Appendix A

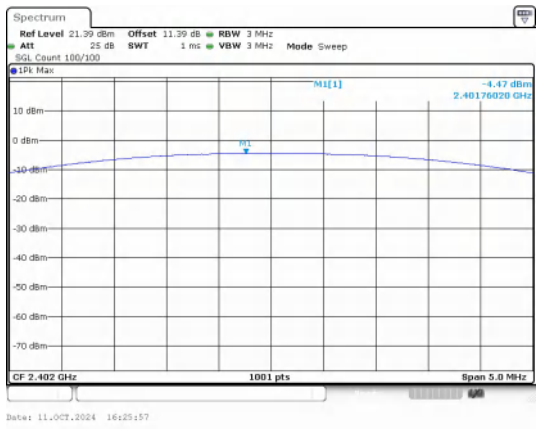
Report No.:	CISRR241008011
FCC ID:	2BLMF-LDQJ01
Product Name:	Music Boxing Machine
Model No.:	LDQJ01
Test Engineer:	Mark Fu
Supervised by:	Rory Huang

1) Conducted Output Power

Test Result

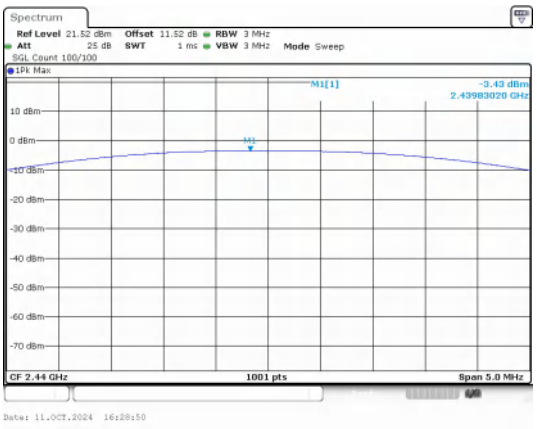
Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	-4.47	0.36	≤30	PASS
	19	-3.43	0.45	≤30	PASS
	39	-3.21	0.48	≤30	PASS
BLE 2M	0	-4.40	0.36	≤30	PASS
	19	-3.39	0.46	≤30	PASS
	39	-3.19	0.48	≤30	PASS

Test Graphs



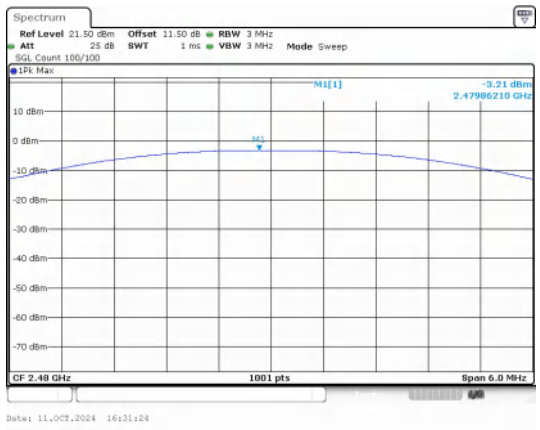
Peak Output Power

BLE 1M_Channel 0



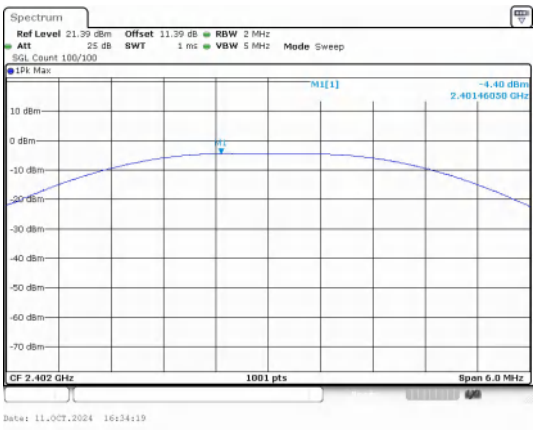
Peak Output Power

BLE 1M_Channel 19



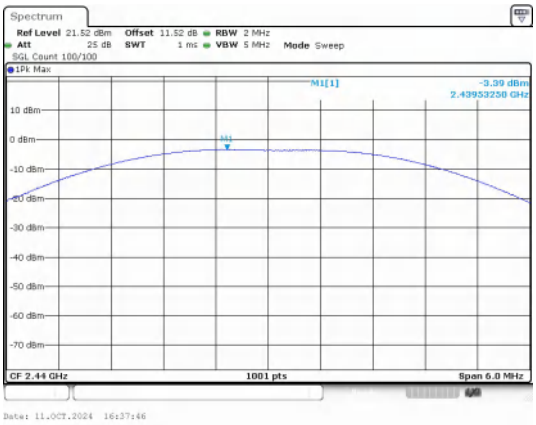
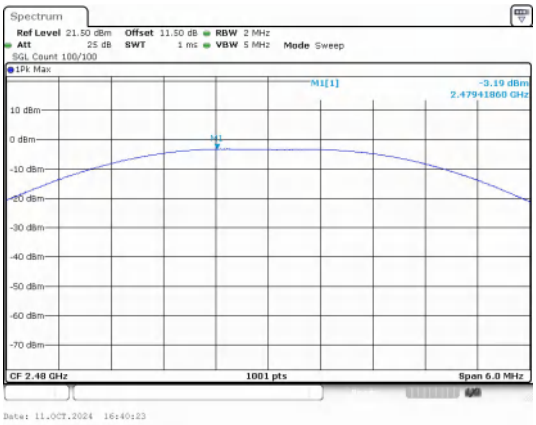
Peak Output Power

BLE 1M_Channel 39



Peak Output Power

BLE 2M_Channel 0

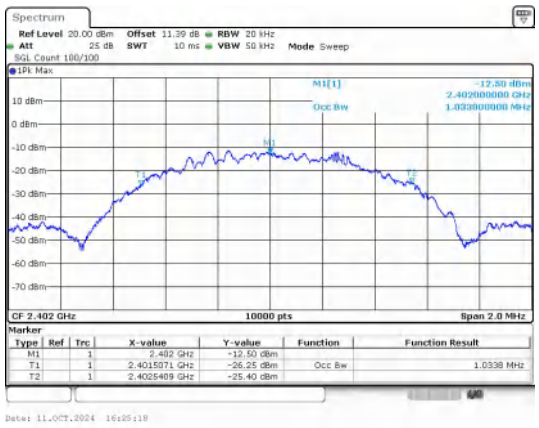
	
Peak Output Power **BLE 2M_Channel 19**	**Peak Output Power** **BLE 2M_Channel 39**

