

Appendix Report

Report No.:	CISRR25022815206
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

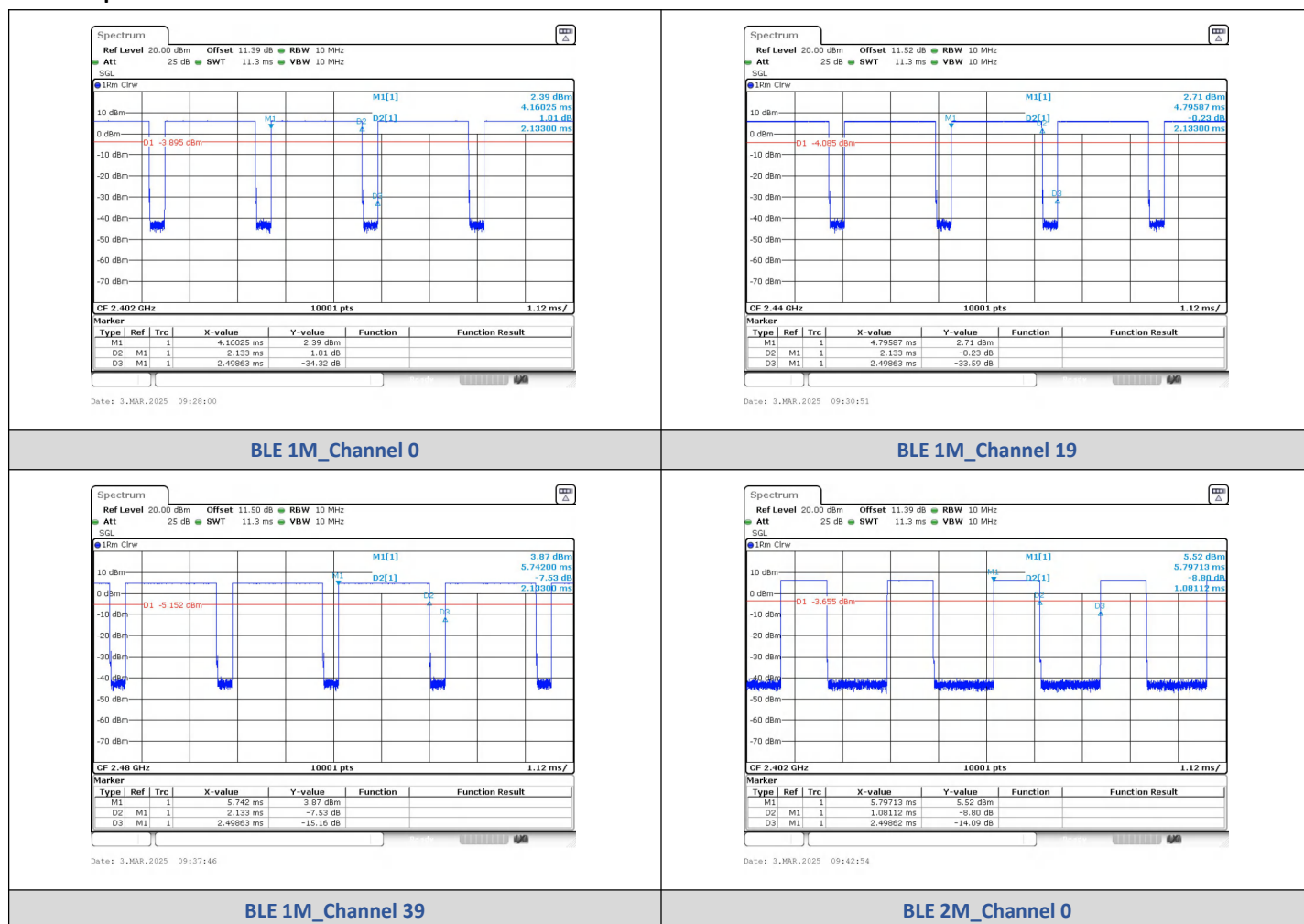
1) Duty Cycle

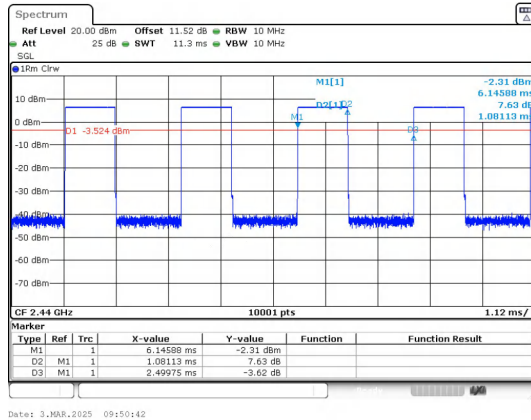
Test Result

Left:

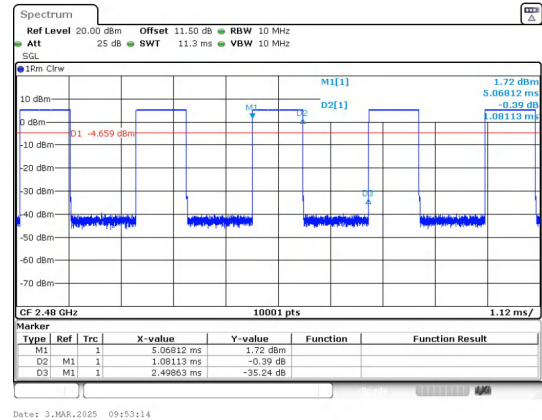
Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
BLE 1M	0	2.133	2.499	85.37	0.8537	0.6869	0.4688
	19	2.133	2.499	85.37	0.8537	0.6869	0.4688
	39	2.133	2.499	85.37	0.8537	0.6869	0.4688
BLE 2M	0	1.081	2.499	43.27	0.4327	3.6381	0.9251
	19	1.081	2.500	43.25	0.4325	3.6401	0.9251
	39	1.081	2.499	43.27	0.4327	3.6381	0.9251

Test Graphs





BLE 2M_Channel 19

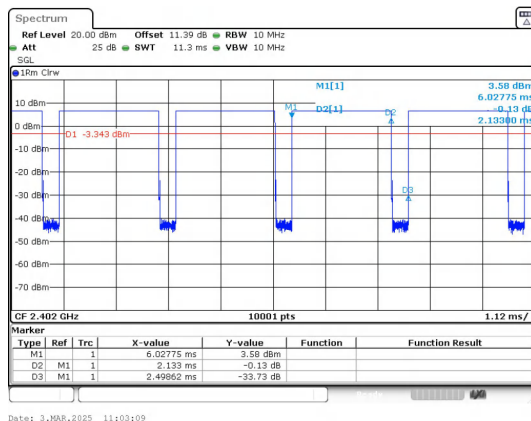


BLE 2M_Channel 39

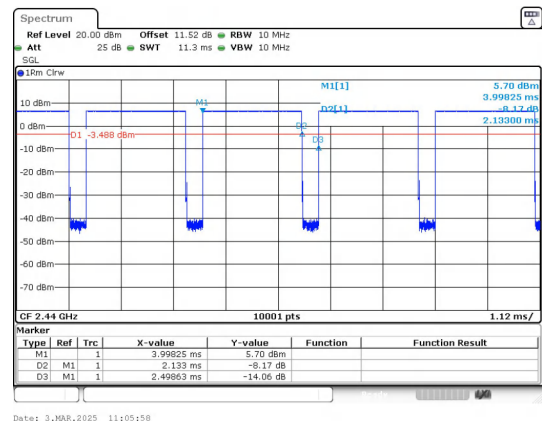
Right:

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	1.081	2.499	43.27	0.4327	3.6381	0.9251
	19	1.081	2.499	43.27	0.4327	3.6381	0.9251
	39	1.080	2.499	43.22	0.4322	3.6432	0.9259

