

Appendix B

Report No.:	CISRR24062720402
FCC ID:	2BHBO-OWS31
Product Name:	Open Ear Bluetooth Headsets
Model No.:	OWS31
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

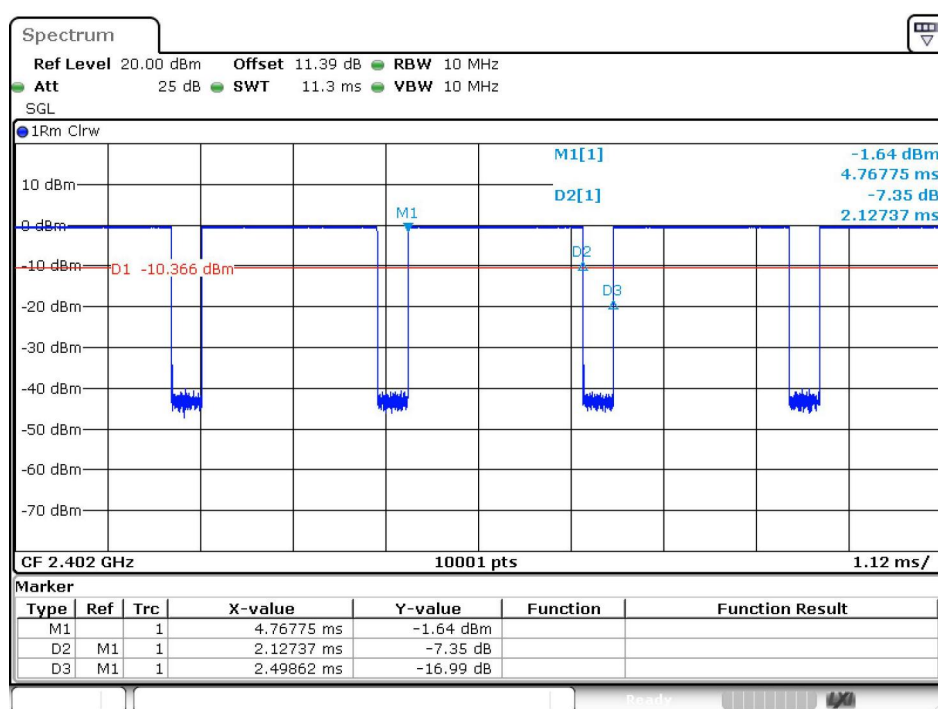
1) Duty Cycle

Left

Test Result

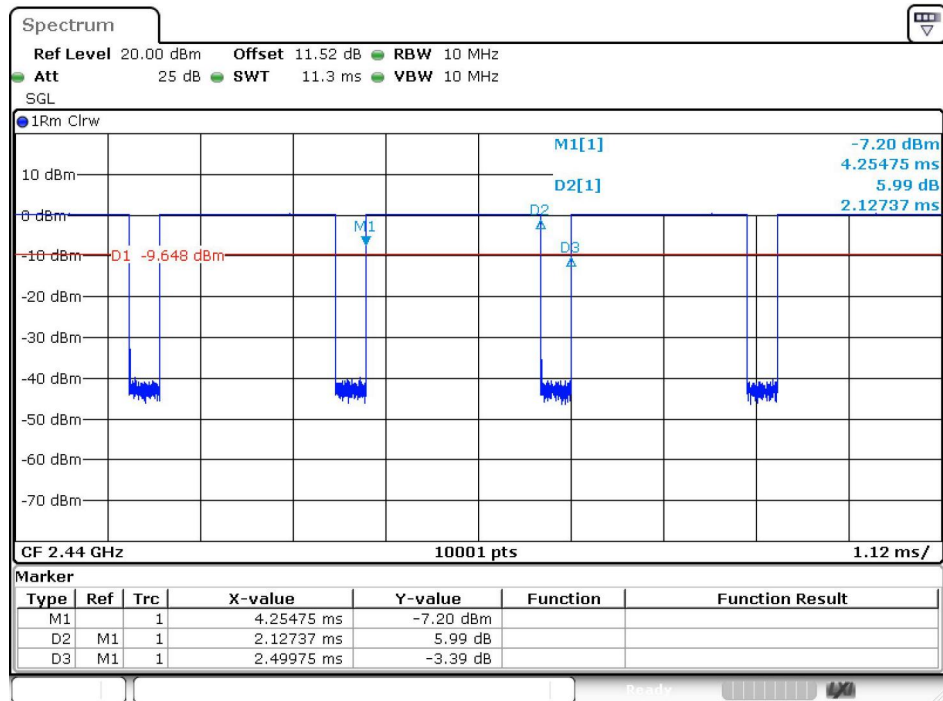
Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
BLE 1M	0	2.127	2.499	85.14	0.8514	0.6987	0.47
	19	2.127	2.500	85.10	0.8510	0.7007	0.47
	39	2.127	2.499	85.14	0.8514	0.6987	0.47