2) 99% Bandwidth

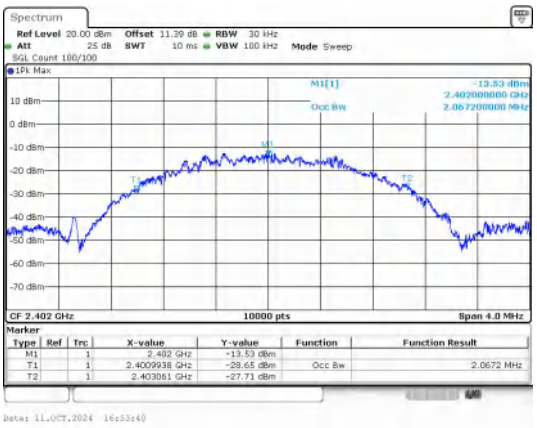
Test Result

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0338
BLE 1M	19	2440	1.0376
BLE 1M	39	2480	1.0374
BLE 2M	0	2402	2.0672
BLE 2M	19	2440	2.0688
BLE 2M	39	2480	2.0648

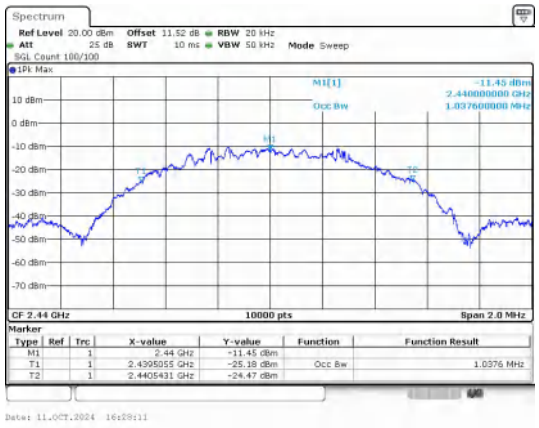
Test Graphs



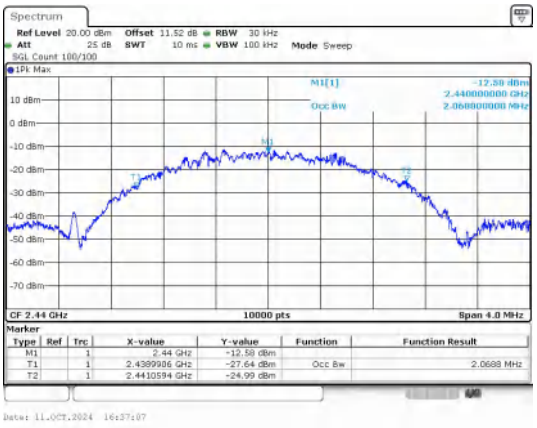
BLE 1M_Channel 0



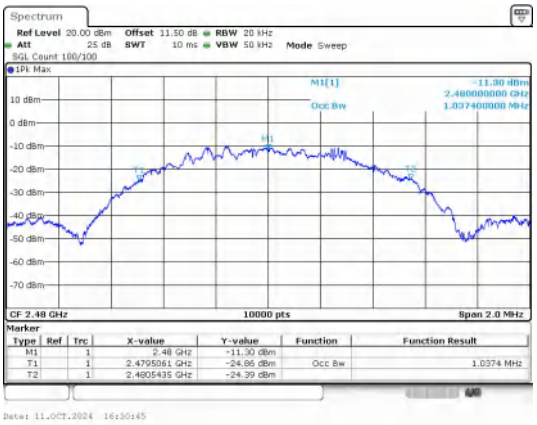
BLE 2M_Channel 0



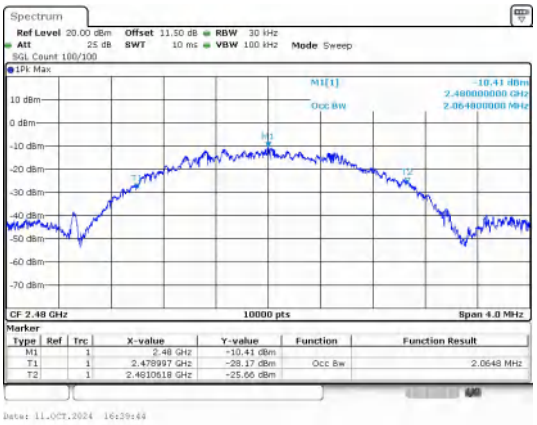
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



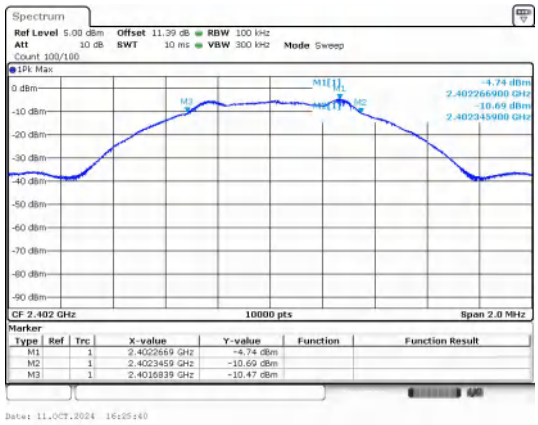
BLE 2M_Channel 39

3) 6dB Bandwidth

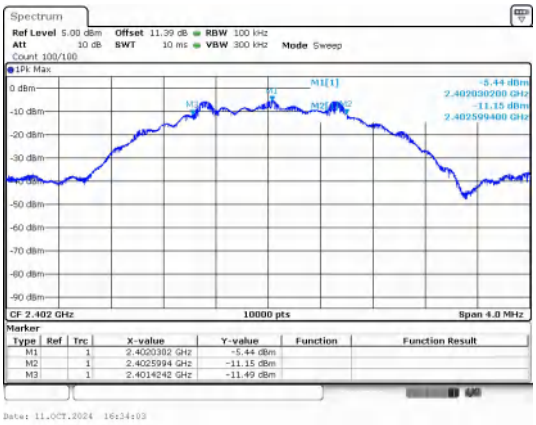
Test Result

Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6700	≥0.5	PASS
	19	2440	0.6600		PASS
	39	2480	0.6700		PASS
BLE 2M	0	2402	1.180		PASS
	19	2440	1.220		PASS
	39	2480	1.170		PASS