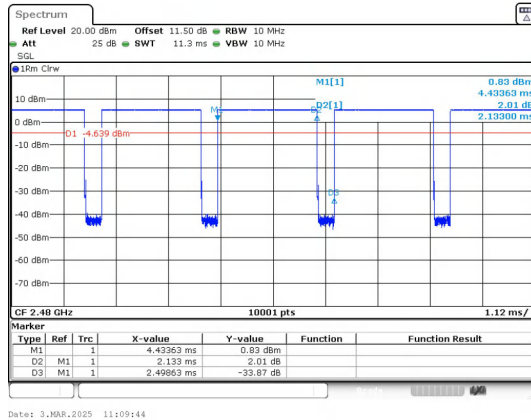
Test Graphs



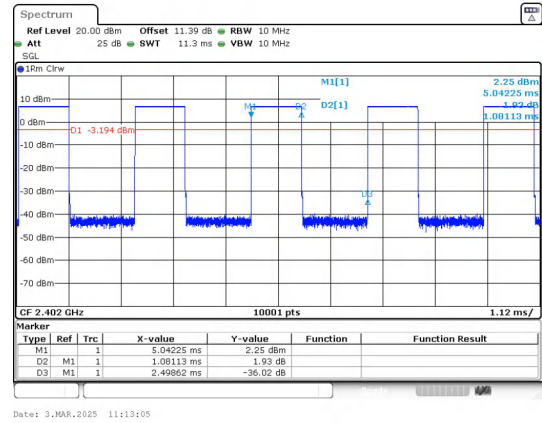
BLE 1M_Channel 0



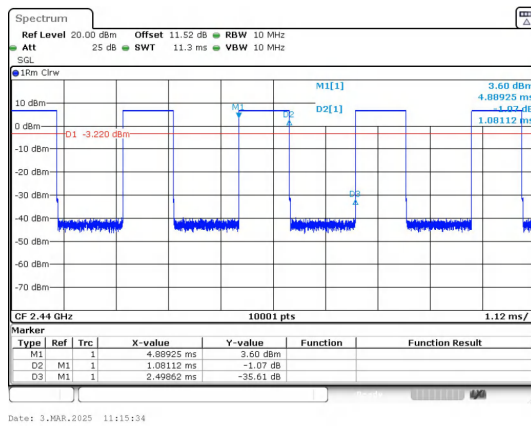
BLE 1M_Channel 19



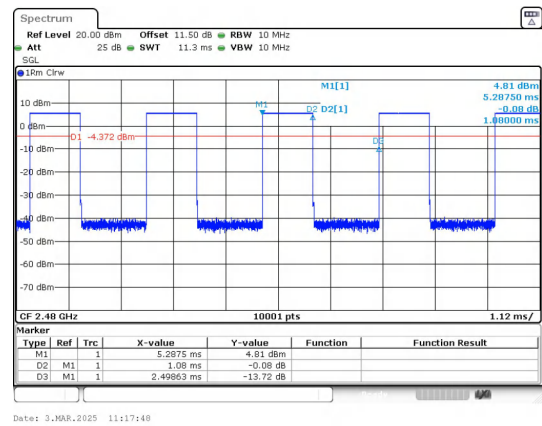
BLE 1M_Channel 39



BLE 2M_Channel 0



BLE 2M_Channel 19



BLE 2M_Channel 39

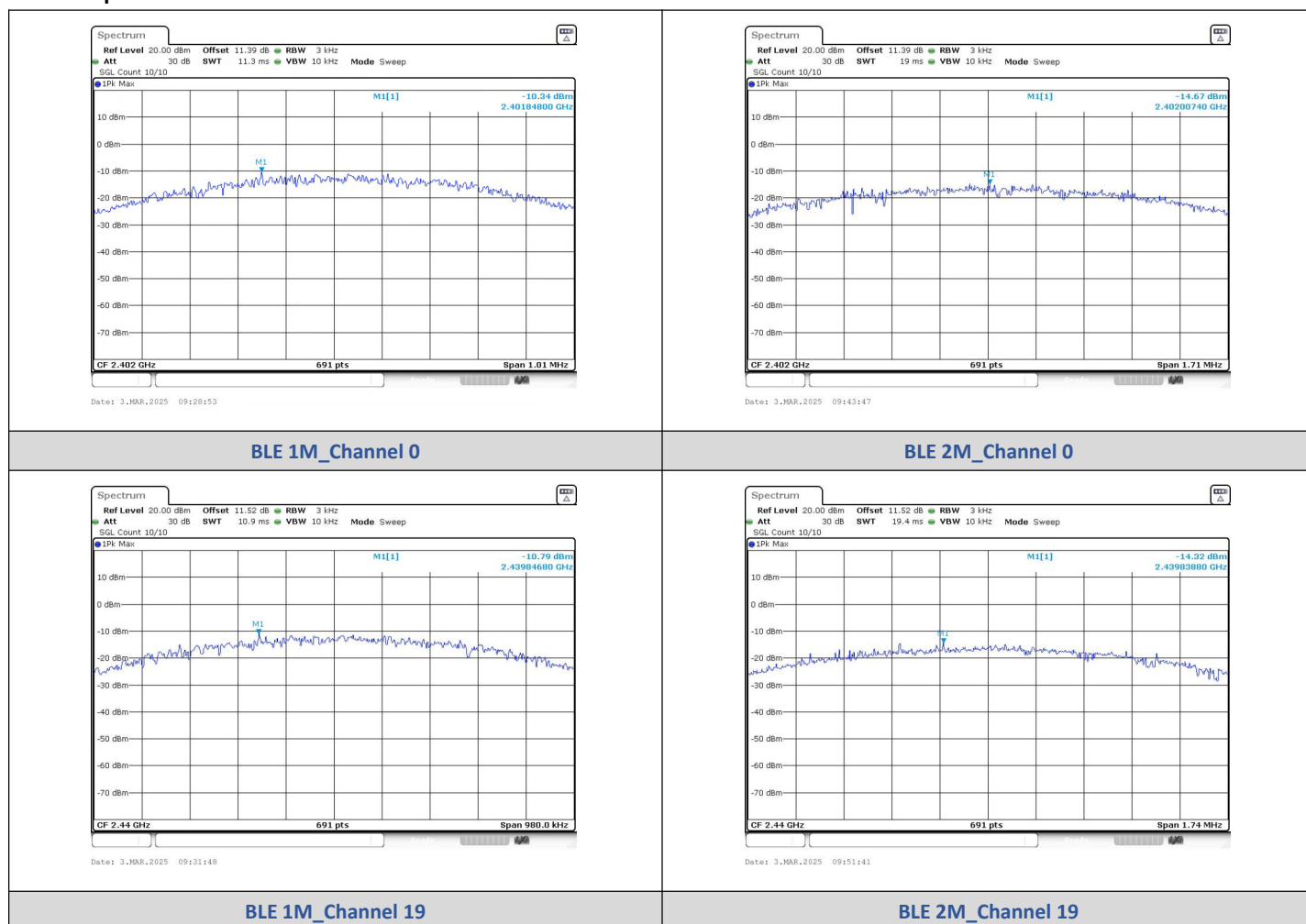
2) Power Spectral Density

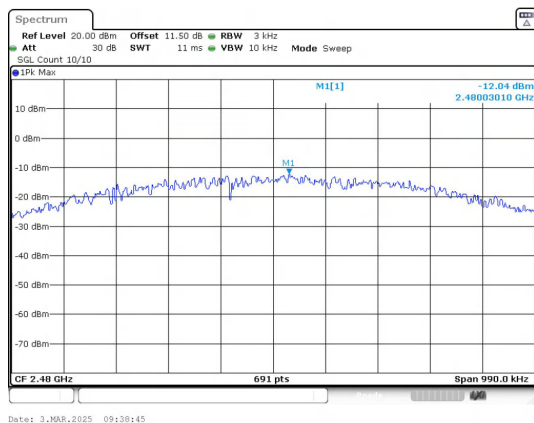
Test Result

Left:

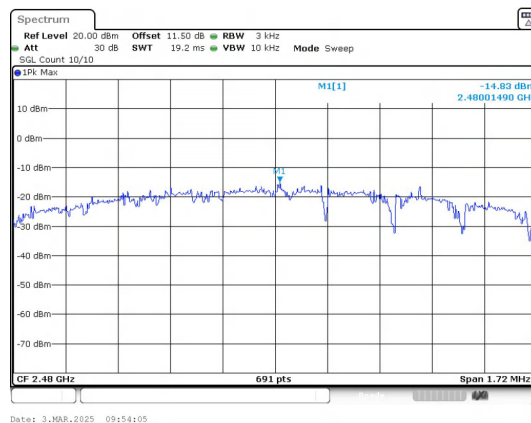
Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-10.340	≤8	PASS
BLE 1M	19	-10.790	≤8	PASS
BLE 1M	39	-12.040	≤8	PASS
BLE 2M	0	-14.670	≤8	PASS
BLE 2M	19	-14.320	≤8	PASS
BLE 2M	39	-14.830	≤8	PASS

Test Graphs





BLE 1M_Channel 39

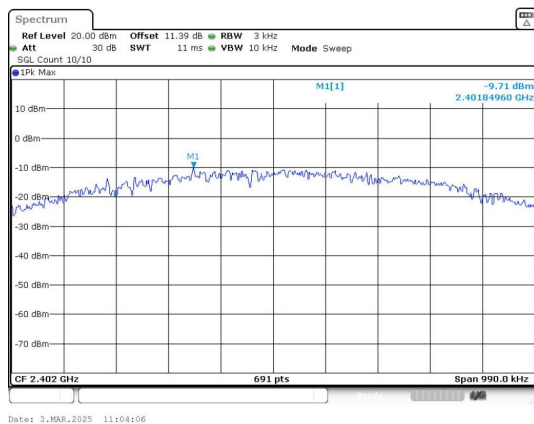


BLE 2M_Channel 39

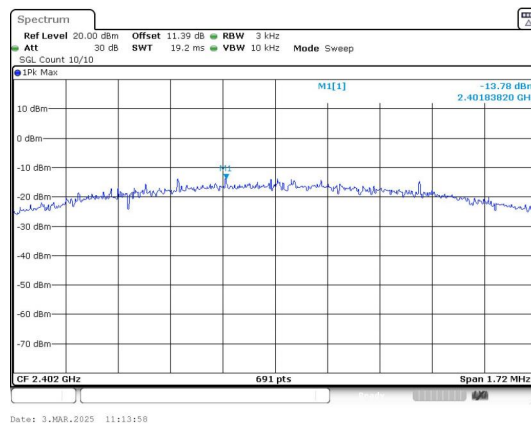
Right:

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-9.710	≤8	PASS
BLE 1M	19	-9.890	≤8	PASS
BLE 1M	39	-12.000	≤8	PASS
BLE 2M	0	-13.780	≤8	PASS
BLE 2M	19	-12.660	≤8	PASS
BLE 2M	39	-15.260	≤8	PASS

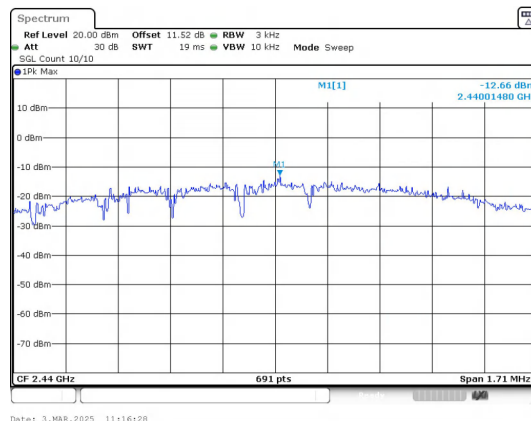
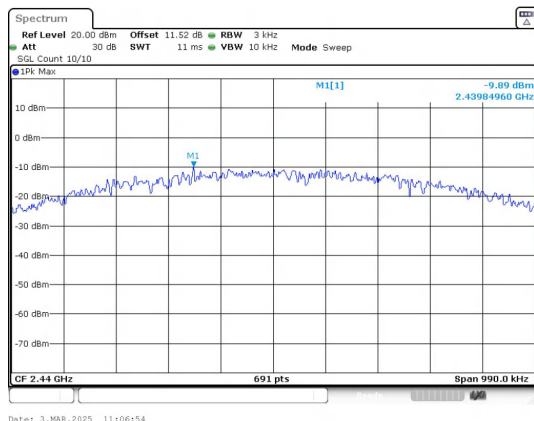
Test Graphs



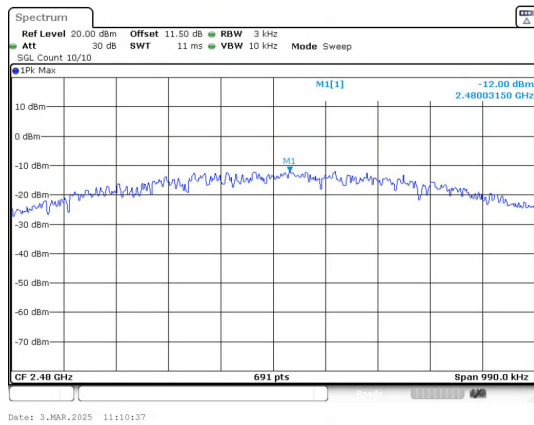
BLE 1M_Channel 0



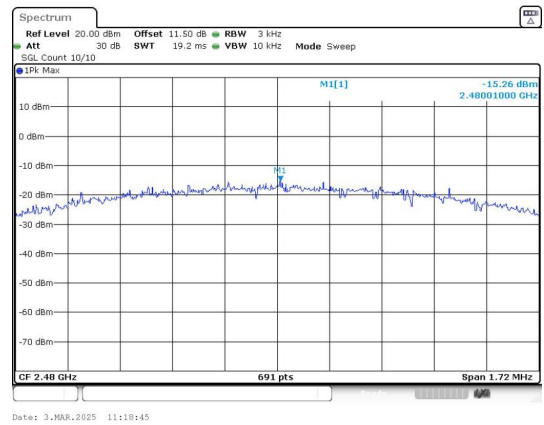
BLE 2M_Channel 0



BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39

BLE 2M_Channel 39

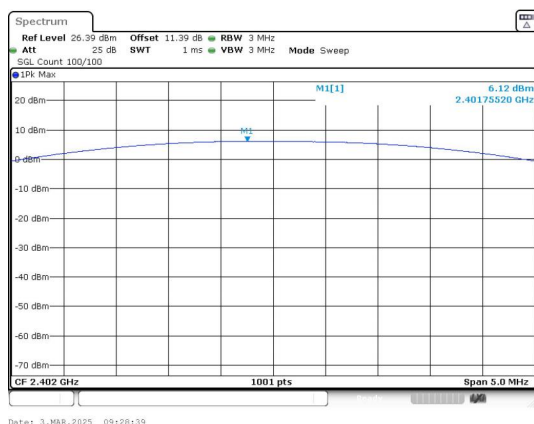
3) Conducted Output Power

Test Result

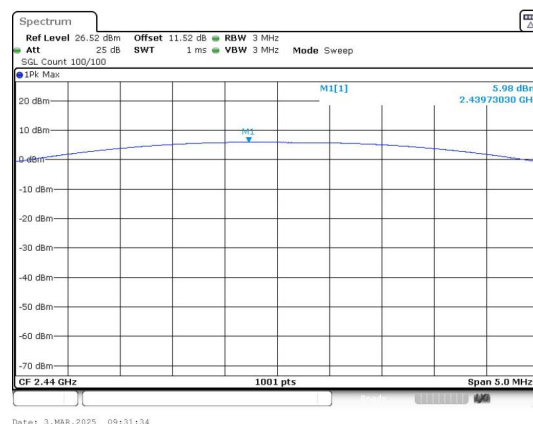
Left:

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	6.12	4.09	≤30	PASS
	19	5.98	3.96	≤30	PASS
	39	4.90	3.09	≤30	PASS
BLE 2M	0	6.45	4.42	≤30	PASS
	19	6.52	4.49	≤30	PASS
	39	5.38	3.45	≤30	PASS

