Appendix

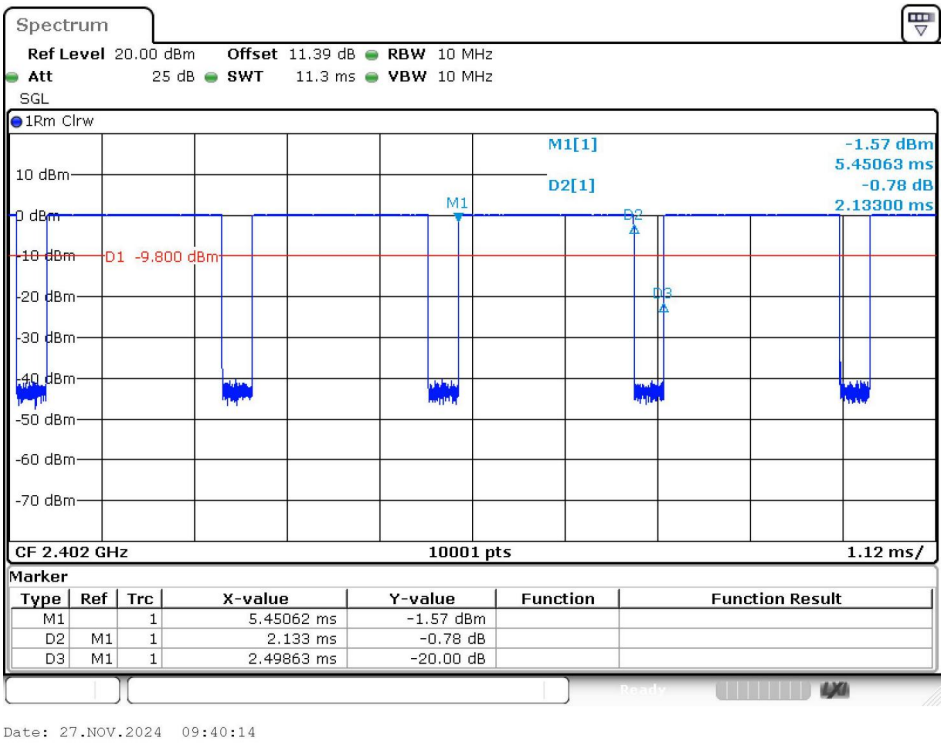
Report No.:	CISRR24112315806
FCC ID:	2BMDY-CL8
Product Name:	Helmet Bluetooth Earphones
Model No.:	CL8
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

1) Duty Cycle

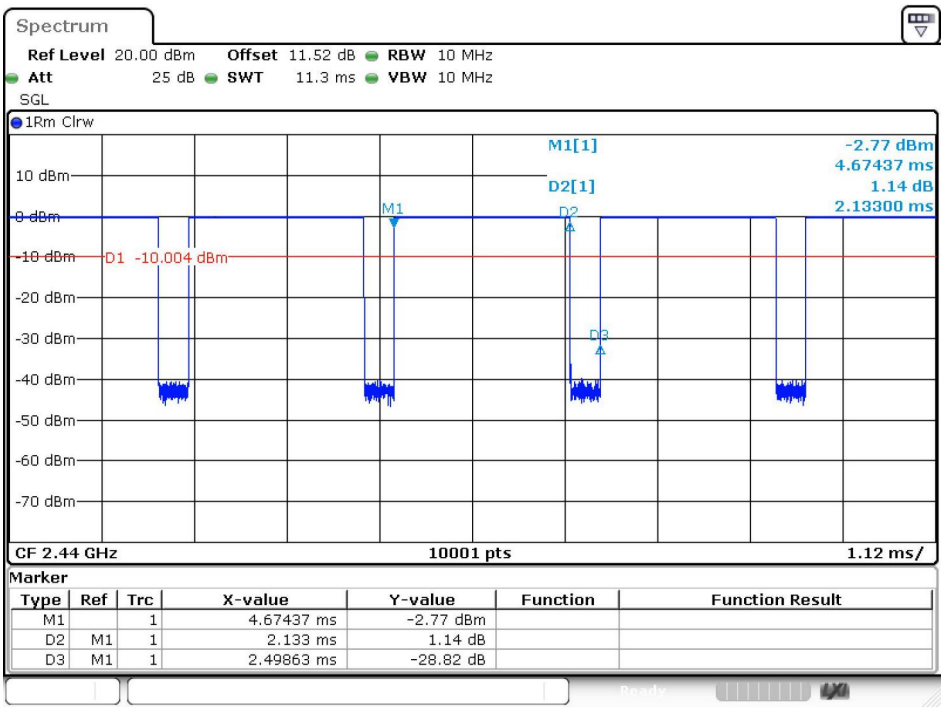
Test Result

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	0.4688
	19	2.133	2.499	85.37	0.8537	0.6869	0.4688
	39	2.134	2.500	85.37	0.8537	0.6869	0.4686
BLE 2M	0	1.082	2.500	43.29	0.4329	3.6361	0.9242
	19	1.081	2.499	43.27	0.4327	3.6381	0.9251
	39	1.081	2.499	43.27	0.4327	3.6381	0.9251