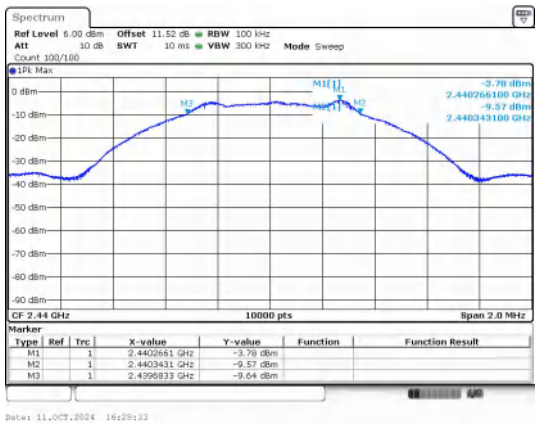
Test Graphs



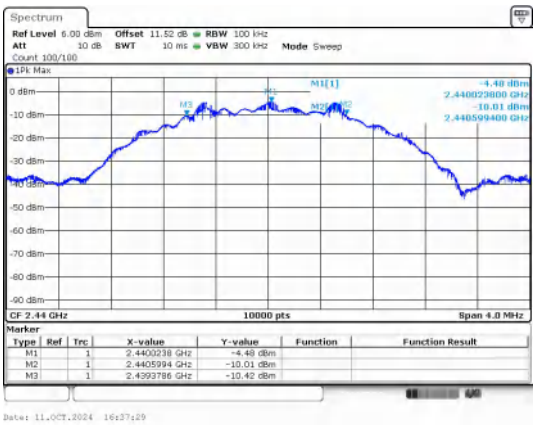
BLE 1M_Channel 0



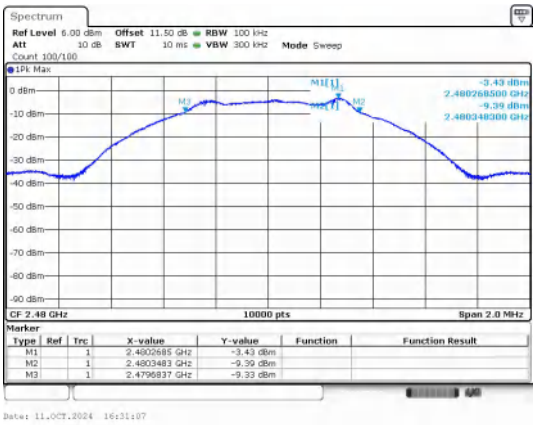
BLE 2M_Channel 0



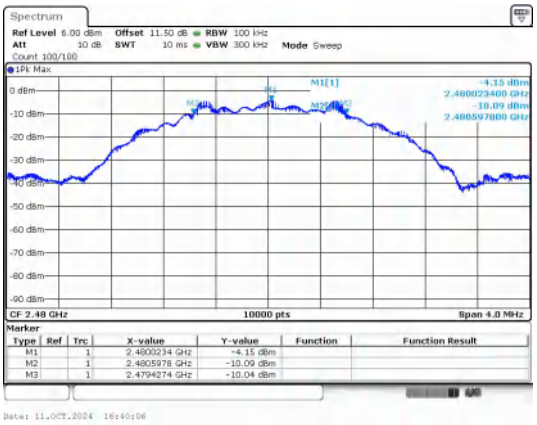
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



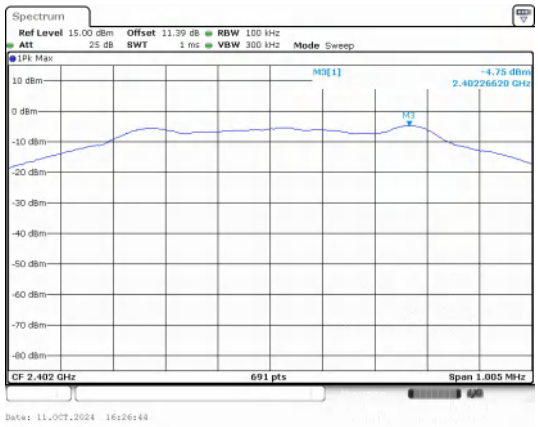
BLE 2M_Channel 39

4) Conducted Out Of Band Emission

Test Result

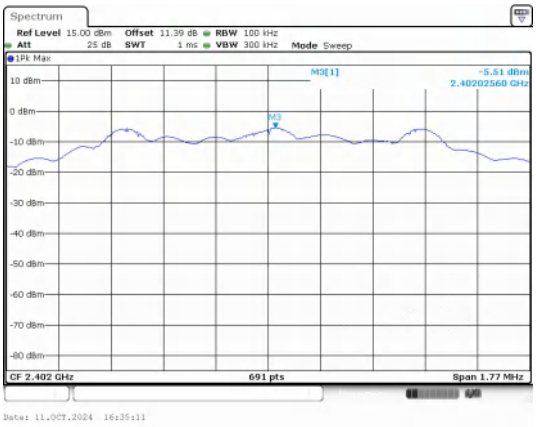
Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2398.76	-45.000	-24.75	-20.250	PASS
		2400.00	-50.303	-24.75	-25.553	PASS
		4801.40	-49.990	-24.75	-25.240	PASS
	19	4877.09	-50.600	-23.74	-26.860	PASS
	39	2483.50	-48.077	-23.49	-24.587	PASS
		4957.00	-49.238	-23.49	-25.748	PASS
BLE 2M	0	2400.00	-38.383	-25.51	-12.873	PASS
		4801.35	-50.500	-25.51	-24.990	PASS
	19	4877.09	-50.102	-24.49	-25.612	PASS
	39	2483.50	-51.164	-24.31	-26.854	PASS
		4957.00	-50.442	-24.31	-26.132	PASS

