



Appendix Test Data for BLE (Conducted Measurement)

Product Name: WUUK Smart Sock Station

Trade Mark: WUUK

Test Model: BAB10

FCC ID: 2AWHY-BAB10

Environmental Conditions

Temperature:	23.5°C
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Max Zhang
NOTE	N/A

Appendix A: DTS Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	0.708	2401.540	2402.248	0.5	PASS
BLE_1M	Ant1	2440	0.688	2439.668	2440.356	0.5	PASS
BLE_1M	Ant1	2480	0.736	2479.656	2480.392	0.5	PASS
BLE_2M	Ant1	2404	1.320	2403.384	2404.704	0.5	PASS
BLE_2M	Ant1	2440	1.388	2439.336	2440.724	0.5	PASS
BLE_2M	Ant1	2478	1.264	2477.416	2478.680	0.5	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs





BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2404-PASS





BLE_2M-Ant1-2440-PASS



BLE_2M-Ant1-2478-PASS





Appendix B: Occupied Channel Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	1.0625	2401.3628	2402.4253	---	---
BLE_1M	Ant1	2440	1.0754	2439.4808	2440.5562	---	---
BLE_1M	Ant1	2480	1.0665	2479.4800	2480.5465	---	---
BLE_2M	Ant1	2404	2.0588	2402.9867	2405.0455	---	---
BLE_2M	Ant1	2440	2.0864	2438.9595	2441.0459	---	---
BLE_2M	Ant1	2478	2.0638	2476.9875	2479.0513	---	---

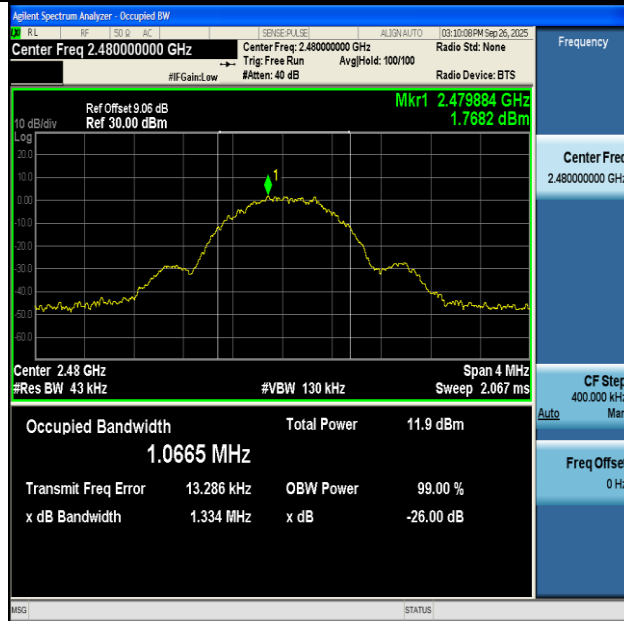
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)





Test Graphs





BLE_1M-Ant1-2480



BLE_2M-Ant1-2404





BLE_2M-Ant1-2440



BLE_2M-Ant1-2478





Appendix C: Maximum peak conducted output power

Test Result Peak

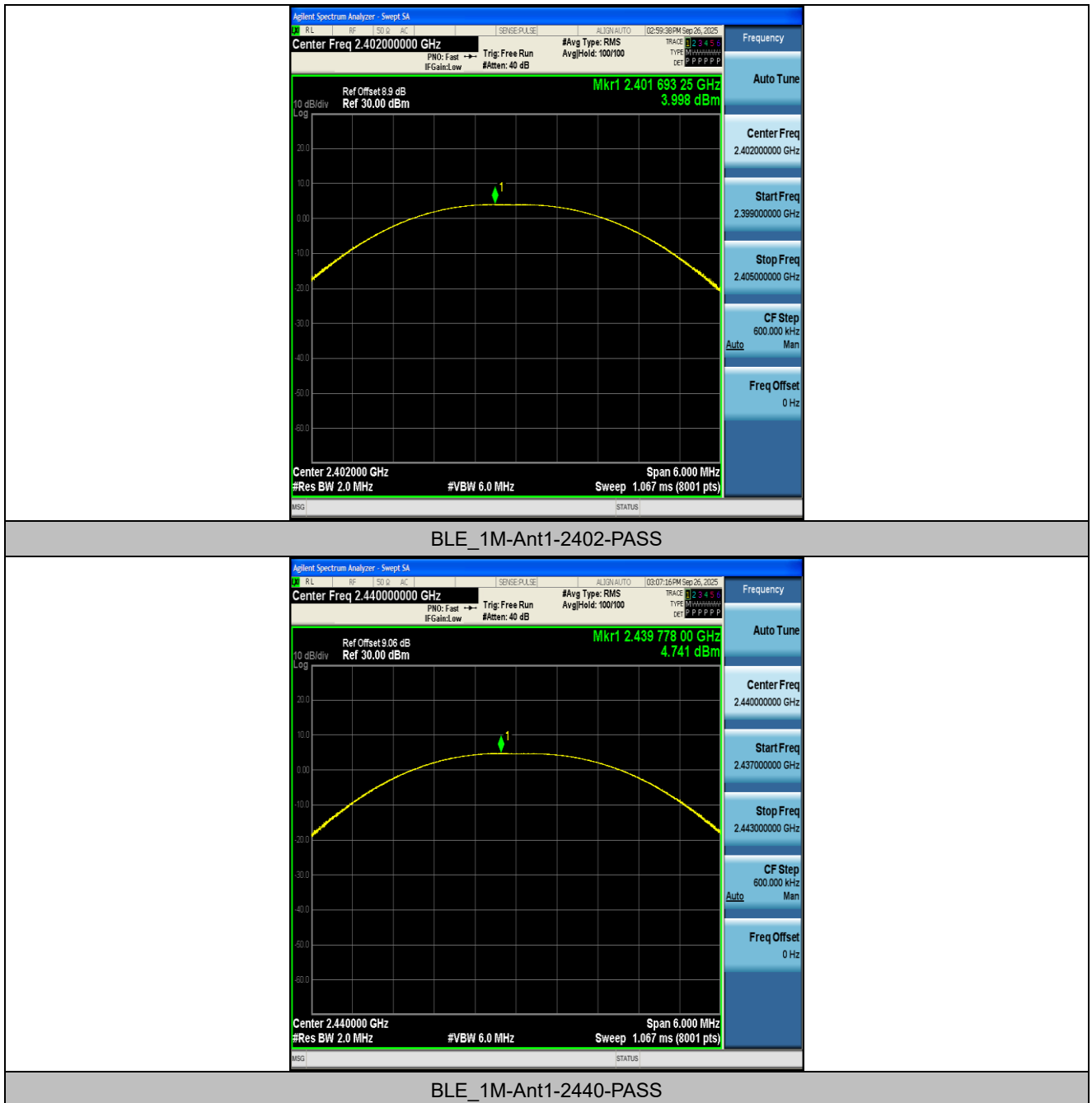
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
BLE_1M	Ant1	2402	4.00	≤30	PASS
BLE_1M	Ant1	2440	4.74	≤30	PASS
BLE_1M	Ant1	2480	4.69	≤30	PASS
BLE_2M	Ant1	2404	3.85	≤30	PASS
BLE_2M	Ant1	2440	4.74	≤30	PASS
BLE_2M	Ant1	2478	4.65	≤30	PASS

