

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

Product Name: Smart Watch

Trade Mark: N/A

Test Model: W1608R

FCC ID: 2AYSI-W1608

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

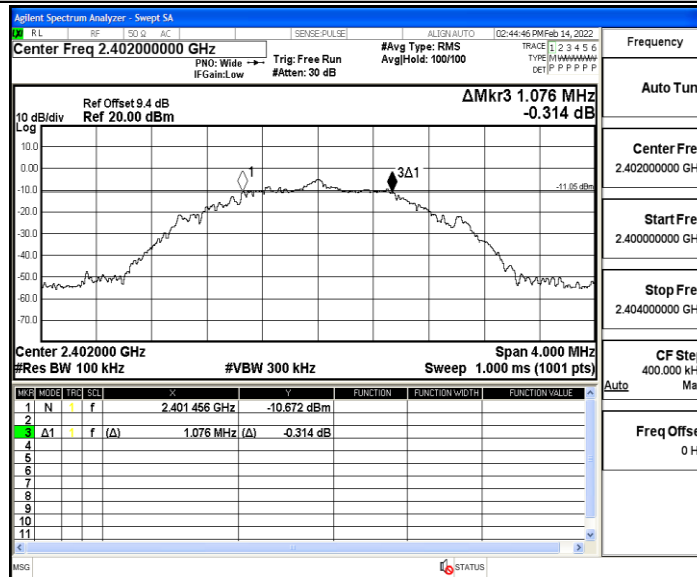
Appendix A: DTS Bandwidth

Test Result

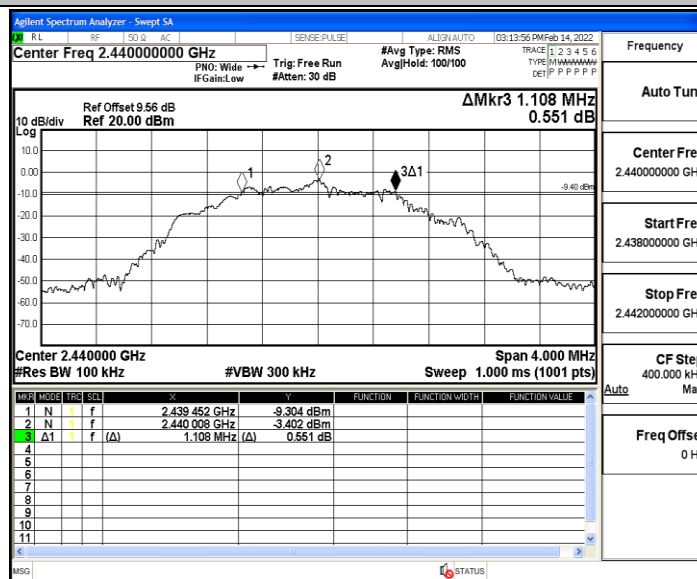
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_2M	Ant1	2402	1.076	2401.456	2402.532	0.5	PASS
		2440	1.108	2439.452	2440.560	0.5	PASS
		2480	1.040	2479.464	2480.504	0.5	PASS