Test Graphs



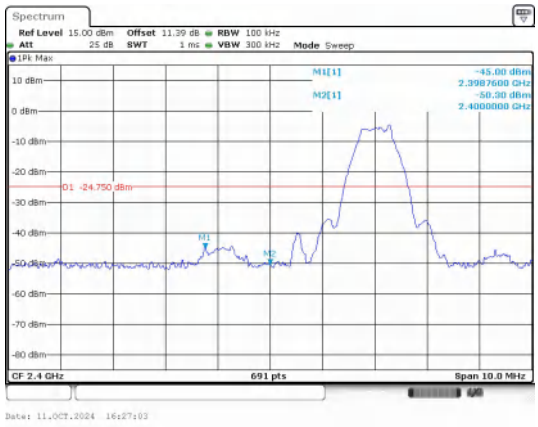
In-Band Reference Level

BLE 1M_Channel 0

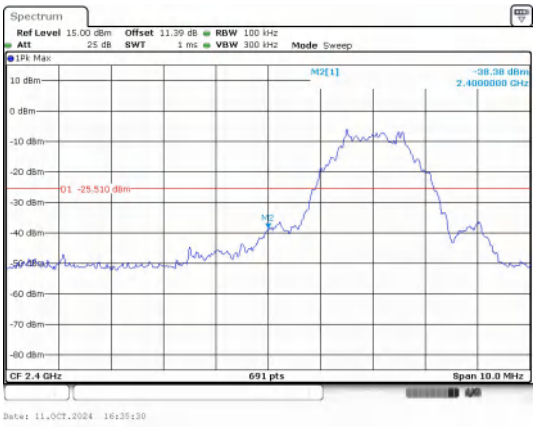


In-Band Reference Level

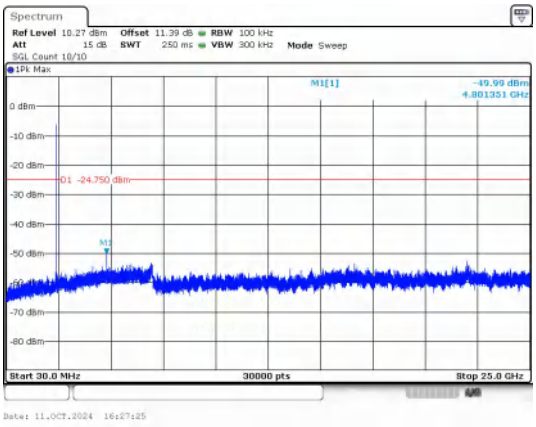
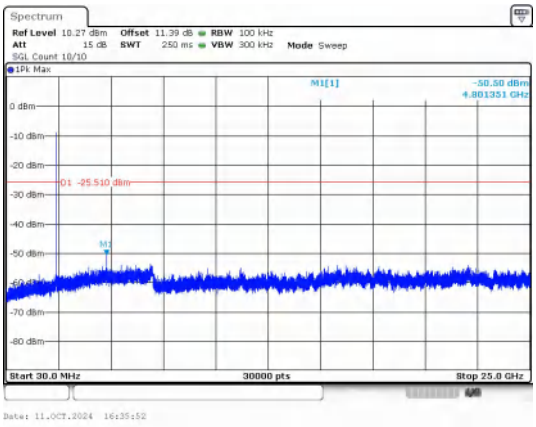
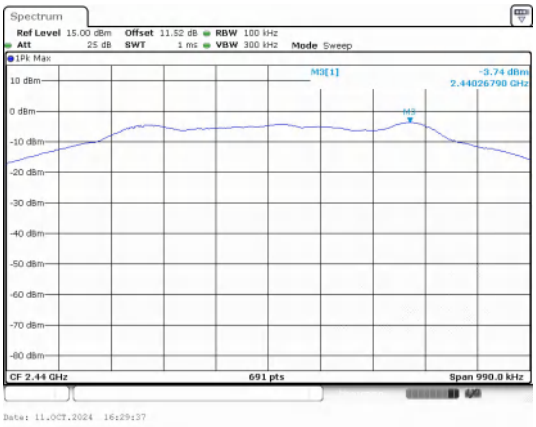
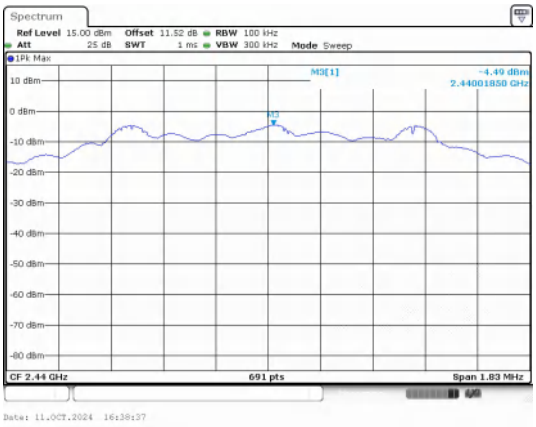
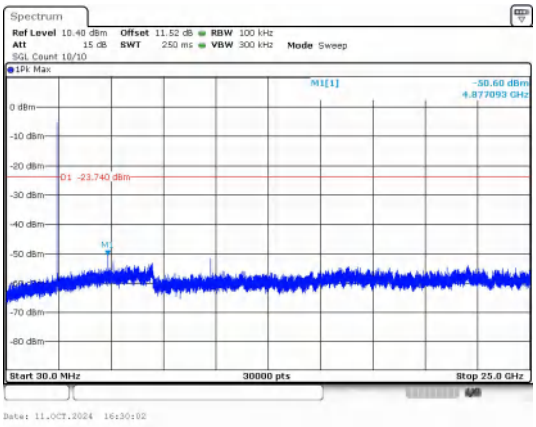
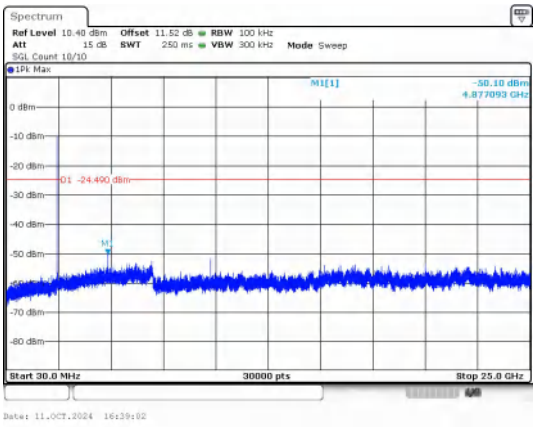
BLE 2M_Channel 0