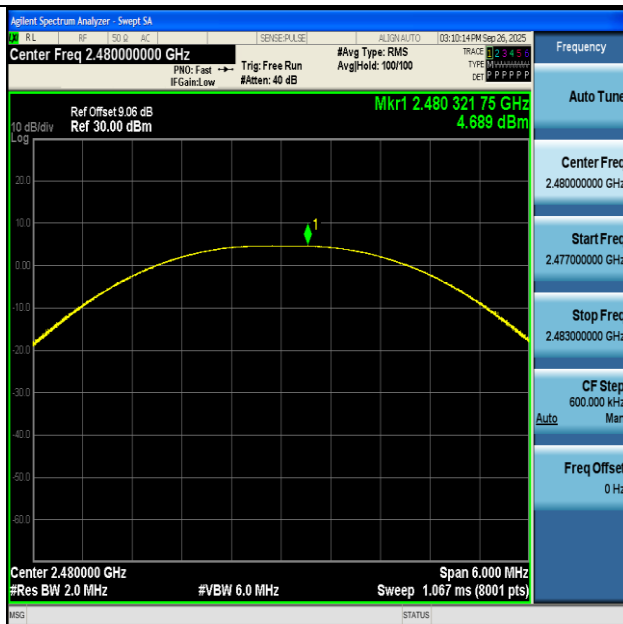
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



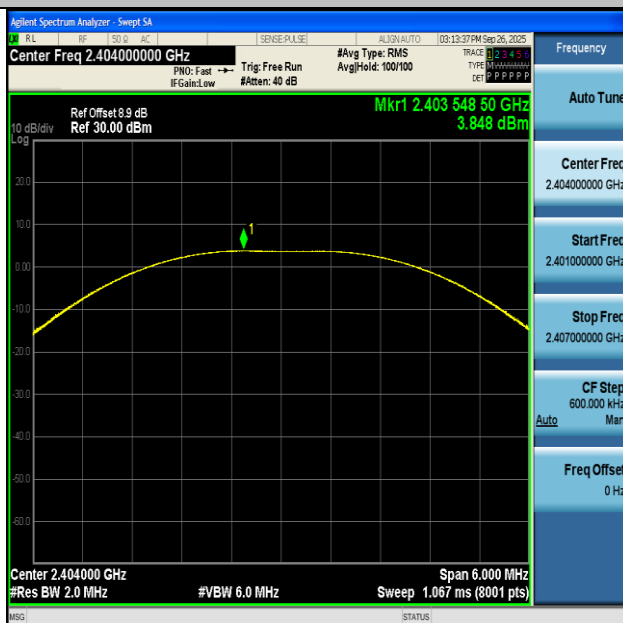


Test Graphs Peak



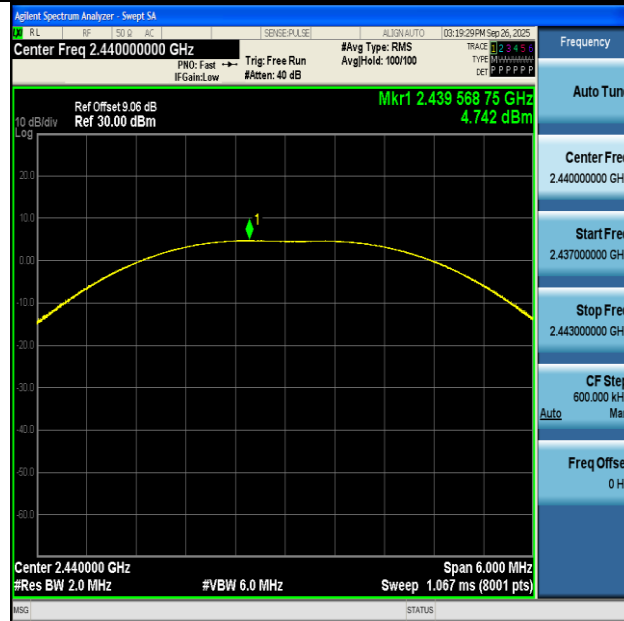


BLE_1M-Ant1-2480-PASS

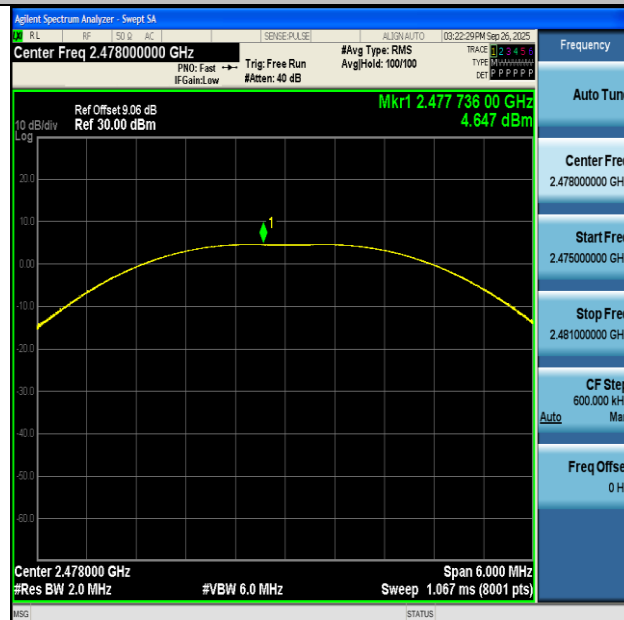


BLE_2M-Ant1-2404-PASS





BLE_2M-Ant1-2440-PASS



BLE_2M-Ant1-2478-PASS





Appendix D: Maximum peak power spectral density

Test Result

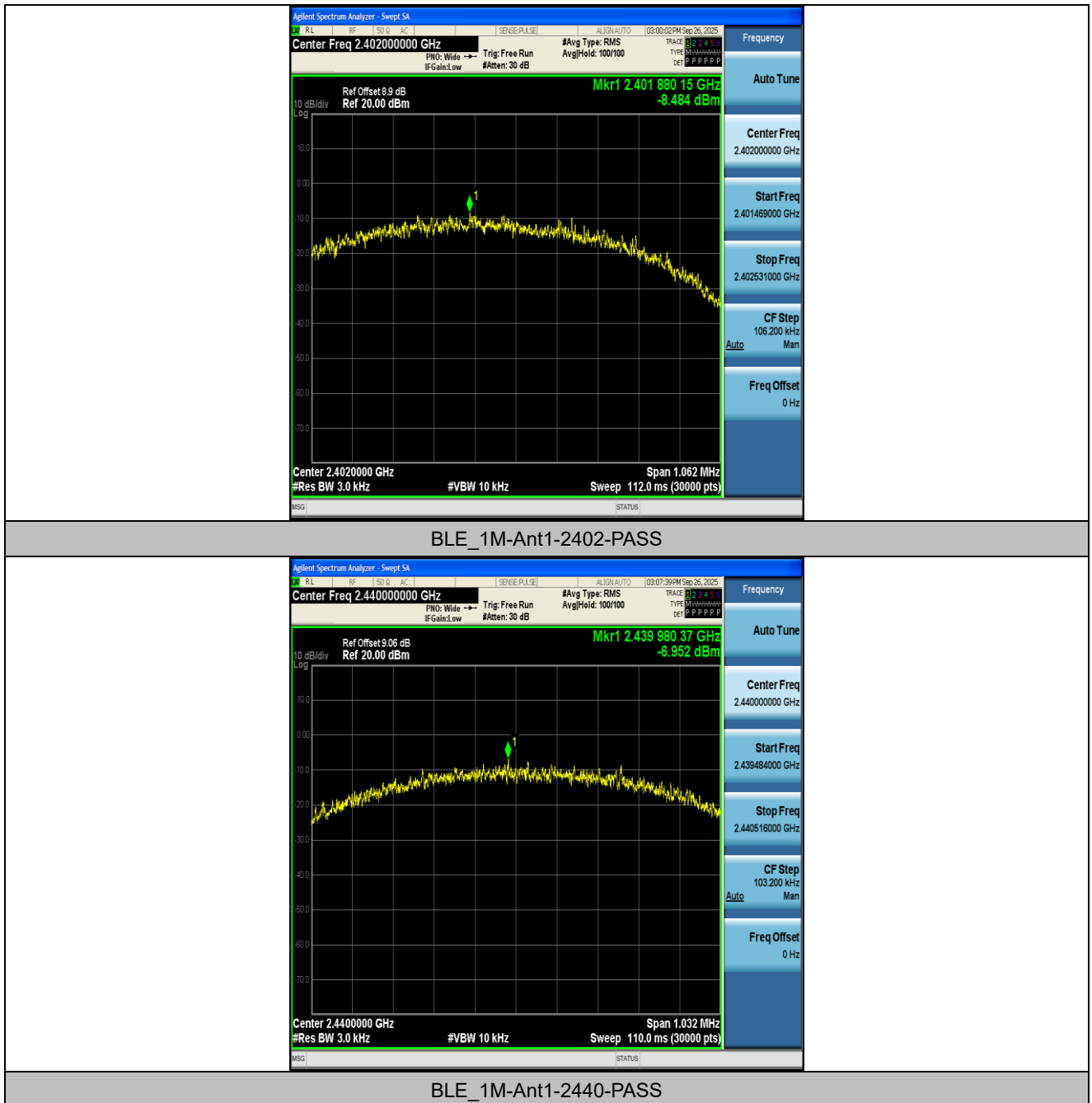
Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-8.48	≤8.00	PASS
BLE_1M	Ant1	2440	-6.95	≤8.00	PASS
BLE_1M	Ant1	2480	-6.80	≤8.00	PASS
BLE_2M	Ant1	2404	-11.24	≤8.00	PASS
BLE_2M	Ant1	2440	-10.26	≤8.00	PASS
BLE_2M	Ant1	2478	-9.33	≤8.00	PASS

