

Appendix A

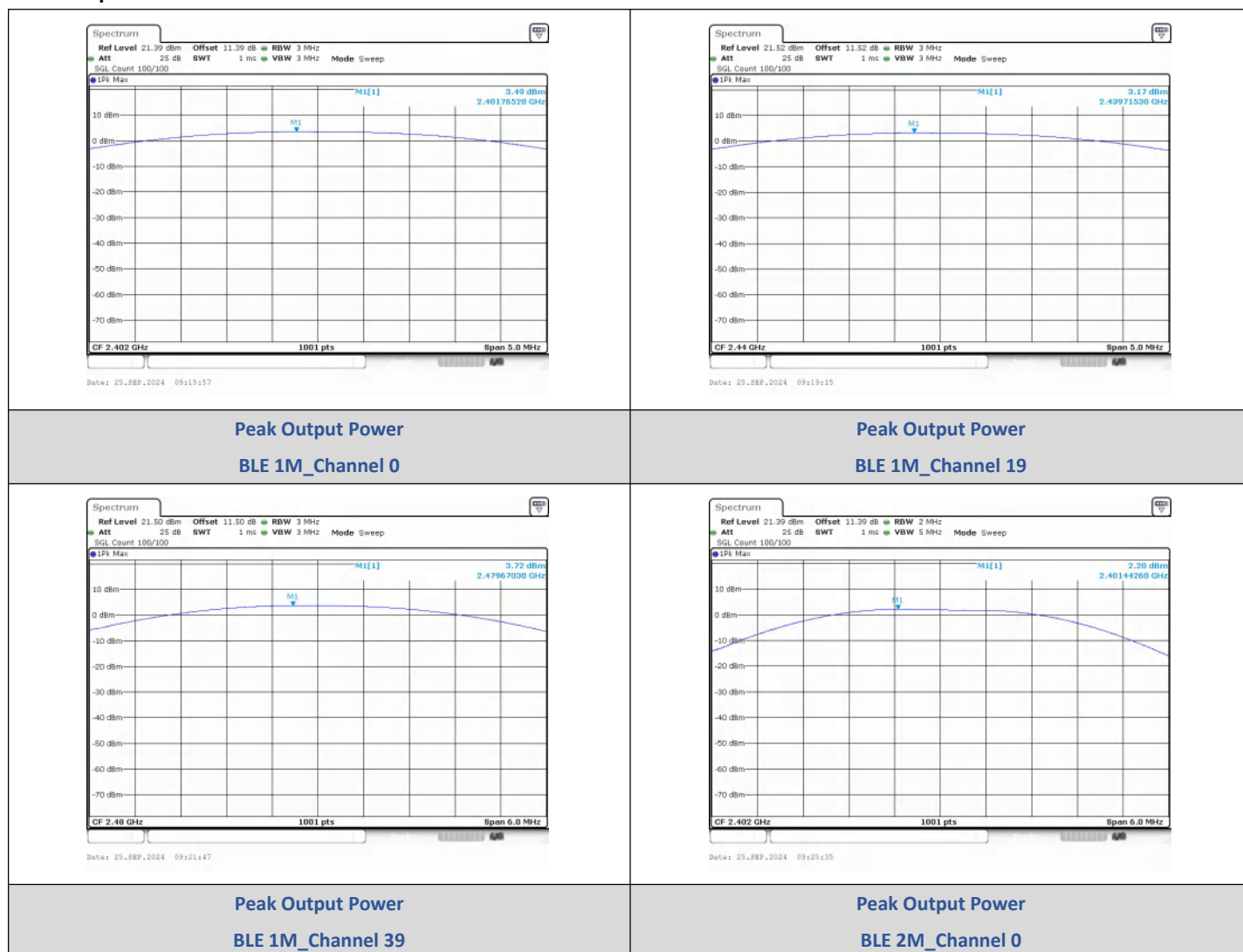
Report No.:	CISRR240921202
FCC ID:	2A5C6-X-TAG
Product Name:	Smart Tracker
Model No.:	X Tag
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

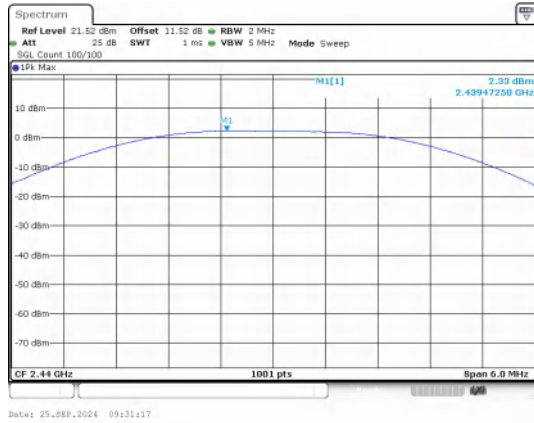
1) Conducted Output Power

Test Result

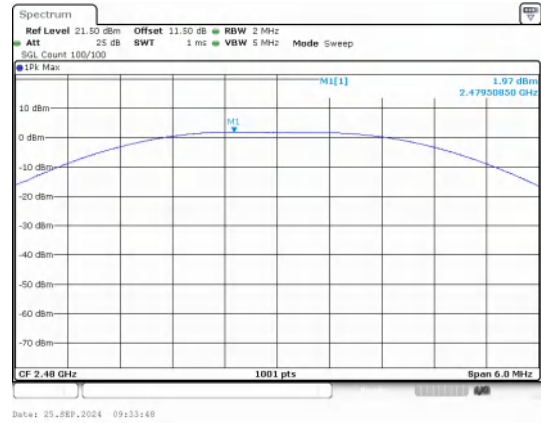
Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	3.49	2.24	≤30	PASS
	19	3.17	2.08	≤30	PASS
	39	3.72	2.35	≤30	PASS
BLE 2M	0	2.21	1.66	≤30	PASS
	19	2.33	1.71	≤30	PASS
	39	1.97	1.58	≤30	PASS