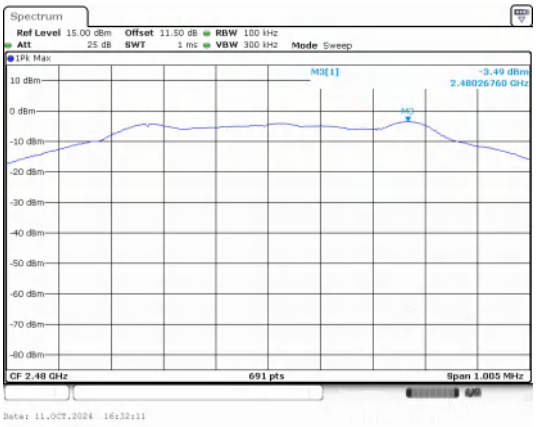


Out Of Band Emission



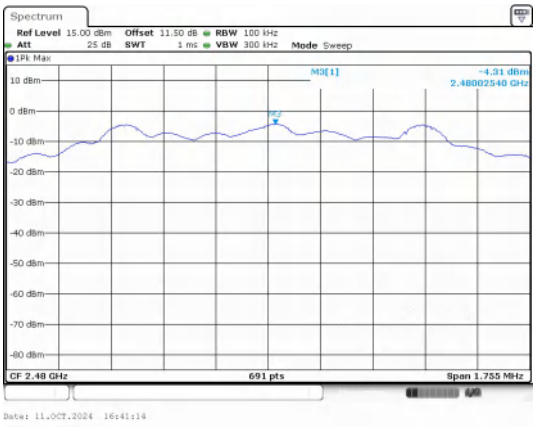
Out Of Band Emission

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



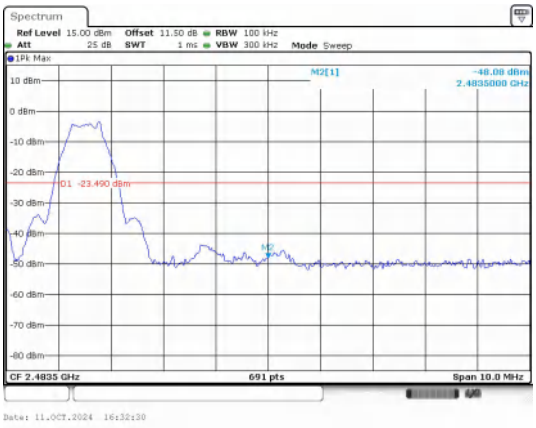
In-Band Reference Level

BLE 1M_Channel 39



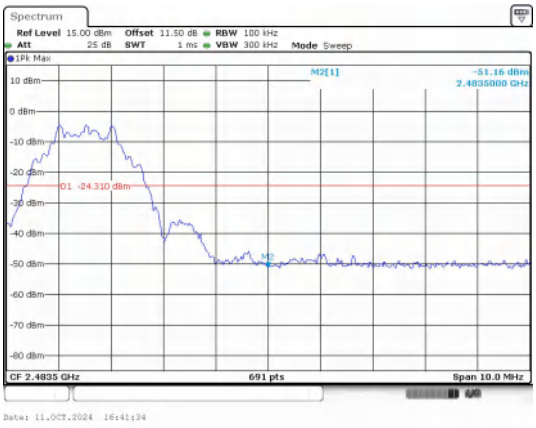
In-Band Reference Level

BLE 2M_Channel 39



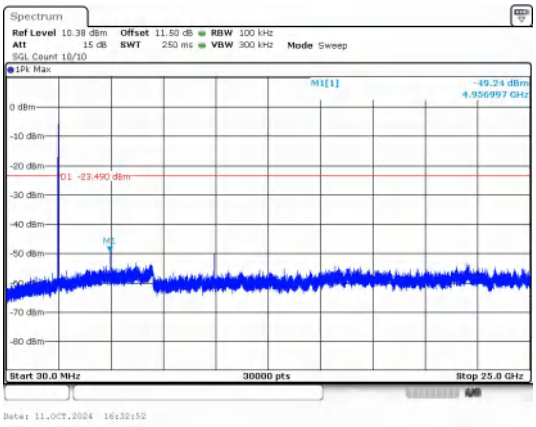
Out Of Band Emission

BLE 1M_Channel 39



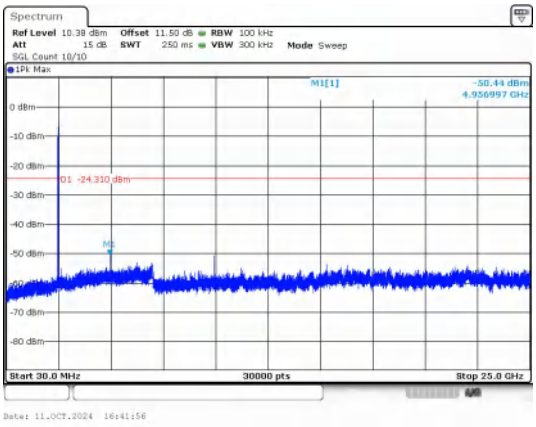
Out Of Band Emission

BLE 2M_Channel 39