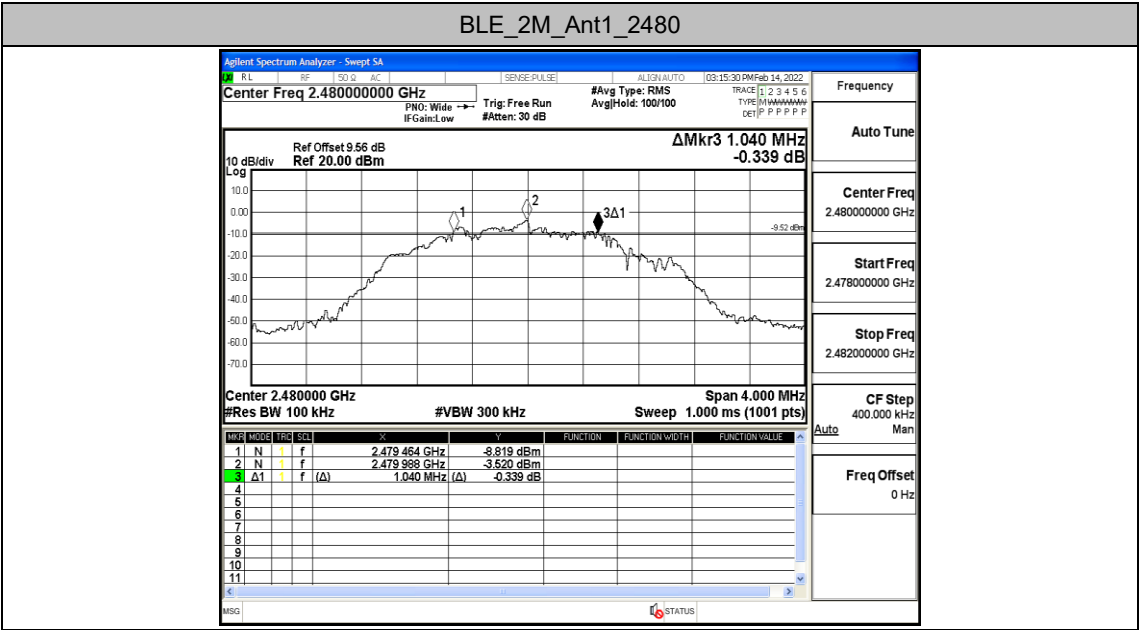
Test Graphs

BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



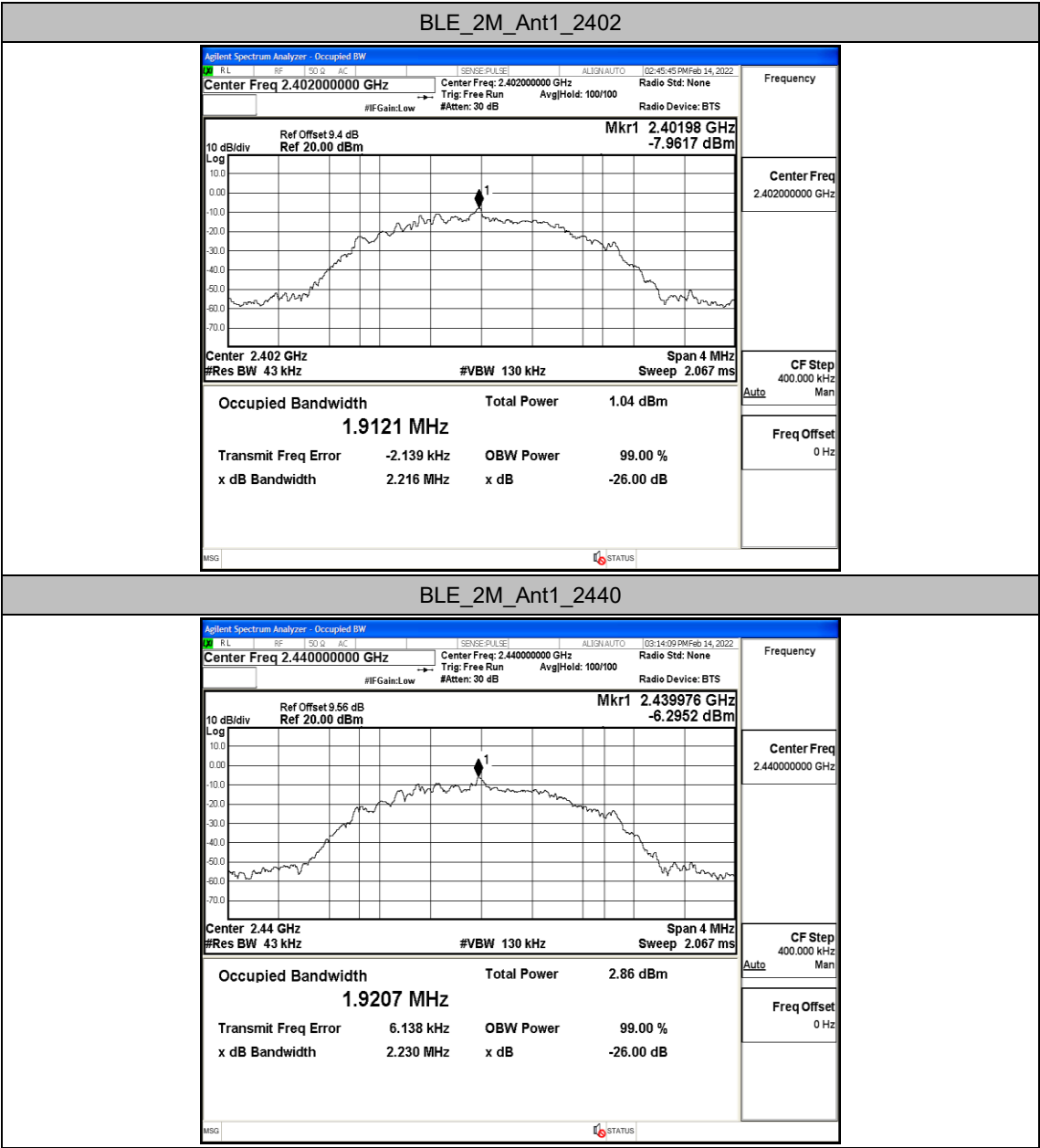


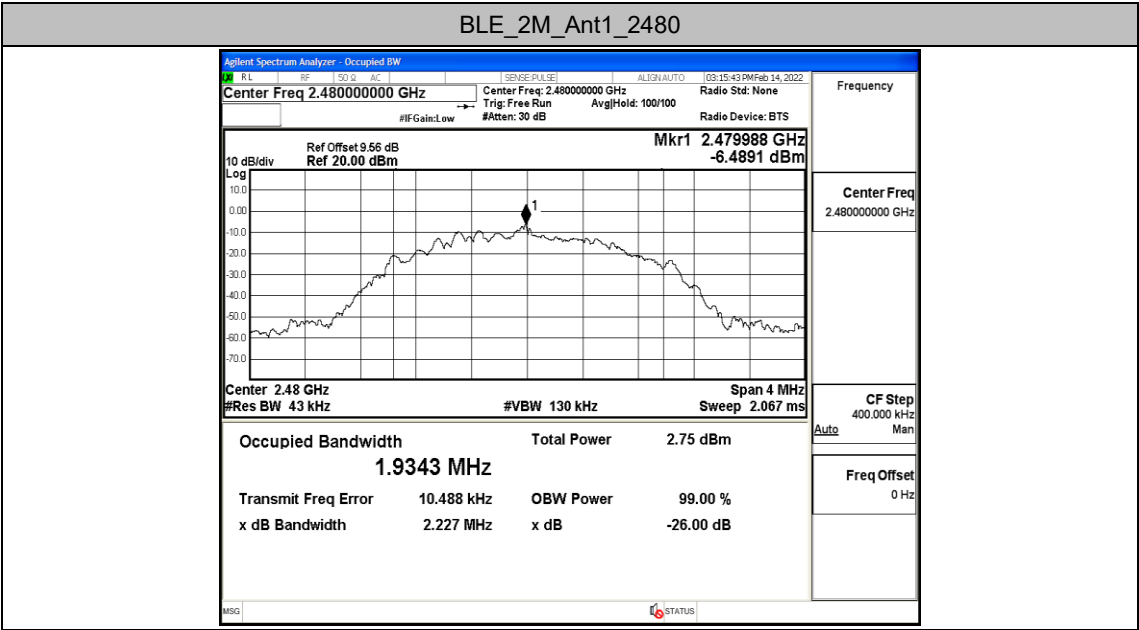
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_2M	Ant1	2402	1.9121	2401.042	2402.954	---	PASS
		2440	1.9207	2439.046	2440.966	---	---
		2480	1.9343	2479.043	2480.978	---	---

