

Appendix B

Report No.:	CISRR24082720002
FCC ID:	2BGWM-DUPODS-S200
Product Name:	Xiaodu Smart open earphones
Model No.:	DuPods S200
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

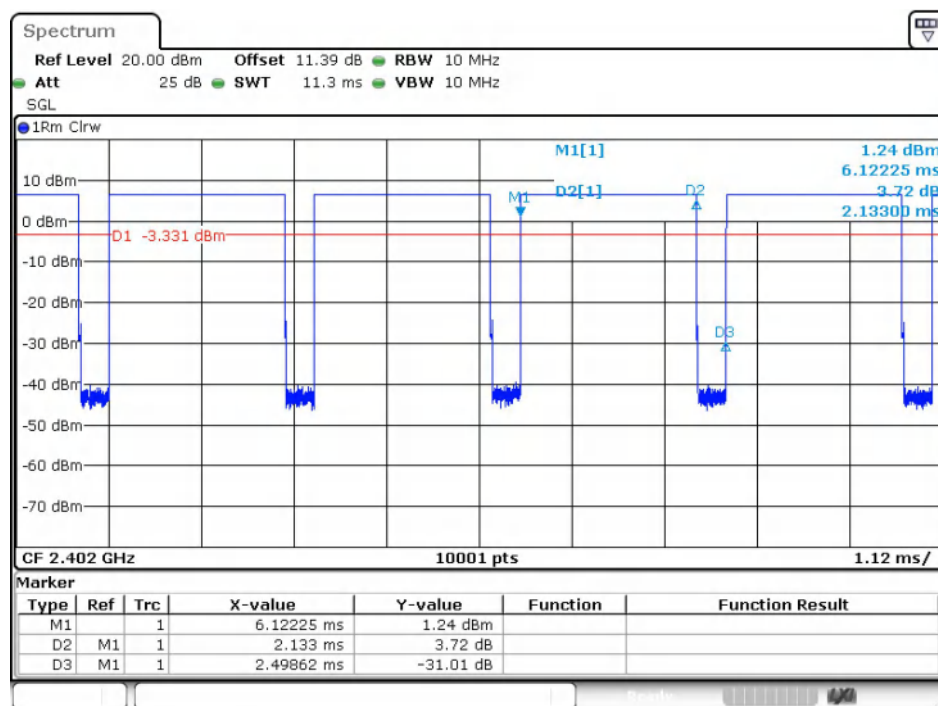
1) Duty Cycle

Right:

Test Result

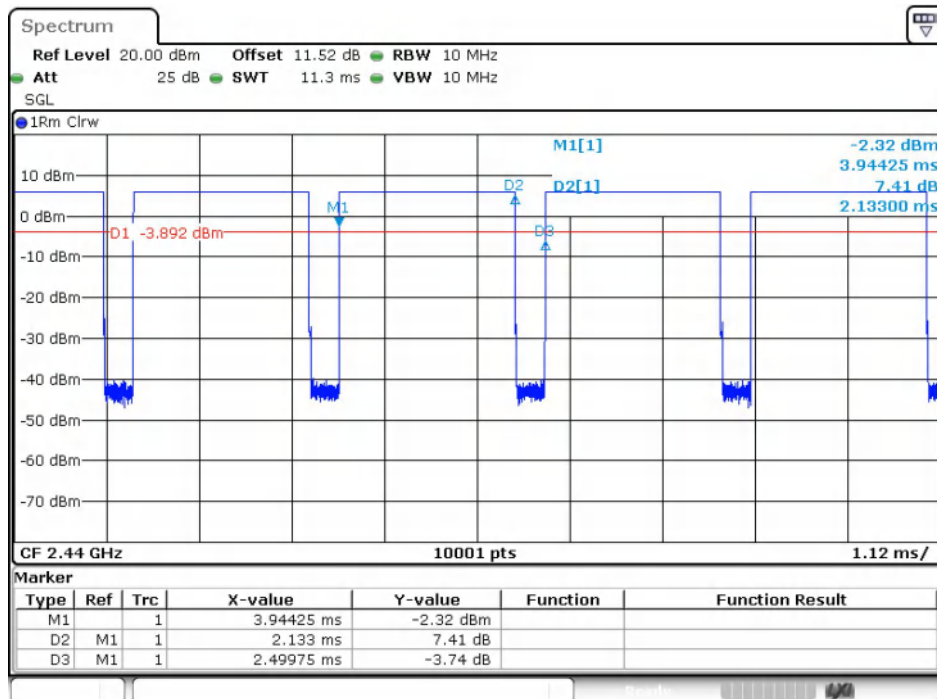
Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
BLE 1M	0	2.133	2.499	85.37	0.8537	0.6869	0.47
	19	2.133	2.500	85.33	0.8533	0.689	0.47
	39	2.133	2.499	85.37	0.8537	0.6869	0.47
BLE 2M	0	1.081	2.500	43.25	0.4325	3.6401	0.93
	19	1.081	2.499	43.27	0.4327	3.6381	0.93
	39	1.081	2.499	43.27	0.4327	3.6381	0.93