Test Graphs

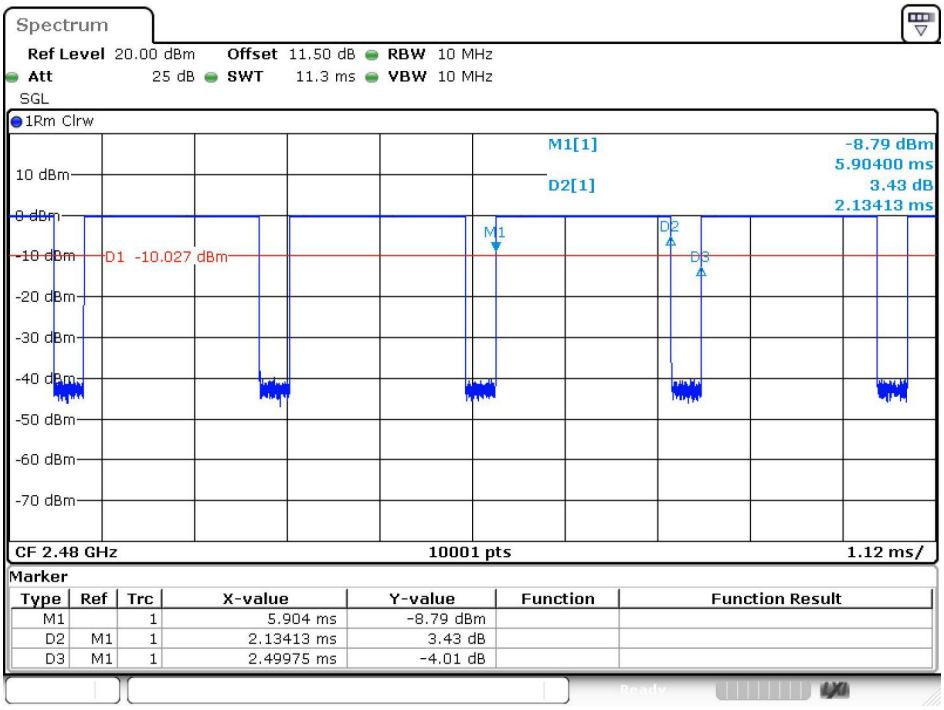


BLE 1M_Channel 0



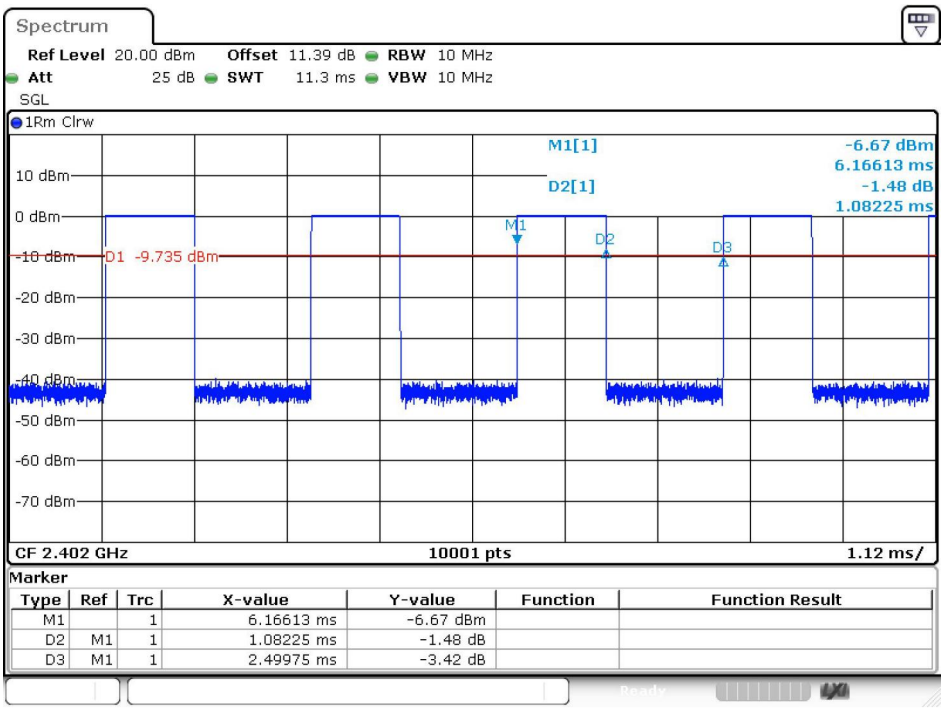
Date: 27.NOV.2024 09:42:57

BLE 1M_Channel 19



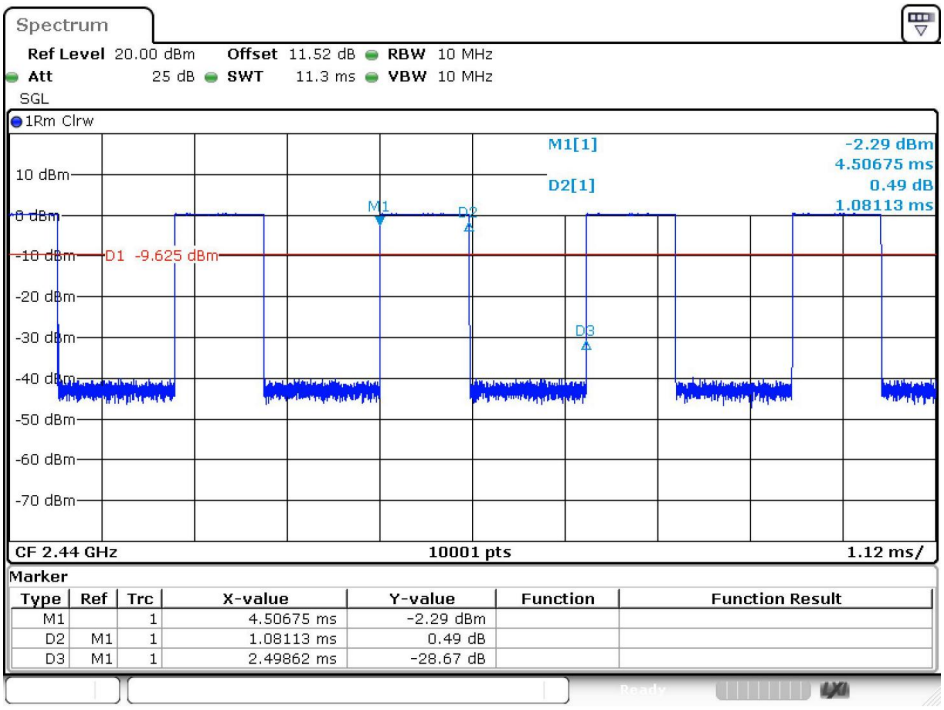
Date: 27.NOV.2024 09:45:49

BLE 1M_Channel 39



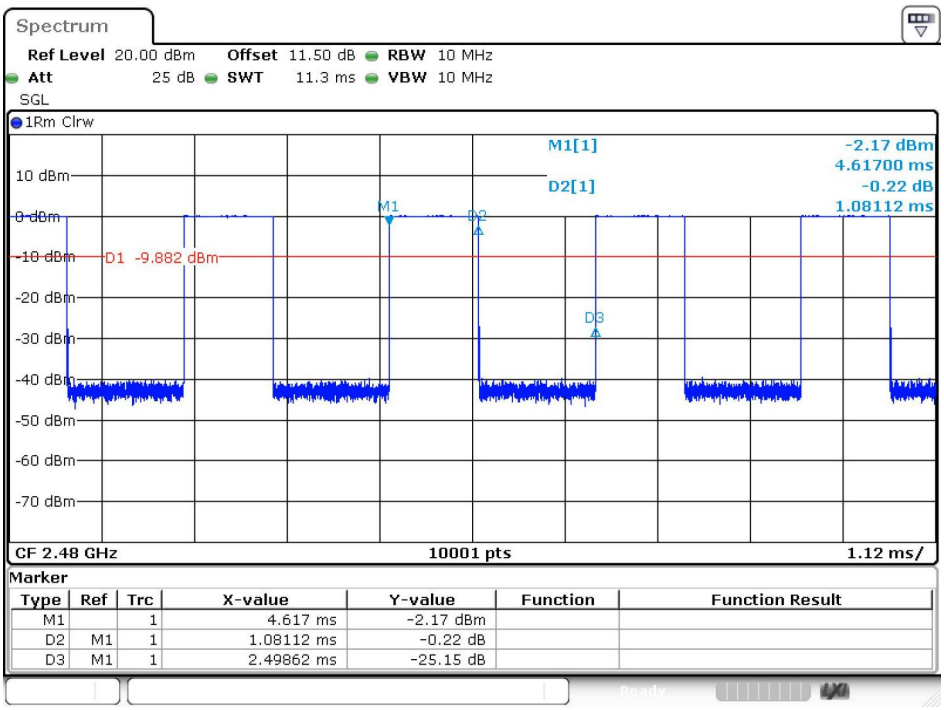
Date: 27.NOV.2024 09:49:09

BLE 2M_Channel 0



Date: 27.NOV.2024 09:53:45

BLE 2M_Channel 19



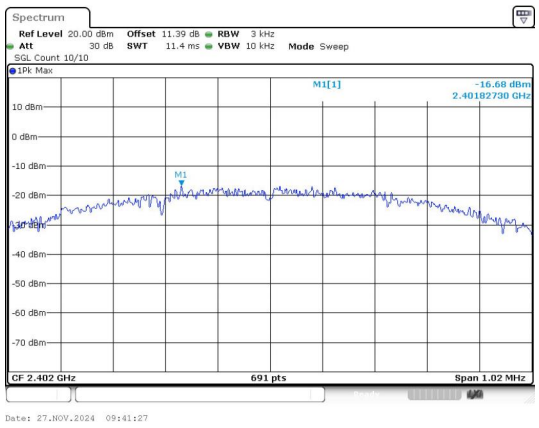
BLE 2M_Channel 39

2) Power Spectral Density

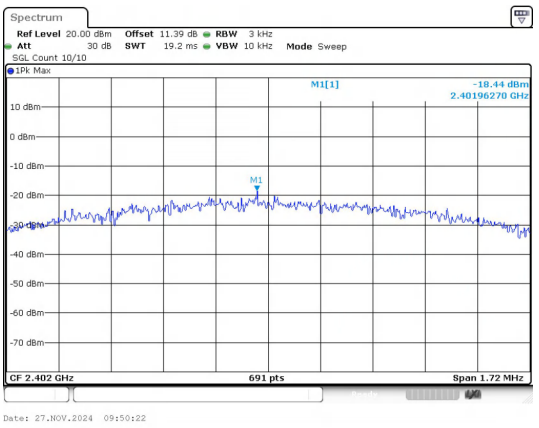
