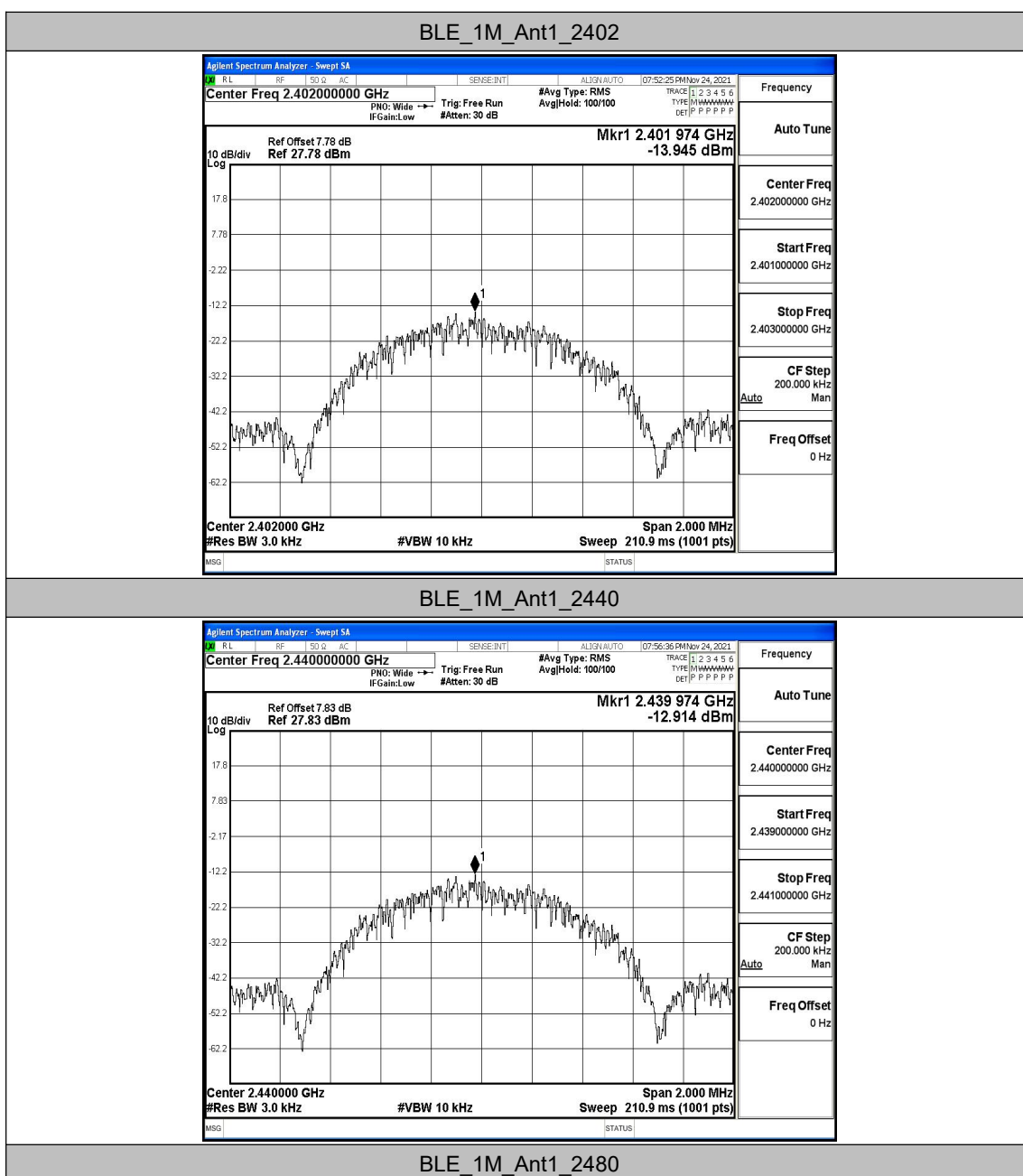


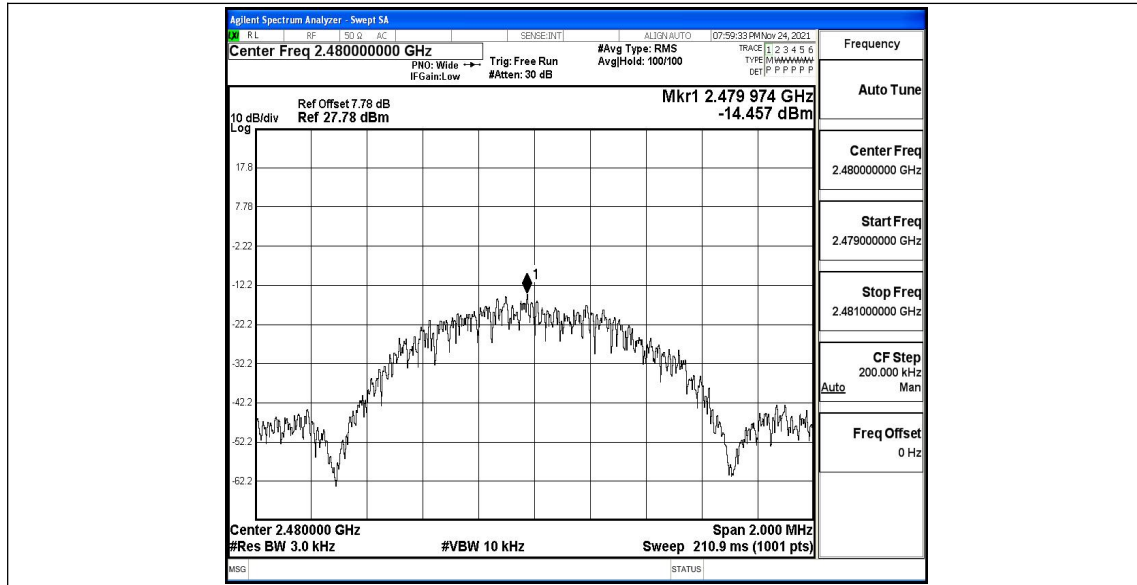
B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.95	≤8	PASS
		2440	-12.91	≤8	PASS
		2480	-14.46	≤8	PASS

