

RF Test Data for BT(BLE) (Conducted Measurement)

Product Name: Aroma Diffuser

Trade Mark: N/A

Test Model: DT-1829N

FCC ID: 2A4P2DT-1829N

Environmental Conditions

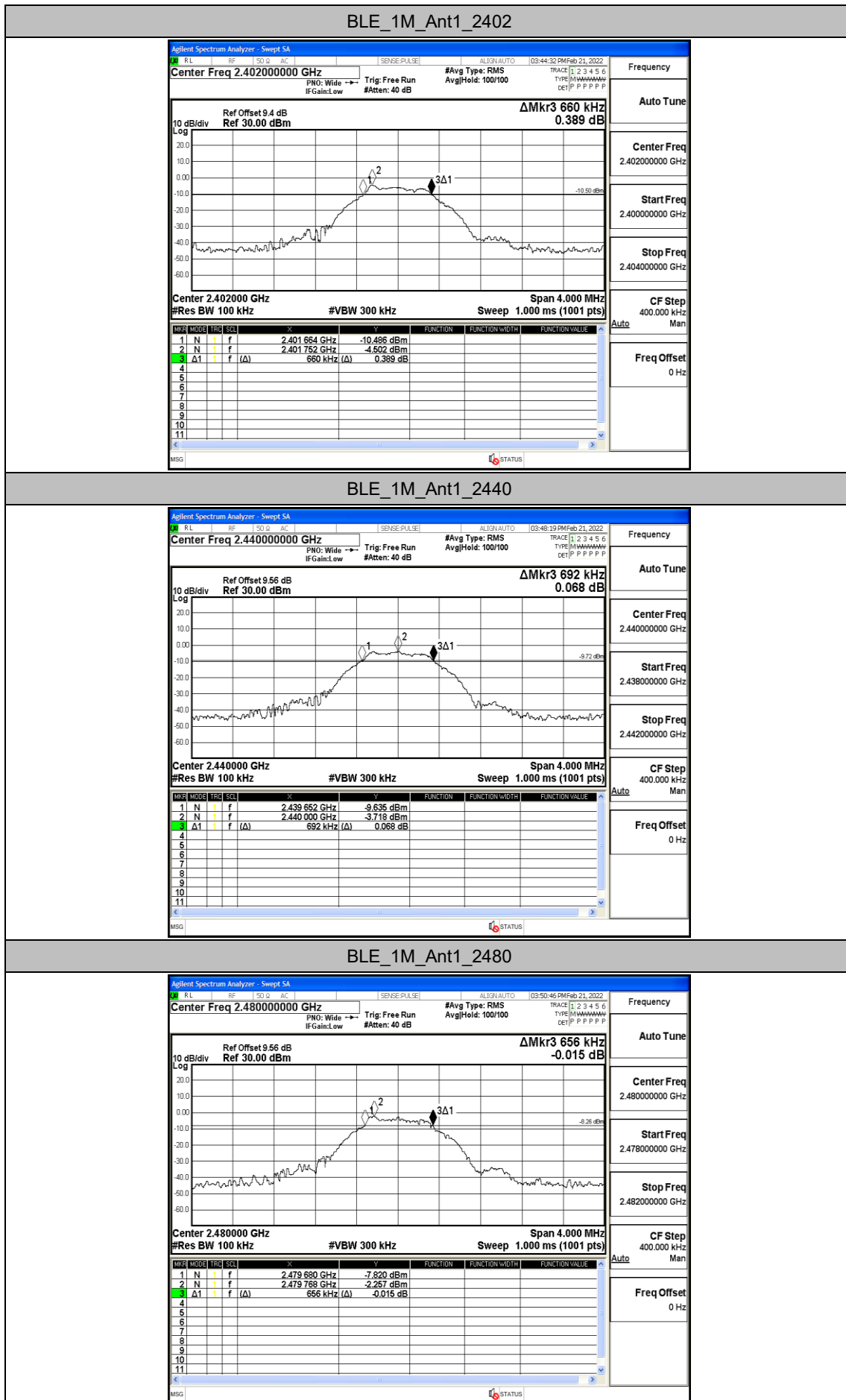
Temperature:	25.5°C
Relative Humidity:	55.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.660	2401.664	2402.324	0.5	PASS
		2440	0.692	2439.652	2440.344	0.5	PASS
		2480	0.656	2479.680	2480.336	0.5	PASS