Test Graphs





Peak Output Power
BLE 2M_Channel 19



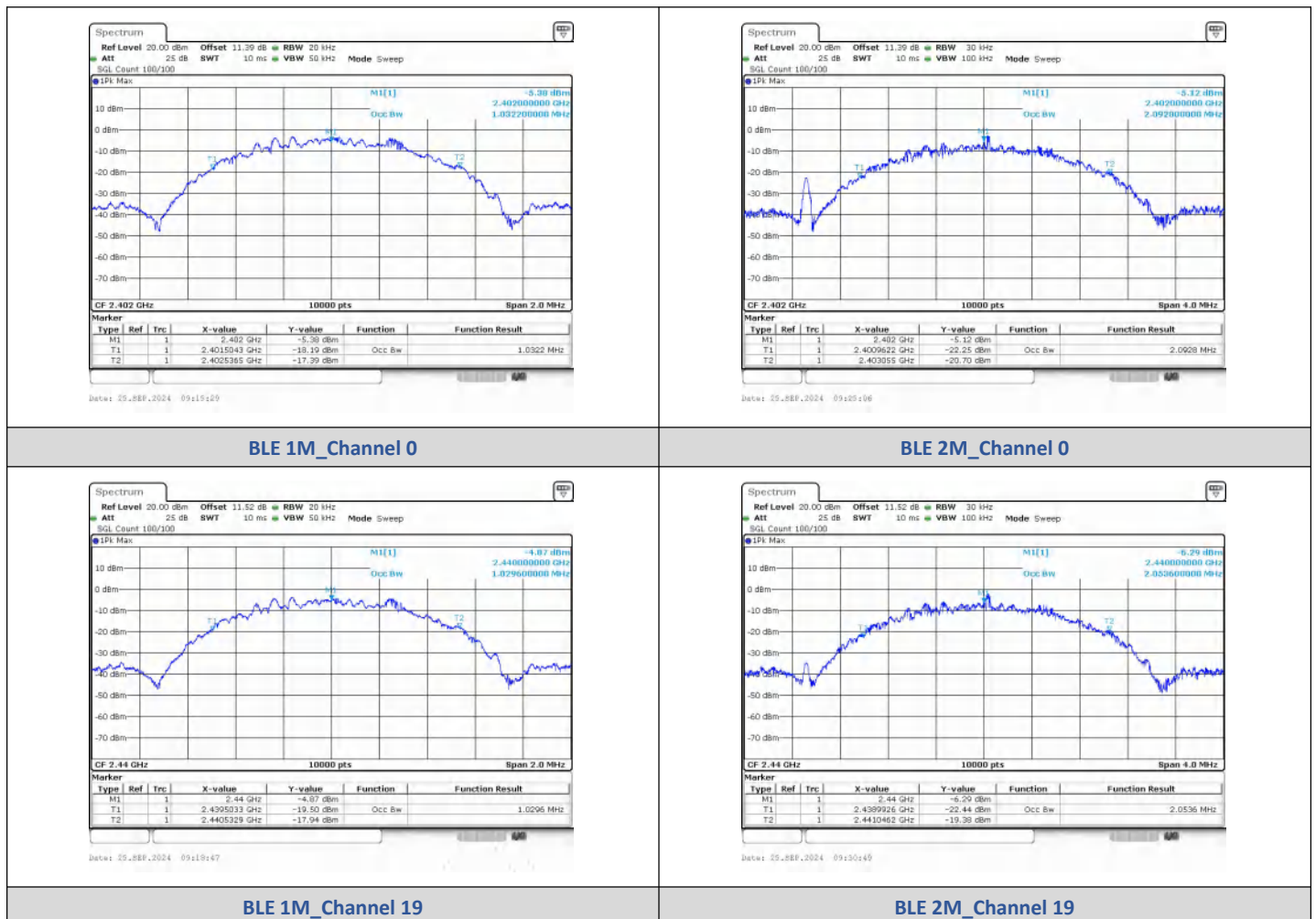
Peak Output Power
BLE 2M_Channel 39

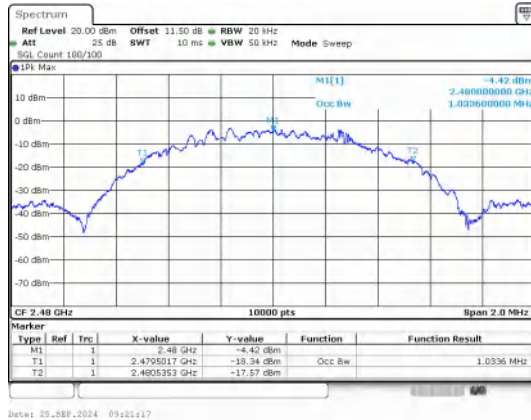
2) 99% Bandwidth

Test Result

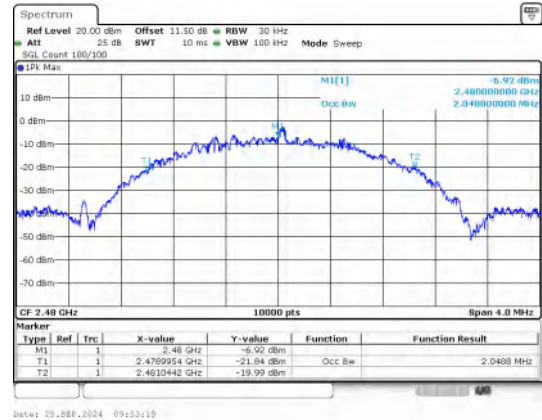
Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0322
BLE 1M	19	2440	1.0296
BLE 1M	39	2480	1.0336
BLE 2M	0	2402	2.0928
BLE 2M	19	2440	2.0536
BLE 2M	39	2480	2.0488

