Appendix Report

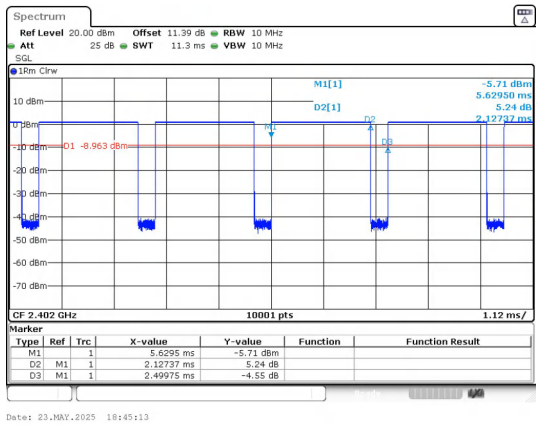
Project No.:	CISR250522096A
Test Engineer:	James Wang
Supervised by:	Rory Huang

1) Duty Cycle

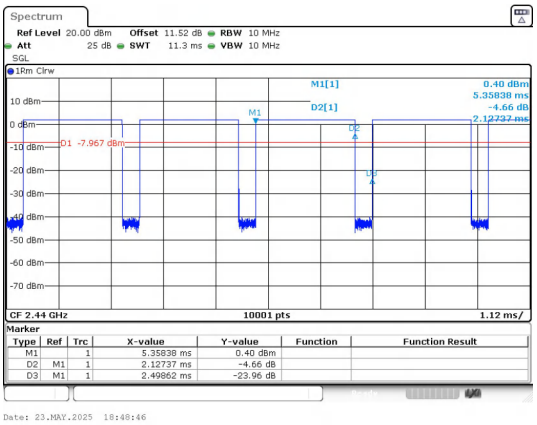
Test Result

Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
BLE 1M	0	2.127	2.500	85.10	0.8510	0.7007	0.4701
	19	2.127	2.499	85.14	0.8514	0.6987	0.4701
	39	2.129	2.500	85.15	0.8515	0.6982	0.4697
BLE 2M	0	1.075	2.500	43.02	0.4302	3.6633	0.9302
	19	1.075	2.499	43.04	0.4304	3.6613	0.9302
	39	1.076	2.499	43.04	0.4304	3.6613	0.9294