Test Graphs



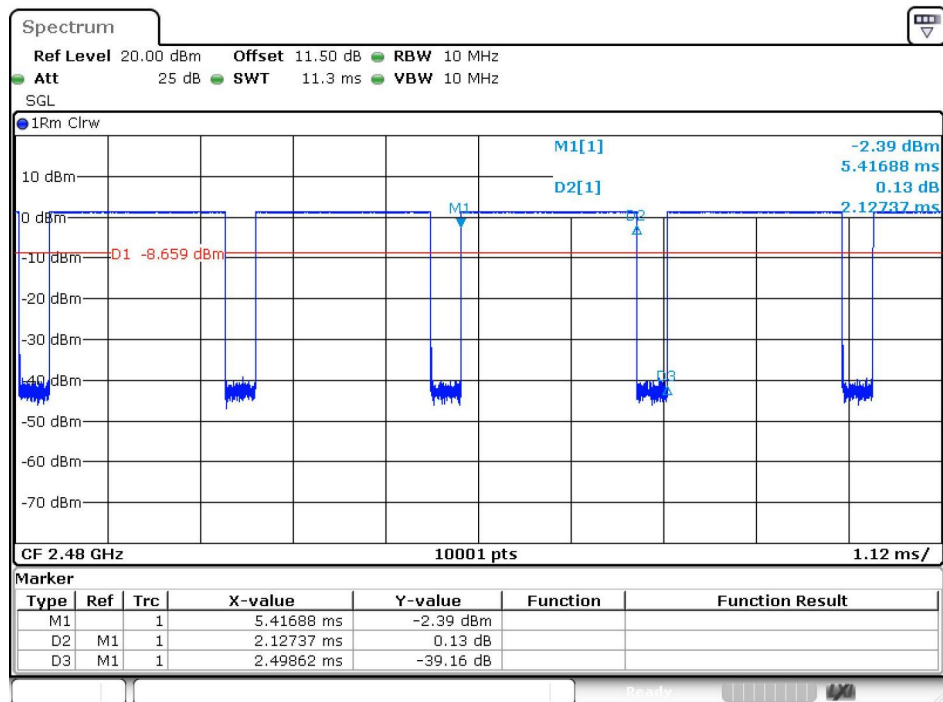
Date: 3.JUL.2024 15:18:47

BLE 1M_Channel 0



Date: 3.JUL.2024 15:21:29

BLE 1M_Channel 19



Date: 3.JUL.2024 15:23:36

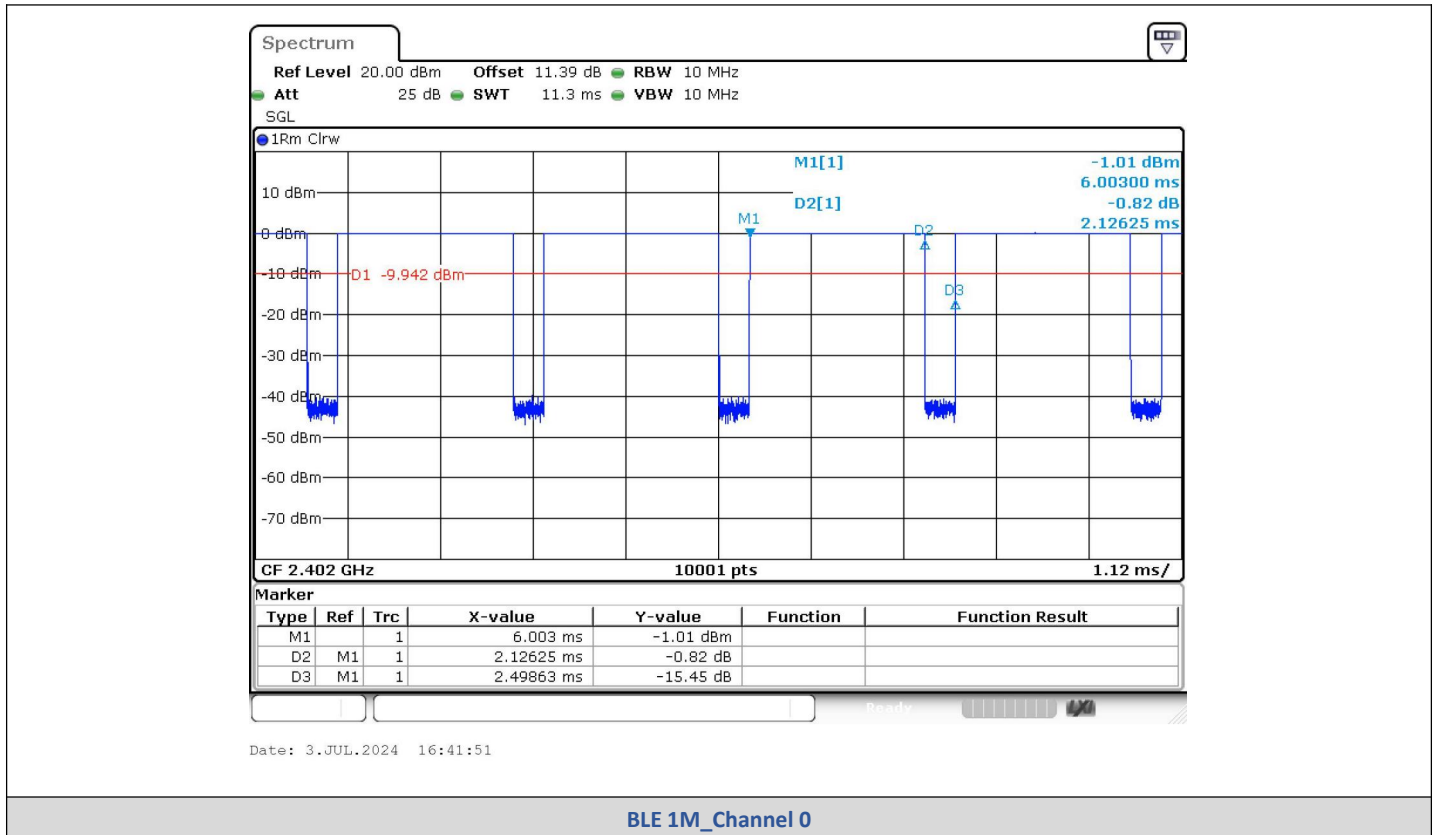
BLE 1M_Channel 39

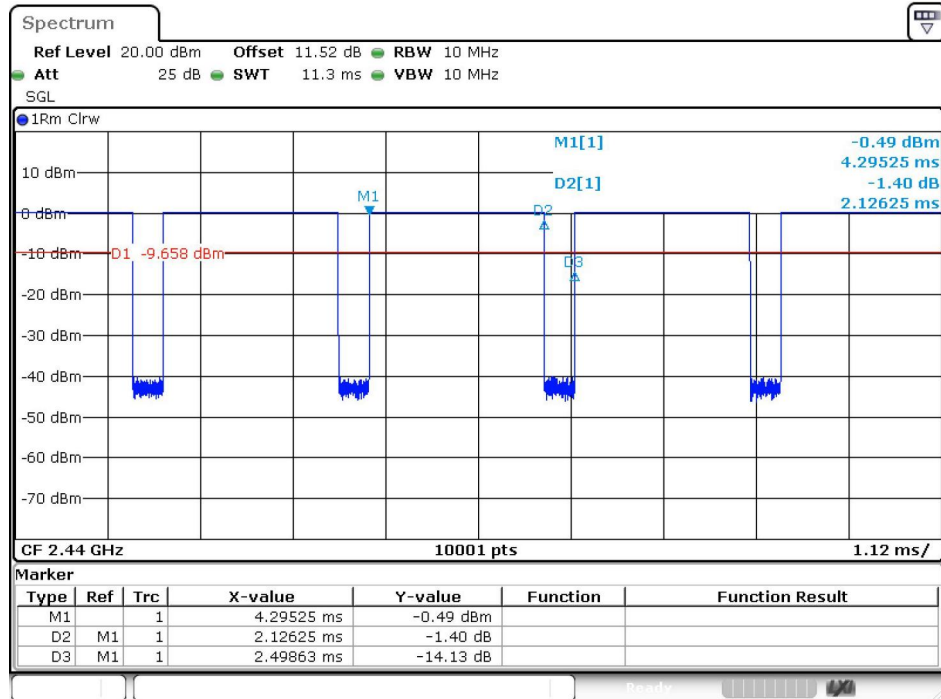
Right

Test Result

Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
BLE 1M	0	2.126	2.499	85.10	0.8510	0.7007
	19	2.126	2.499	85.10	0.8510	0.7007
	39	2.127	2.499	85.14	0.8514	0.6987

