Appendix A

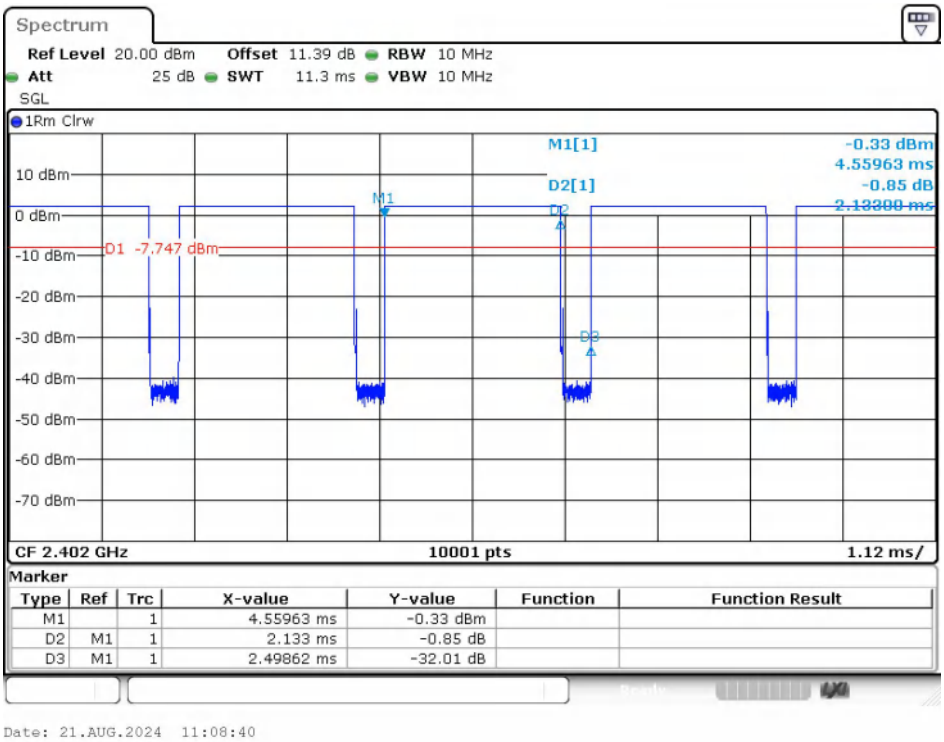
Report No.:	CISRR240820130
FCC ID:	2BG83-JX09
Product Name:	Bone conduction sleep speaker
Model No.:	JX09
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

1) Duty Cycle

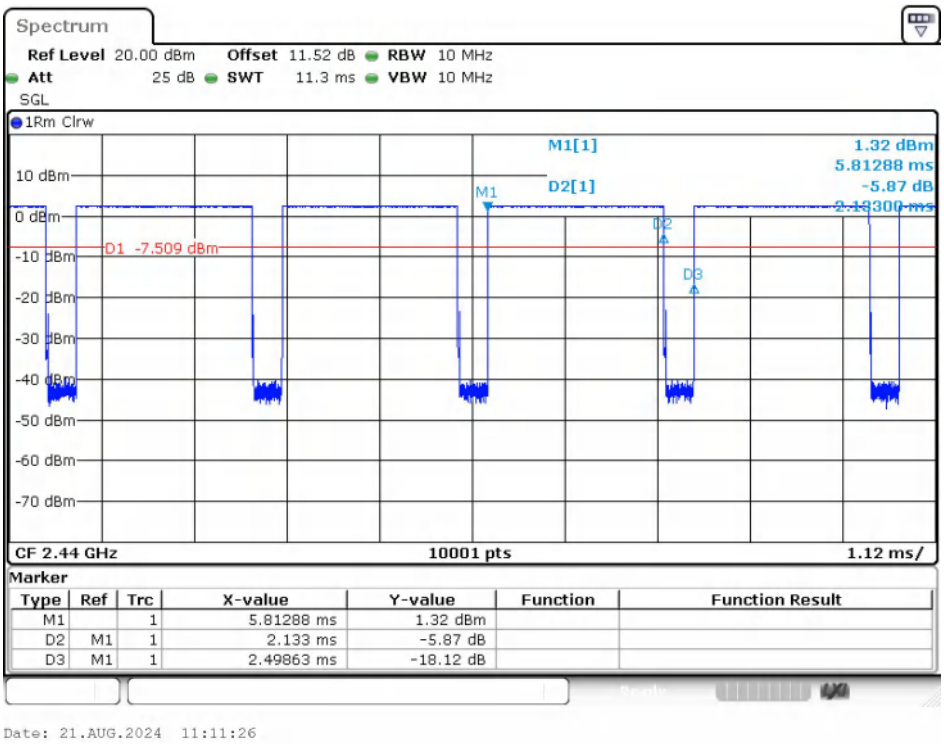
Test Result

Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
BLE 1M	0	2.133	2.499	85.37	0.8537	0.6869	0.47
	19	2.133	2.499	85.37	0.8537	0.6869	0.47
	39	2.133	2.499	85.37	0.8537	0.6869	0.47
BLE 2M	0	1.081	2.500	43.25	0.4325	3.6401	0.93
	19	1.081	2.499	43.27	0.4327	3.6381	0.93
	39	1.081	2.499	43.27	0.4327	3.6381	0.93