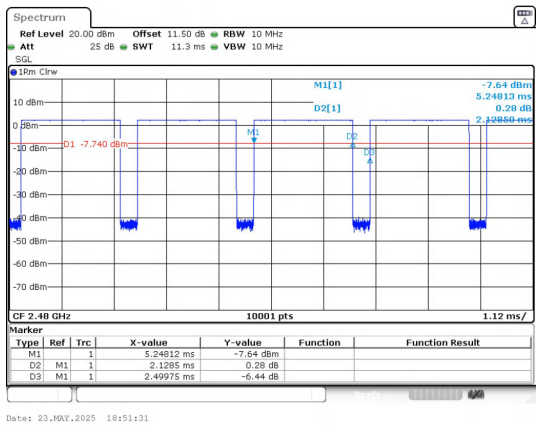
Test Graphs



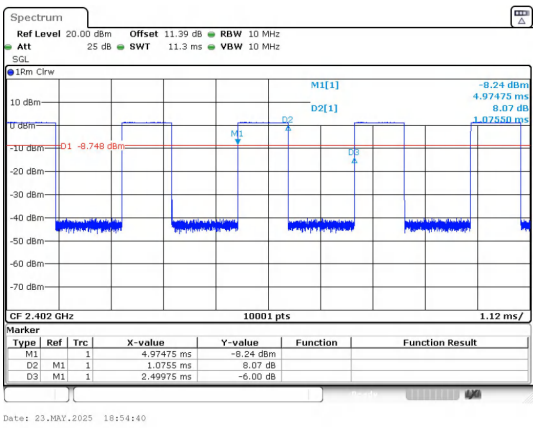
BLE 1M_Channel 0



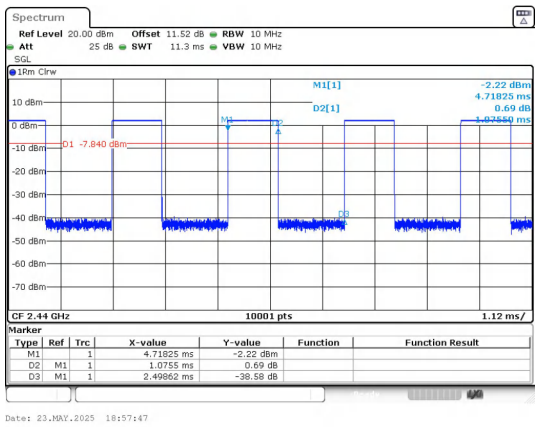
BLE 1M_Channel 19



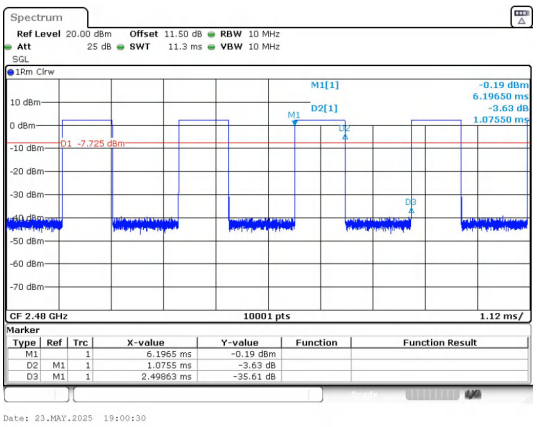
BLE 1M_Channel 39



BLE 2M_Channel 0



BLE 2M_Channel 19



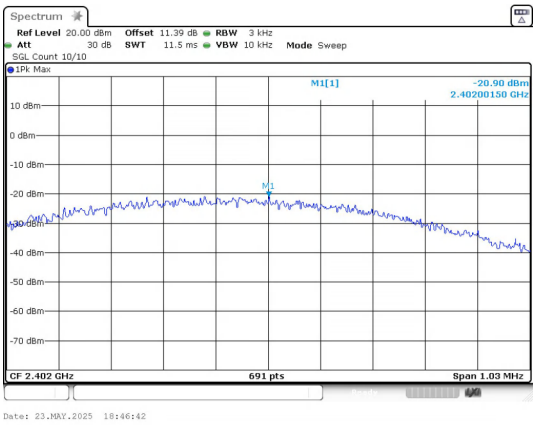
BLE 2M_Channel 39

2) Power Spectral Density

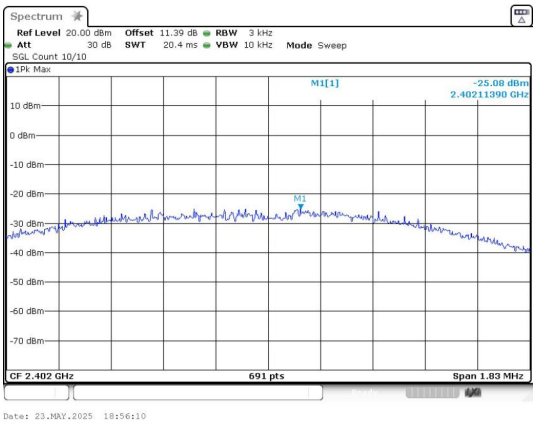
Test Result

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-20.900	≤8	PASS
BLE 1M	19	-19.740	≤8	PASS
BLE 1M	39	-19.730	≤8	PASS
BLE 2M	0	-25.080	≤8	PASS
BLE 2M	19	-23.810	≤8	PASS
BLE 2M	39	-23.690	≤8	PASS