Test Graphs



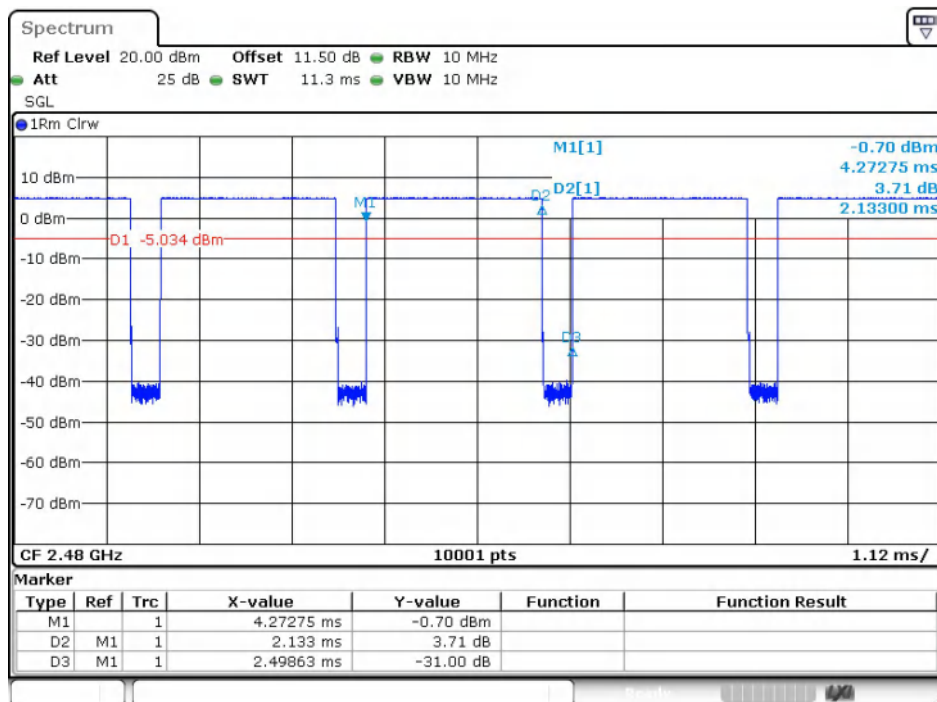
Date: 28.AUG.2024 11:19:49

BLE 1M_Channel 0



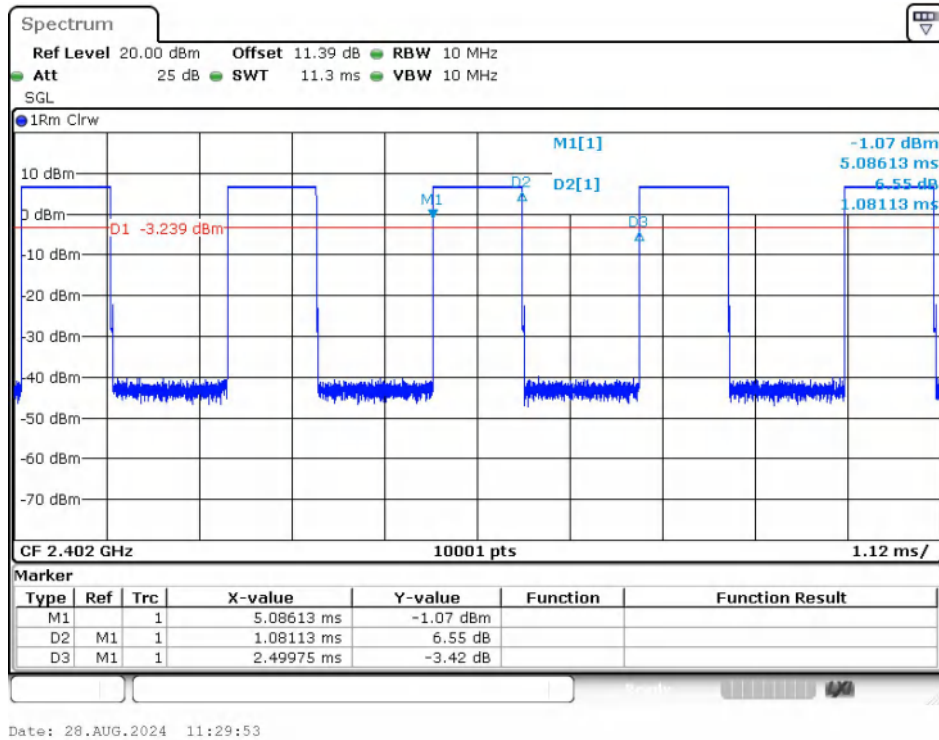
Date: 28.AUG.2024 11:23:57

BLE 1M_Channel 19

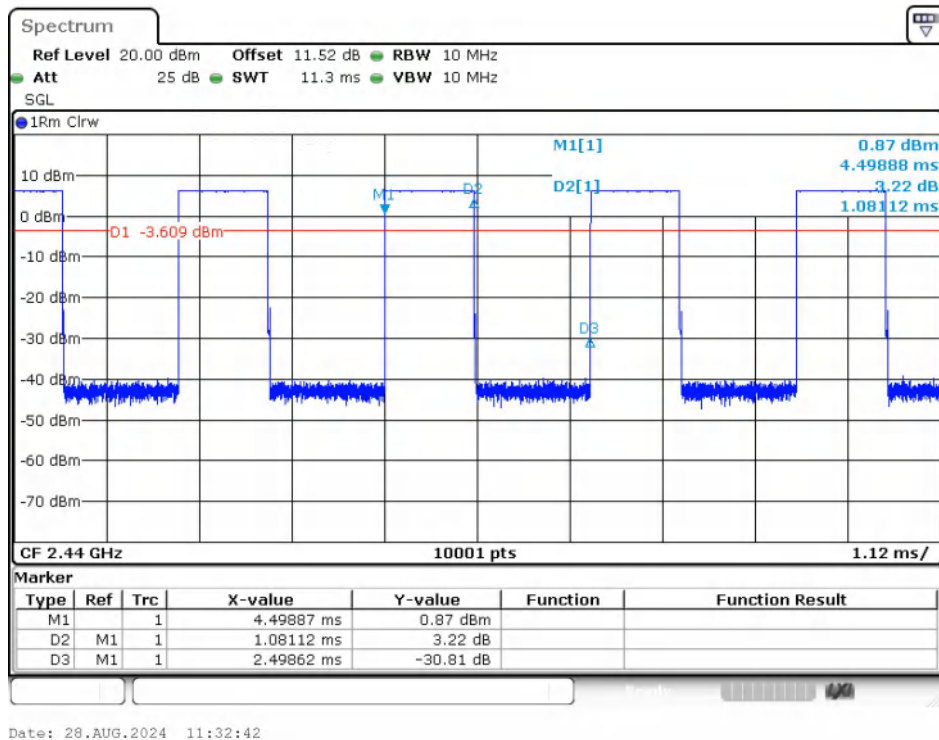


Date: 28.AUG.2024 11:27:04

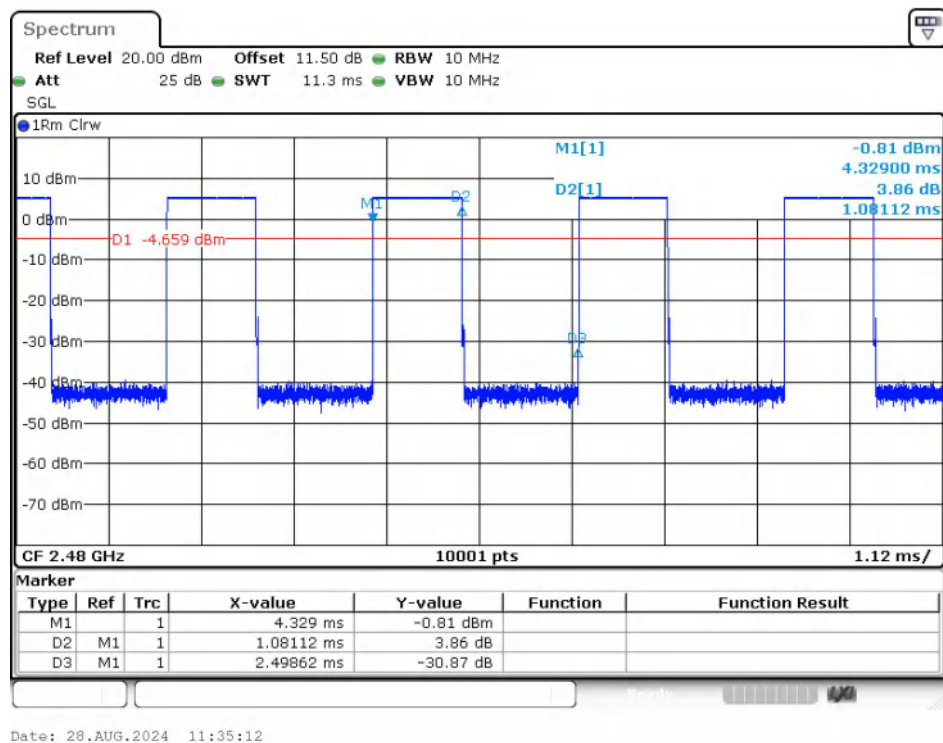
BLE 1M_Channel 39



BLE 2M_Channel 0



BLE 2M_Channel 19



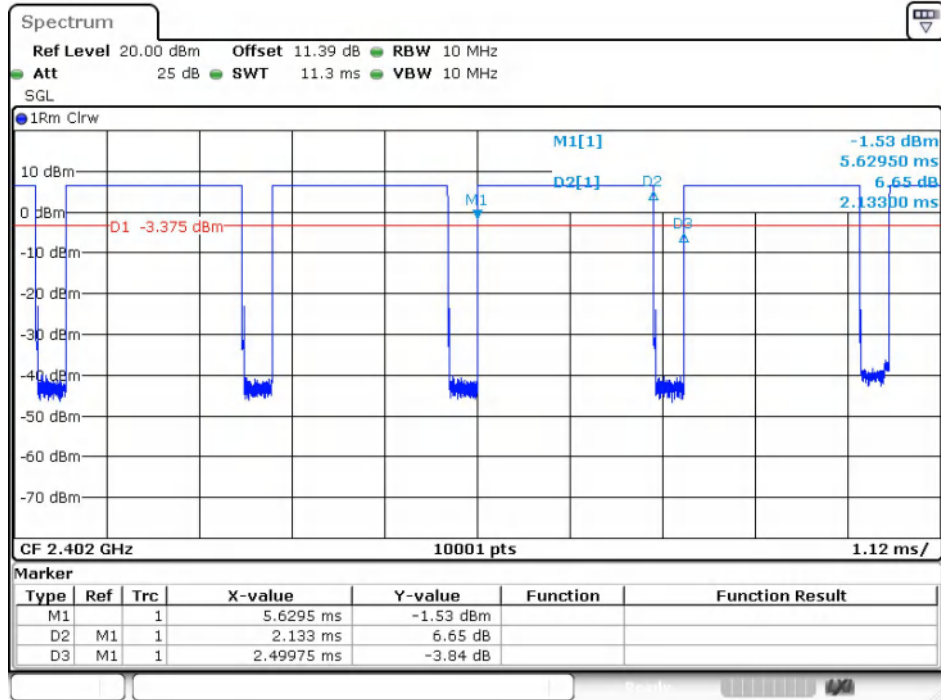
BLE 2M_Channel 39

Left:

Test Result

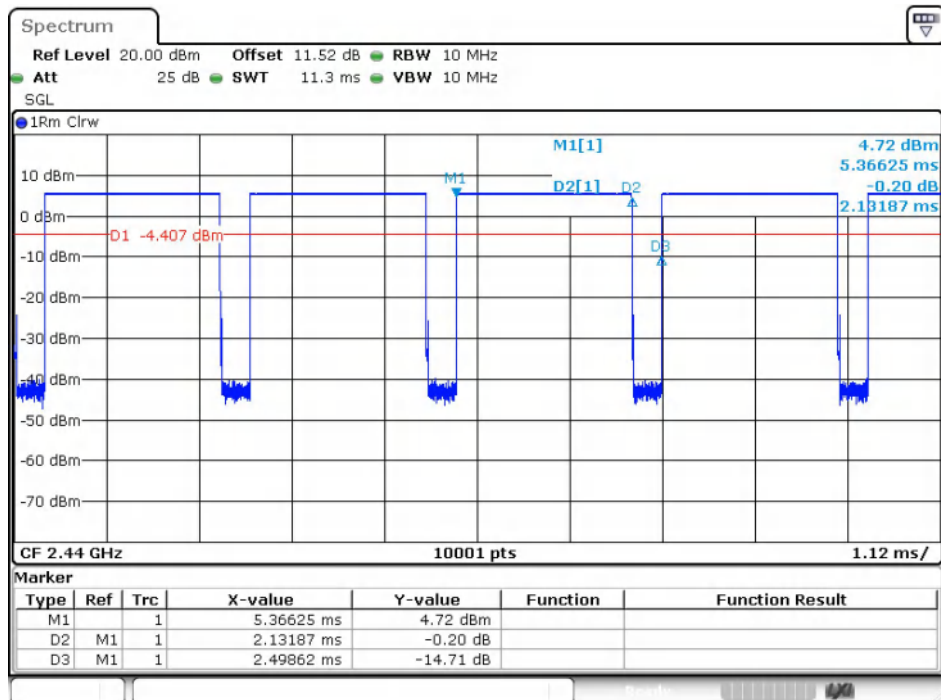
Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
BLE 1M	0	2.133	2.500	85.33	0.8533	0.689	0.47
	19	2.132	2.499	85.32	0.8532	0.6895	0.47
	39	2.132	2.499	85.32	0.8532	0.6895	0.47
BLE 2M	0	1.081	2.499	43.27	0.4327	3.6381	0.93
	19	1.077	2.488	43.28	0.4328	3.6371	0.93
	39	1.080	2.499	43.22	0.4322	3.6432	0.93