Test Graphs





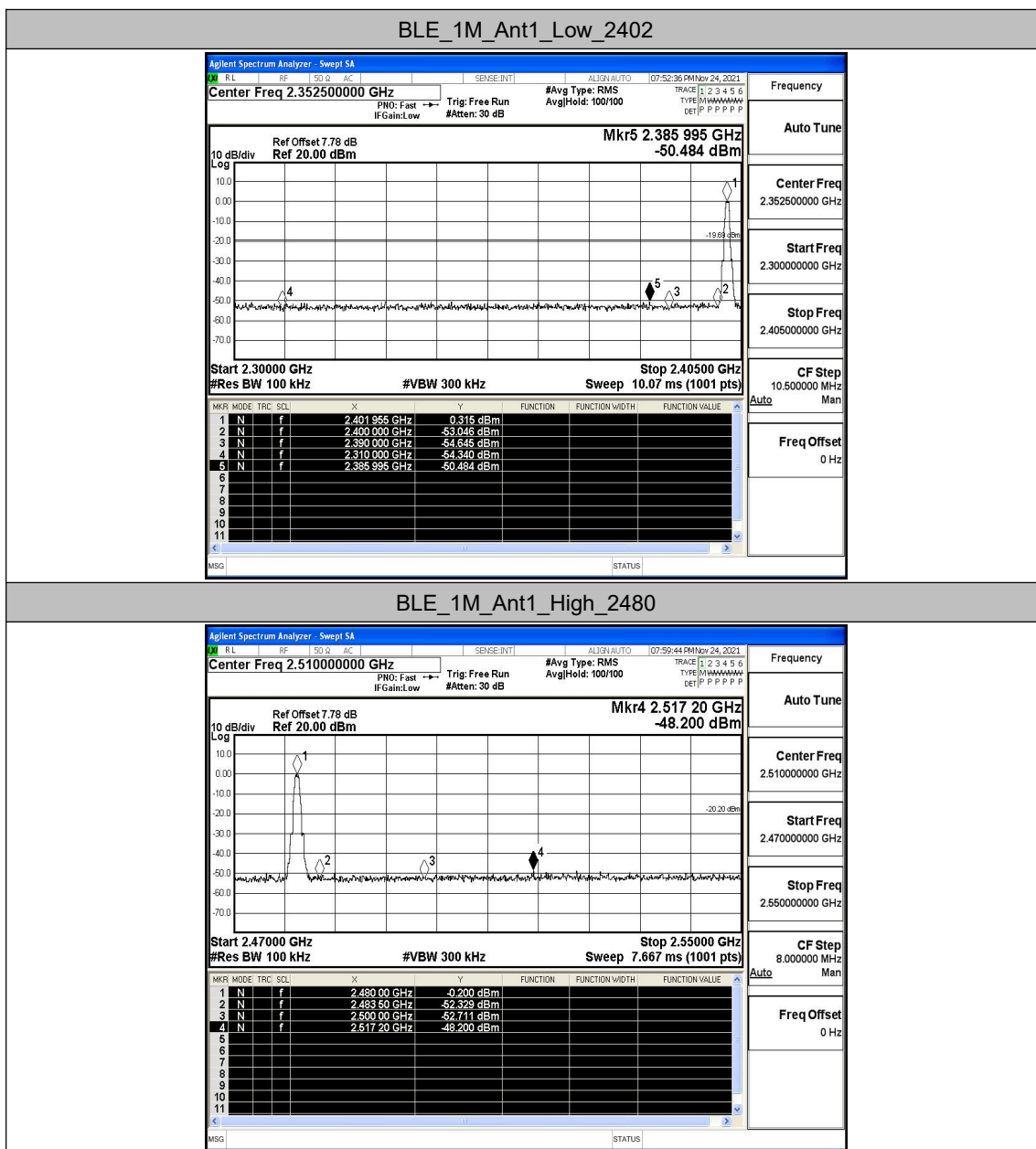


B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.32	-50.48	≤-19.69	PASS
		High	2480	-0.20	-48.2	≤-20.2	PASS

