

Appendix Report

Report No.:	CISRR25011411302
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

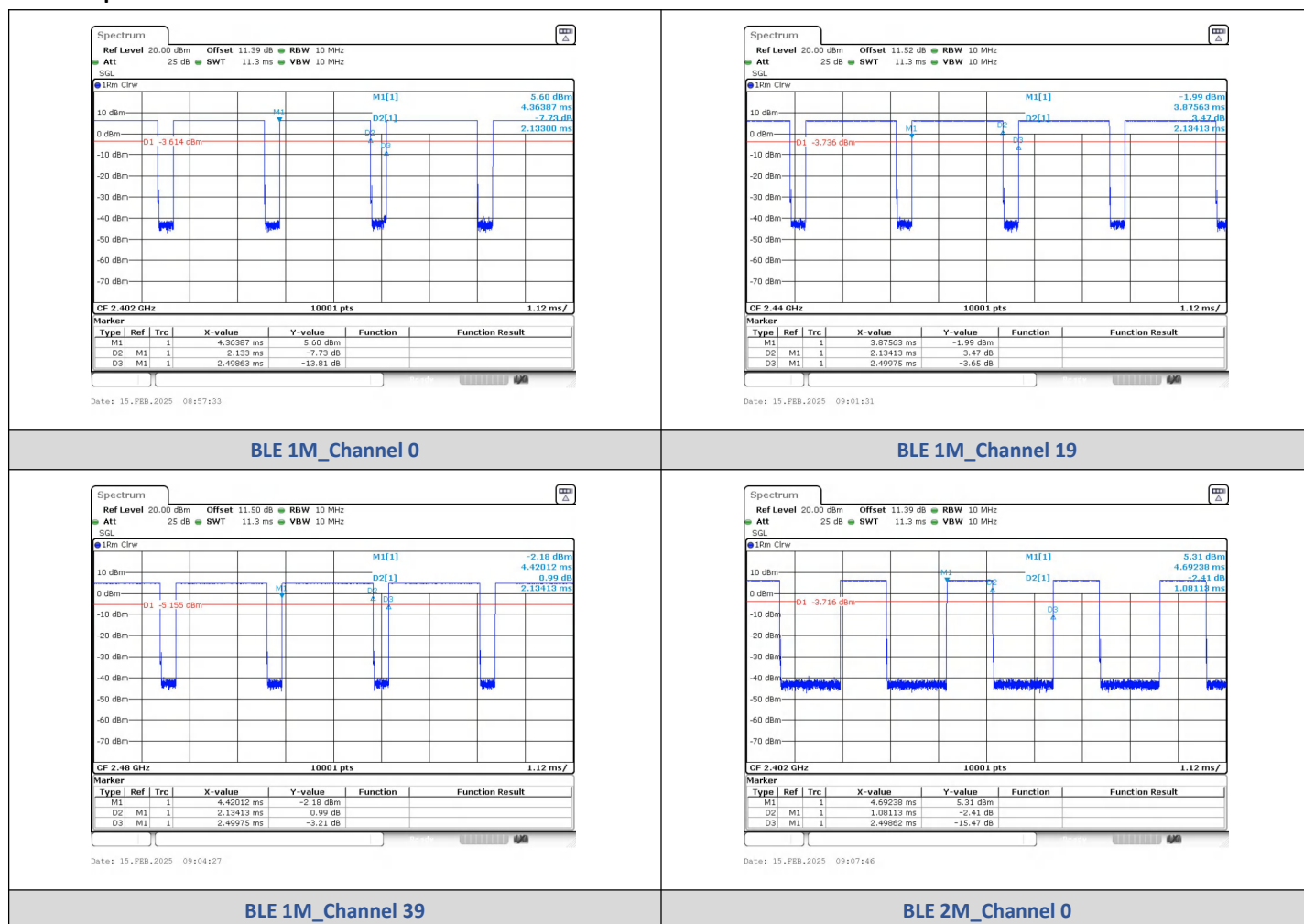
1) Duty Cycle

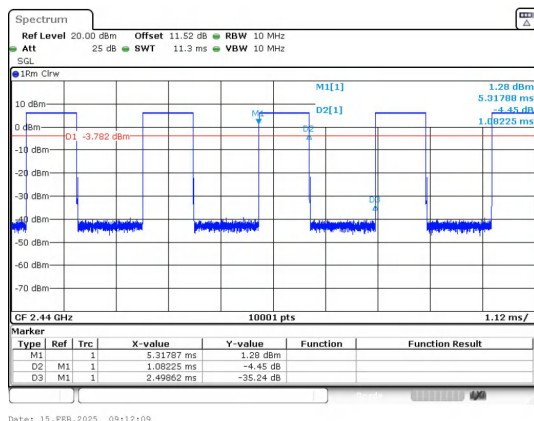
Test Result

Left:

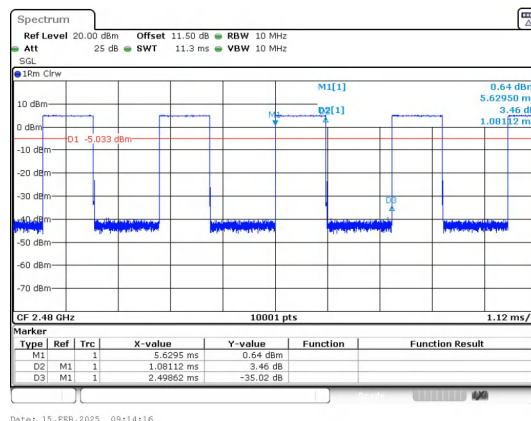
Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
BLE 1M	0	2.133	2.499	85.37	0.8537	0.6869	0.4688
	19	2.134	2.500	85.37	0.8537	0.6869	0.4686
	39	2.134	2.500	85.37	0.8537	0.6869	0.4686
BLE 2M	0	1.081	2.499	43.27	0.4327	3.6381	0.9251
	19	1.082	2.499	43.31	0.4331	3.6341	0.9242
	39	1.081	2.499	43.27	0.4327	3.6381	0.9251

Test Graphs





BLE 2M_Channel 19

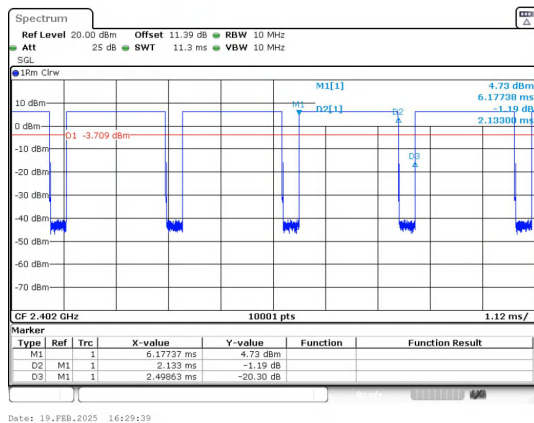


BLE 2M_Channel 39

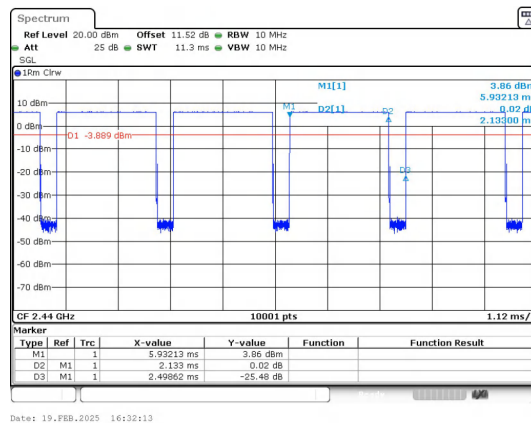
Right:

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	2.133	2.499	85.37	0.8537	0.6869	0.4688
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