Test Graphs

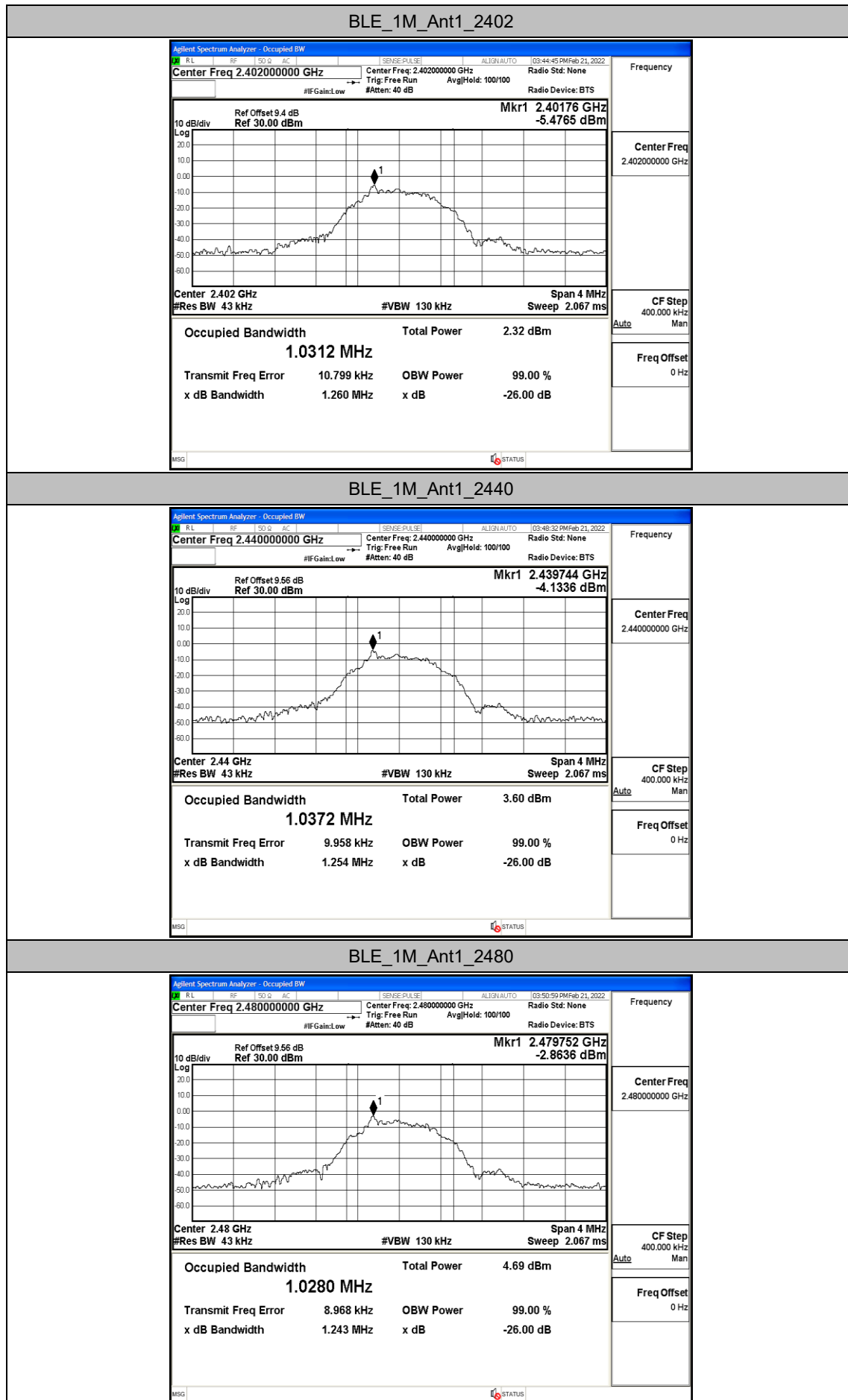


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0312	2401.495	2402.526	---	PASS
		2440	1.0372	2439.491	2440.529	---	PASS
		2480	1.0280	2479.495	2480.523	---	PASS