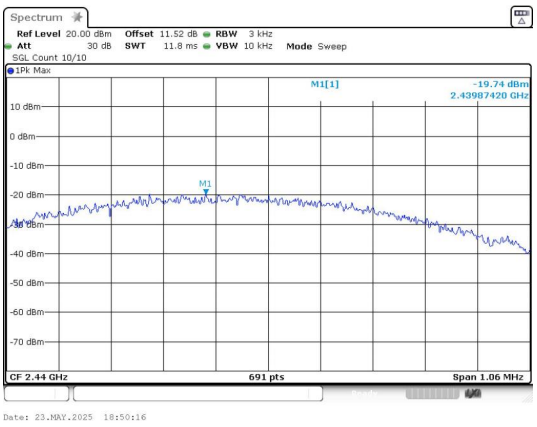
Test Graphs



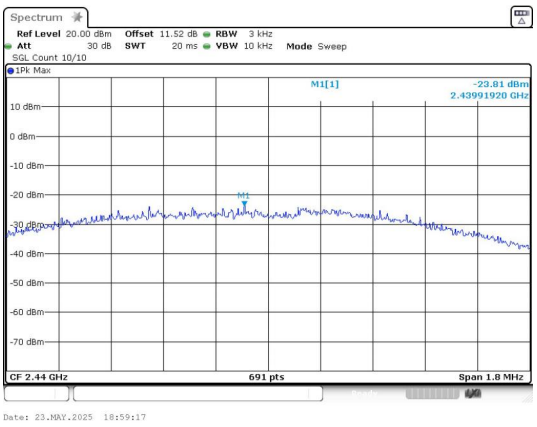
BLE 1M_Channel 0



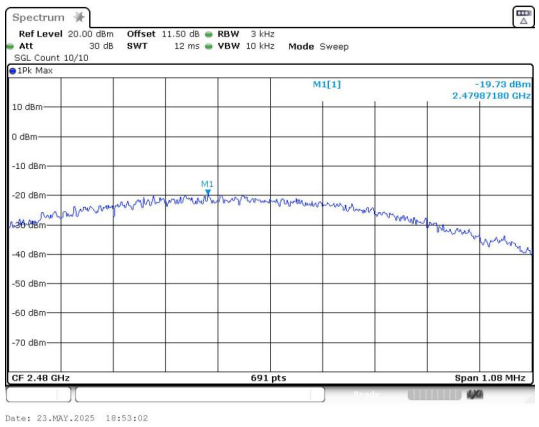
BLE 2M_Channel 0



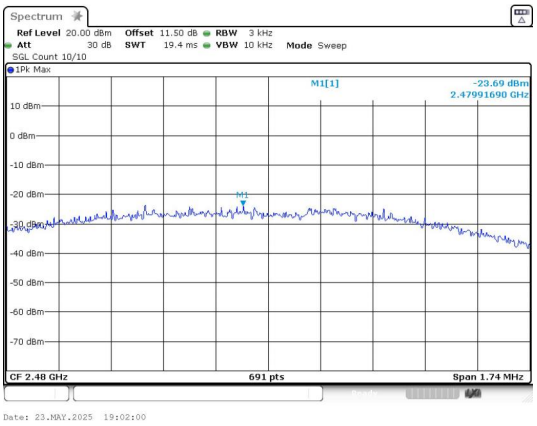
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



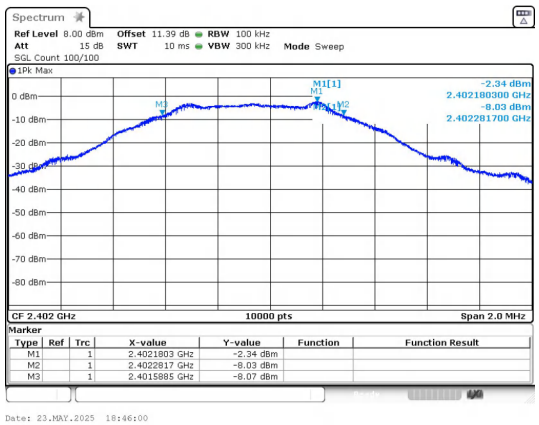
BLE 2M_Channel 39

3) 6dB Bandwidth

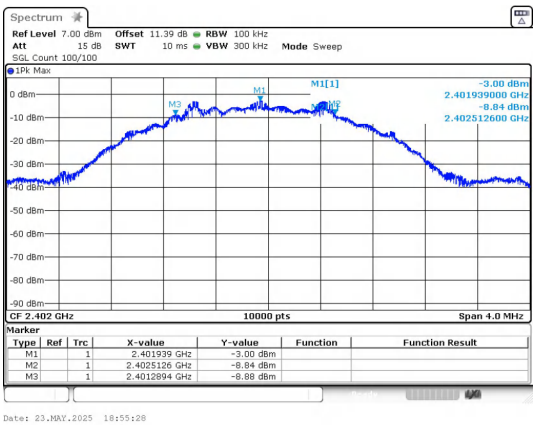
Test Result

Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6900	≥0.5	PASS
	19	2440	0.7100		PASS
	39	2480	0.7200		PASS
BLE 2M	0	2402	1.220		PASS
	19	2440	1.200		PASS
	39	2480	1.160		PASS