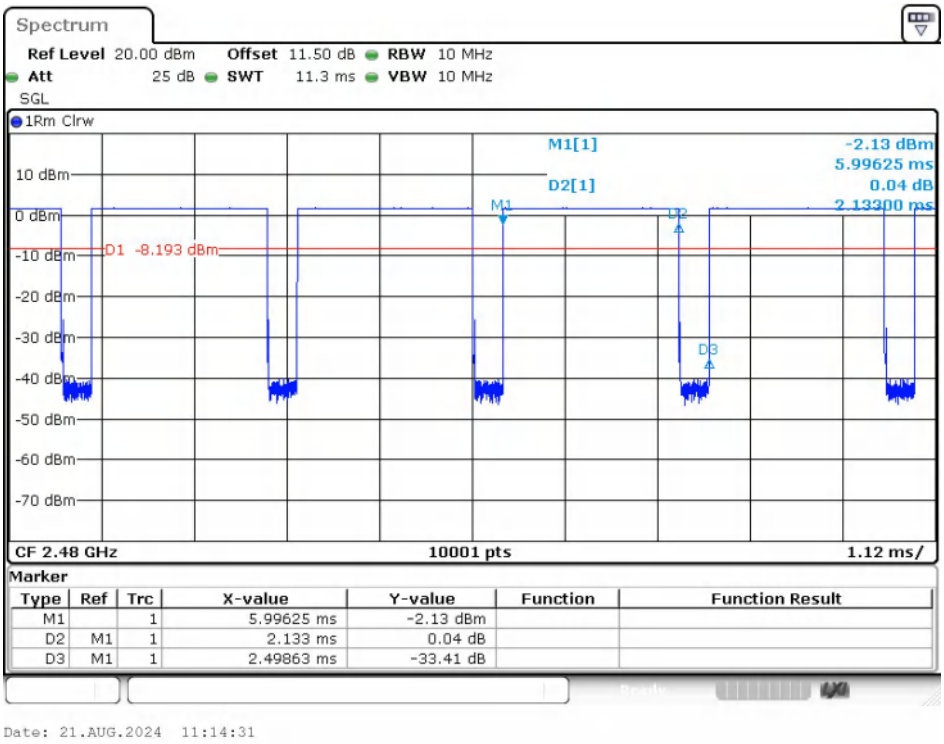
Test Graphs



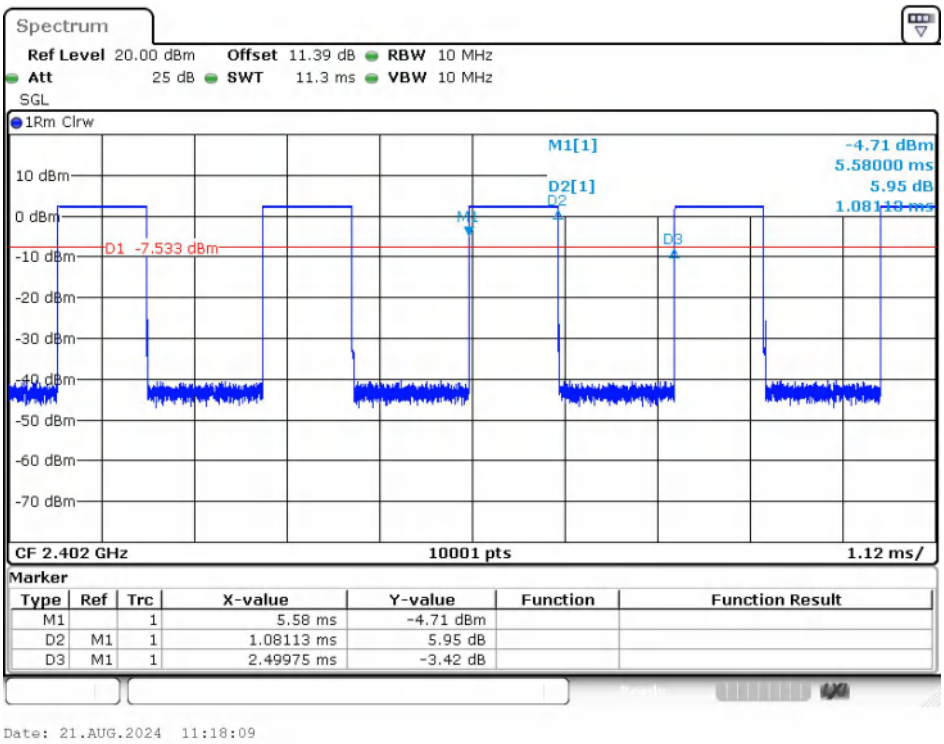
BLE 1M_Channel 0



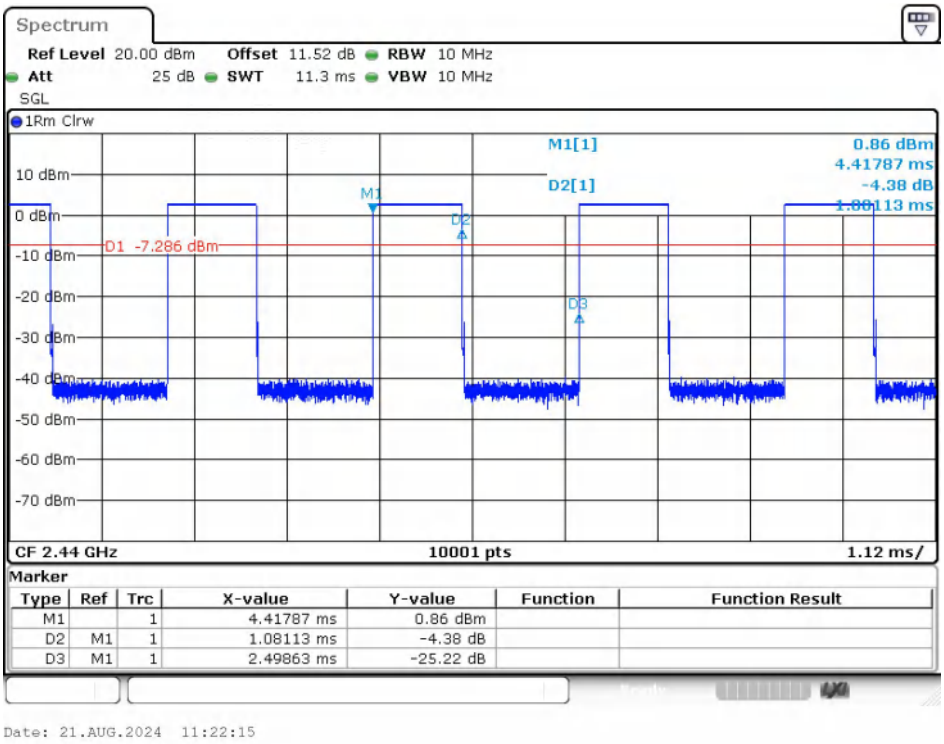
BLE 1M_Channel 19



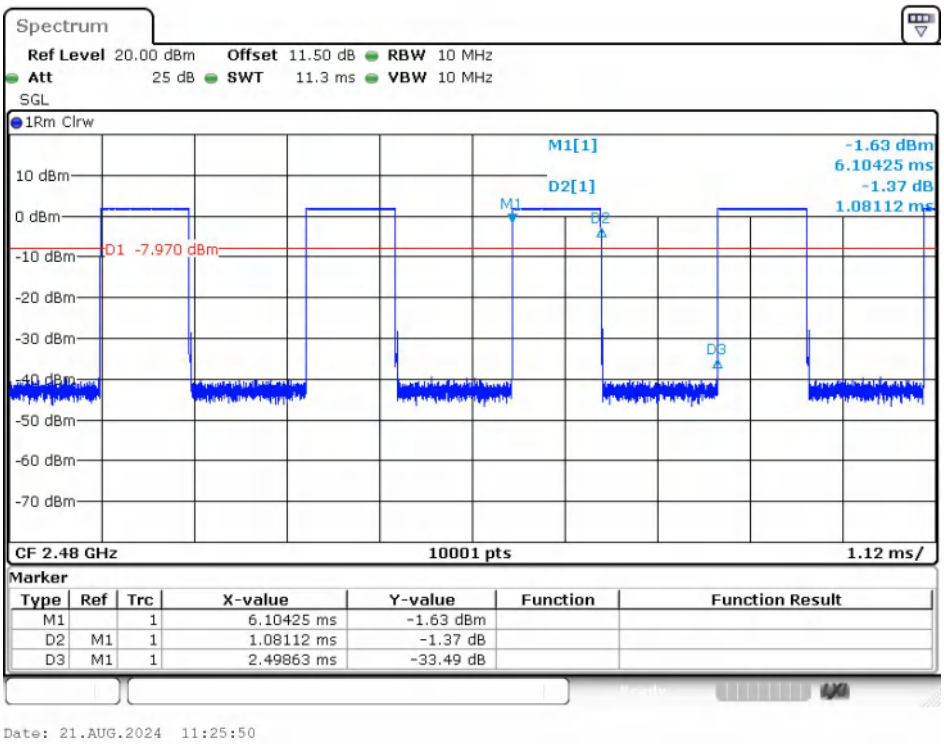
BLE 1M_Channel 39



BLE 2M_Channel 0



BLE 2M_Channel 19



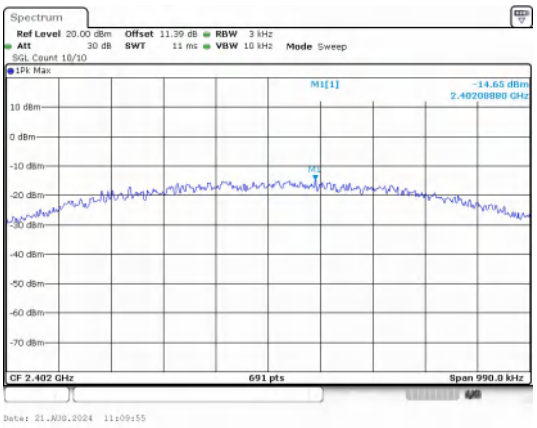
BLE 2M_Channel 39

2) Power Spectral Density

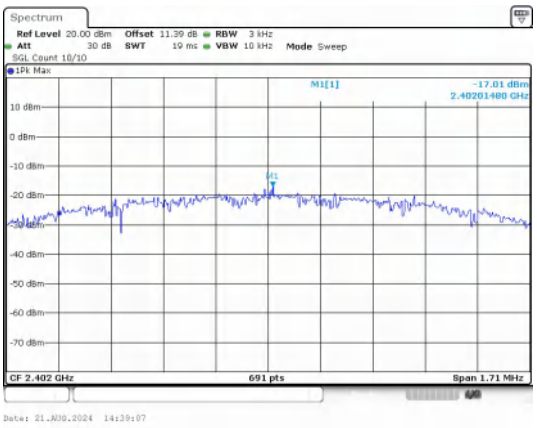
Test Result

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-14.65	≤8	PASS
BLE 1M	19	-14.84	≤8	PASS
BLE 1M	39	-15.10	≤8	PASS
BLE 2M	0	-17.01	≤8	PASS
BLE 2M	19	-15.33	≤8	PASS
BLE 2M	39	-18.40	≤8	PASS