Test Graphs



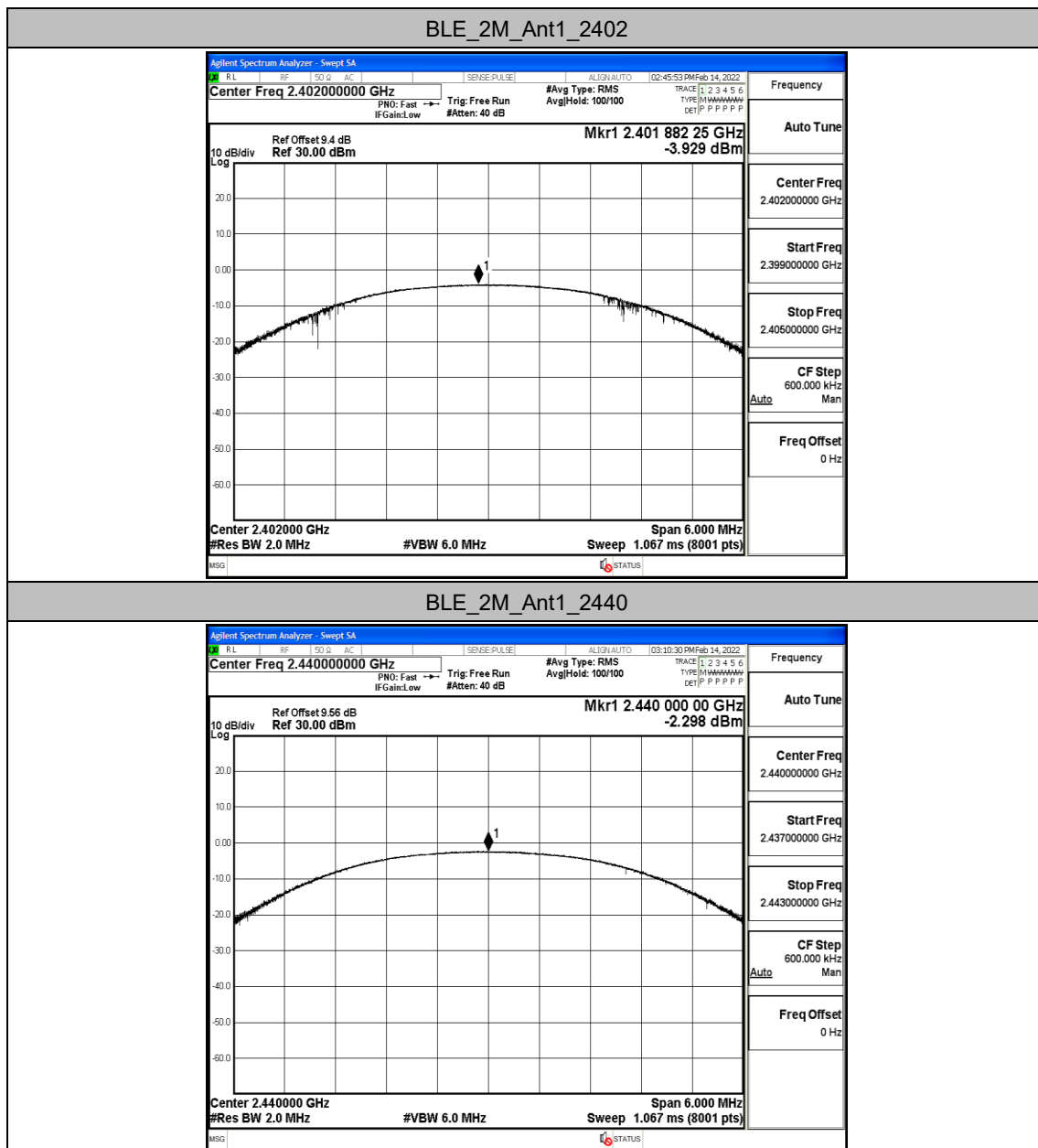


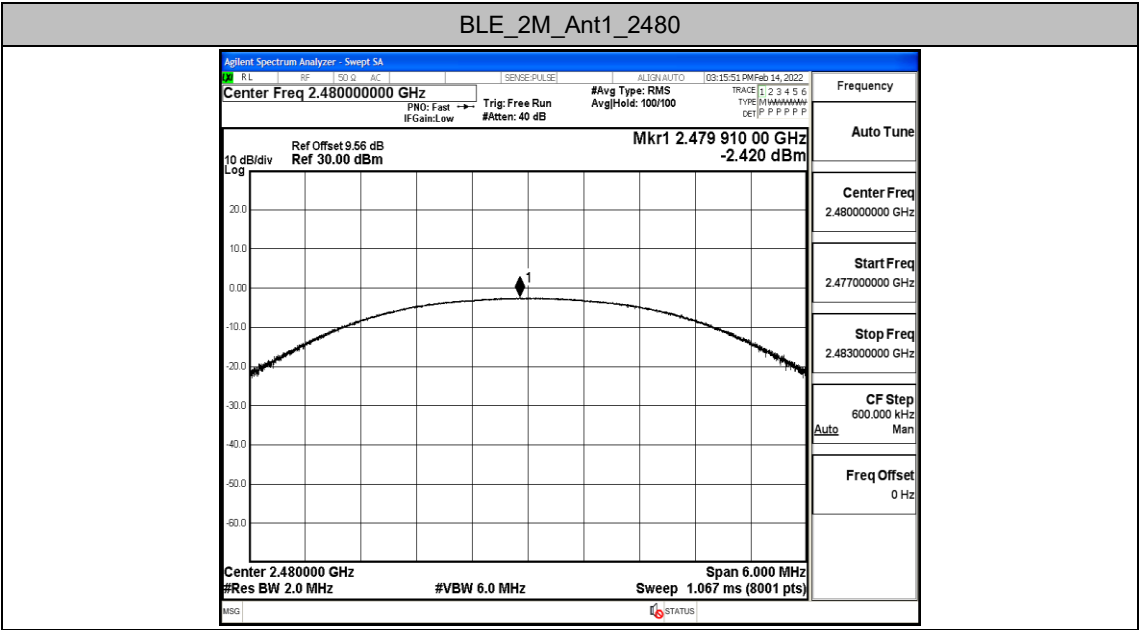
Appendix C: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_2M	Ant1	2402	-3.93	≤30	PASS
		2440	-2.3	≤30	PASS
		2480	-2.42	≤30	PASS