Test Graphs



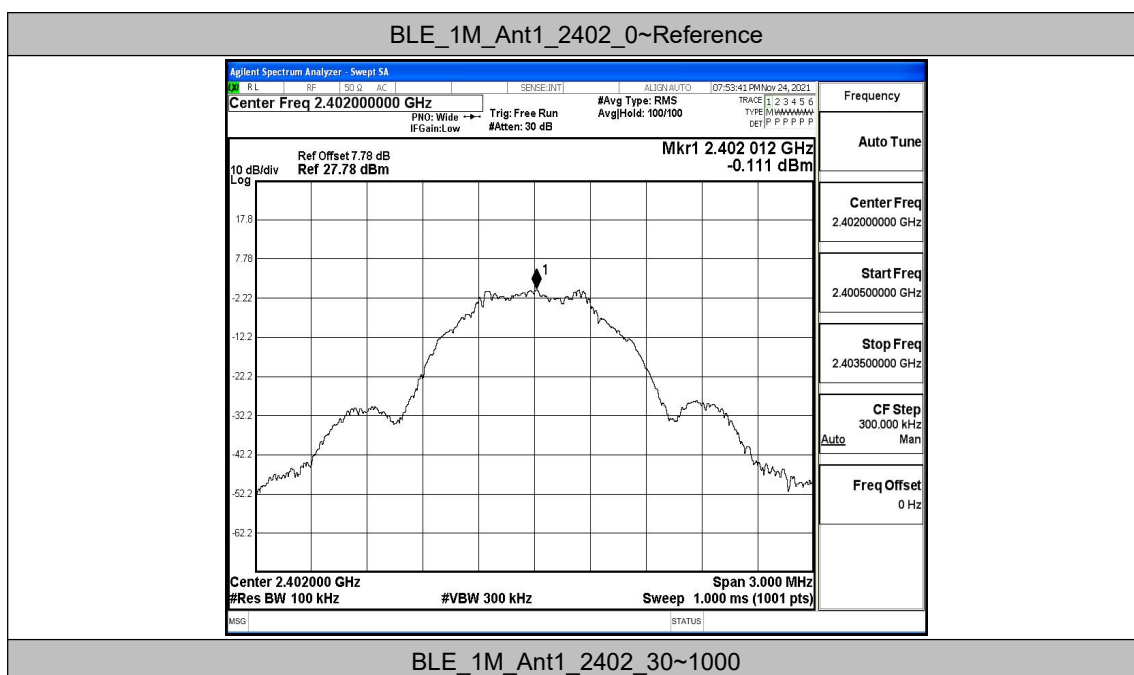


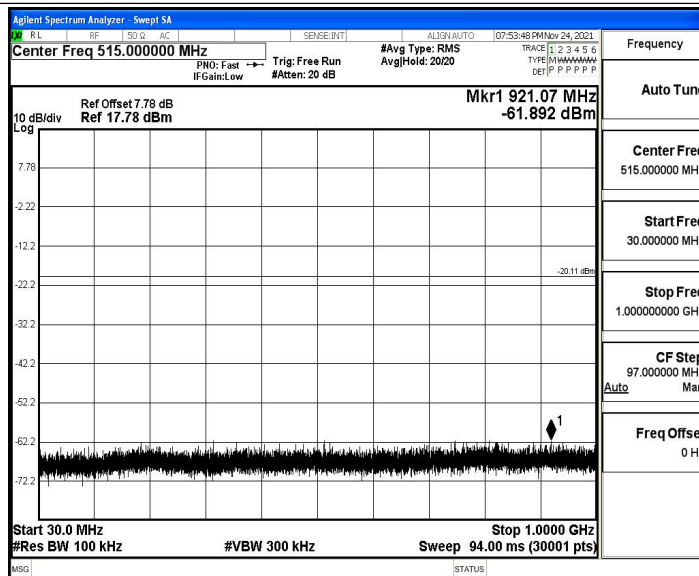
B.5 Conducted Spurious Emission

Test Result

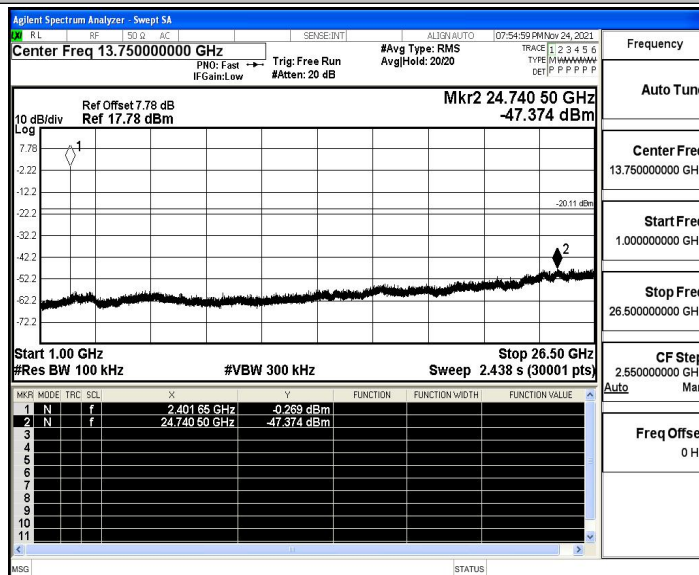
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.11	-0.11	---	PASS
			30~1000	-0.11	-61.89	≤-20.11	PASS
			1000~26500	-0.11	-47.37	≤-20.11	PASS
		2440	Reference	1.15	1.15	---	PASS
			30~1000	1.15	-61.6	≤-18.85	PASS
			1000~26500	1.15	-46.57	≤-18.85	PASS
		2480	Reference	-0.81	-0.81	---	PASS
			30~1000	-0.81	-61.92	≤-20.81	PASS
			1000~26500	-0.81	-47.05	≤-20.81	PASS