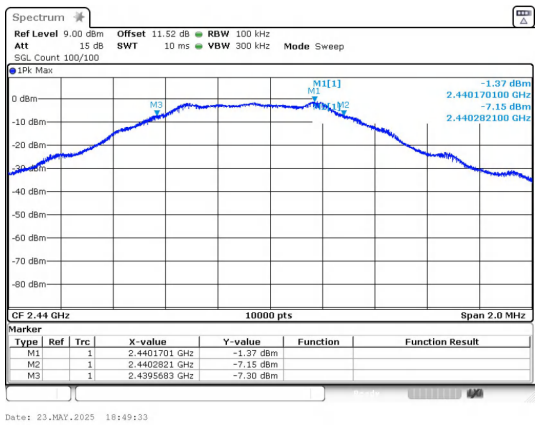
Test Graphs



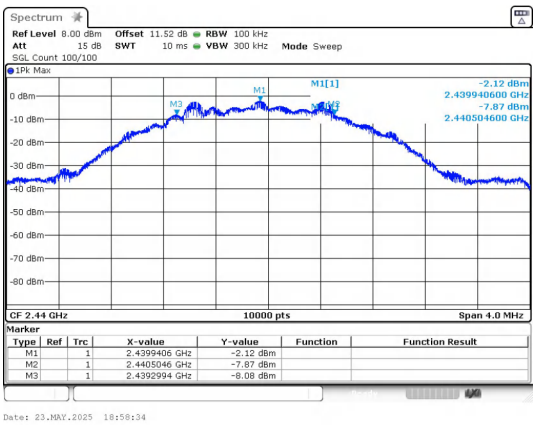
BLE 1M_Channel 0



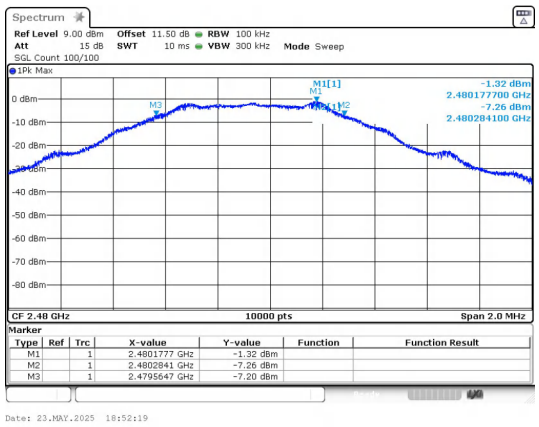
BLE 2M_Channel 0



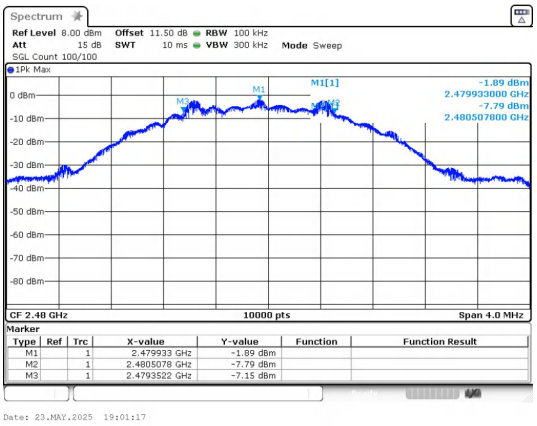
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



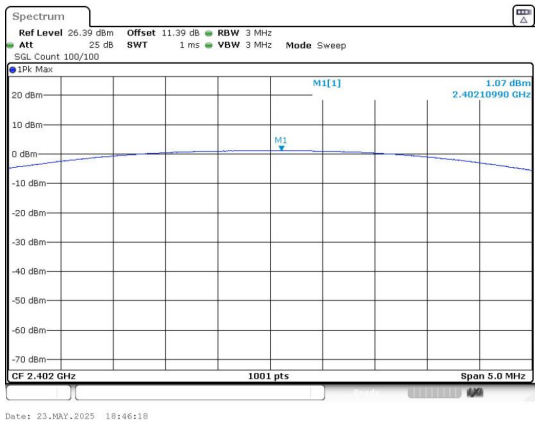
BLE 2M_Channel 39

4) Conducted Output Power

Test Result

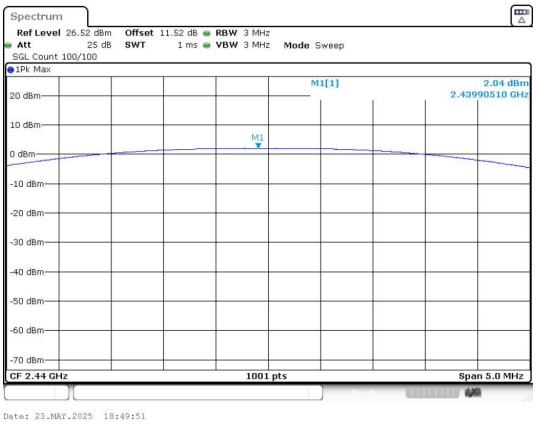
Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	1.07	1.28	≤30	PASS
	19	2.04	1.6	≤30	PASS
	39	2.27	1.69	≤30	PASS
BLE 2M	0	1.27	1.34	≤30	PASS
	19	2.07	1.61	≤30	PASS
	39	2.28	1.69	≤30	PASS