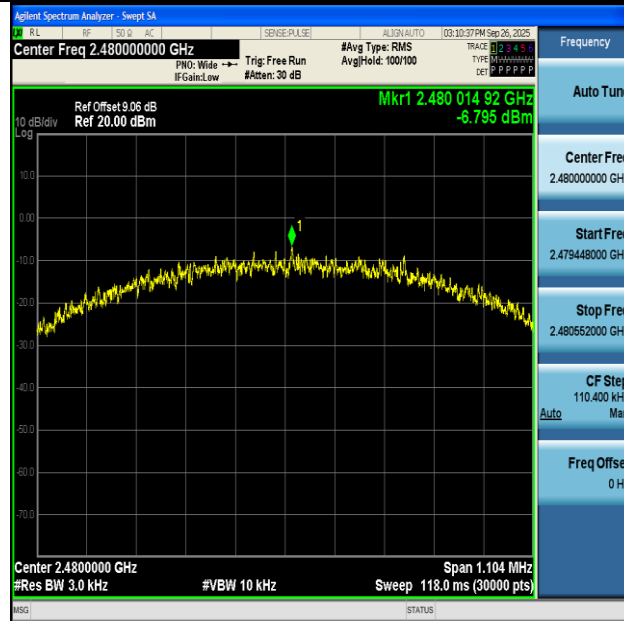
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