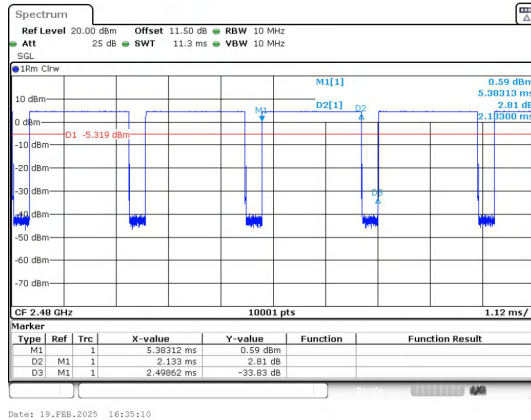
Test Graphs



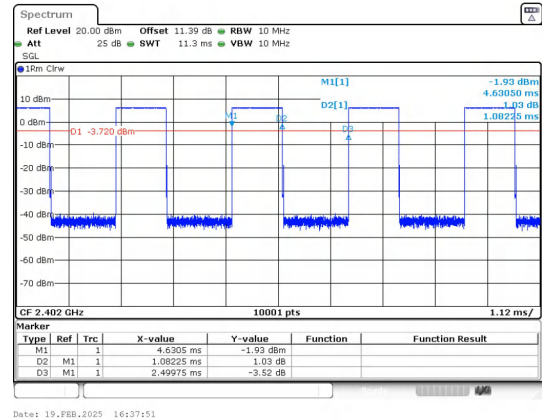
BLE 1M_Channel 0



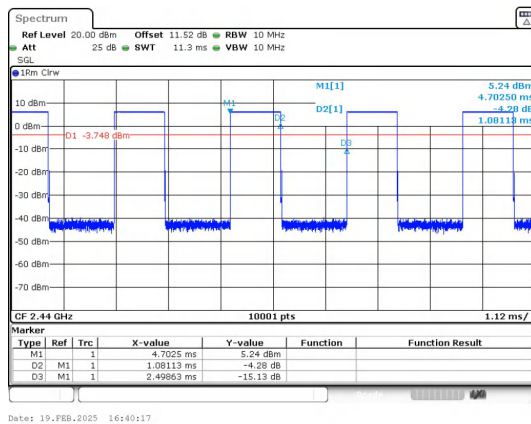
BLE 1M_Channel 19



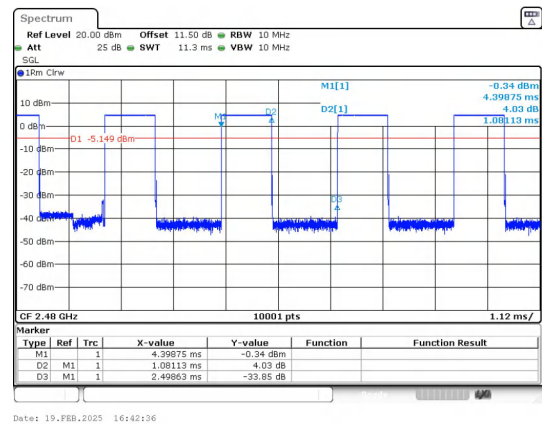
BLE 1M_Channel 39



BLE 2M_Channel 0



BLE 2M_Channel 19



BLE 2M_Channel 39

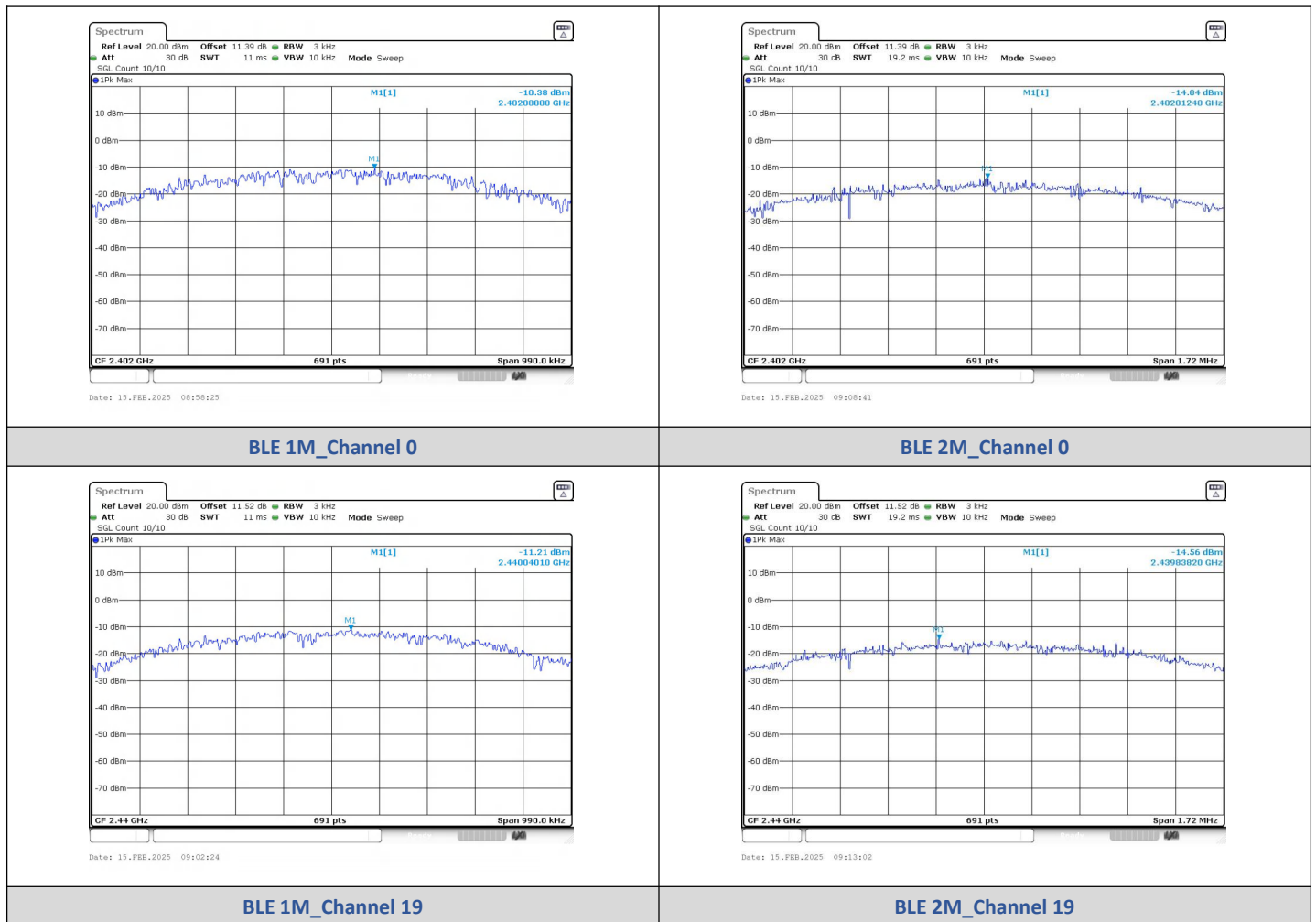
2) Power Spectral Density

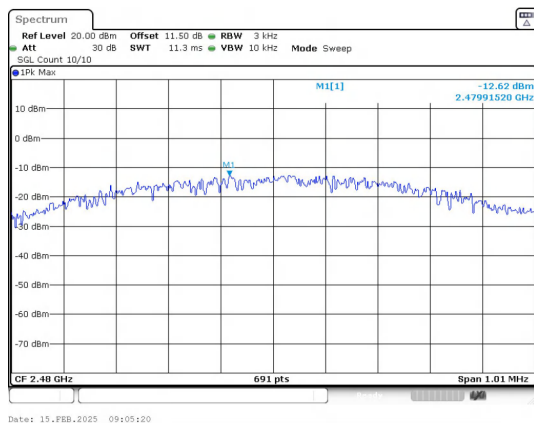
Test Result

Left:

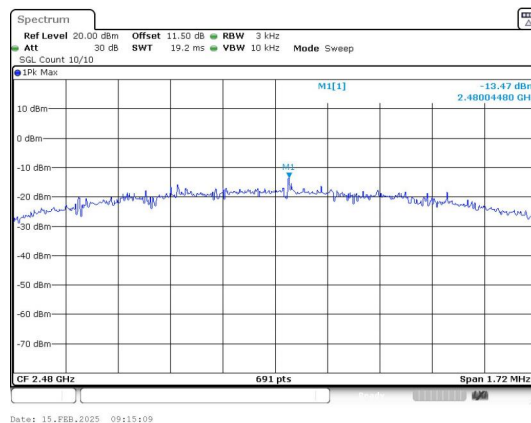
Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-10.380	≤8	PASS
BLE 1M	19	-11.210	≤8	PASS
BLE 1M	39	-12.620	≤8	PASS
BLE 2M	0	-14.040	≤8	PASS
BLE 2M	19	-14.560	≤8	PASS
BLE 2M	39	-13.470	≤8	PASS