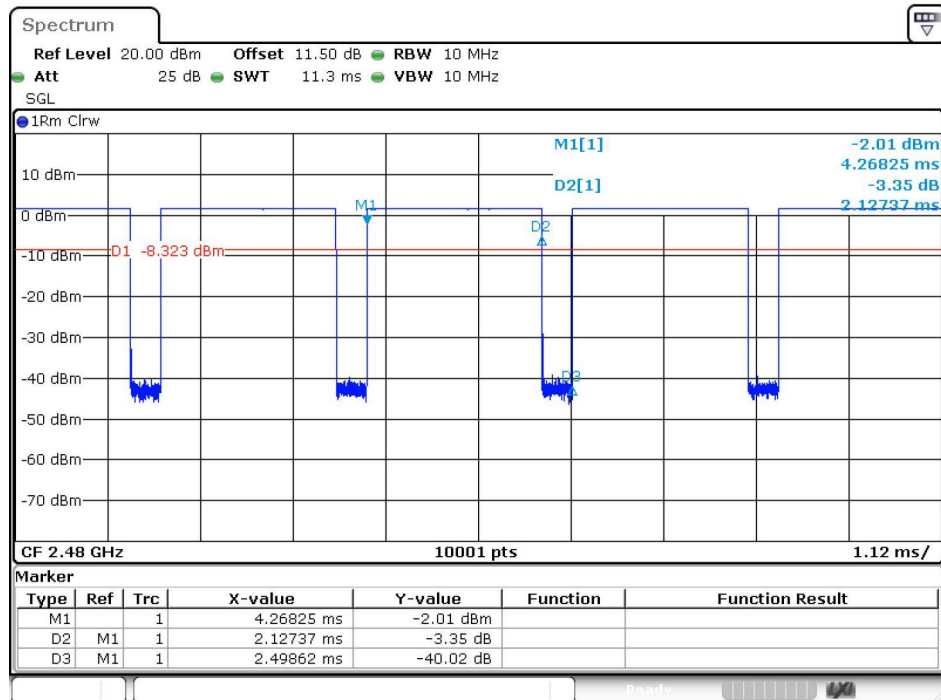
Test Graphs





Date: 3.JUL.2024 16:44:29

BLE 1M_Channel 19



Date: 3.JUL.2024 16:46:36

BLE 1M_Channel 39

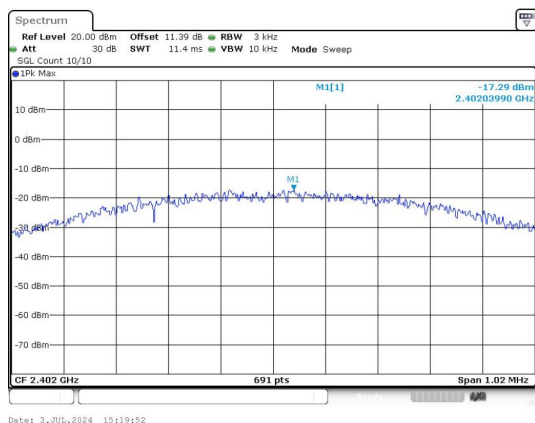
2) Power Spectral Density

Left

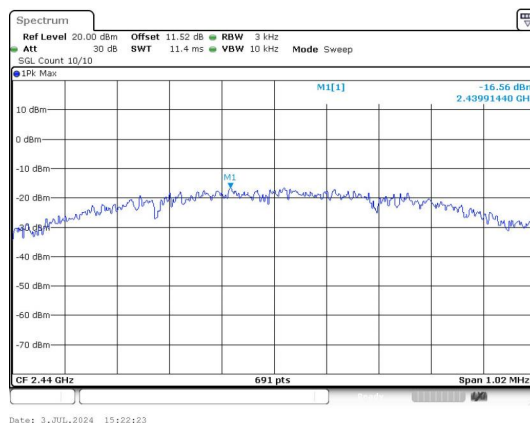
Test Result

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-17.292	≤8	PASS
BLE 1M	19	-16.561	≤8	PASS
BLE 1M	39	-14.926	≤8	PASS

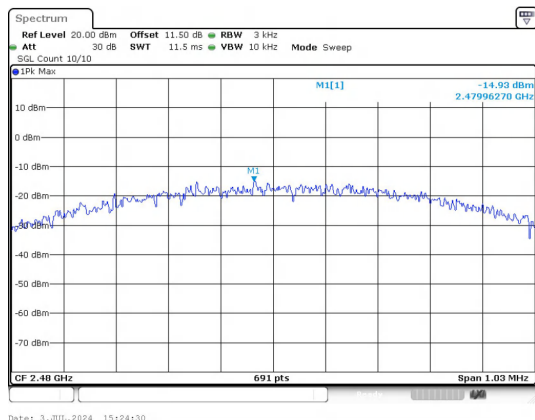
Test Graphs



BLE 1M_Channel 0



BLE 1M_Channel 19



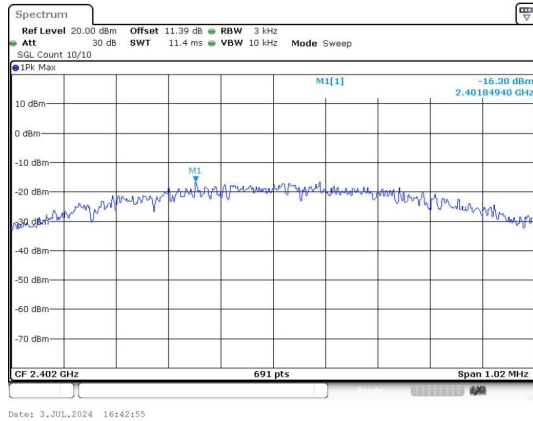
BLE 1M_Channel 39

Right

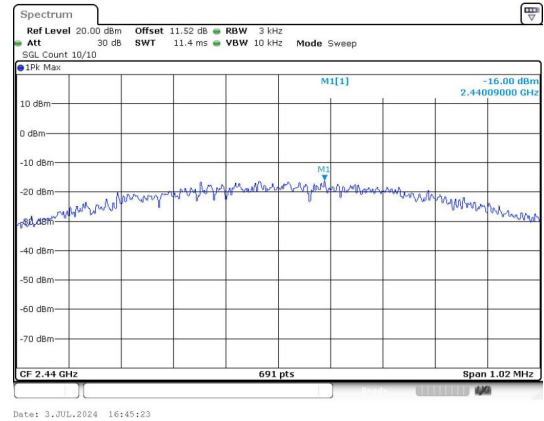
Test Result

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-16.297	≤8	PASS
BLE 1M	19	-15.997	≤8	PASS
BLE 1M	39	-14.743	≤8	PASS