Test Graphs

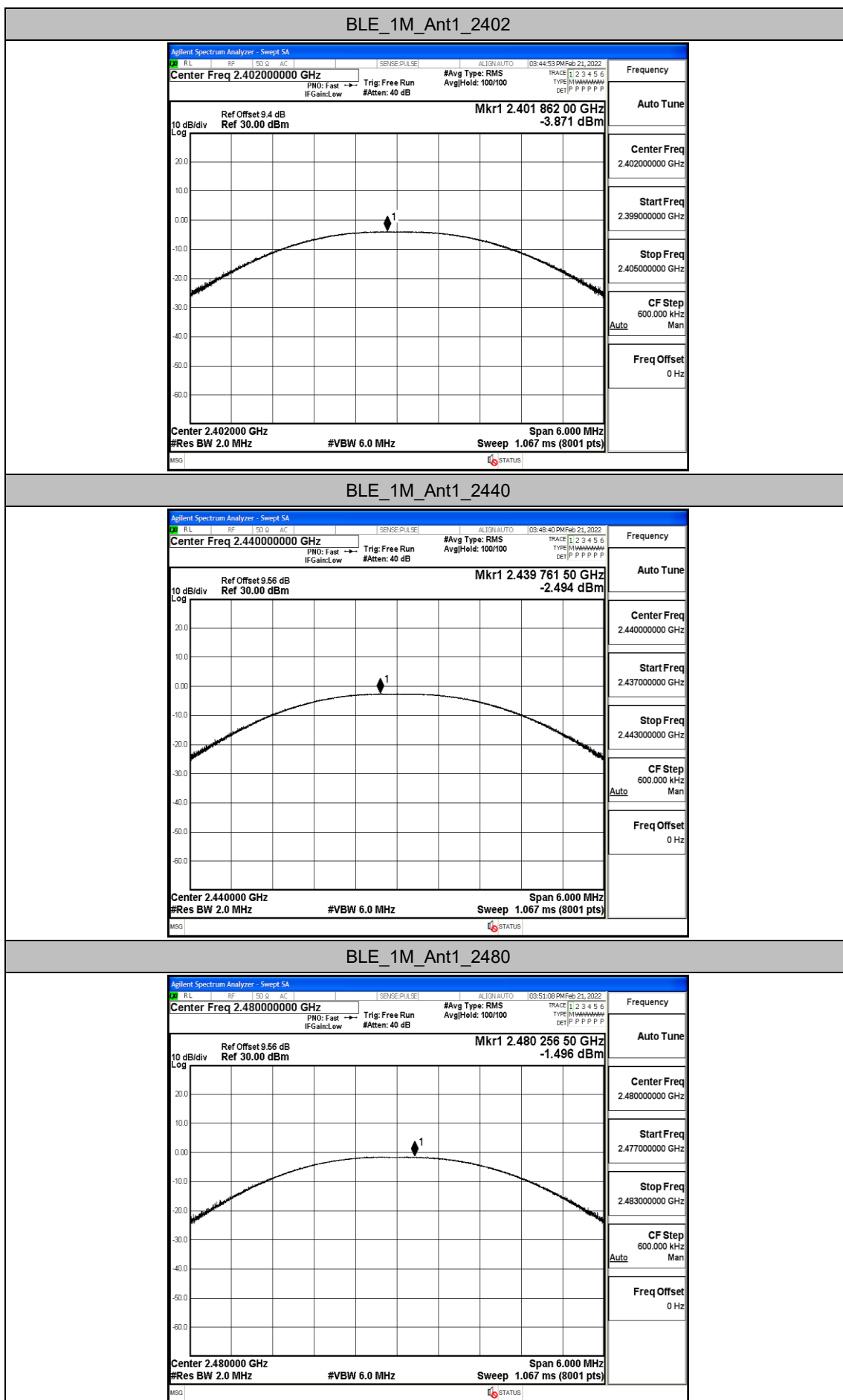


Appendix C: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-3.87	<=30	PASS
		2440	-2.49	<=30	PASS
		2480	-1.5	<=30	PASS