Test Graphs



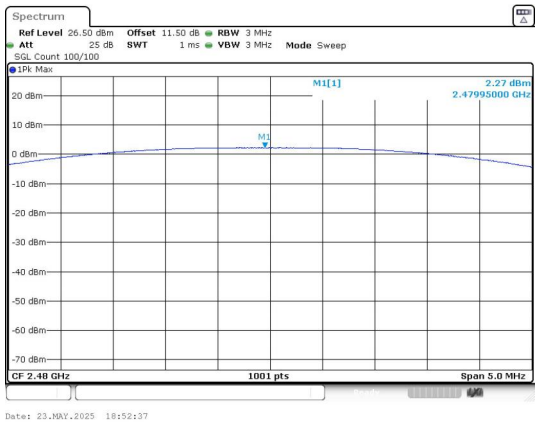
Peak Output Power

BLE 1M_Channel 0



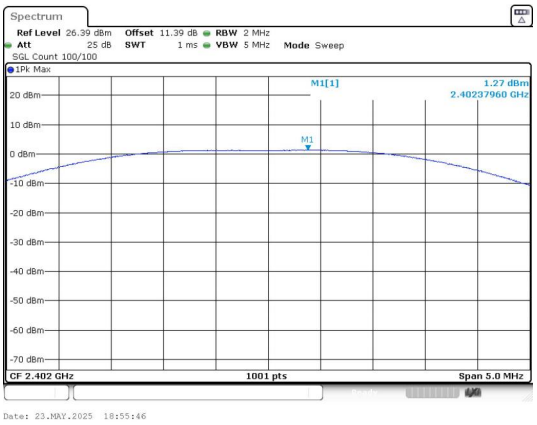
Peak Output Power

BLE 1M_Channel 19



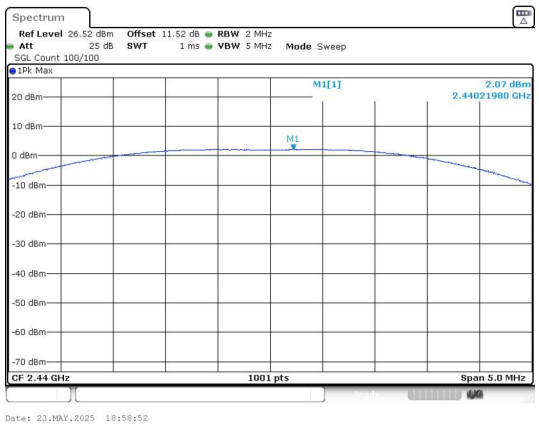
Peak Output Power

BLE 1M_Channel 39



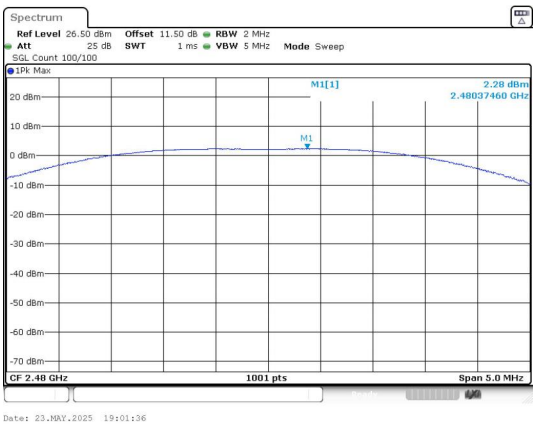
Peak Output Power

BLE 2M_Channel 0



Peak Output Power

BLE 2M_Channel 19



Peak Output Power

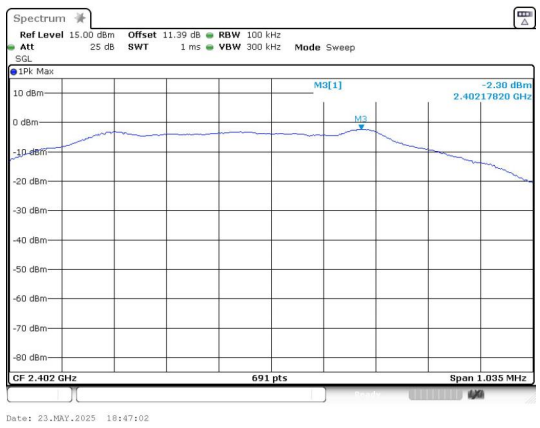
BLE 2M_Channel 39

5) Conducted Out Of Band Emission

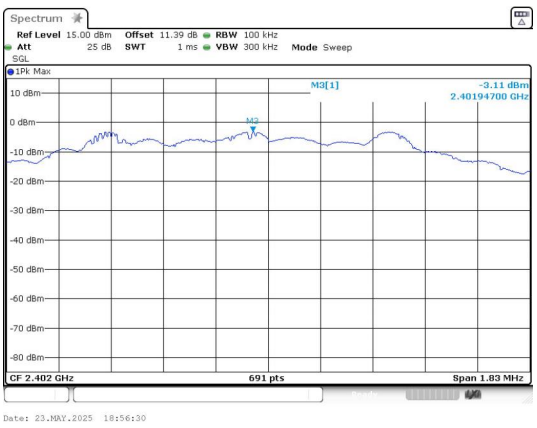
Test Result