Test Result

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-16.680	≤8	PASS
BLE 1M	19	-17.060	≤8	PASS
BLE 1M	39	-16.520	≤8	PASS
BLE 2M	0	-18.440	≤8	PASS
BLE 2M	19	-19.020	≤8	PASS
BLE 2M	39	-19.340	≤8	PASS

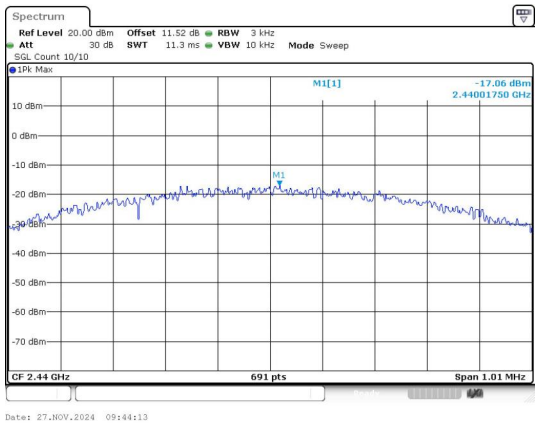
Test Graphs



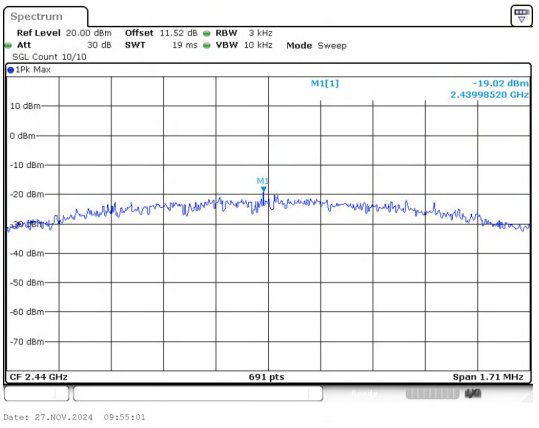
BLE 1M_Channel 0



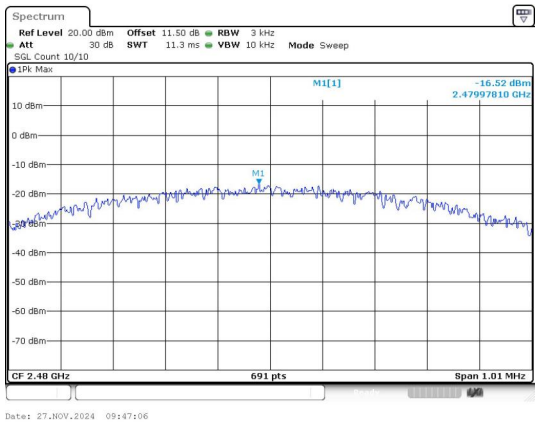
BLE 2M_Channel 0



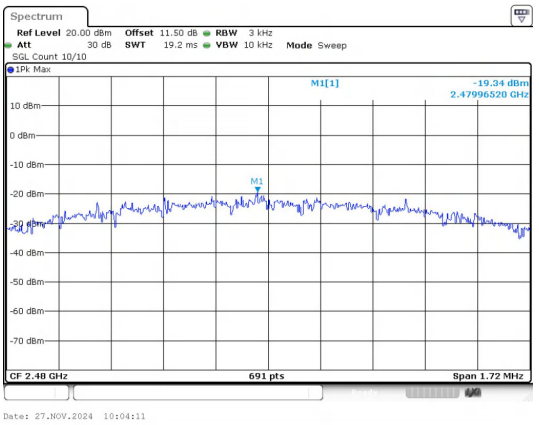
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



