Appendix B

Report No.:	CISRR24080905502
FCC ID:	2BGWM-DUPODS-G108
Product Name:	Xiaodu smart clip-on earphones
Model No.:	DuPods G108
Test Engineer:	Jimmy Huang
Supervised by:	Rory Huang

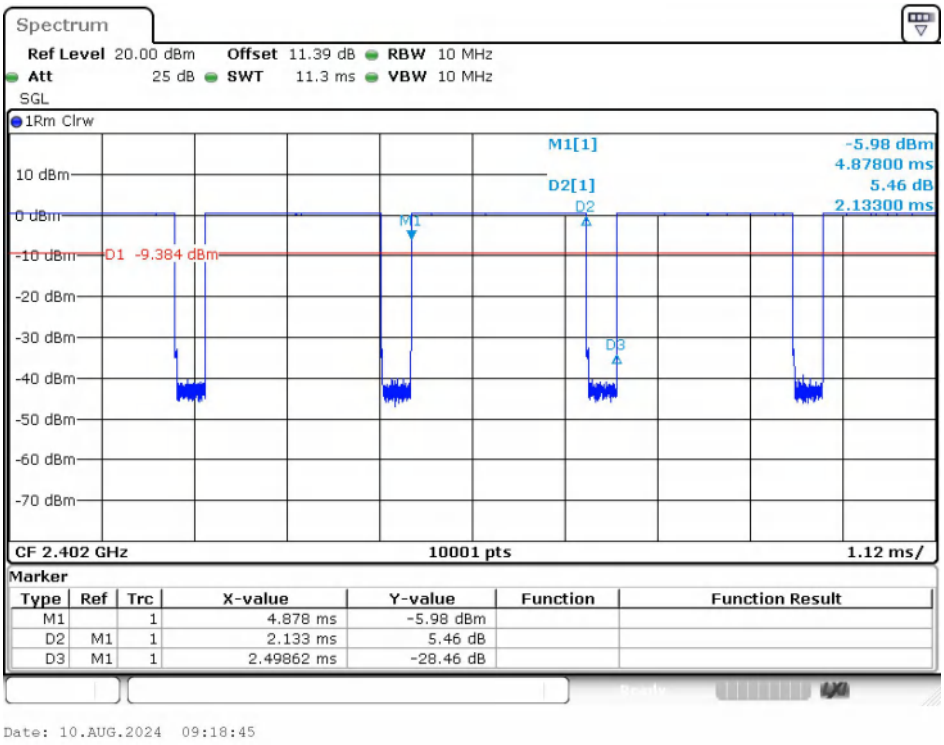
1) Duty Cycle

Right:

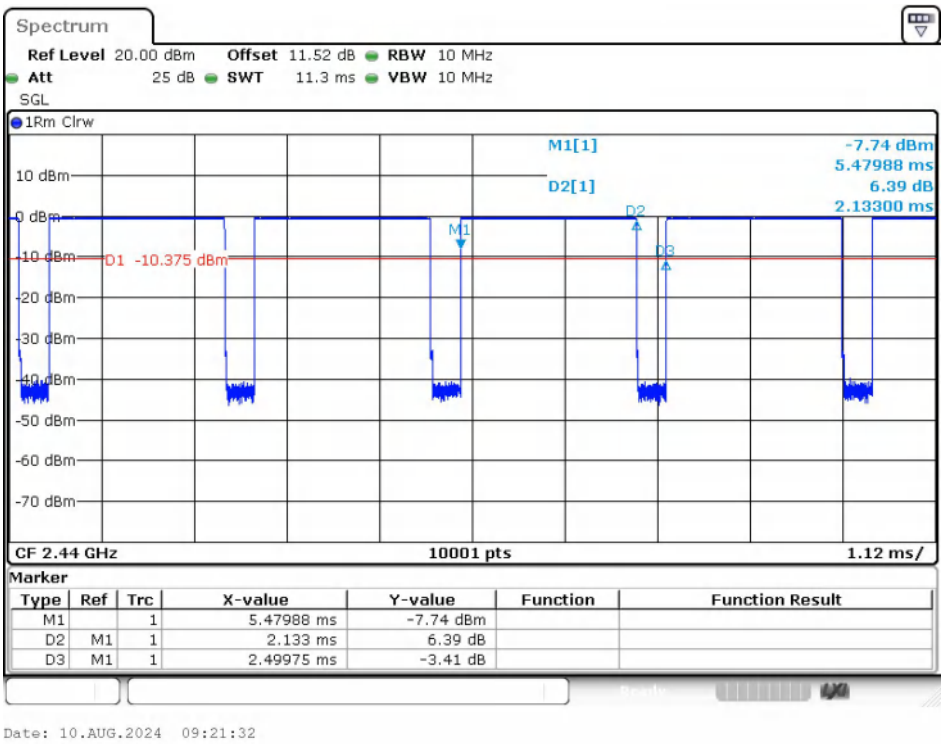
Test Result

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	2.500	85.33	0.8533	0.689	0.47
	39	2.134	2.500	85.37	0.8537	0.6869	0.47
BLE 2M	0	1.081	2.499	43.27	0.4327	3.6381	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