Test Graphs

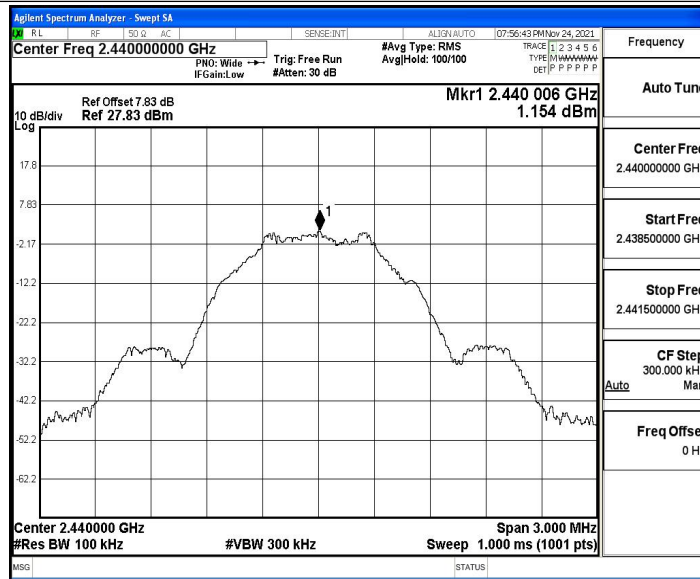




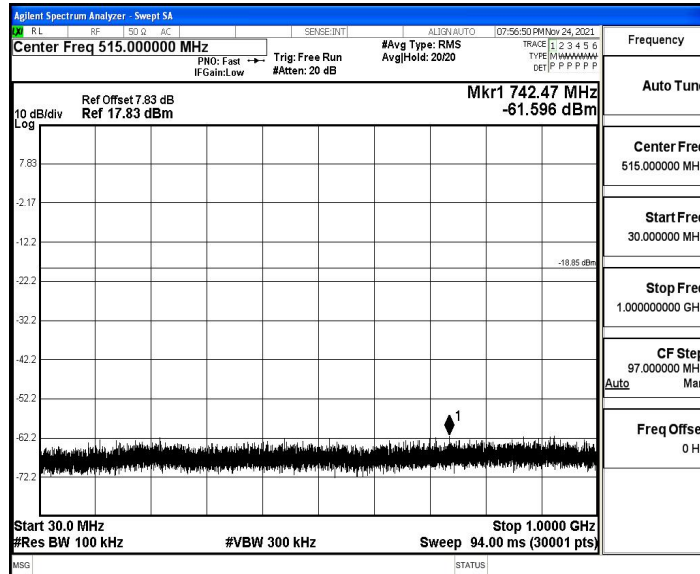
BLE_1M_Ant1_2402_1000~26500



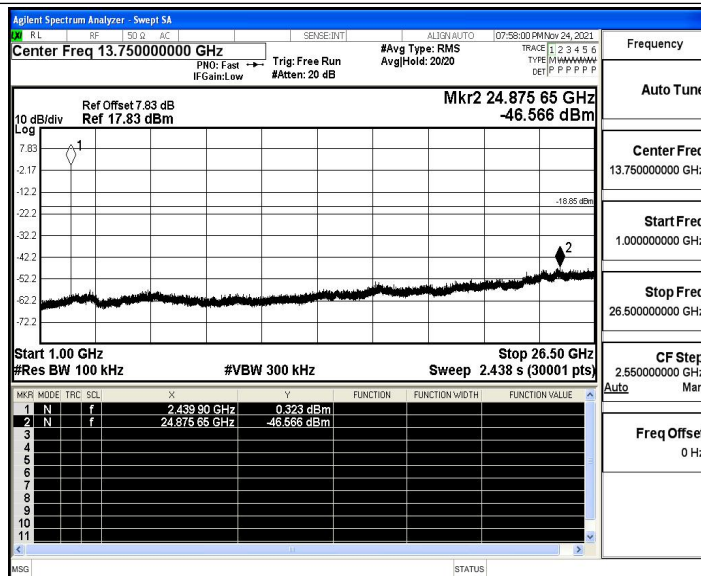