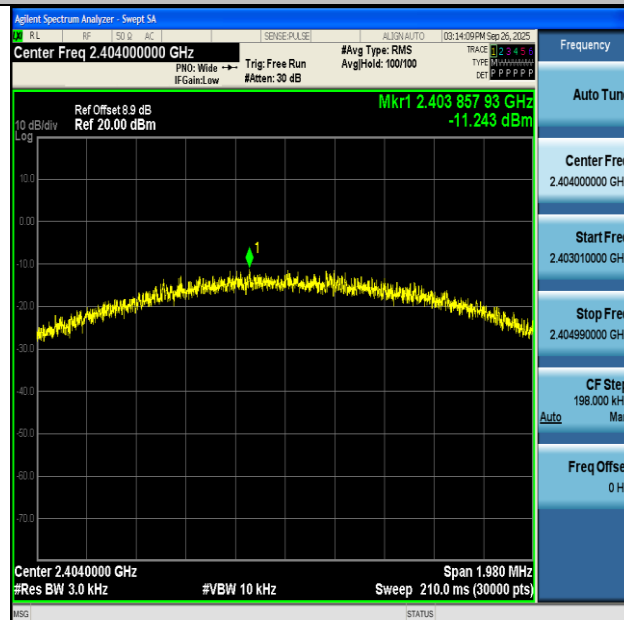


Test Graphs



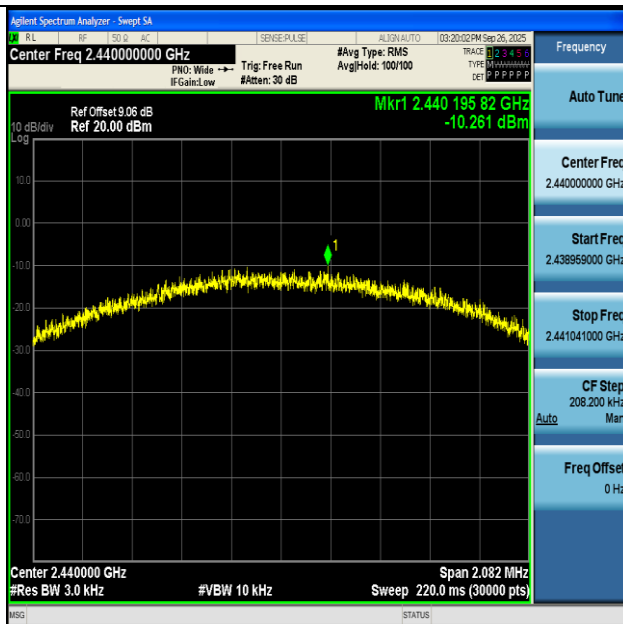


BLE_1M-Ant1-2480-PASS

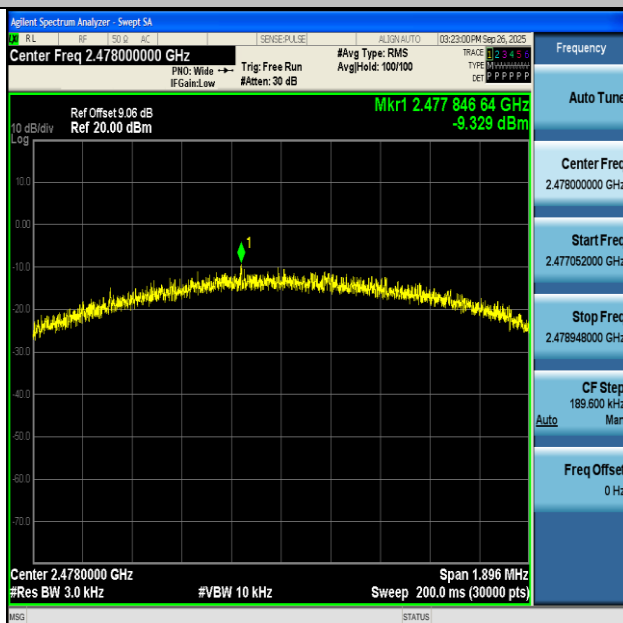


BLE_2M-Ant1-2404-PASS





BLE_2M-Ant1-2440-PASS



BLE_2M-Ant1-2478-PASS





Appendix E: Band edge measurements

Test Result

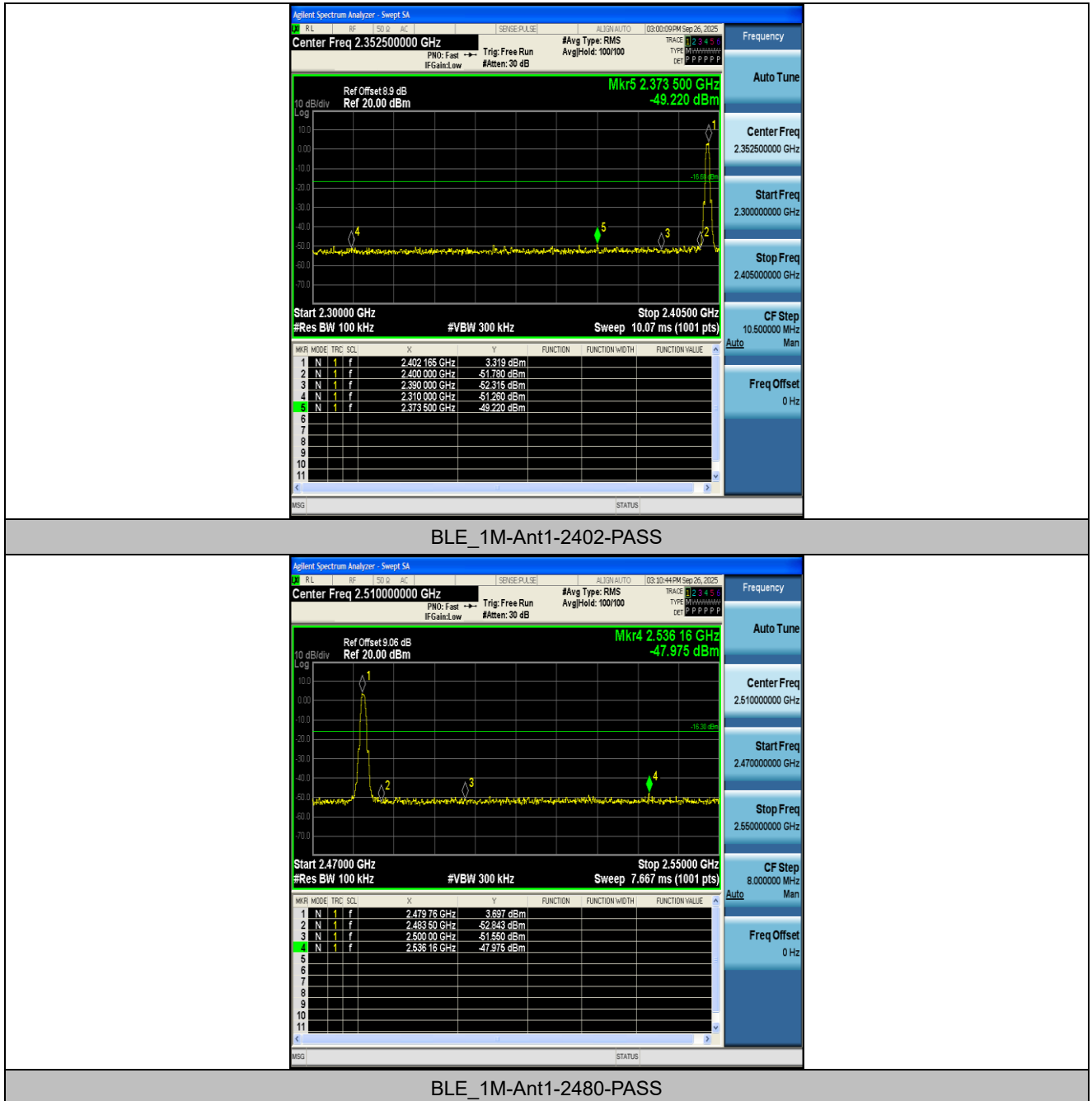
Test Mode	Antenna	Ch. Name	Frequency [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	3.32	-49.22	≤-16.68	PASS
BLE_1M	Ant1	High	2480	3.70	-47.98	≤-16.3	PASS
BLE_2M	Ant1	Low	2404	1.78	-49.91	≤-18.22	PASS
BLE_2M	Ant1	High	2478	2.78	-48.66	≤-17.22	PASS

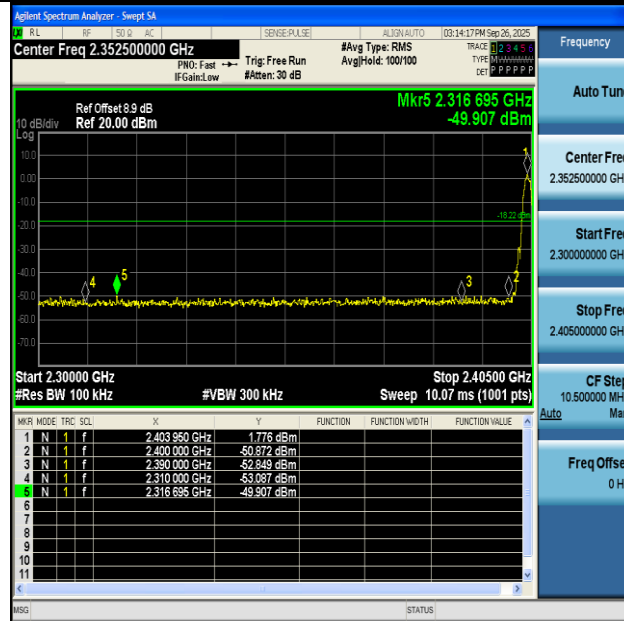
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