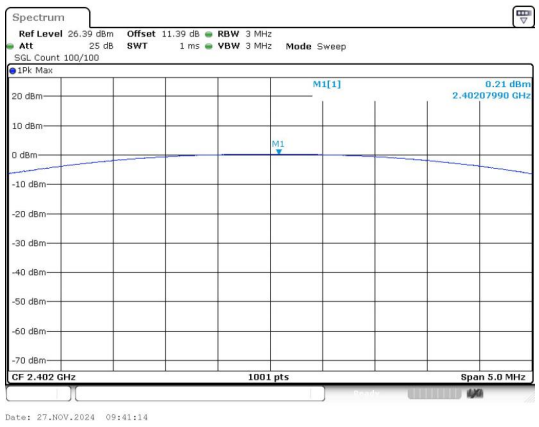
BLE 2M_Channel 39

3) Conducted Output Power

Test Result

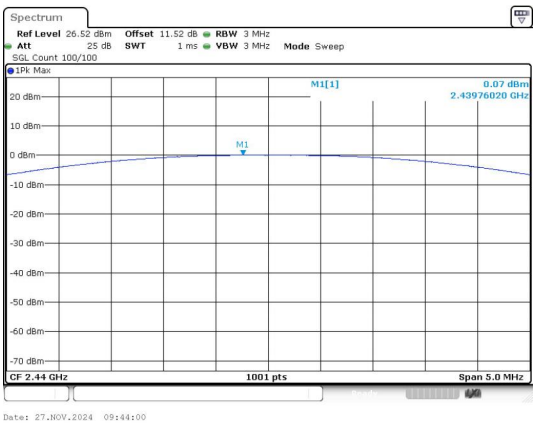
Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	0.21	1.05	≤30	PASS
	19	0.07	1.02	≤30	PASS
	39	0.12	1.03	≤30	PASS
BLE 2M	0	0.29	1.07	≤30	PASS
	19	0.39	1.09	≤30	PASS
	39	0.20	1.05	≤30	PASS