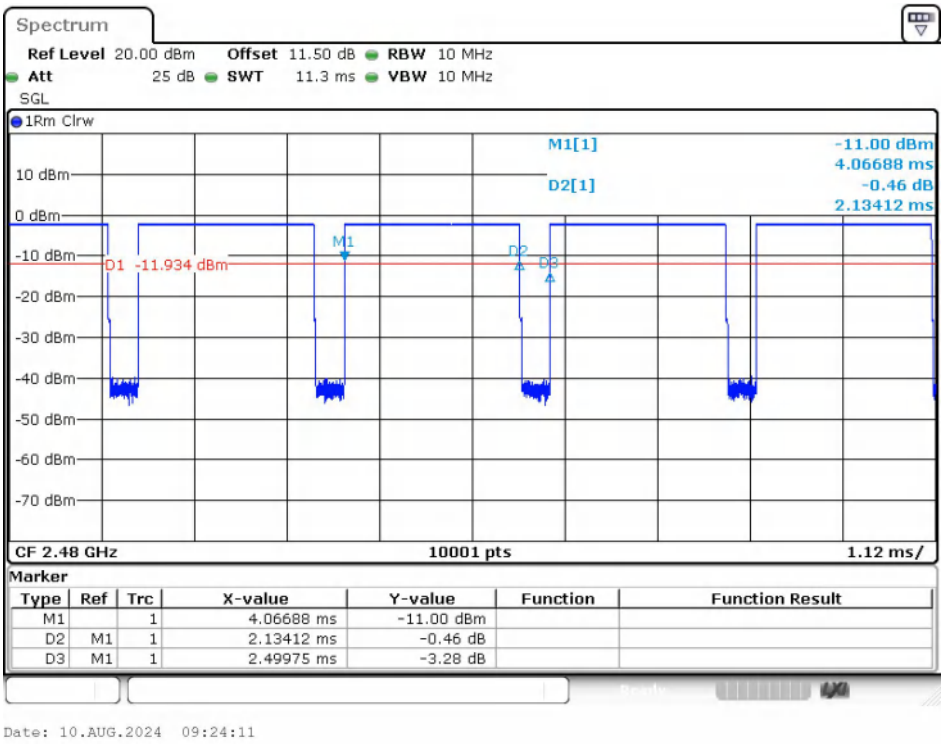
Test Graphs



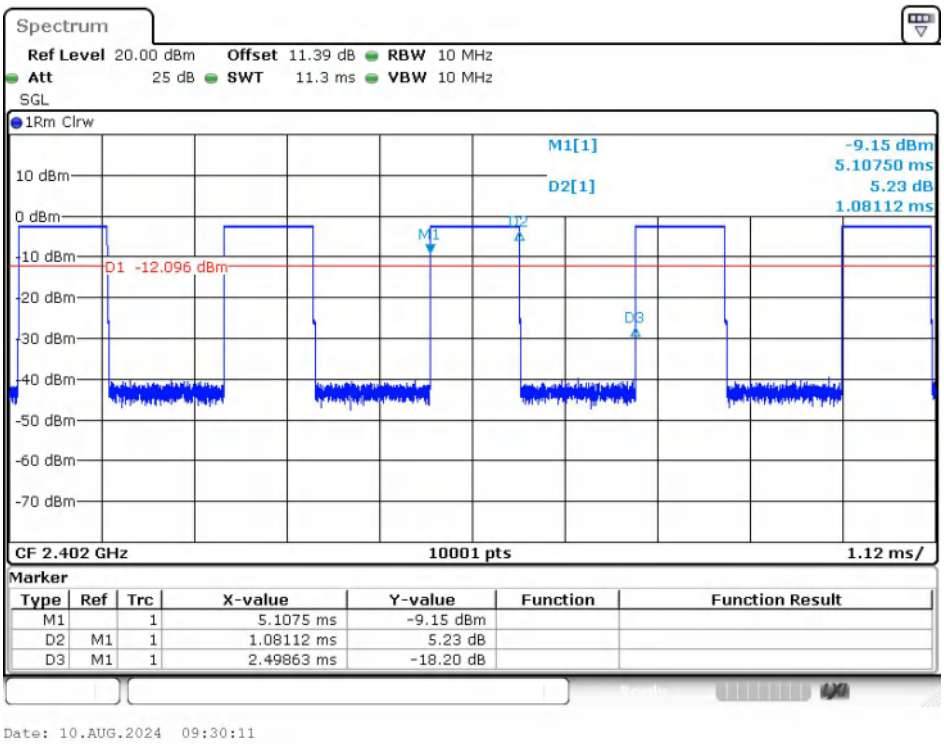
BLE 1M_Channel 0



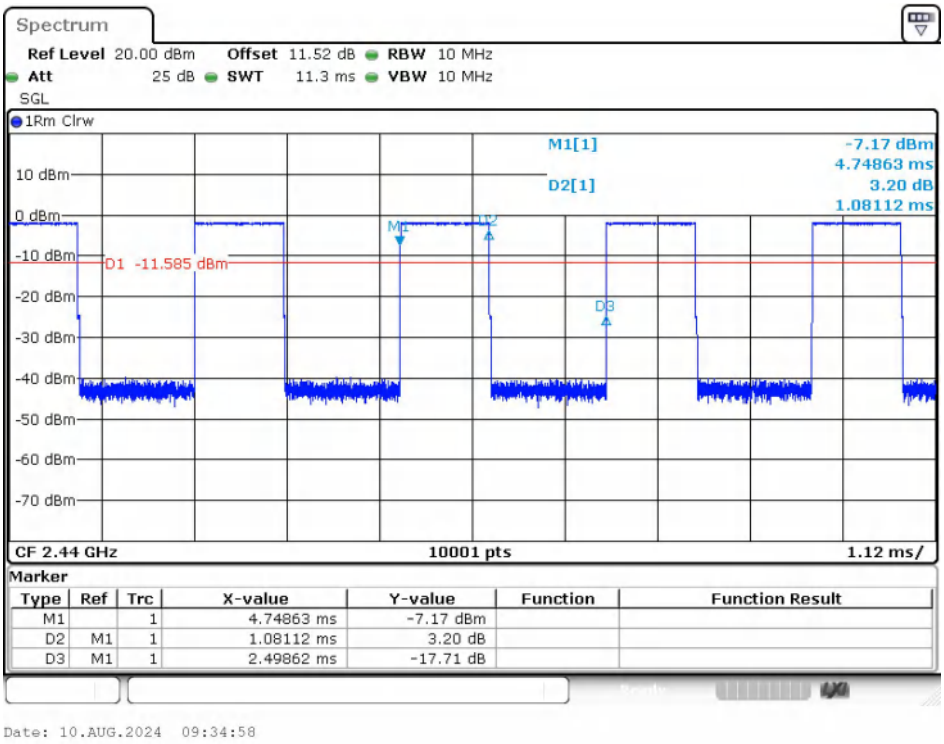
BLE 1M_Channel 19



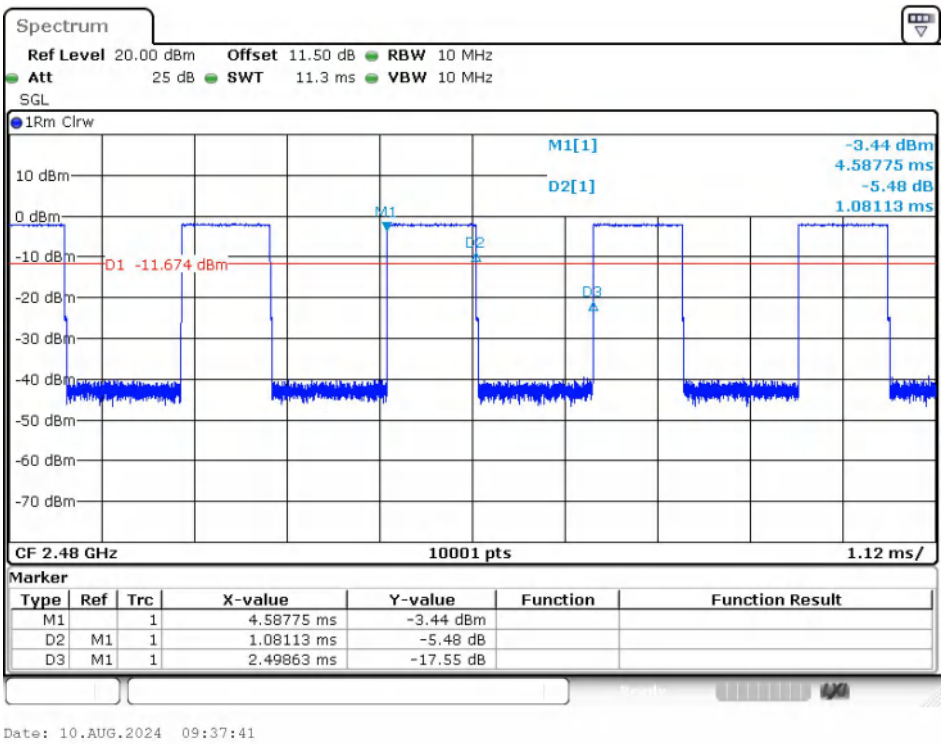
BLE 1M_Channel 39



BLE 2M_Channel 0



BLE 2M_Channel 19



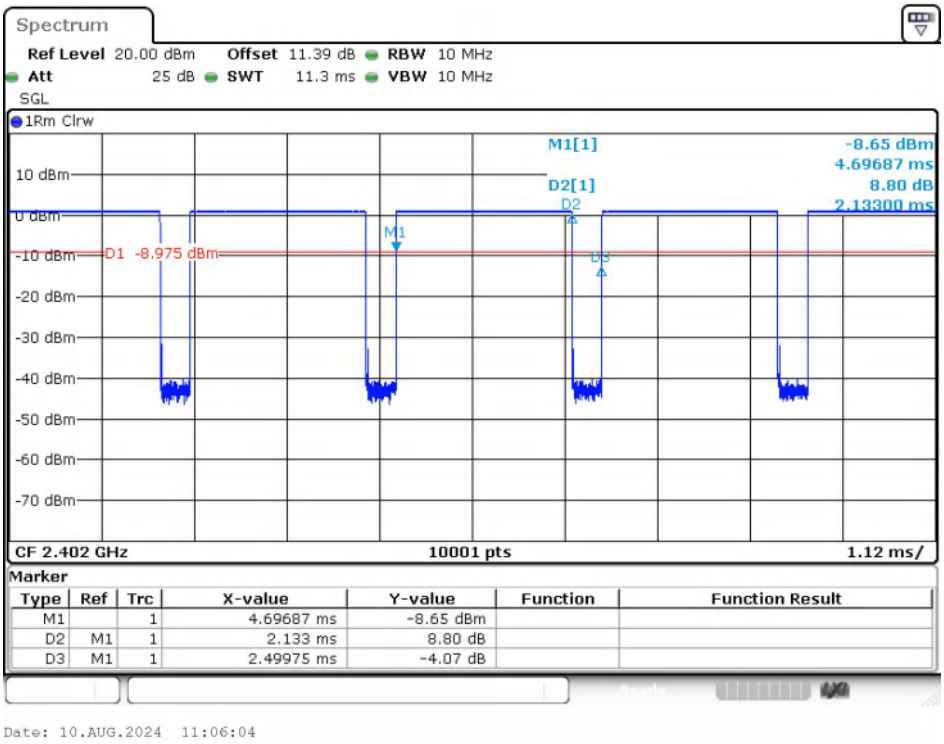
BLE 2M_Channel 39

Left:

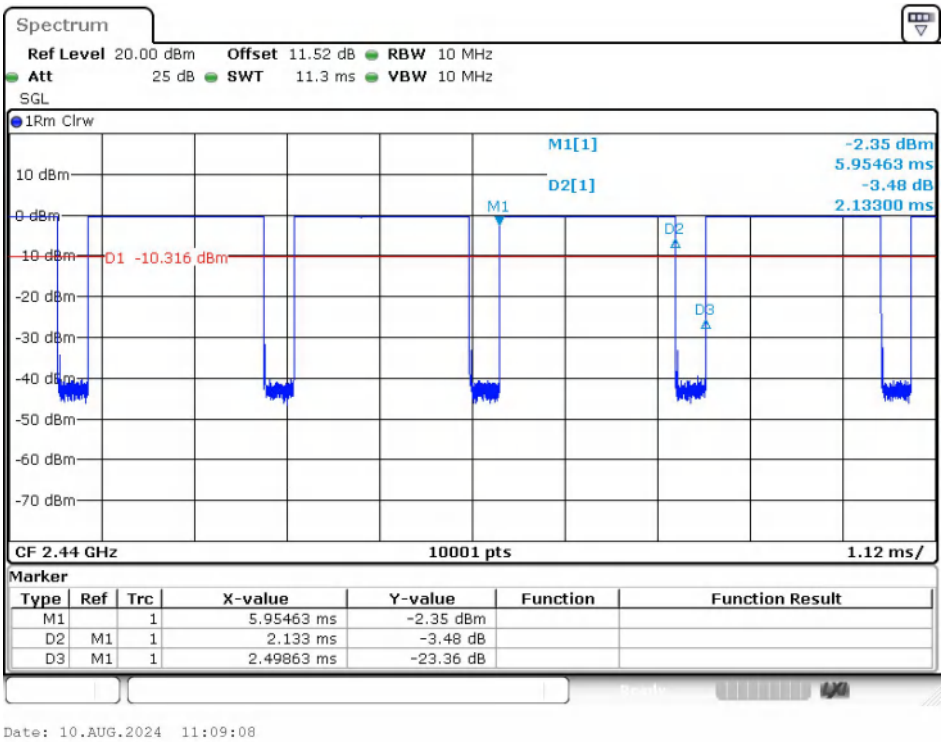
Test Result

Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
BLE 1M	0	2.133	2.500	85.33	0.8533	0.689
	19	2.133	2.499	85.37	0.8537	0.6869
	39	2.133	2.499	85.37	0.8537	0.6869
BLE 2M	0	1.081	2.499	43.27	0.4327	3.6381
	19	1.081	2.499	43.27	0.4327	3.6381
	39	1.081	2.499	43.27	0.4327	3.6381