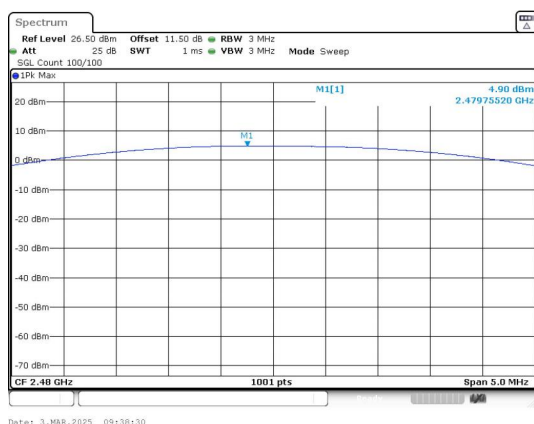
Test Graphs



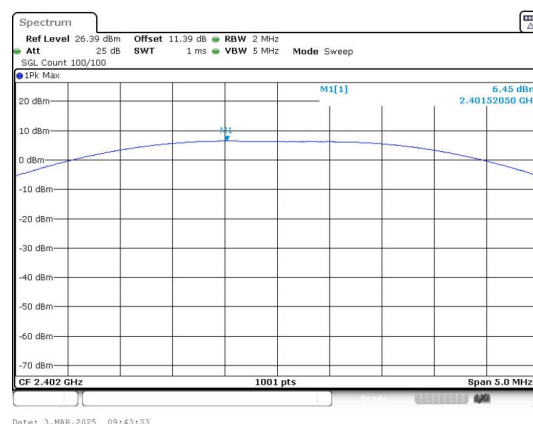
Peak Output Power
BLE 1M_Channel 0



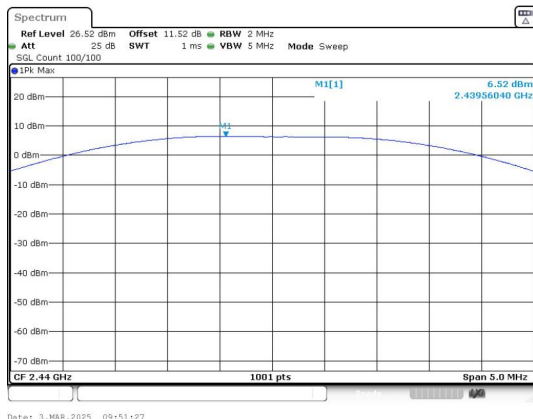
Peak Output Power
BLE 1M_Channel 19



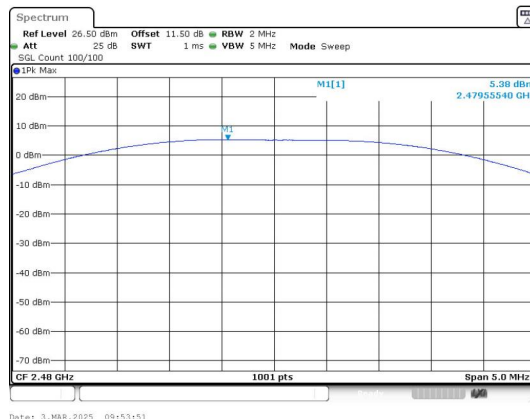
Peak Output Power
BLE 1M_Channel 39



Peak Output Power
BLE 2M_Channel 0



Peak Output Power
BLE 2M_Channel 19

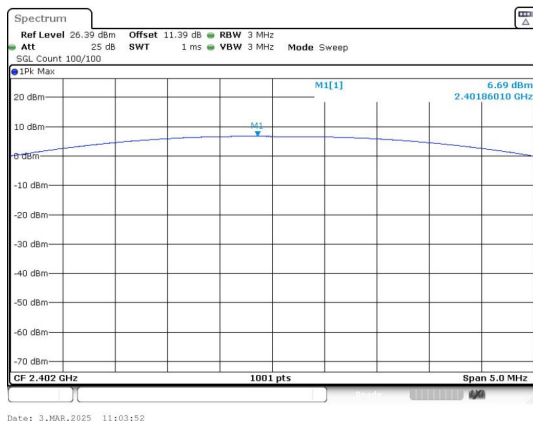


Peak Output Power
BLE 2M_Channel 39

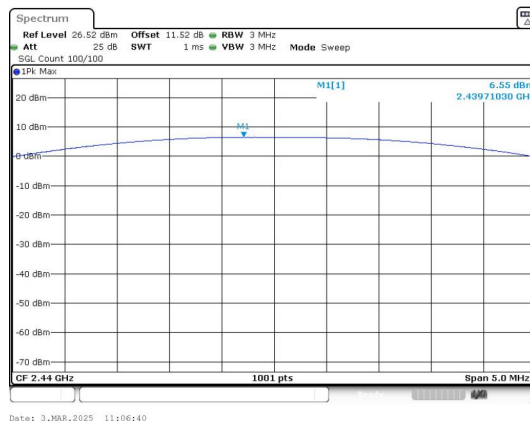
Right:

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	6.69	4.67	≤30	PASS
	19	6.55	4.52	≤30	PASS
	39	5.41	3.48	≤30	PASS
BLE 2M	0	6.90	4.9	≤30	PASS
	19	6.83	4.82	≤30	PASS
	39	5.67	3.69	≤30	PASS