Test Graphs





BLE 1M_Channel 39



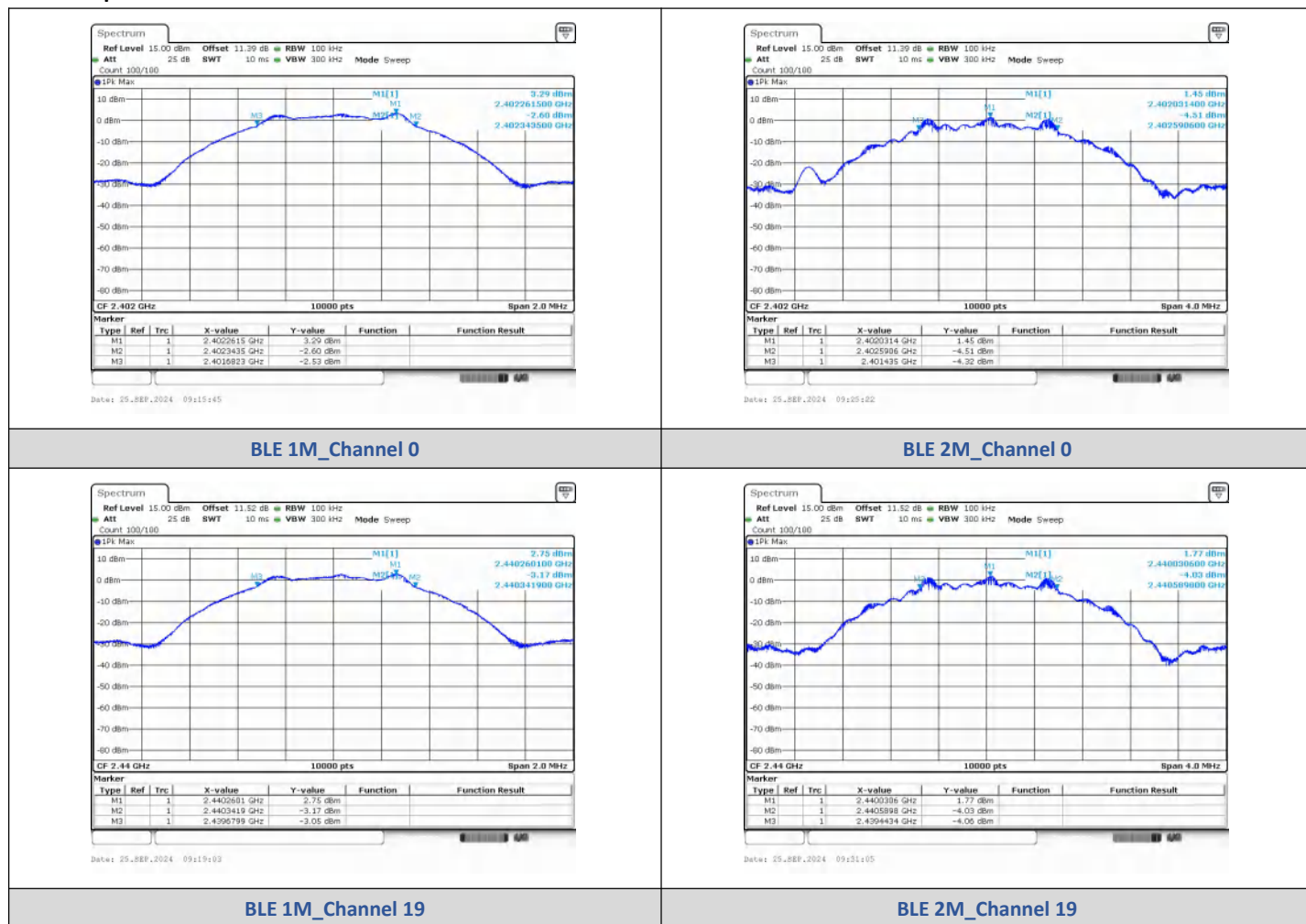
BLE 2M_Channel 39

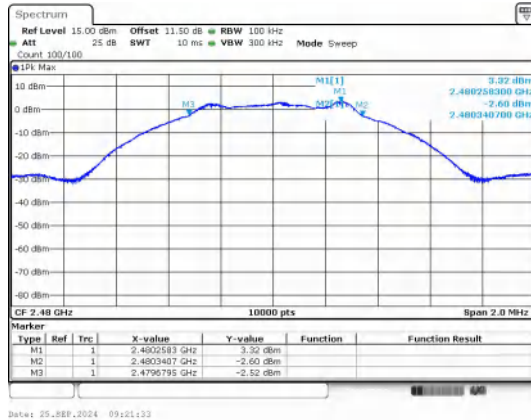
3) 6dB Bandwidth

Test Result

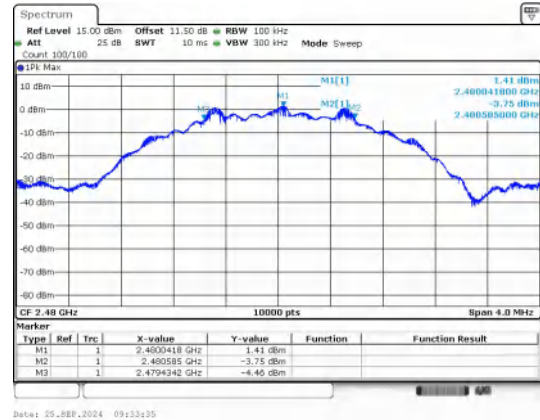
Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6600	≥0.5	PASS
	19	2440	0.6600		PASS
	39	2480	0.6600		PASS
BLE 2M	0	2402	1.160		PASS
	19	2440	1.150		PASS
	39	2480	1.160		PASS