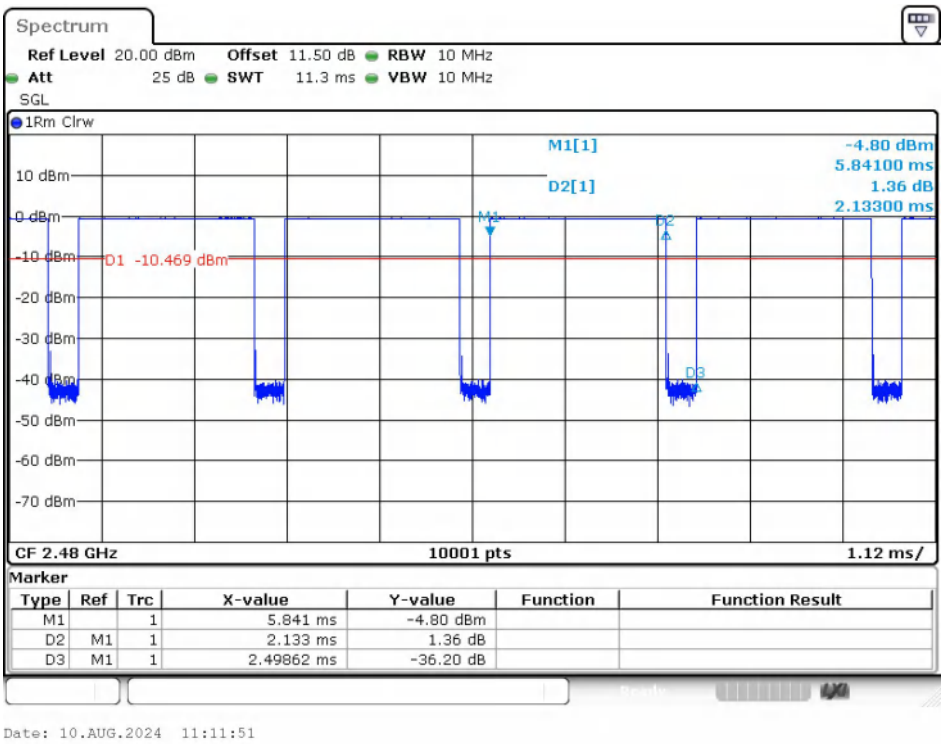
Test Graphs



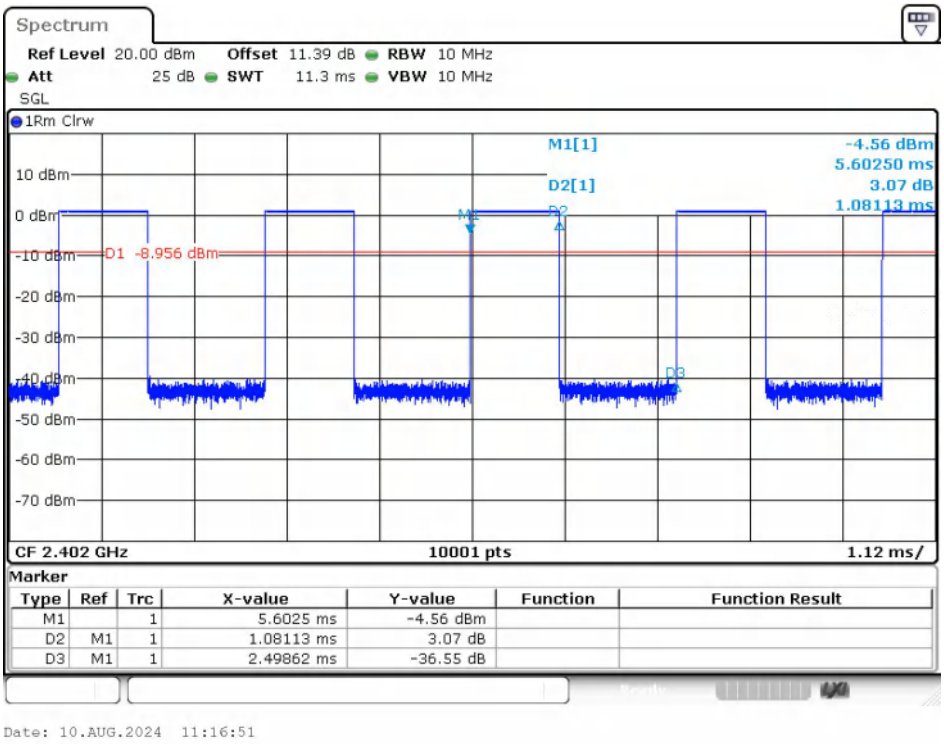
BLE 1M_Channel 0



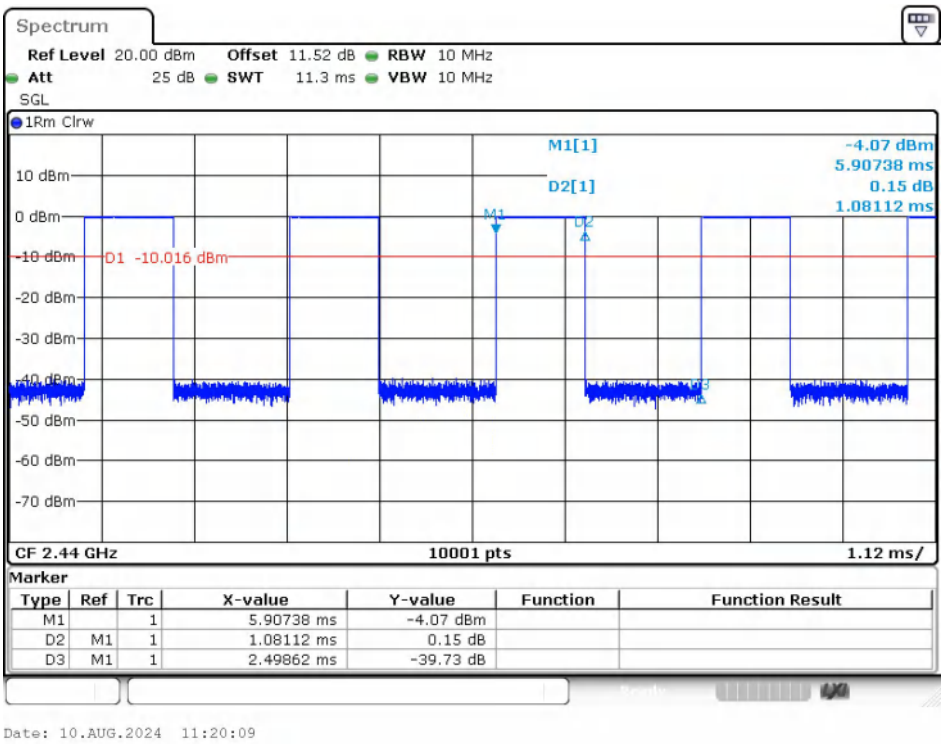
BLE 1M_Channel 19



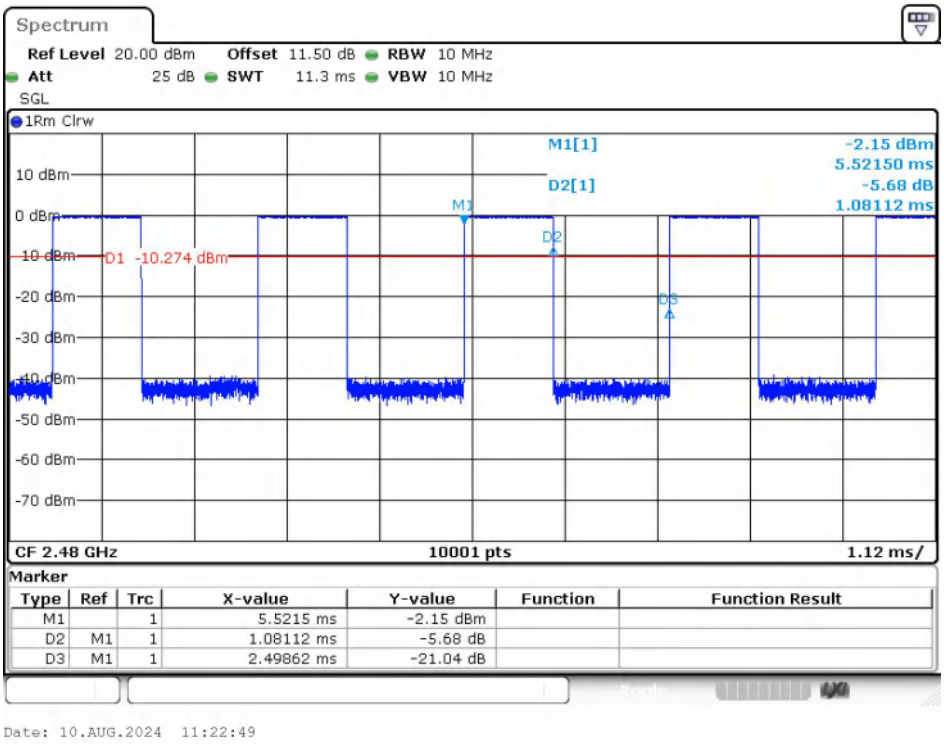
BLE 1M_Channel 39



BLE 2M_Channel 0



BLE 2M_Channel 19



BLE 2M_Channel 39

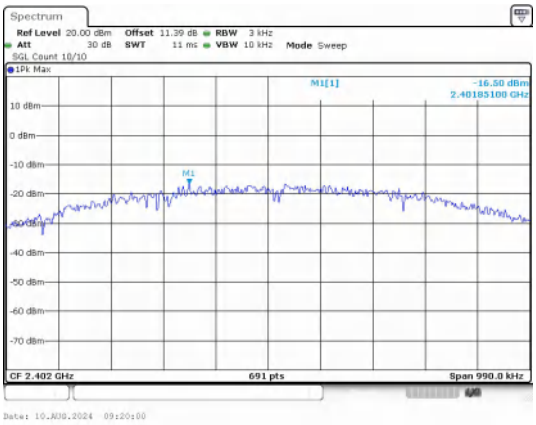
2) Power Spectral Density

Right:

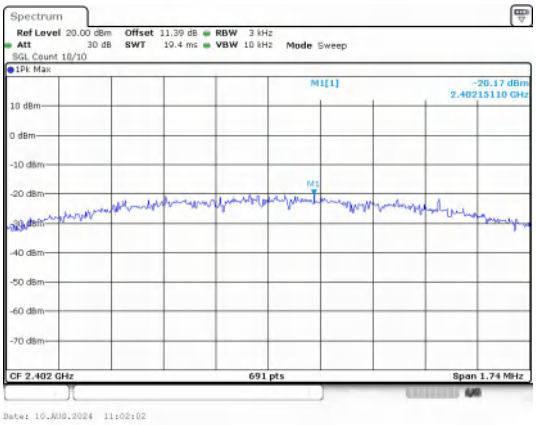
Test Result

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-16.502	≤8	PASS
BLE 1M	19	-17.215	≤8	PASS
BLE 1M	39	-18.819	≤8	PASS
BLE 2M	0	-20.174	≤8	PASS
BLE 2M	19	-18.689	≤8	PASS
BLE 2M	39	-21.715	≤8	PASS

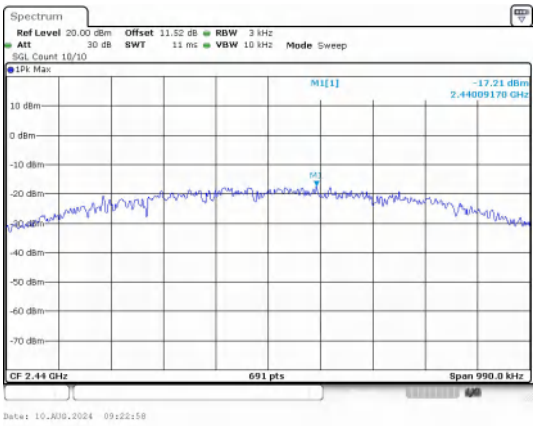
Test Graphs



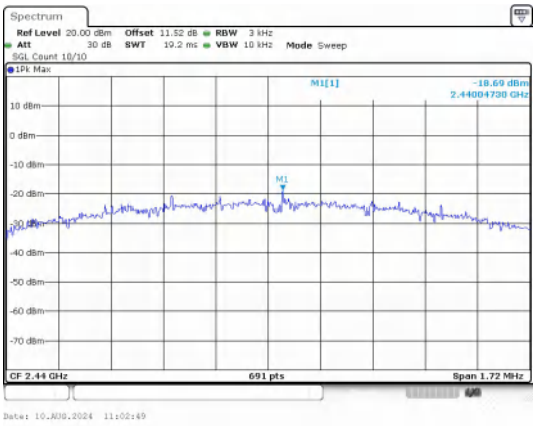
BLE 1M_Channel 0



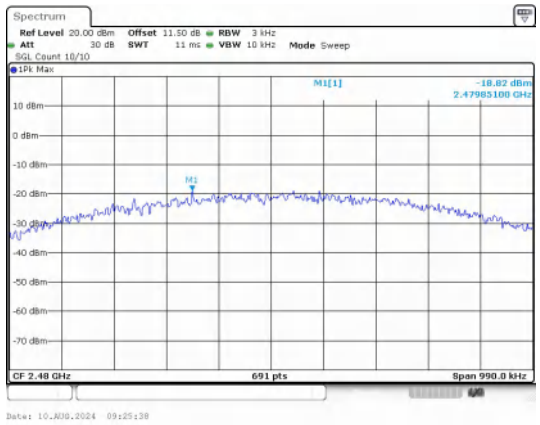
BLE 2M_Channel 0



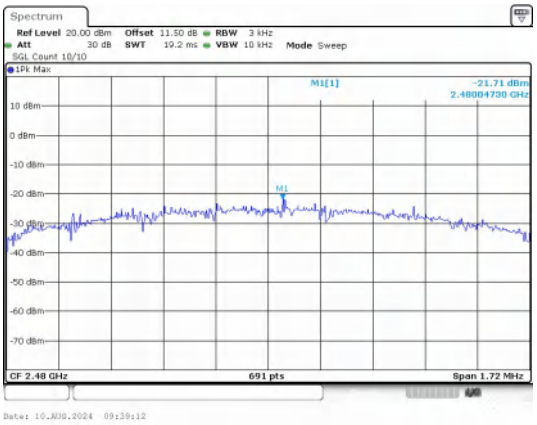
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



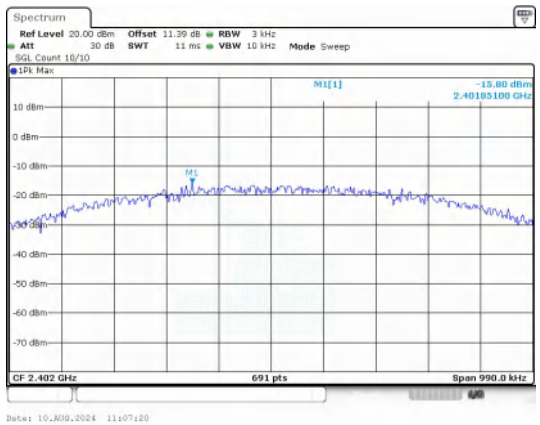
BLE 2M_Channel 39

Left:

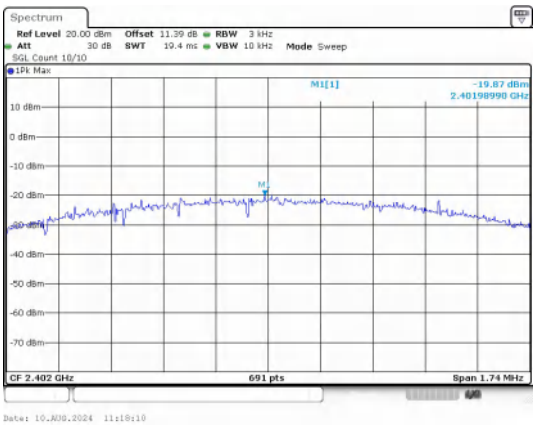
Test Result

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-15.804	≤8	PASS
BLE 1M	19	-17.145	≤8	PASS
BLE 1M	39	-17.138	≤8	PASS
BLE 2M	0	-19.875	≤8	PASS
BLE 2M	19	-21.012	≤8	PASS
BLE 2M	39	-20.072	≤8	PASS