Test Graphs



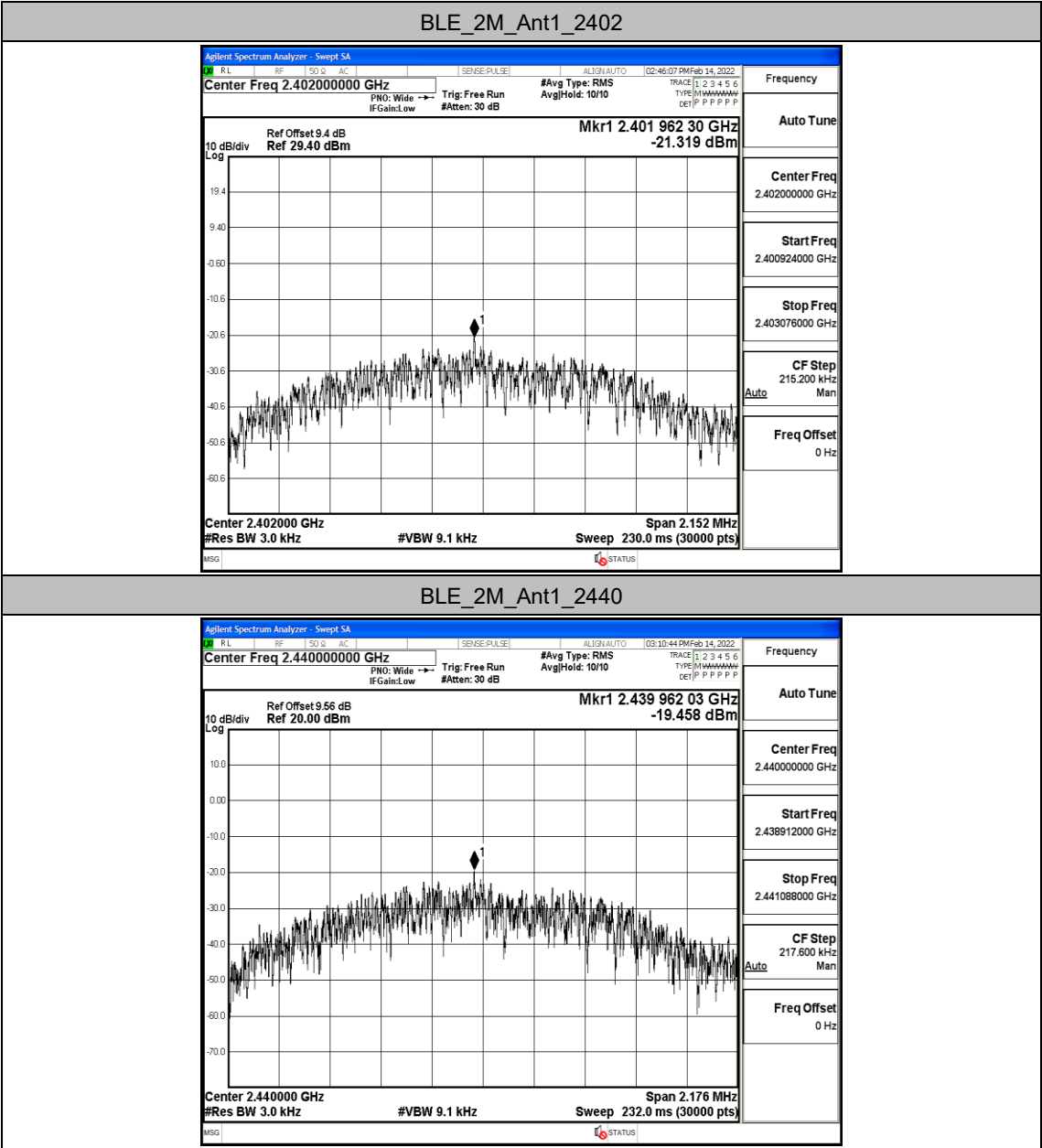


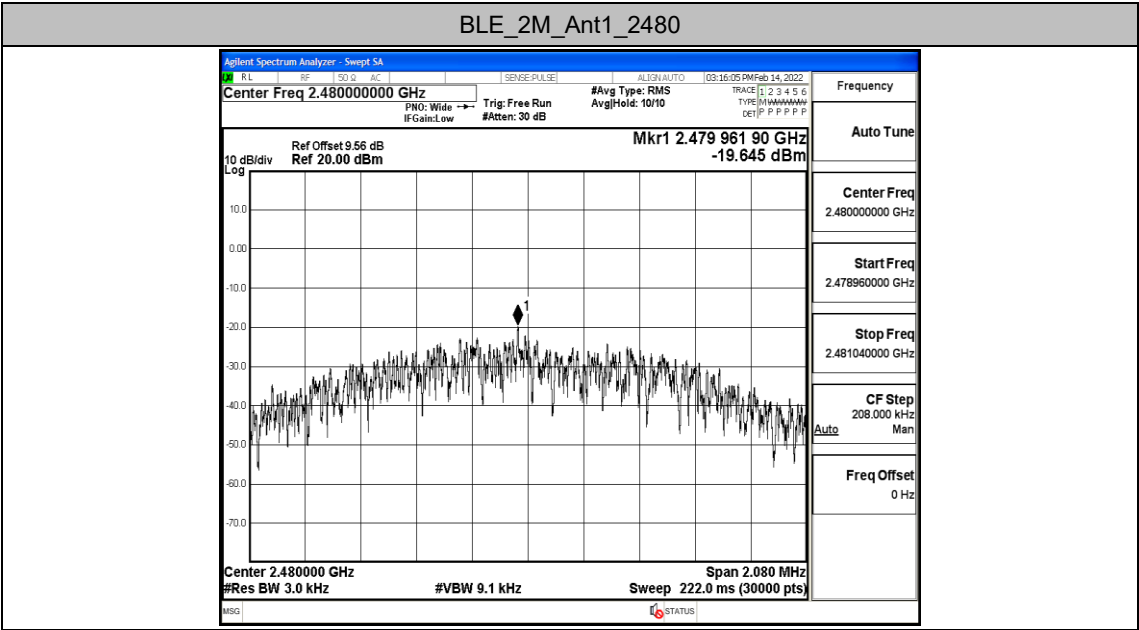
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_2M	Ant1	2402	-21.32	≤8	PASS
		2440	-19.46	≤8	PASS
		2480	-19.65	≤8	PASS

Test Graphs



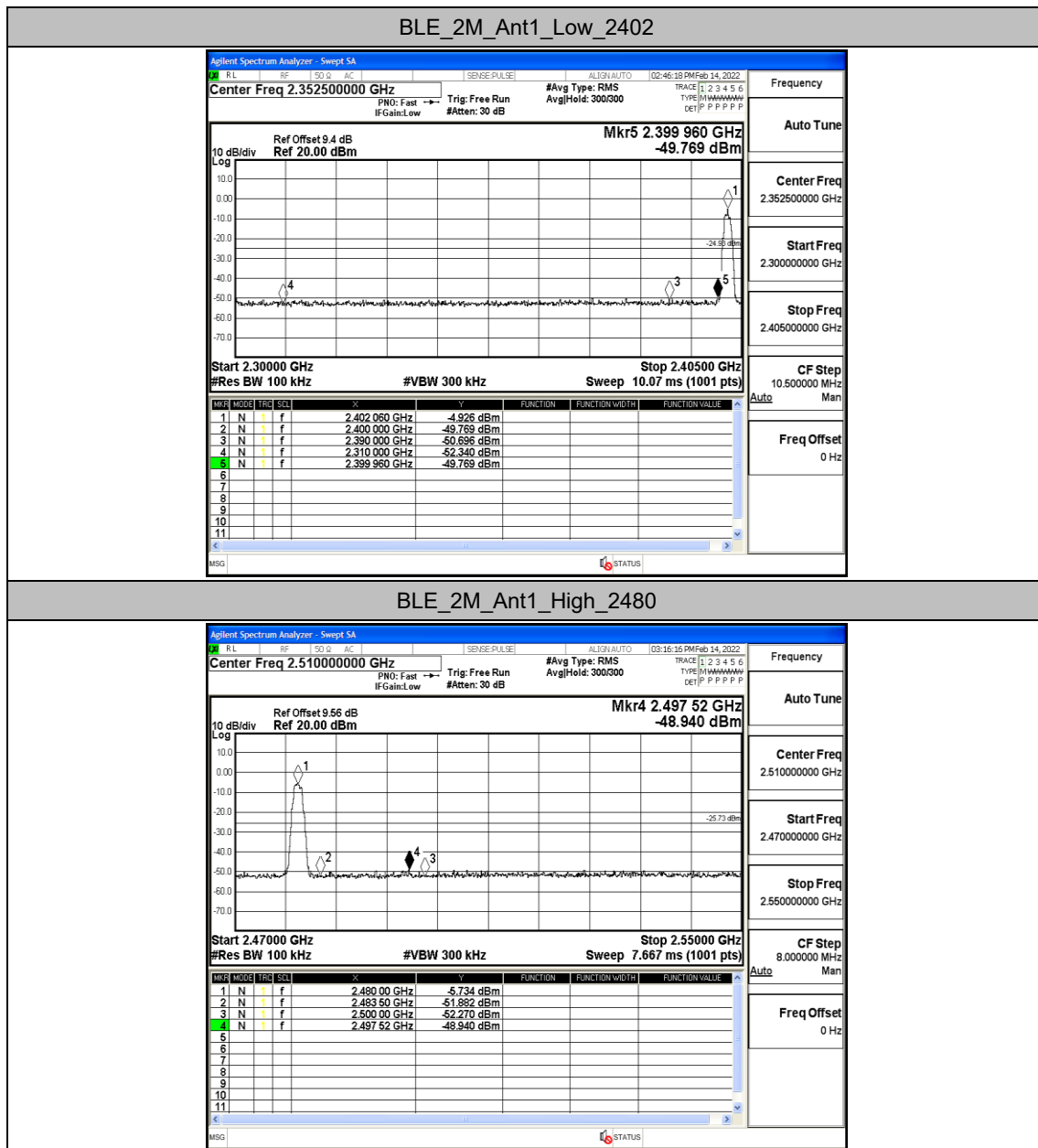


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_2M	Ant1	Low	2402	-4.93	-49.77	≤-24.93	PASS
		High	2480	-5.73	-48.94	≤-25.73	PASS