Test Graphs





BLE 1M_Channel 39



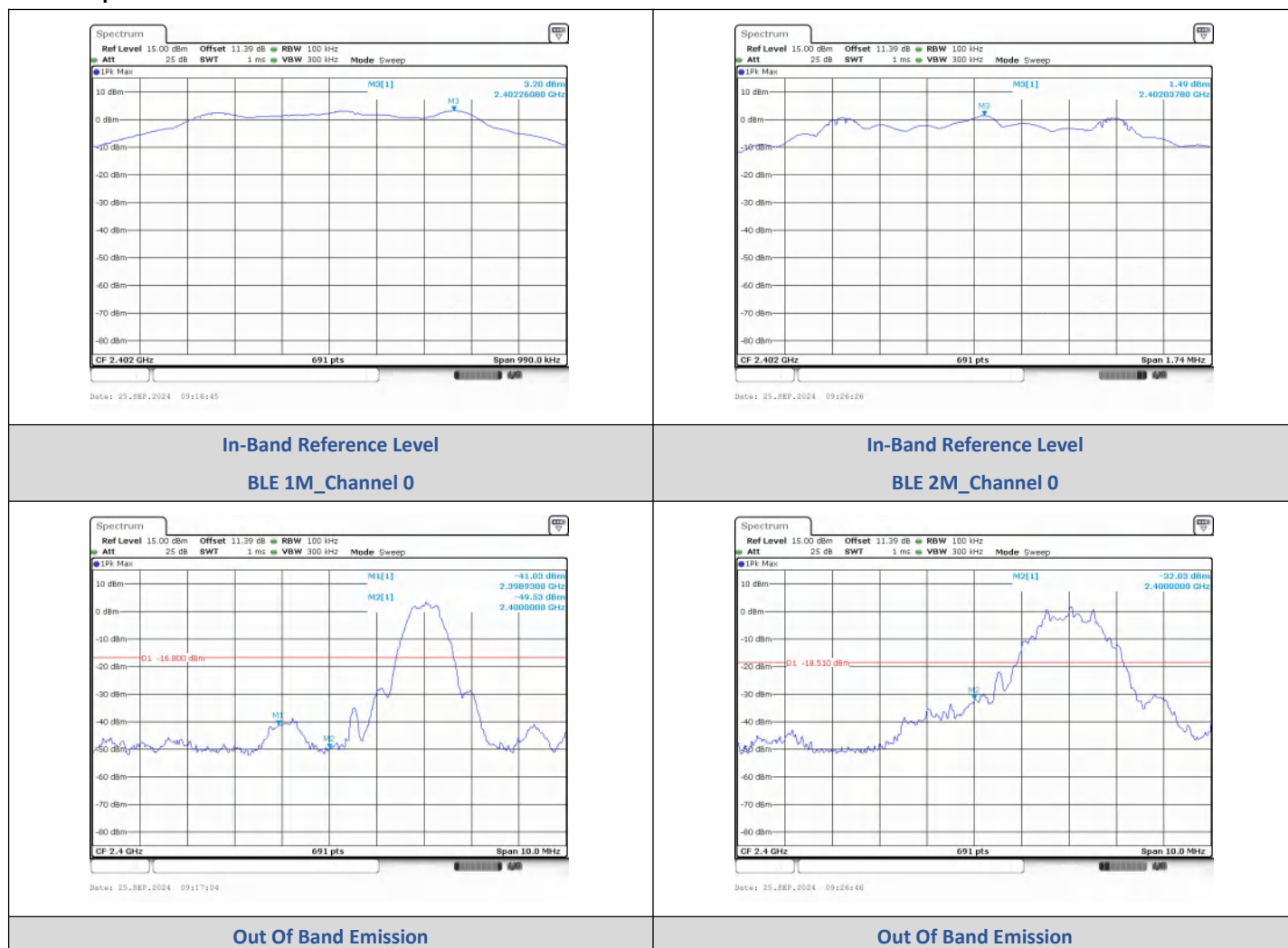
BLE 2M_Channel 39

4) Conducted Out Of Band Emission

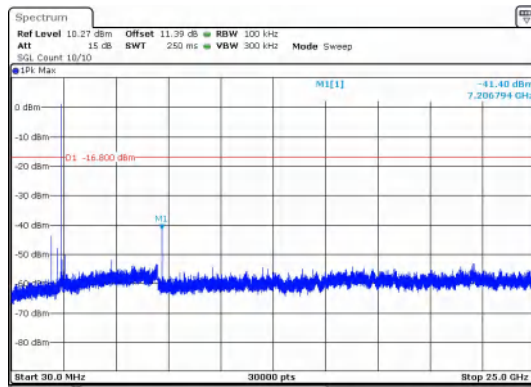
Test Result

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2398.93	-41.027	-16.8	-24.227	PASS
		2400.00	-49.528	-16.8	-32.728	PASS
		7206.80	-41.397	-16.8	-24.597	PASS
	19	7320.82	-37.331	-17.29	-20.041	PASS
	39	1950.61	-32.118	-16.69	-15.428	PASS
		2483.50	-46.240	-16.69	-29.550	PASS
BLE 2M	0	2400.00	-32.029	-18.51	-13.519	PASS
		7200.14	-46.277	-18.51	-27.767	PASS
	19	7319.99	-48.331	-18.17	-30.161	PASS
	39	2483.50	-49.304	-18.51	-30.794	PASS
		9914.37	-44.756	-18.51	-26.246	PASS