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2398.83	-49.880	-22.3	-27.580	PASS
		2400.00	-51.590	-22.3	-29.290	PASS
		9608.10	-50.269	-22.3	-27.969	PASS
	19	4879.59	-49.629	-21.37	-28.259	PASS
	39	2483.50	-50.790	-21.26	-29.530	PASS
		4959.49	-50.315	-21.26	-29.055	PASS
BLE 2M	0	2400.00	-36.740	-23.11	-13.630	PASS
		9608.08	-50.737	-23.11	-27.627	PASS
	19	7319.99	-51.081	-22.14	-28.941	PASS
	39	2483.50	-51.770	-21.86	-29.910	PASS
		4959.49	-49.895	-21.86	-28.035	PASS

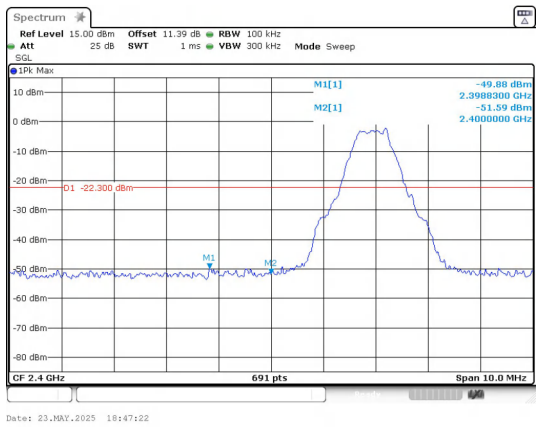
Test Graphs



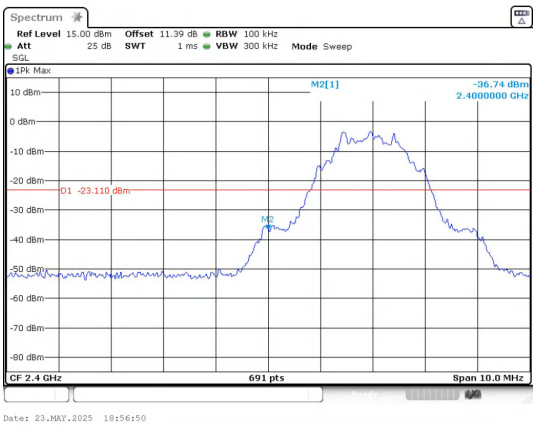
In-Band Reference Level
BLE 1M_Channel 0