Test Graphs

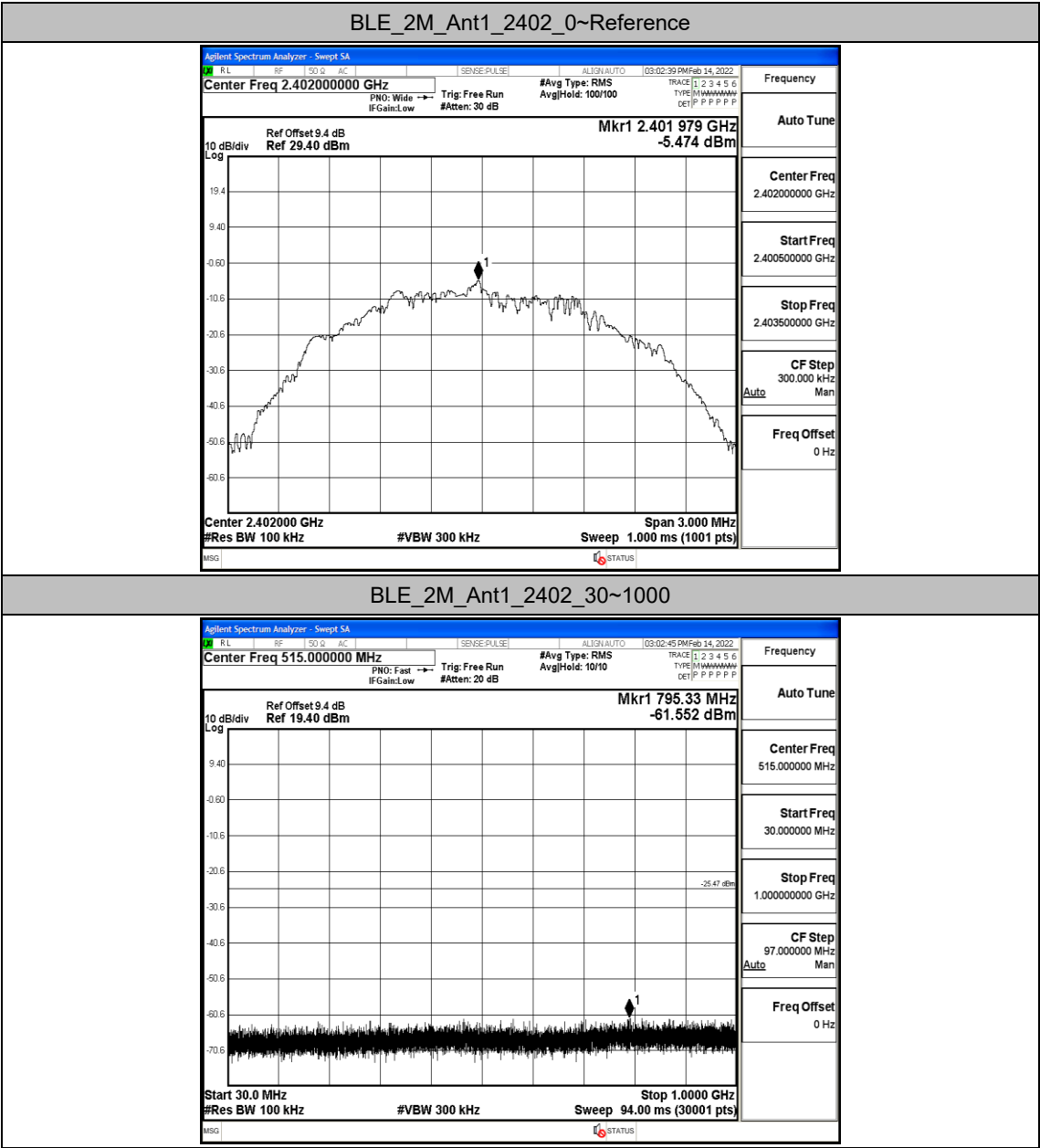


Appendix F: Conducted Spurious Emission

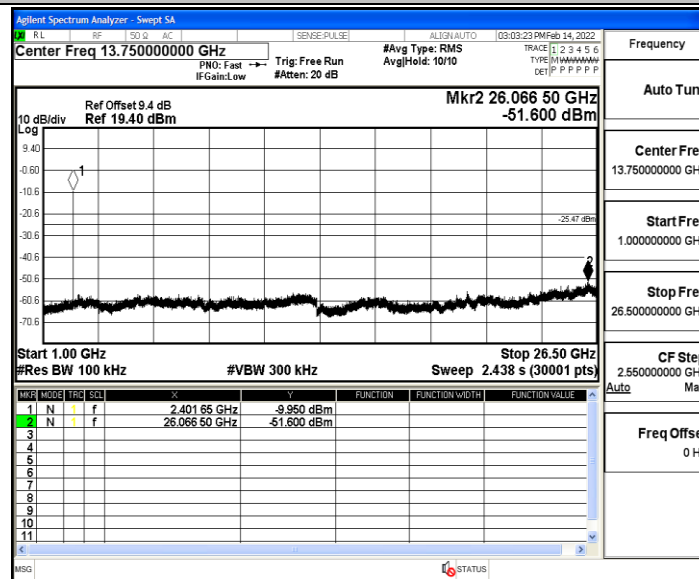
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_2M	Ant1	2402	Reference	-5.47	-5.47	---	PASS
			30~1000	-5.47	-61.55	≤-25.47	PASS
			1000~26500	-5.47	-51.6	≤-25.47	PASS
		2440	Reference	-3.32	-3.32	---	PASS
			30~1000	-3.32	-60.9	≤-23.32	PASS
			1000~26500	-3.32	-51.98	≤-23.32	PASS
		2480	Reference	-5.15	-5.15	---	PASS
			30~1000	-5.15	-61.35	≤-25.15	PASS
			1000~26500	-5.15	-51.78	≤-25.15	PASS