Test Graphs



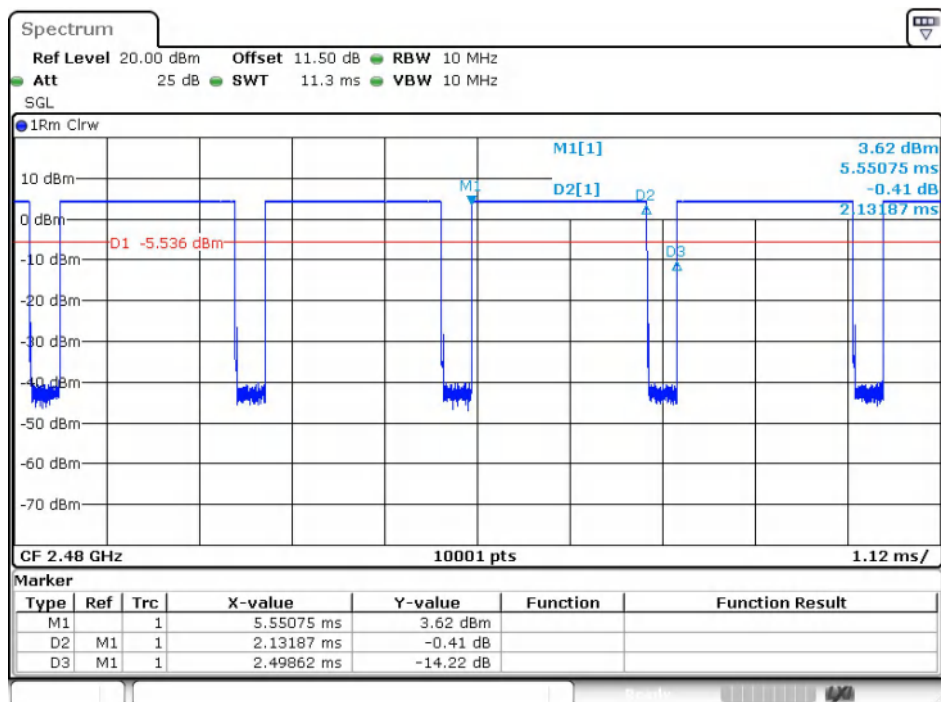
Date: 28.AUG.2024 15:13:00

BLE 1M_Channel 0



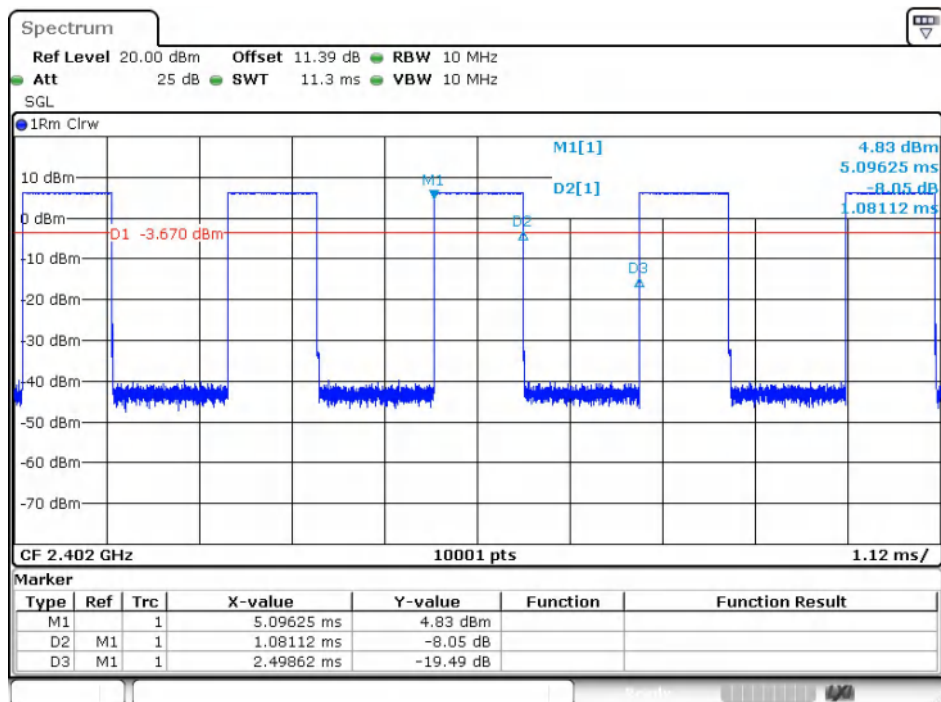
Date: 28.AUG.2024 15:16:12

BLE 1M_Channel 19



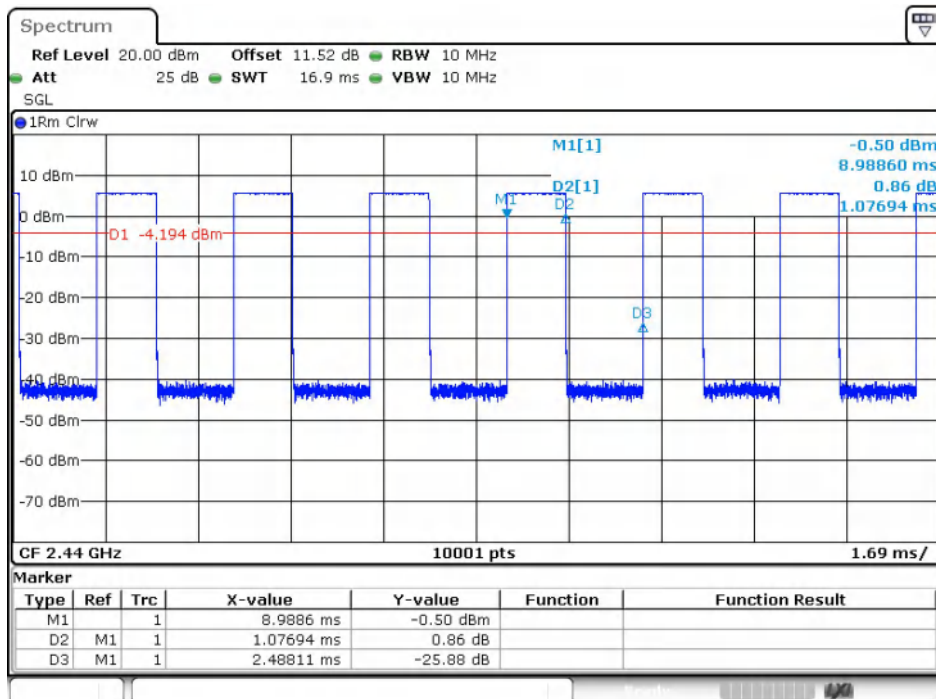
Date: 28.AUG.2024 15:19:29

BLE 1M_Channel 39



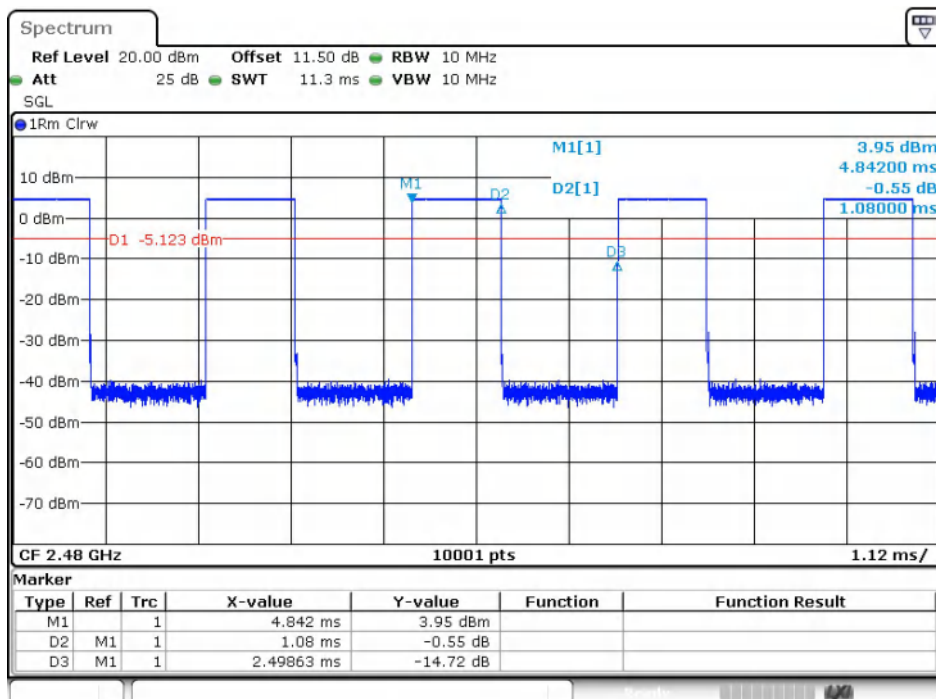
Date: 28.AUG.2024 15:22:22

BLE 2M_Channel 0



Date: 28.AUG.2024 15:26:14

BLE 2M_Channel 19



Date: 28.AUG.2024 15:30:09

BLE 2M_Channel 39

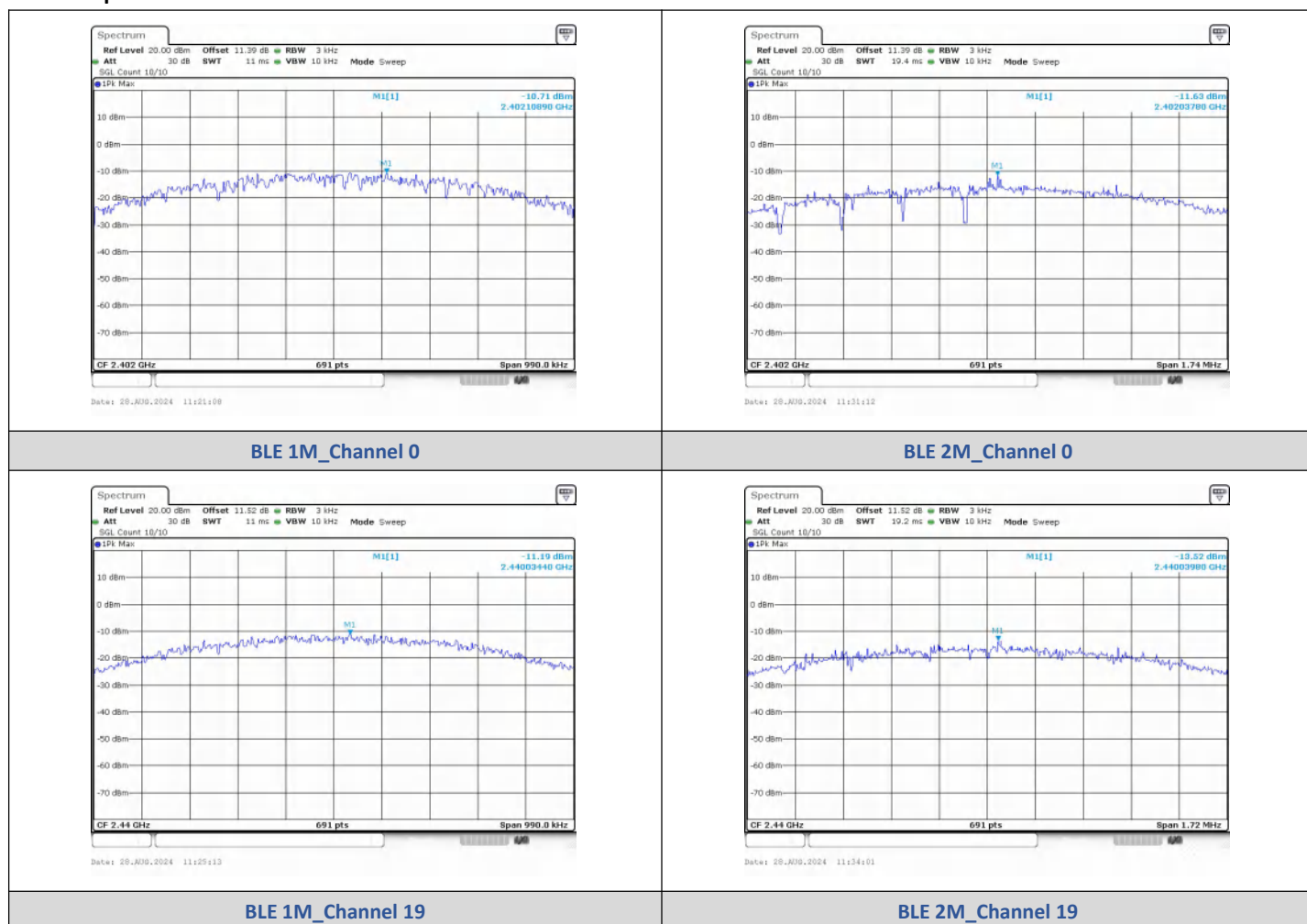
2) Power Spectral Density

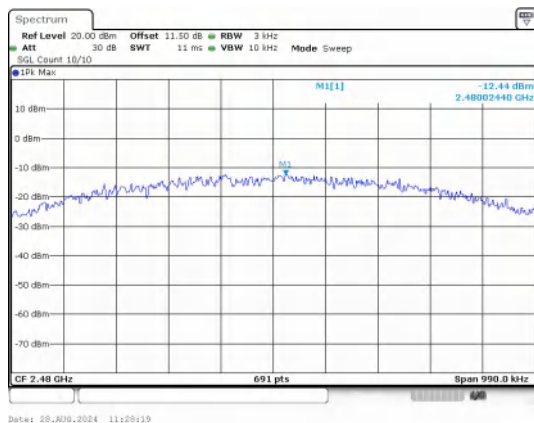
Right:

Test Result

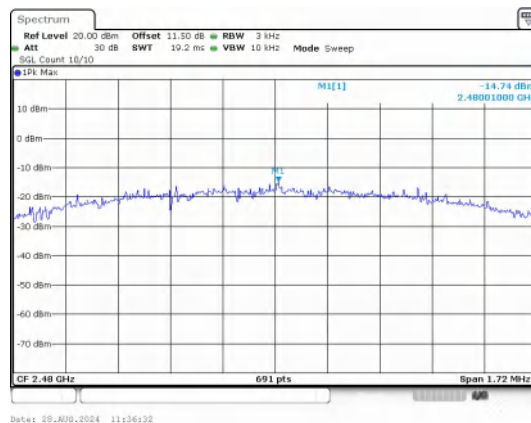
Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-10.715	≤8	PASS
BLE 1M	19	-11.187	≤8	PASS
BLE 1M	39	-12.439	≤8	PASS
BLE 2M	0	-11.630	≤8	PASS
BLE 2M	19	-13.517	≤8	PASS
BLE 2M	39	-14.745	≤8	PASS

Test Graphs





BLE 1M_Channel 39

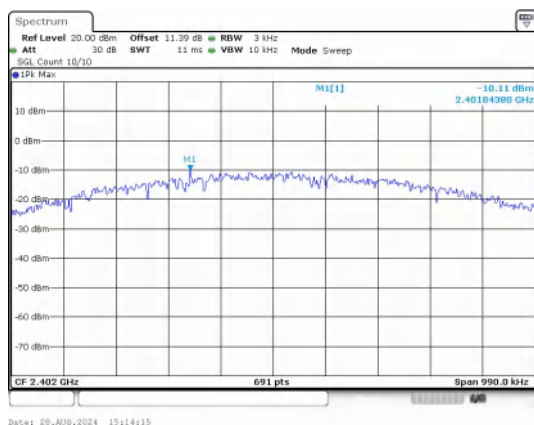


BLE 2M_Channel 39

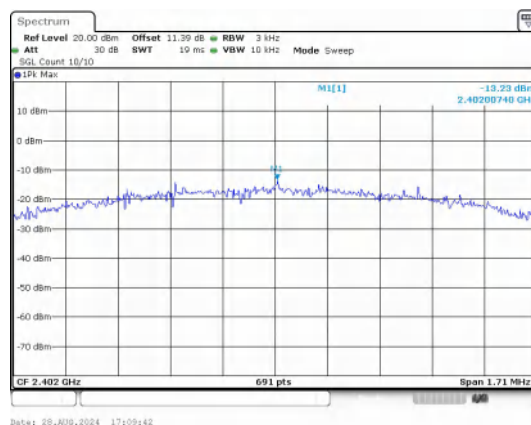
Left:
Test Result

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-10.112	≤8	PASS
BLE 1M	19	-11.102	≤8	PASS
BLE 1M	39	-12.089	≤8	PASS
BLE 2M	0	-13.232	≤8	PASS
BLE 2M	19	-12.710	≤8	PASS
BLE 2M	39	-14.983	≤8	PASS

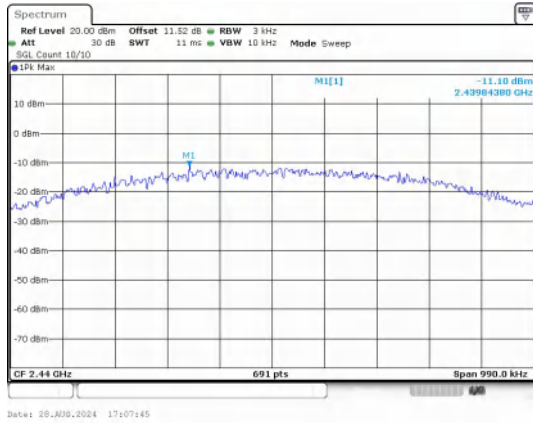
Test Graphs



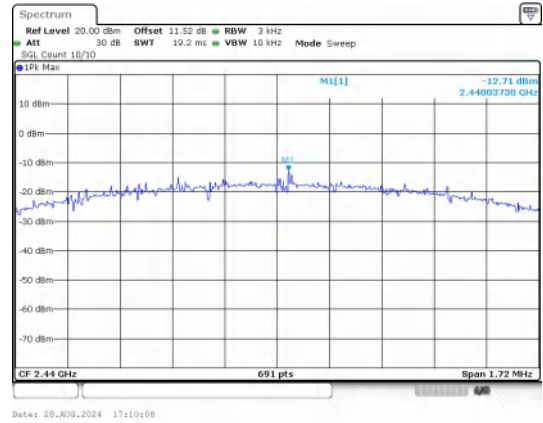
BLE 1M_Channel 0



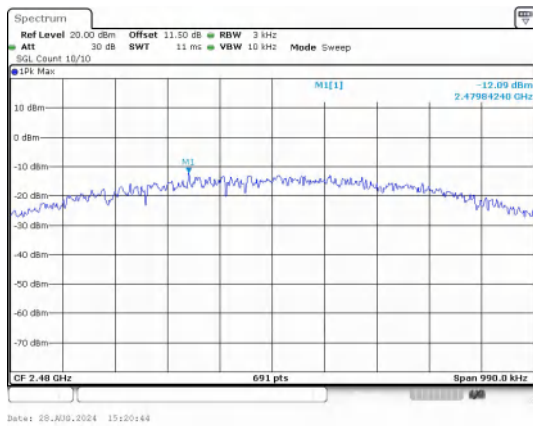
BLE 2M_Channel 0



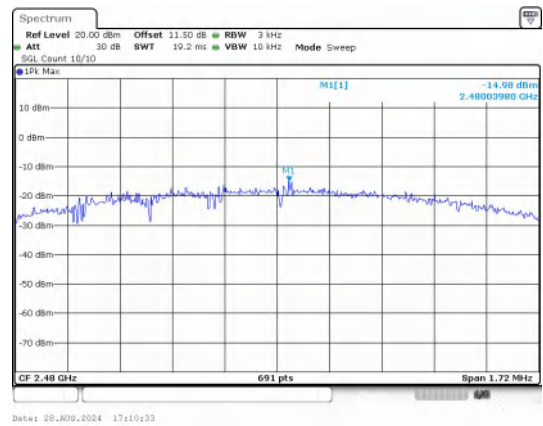
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 39

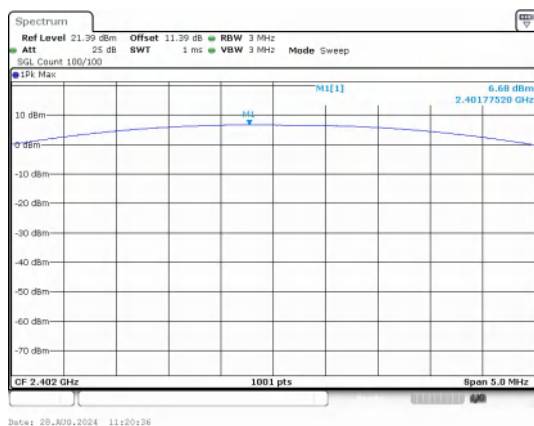
3) Conducted Output Power

Right:

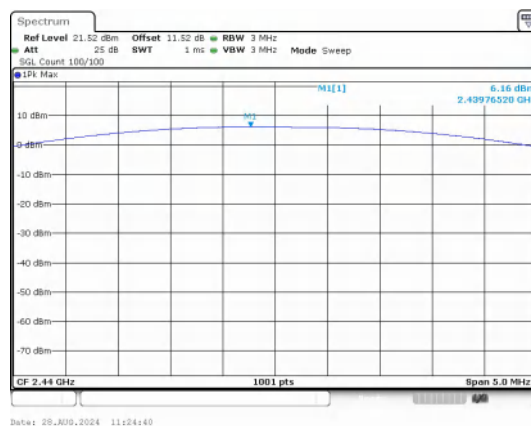
Test Result

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	6.68	4.65	≤30	PASS
	19	6.17	4.14	≤30	PASS
	39	5.06	3.20	≤30	PASS
BLE 2M	0	6.86	4.85	≤30	PASS
	19	6.48	4.44	≤30	PASS
	39	5.42	3.48	≤30	PASS