Test Graphs

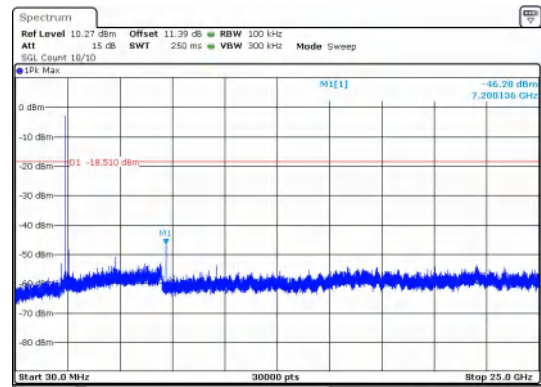


BLE 1M_Channel 0



Date: 25 SEP, 2024 09:17:26

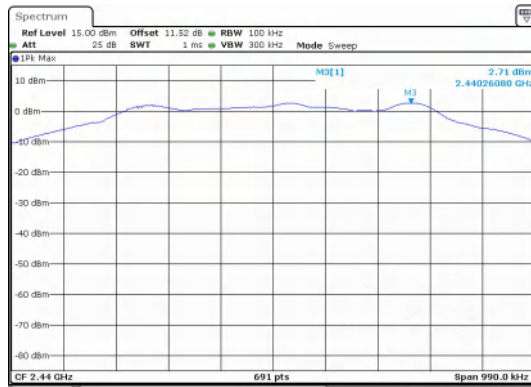
BLE 2M_Channel 0



Date: 25 SEP, 2024 09:27:08

30.0 MHz - 25000.0 MHz

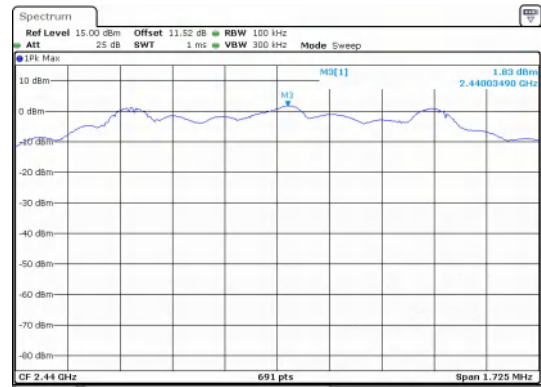
BLE 1M_Channel 0



Date: 25 SEP, 2024 09:20:02

30.0 MHz - 25000.0 MHz

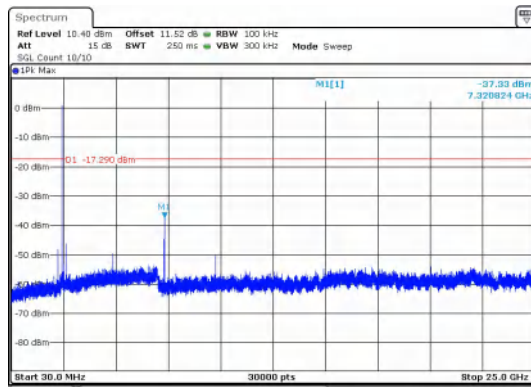
BLE 2M_Channel 0



Date: 25 SEP, 2024 09:32:09

In-Band Reference Level

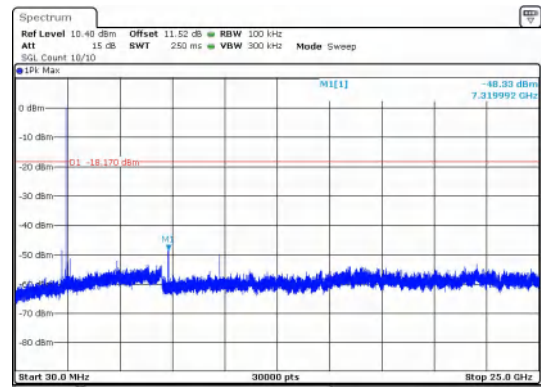
BLE 1M_Channel 19



Date: 25 SEP, 2024 09:20:26

In-Band Reference Level

BLE 2M_Channel 19



Date: 25 SEP, 2024 09:32:33

30.0 MHz - 25000.0 MHz

BLE 1M_Channel 19



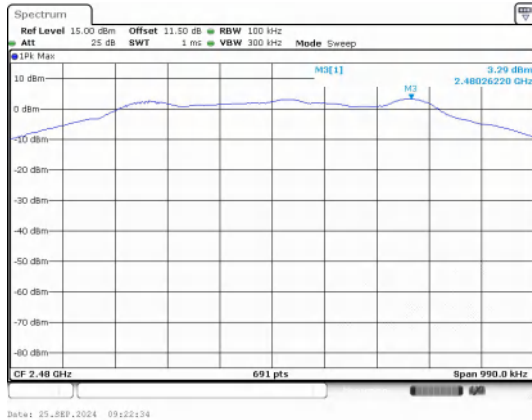
Date: 25 SEP, 2024 09:20:26

30.0 MHz - 25000.0 MHz

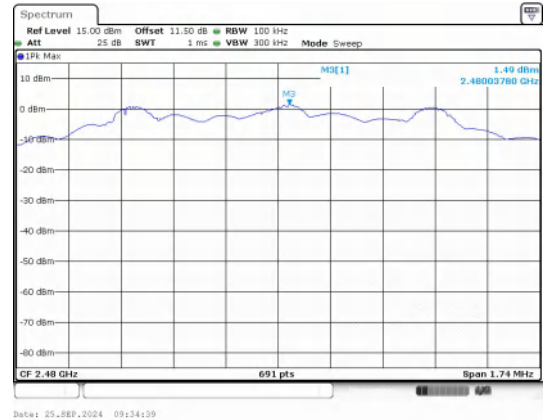
BLE 2M_Channel 19



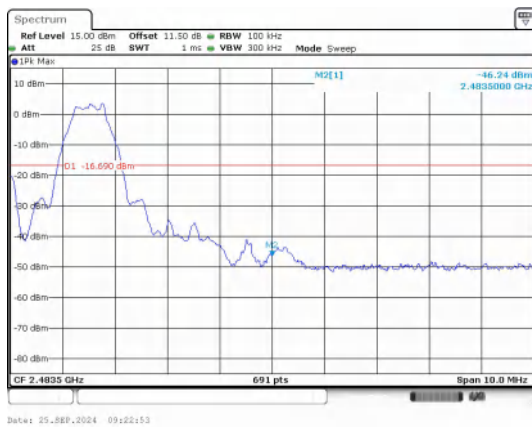
Date: 25 SEP, 2024 09:32:33



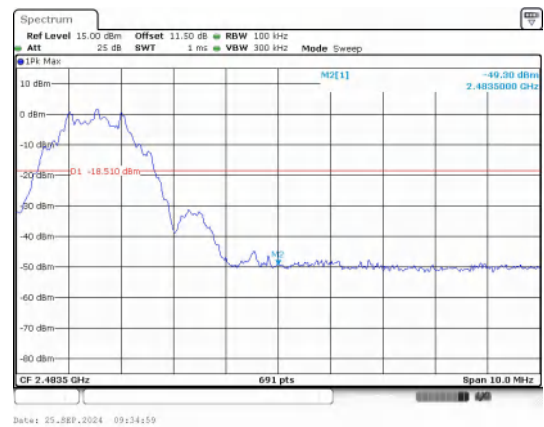
In-Band Reference Level
BLE 1M_Channel 39



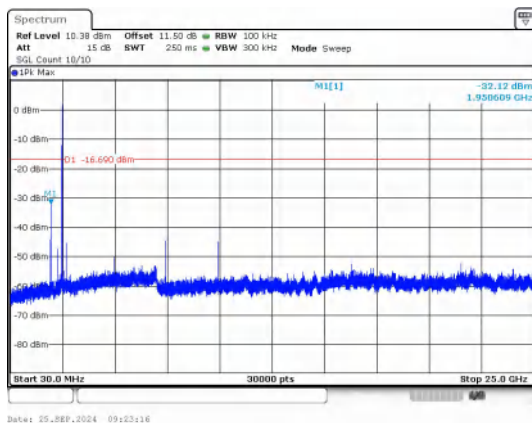
In-Band Reference Level
BLE 2M_Channel 39