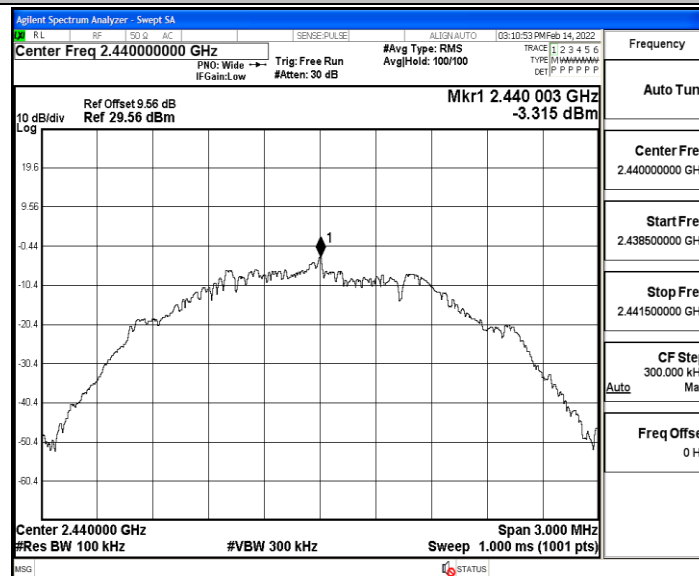
Test Graphs

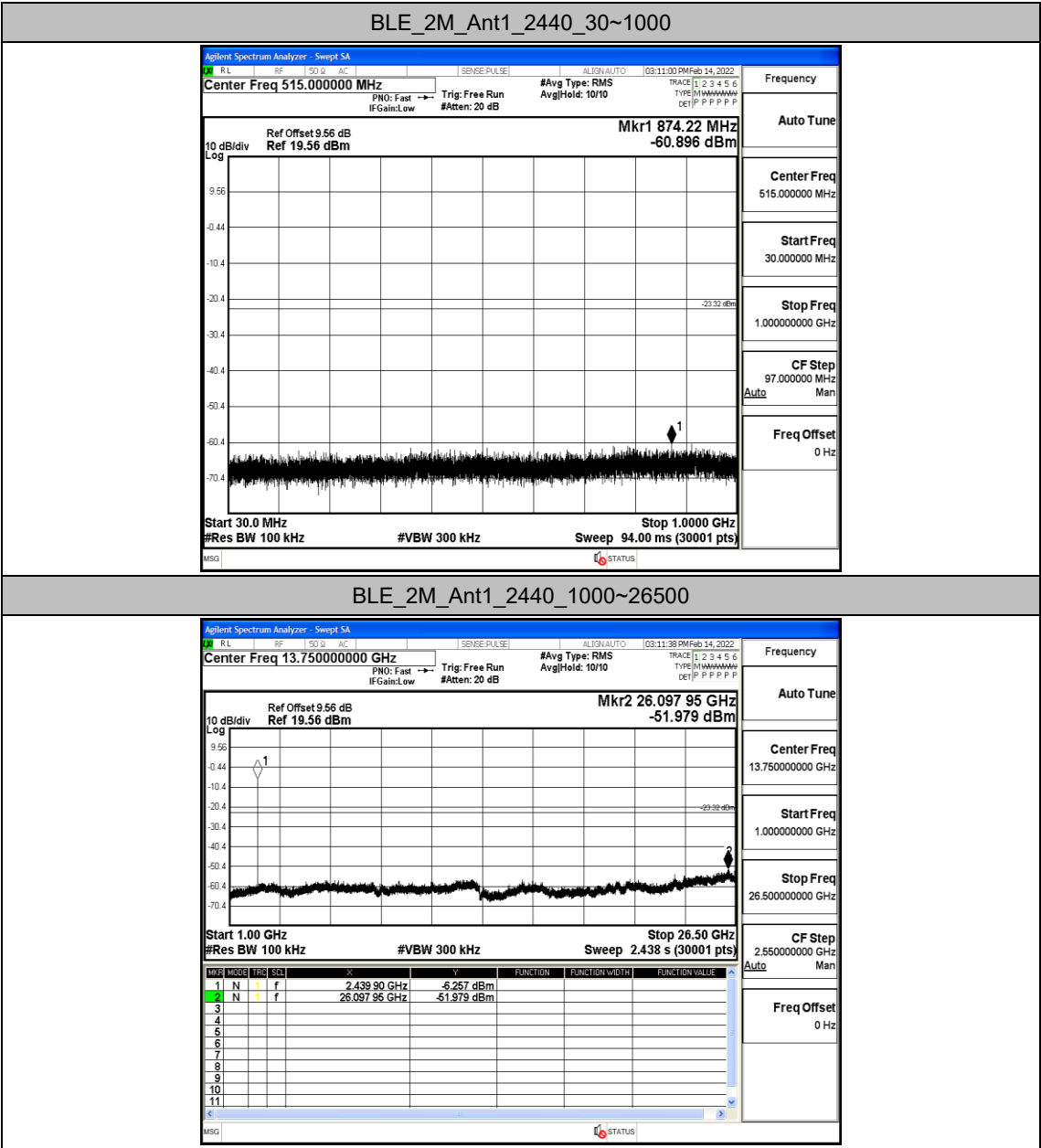


BLE_2M_Ant1_2402_1000~26500

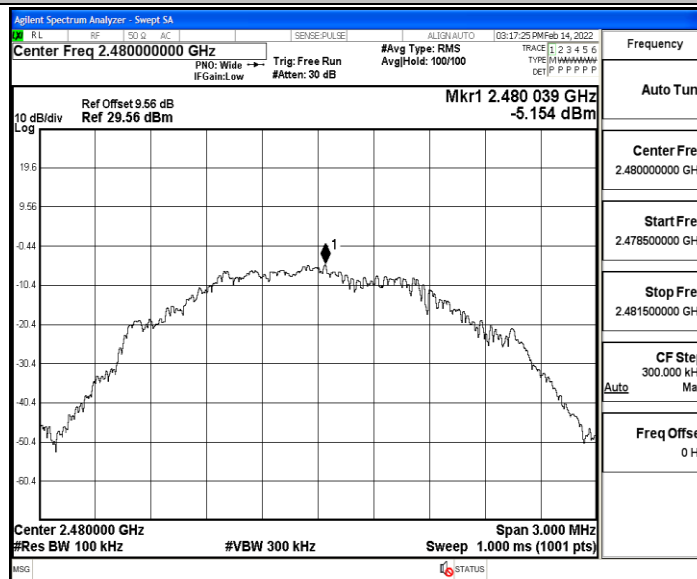


BLE_2M_Ant1_2440_0~Reference

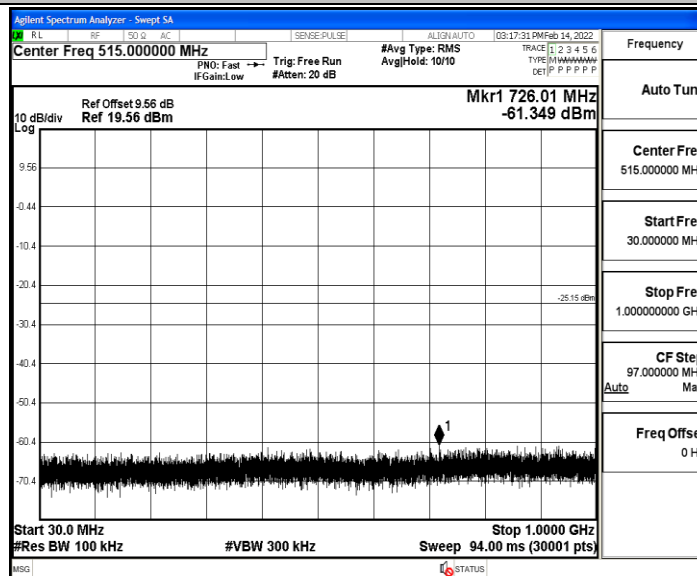


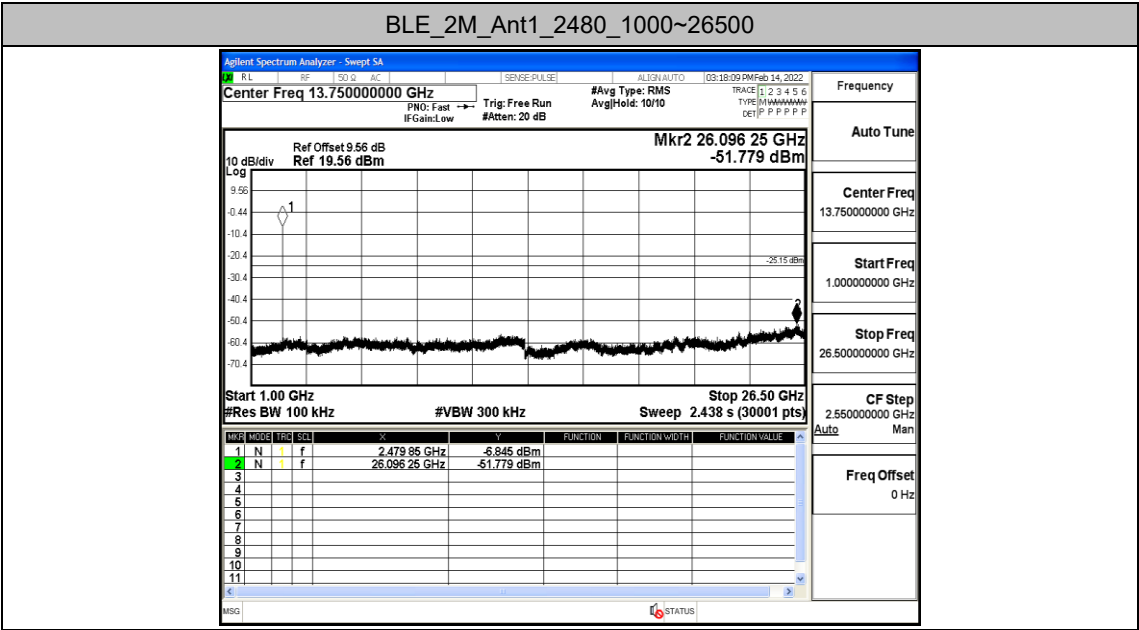


BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



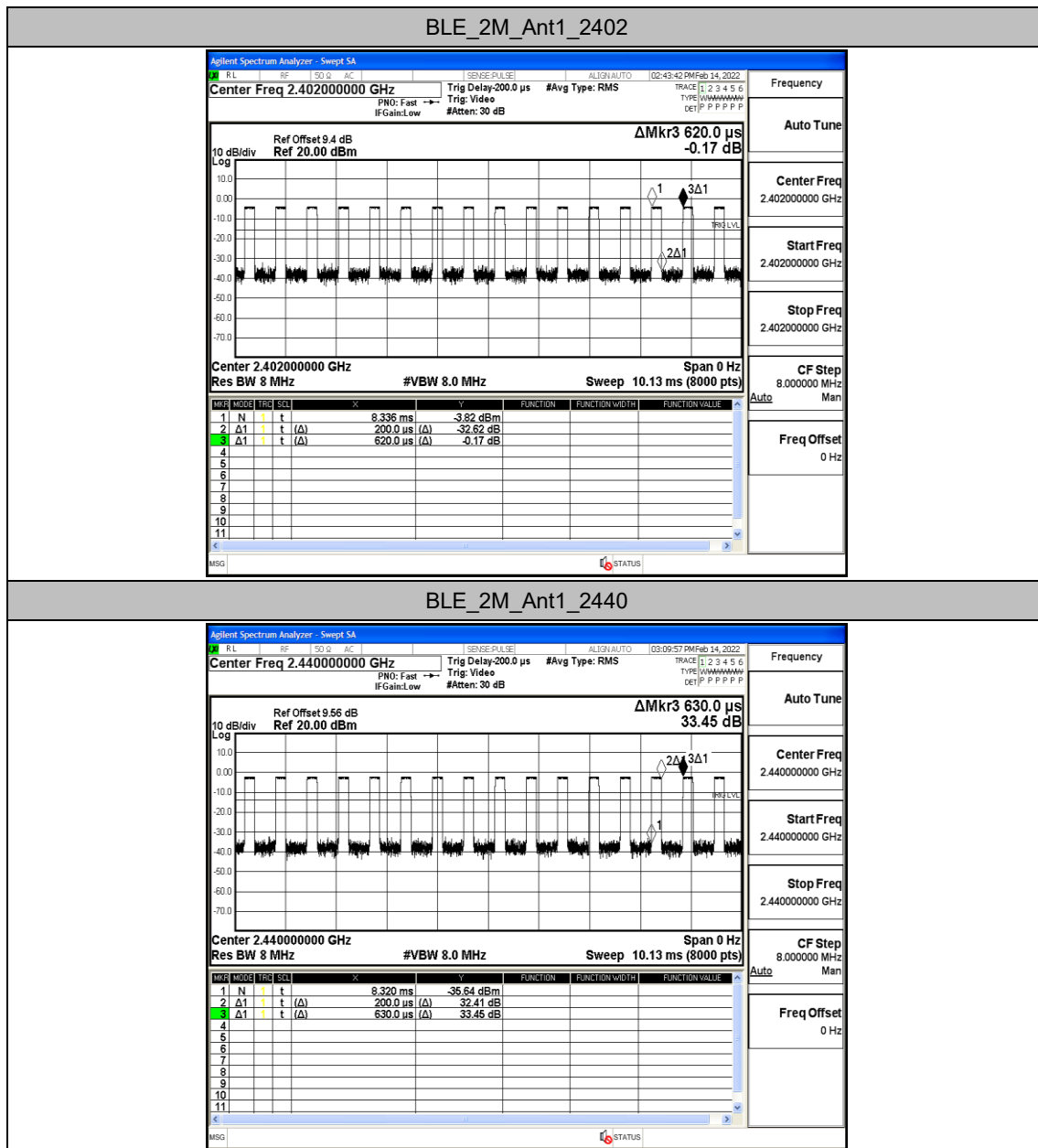


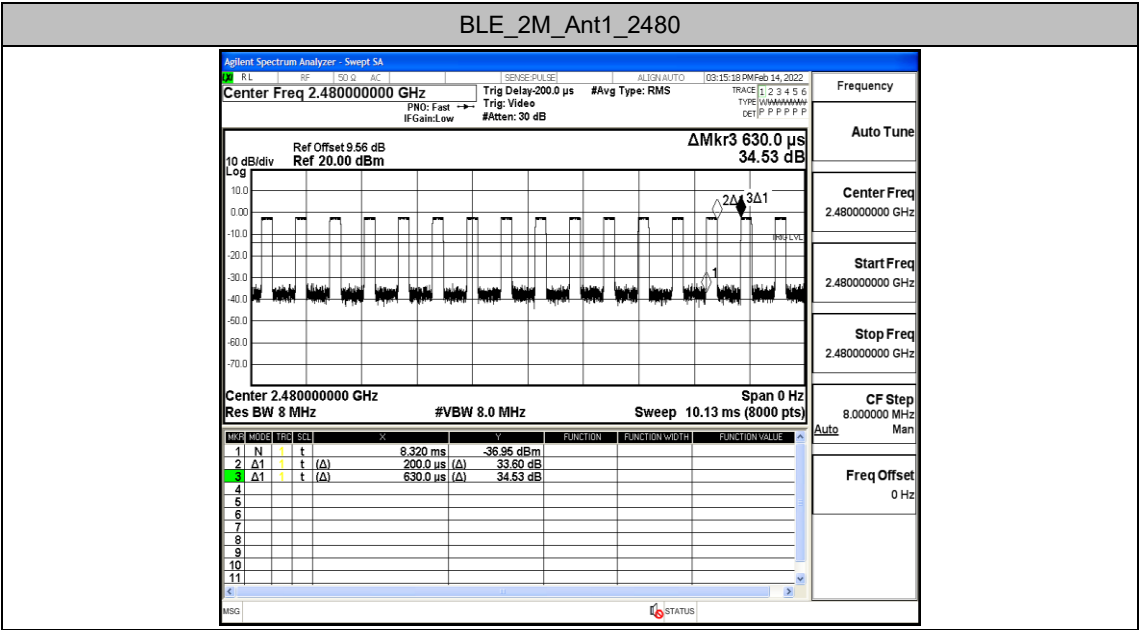
Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T
BLE_2M	Ant1	2402	0.20	0.62	32.26	5.00
		2440	0.20	0.63	31.75	5.00
		2480	0.20	0.63	31.75	5.00