Test Graphs



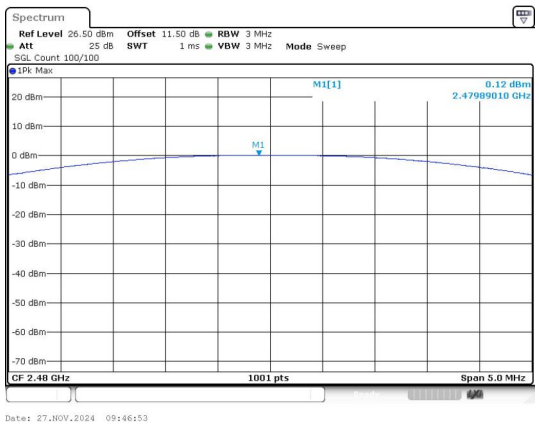
Peak Output Power

BLE 1M_Channel 0



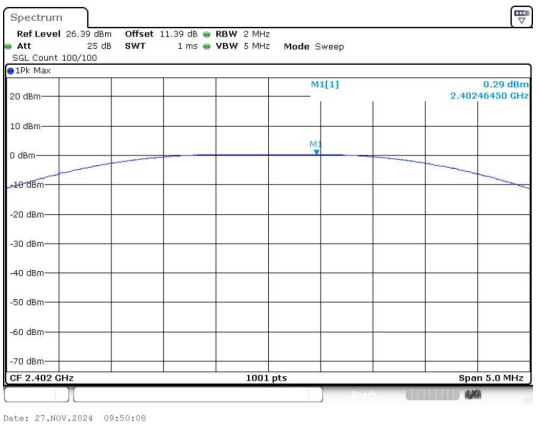
Peak Output Power

BLE 1M_Channel 19



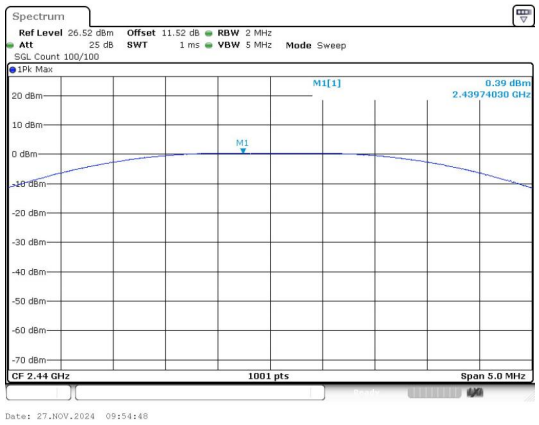
Peak Output Power

BLE 1M_Channel 39



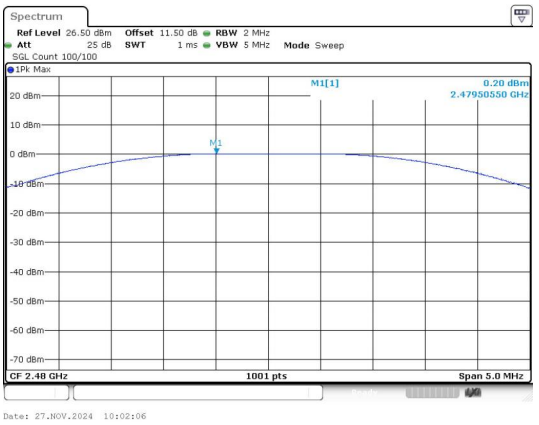
Peak Output Power

BLE 2M_Channel 0



Peak Output Power

BLE 2M_Channel 19



Peak Output Power

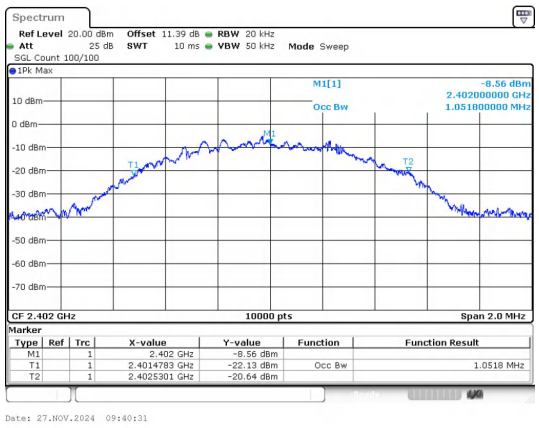
BLE 2M_Channel 39

4) 99% Bandwidth

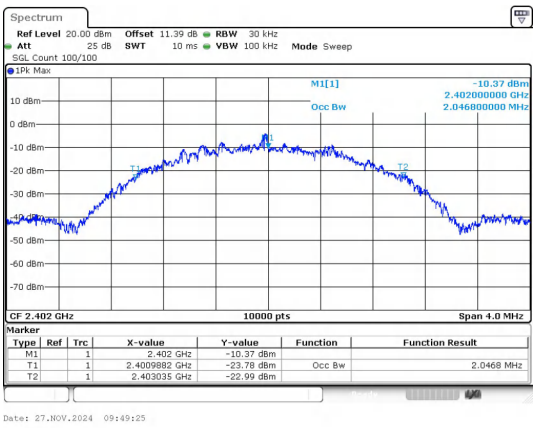
Test Result

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0518
BLE 1M	19	2440	1.0374
BLE 1M	39	2480	1.0410
BLE 2M	0	2402	2.0468
BLE 2M	19	2440	2.0508
BLE 2M	39	2480	2.0508

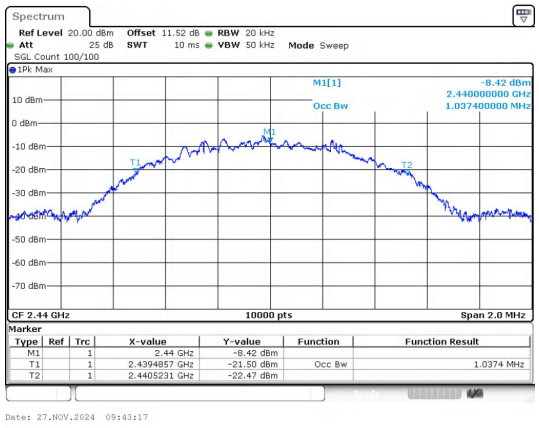
Test Graphs



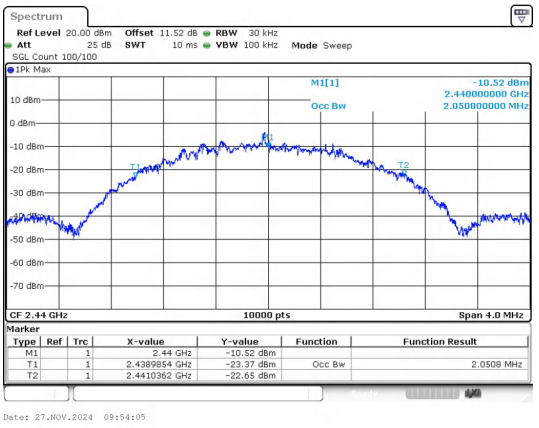
BLE 1M_Channel 0



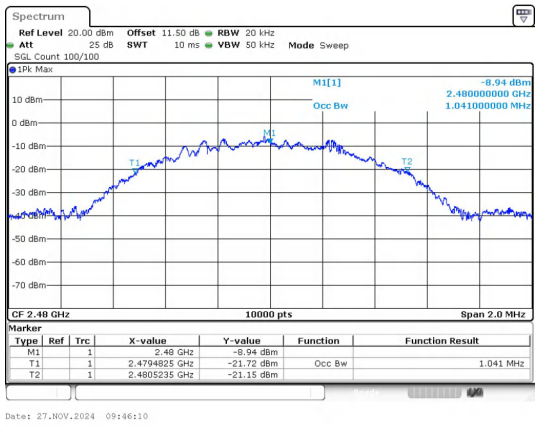
BLE 2M_Channel 0



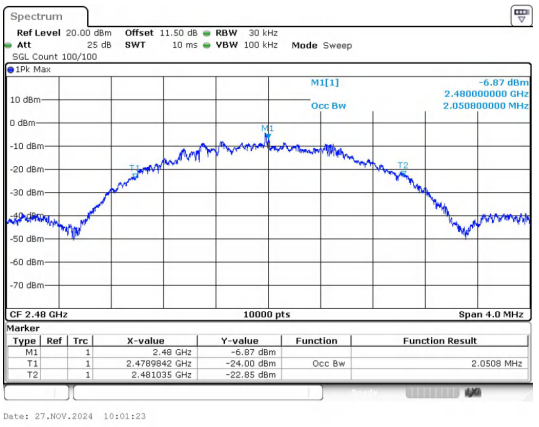
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



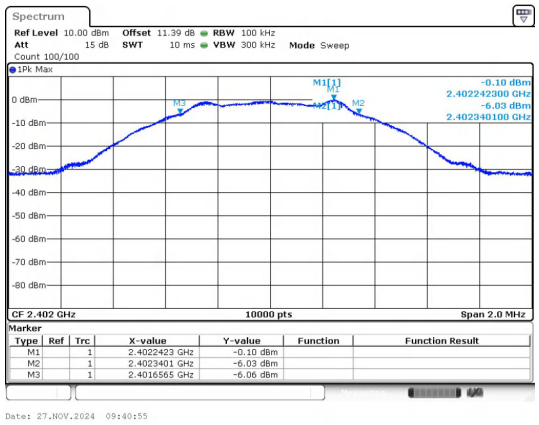
BLE 2M_Channel 39

5) 6dB Bandwidth

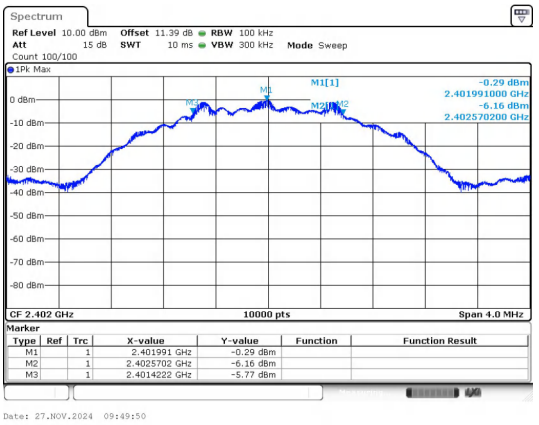
Test Result

Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6800	≥0.5	PASS
	19	2440	0.6700		PASS
	39	2480	0.6700		PASS
BLE 2M	0	2402	1.150		PASS
	19	2440	1.140		PASS
	39	2480	1.150		PASS