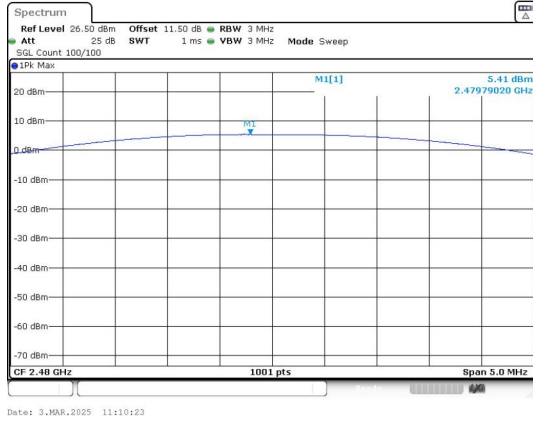
Test Graphs



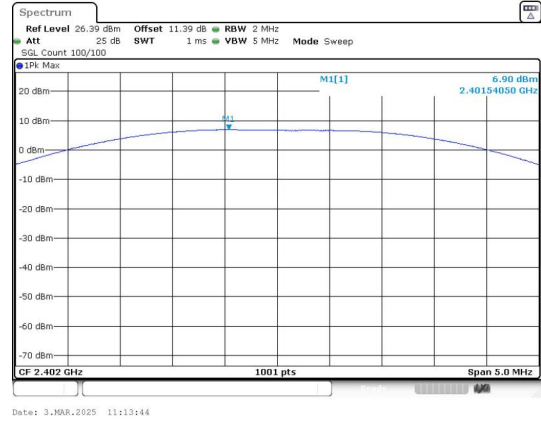
Peak Output Power
BLE 1M_Channel 0



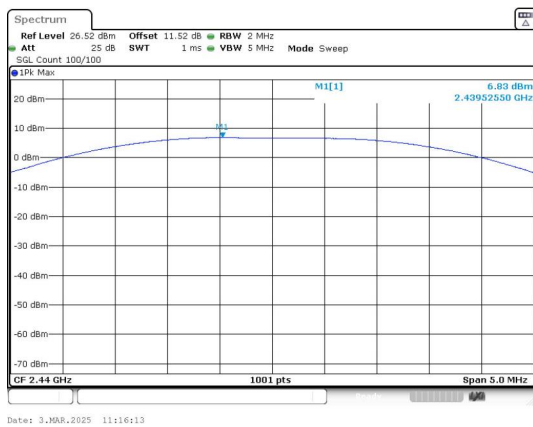
Peak Output Power
BLE 1M_Channel 19



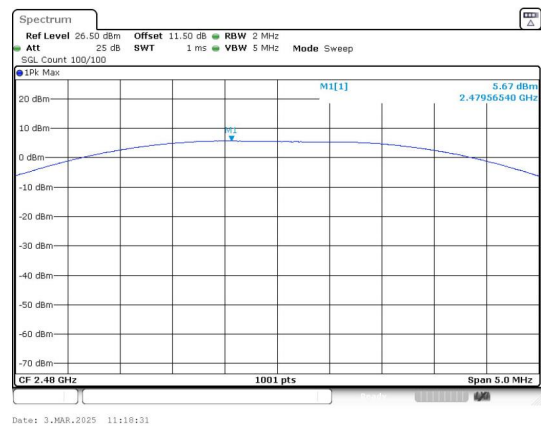
Peak Output Power
BLE 1M_Channel 39



Peak Output Power
BLE 2M_Channel 0



Peak Output Power
BLE 2M_Channel 19



Peak Output Power
BLE 2M_Channel 39

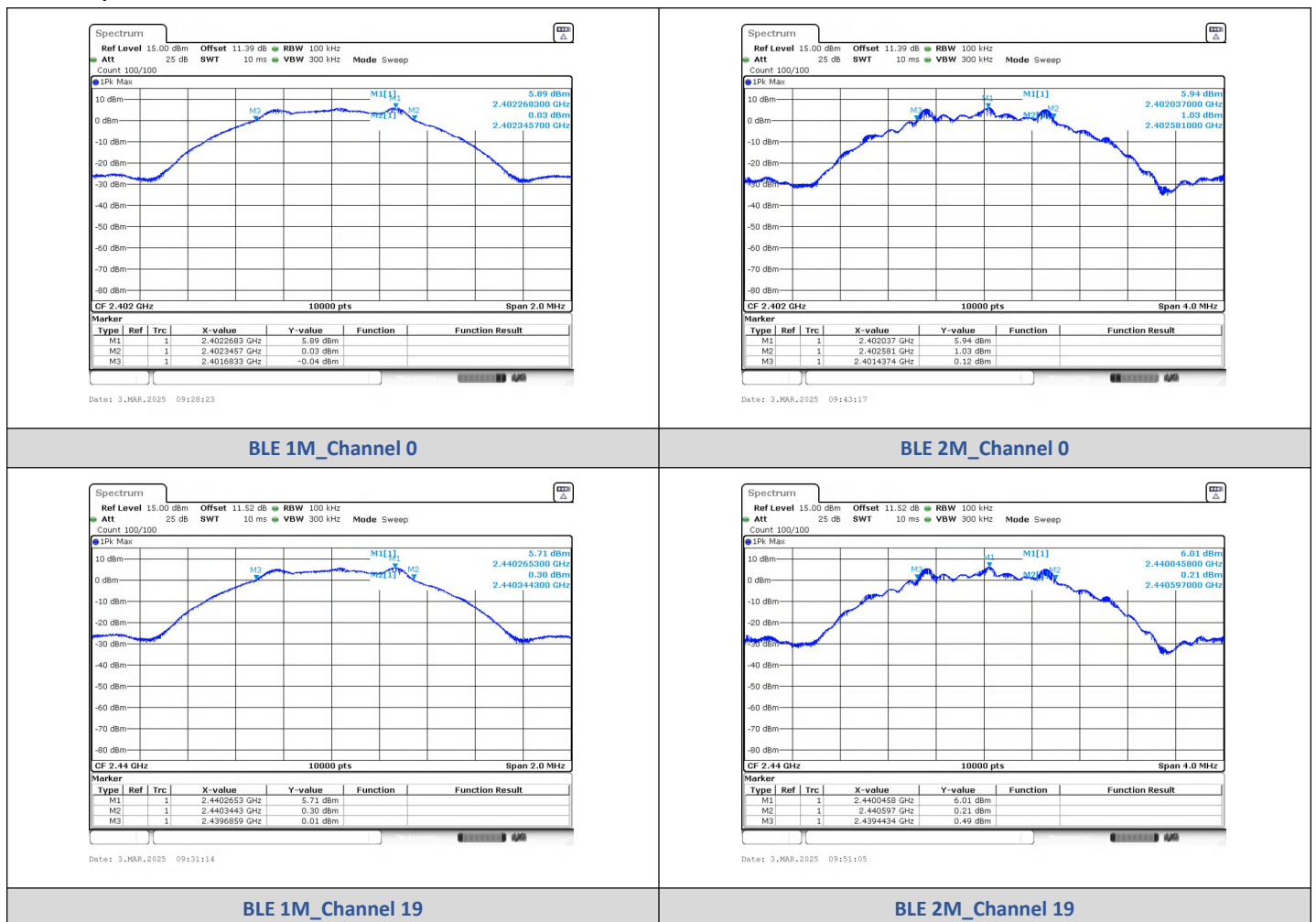
4) 6dB Bandwidth

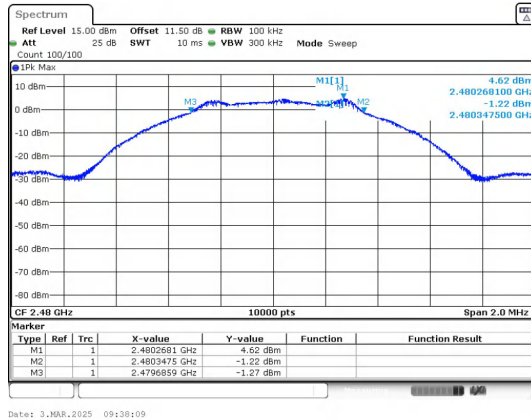
Test Result

Left:

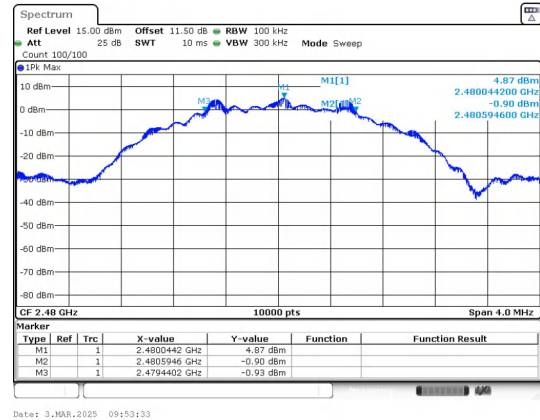
Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6700	≥0.5	PASS
	19	2440	0.6500		PASS
	39	2480	0.6600		PASS
BLE 2M	0	2402	1.140		PASS
	19	2440	1.160		PASS
	39	2480	1.150		PASS

Test Graphs





BLE 1M_Channel 39

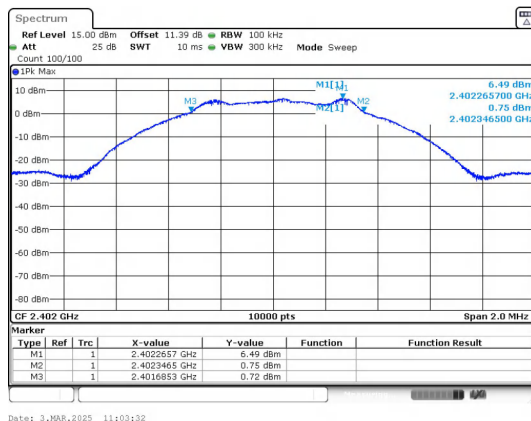


BLE 2M_Channel 39

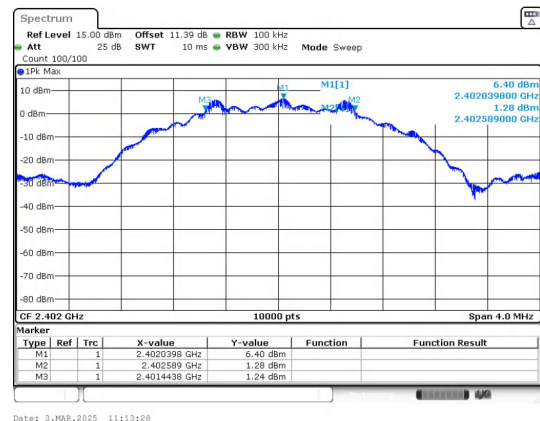
Right:

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

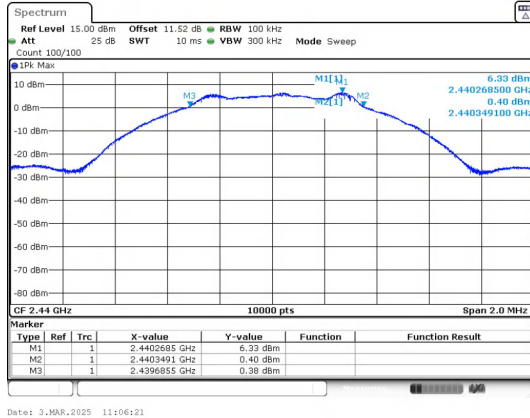
Test Graphs



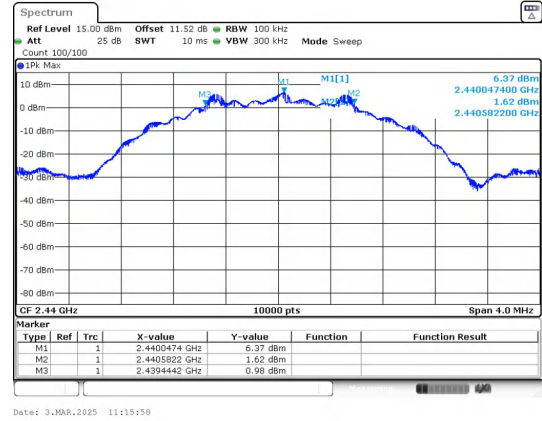
BLE 1M_Channel 0



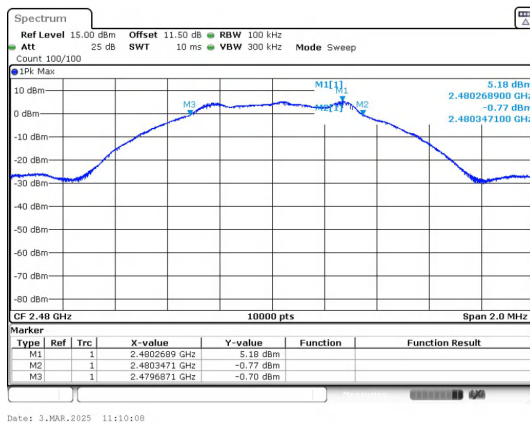
BLE 2M_Channel 0



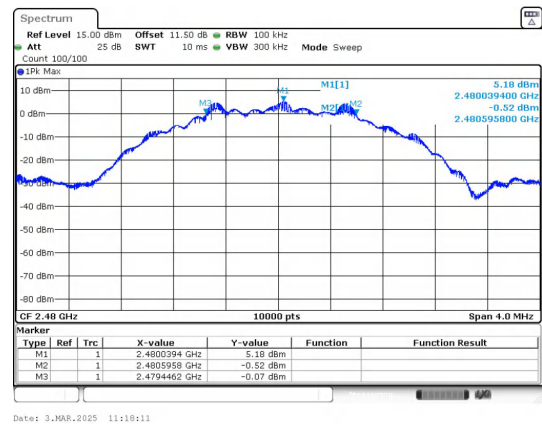
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 39

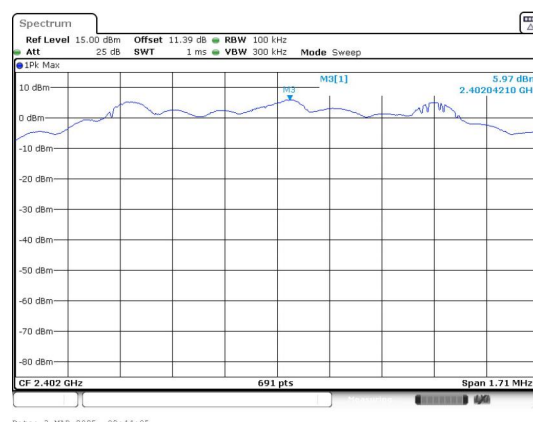
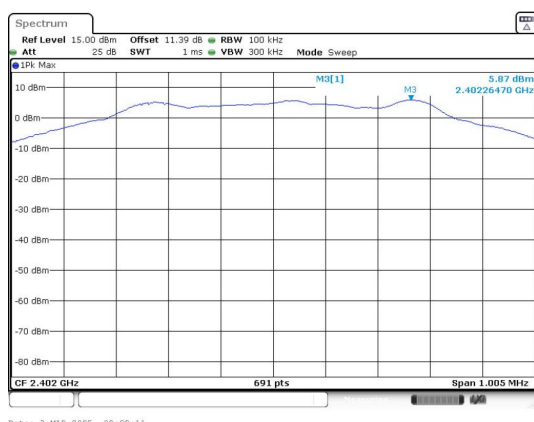
5) Conducted Out Of Band Emission