Test Graphs





Appendix H: Emissions in Restricted Bands

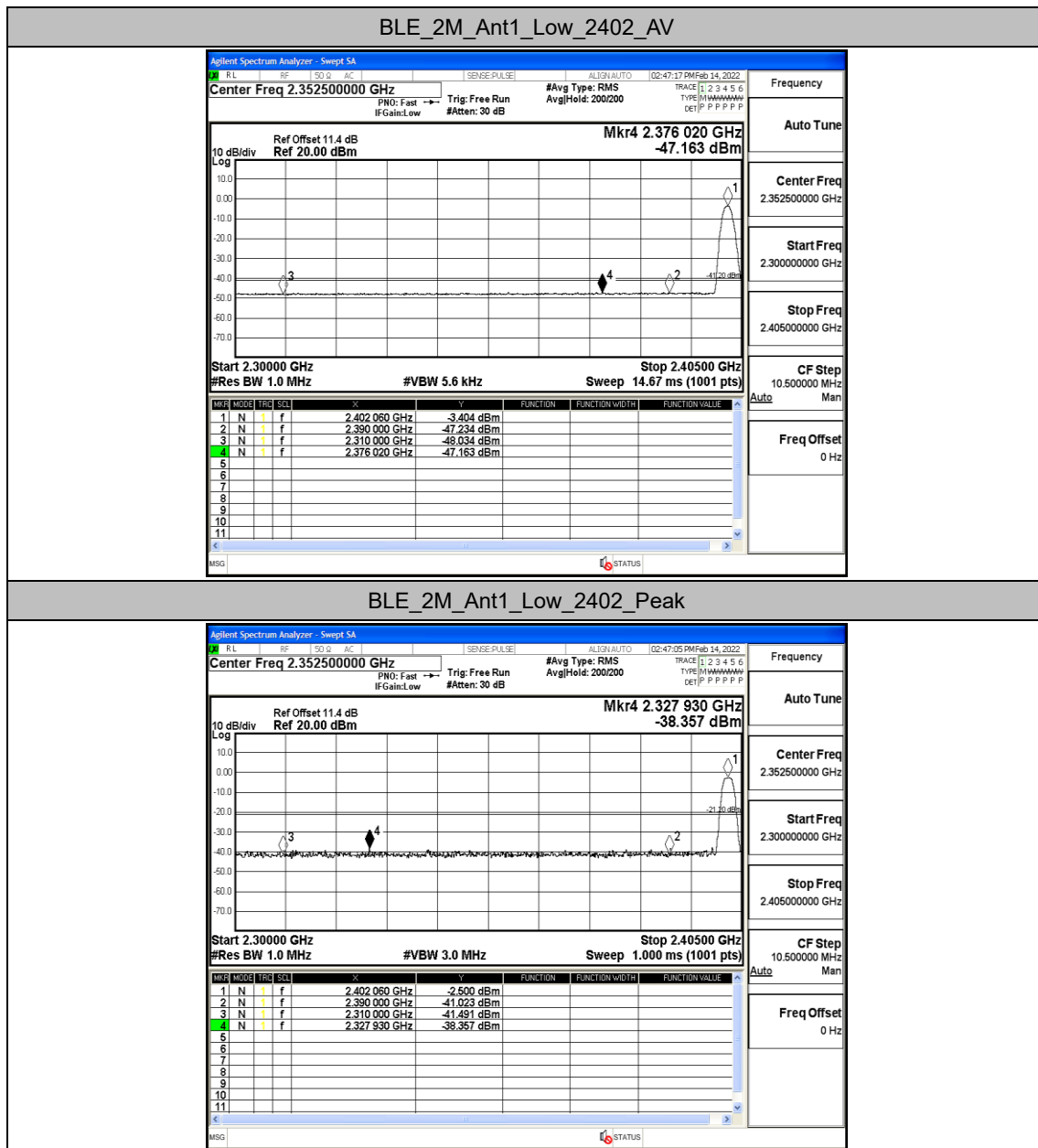
Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_2M	Ant1	Low	2402	AV	2310.000	-48.03	≤-41.20	PASS
				AV	2376.020	-47.16	≤-41.20	PASS
				AV	2390.000	-47.23	≤-41.20	PASS
				Peak	2310.000	-41.49	≤-21.20	PASS
				Peak	2327.930	-38.36	≤-21.20	PASS
				Peak	2390.000	-41.02	≤-21.20	PASS
		High	2480	AV	2483.500	-47.03	≤-41.20	PASS
				AV	2498.080	-46.42	≤-41.20	PASS
				AV	2500.000	-46.99	≤-41.20	PASS
				Peak	2483.500	-41.12	≤-21.20	PASS
				Peak	2487.840	-37.68	≤-21.20	PASS
				Peak	2500.000	-40.07	≤-21.20	PASS

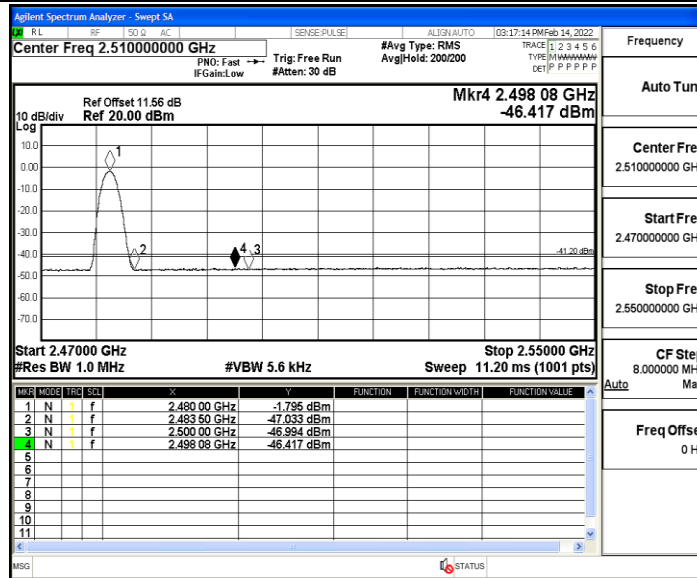
Note:

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



BLE_2M_Ant1_High_2480_AV



BLE_2M_Ant1_High_2480_Peak