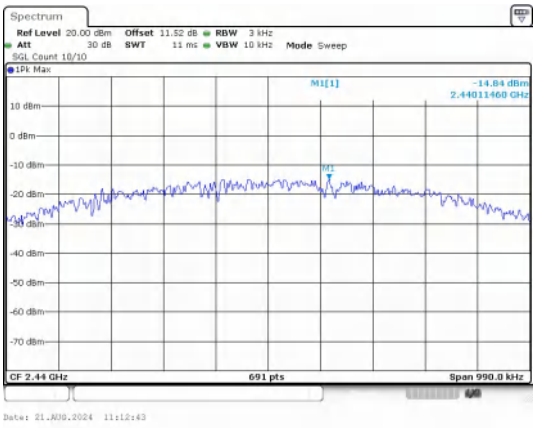
Test Graphs



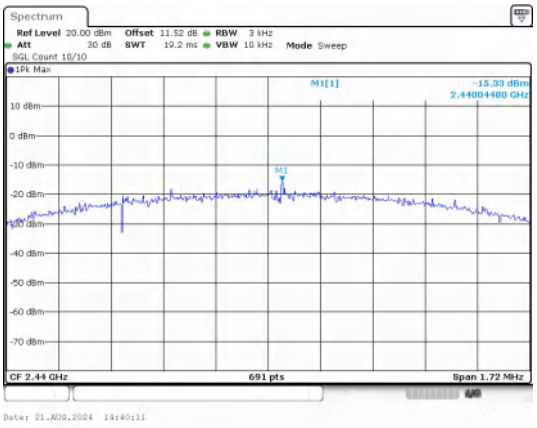
BLE 1M_Channel 0



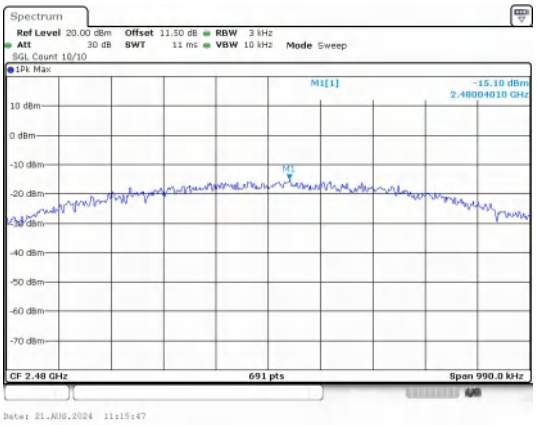
BLE 2M_Channel 0



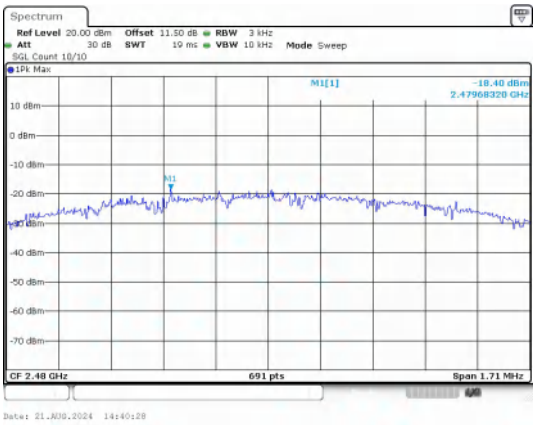
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



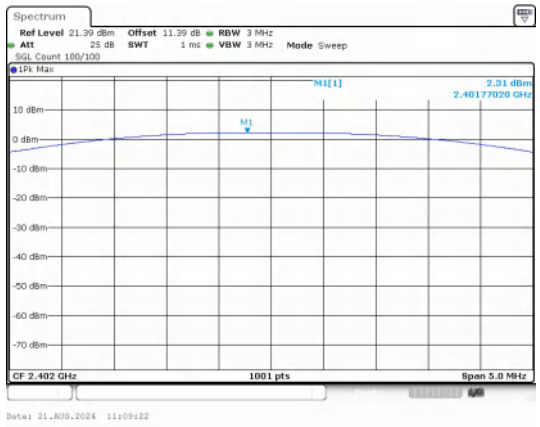
BLE 2M_Channel 39

3) Conducted Output Power

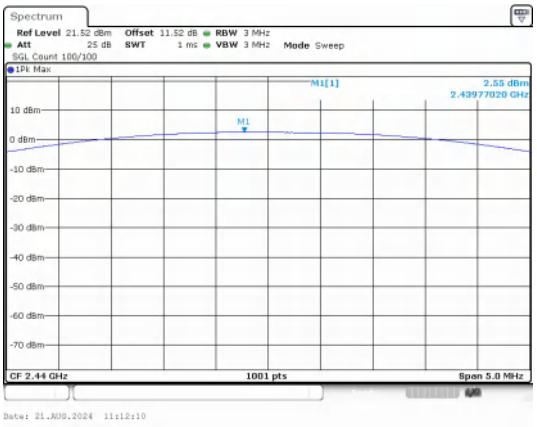
Test Result

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	2.31	1.70	≤30	PASS
	19	2.55	1.80	≤30	PASS
	39	1.86	1.53	≤30	PASS
BLE 2M	0	2.54	1.79	≤30	PASS
	19	2.77	1.89	≤30	PASS
	39	2.05	1.60	≤30	PASS