Test Graphs





BLE 1M_Channel 39

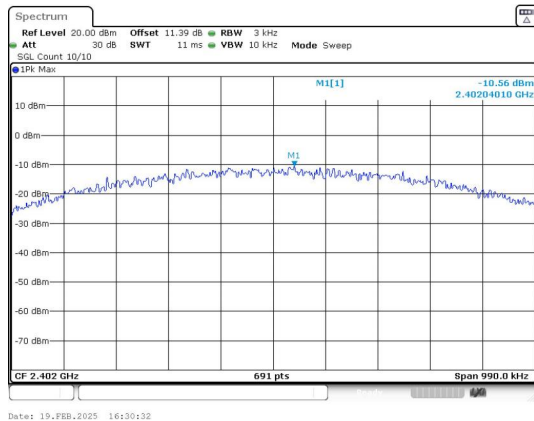


BLE 2M_Channel 39

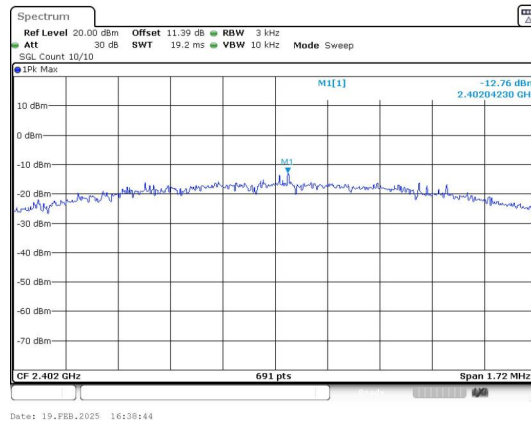
Right:

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-10.560	≤8	PASS
BLE 1M	19	-10.520	≤8	PASS
BLE 1M	39	-12.740	≤8	PASS
BLE 2M	0	-12.760	≤8	PASS
BLE 2M	19	-14.790	≤8	PASS
BLE 2M	39	-13.720	≤8	PASS

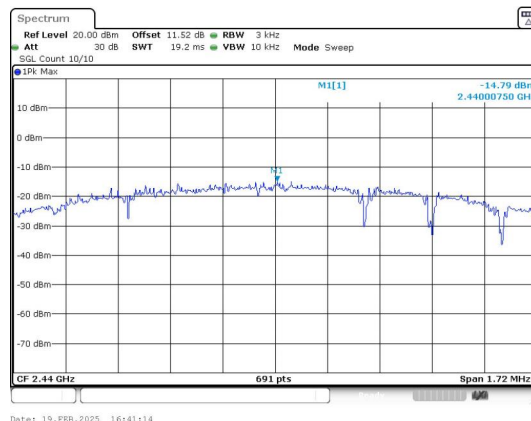
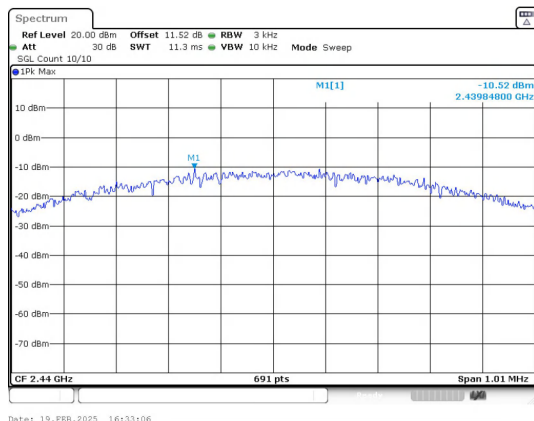
Test Graphs



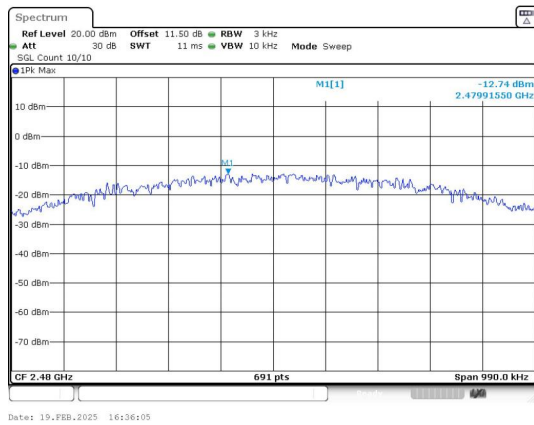
BLE 1M_Channel 0



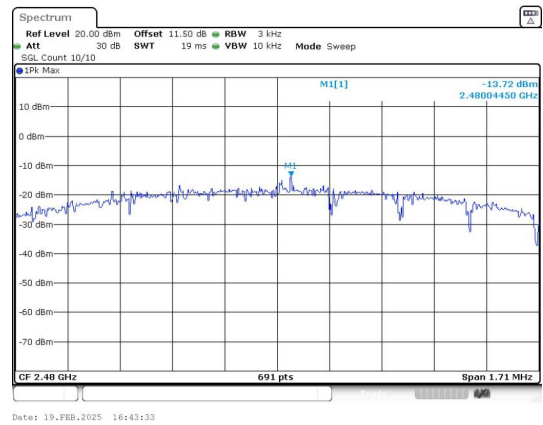
BLE 2M_Channel 0



BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39

BLE 2M_Channel 39

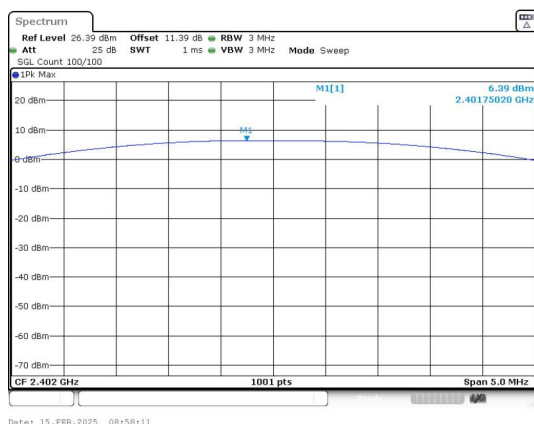
3) Conducted Output Power

Test Result

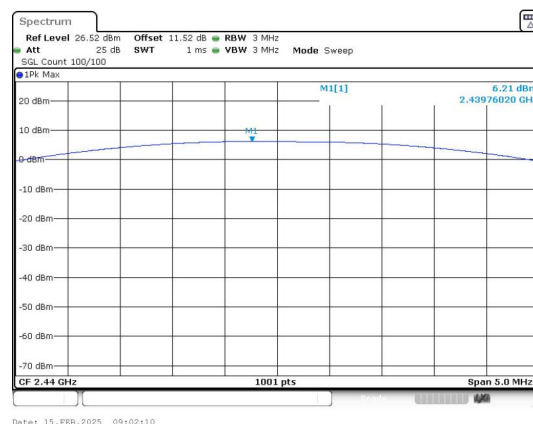
Left:

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	6.39	4.36	≤30	PASS
	19	6.21	4.18	≤30	PASS
	39	4.87	3.07	≤30	PASS
BLE 2M	0	6.39	4.36	≤30	PASS
	19	6.26	4.23	≤30	PASS
	39	5.01	3.17	≤30	PASS