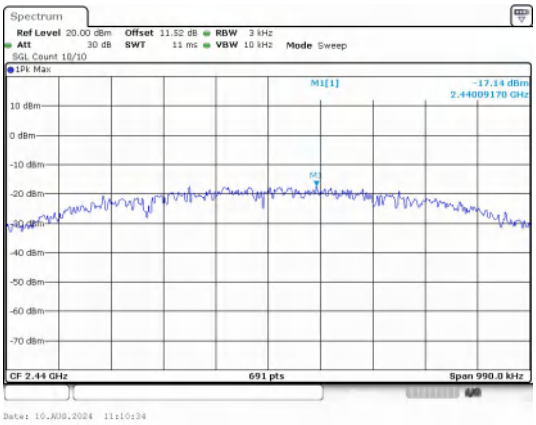
Test Graphs



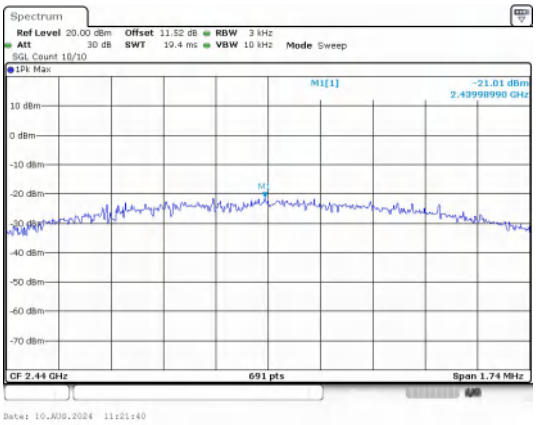
BLE 1M_Channel 0



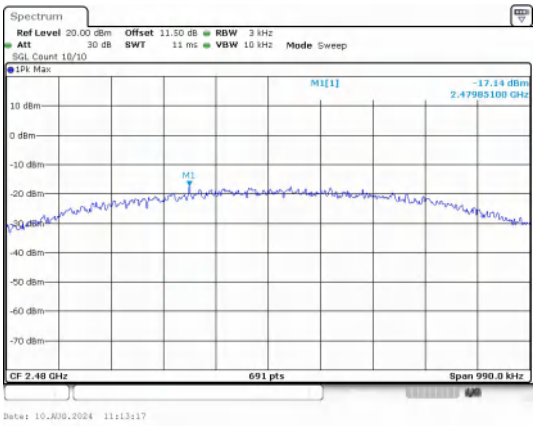
BLE 2M_Channel 0



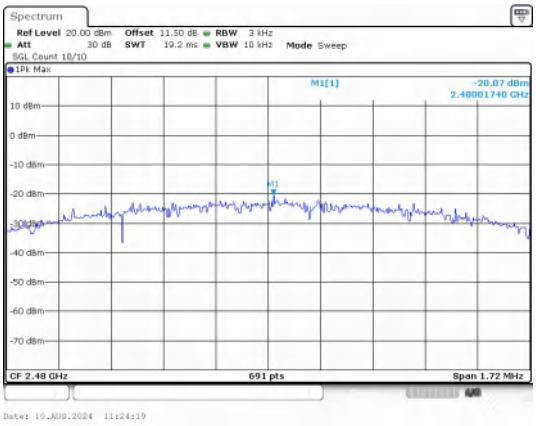
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 39

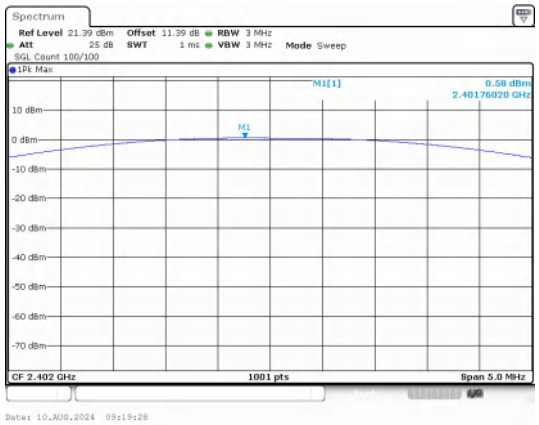
3) Conducted Output Power

Right:

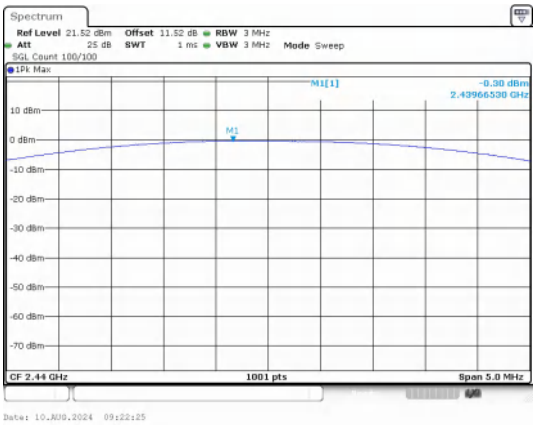
Test Result

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	0.58	1.14	≤30	PASS
	19	-0.30	0.93	≤30	PASS
	39	-1.75	0.67	≤30	PASS
BLE 2M	0	-2.01	0.63	≤30	PASS
	19	-1.53	0.70	≤30	PASS
	39	-1.58	0.69	≤30	PASS

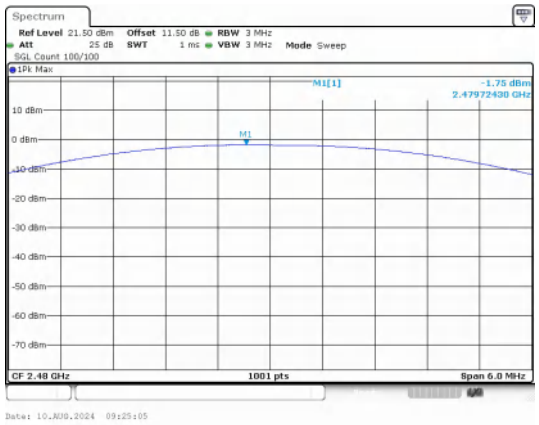
Test Graphs



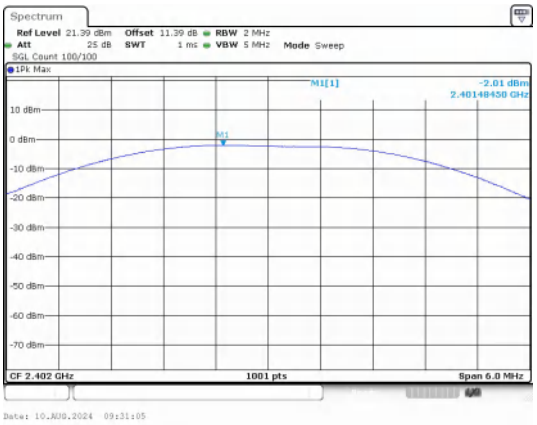
Peak Output Power
BLE 1M_Channel 0



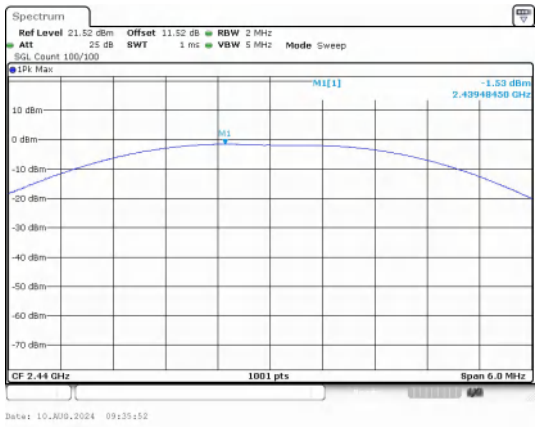
Peak Output Power
BLE 1M_Channel 19



Peak Output Power
BLE 1M_Channel 39

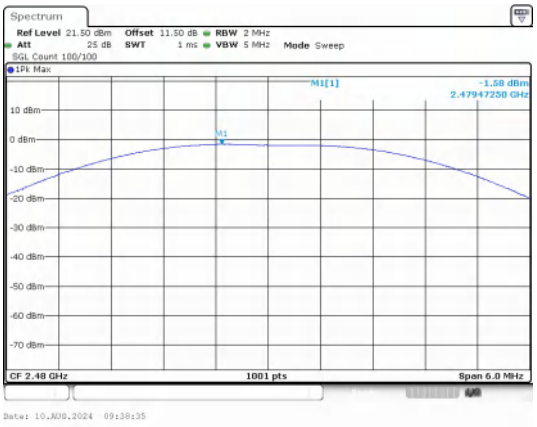


Peak Output Power
BLE 2M_Channel 0



Peak Output Power

BLE 2M_Channel 19



Peak Output Power

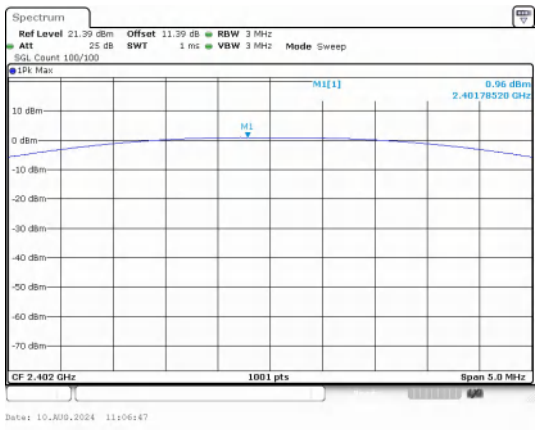
BLE 2M_Channel 39

Left:

Test Result

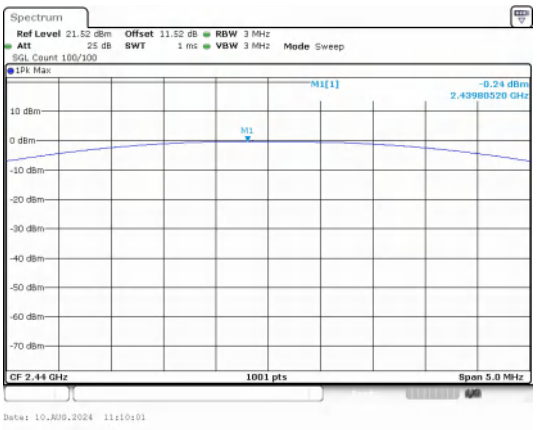
Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	0.97	1.25	≤30	PASS
	19	-0.24	0.95	≤30	PASS
	39	-0.43	0.91	≤30	PASS
BLE 2M	0	1.15	1.30	≤30	PASS
	19	0.04	1.01	≤30	PASS
	39	-0.22	0.95	≤30	PASS

Test Graphs



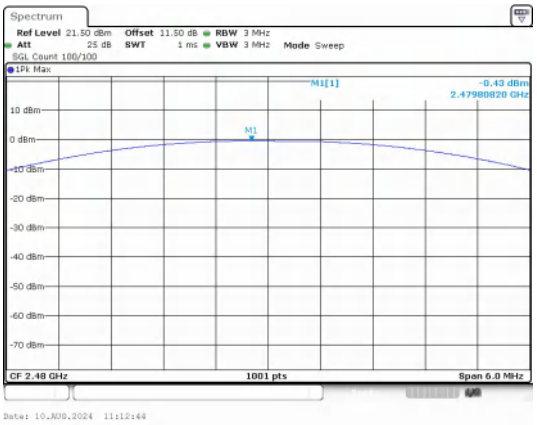
Peak Output Power

BLE 1M_Channel 0



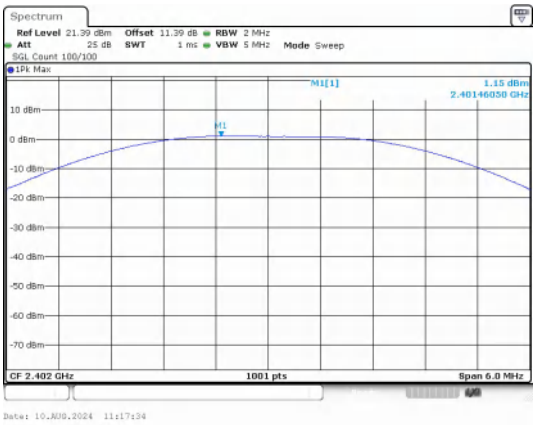
Peak Output Power

BLE 1M_Channel 19



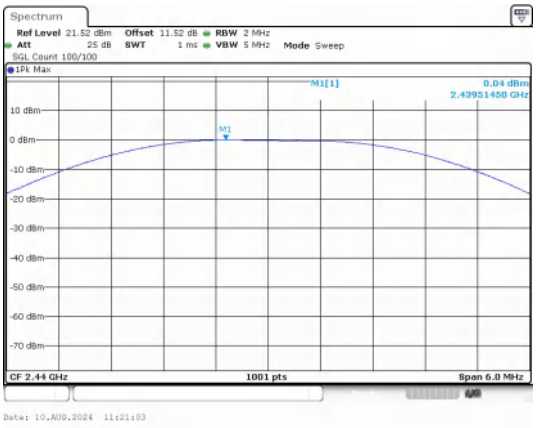
Peak Output Power

BLE 1M_Channel 39



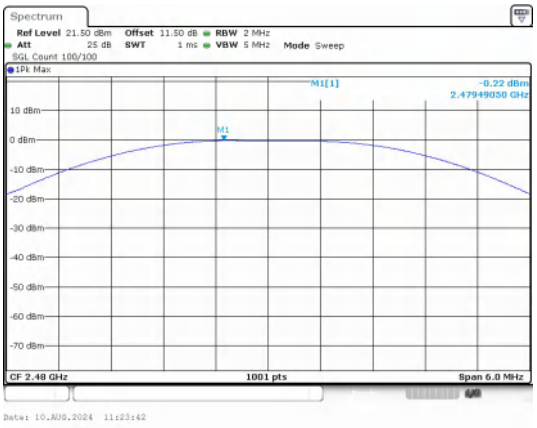
Peak Output Power

BLE 2M_Channel 0



Peak Output Power

BLE 2M_Channel 19



Peak Output Power

BLE 2M_Channel 39

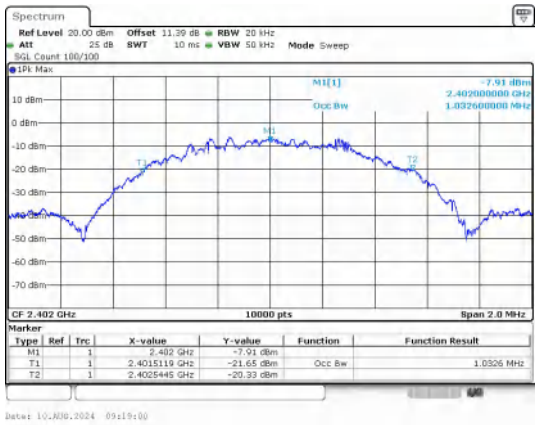
4) 99% Bandwidth

Right:

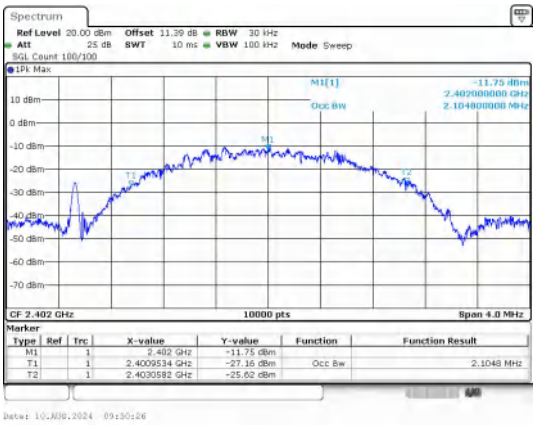
Test Result

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0326
BLE 1M	19	2440	1.0338
BLE 1M	39	2480	1.0306
BLE 2M	0	2402	2.1048
BLE 2M	19	2440	2.1004
BLE 2M	39	2480	2.0952

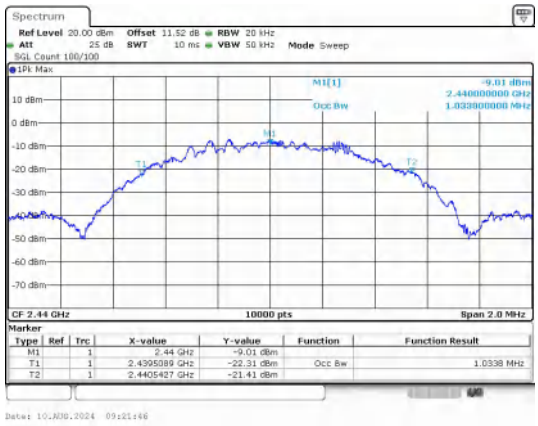
Test Graphs



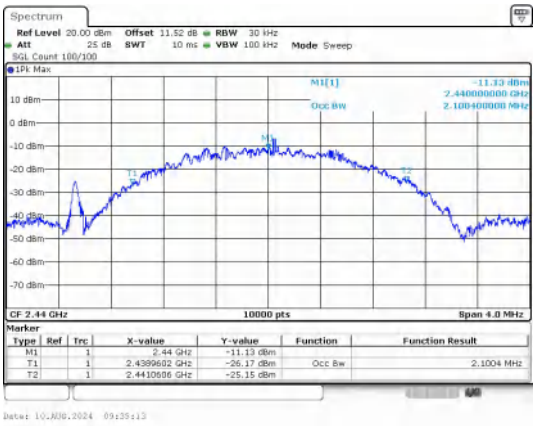
BLE 1M_Channel 0



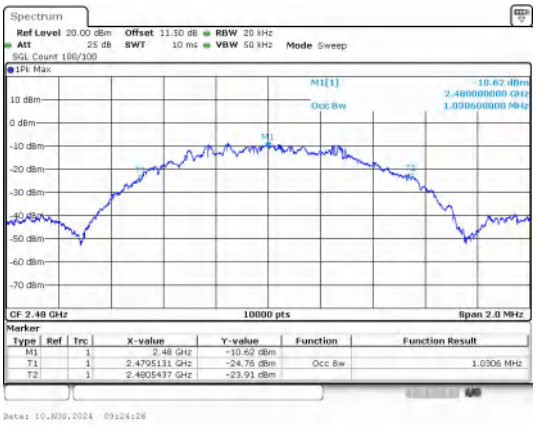
BLE 2M_Channel 0



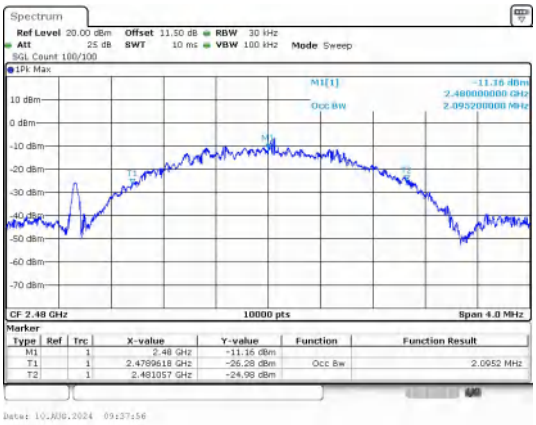
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



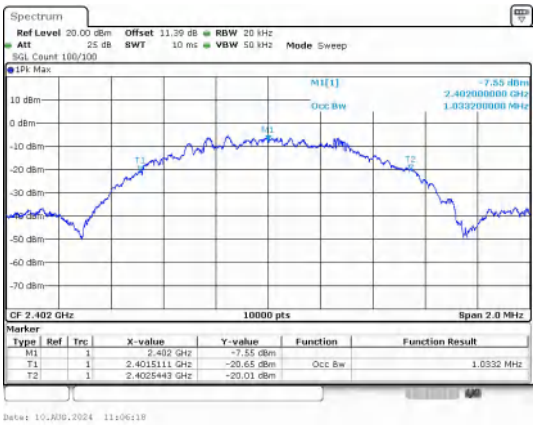
BLE 2M_Channel 39

Left:

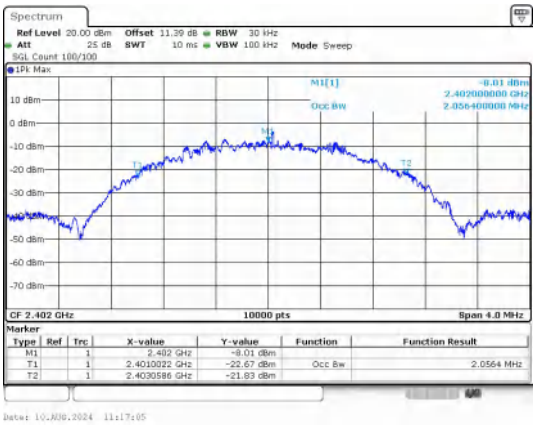
Test Result

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0332
BLE 1M	19	2440	1.0312
BLE 1M	39	2480	1.0322
BLE 2M	0	2402	2.0564
BLE 2M	19	2440	2.0612
BLE 2M	39	2480	2.0444

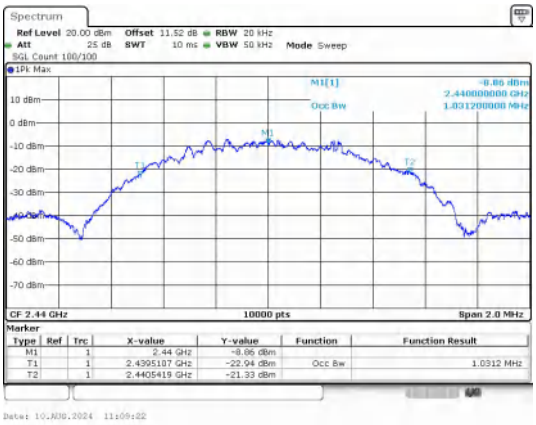
Test Graphs



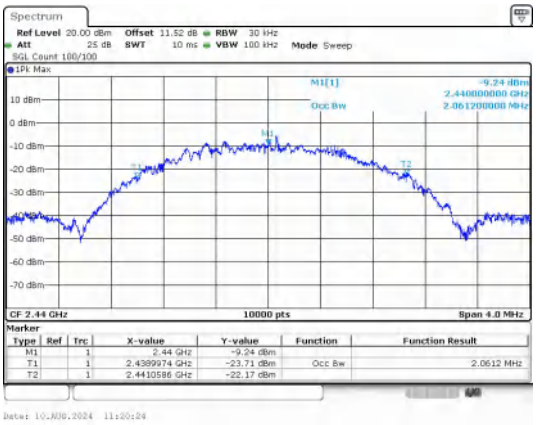
BLE 1M_Channel 0



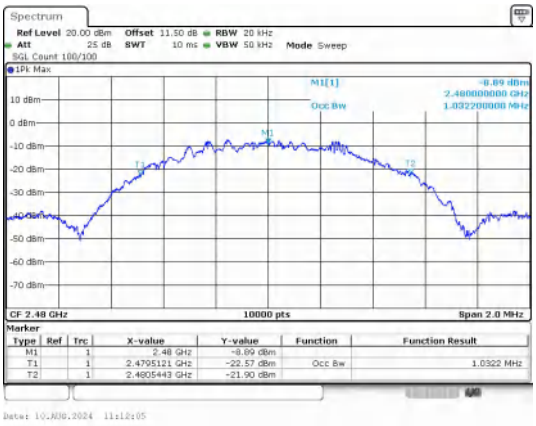
BLE 2M_Channel 0



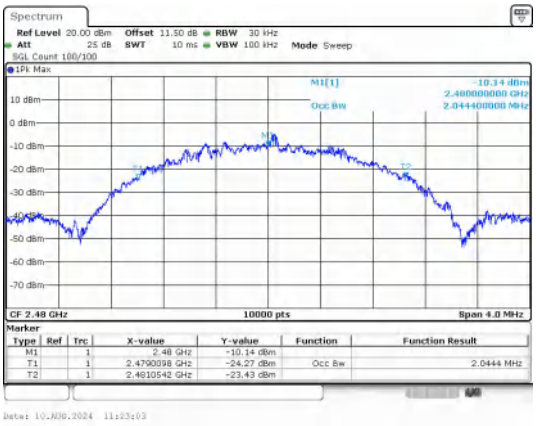
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 39

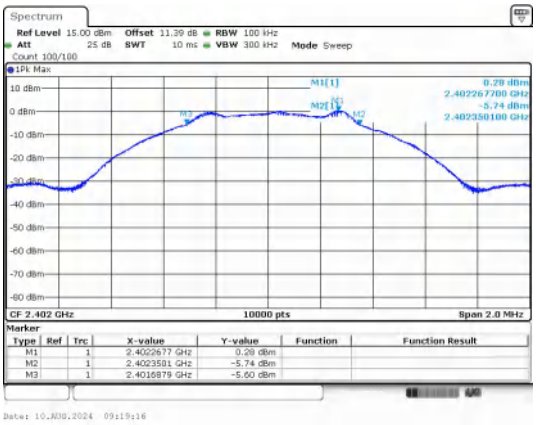
5) 6dB Bandwidth

Right:

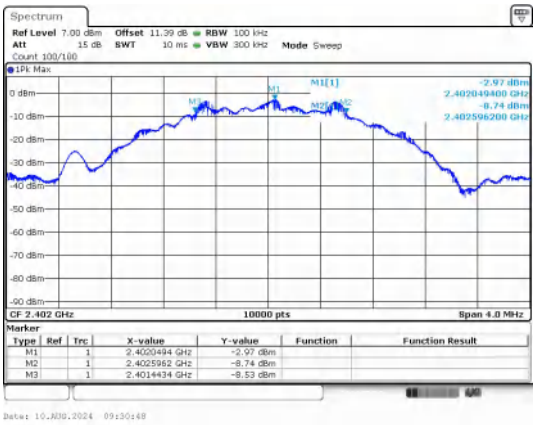
Test Result

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	1.160		PASS
	19	2440	1.150		PASS
	39	2480	1.150		PASS