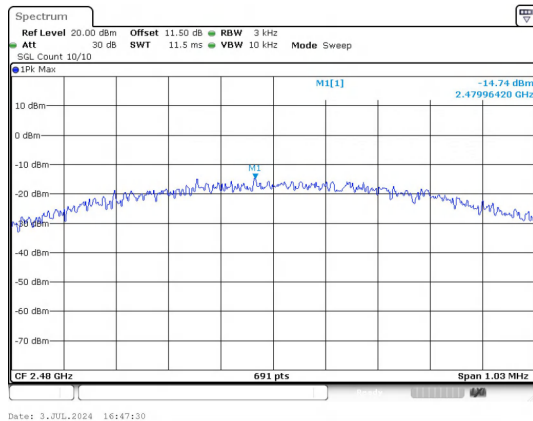
Test Graphs



BLE 1M_Channel 0



BLE 1M_Channel 19



BLE 1M_Channel 39

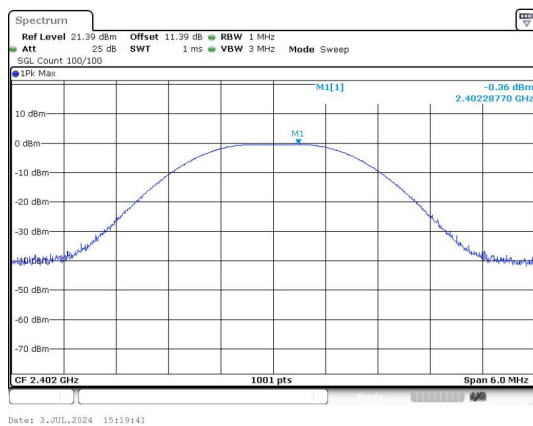
3) Conducted Peak Output Power

Left

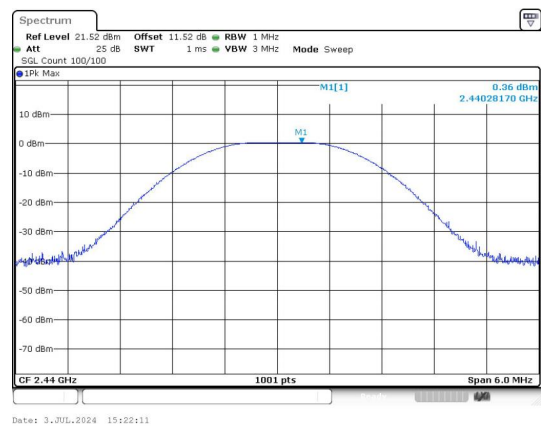
Test Result

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	-0.36	0.92	≤30	PASS
	19	0.36	1.09	≤30	PASS
	39	1.33	1.36	≤30	PASS

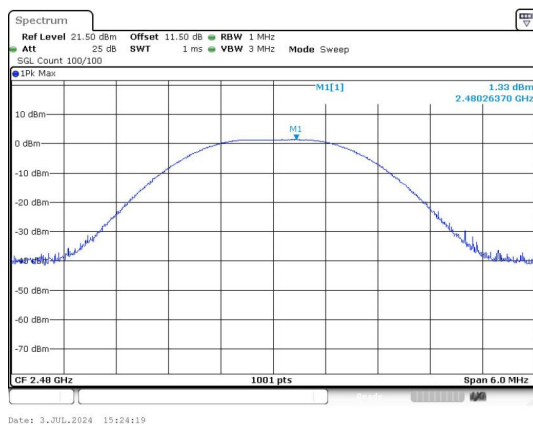
Test Graphs



Peak Output Power
BLE 1M_Channel 0



Peak Output Power
BLE 1M_Channel 19



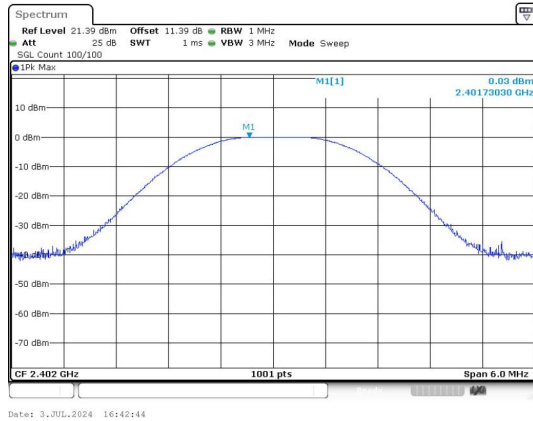
Peak Output Power
BLE 1M_Channel 39

Right

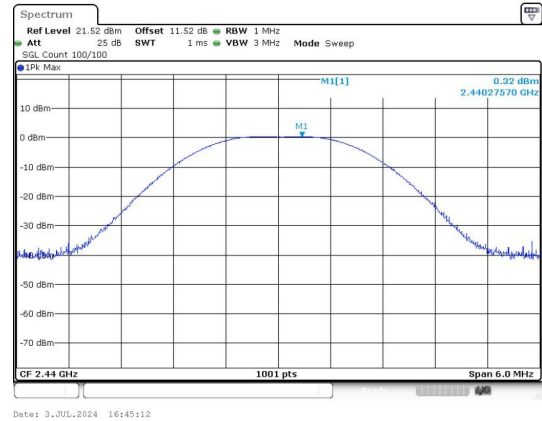
Test Result

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	0.03	1.01	≤30	PASS
	19	0.32	1.08	≤30	PASS
	39	1.66	1.47	≤30	PASS