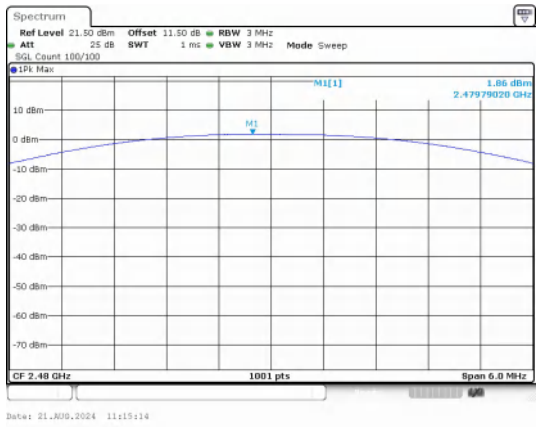
Test Graphs



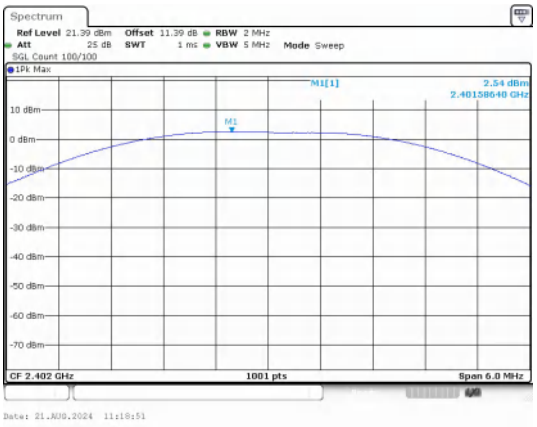
Peak Output Power
BLE 1M_Channel 0



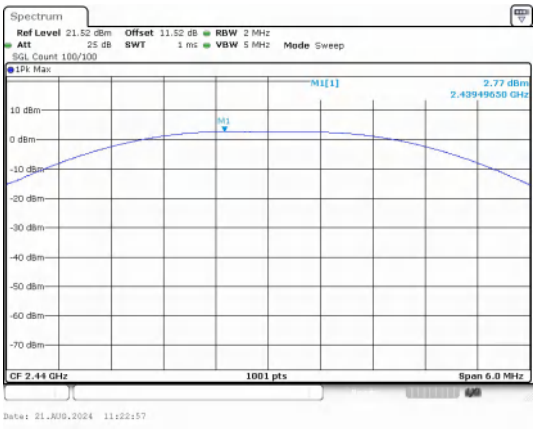
Peak Output Power
BLE 1M_Channel 19



Peak Output Power
BLE 1M_Channel 39

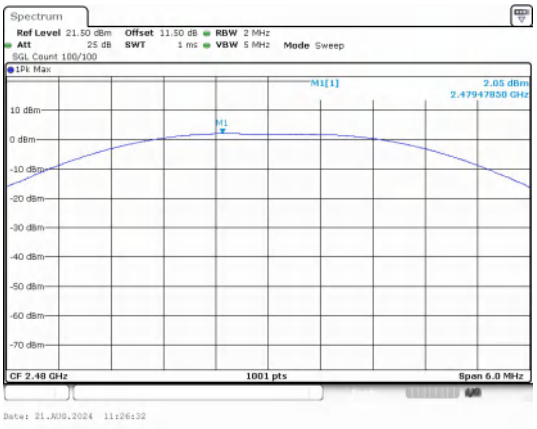


Peak Output Power
BLE 2M_Channel 0



Peak Output Power

BLE 2M_Channel 19



Peak Output Power

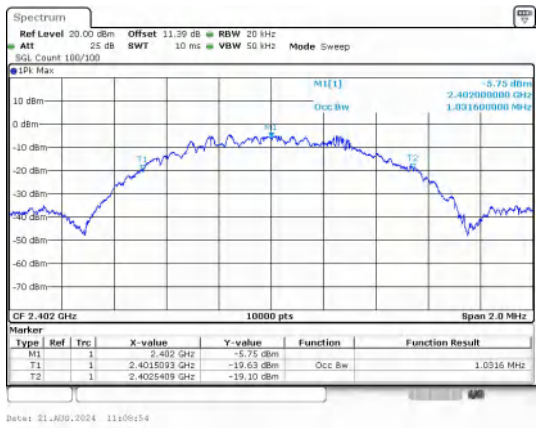
BLE 2M_Channel 39

4) 99% Bandwidth

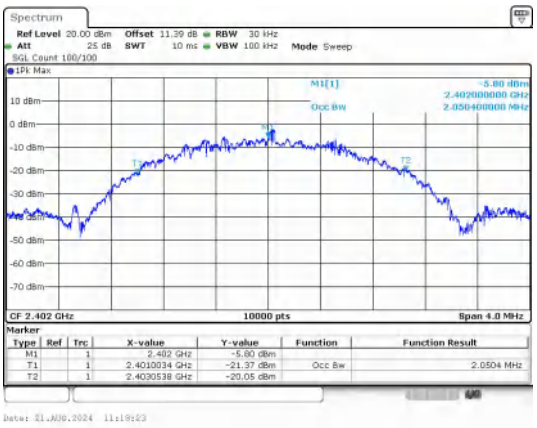
Test Result

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0316
BLE 1M	19	2440	1.0326
BLE 1M	39	2480	1.0308
BLE 2M	0	2402	2.0504
BLE 2M	19	2440	2.0584
BLE 2M	39	2480	2.0444

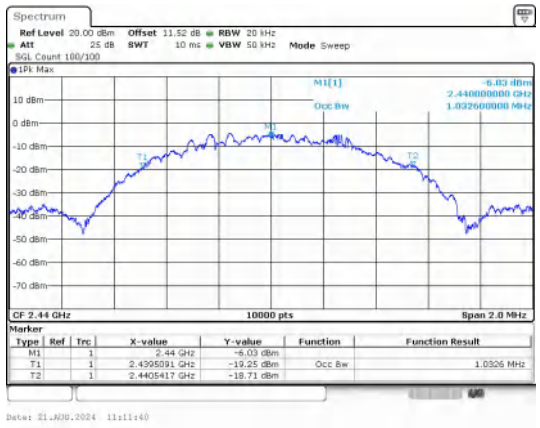
Test Graphs



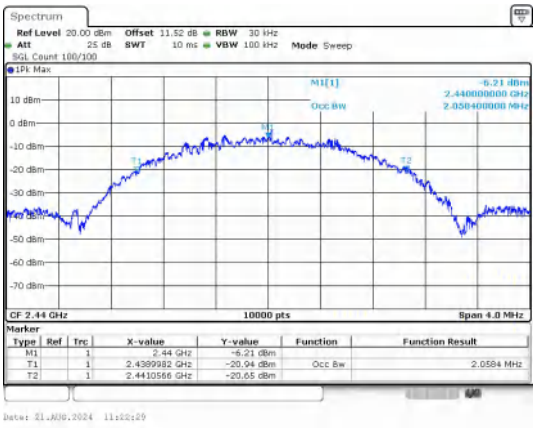
BLE 1M_Channel 0



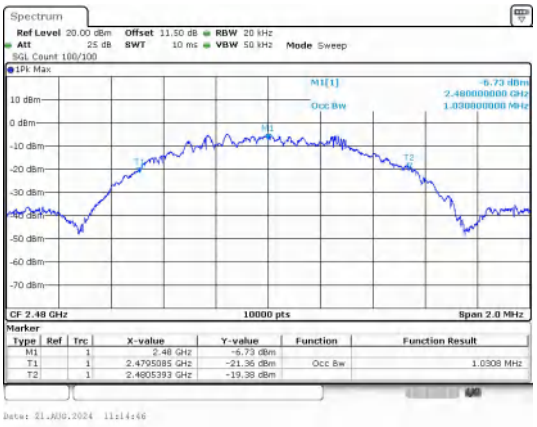
BLE 2M_Channel 0



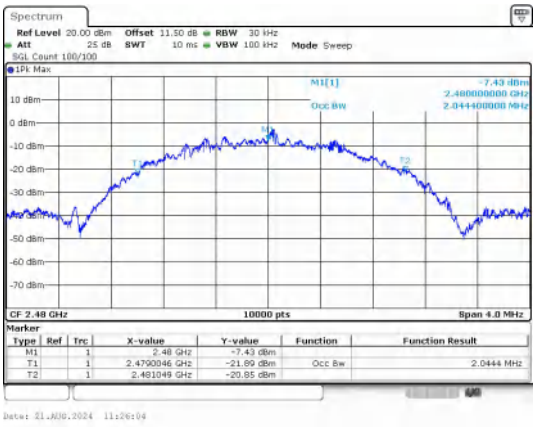
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



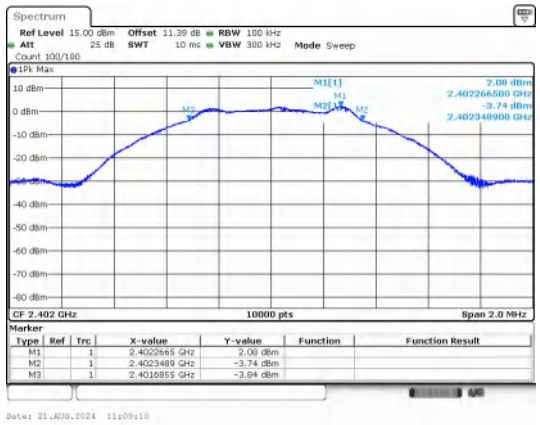
BLE 2M_Channel 39

5) 6dB Bandwidth

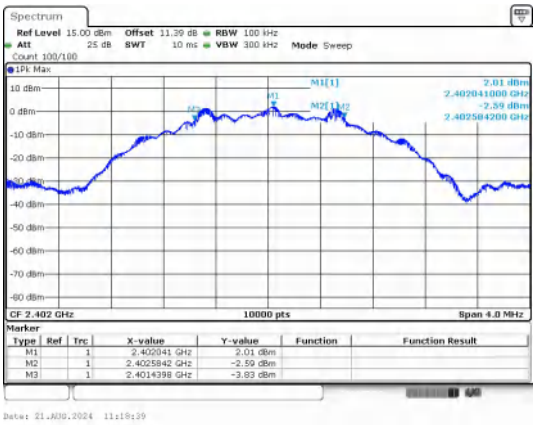
Test Result

Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6600	≥0.5	PASS
	19	2440	0.6600		PASS
	39	2480	0.6600		PASS
BLE 2M	0	2402	1.140		PASS
	19	2440	1.150		PASS
	39	2480	1.140		PASS