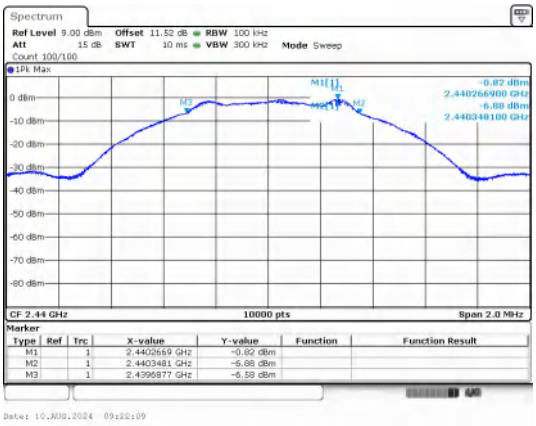
Test Graphs



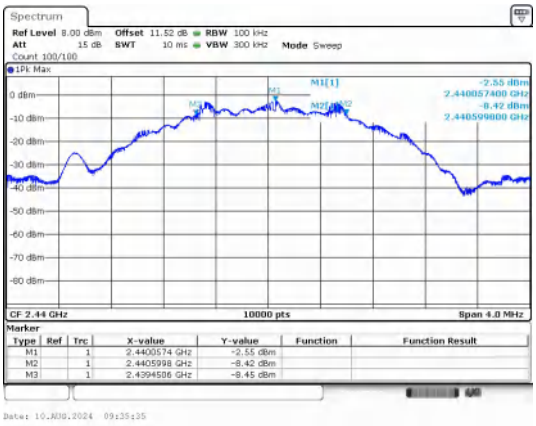
BLE 1M_Channel 0



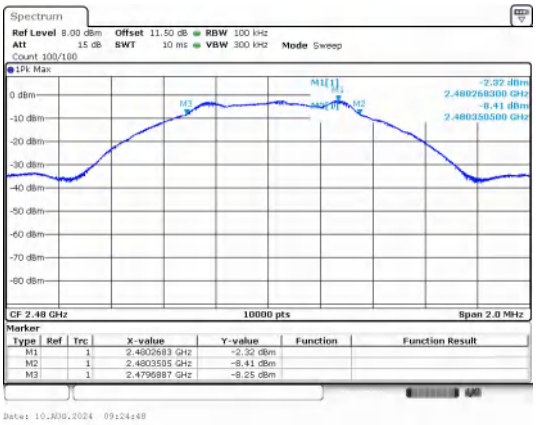
BLE 2M_Channel 0



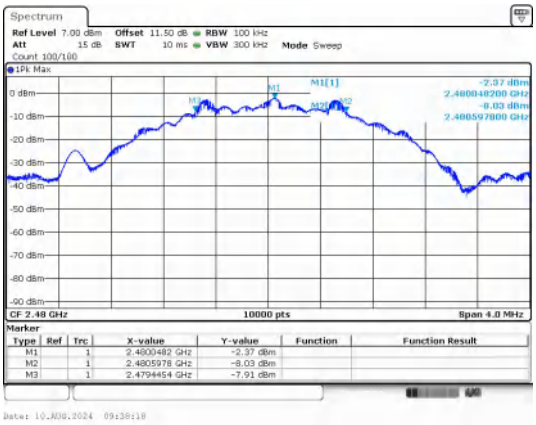
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



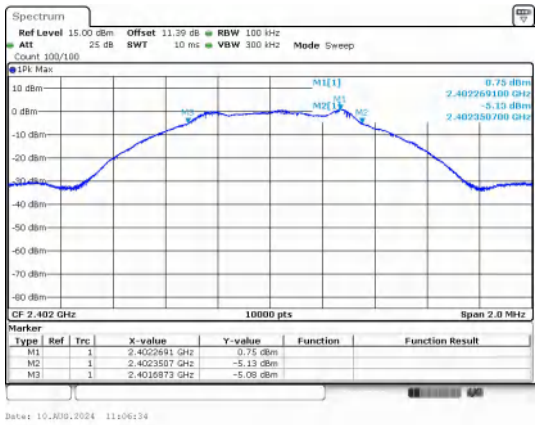
BLE 2M_Channel 39

Left:

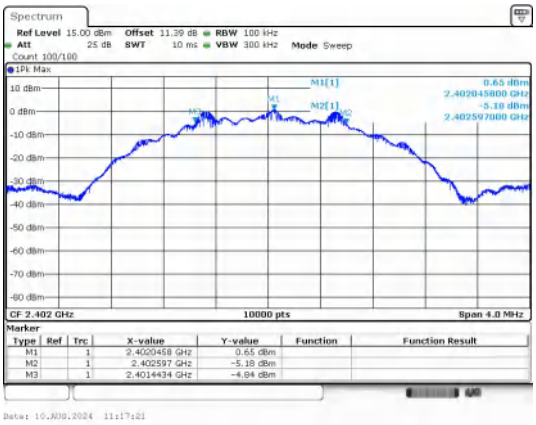
Test Result

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	1.160		PASS
	19	2440	1.160		PASS
	39	2480	1.150		PASS

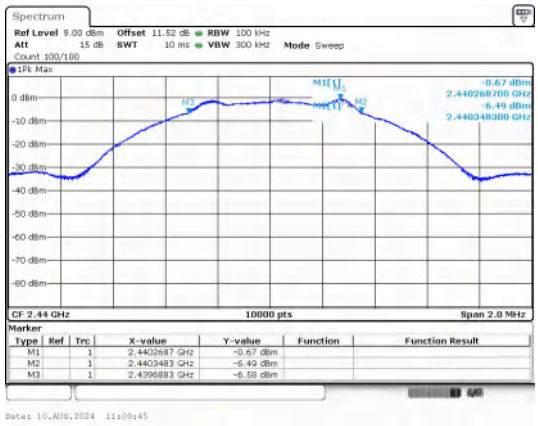
Test Graphs



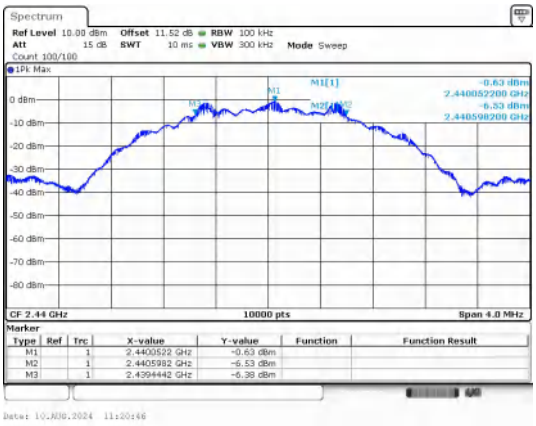
BLE 1M_Channel 0



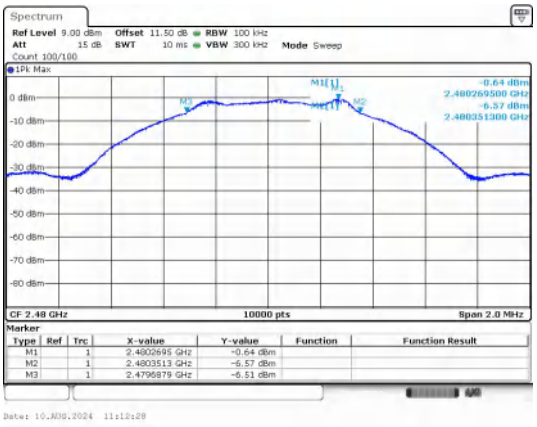
BLE 2M_Channel 0



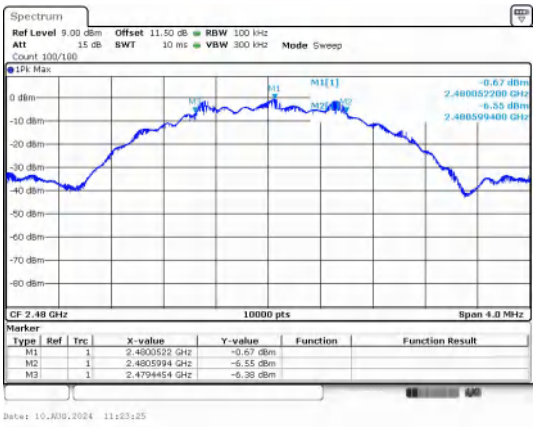
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 39

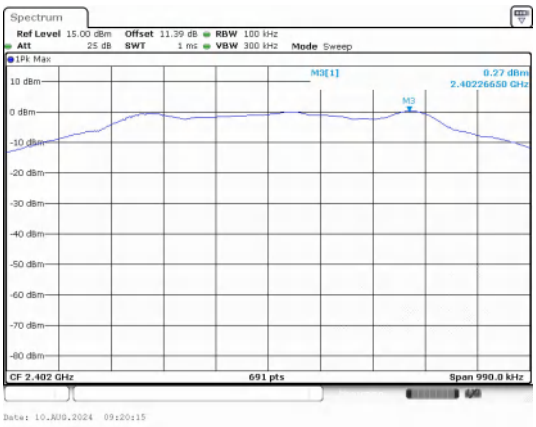
6) Conducted Out Of Band Emission

Right:

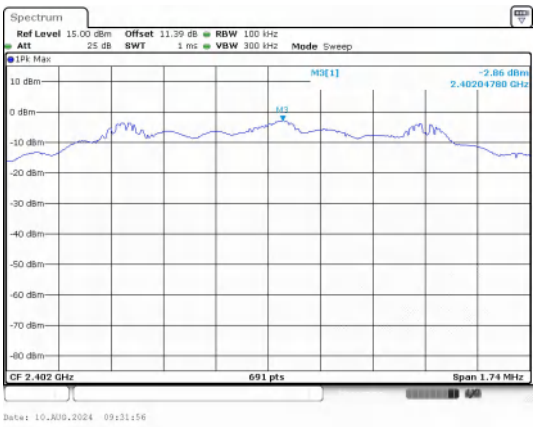
Test Result

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2399.00	-42.311	-19.73	-22.581	PASS
		2400.00	-49.802	-19.73	-30.072	PASS
		9602.20	-37.791	-19.73	-18.061	PASS
	19	9753.73	-34.368	-20.65	-13.718	PASS
	39	2483.50	-47.699	-22.37	-25.329	PASS
		9914.37	-33.885	-22.37	-11.515	PASS
BLE 2M	0	2400.00	-36.705	-22.86	-13.845	PASS
		9602.25	-38.287	-22.86	-15.427	PASS
	19	9753.73	-34.572	-22.41	-12.162	PASS
	39	2483.50	-50.344	-22.44	-27.904	PASS
		9914.37	-33.827	-22.44	-11.387	PASS