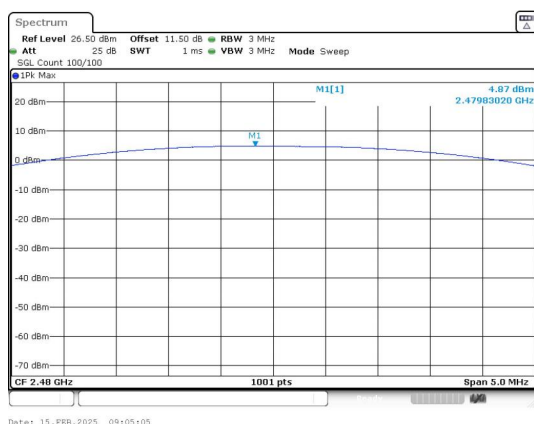
Test Graphs



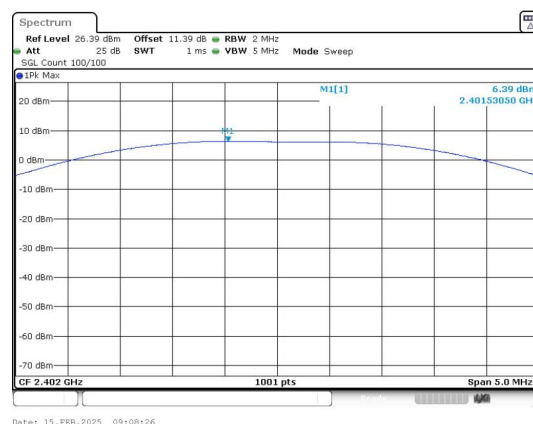
Peak Output Power
BLE 1M_Channel 0



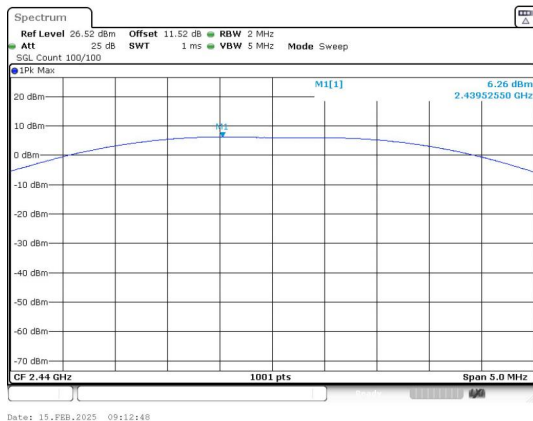
Peak Output Power
BLE 1M_Channel 19



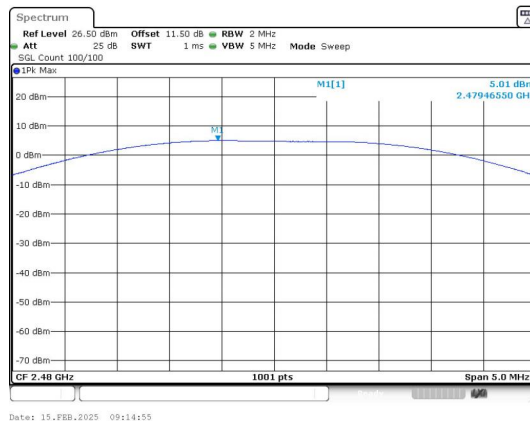
Peak Output Power
BLE 1M_Channel 39



Peak Output Power
BLE 2M_Channel 0



Peak Output Power
BLE 2M_Channel 19

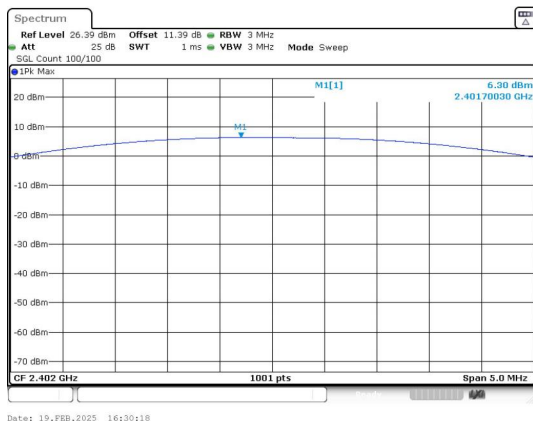


Peak Output Power
BLE 2M_Channel 39

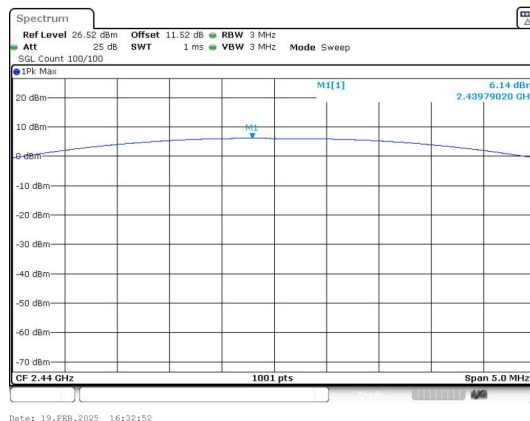
Right:

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	6.30	4.27	≤30	PASS
	19	6.14	4.11	≤30	PASS
	39	4.72	2.96	≤30	PASS
BLE 2M	0	6.39	4.36	≤30	PASS
	19	6.29	4.26	≤30	PASS
	39	4.91	3.1	≤30	PASS