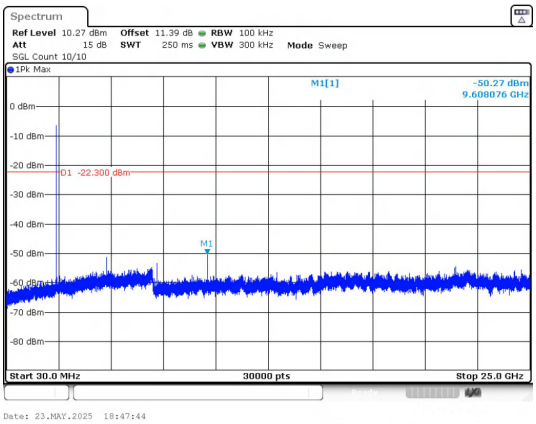
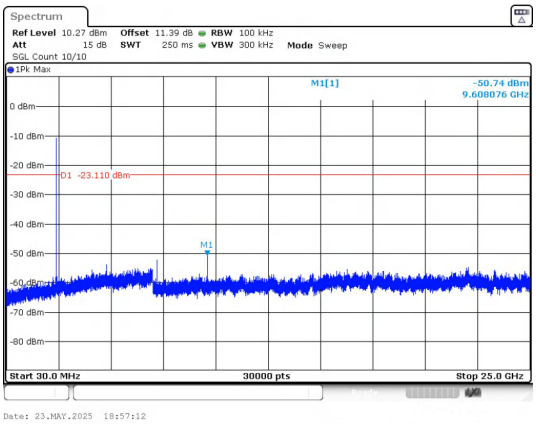
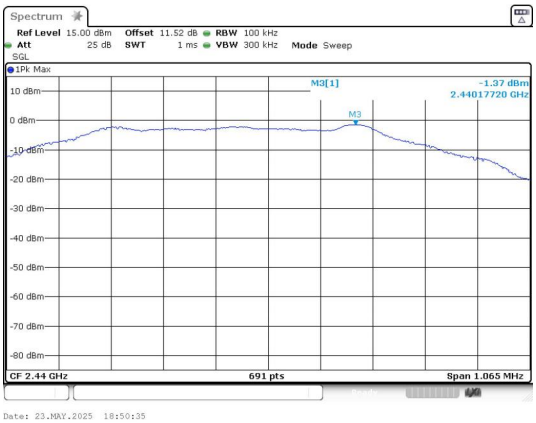
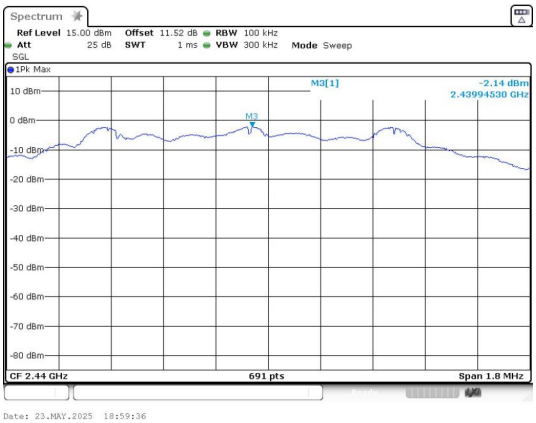
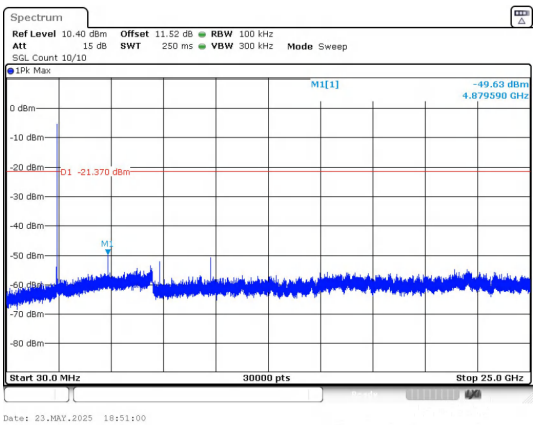
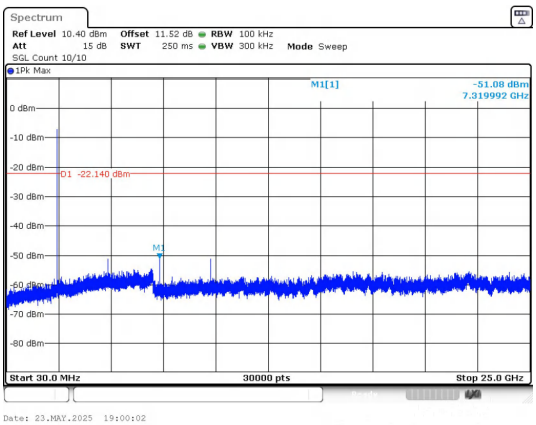
In-Band Reference Level
BLE 2M_Channel 0