30.0 MHz - 25000.0 MHz

BLE 1M_Channel 39



30.0 MHz - 25000.0 MHz

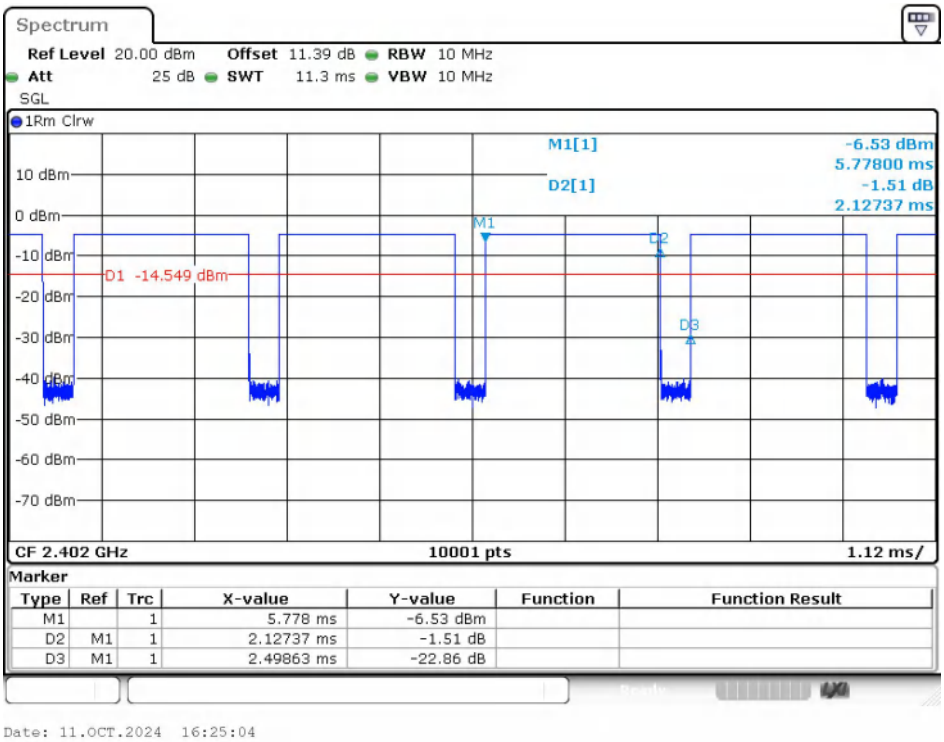
BLE 2M_Channel 39

5) Duty Cycle

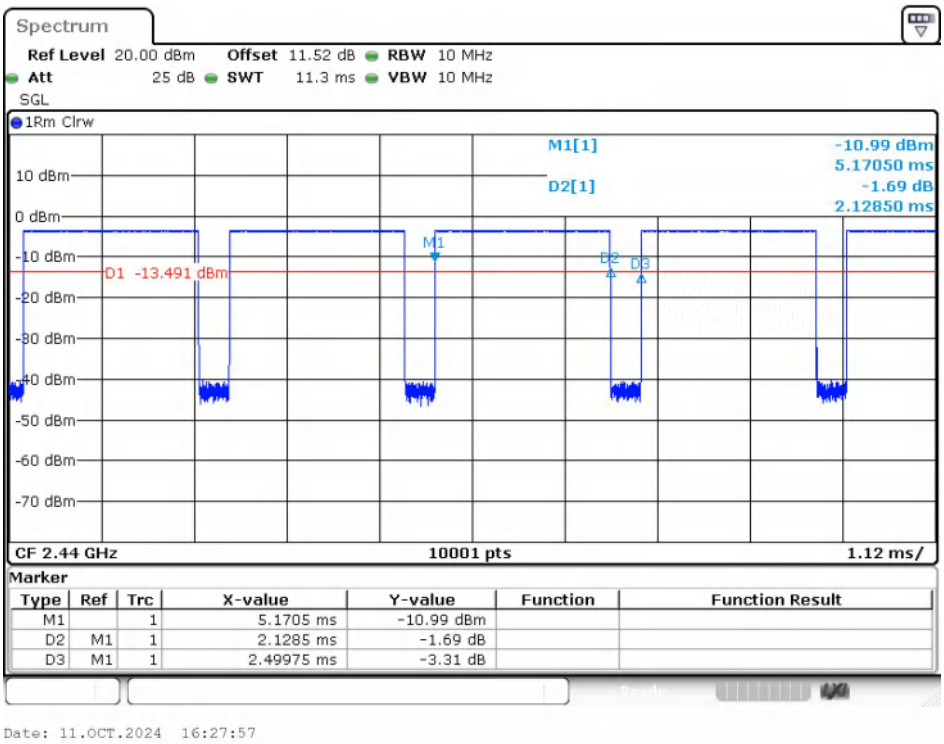
Test Result

Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
BLE 1M	0	2.127	2.499	85.14	0.8514	0.6987	0.47
	19	2.128	2.500	85.15	0.8515	0.6982	0.47
	39	2.127	2.499	85.14	0.8514	0.6987	0.47
BLE 2M	0	1.075	2.499	43.04	0.4304	3.6613	0.93
	19	1.075	2.499	43.04	0.4304	3.6613	0.93
	39	1.075	2.499	43.04	0.4304	3.6613	0.93