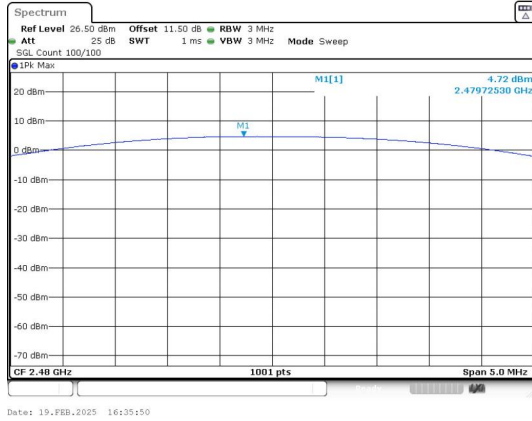
Test Graphs



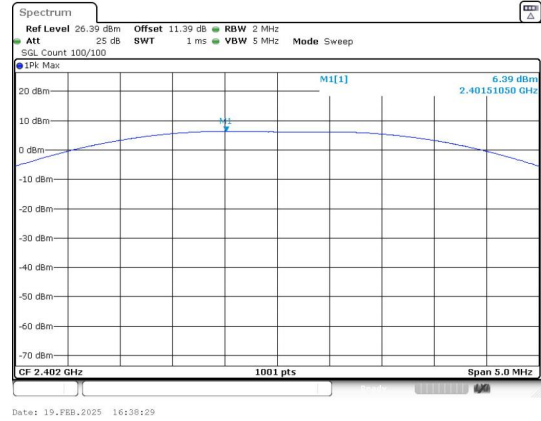
Peak Output Power
BLE 1M_Channel 0



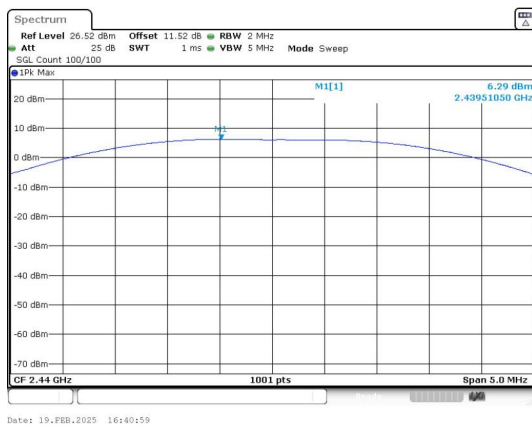
Peak Output Power
BLE 1M_Channel 19



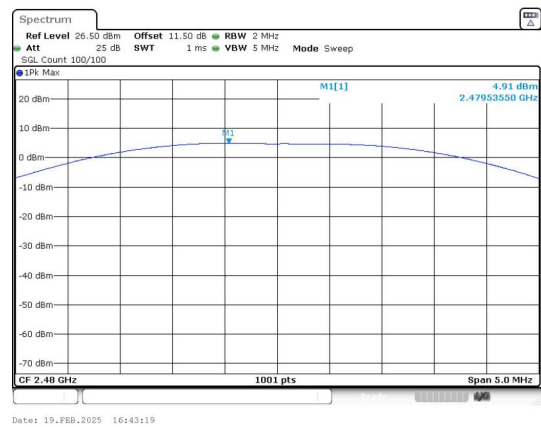
Peak Output Power
BLE 1M_Channel 39



Peak Output Power
BLE 2M_Channel 0



Peak Output Power
BLE 2M_Channel 19



Peak Output Power
BLE 2M_Channel 39

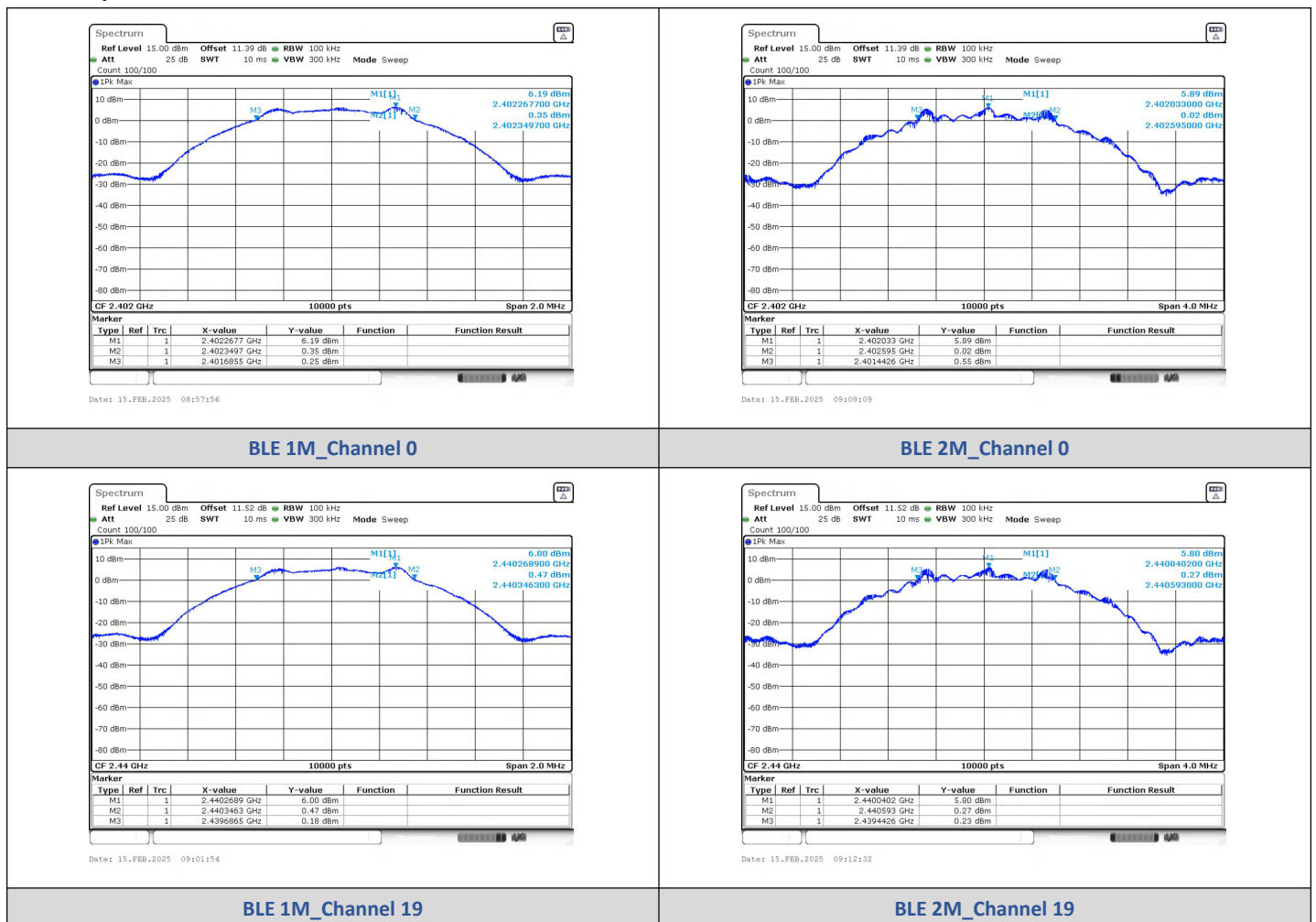
4) 6dB Bandwidth

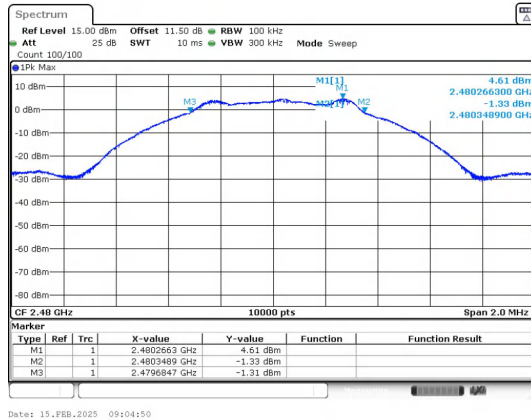
Test Result

Left:

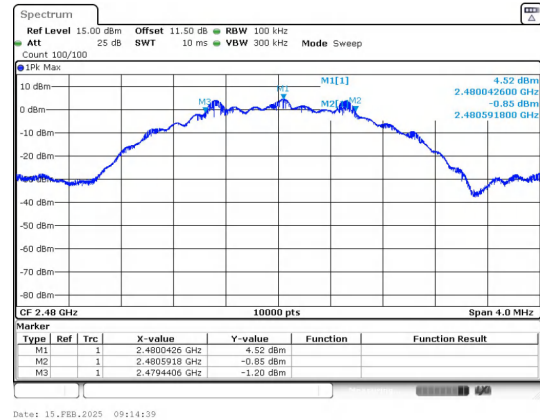
Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6600	≥0.5	PASS
	19	2440	0.6600		PASS
	39	2480	0.6700		PASS
BLE 2M	0	2402	1.150		PASS
	19	2440	1.150		PASS
	39	2480	1.150		PASS

Test Graphs





BLE 1M_Channel 39

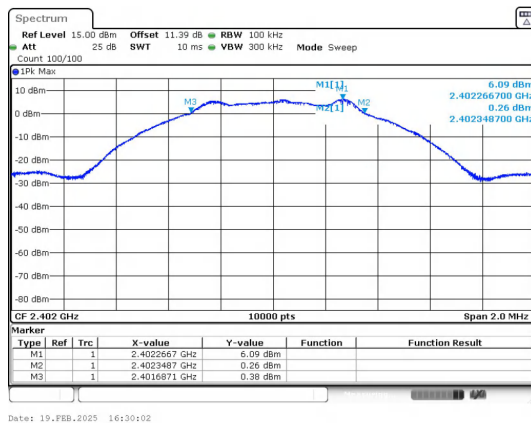


BLE 2M_Channel 39

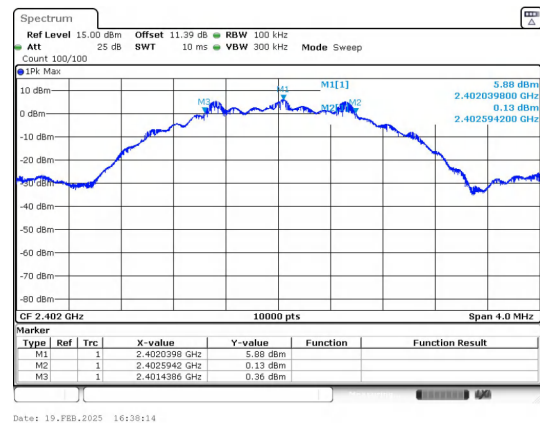
Right:

Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6600	≥0.5	PASS
	19	2440	0.6700		PASS
	39	2480	0.6600		PASS
BLE 2M	0	2402	1.150		PASS
	19	2440	1.150		PASS
	39	2480	1.140		PASS

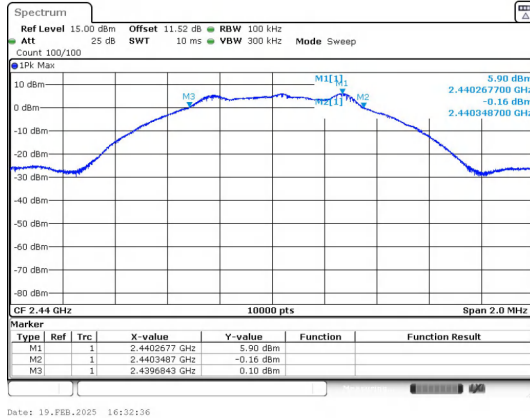
Test Graphs



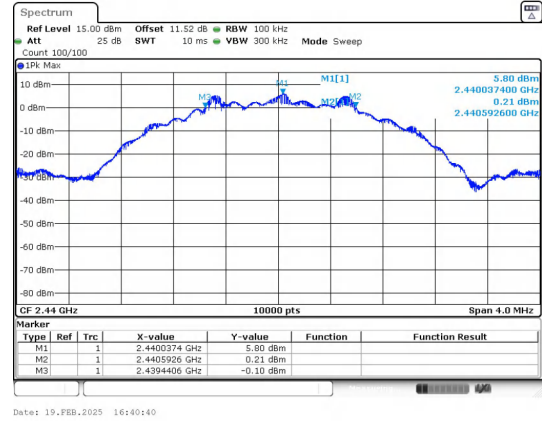
BLE 1M_Channel 0



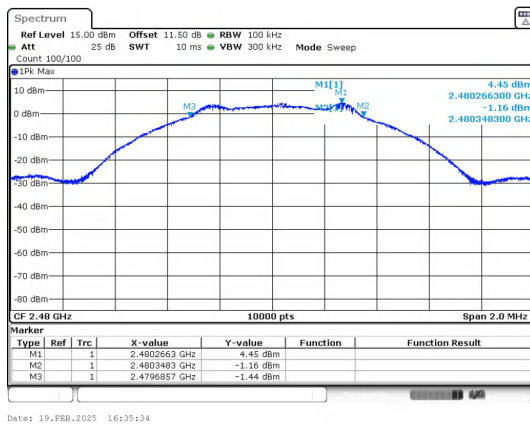
BLE 2M_Channel 0



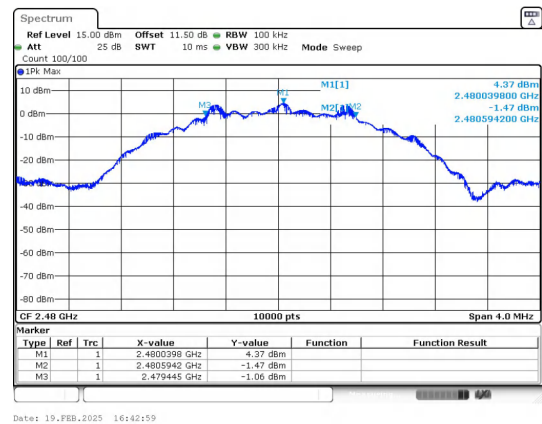
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 39