Test Graphs

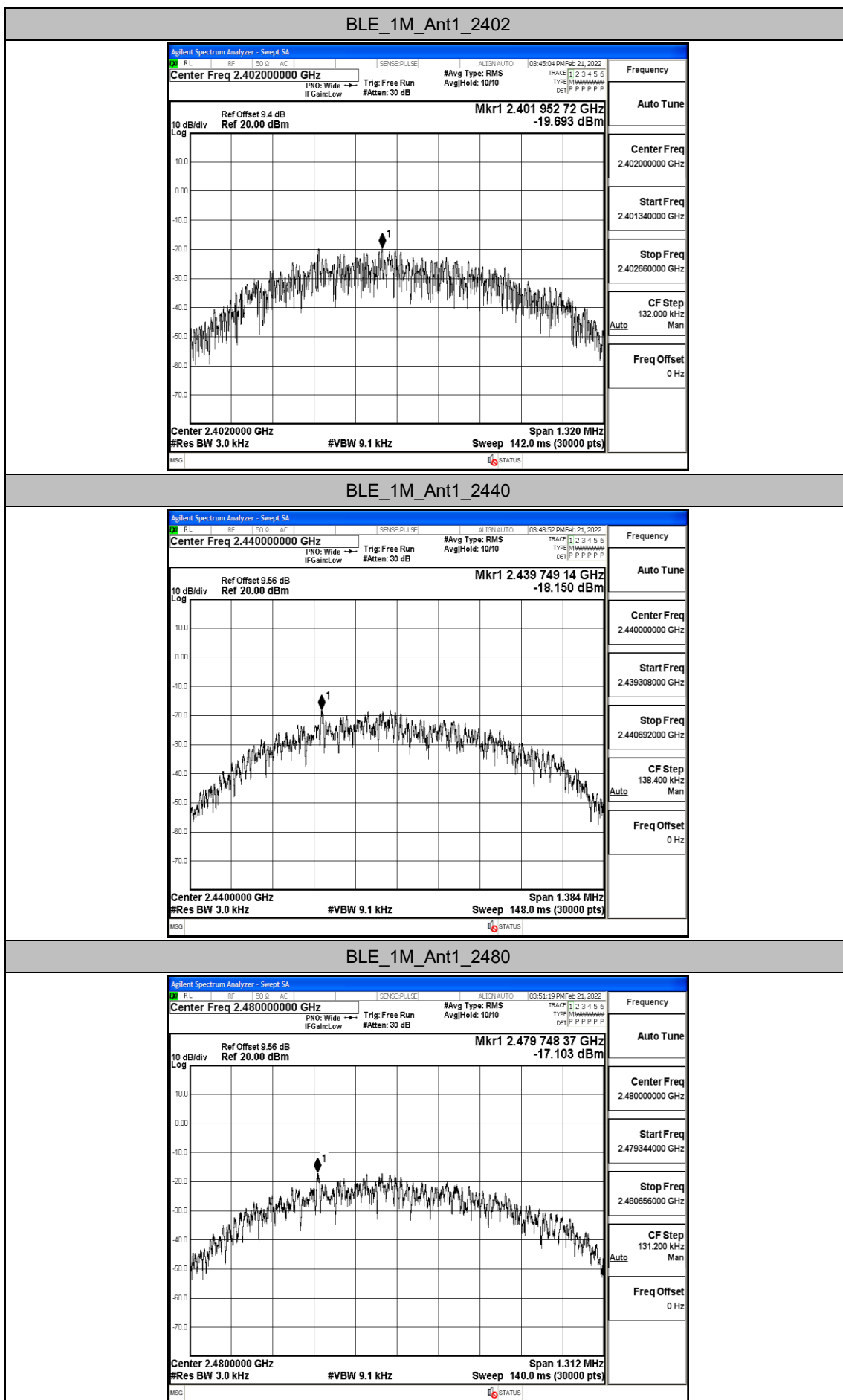


Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.69	≤8	PASS
		2440	-18.15	≤8	PASS
		2480	-17.1	≤8	PASS