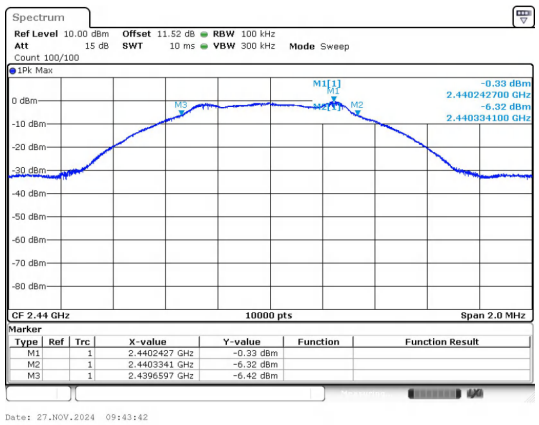
Test Graphs



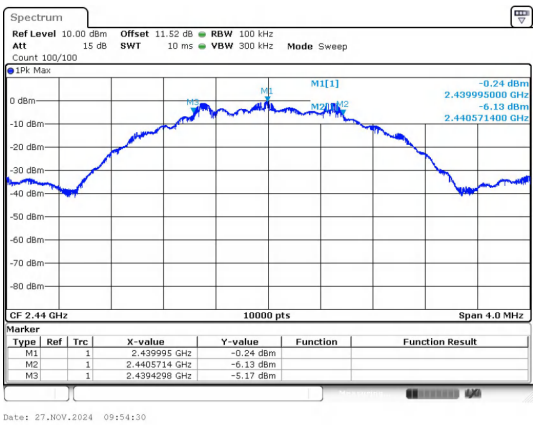
BLE 1M_Channel 0



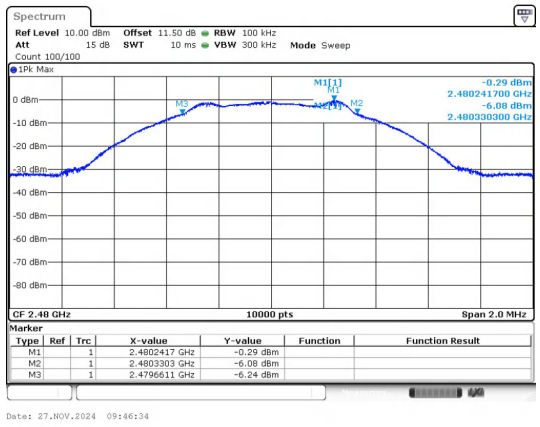
BLE 2M_Channel 0



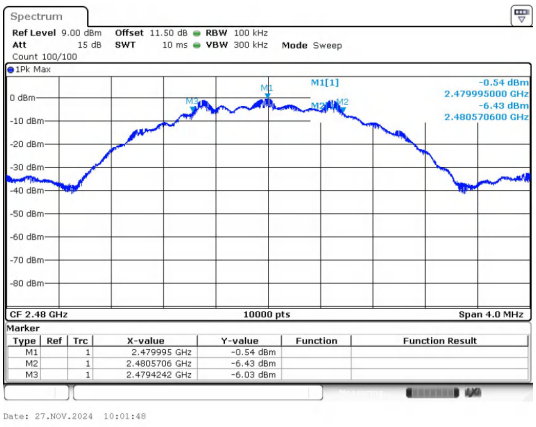
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



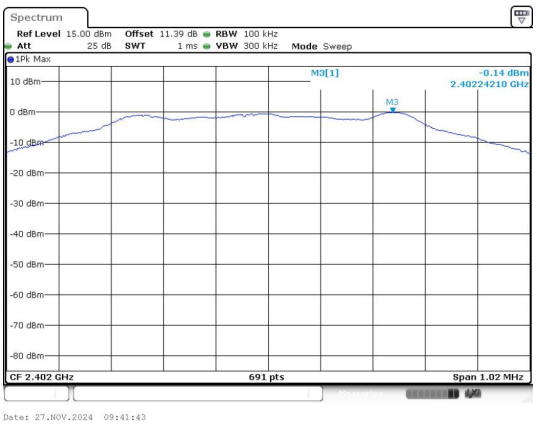
BLE 2M_Channel 39

6) Conducted Out Of Band Emission

Test Result

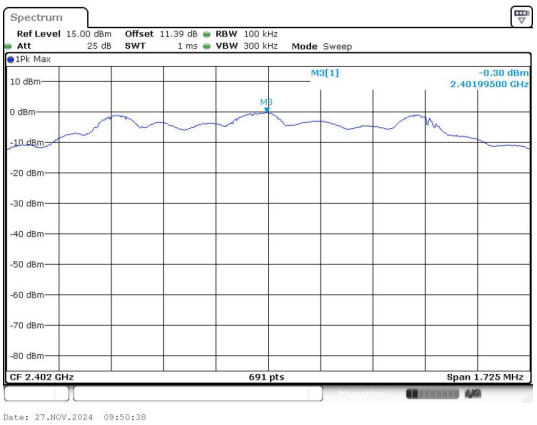
Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2400.00	-46.400	-20.14	-26.260	PASS
		4803.85	-37.153	-20.14	-17.013	PASS
	19	9760.39	-38.170	-20.27	-17.900	PASS
	39	2483.50	-50.100	-20.25	-29.850	PASS
		4960.33	-37.909	-20.25	-17.659	PASS
BLE 2M	0	2400.00	-32.730	-20.3	-12.430	PASS
		4803.85	-37.275	-20.3	-16.975	PASS
	19	9760.39	-38.911	-19.94	-18.971	PASS
	39	2483.50	-49.560	-20.44	-29.120	PASS
		4960.33	-38.157	-20.44	-17.717	PASS