Test Result

Left:

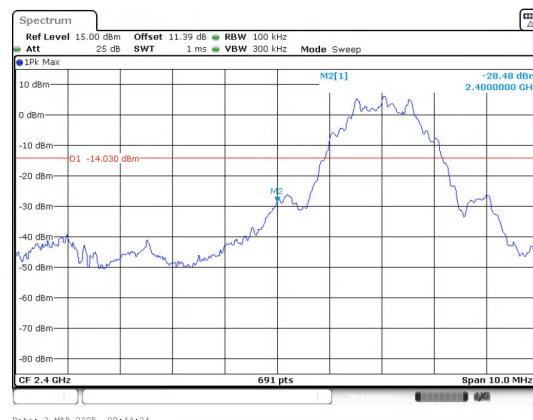
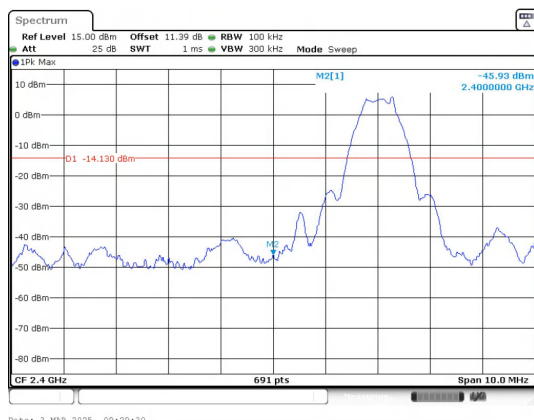
Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2399.00	-41.354	-14.13	-27.224	PASS
		2400.00	-45.930	-14.13	-31.800	PASS
		7205.10	-41.270	-14.13	-27.140	PASS
	19	9753.73	-40.338	-14.3	-26.038	PASS
	39	2483.50	-44.900	-15.37	-29.530	PASS
		9914.37	-37.585	-15.37	-22.215	PASS
BLE 2M	0	2400.00	-28.480	-14.03	-14.450	PASS
		5820.96	-38.445	-14.03	-24.415	PASS
	19	9753.73	-40.339	-13.95	-26.389	PASS
	39	2483.50	-48.940	-15.12	-33.820	PASS
		9914.37	-36.820	-15.12	-21.700	PASS

Test Graphs

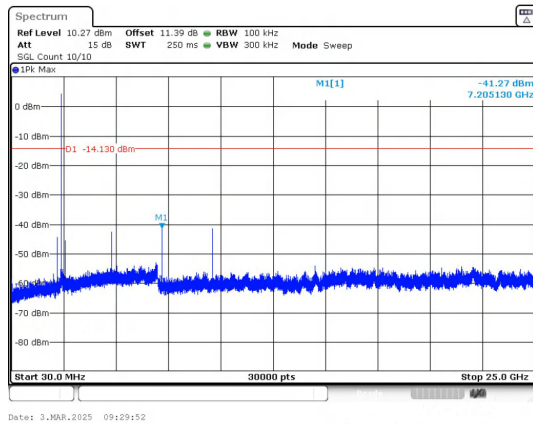


In-Band Reference Level
BLE 1M_Channel 0

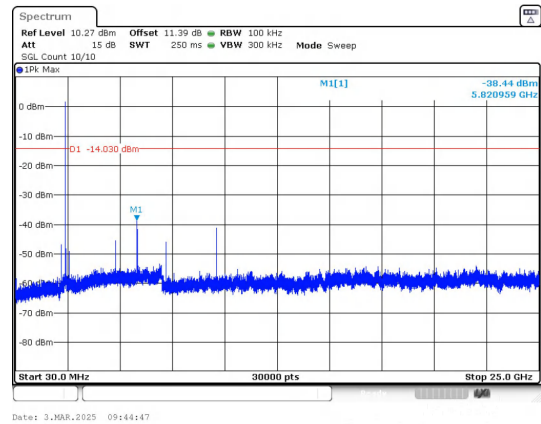
In-Band Reference Level
BLE 2M_Channel 0



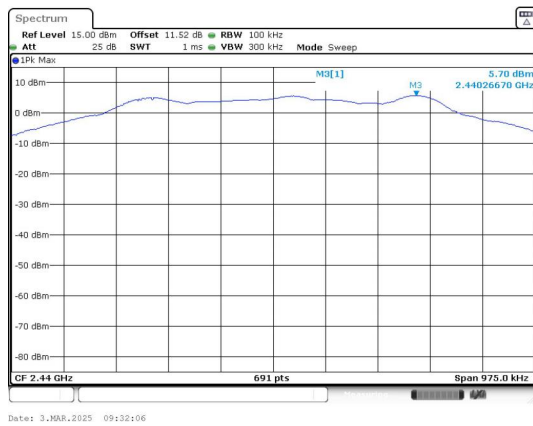
Out Of Band Emission
BLE 1M_Channel 0



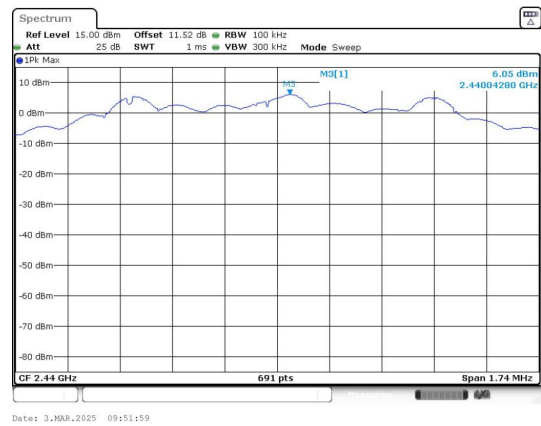
Out Of Band Emission
BLE 2M_Channel 0



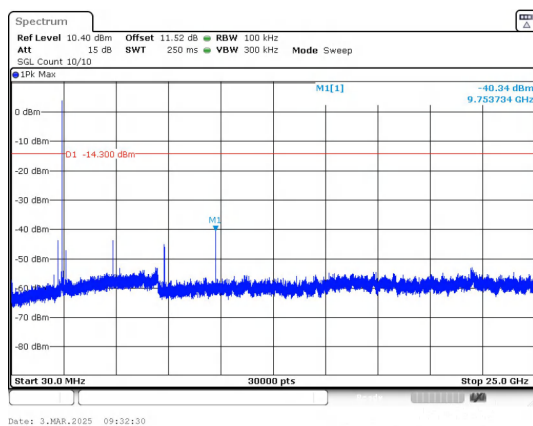
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0



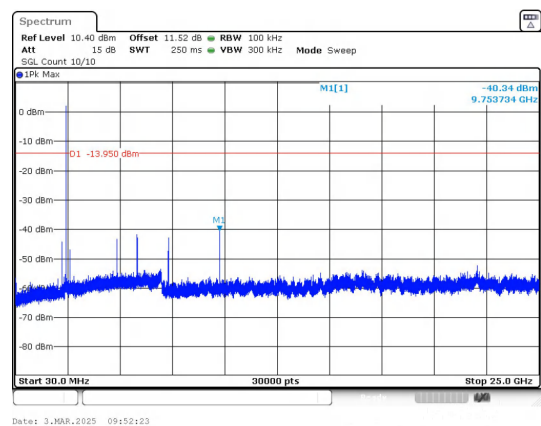
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 0



In-Band Reference Level
BLE 1M_Channel 19

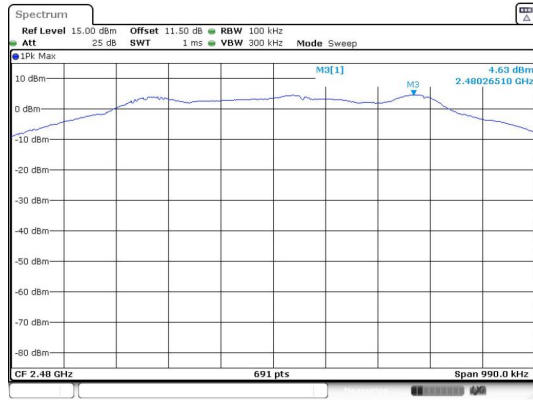


In-Band Reference Level
BLE 2M_Channel 19

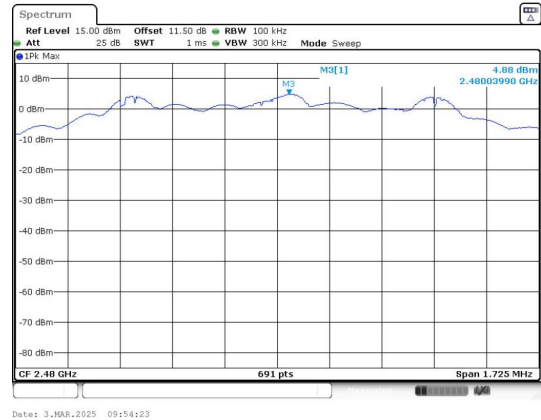


30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19

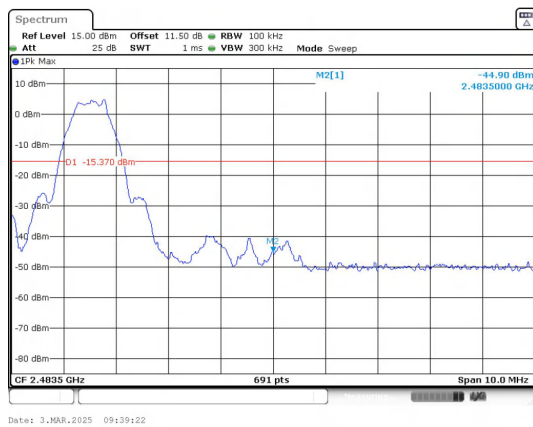
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 19