BLE_1M_Ant1_2440_0~Reference



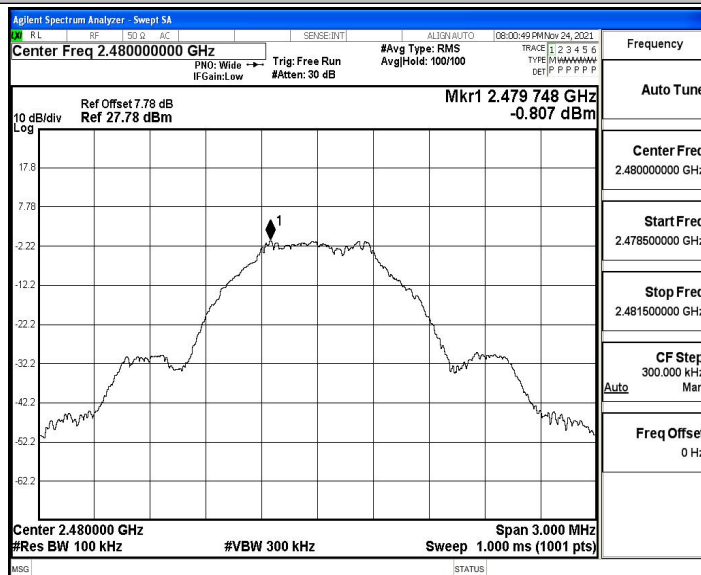
BLE_1M_Ant1_2440_30~1000



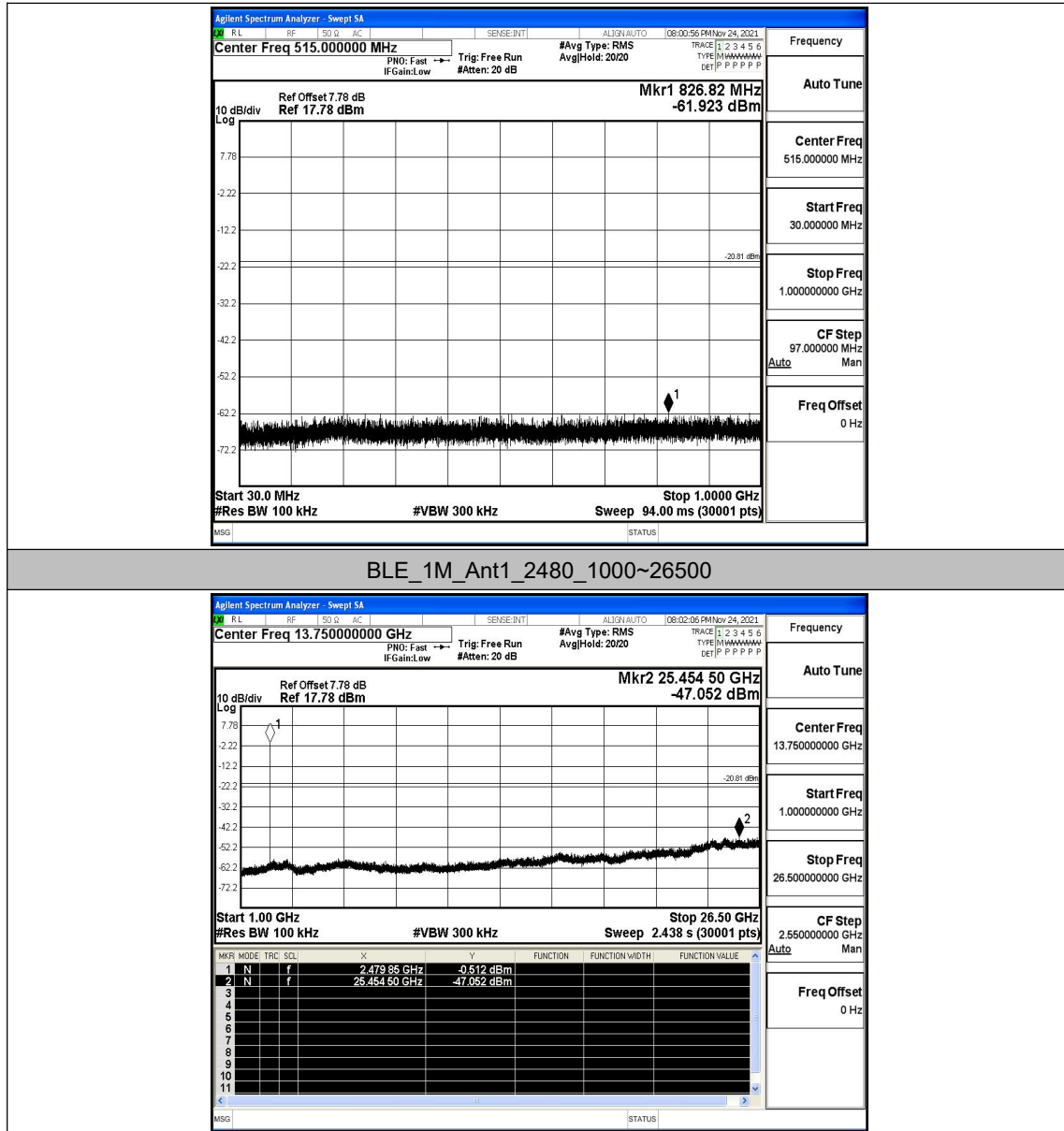
BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