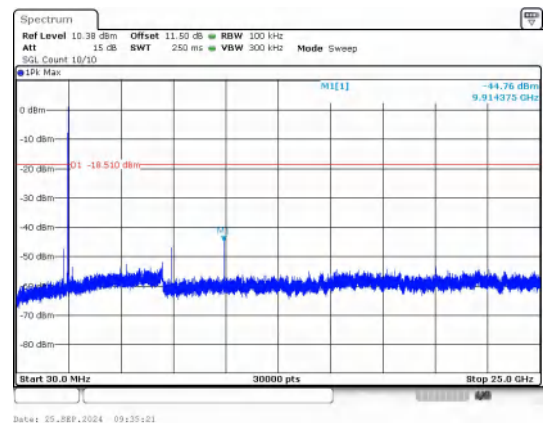
Out Of Band Emission
BLE 1M_Channel 39



Out Of Band Emission
BLE 2M_Channel 39



30.0 MHz - 25000.0 MHz
BLE 1M_Channel 39



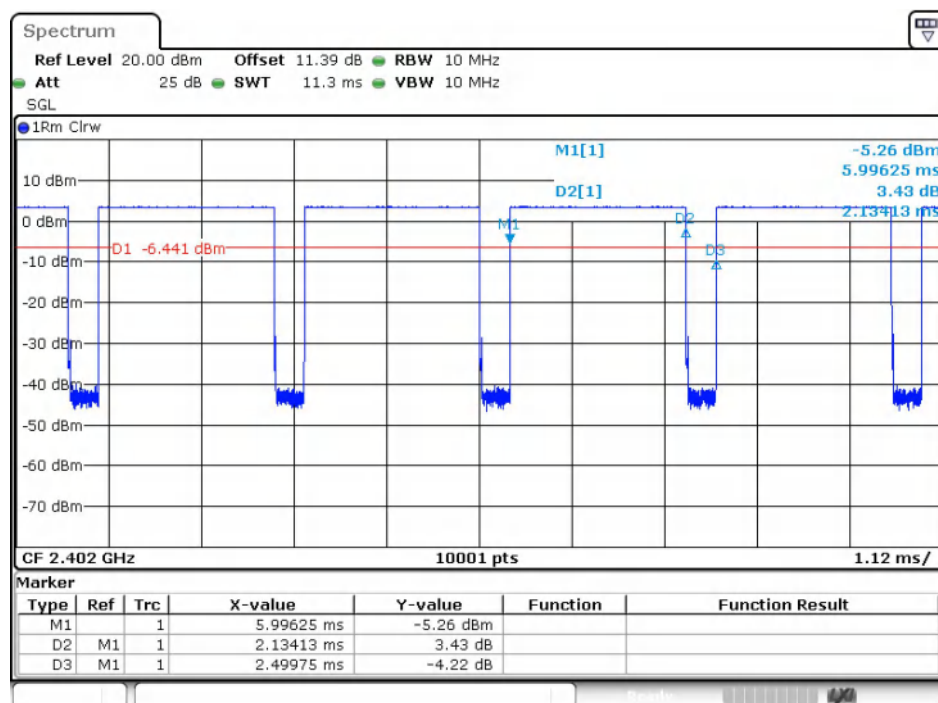
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 39

5) Duty Cycle

Test Result

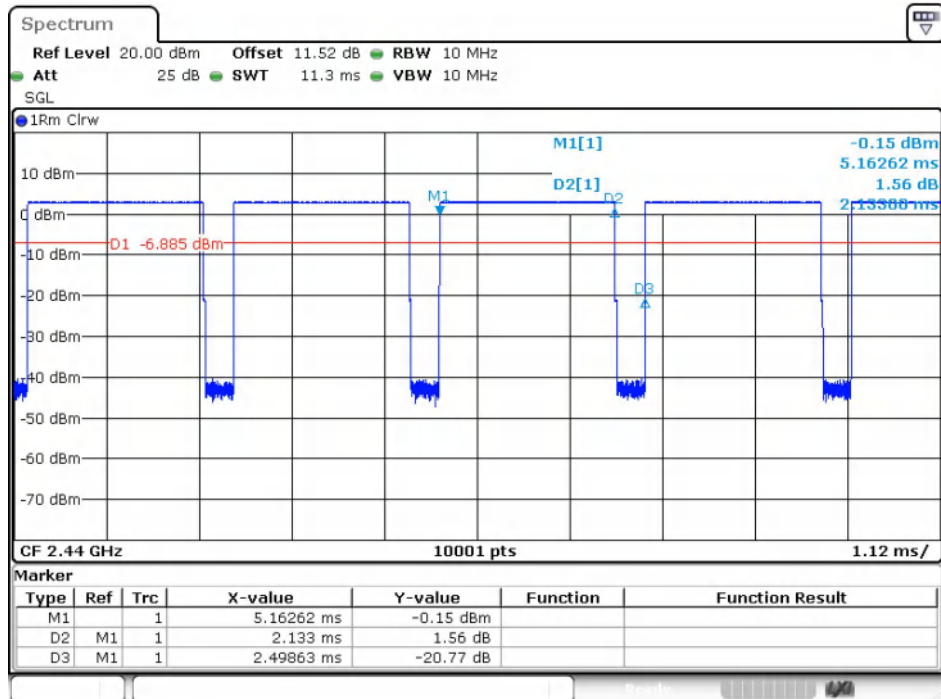
Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
BLE 1M	0	2.134	2.500	85.37	0.8537	0.6869	0.47
	19	2.133	2.499	85.37	0.8537	0.6869	0.47
	39	2.133	2.499	85.37	0.8537	0.6869	0.47
BLE 2M	0	1.081	2.499	43.27	0.4327	3.6381	0.93
	19	1.081	2.499	43.27	0.4327	3.6381	0.93
	39	1.081	2.499	43.27	0.4327	3.6381	0.93