Test Graphs

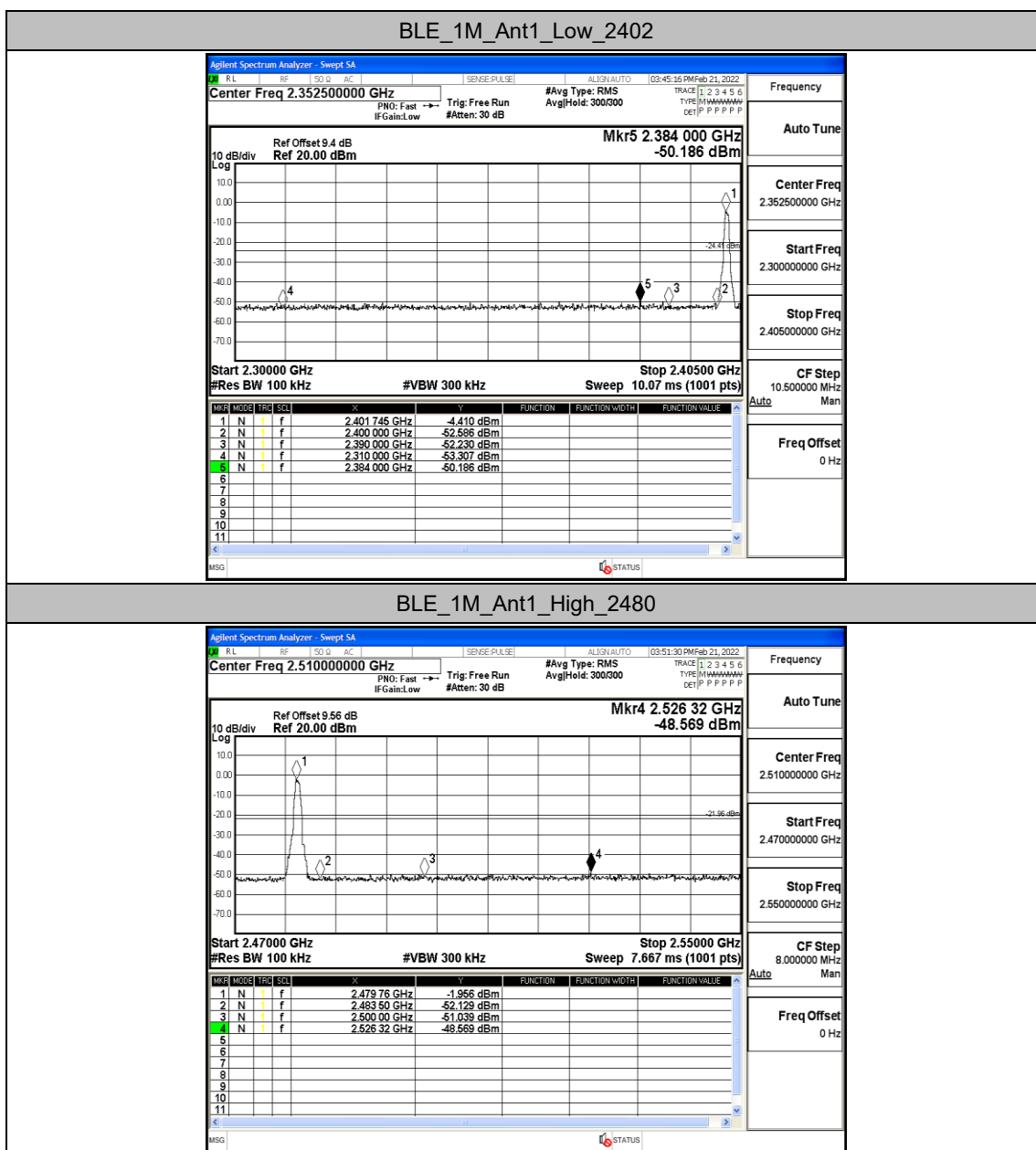


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-4.41	-50.19	≤-24.41	PASS
		High	2480	-1.96	-48.57	≤-21.96	PASS