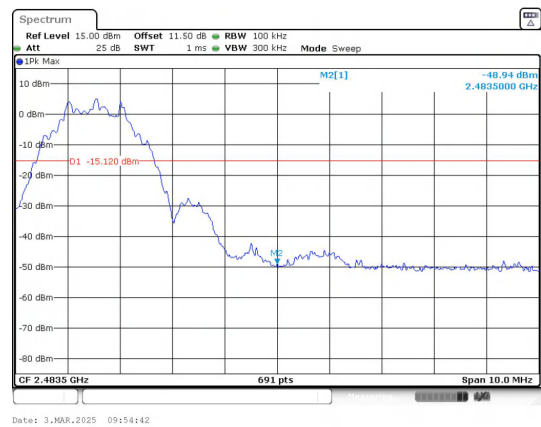
**In-Band Reference Level
BLE 1M_Channel 39**



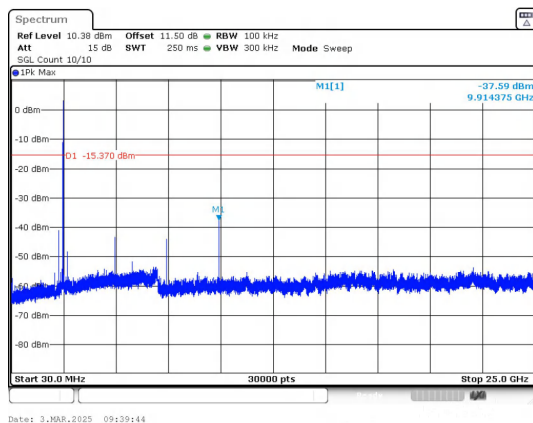
**In-Band Reference Level
BLE 2M_Channel 39**



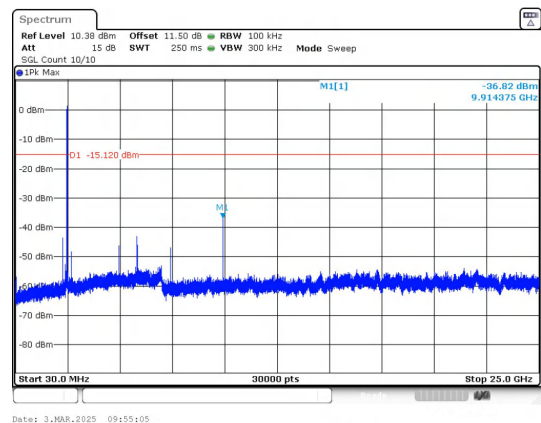
**Out Of Band Emission
BLE 1M_Channel 39**



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



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

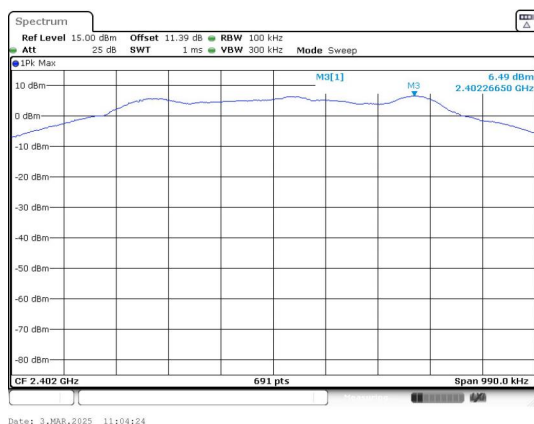


**30.0 MHz - 25000.0 MHz
BLE 2M_Channel 39**

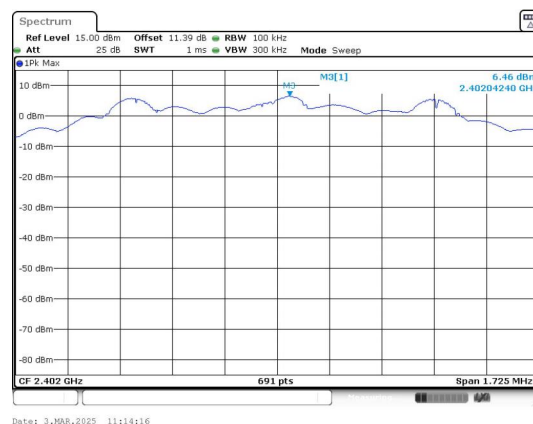
Right:

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2399.00	-39.039	-13.51	-25.529	PASS
		2400.00	-46.310	-13.51	-32.800	PASS
		7205.10	-41.291	-13.51	-27.781	PASS
	19	9753.73	-39.890	-13.65	-26.240	PASS
	39	2483.50	-45.250	-14.82	-30.430	PASS
		9914.37	-37.071	-14.82	-22.251	PASS
BLE 2M	0	2400.00	-26.900	-13.54	-13.360	PASS
		9602.25	-41.009	-13.54	-27.469	PASS
	19	9753.73	-39.971	-13.62	-26.351	PASS
	39	2483.50	-50.330	-14.81	-35.520	PASS
		9914.37	-36.560	-14.81	-21.750	PASS

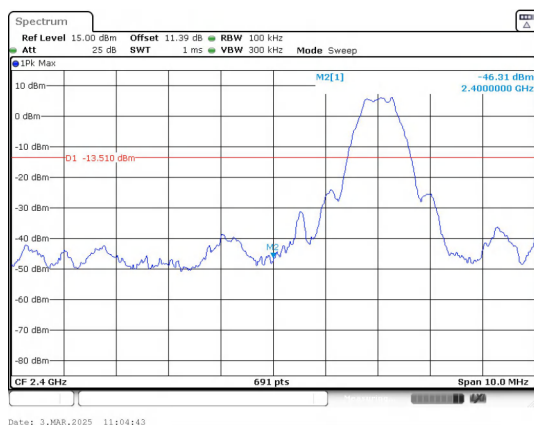
Test Graphs



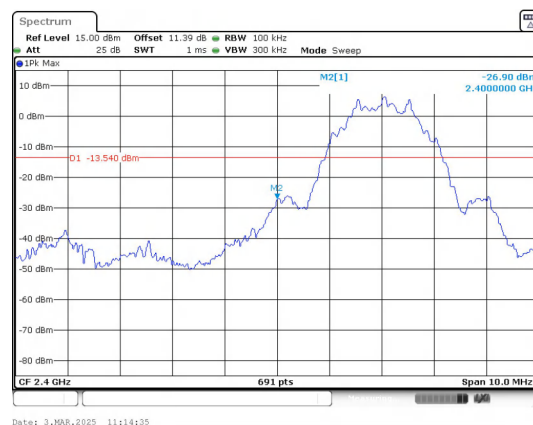
In-Band Reference Level
BLE 1M_Channel 0



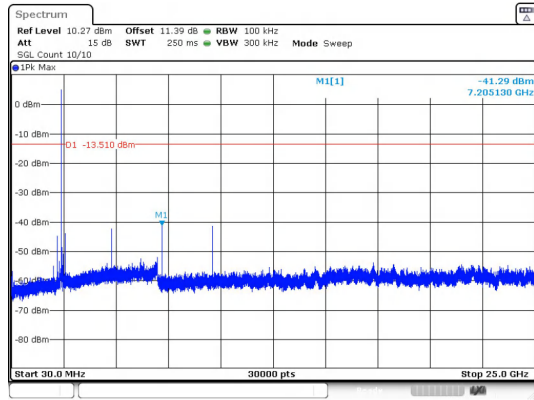
In-Band Reference Level
BLE 2M_Channel 0