Test Graphs



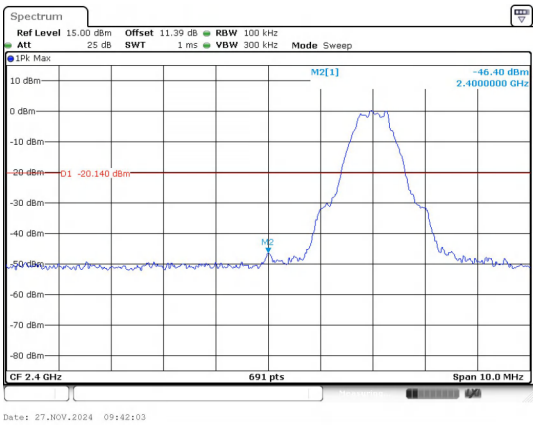
In-Band Reference Level

BLE 1M_Channel 0



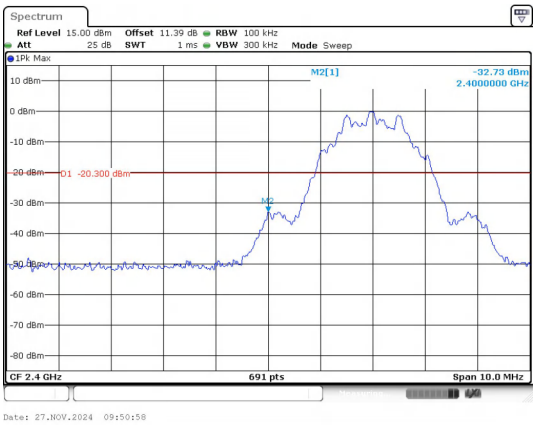
In-Band Reference Level

BLE 2M_Channel 0



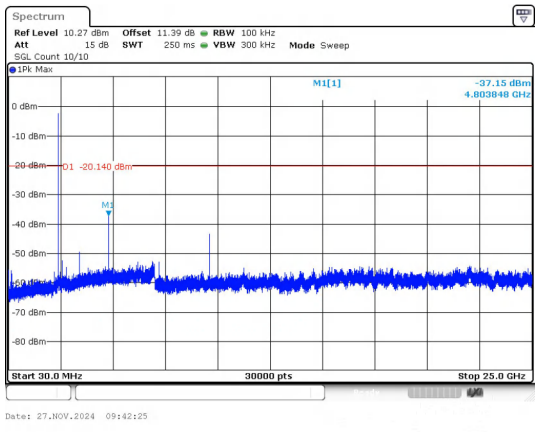
Out Of Band Emission

BLE 1M_Channel 0



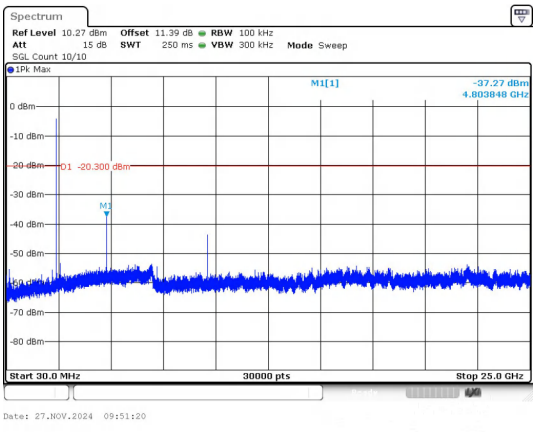
Out Of Band Emission

BLE 2M_Channel 0



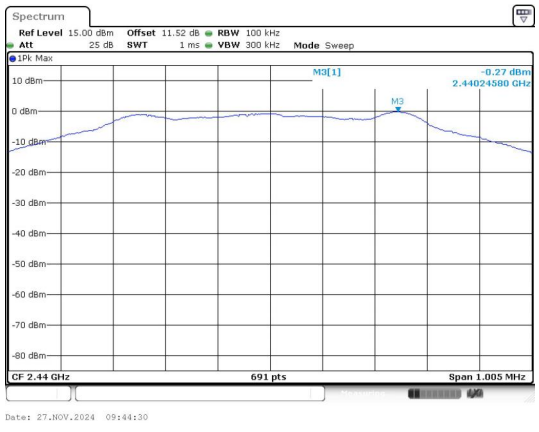
30.0 MHz - 25000.0 MHz

BLE 1M_Channel 0



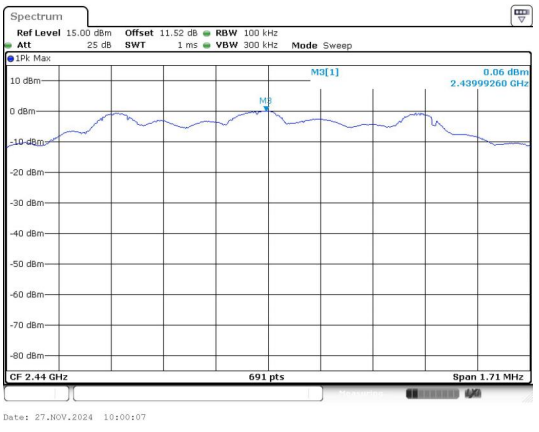
30.0 MHz - 25000.0 MHz

BLE 2M_Channel 0



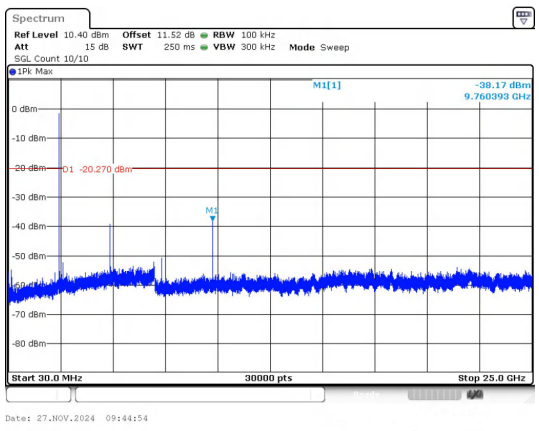
In-Band Reference Level

BLE 1M_Channel 19



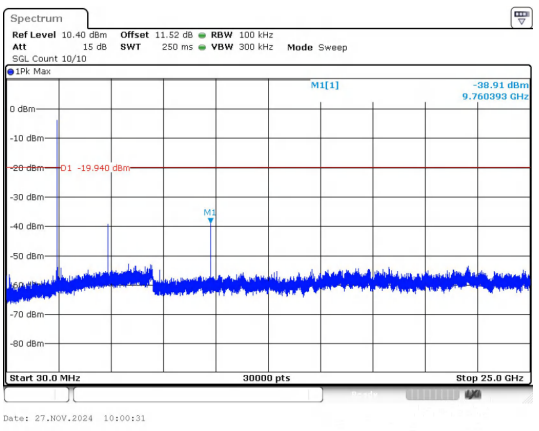