Test Graphs

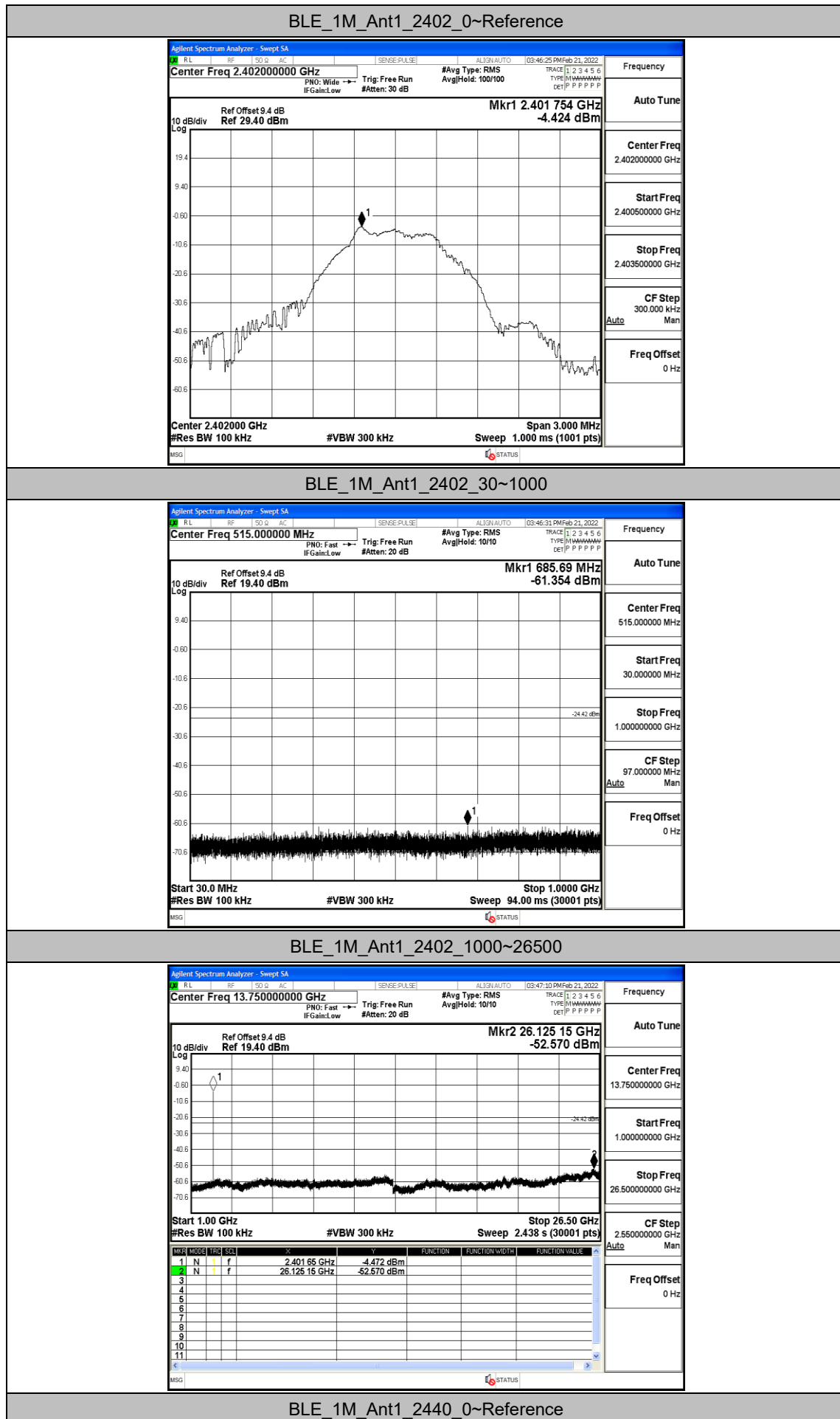


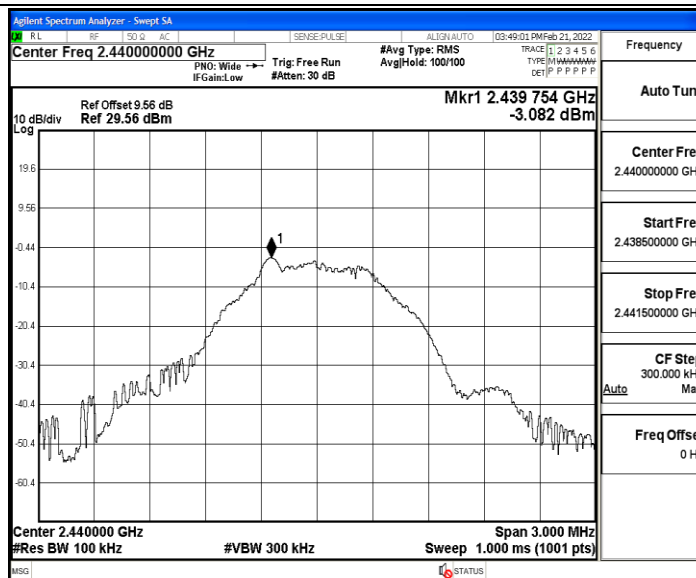
Appendix F: Conducted Spurious Emission

Test Result

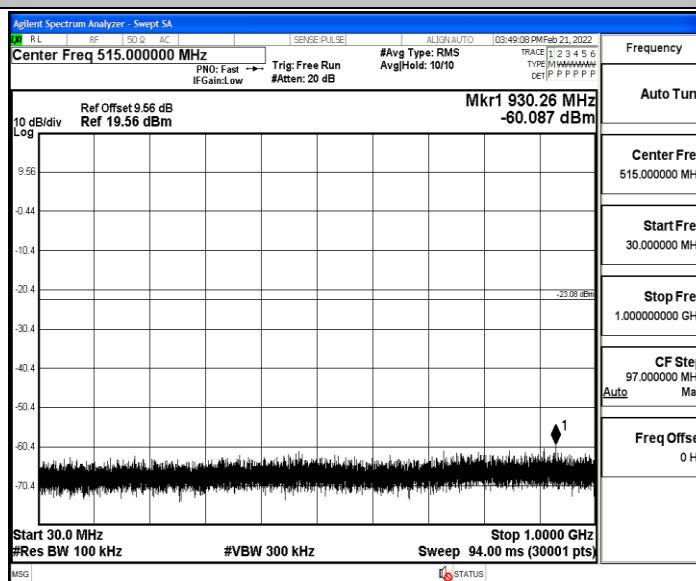
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.42	-4.42	---	PASS
			30~1000	-4.42	-61.35	≤-24.42	PASS
			1000~26500	-4.42	-52.57	≤-24.42	PASS
		2440	Reference	-3.08	-3.08	---	PASS
			30~1000	-3.08	-60.09	≤-23.08	PASS
			1000~26500	-3.08	-52.29	≤-23.08	PASS
		2480	Reference	-2.01	-2.01	---	PASS
			30~1000	-2.01	-60.97	≤-22.01	PASS
			1000~26500	-2.01	-52.2	≤-22.01	PASS