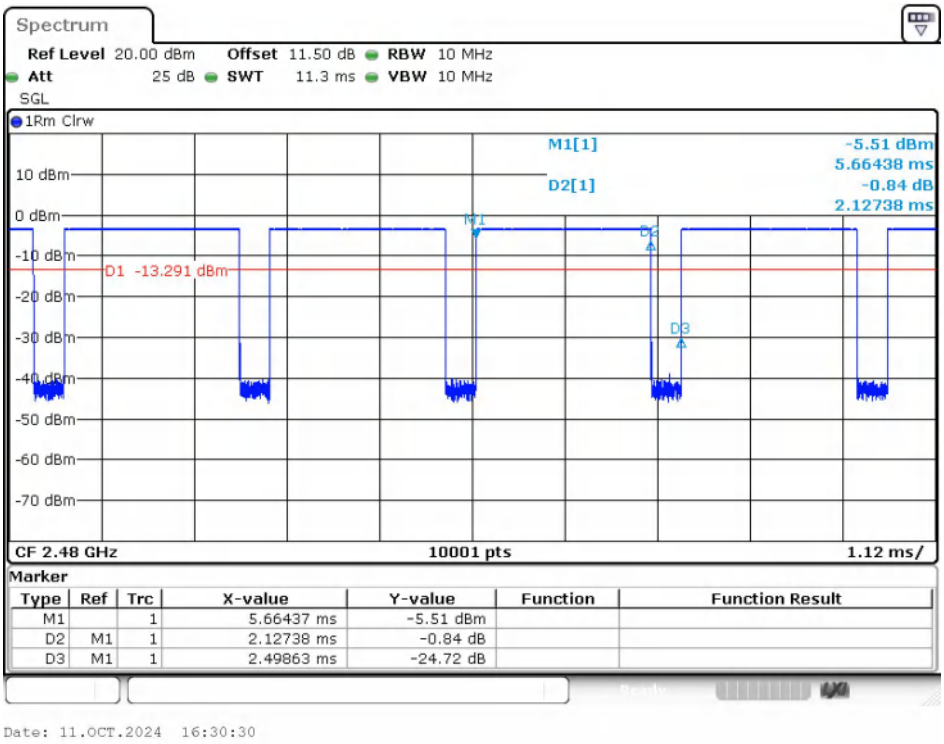
Test Graphs



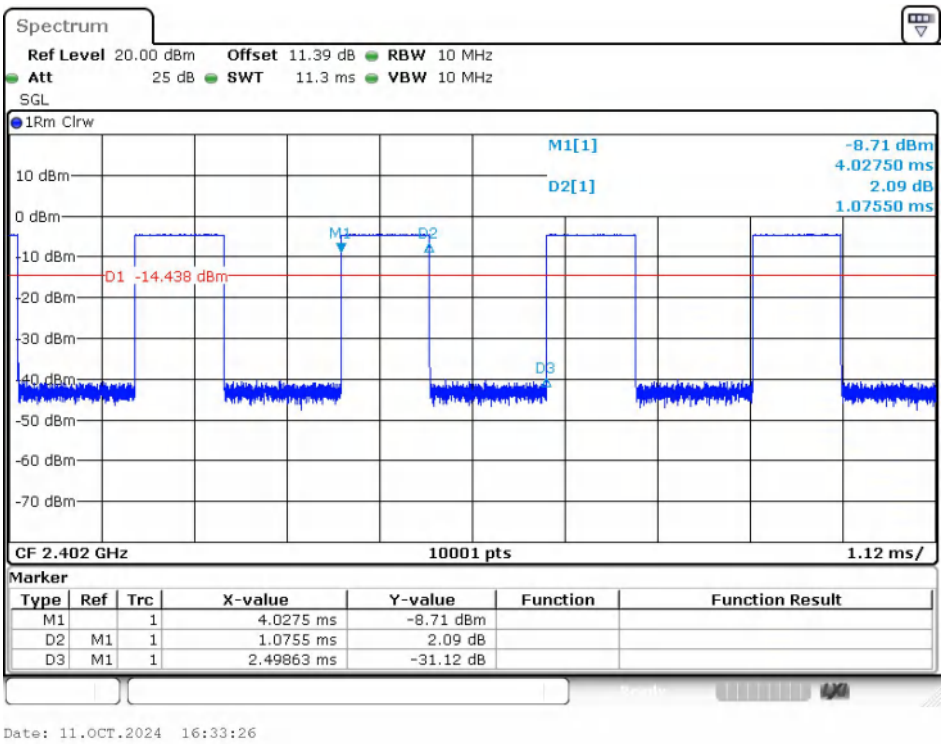
BLE 1M_Channel 0



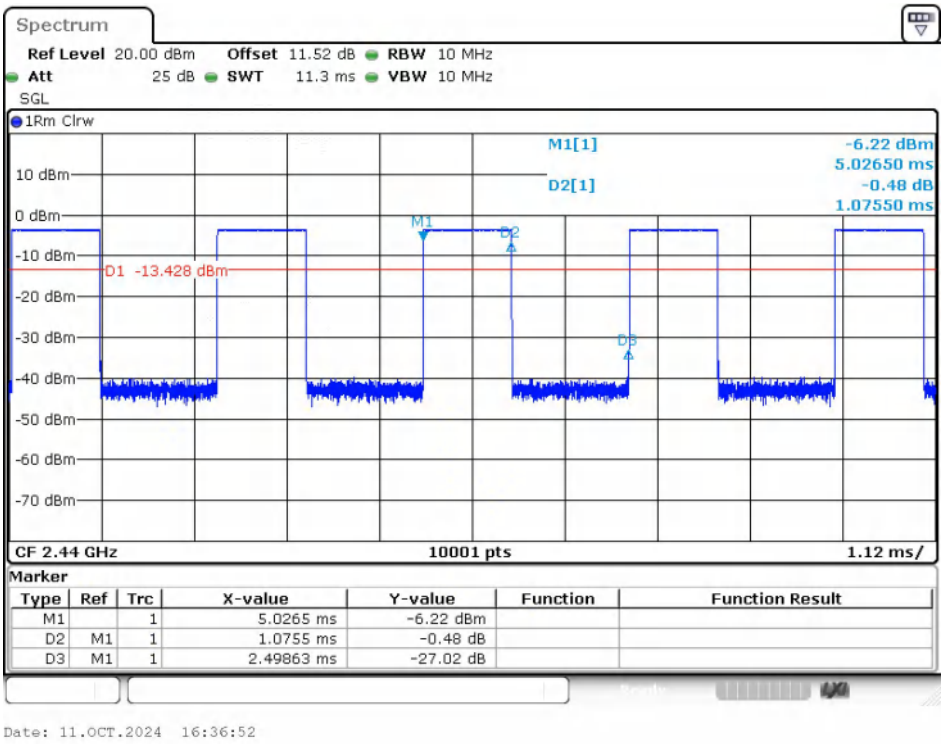
BLE 1M_Channel 19



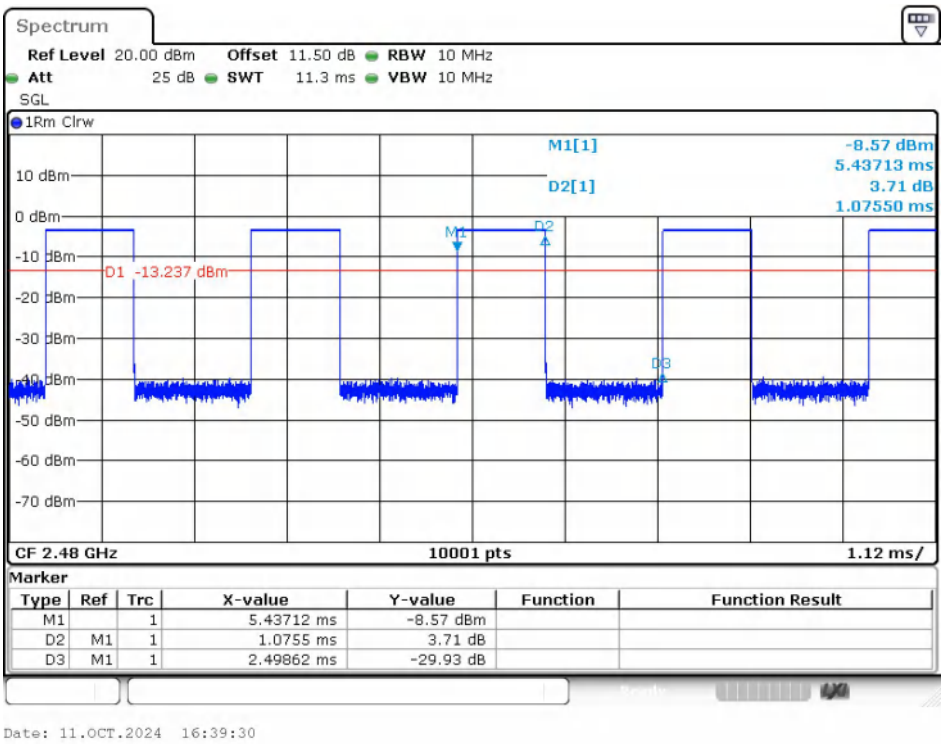
BLE 1M_Channel 39



BLE 2M_Channel 0



BLE 2M_Channel 19



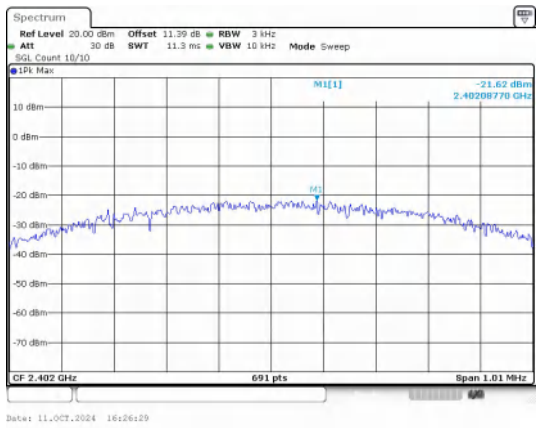
BLE 2M_Channel 39

6) Power Spectral Density

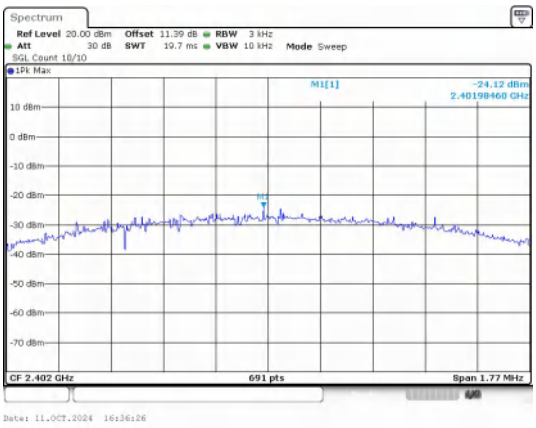
Test Result