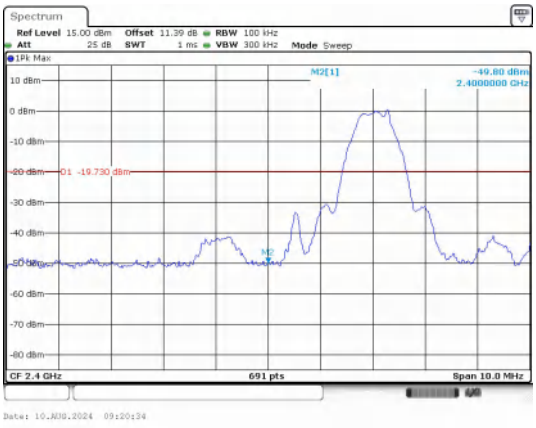
Test Graphs

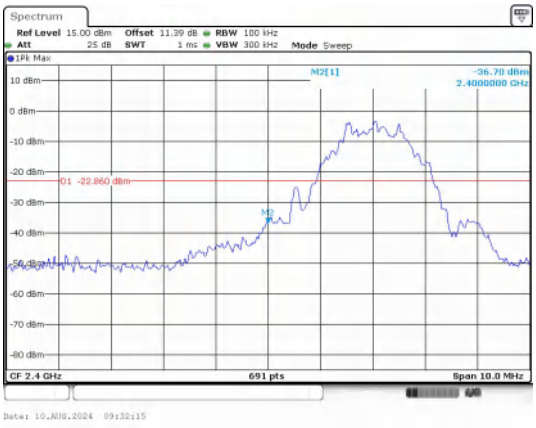


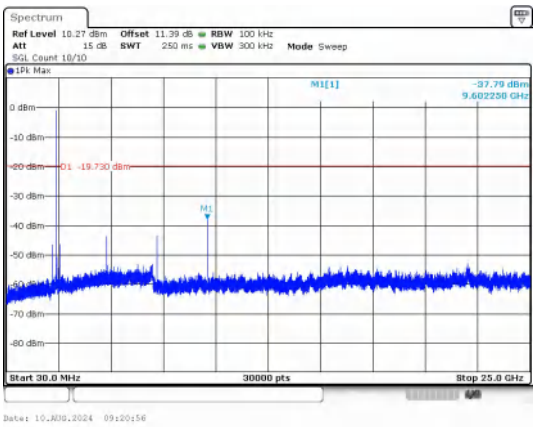
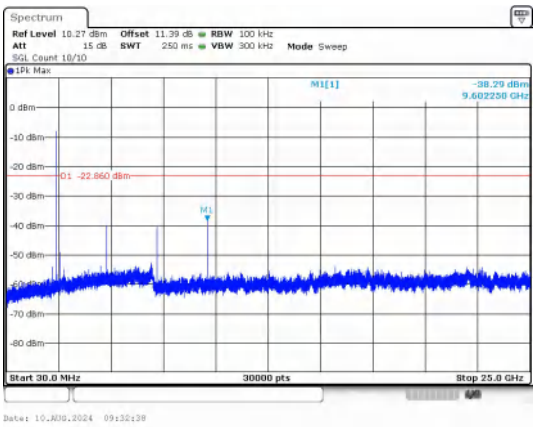
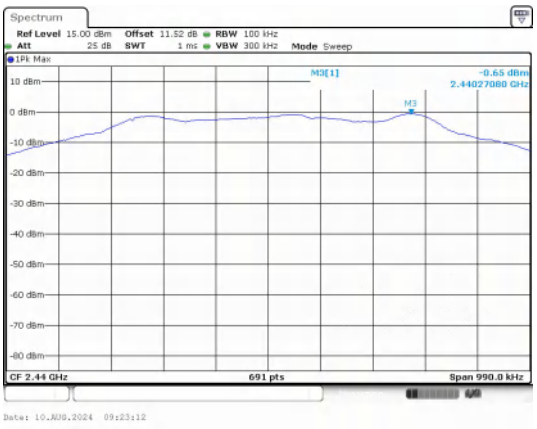
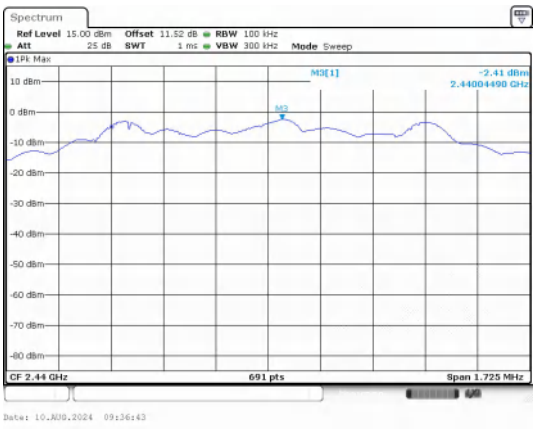
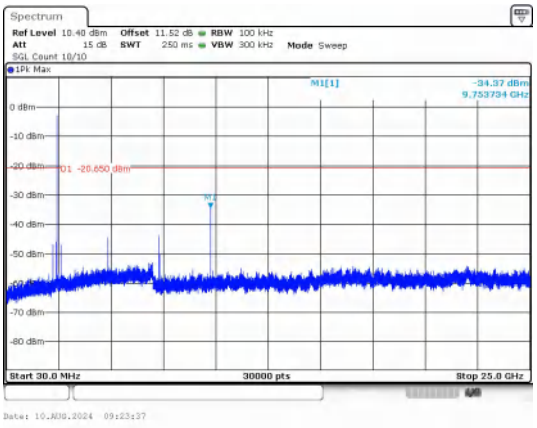
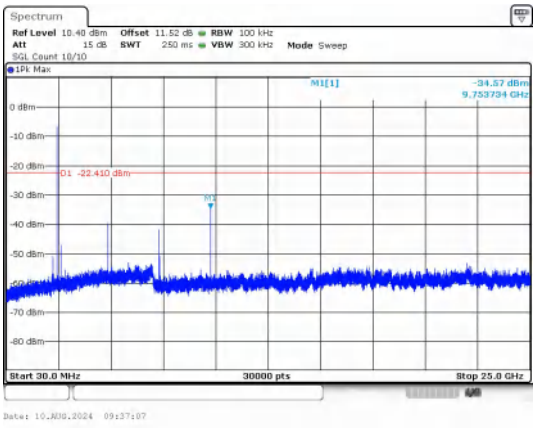
In-Band Reference Level
BLE 1M_Channel 0

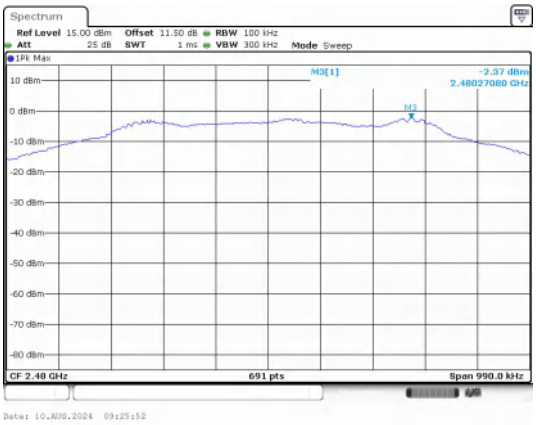


In-Band Reference Level
BLE 2M_Channel 0



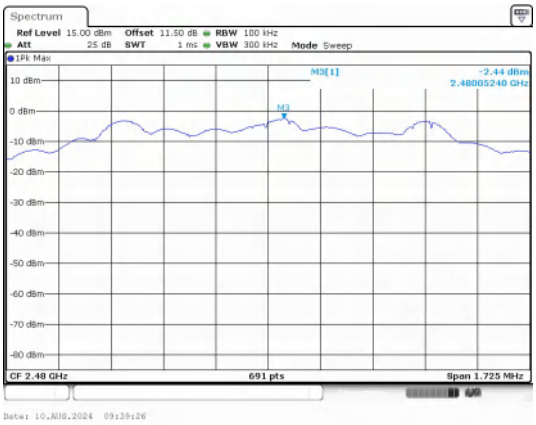


Out Of Band Emission BLE 1M_Channel 0	Out Of Band Emission BLE 2M_Channel 0
	
30.0 MHz - 25000.0 MHz BLE 1M_Channel 0	30.0 MHz - 25000.0 MHz BLE 2M_Channel 0
	
In-Band Reference Level BLE 1M_Channel 19	In-Band Reference Level BLE 2M_Channel 19
	
30.0 MHz - 25000.0 MHz BLE 1M_Channel 19	30.0 MHz - 25000.0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



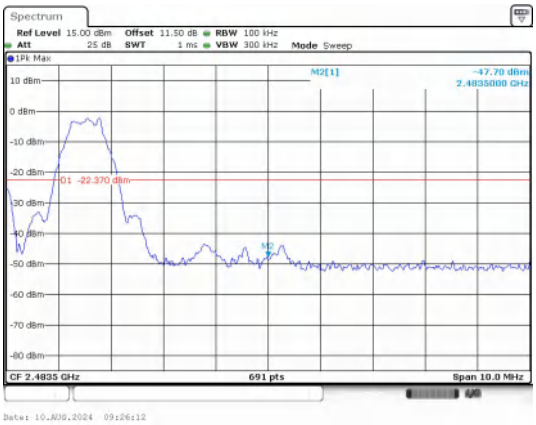
In-Band Reference Level

BLE 1M_Channel 39



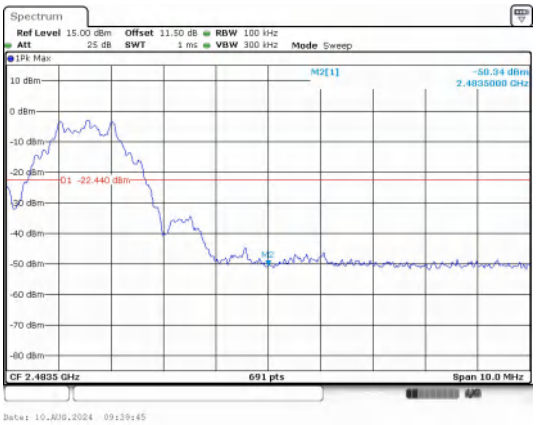
In-Band Reference Level

BLE 2M_Channel 39



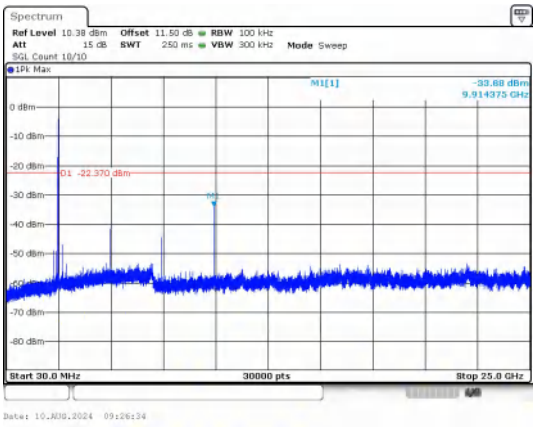
Out Of Band Emission

BLE 1M_Channel 39



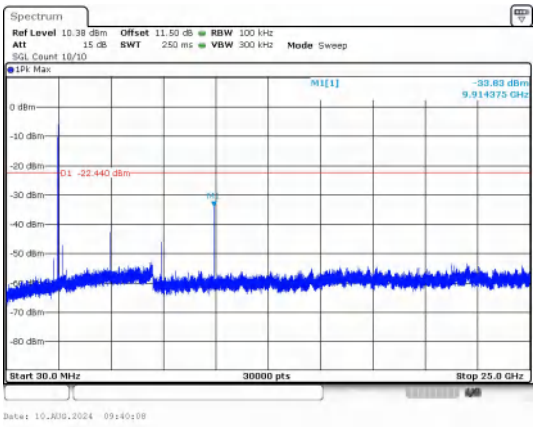
Out Of Band Emission

BLE 2M_Channel 39



30.0 MHz - 25000.0 MHz

BLE 1M_Channel 39



30.0 MHz - 25000.0 MHz

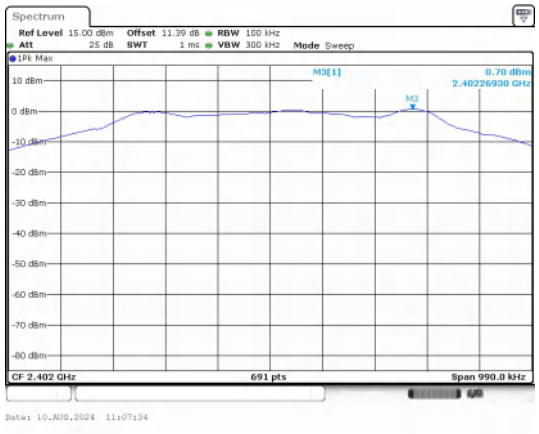
BLE 2M_Channel 39

Left:

Test Result

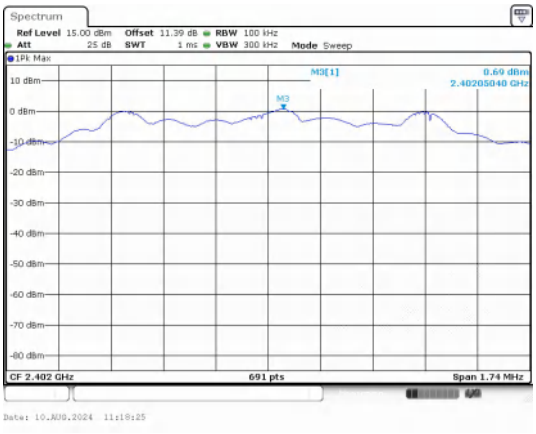
Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2398.94	-43.902	-19.3	-24.602	PASS
		2400.00	-48.613	-19.3	-29.313	PASS
		9602.20	-37.573	-19.3	-18.273	PASS
	19	9753.73	-34.231	-20.56	-13.671	PASS
	39	2483.50	-48.175	-20.66	-27.515	PASS
		9914.37	-33.610	-20.66	-12.950	PASS
BLE 2M	0	2400.00	-32.538	-19.32	-13.218	PASS
		9602.25	-37.233	-19.32	-17.913	PASS
	19	9753.73	-34.178	-20.48	-13.698	PASS
	39	2483.50	-49.321	-20.69	-28.631	PASS
		9914.37	-33.662	-20.69	-12.972	PASS