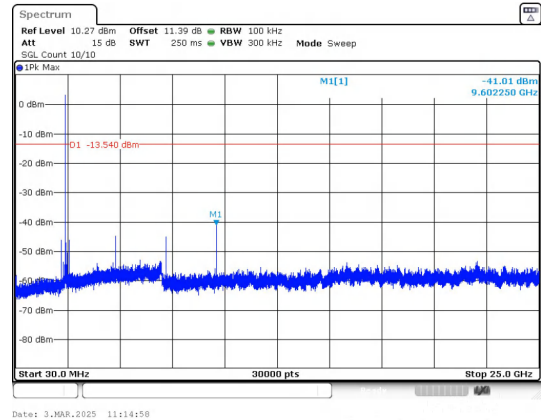
Out Of Band Emission
BLE 1M_Channel 0



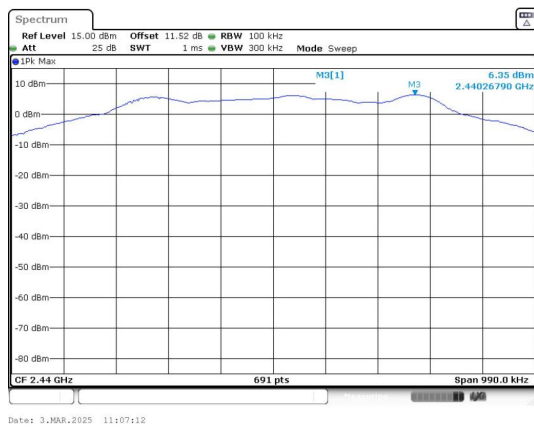
Out Of Band Emission
BLE 2M_Channel 0



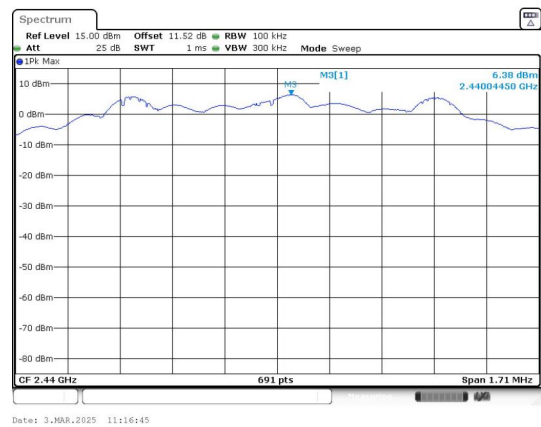
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0



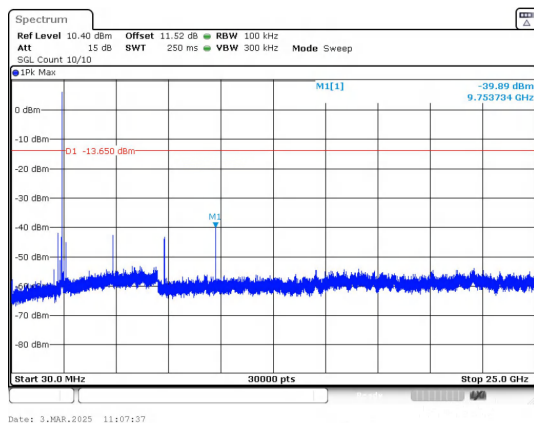
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 0



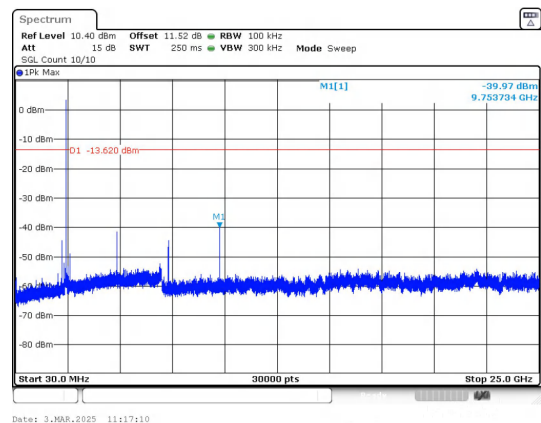
In-Band Reference Level
BLE 1M_Channel 19



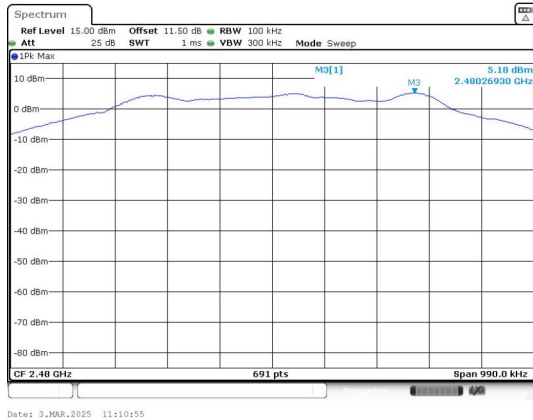
In-Band Reference Level
BLE 2M_Channel 19



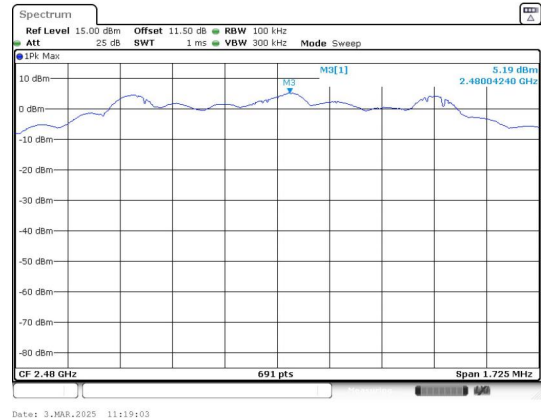
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19



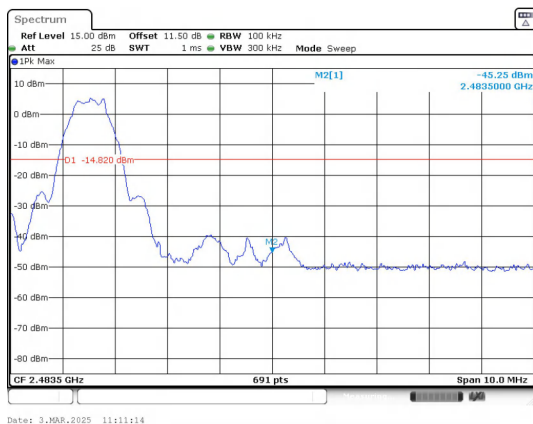
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 19



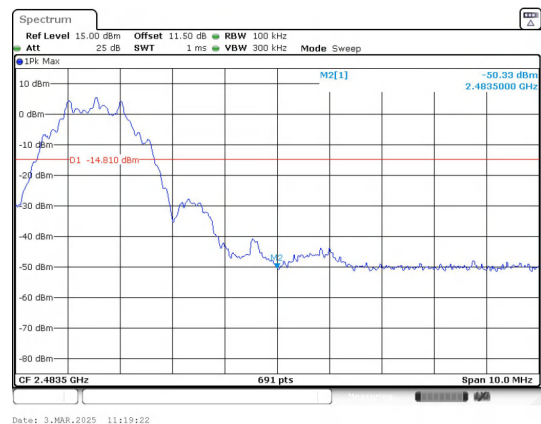
**In-Band Reference Level
BLE 1M_Channel 39**



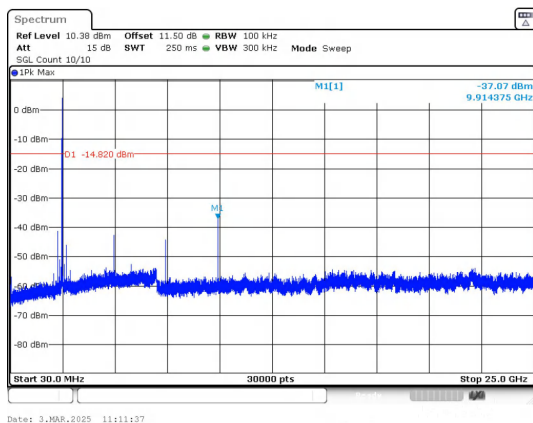
**In-Band Reference Level
BLE 2M_Channel 39**



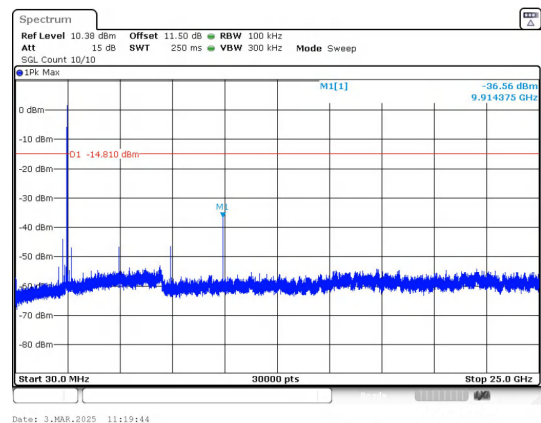
**Out Of Band Emission
BLE 1M_Channel 39**



**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-----