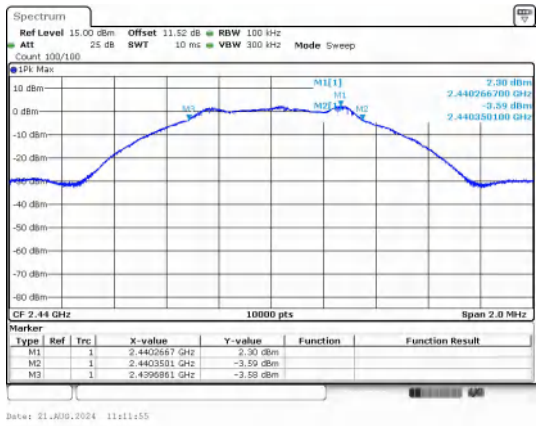
Test Graphs



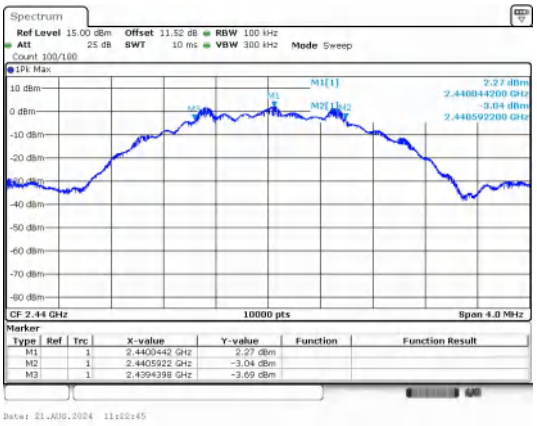
BLE 1M_Channel 0



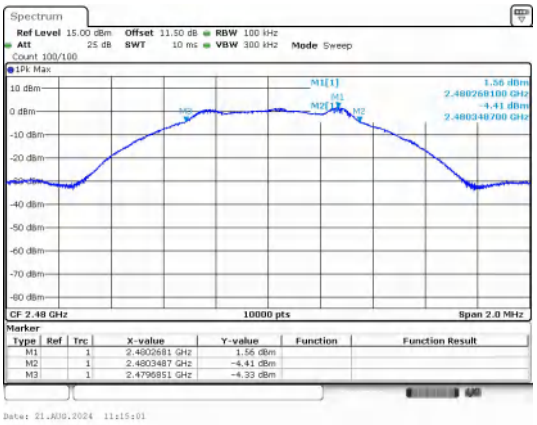
BLE 2M_Channel 0



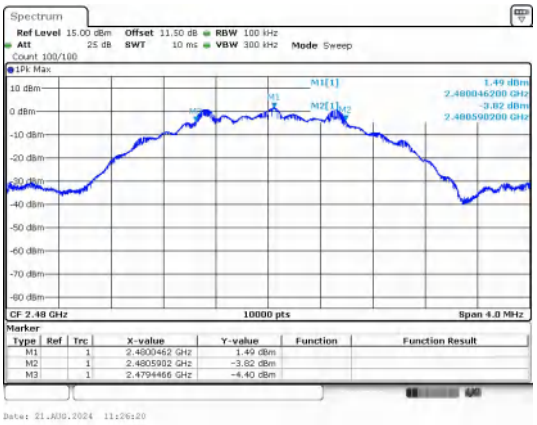
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



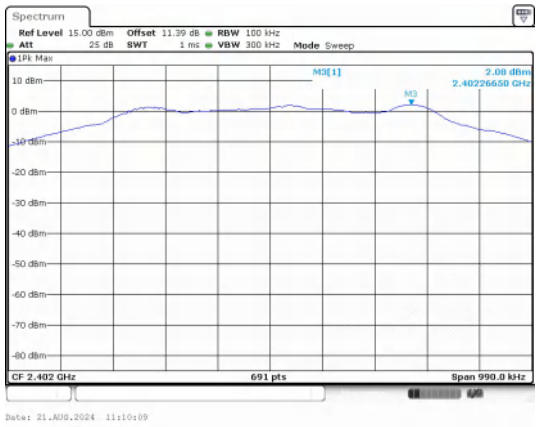
BLE 2M_Channel 39

6) Conducted Out Of Band Emission

Test Result

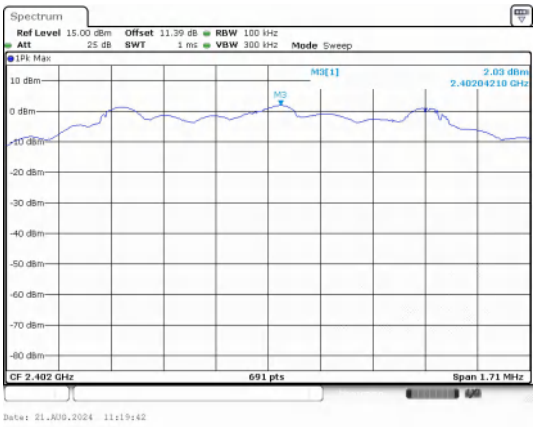
Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2399.00	-42.129	-17.92	-24.209	PASS
		2400.00	-50.482	-17.92	-32.562	PASS
		7206.80	-33.731	-17.92	-15.811	PASS
	19	7319.16	-38.730	-17.77	-20.960	PASS
	39	2483.50	-45.917	-18.44	-27.477	PASS
		9914.37	-37.279	-18.44	-18.839	PASS
BLE 2M	0	2400.00	-30.110	-17.97	-12.140	PASS
		7205.13	-35.267	-17.97	-17.297	PASS
	19	9753.73	-39.174	-17.74	-21.434	PASS
	39	2483.50	-49.547	-18.53	-31.017	PASS
		9914.37	-36.912	-18.53	-18.382	PASS