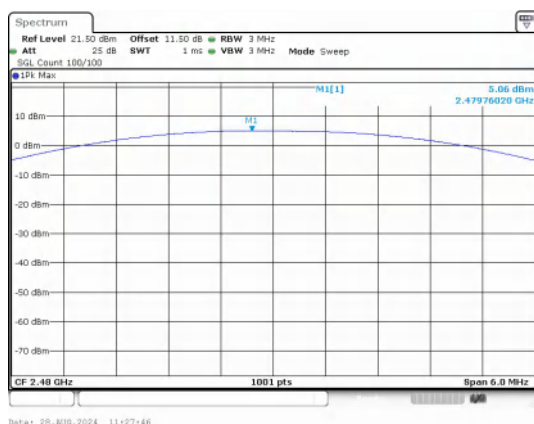
Test Graphs



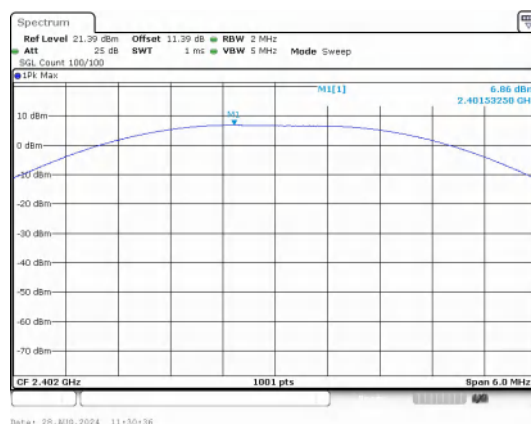
Peak Output Power
BLE 1M_Channel 0



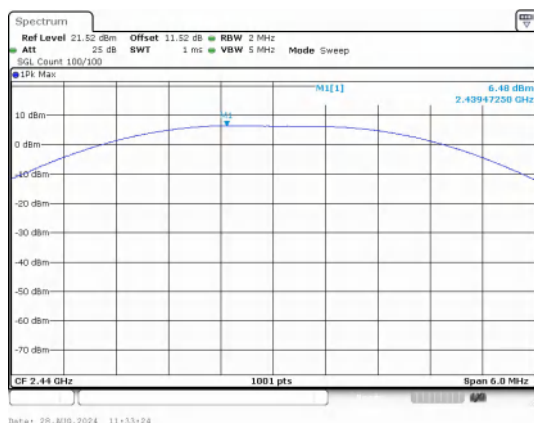
Peak Output Power
BLE 1M_Channel 19



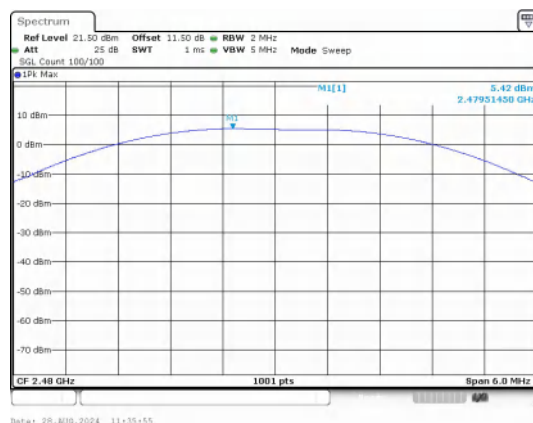
Peak Output Power
BLE 1M_Channel 39



Peak Output Power
BLE 2M_Channel 0



Peak Output Power
BLE 2M_Channel 19

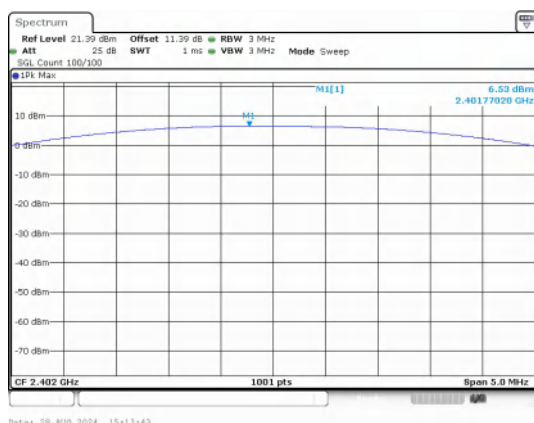


Peak Output Power
BLE 2M_Channel 39

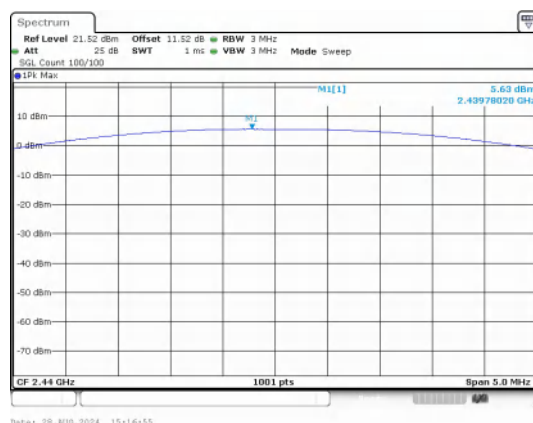
Left:
Test Result

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	6.53	4.49	≤30	PASS
	19	5.63	3.66	≤30	PASS
	39	4.56	2.86	≤30	PASS
BLE 2M	0	6.45	4.42	≤30	PASS
	19	5.91	3.90	≤30	PASS
	39	4.92	3.10	≤30	PASS

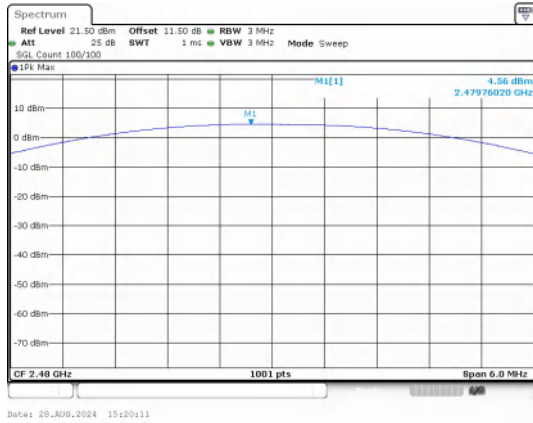
Test Graphs



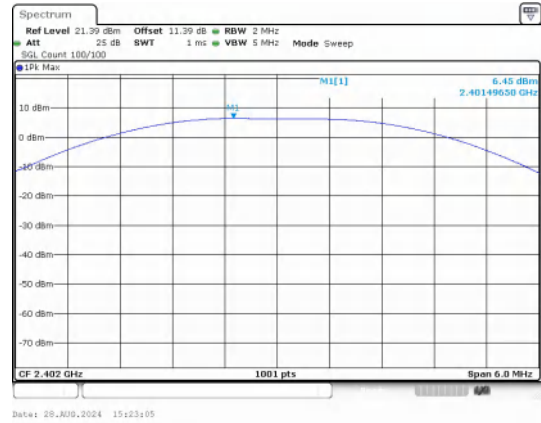
Peak Output Power
BLE 1M_Channel 0



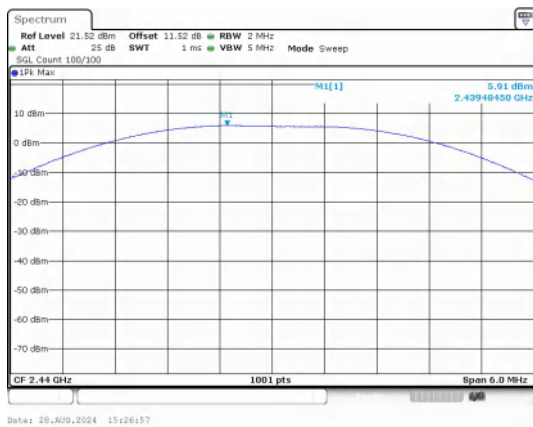
Peak Output Power
BLE 1M_Channel 19



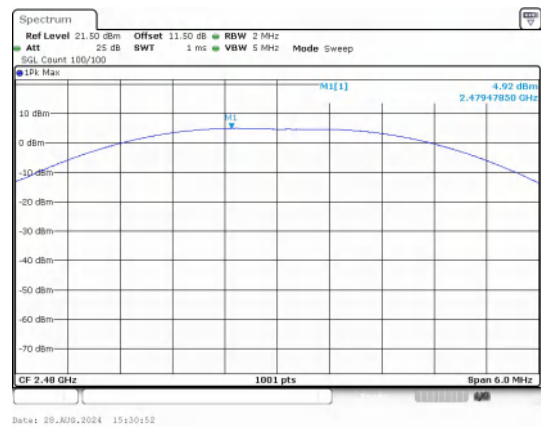
Peak Output Power
BLE 1M_Channel 39



Peak Output Power
BLE 2M_Channel 0



Peak Output Power
BLE 2M_Channel 19



Peak Output Power
BLE 2M_Channel 39

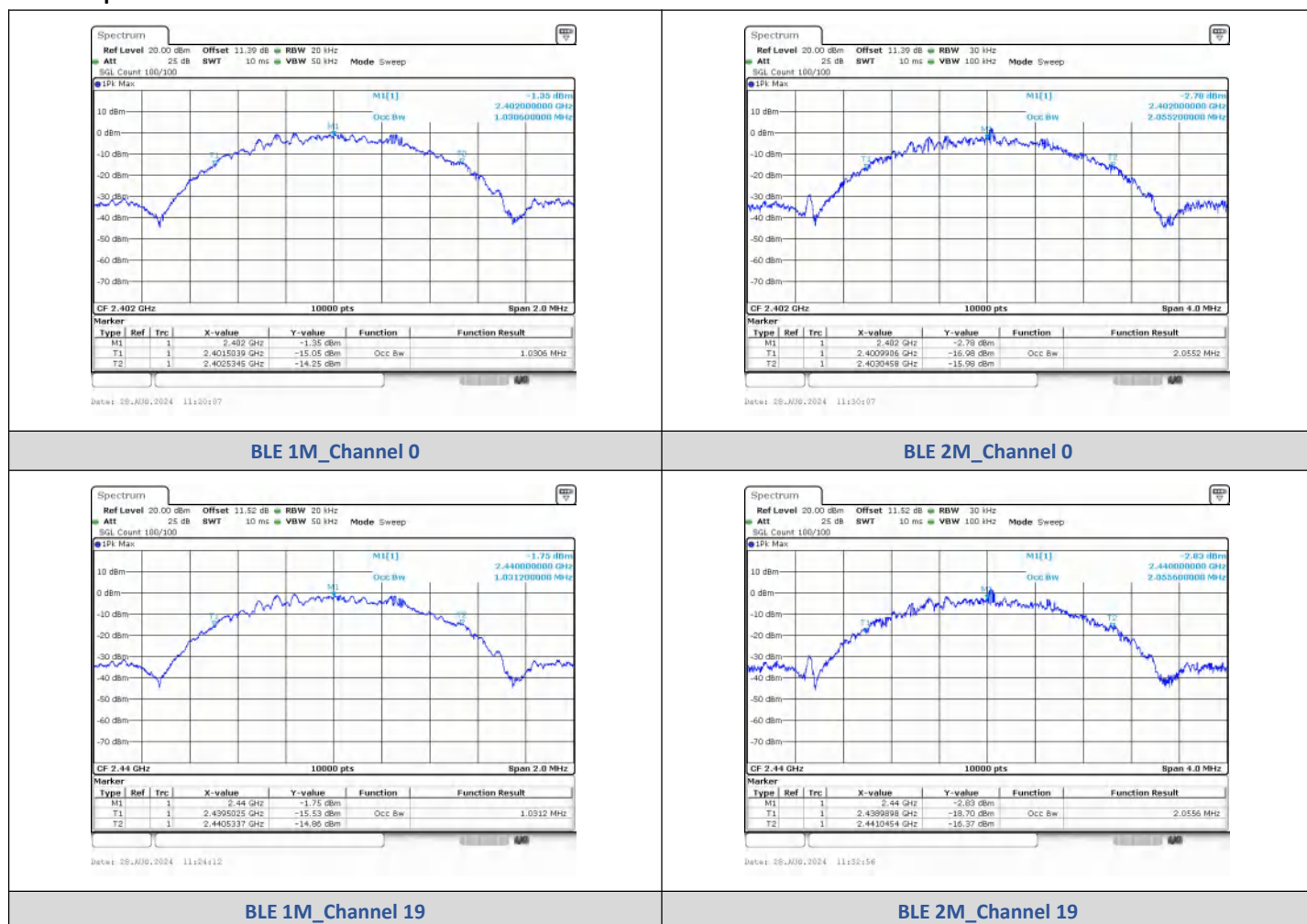
4) 99% Bandwidth

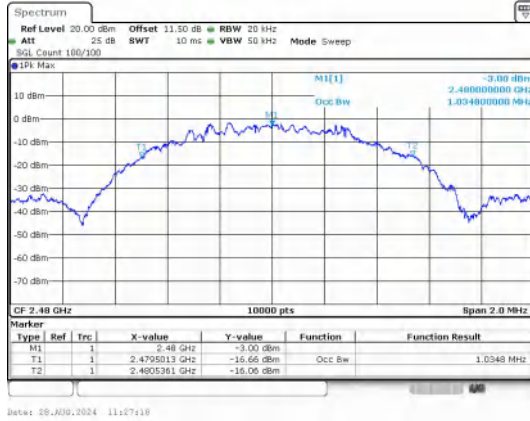
Right:

Test Result

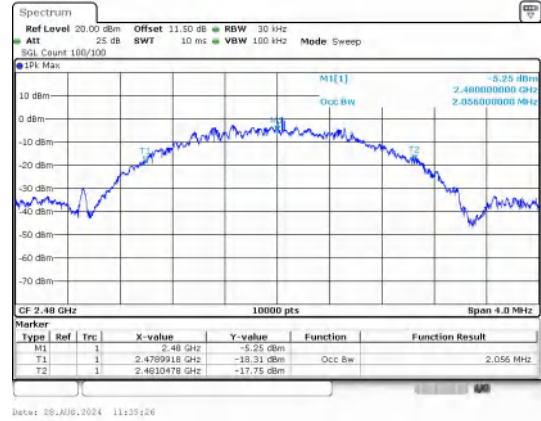
Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0310
BLE 1M	19	2440	1.0310
BLE 1M	39	2480	1.0350
BLE 2M	0	2402	2.0550
BLE 2M	19	2440	2.0560
BLE 2M	39	2480	2.0560

Test Graphs





BLE 1M_Channel 39



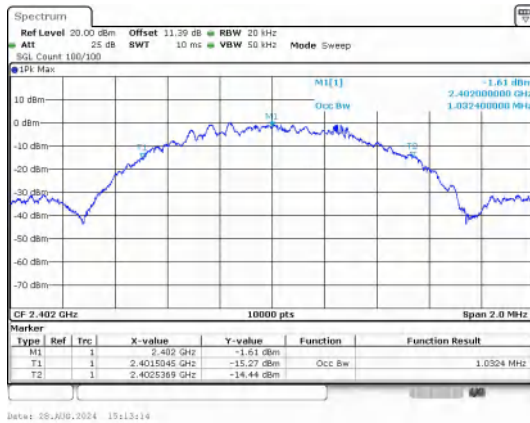
BLE 2M_Channel 39

Left:

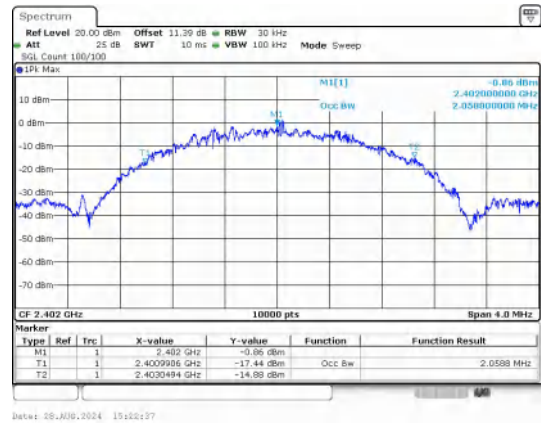
Test Result

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0320
BLE 1M	19	2440	1.0330
BLE 1M	39	2480	1.0320
BLE 2M	0	2402	2.0590
BLE 2M	19	2440	2.0520
BLE 2M	39	2480	2.0490

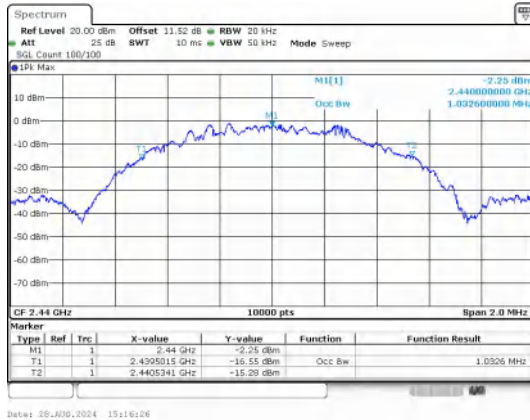
Test Graphs



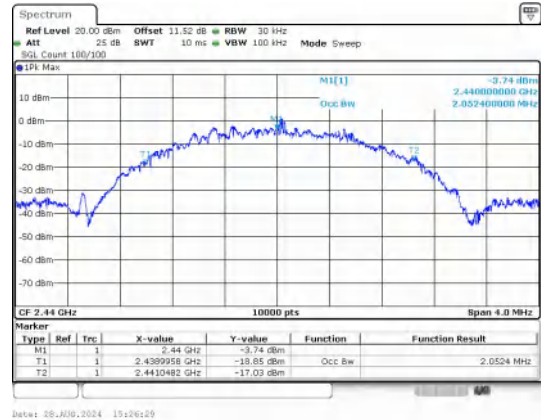
BLE 1M_Channel 0



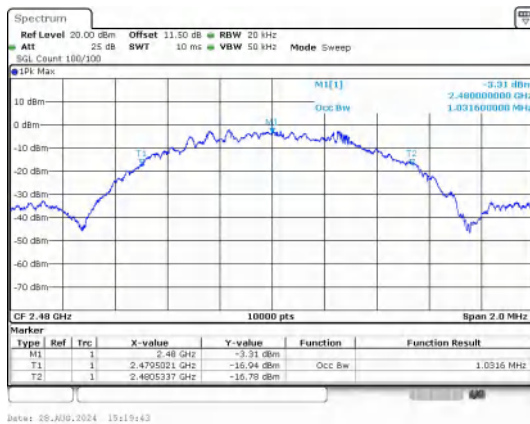
BLE 2M_Channel 0



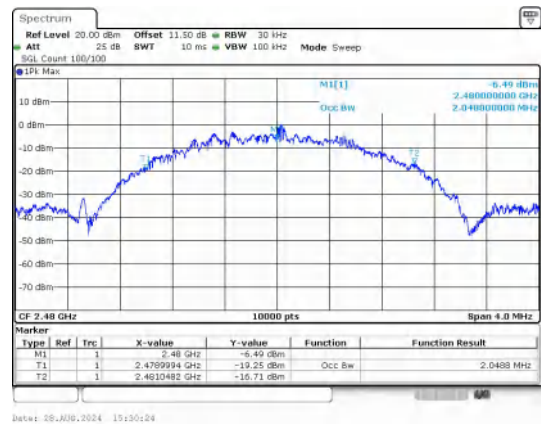
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 39

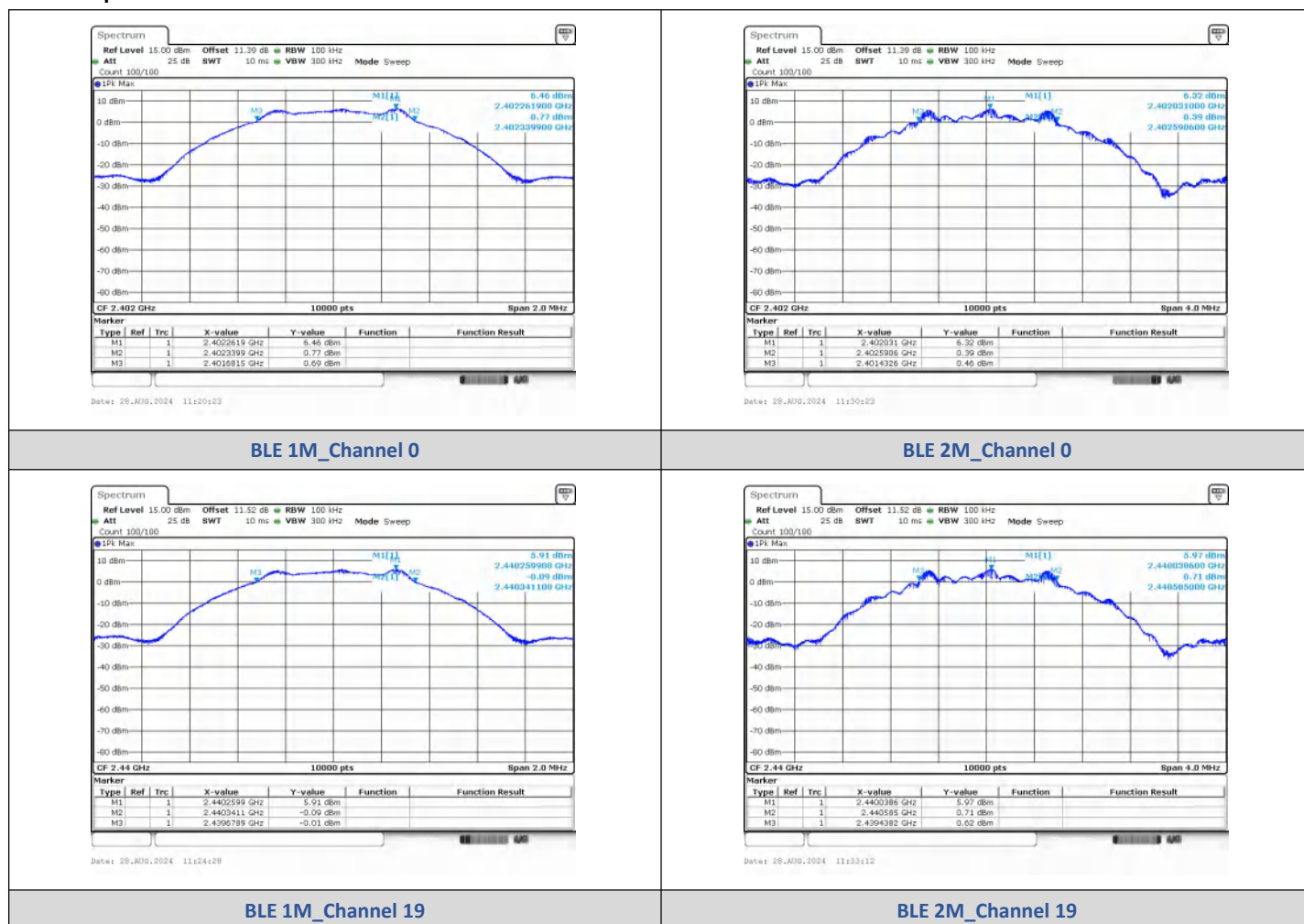
5) 6dB Bandwidth

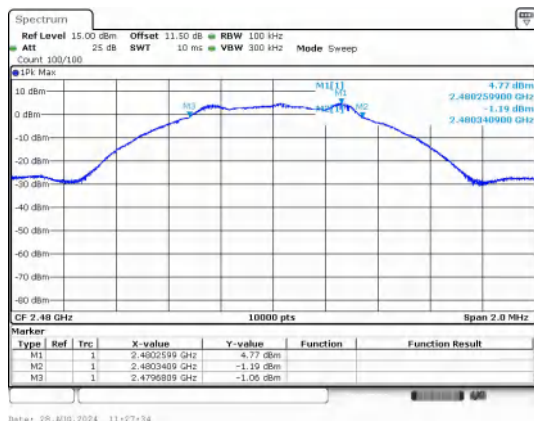
Right:

Test Result

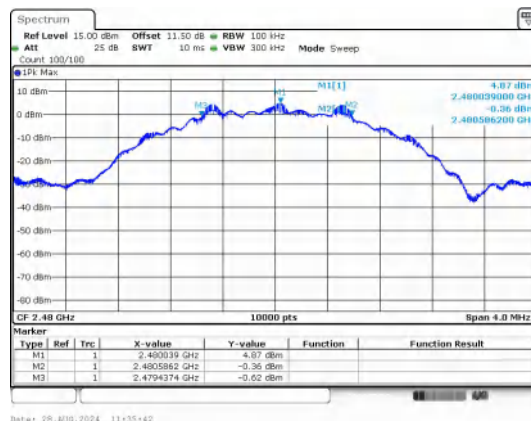
Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6600	≥0.5	PASS
	19	2440	0.6600		PASS
	39	2480	0.6600		PASS
BLE 2M	0	2402	1.160		PASS
	19	2440	1.150		PASS
	39	2480	1.150		PASS

Test Graphs





BLE 1M_Channel 39

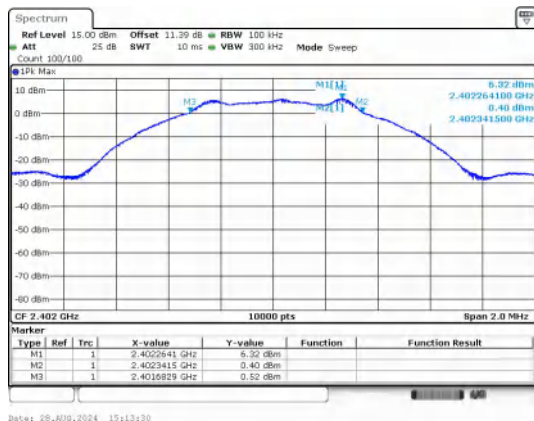


BLE 2M_Channel 39

**Left:
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	1.140		PASS
	19	2440	1.150		PASS
	39	2480	1.150		PASS

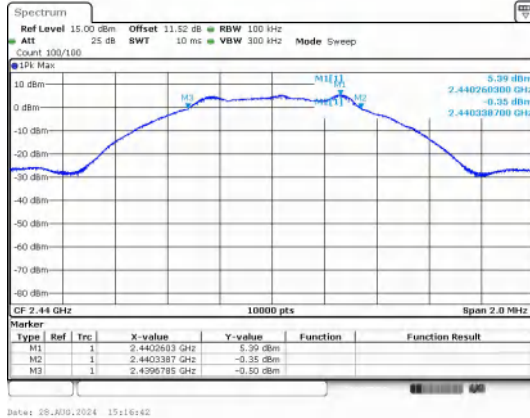
Test Graphs



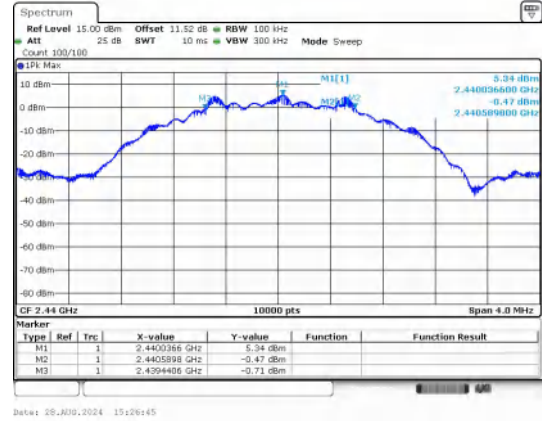
BLE 1M_Channel 0



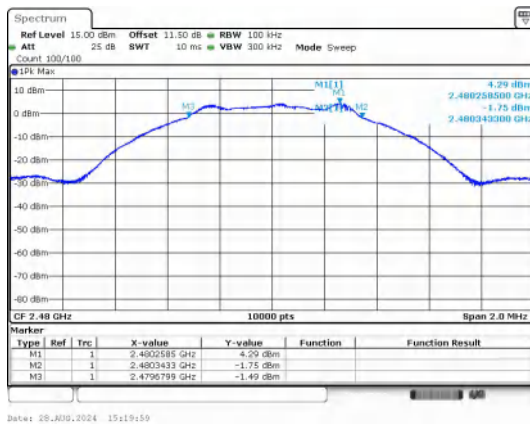
BLE 2M_Channel 0



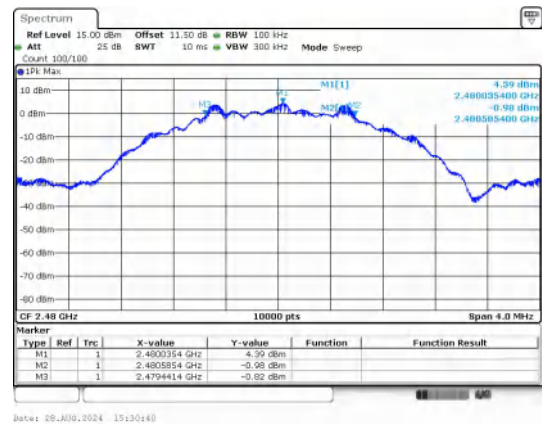
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 39

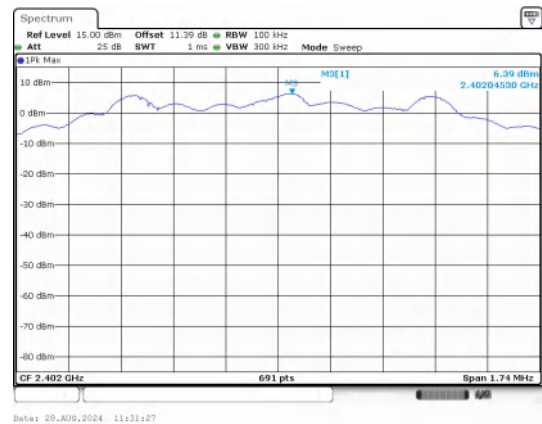
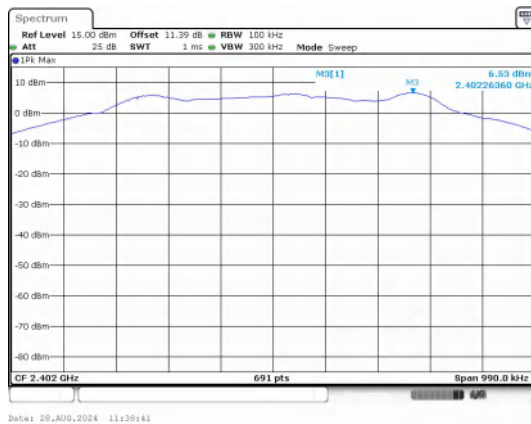
6) Conducted Out Of Band Emission

Right:

Test Result

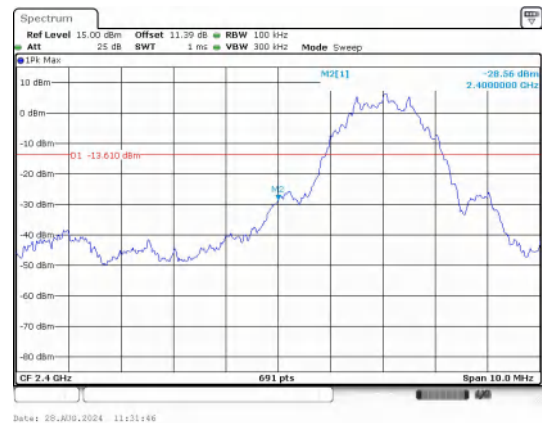
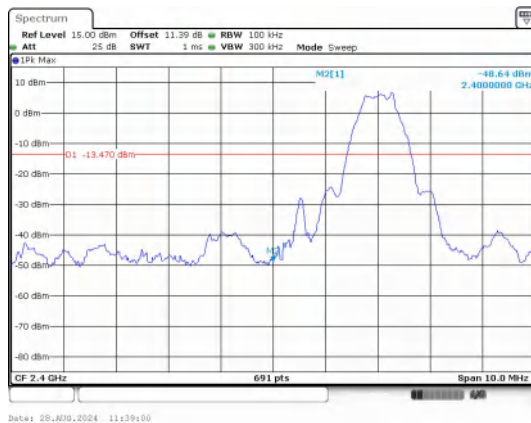
Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2399.00	-39.176	-13.47	-25.706	PASS
		2400.00	-48.638	-13.47	-35.168	PASS
		7206.80	-39.601	-13.47	-26.131	PASS
	19	2247.75	-42.601	-14.1	-28.501	PASS
	39	2287.70	-41.400	-15.24	-26.160	PASS
		2483.50	-45.557	-15.24	-30.317	PASS
BLE 2M	0	2400.00	-28.559	-13.61	-14.949	PASS
		7205.13	-42.659	-13.61	-29.049	PASS
	19	2248.58	-44.912	-14.02	-30.892	PASS
	39	2483.50	-49.900	-15.12	-34.780	PASS
		9914.37	-43.464	-15.12	-28.344	PASS

Test Graphs

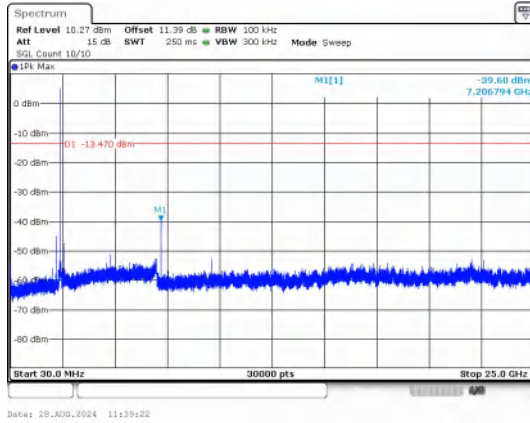


In-Band Reference Level
BLE 1M_Channel 0

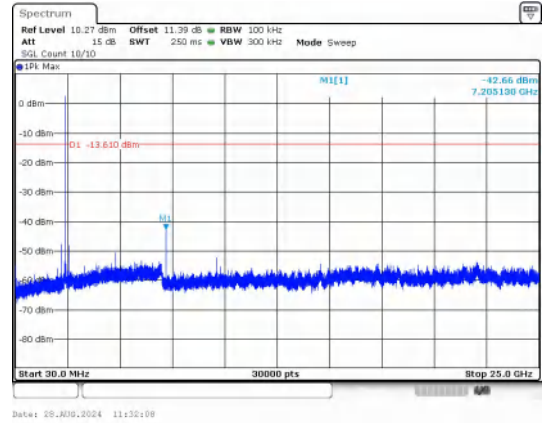
In-Band Reference Level
BLE 2M_Channel 0