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-21.62	≤8	PASS
BLE 1M	19	-20.22	≤8	PASS
BLE 1M	39	-20.20	≤8	PASS
BLE 2M	0	-24.12	≤8	PASS
BLE 2M	19	-25.07	≤8	PASS
BLE 2M	39	-23.30	≤8	PASS

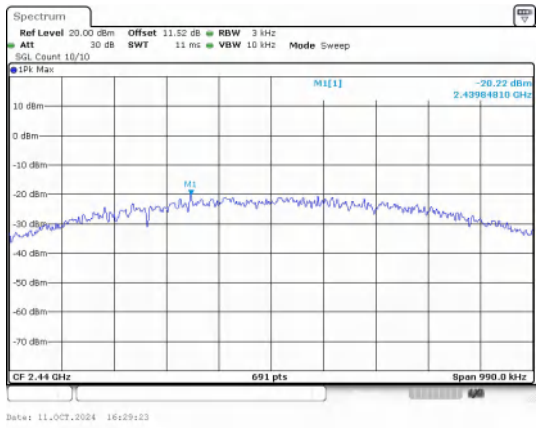
Test Graphs



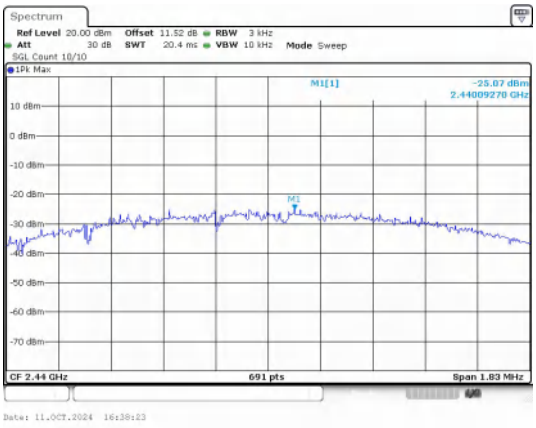
BLE 1M_Channel 0



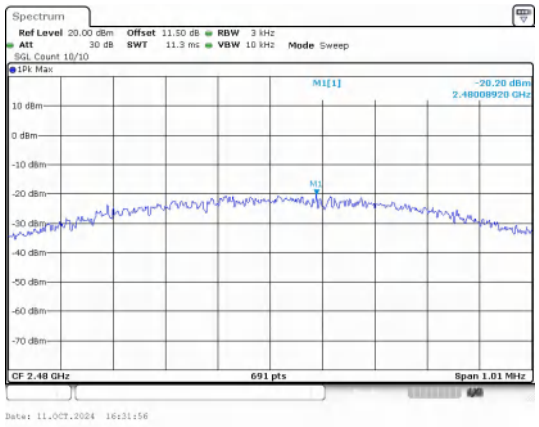
BLE 2M_Channel 0



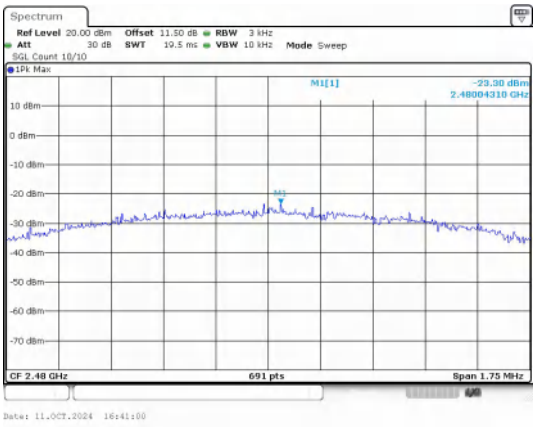
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 39