Test Graphs



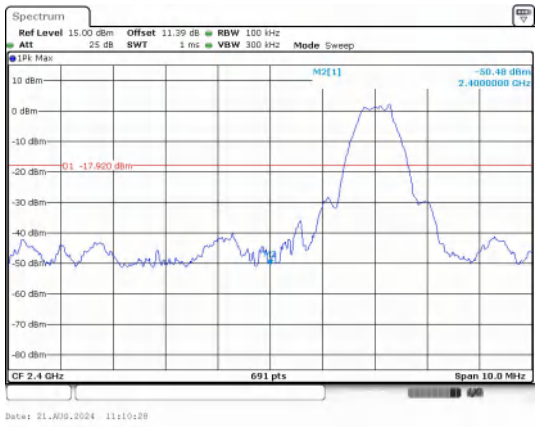
In-Band Reference Level

BLE 1M_Channel 0

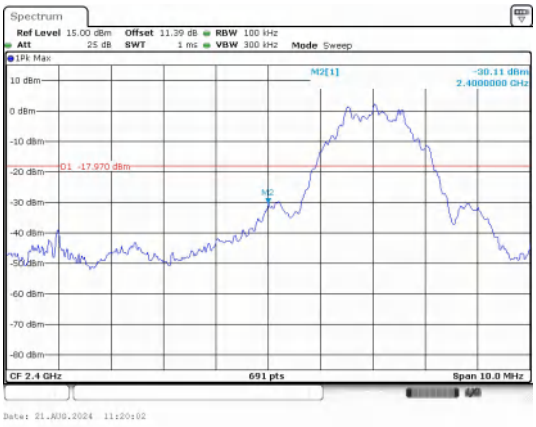


In-Band Reference Level

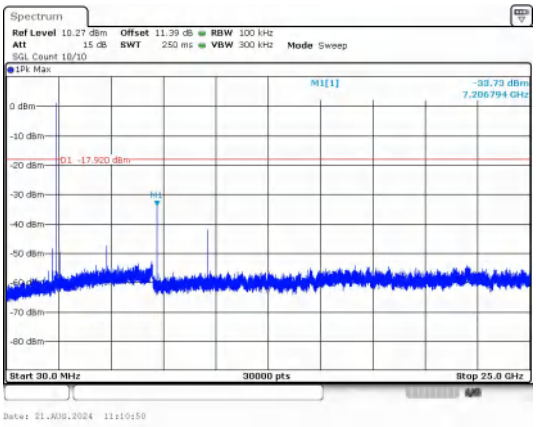
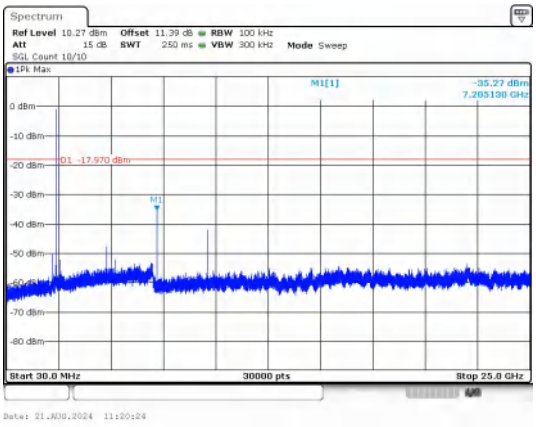
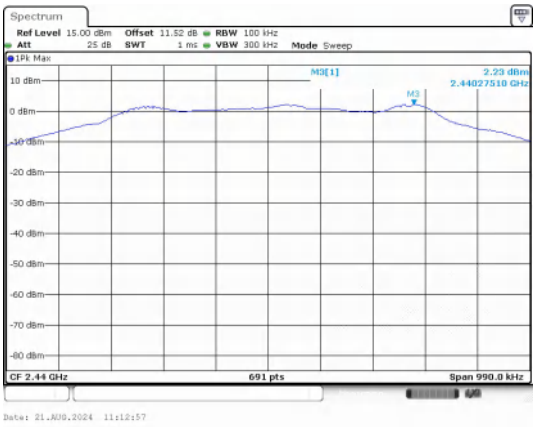
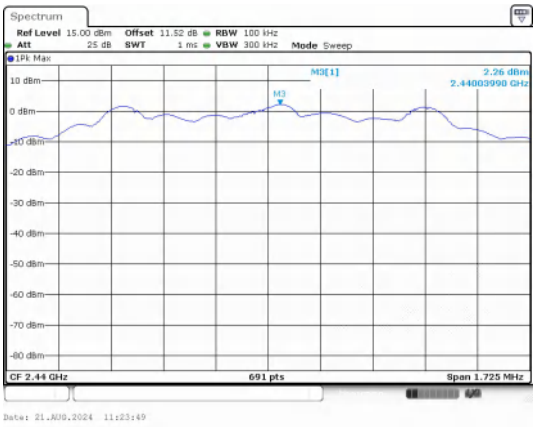
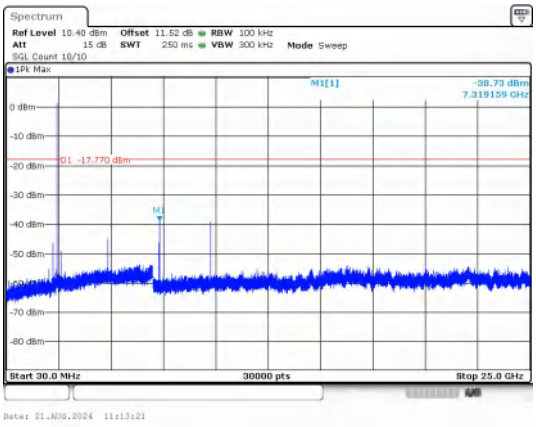
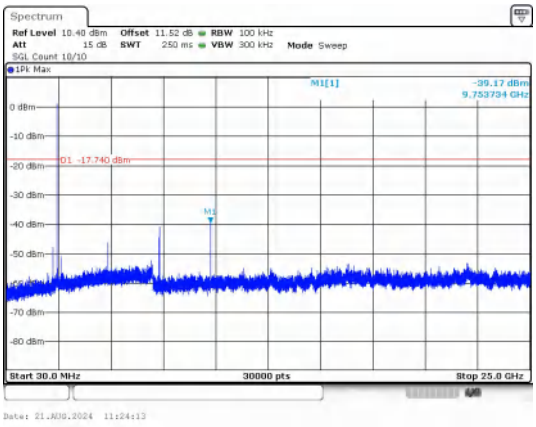
BLE 2M_Channel 0