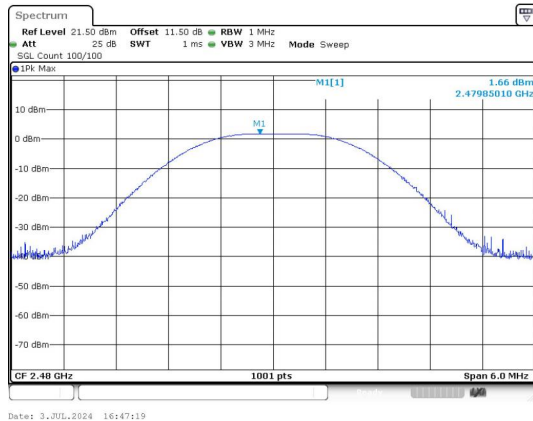
Test Graphs



Peak Output Power
BLE 1M_Channel 0



Peak Output Power
BLE 1M_Channel 19



Peak Output Power
BLE 1M_Channel 39

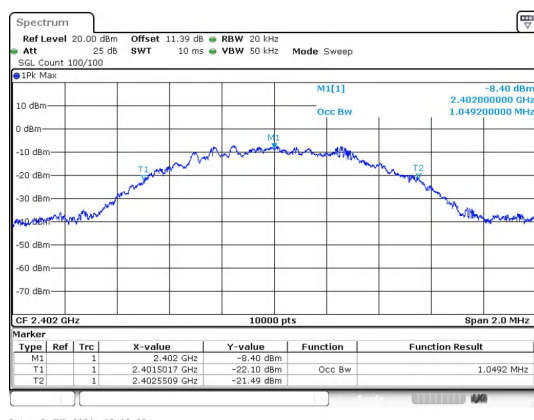
4) 99% Bandwidth

Left

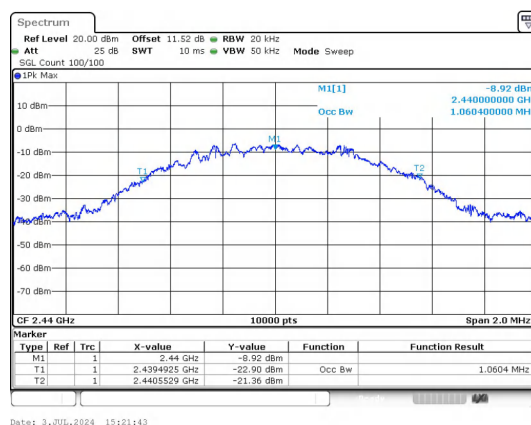
Test Result

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0490
BLE 1M	19	2440	1.0600
BLE 1M	39	2480	1.0810

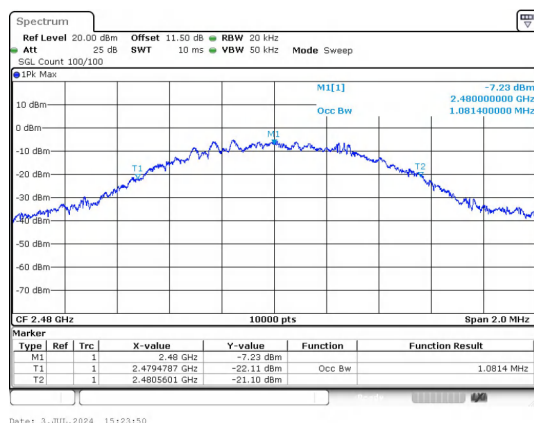
Test Graphs



BLE 1M_Channel 0



BLE 1M_Channel 19



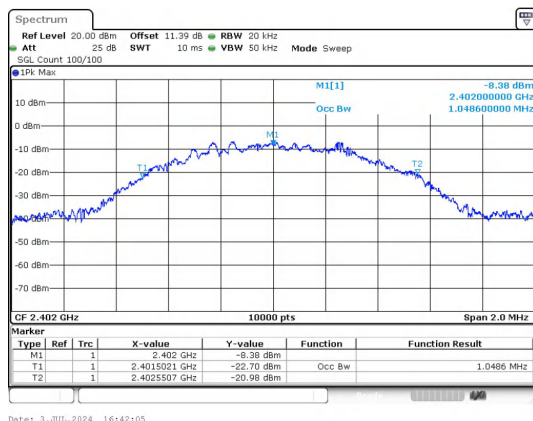
BLE 1M_Channel 39

Right

Test Result

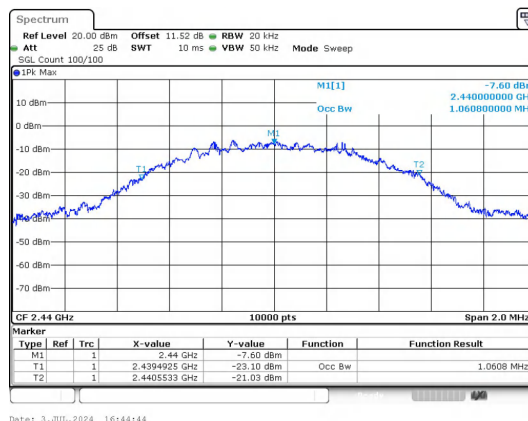
Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0486
BLE 1M	19	2440	1.0608
BLE 1M	39	2480	1.0714