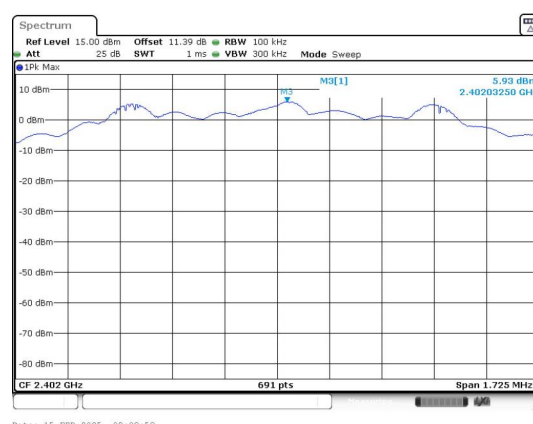
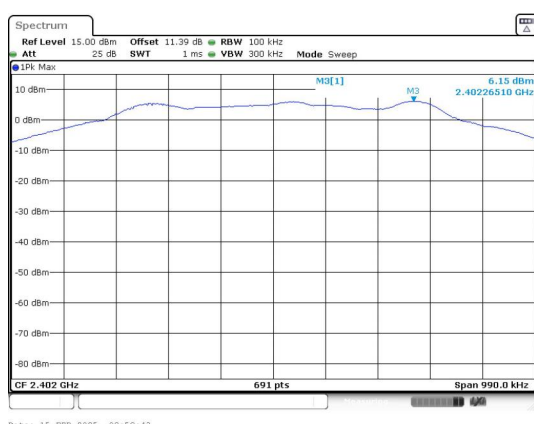
5) Conducted Out Of Band Emission

Test Result

Left:

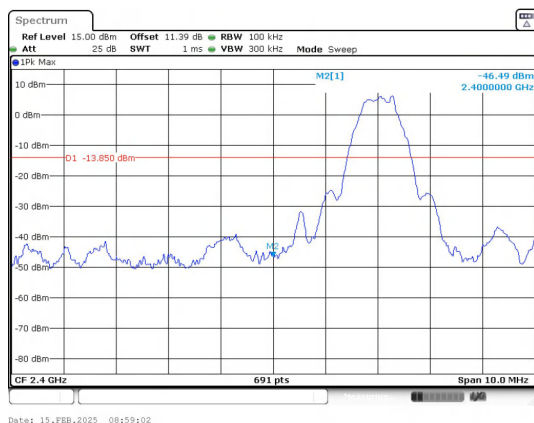
Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2399.00	-41.111	-13.85	-27.261	PASS
		2400.00	-46.490	-13.85	-32.640	PASS
		9602.20	-41.395	-13.85	-27.545	PASS
	19	1774.15	-36.743	-14.06	-22.683	PASS
	39	2483.50	-44.960	-15.42	-29.540	PASS
		9914.37	-37.567	-15.42	-22.147	PASS
BLE 2M	0	2400.00	-27.000	-14.07	-12.930	PASS
		9602.25	-41.307	-14.07	-27.237	PASS
	19	830.29	-39.519	-14.22	-25.299	PASS
	39	2483.50	-48.430	-15.48	-32.950	PASS
		9914.37	-37.029	-15.48	-21.549	PASS

Test Graphs

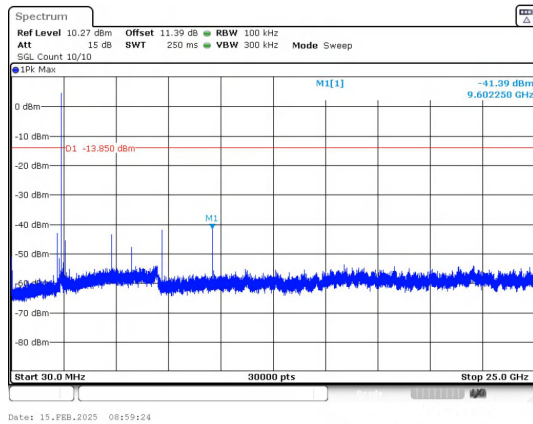


In-Band Reference Level
BLE 1M_Channel 0

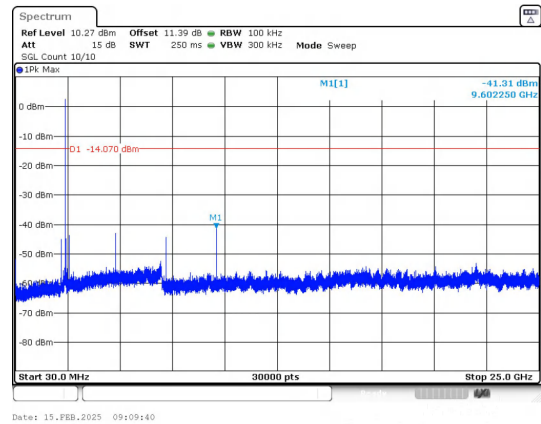
In-Band Reference Level
BLE 2M_Channel 0



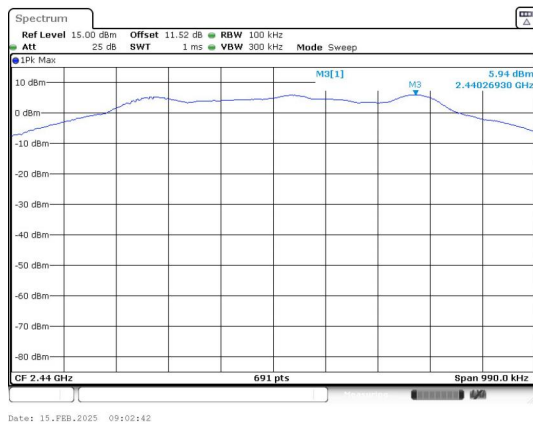
Out Of Band Emission
BLE 1M_Channel 0



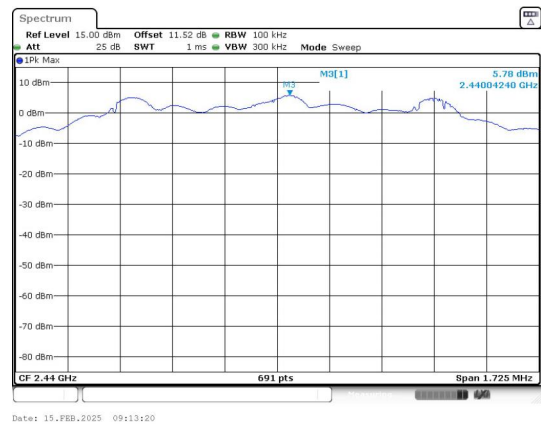
Out Of Band Emission
BLE 2M_Channel 0



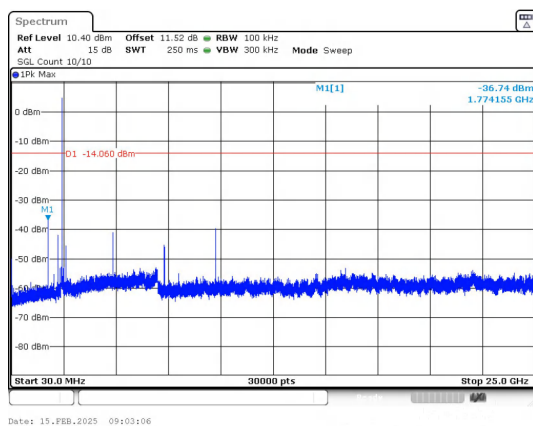
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0



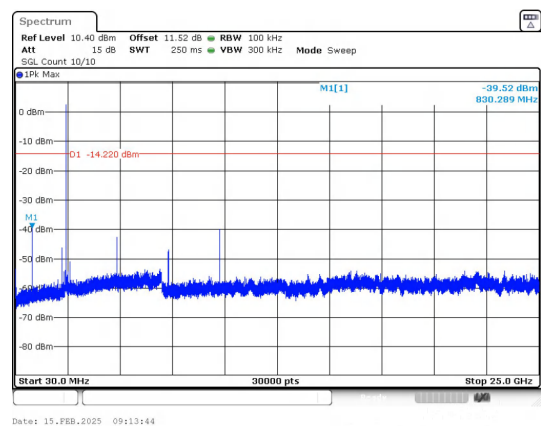
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 0