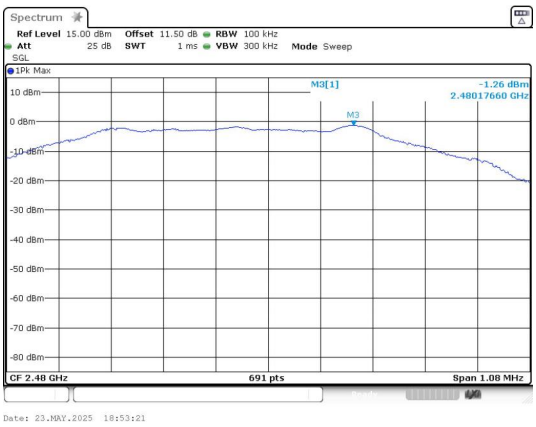


Out Of Band Emission



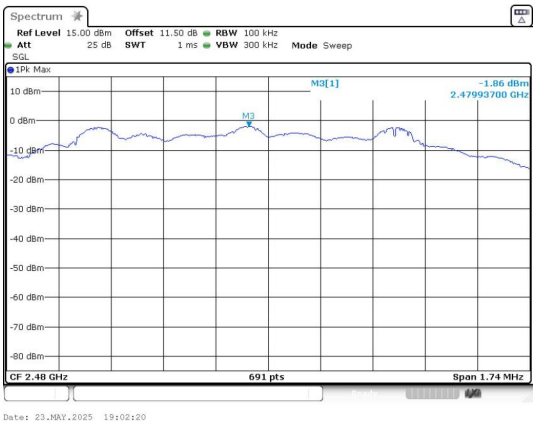
Out Of Band Emission

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



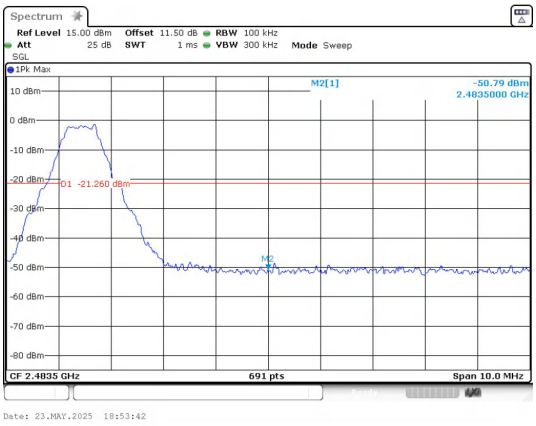
In-Band Reference Level

BLE 1M_Channel 39



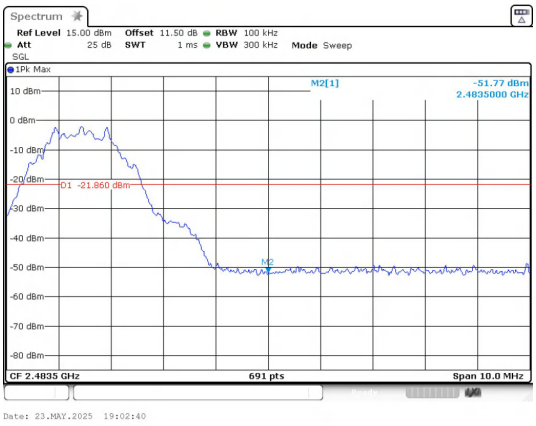
In-Band Reference Level

BLE 2M_Channel 39



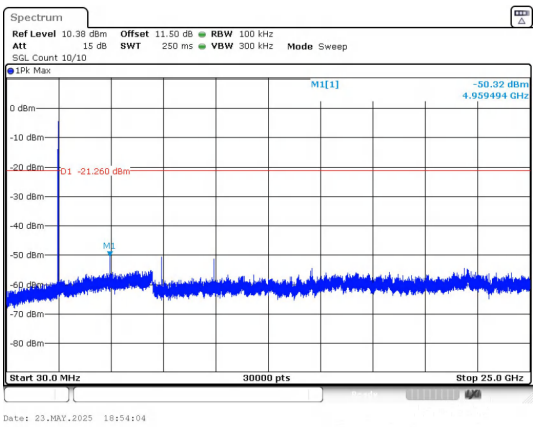
Out Of Band Emission

BLE 1M_Channel 39



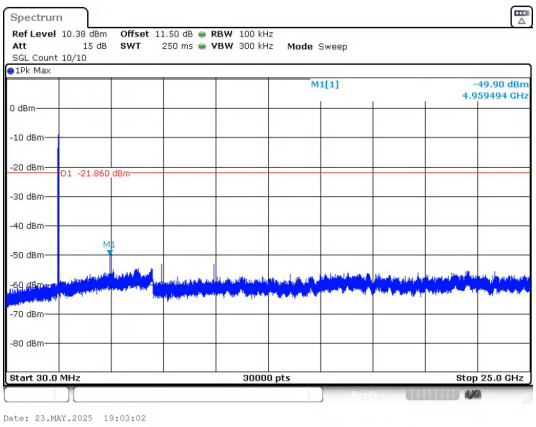
Out Of Band Emission

BLE 2M_Channel 39



30.0 MHz - 25000.0 MHz

BLE 1M_Channel 39



30.0 MHz - 25000.0 MHz

BLE 2M_Channel 39

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