Test Graphs



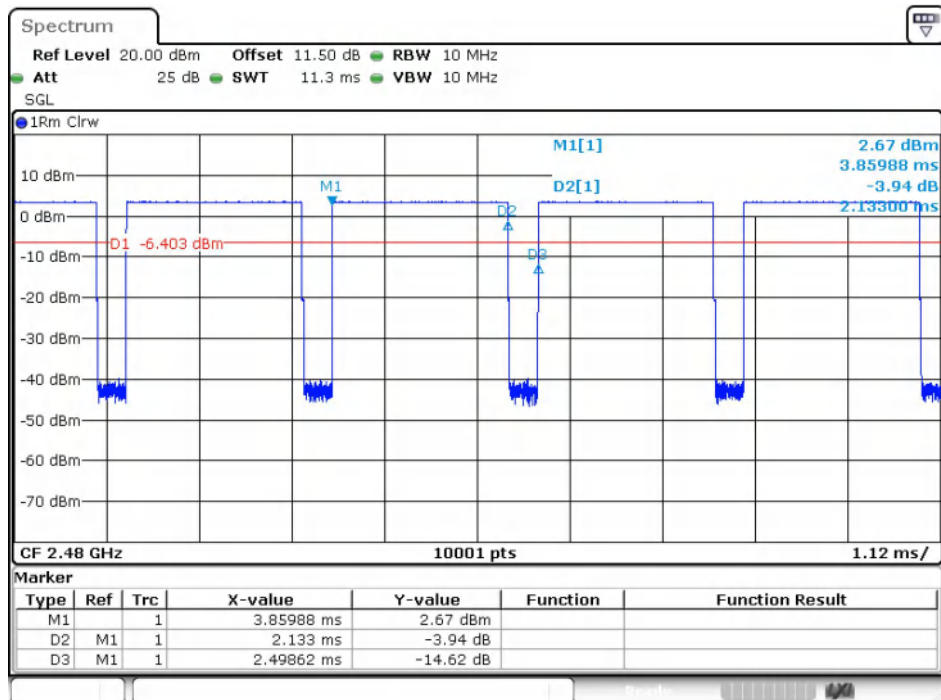
Date: 25.SEP.2024 09:15:15

BLE 1M_Channel 0



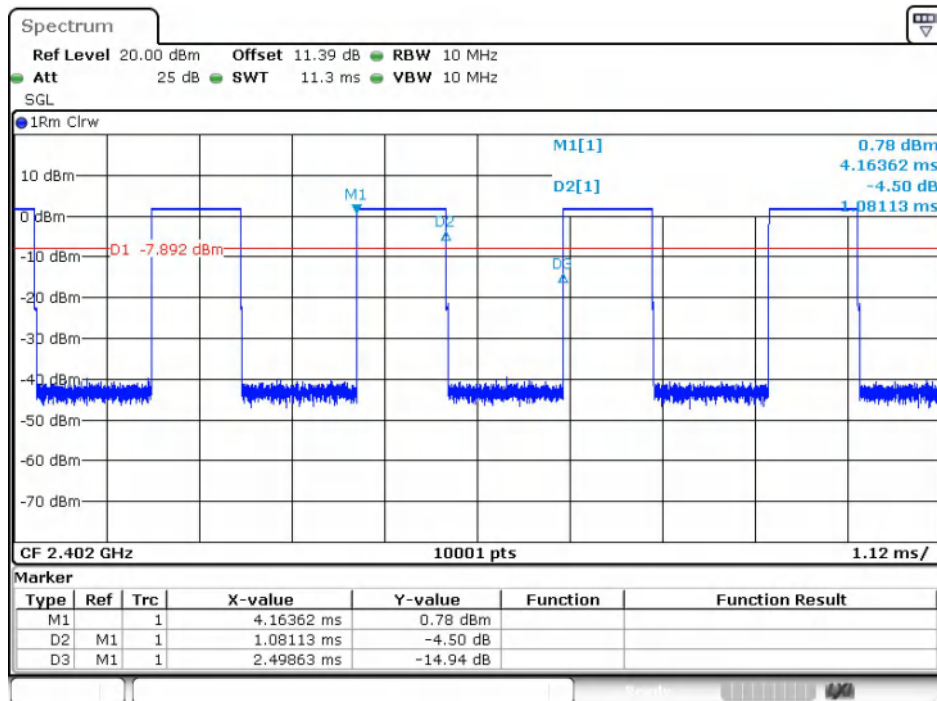
Date: 25.SEP.2024 09:18:32

BLE 1M_Channel 19



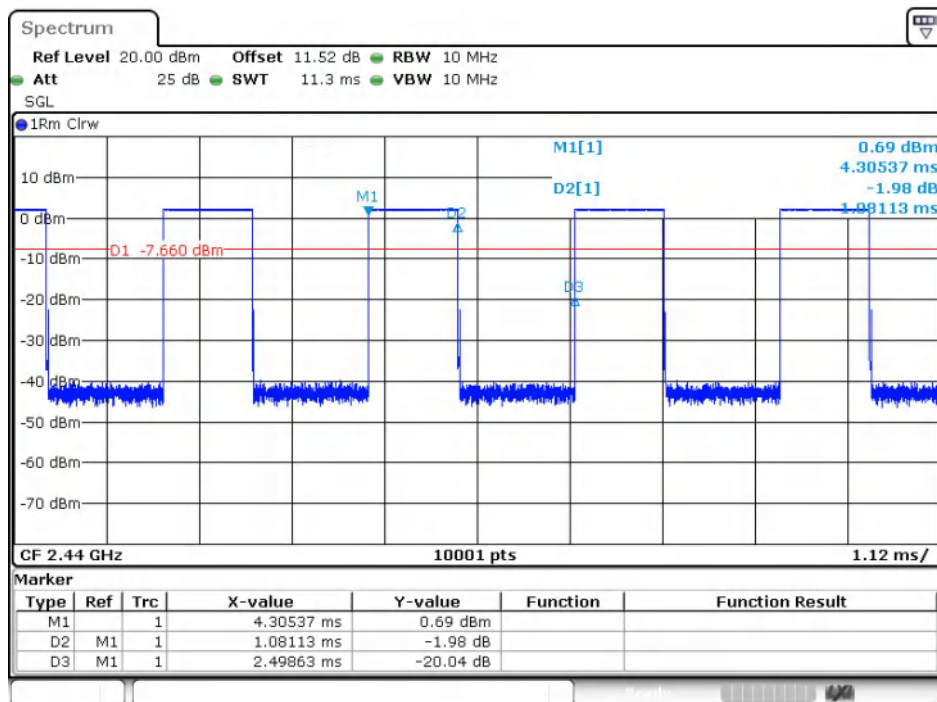
Date: 25.SEP.2024 09:21:03

BLE 1M_Channel 39



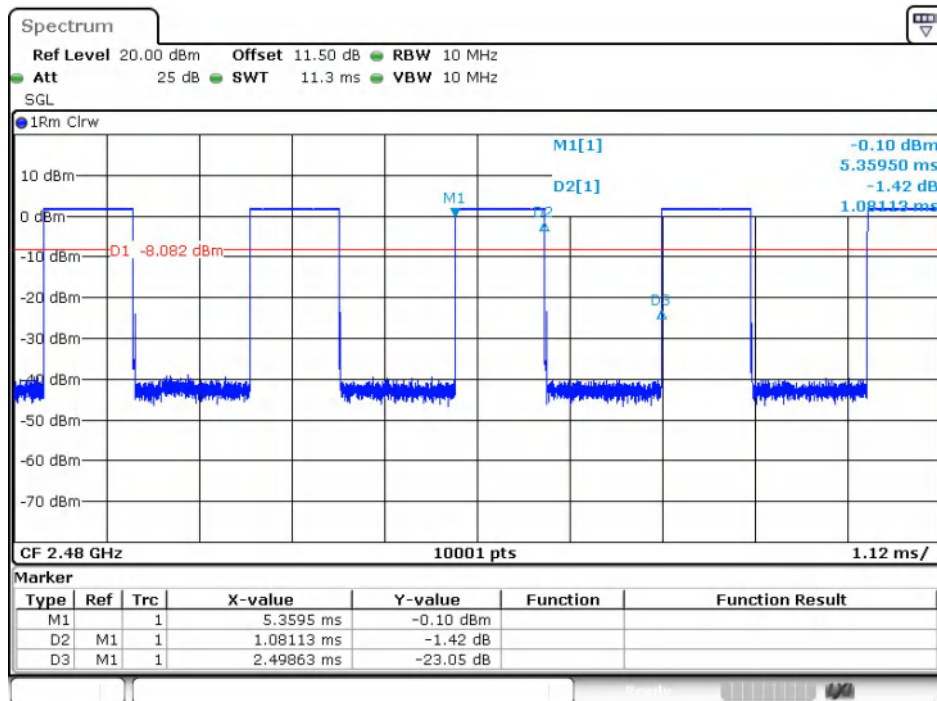
Date: 25.SEP.2024 09:24:52

BLE 2M_Channel 0



Date: 25.SEP.2024 09:30:34

BLE 2M_Channel 19



Date: 25.SEP.2024 09:33:05