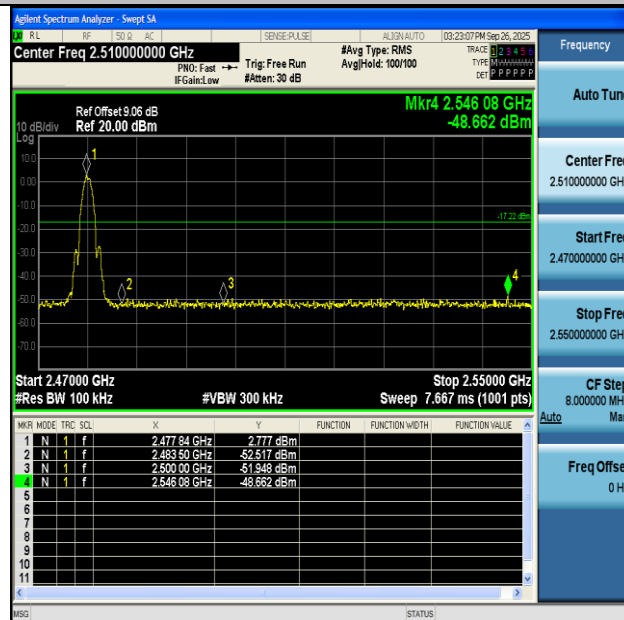


Test Graphs





BLE_2M-Ant1-2404-PASS



BLE_2M-Ant1-2478-PASS





Appendix F: Conducted Spurious Emission

Test Result

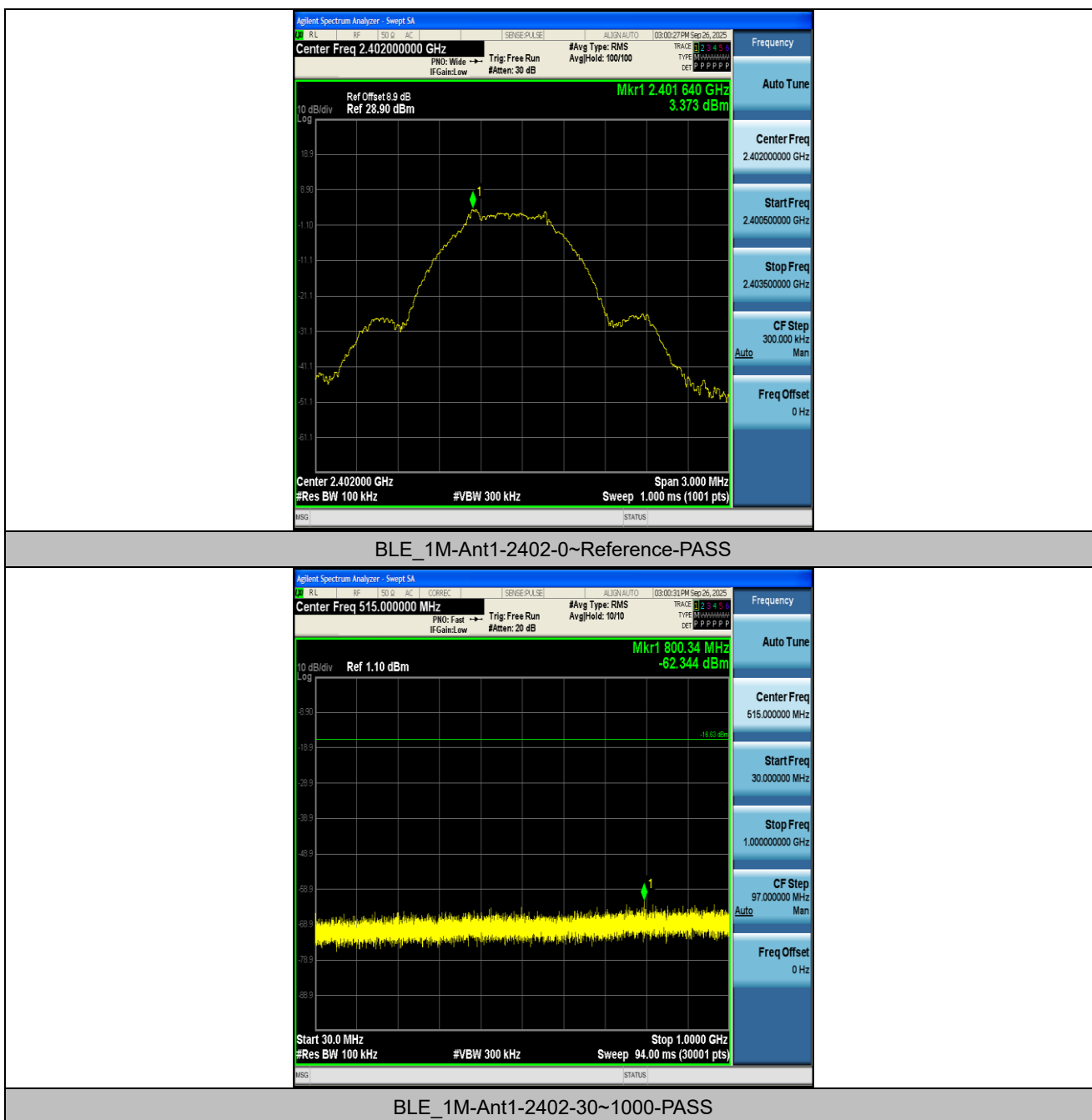
Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	3.37	3.37	---	PASS
BLE_1M	Ant1	2402	30~1000	3.37	-62.34	≤-16.63	PASS
BLE_1M	Ant1	2402	1000~26500	3.37	-30.98	≤-16.63	PASS
BLE_1M	Ant1	2440	0~Reference	4.42	4.42	---	PASS
BLE_1M	Ant1	2440	30~1000	4.42	-62.94	≤-15.58	PASS
BLE_1M	Ant1	2440	1000~26500	4.42	-29.61	≤-15.58	PASS
BLE_1M	Ant1	2480	0~Reference	3.59	3.59	---	PASS
BLE_1M	Ant1	2480	30~1000	3.59	-62.92	≤-16.41	PASS
BLE_1M	Ant1	2480	1000~26500	3.59	-31.09	≤-16.41	PASS
BLE_2M	Ant1	2404	0~Reference	1.87	1.87	---	PASS
BLE_2M	Ant1	2404	30~1000	1.87	-62.48	≤-18.13	PASS
BLE_2M	Ant1	2404	1000~26500	1.87	-32.01	≤-18.13	PASS
BLE_2M	Ant1	2440	0~Reference	2.18	2.18	---	PASS
BLE_2M	Ant1	2440	30~1000	2.18	-62.84	≤-17.82	PASS
BLE_2M	Ant1	2440	1000~26500	2.18	-30.67	≤-17.82	PASS
BLE_2M	Ant1	2478	0~Reference	2.40	2.40	---	PASS
BLE_2M	Ant1	2478	30~1000	2.40	-62.32	≤-17.6	PASS
BLE_2M	Ant1	2478	1000~26500	2.40	-33.54	≤-17.6	PASS

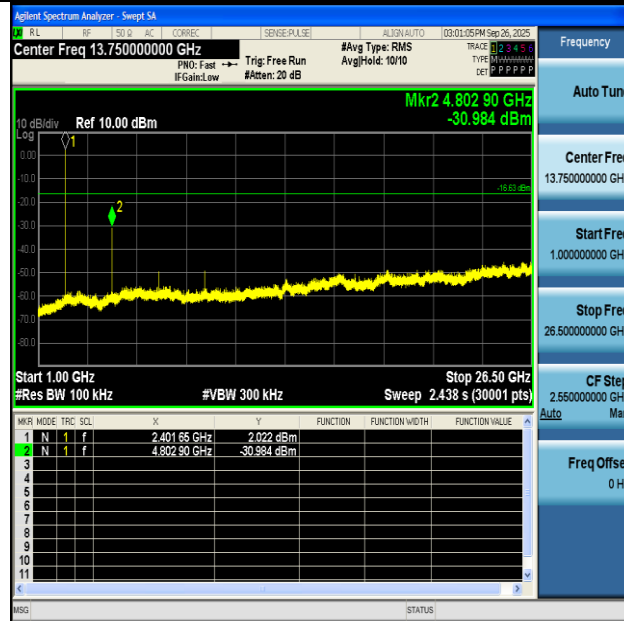
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.