Test Graphs



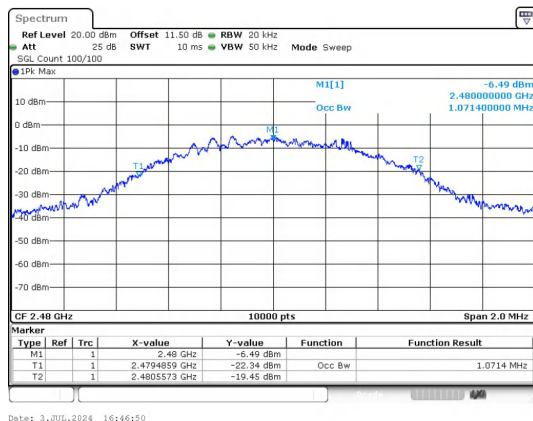
Date: 3.JUL.2024 16:42:05

BLE 1M_Channel 0



Date: 3.JUL.2024 16:44:44

BLE 1M_Channel 19



Date: 3.JUL.2024 16:46:50

BLE 1M_Channel 39

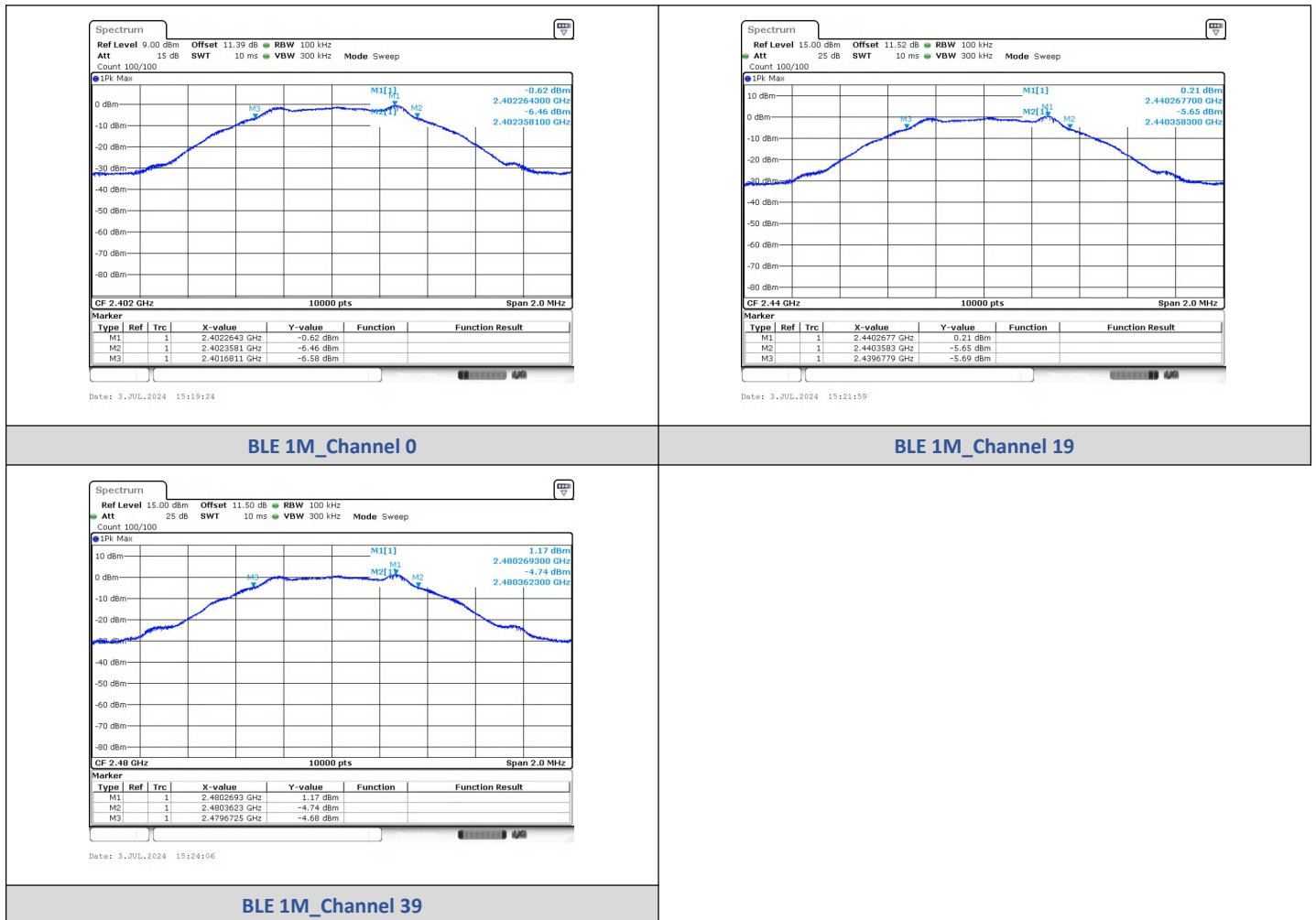
5) 6dB Bandwidth

Left

Test Result

Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6800	≥0.5	PASS
	19	2440	0.6800		PASS
	39	2480	0.6900		PASS

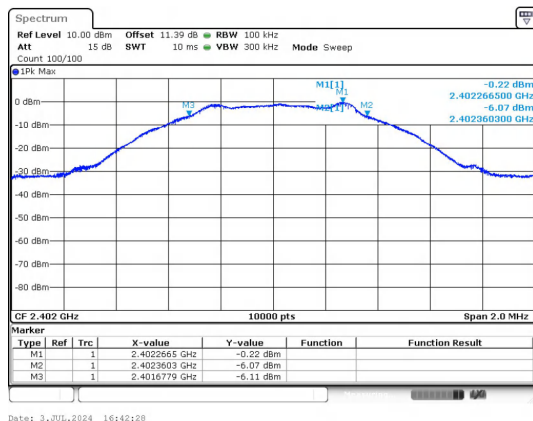
Test Graphs



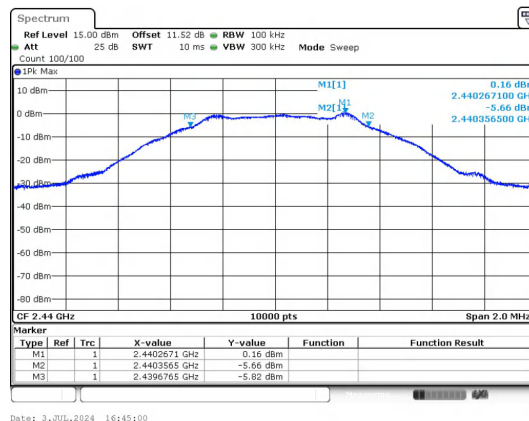
Right
Test Result

Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6800	≥0.5	PASS
	19	2440	0.6800		PASS
	39	2480	0.6900		PASS

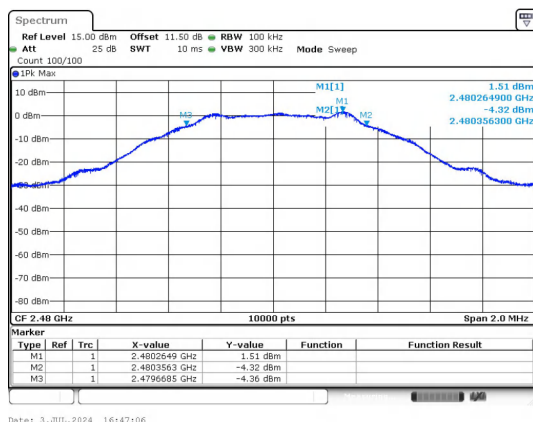
Test Graphs



BLE 1M_Channel 0



BLE 1M_Channel 19



BLE 1M_Channel 39

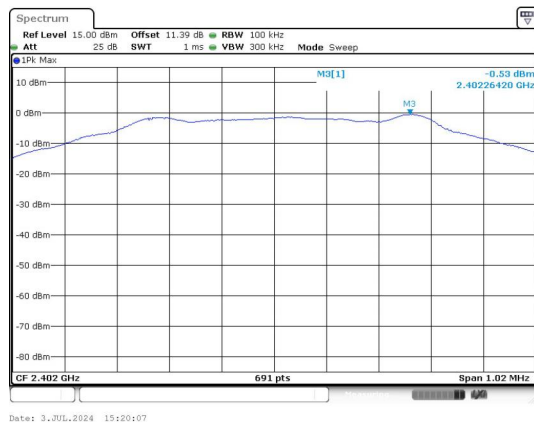
6) Conducted Out Of Band Emission

Left

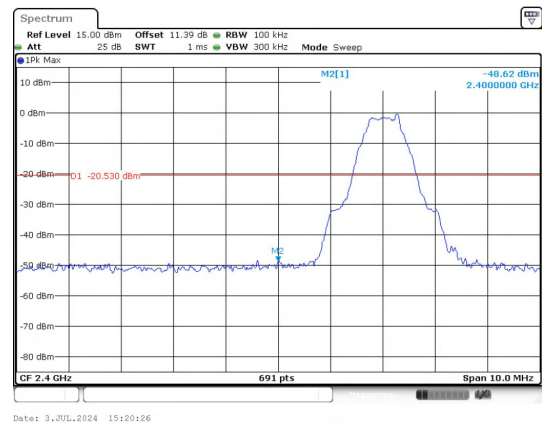
Test Result

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2400.00	-48.620	-20.53	-28.090	PASS
		4803.85	-46.422	-20.53	-25.892	PASS
	19	4880.42	-46.930	-19.78	-27.150	PASS
	39	2483.50	-50.857	-18.83	-32.027	PASS
		4960.33	-43.435	-18.83	-24.605	PASS