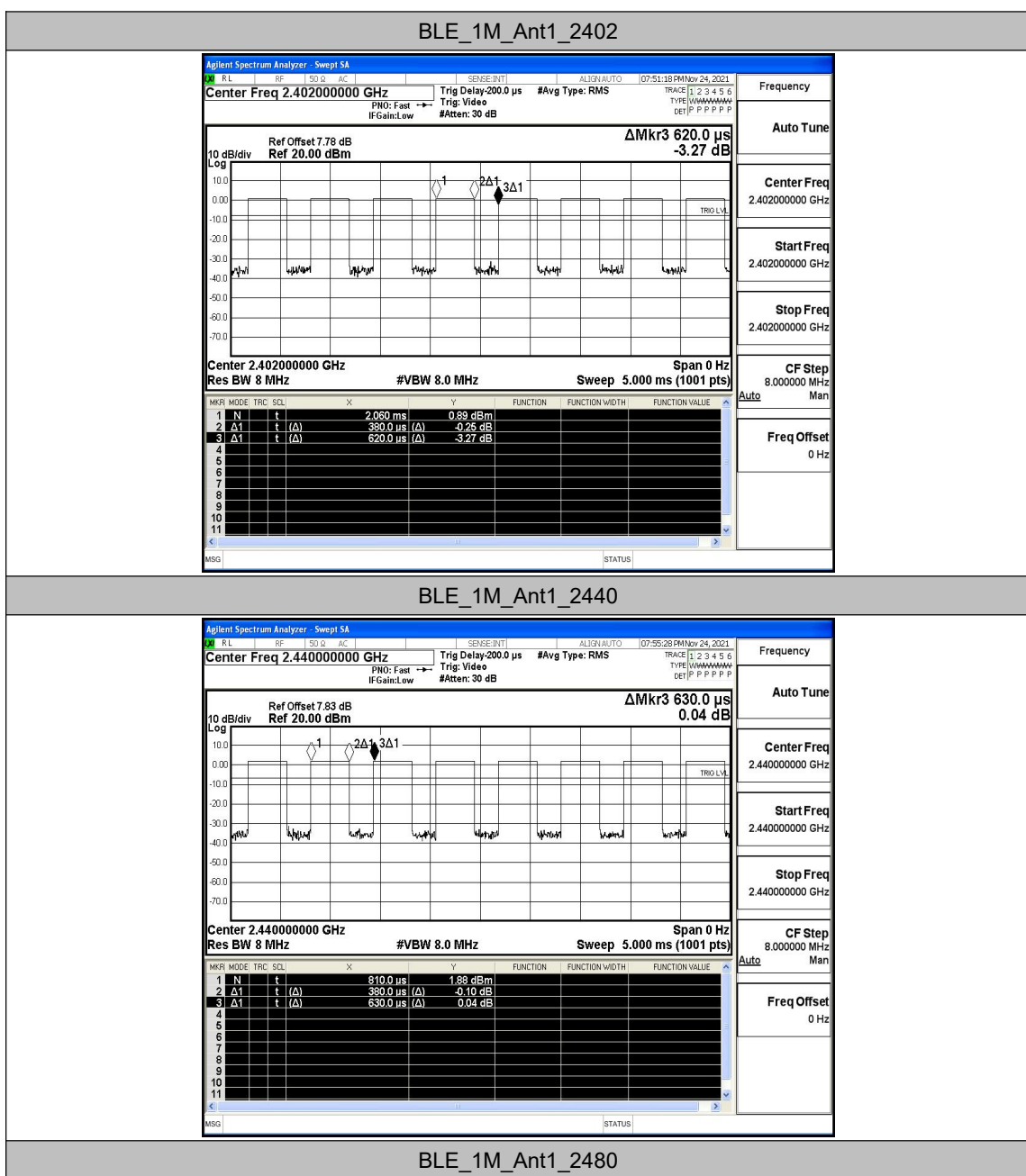


B.6 Duty Cycle

Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.38	0.62	0.6129	61.29	2.13	---	PASS
		2440	0.38	0.63	0.6032	60.32	2.20	---	PASS
		2480	0.38	0.62	0.6129	61.29	2.13	---	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	-48.49	≤-41.20	46.71	≤54	PASS
				AV	2387.885	-47.61	≤-41.20	47.59	≤54	PASS
				AV	2390.000	-47.98	≤-41.20	47.22	≤54	PASS
				Peak	2310.000	-41.4	≤-21.20	53.80	≤74	PASS
				Peak	2331.500	-39.05	≤-21.20	56.15	≤74	PASS
				Peak	2390.000	-40.93	≤-21.20	54.27	≤74	PASS
		High	2480	AV	2483.500	-47.41	≤-41.20	47.79	≤54	PASS
				AV	2497.840	-47.17	≤-41.20	48.03	≤54	PASS
				AV	2500.000	-47.57	≤-41.20	47.63	≤54	PASS
				Peak	2483.500	-41.14	≤-21.20	54.06	≤74	PASS
				Peak	2496.560	-38.13	≤-21.20	57.07	≤74	PASS
				Peak	2500.000	-41.59	≤-21.20	53.61	≤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