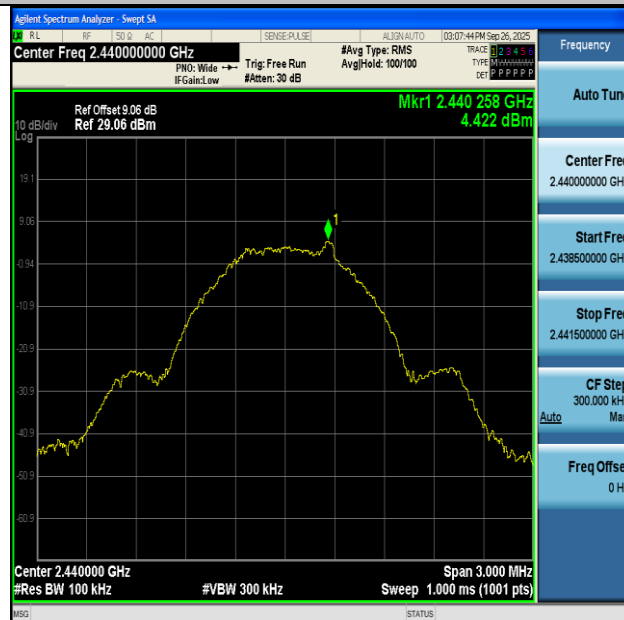


Test Graphs



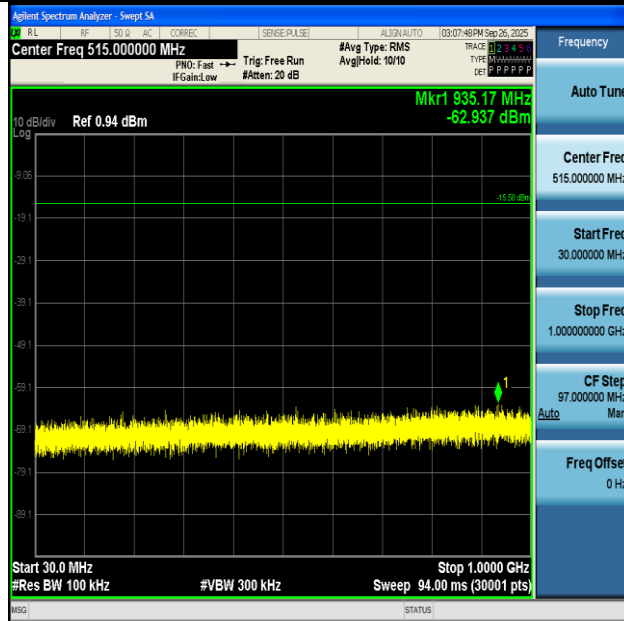


BLE_1M-Ant1-2402-1000~26500-PASS

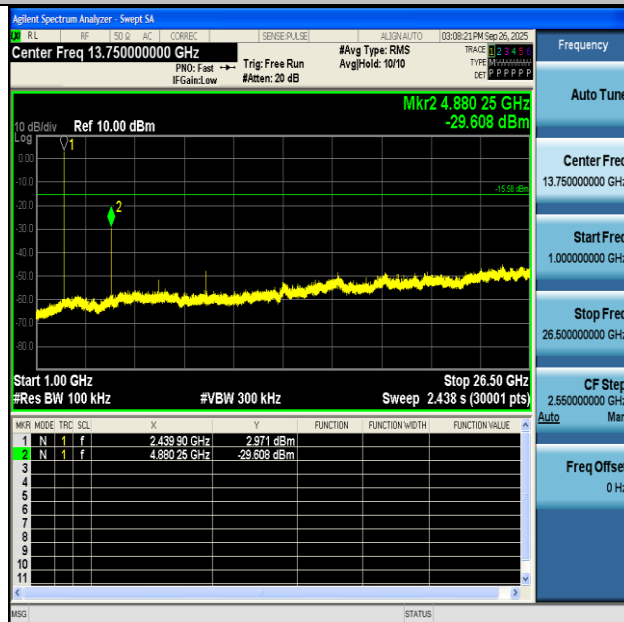


BLE_1M-Ant1-2440-0~Reference-PASS





BLE_1M-Ant1-2440-30~1000-PASS

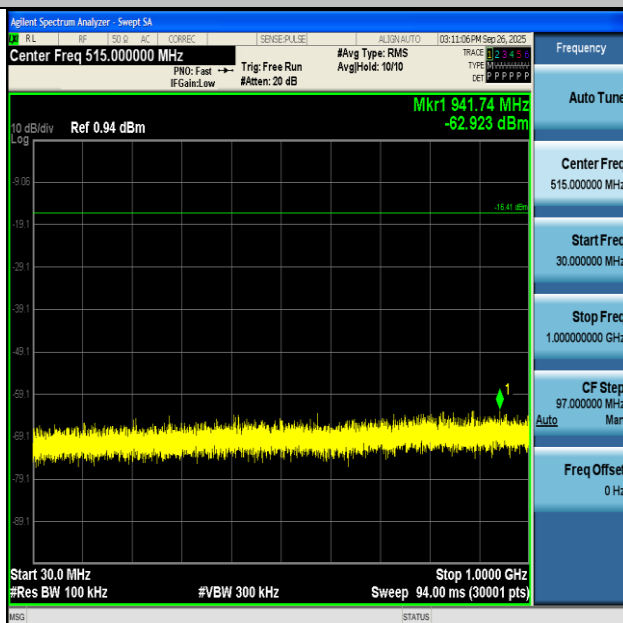


BLE_1M-Ant1-2440-1000~26500-PASS



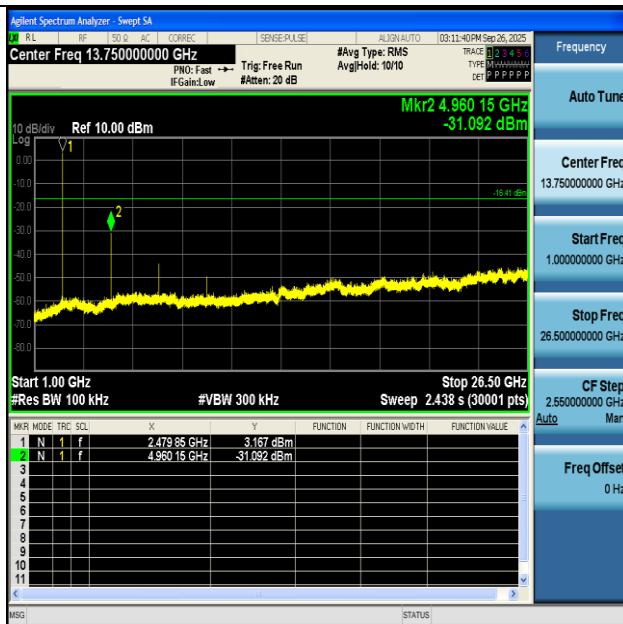


BLE_1M-Ant1-2480-0~Reference-PASS

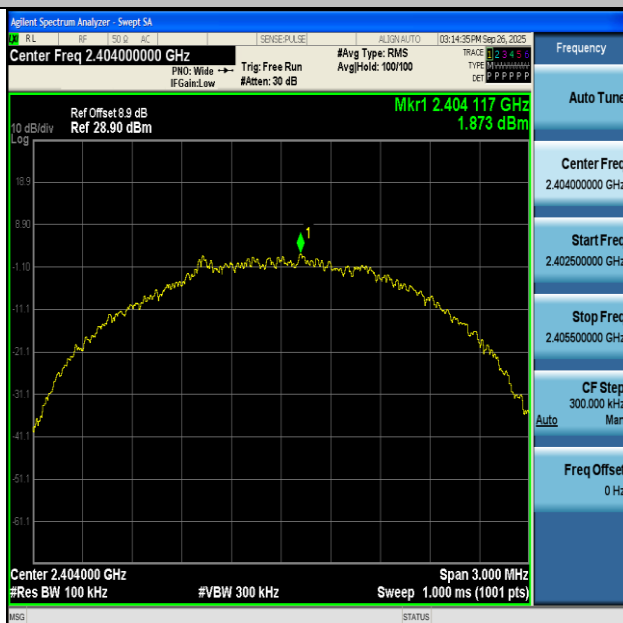


BLE_1M-Ant1-2480-30~1000-PASS



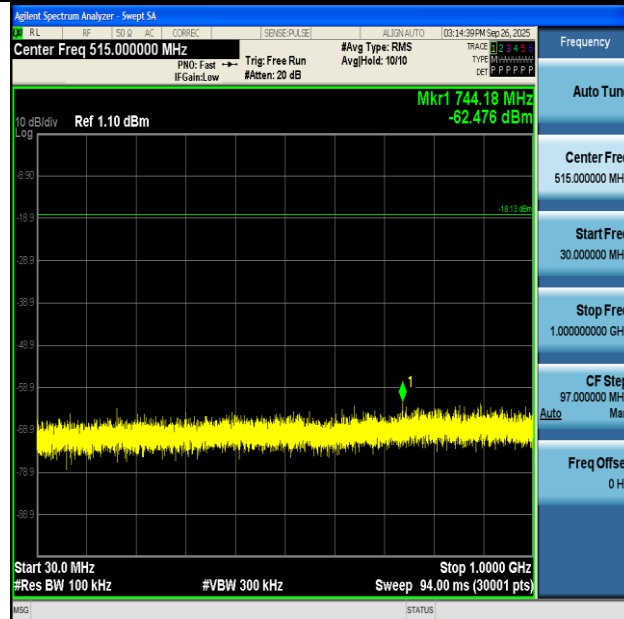


BLE_1M-Ant1-2480-1000~26500-PASS

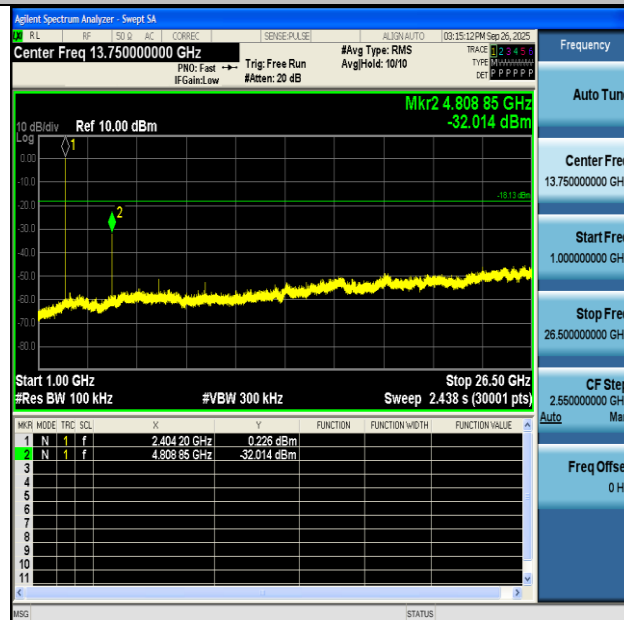