In-Band Reference Level
BLE 1M_Channel 19

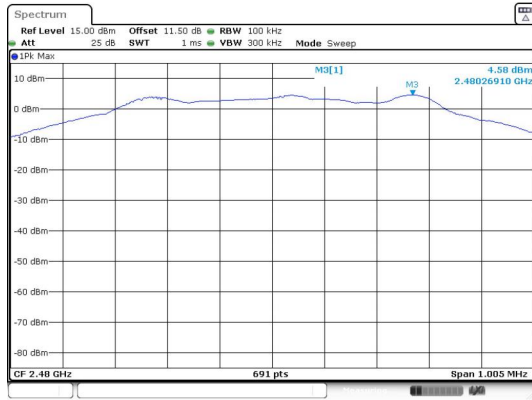


In-Band Reference Level
BLE 2M_Channel 19

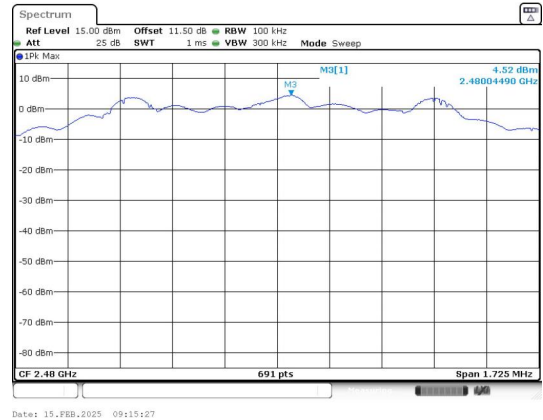


30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19

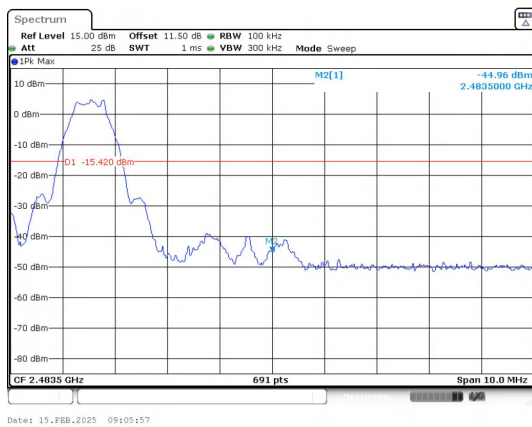
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 19



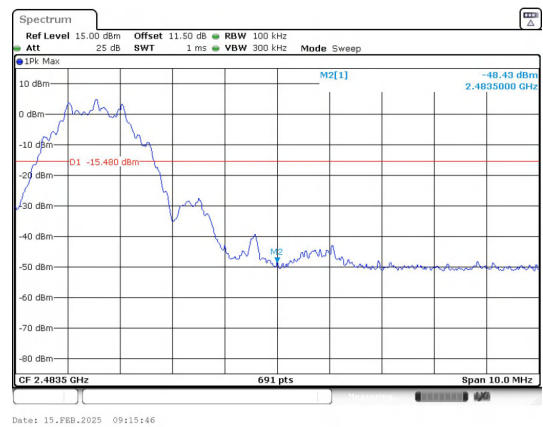
**In-Band Reference Level
BLE 1M_Channel 39**



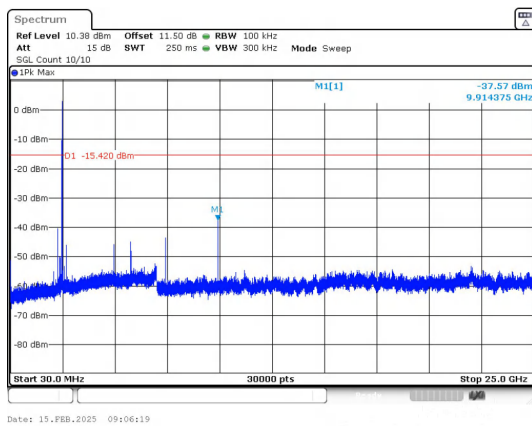
**In-Band Reference Level
BLE 2M_Channel 39**



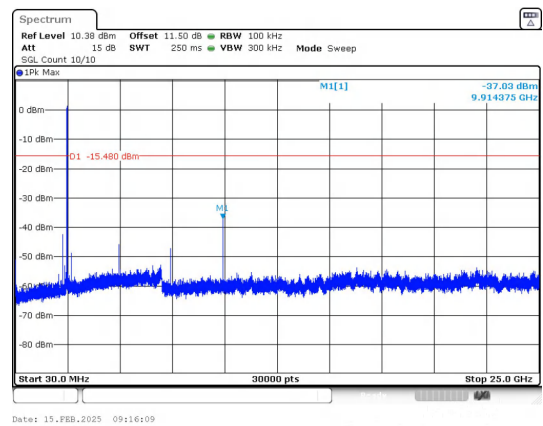
**Out Of Band Emission
BLE 1M_Channel 39**



**Out Of Band Emission
BLE 2M_Channel 39**



**30.0 MHz - 25000.0 MHz
BLE 1M_Channel 39**

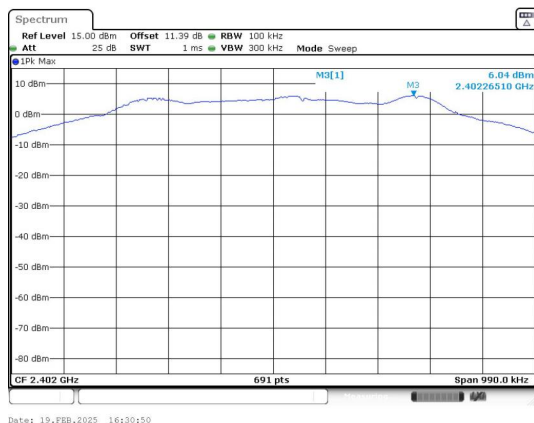


**30.0 MHz - 25000.0 MHz
BLE 2M_Channel 39**

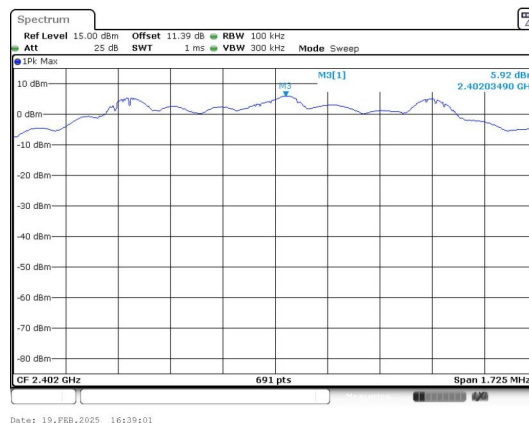
Right:

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2400.00	-37.560	-13.96	-23.600	PASS
		7205.13	-42.546	-13.96	-28.586	PASS
	19	9753.73	-40.909	-14.13	-26.779	PASS
	39	2483.50	-45.870	-15.56	-30.310	PASS
		9914.37	-37.988	-15.56	-22.428	PASS
BLE 2M	0	2400.00	-27.770	-14.08	-13.690	PASS
		9602.25	-42.995	-14.08	-28.915	PASS
	19	9753.73	-40.991	-14.21	-26.781	PASS
	39	2483.50	-50.440	-15.59	-34.850	PASS
		9914.37	-37.613	-15.59	-22.023	PASS

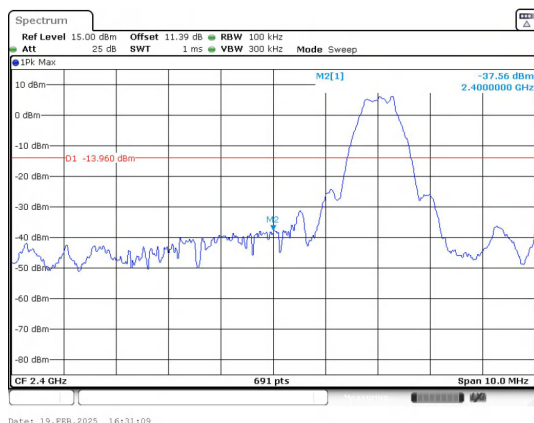
Test Graphs



In-Band Reference Level
BLE 1M_Channel 0



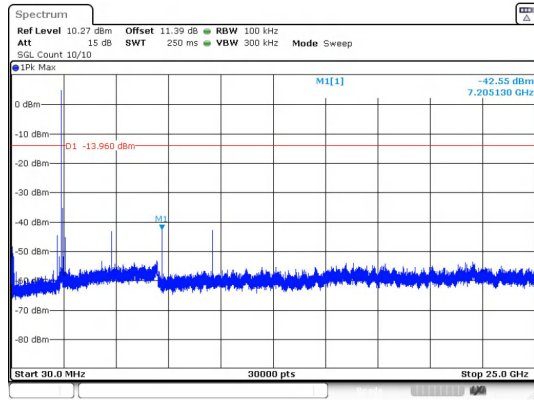
In-Band Reference Level
BLE 2M_Channel 0