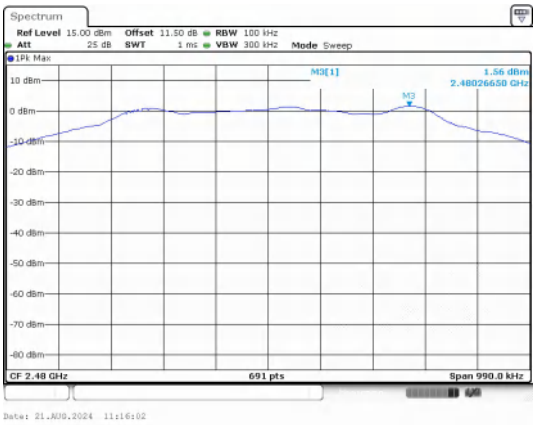


Out Of Band Emission



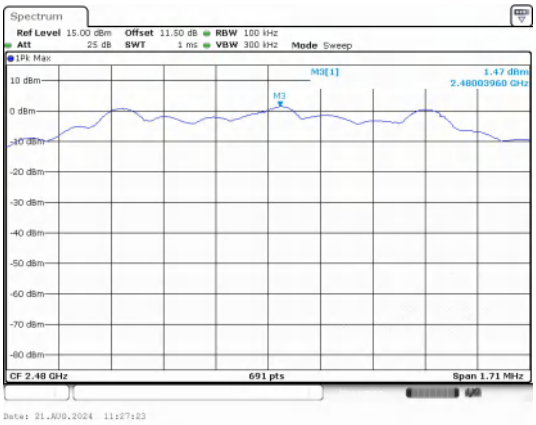
Out Of Band Emission

BLE 1M_Channel 0	BLE 2M_Channel 0
	
30.0 MHz - 25000.0 MHz BLE 1M_Channel 0	30.0 MHz - 25000.0 MHz BLE 2M_Channel 0
	
In-Band Reference Level BLE 1M_Channel 19	In-Band Reference Level BLE 2M_Channel 19
	
30.0 MHz - 25000.0 MHz BLE 1M_Channel 19	30.0 MHz - 25000.0 MHz BLE 2M_Channel 19



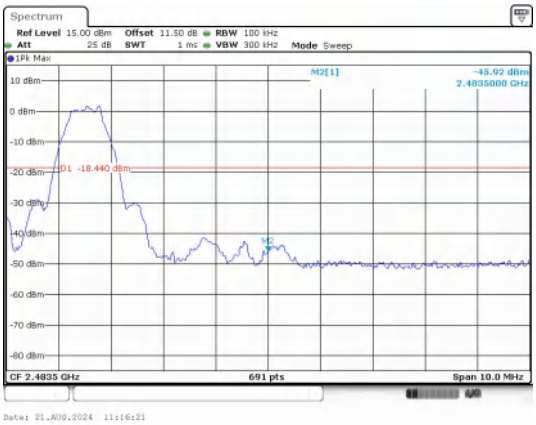
In-Band Reference Level

BLE 1M_Channel 39



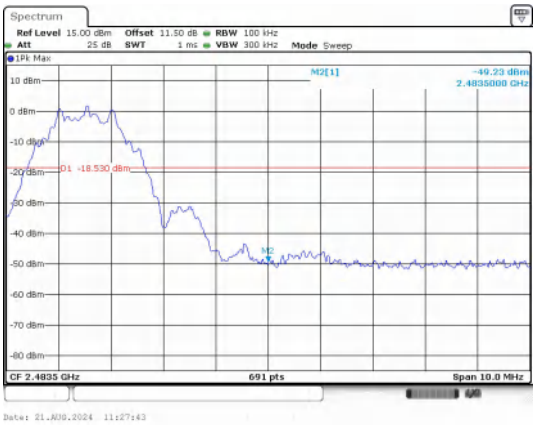
In-Band Reference Level

BLE 2M_Channel 39



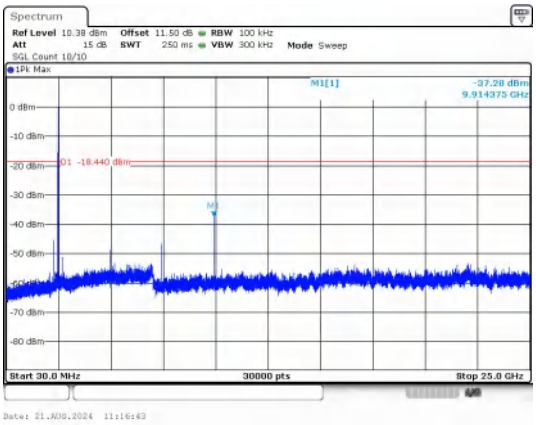
Out Of Band Emission

BLE 1M_Channel 39



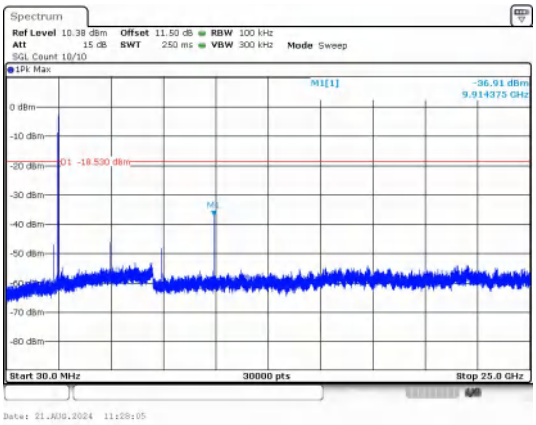
Out Of Band Emission

BLE 2M_Channel 39



30.0 MHz - 25000.0 MHz

BLE 1M_Channel 39



30.0 MHz - 25000.0 MHz

BLE 2M_Channel 39