BLE_2M-Ant1-2404-0~Reference-PASS



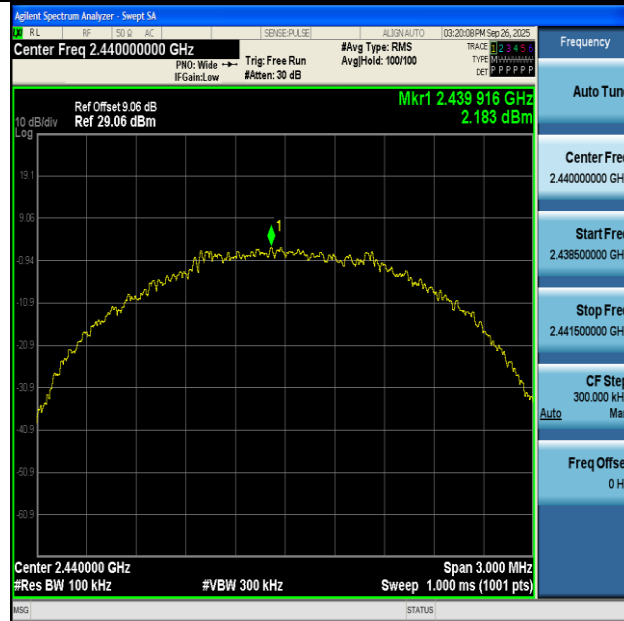


BLE_2M-Ant1-2404-30~1000-PASS

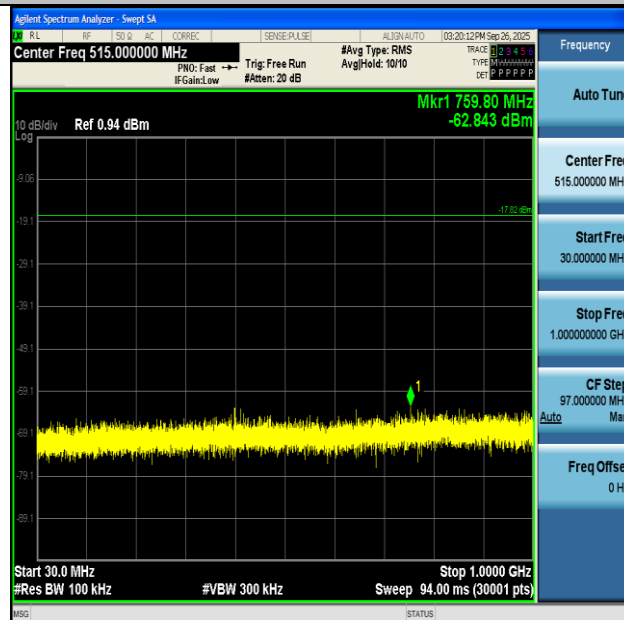


BLE_2M-Ant1-2404-1000~26500-PASS



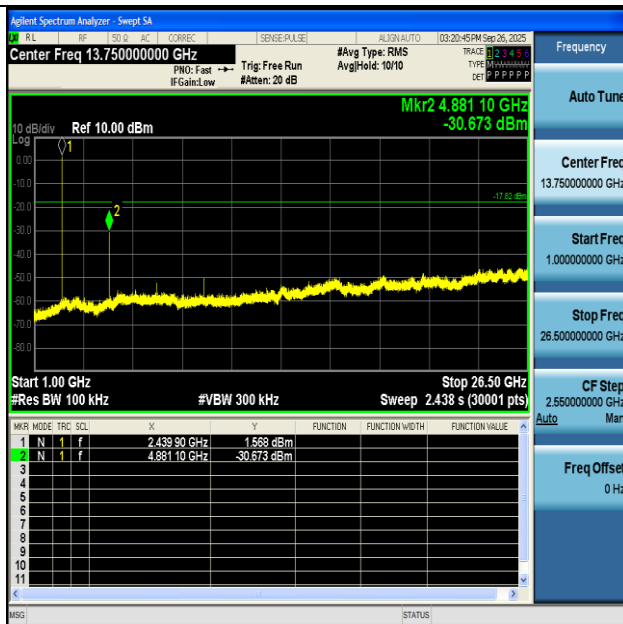


BLE_2M-Ant1-2440-0~Reference-PASS

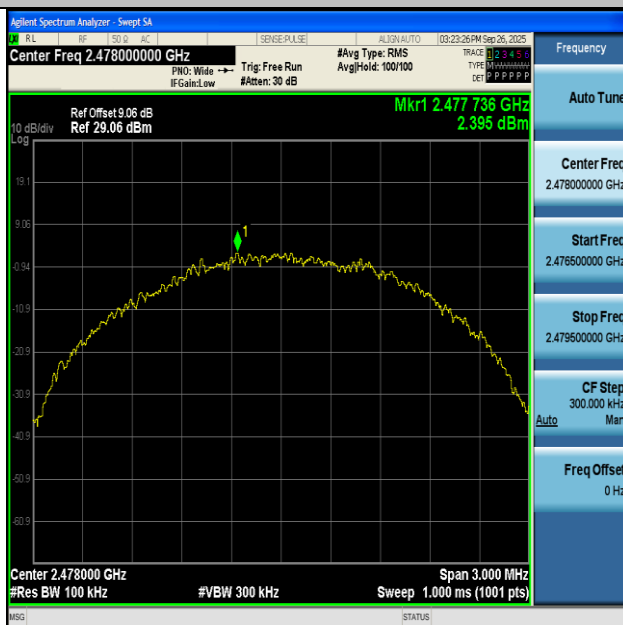


BLE_2M-Ant1-2440-30~1000-PASS



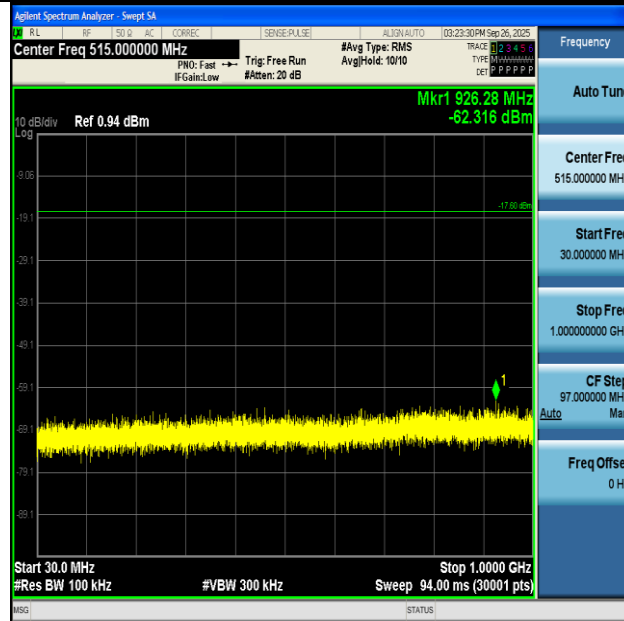


BLE_2M-Ant1-2440-1000~26500-PASS

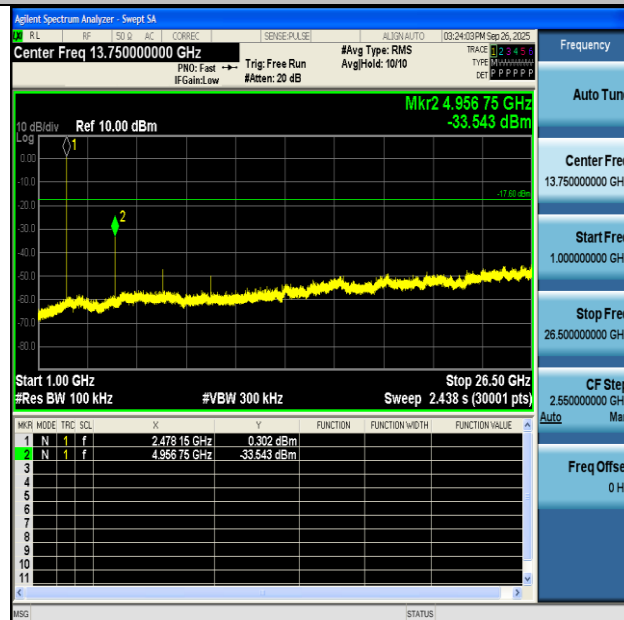


BLE_2M-Ant1-2478-0~Reference-PASS





BLE_2M-Ant1-2478-30~1000-PASS



BLE_2M-Ant1-2478-1000~26500-PASS





Appendix G: Duty Cycle

Test Result