Test Graphs

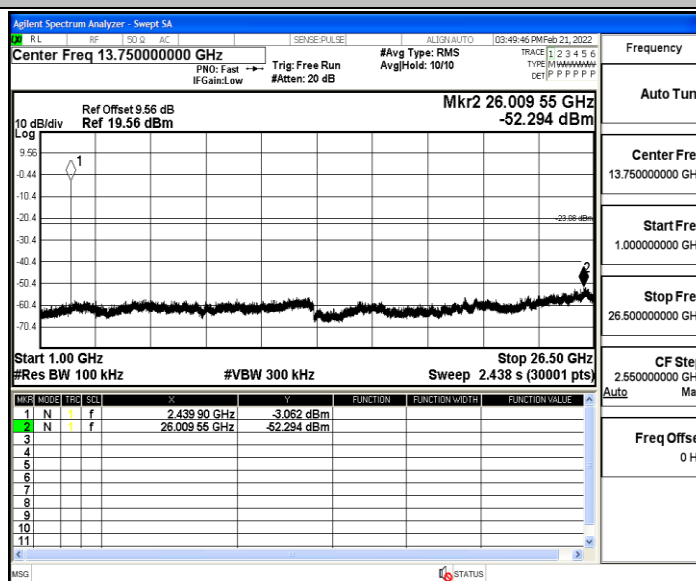




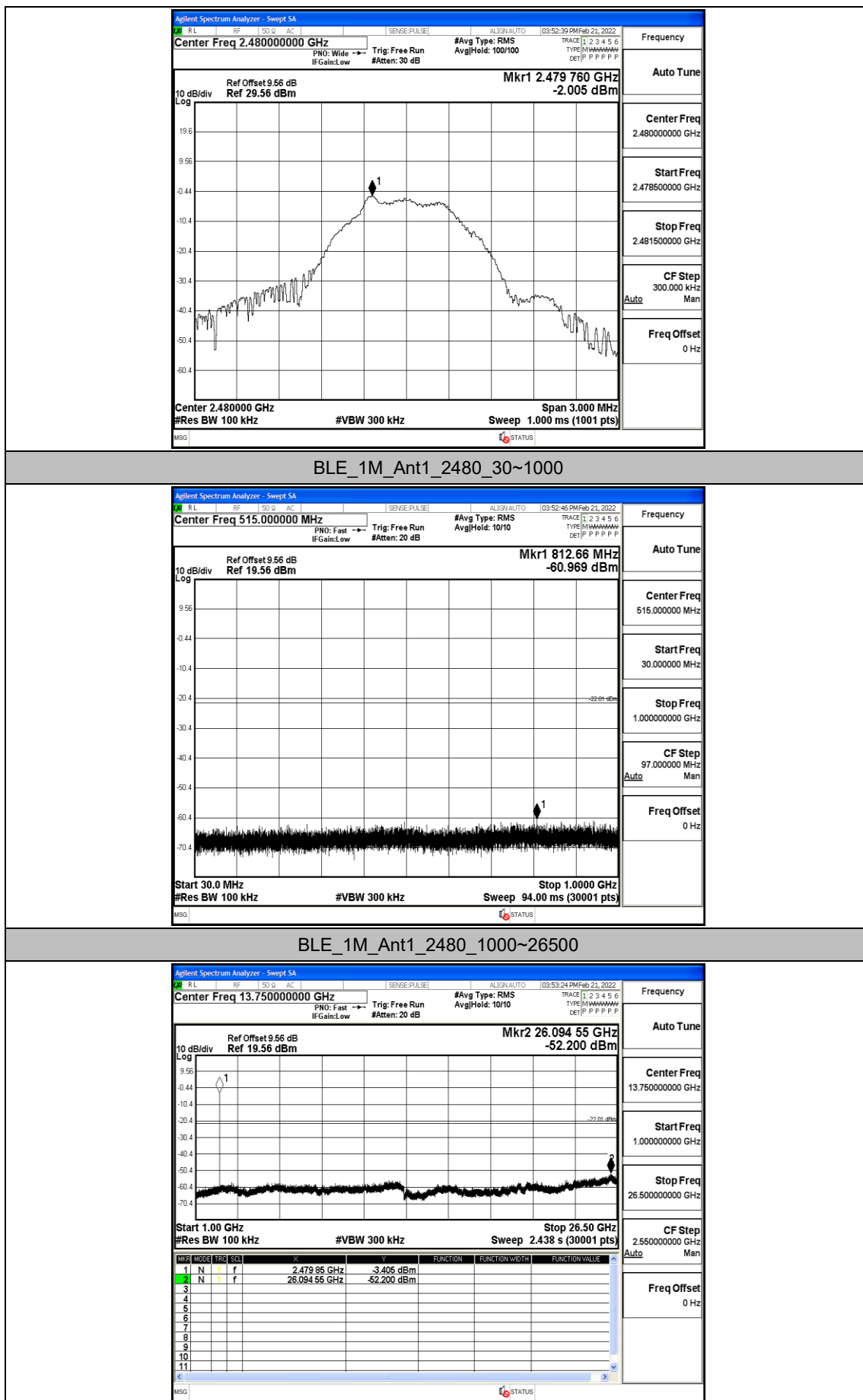
BLE_1M_Ant1_2440_30~1000



BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference

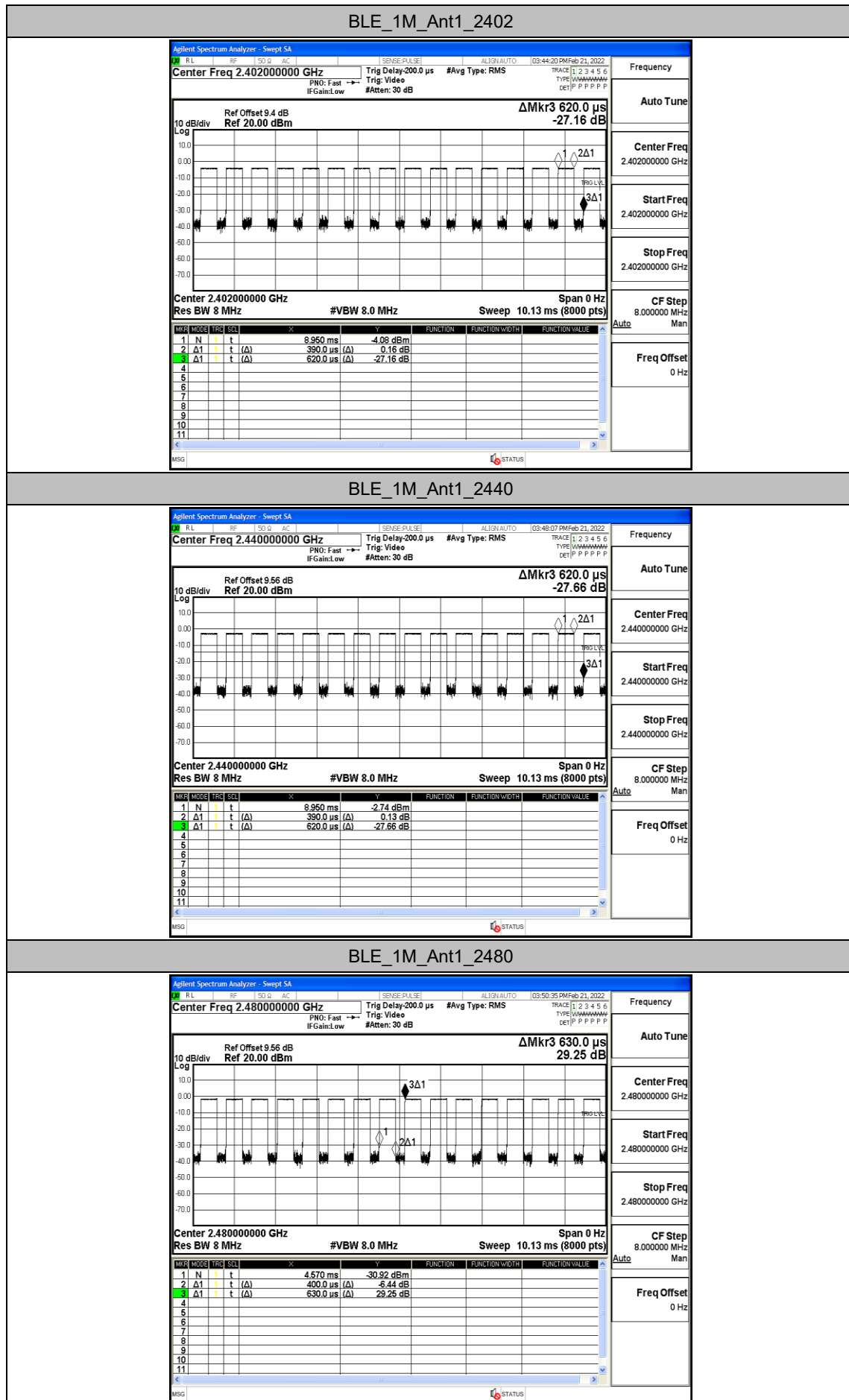


Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/B [KHz]
BLE_1M	Ant1	2402	0.39	0.62	62.90	2.56
		2440	0.39	0.62	62.90	2.56
		2480	0.40	0.63	63.49	2.50

Test Graphs



Appendix H: Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.77	≤-41.20	PASS
				AV	2340.110	-48.01	≤-41.20	PASS
				AV	2390.000	-48.45	≤-41.20	PASS
				Peak	2310.000	-41.96	≤-21.20	PASS
				Peak	2334.755	-38.37	≤-21.20	PASS
				Peak	2390.000	-43.1	≤-21.20	PASS
		High	2480	AV	2483.500	-47.55	≤-41.20	PASS
				AV	2488.240	-47.14	≤-41.20	PASS
				AV	2500.000	-47.72	≤-41.20	PASS
				Peak	2483.500	-41.72	≤-21.20	PASS
				Peak	2499.120	-38.5	≤-21.20	PASS
				Peak	2500.000	-40.67	≤-21.20	PASS

Note:

1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
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