Test Graphs



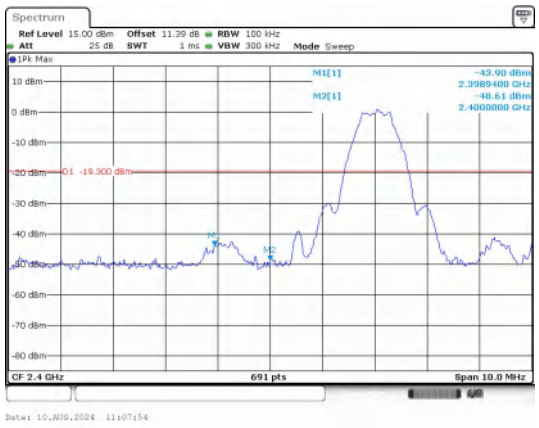
In-Band Reference Level

BLE 1M_Channel 0



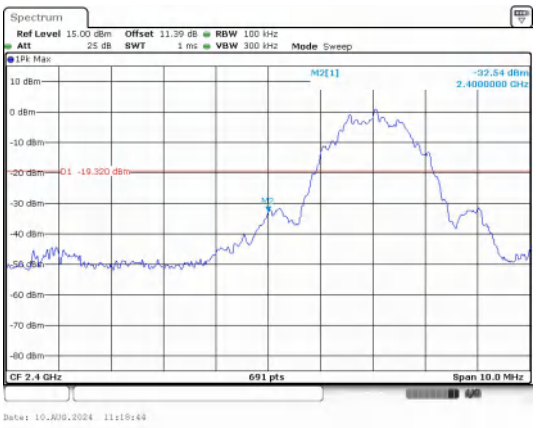
In-Band Reference Level

BLE 2M_Channel 0



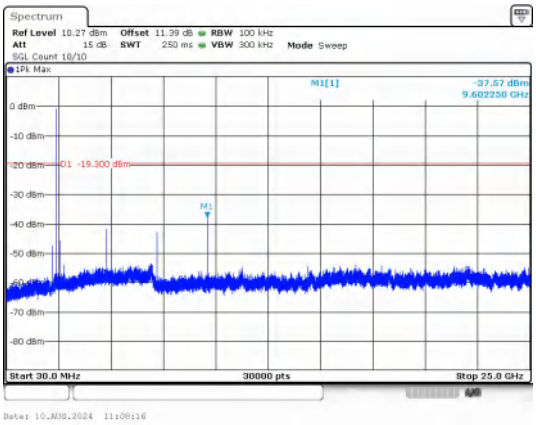
Out Of Band Emission

BLE 1M_Channel 0



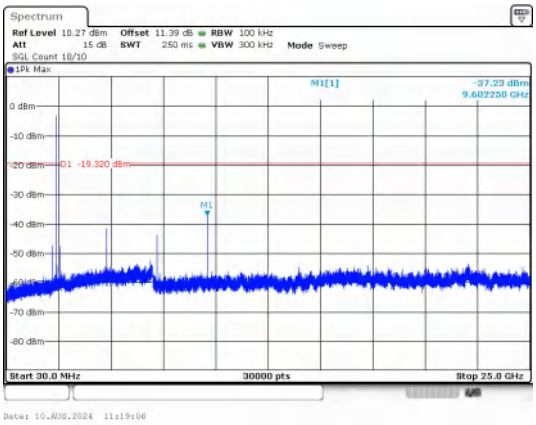
Out Of Band Emission

BLE 2M_Channel 0



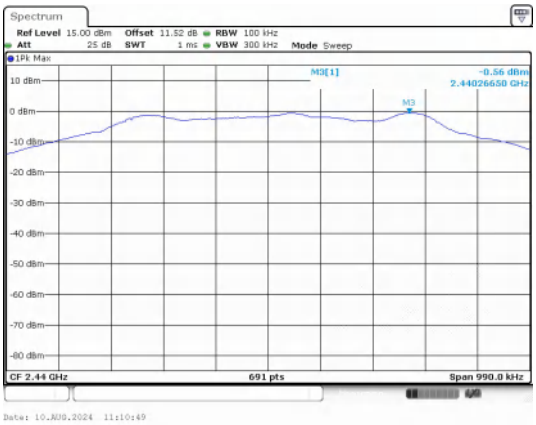
30.0 MHz - 25000.0 MHz

BLE 1M_Channel 0



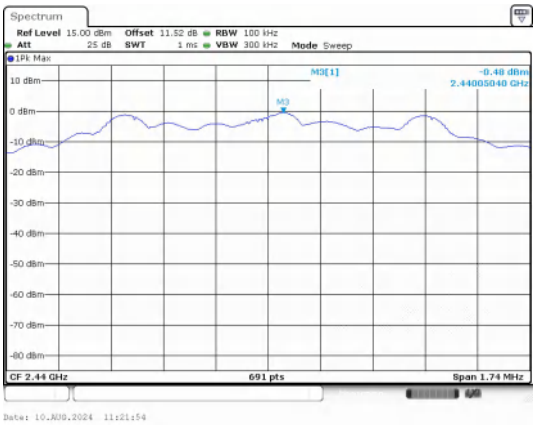
30.0 MHz - 25000.0 MHz

BLE 2M_Channel 0



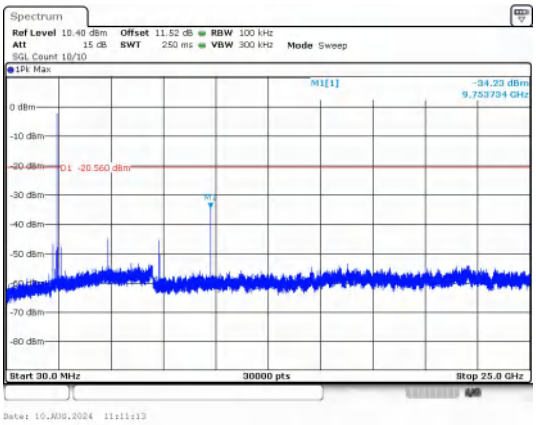
In-Band Reference Level

BLE 1M_Channel 19



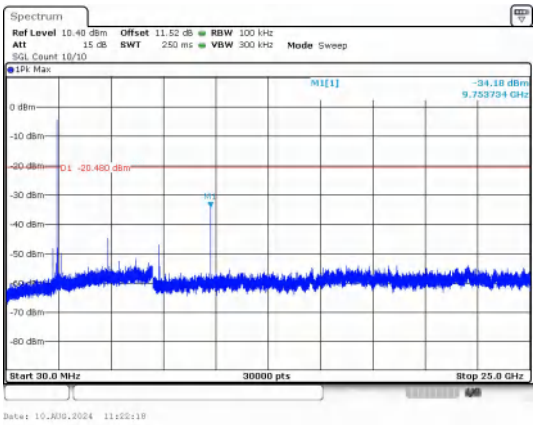
In-Band Reference Level

BLE 2M_Channel 19



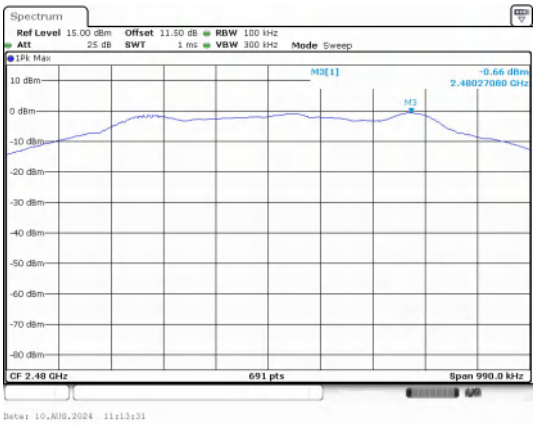
30.0 MHz - 25000.0 MHz

BLE 1M_Channel 19



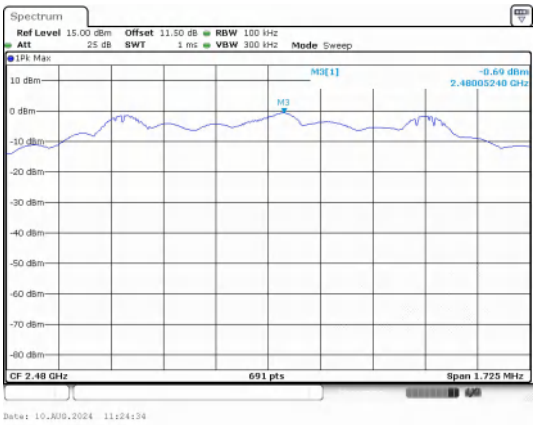
30.0 MHz - 25000.0 MHz

BLE 2M_Channel 19



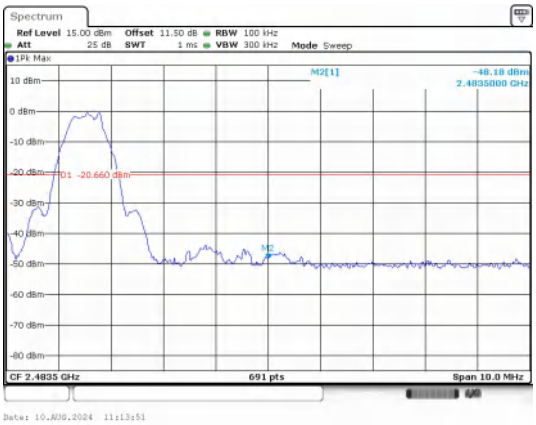
In-Band Reference Level

BLE 1M_Channel 39



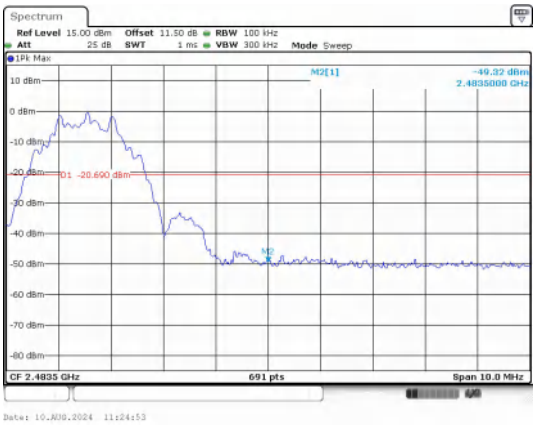
In-Band Reference Level

BLE 2M_Channel 39



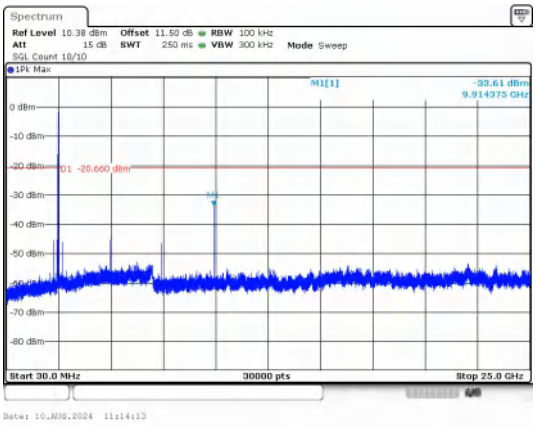
Out Of Band Emission

BLE 1M_Channel 39



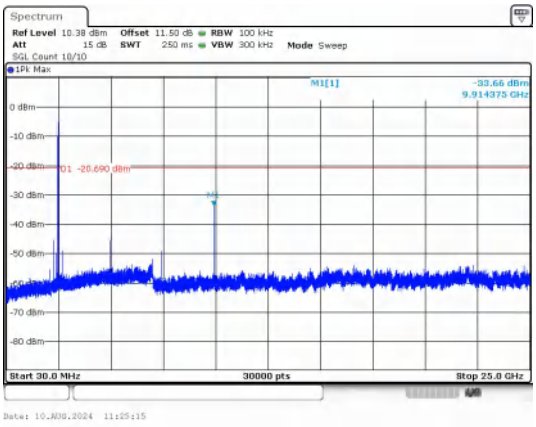
Out Of Band Emission

BLE 2M_Channel 39



30.0 MHz - 25000.0 MHz

BLE 1M_Channel 39



30.0 MHz - 25000.0 MHz

BLE 2M_Channel 39