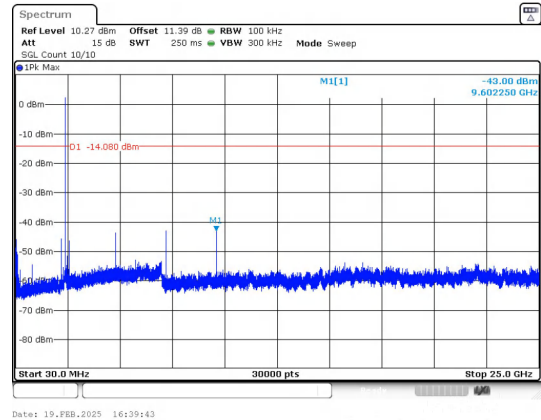
Out Of Band Emission
BLE 1M_Channel 0



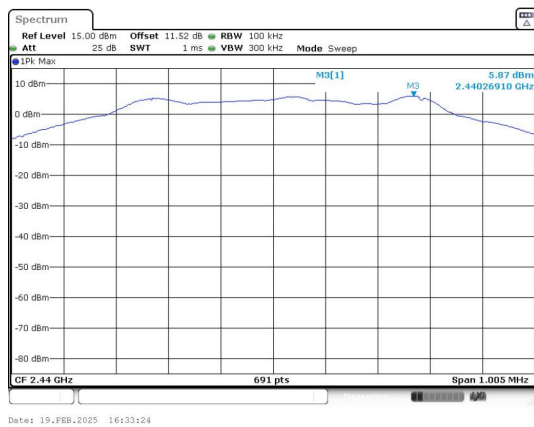
Out Of Band Emission
BLE 2M_Channel 0



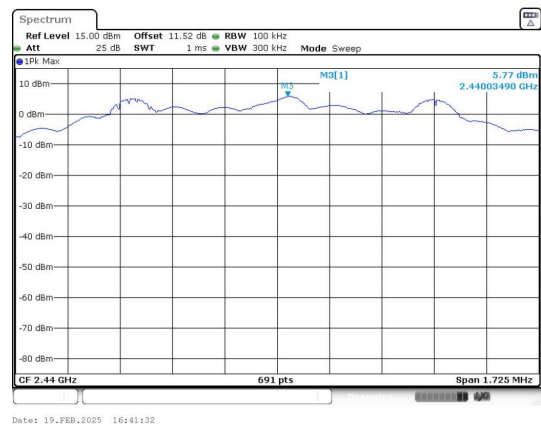
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0



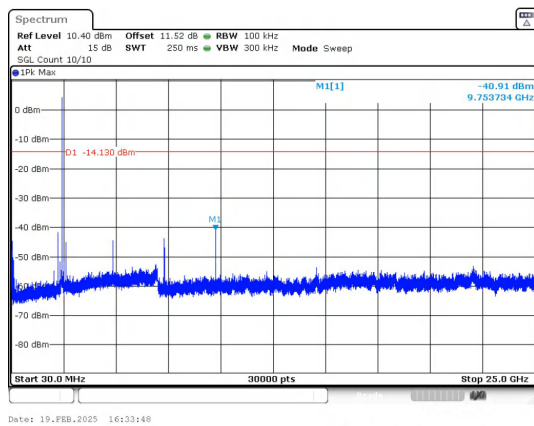
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 0



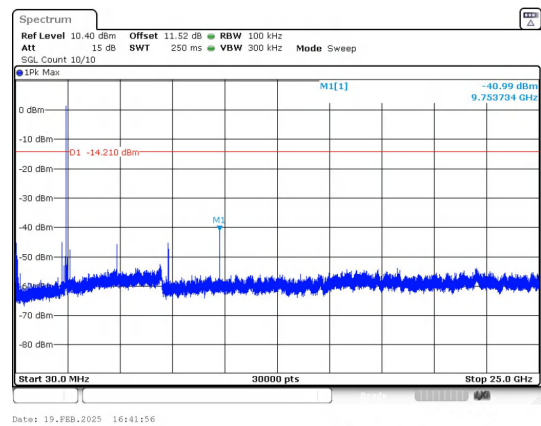
In-Band Reference Level
BLE 1M_Channel 19



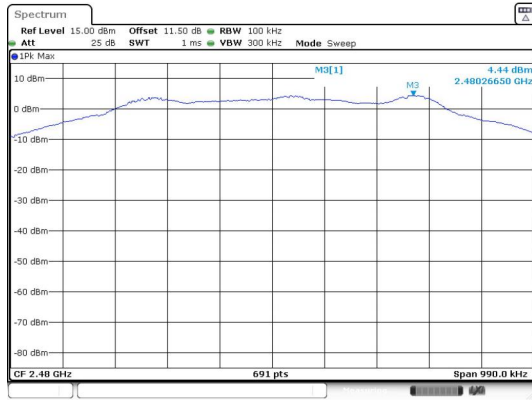
In-Band Reference Level
BLE 2M_Channel 19



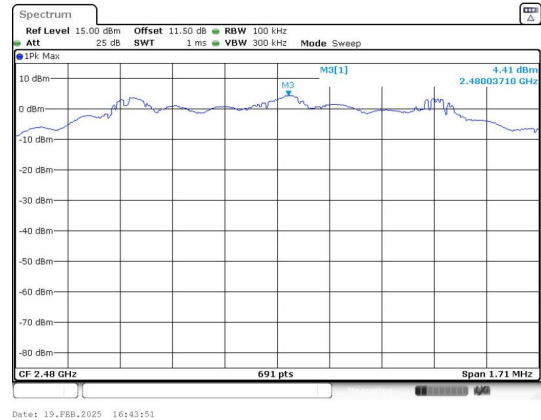
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19



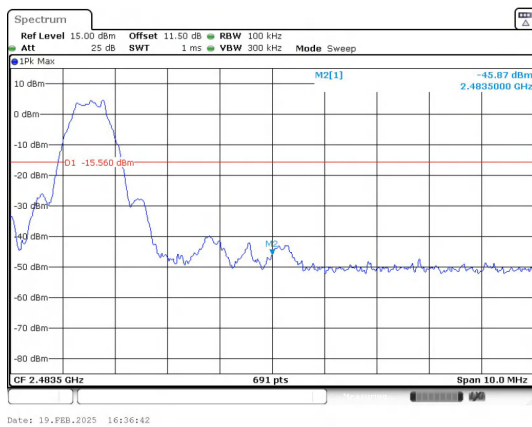
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 19



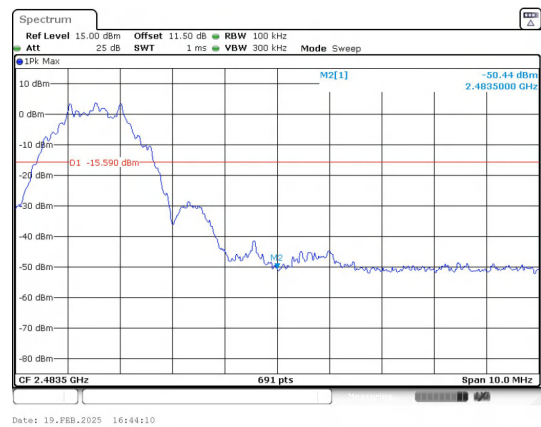
**In-Band Reference Level
BLE 1M_Channel 39**



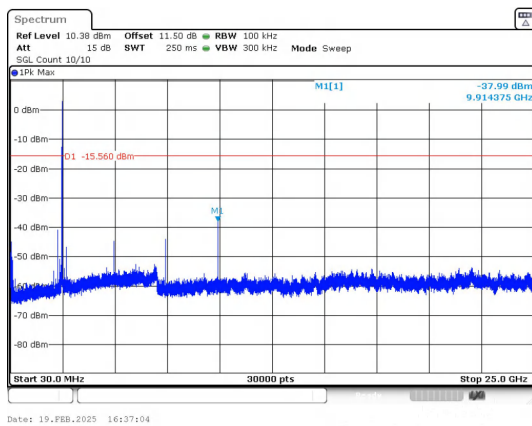
**In-Band Reference Level
BLE 2M_Channel 39**



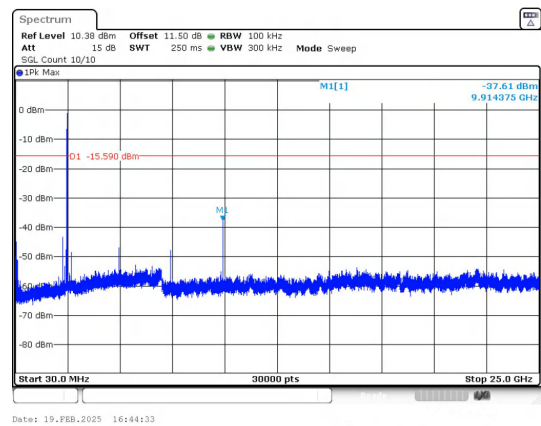
**Out Of Band Emission
BLE 1M_Channel 39**



**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-----