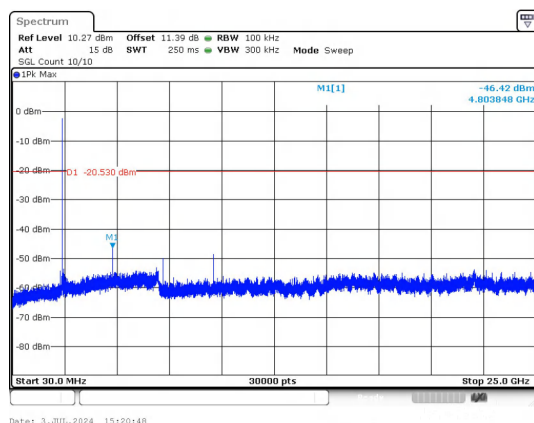
Test Graphs



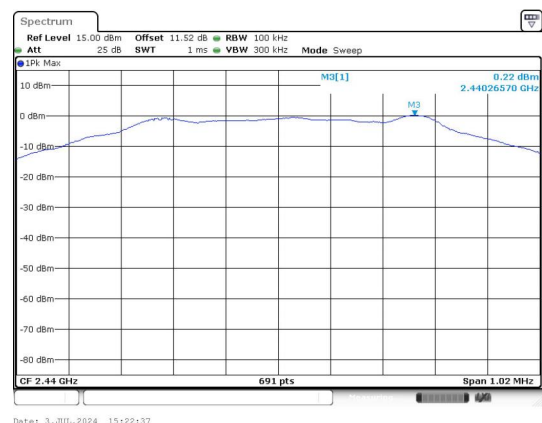
In-Band Reference Level
BLE 1M_Channel 0



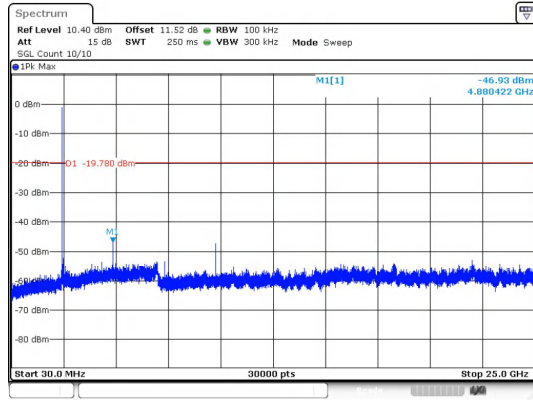
Out Of Band Emission
BLE 1M_Channel 0



30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0

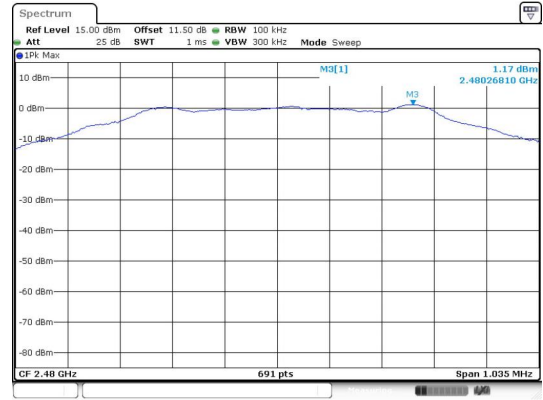


In-Band Reference Level
BLE 1M_Channel 19



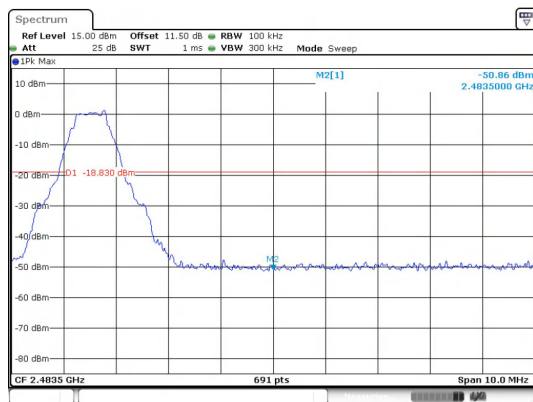
Date: 3.JUL.2024 15:23:01

30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19



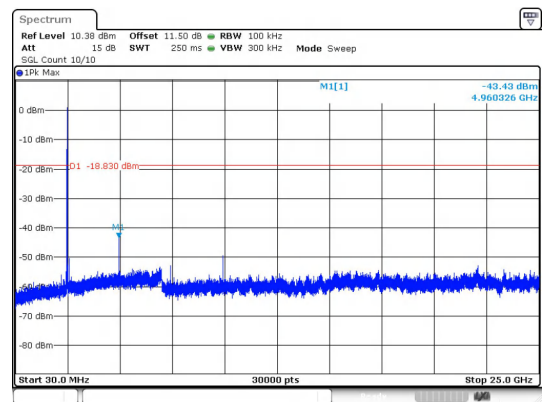
Date: 3.JUL.2024 15:24:44

In-Band Reference Level
BLE 1M_Channel 39



Date: 3.JUL.2024 15:25:04

Out Of Band Emission
BLE 1M_Channel 39



Date: 3.JUL.2024 15:25:26

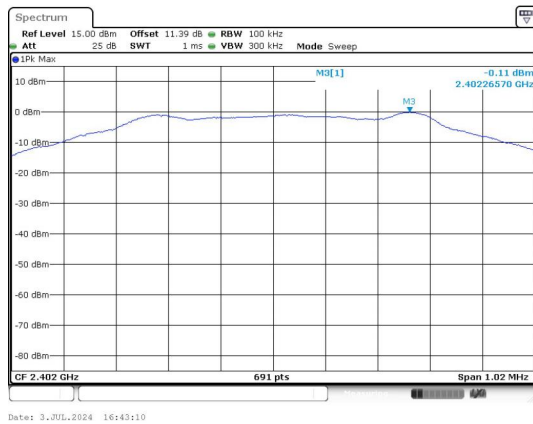
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 39