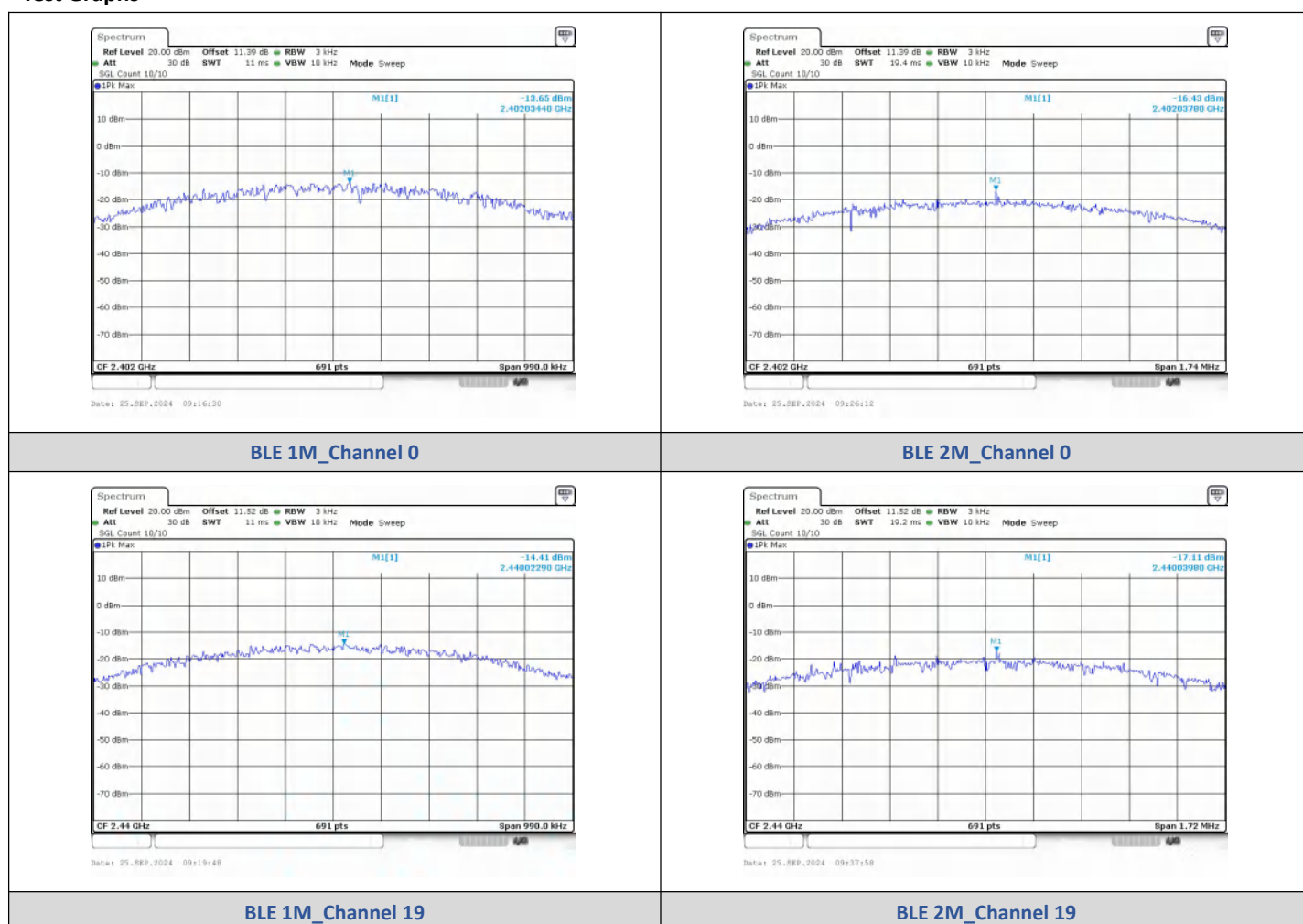
BLE 2M_Channel 39

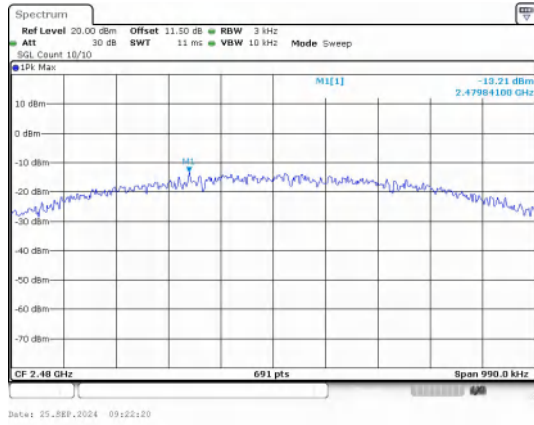
6) Power Spectral Density

Test Result

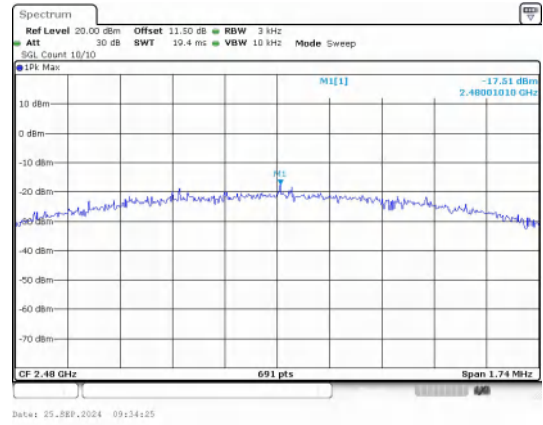
Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-13.65	≤8	PASS
BLE 1M	19	-14.41	≤8	PASS
BLE 1M	39	-13.21	≤8	PASS
BLE 2M	0	-16.43	≤8	PASS
BLE 2M	19	-17.11	≤8	PASS
BLE 2M	39	-17.51	≤8	PASS

Test Graphs





BLE 1M_Channel 39



BLE 2M_Channel 39