In-Band Reference Level

BLE 2M_Channel 19



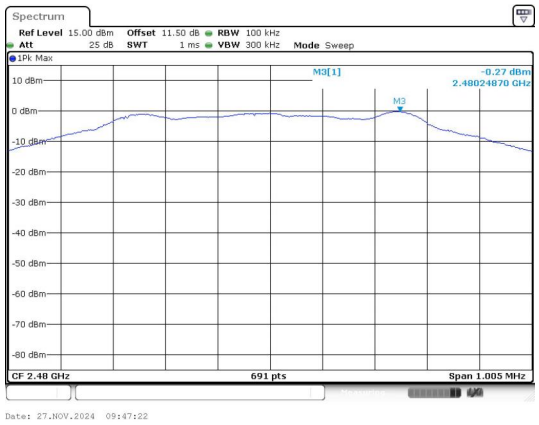
30.0 MHz - 25000.0 MHz

BLE 1M_Channel 19



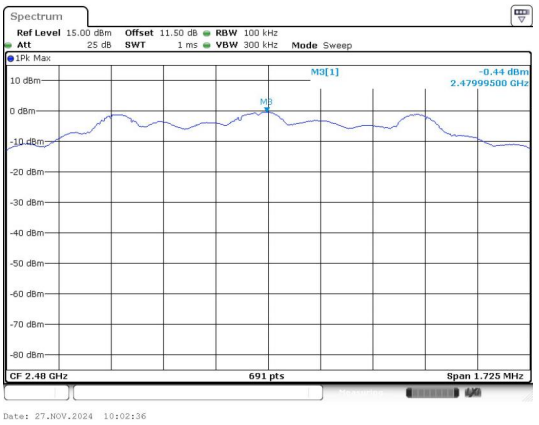
30.0 MHz - 25000.0 MHz

BLE 2M_Channel 19



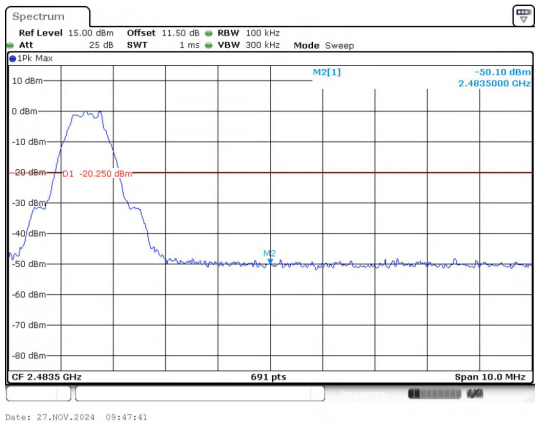
In-Band Reference Level

BLE 1M_Channel 39



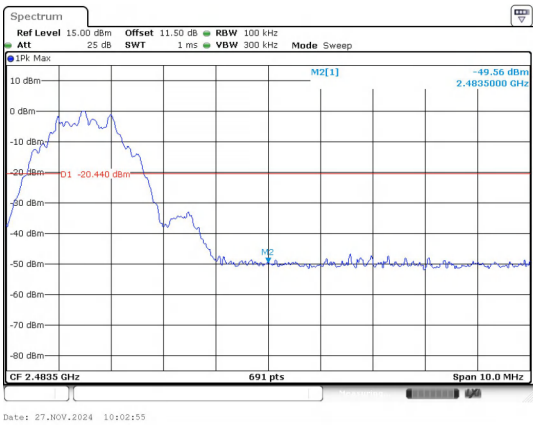
In-Band Reference Level

BLE 2M_Channel 39



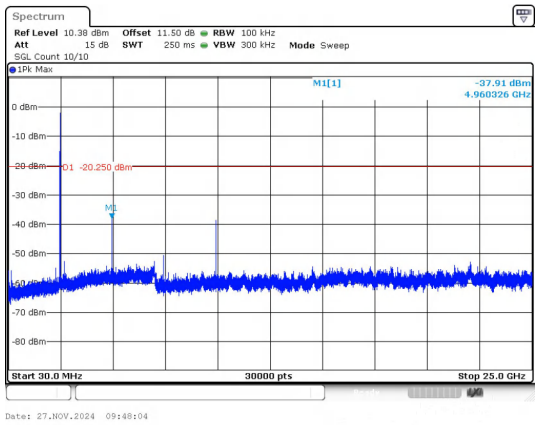
Out Of Band Emission

BLE 1M_Channel 39



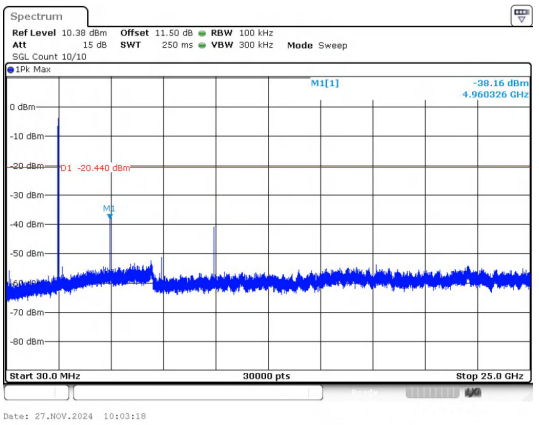
Out Of Band Emission

BLE 2M_Channel 39



30.0 MHz - 25000.0 MHz

BLE 1M_Channel 39



30.0 MHz - 25000.0 MHz

BLE 2M_Channel 39

------End of the report-----