Right

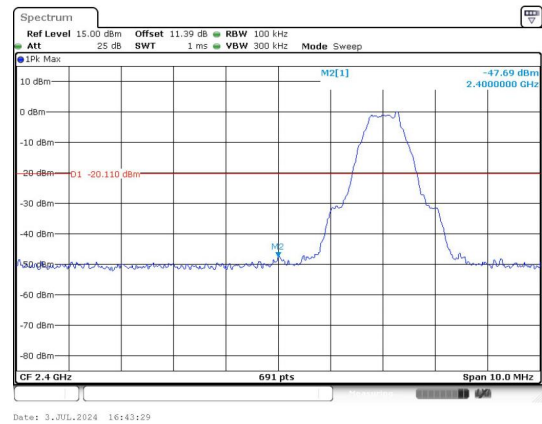
Test Result

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2400.00	-47.692	-20.11	-27.582	PASS
		4803.85	-47.805	-20.11	-27.695	PASS
	19	4879.59	-47.222	-19.84	-27.382	PASS
	39	2483.50	-50.267	-18.49	-31.777	PASS
		4960.33	-46.742	-18.49	-28.252	PASS

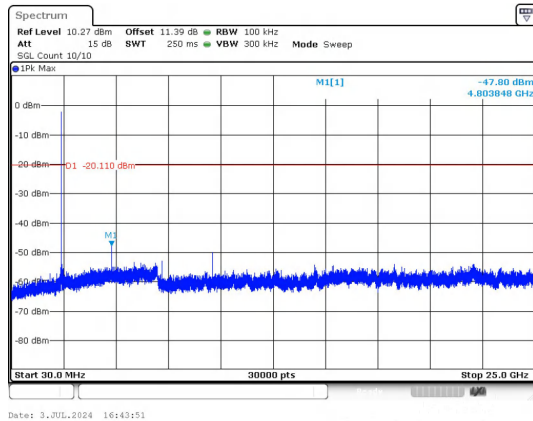
Test Graphs



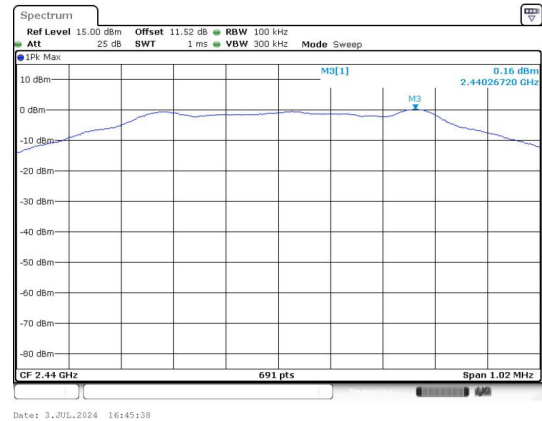
In-Band Reference Level
BLE 1M_Channel 0



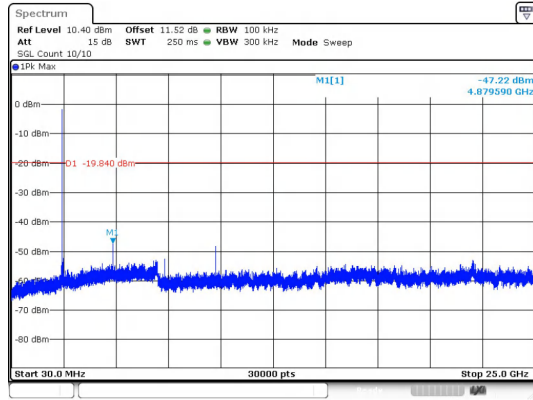
Out Of Band Emission
BLE 1M_Channel 0



30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0

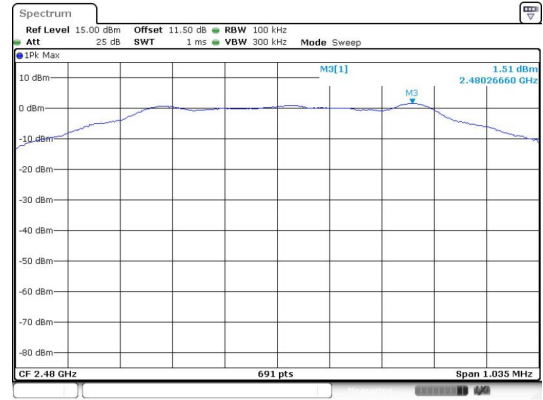


In-Band Reference Level
BLE 1M_Channel 19



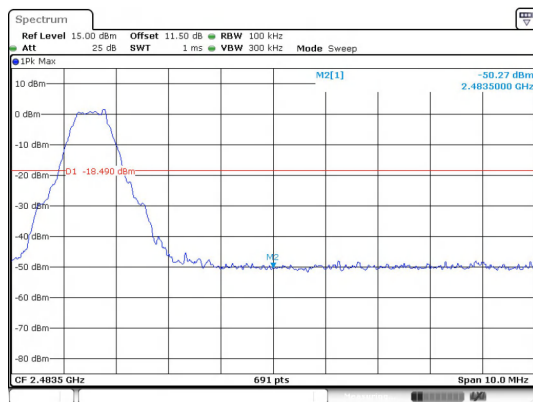
Date: 3.JUL.2024 16:46:02

30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19



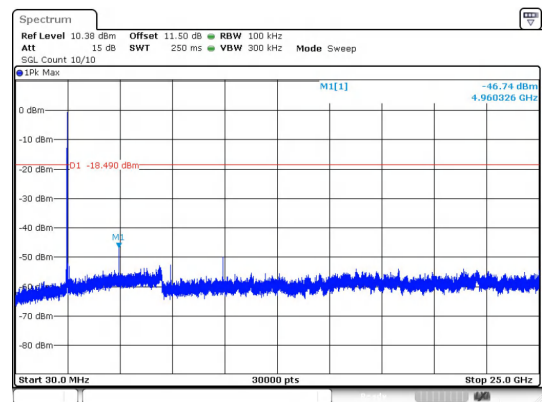
Date: 3.JUL.2024 16:47:44

In-Band Reference Level
BLE 1M_Channel 39



Date: 3.JUL.2024 16:48:04

Out Of Band Emission
BLE 1M_Channel 39



Date: 3.JUL.2024 16:48:26

30.0 MHz - 25000.0 MHz
BLE 1M_Channel 39