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
BLE_1M	Ant1	2402	19.00	19.00	100.00	0.00
BLE_1M	Ant1	2440	19.00	19.00	100.00	0.00
BLE_1M	Ant1	2480	19.00	19.00	100.00	0.00
BLE_2M	Ant1	2404	19.00	19.00	100.00	0.00
BLE_2M	Ant1	2440	19.00	19.00	100.00	0.00
BLE_2M	Ant1	2478	19.00	19.00	100.00	0.00

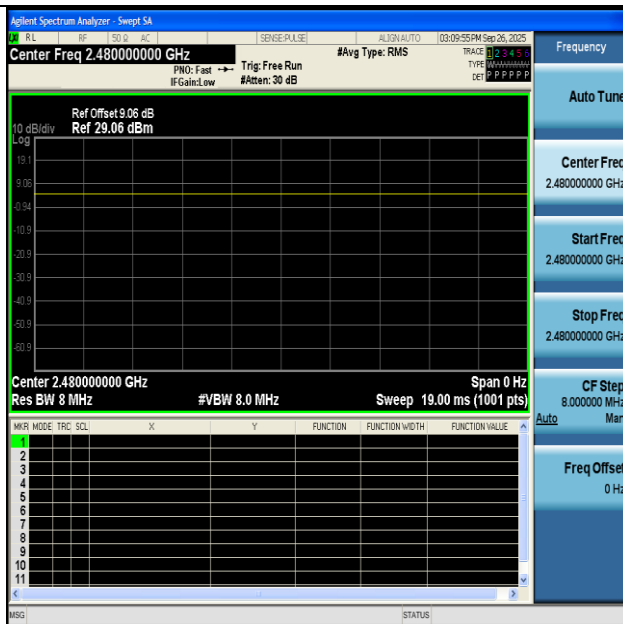
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



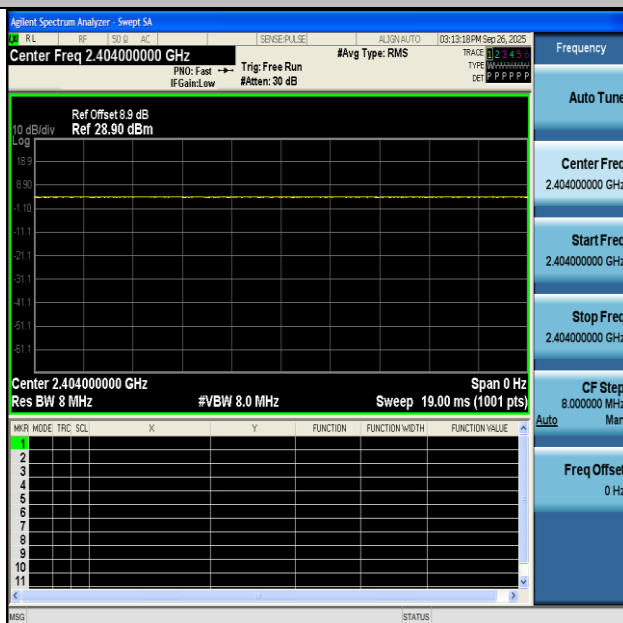


Test Graphs



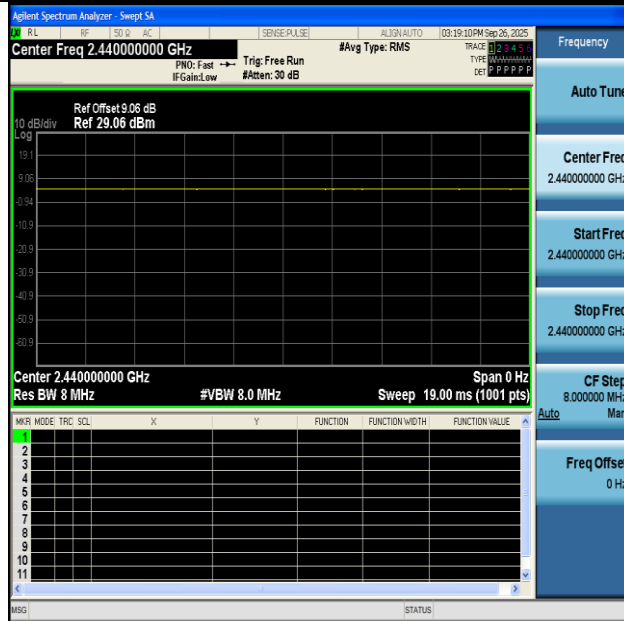


NTNV-BLE_1M-Ant1-2480

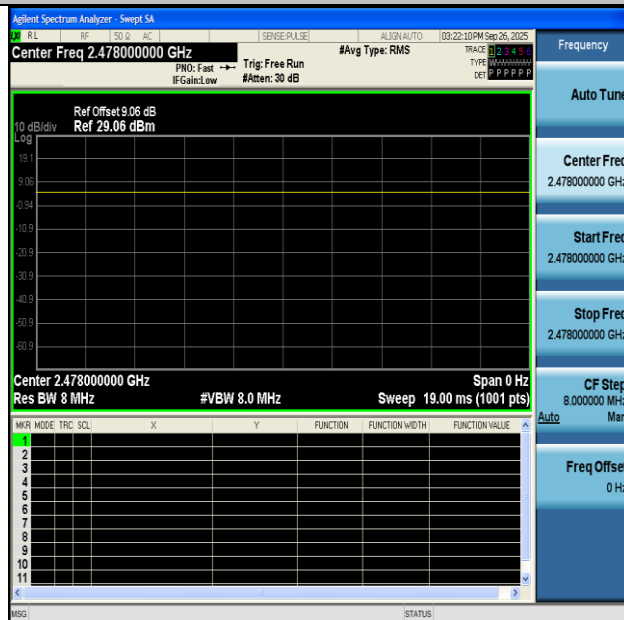


NTNV-BLE_2M-Ant1-2404





NTNV-BLE_2M-Ant1-2440



NTNV-BLE_2M-Ant1-2478