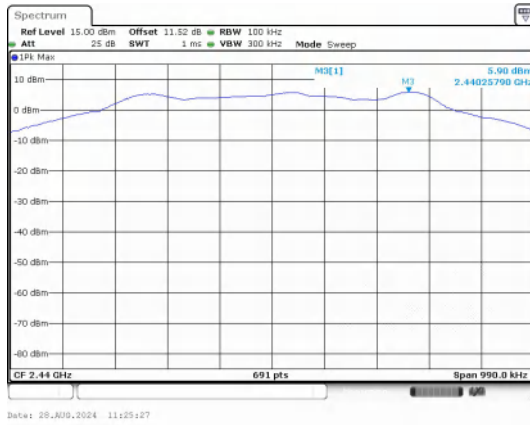
Out Of Band Emission
BLE 1M_Channel 0



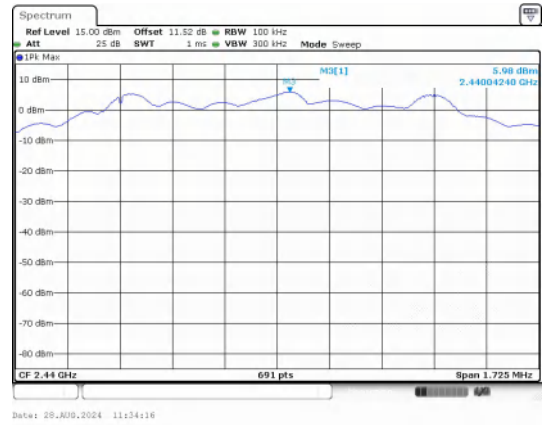
Out Of Band Emission
BLE 2M_Channel 0



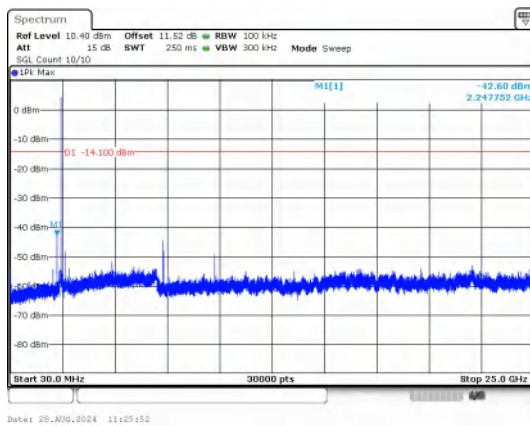
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0



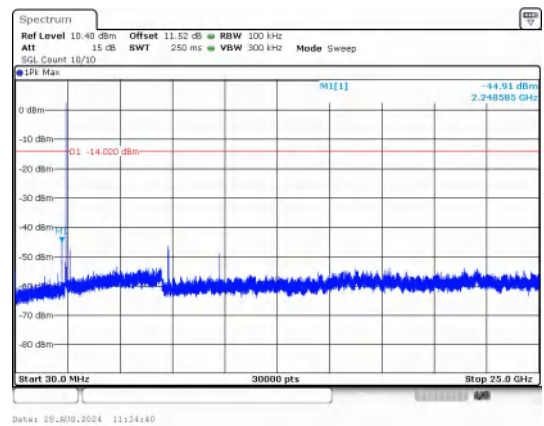
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 0



In-Band Reference Level
BLE 1M_Channel 19

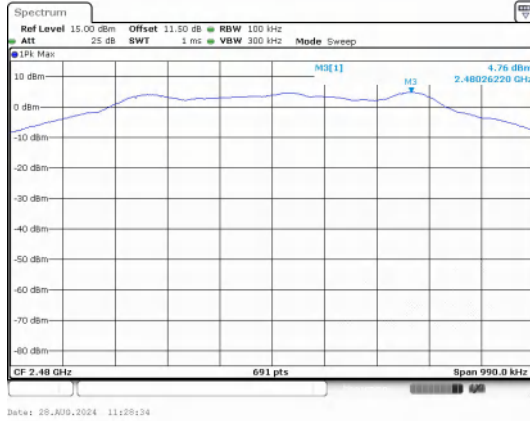


In-Band Reference Level
BLE 2M_Channel 19

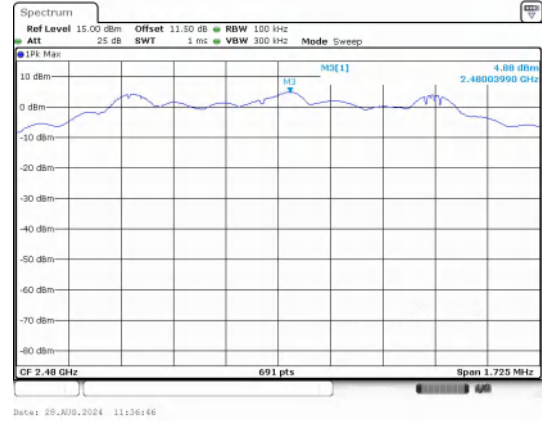


30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19

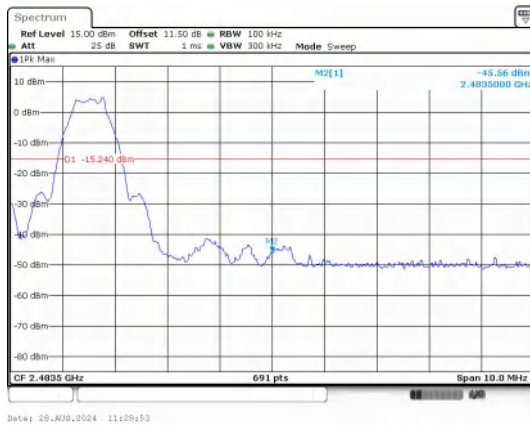
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 19



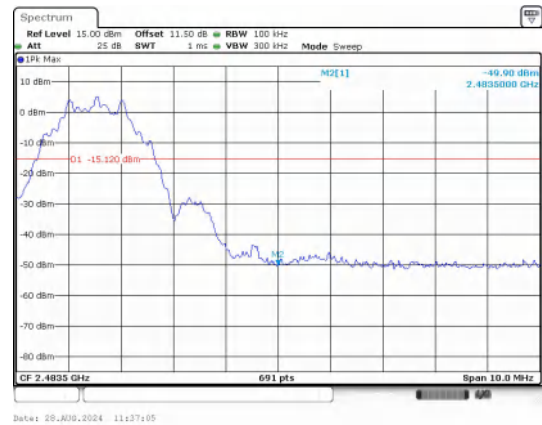
In-Band Reference Level
BLE 1M_Channel 39



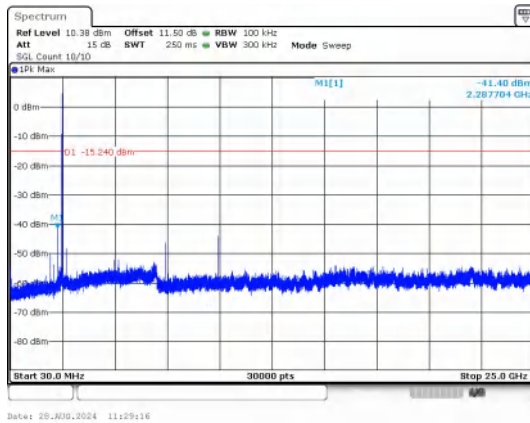
In-Band Reference Level
BLE 2M_Channel 39



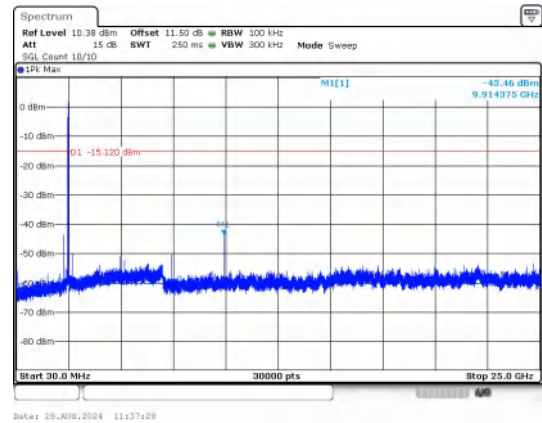
Out Of Band Emission
BLE 1M_Channel 39



Out Of Band Emission
BLE 2M_Channel 39



30.0 MHz - 25000.0 MHz
BLE 1M_Channel 39



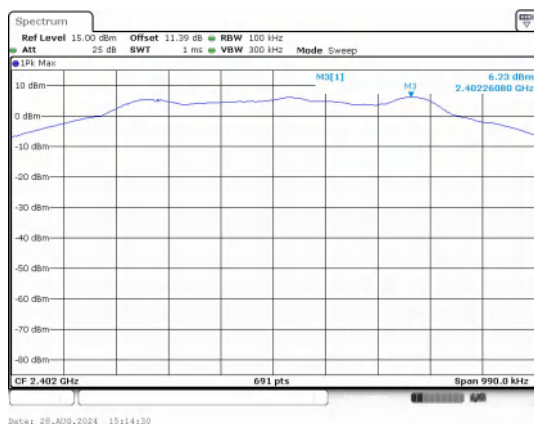
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 39

Left:
Test Result

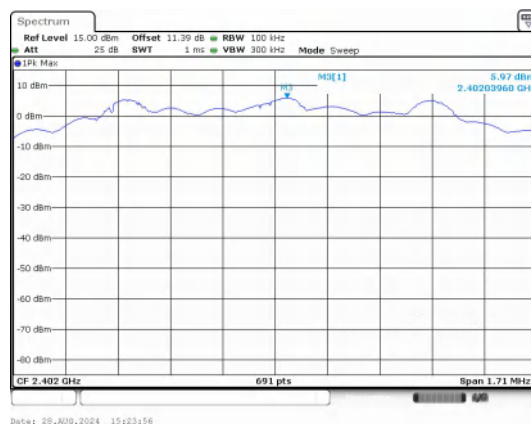
Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
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BLE 1M	0	2399.00	-39.694	-13.77	-25.924	PASS
		2400.00	-45.590	-13.77	-31.820	PASS
		7206.80	-41.177	-13.77	-27.407	PASS
	19	2247.75	-43.217	-14.62	-28.597	PASS
	39	2287.70	-41.827	-15.71	-26.117	PASS
		2483.50	-47.147	-15.71	-31.437	PASS
BLE 2M	0	2400.00	-26.136	-14.03	-12.106	PASS
		7207.63	-37.378	-14.03	-23.348	PASS
	19	7314.17	-45.123	-14.64	-30.483	PASS
	39	2287.70	-43.950	-15.62	-28.330	PASS
		2483.50	-49.514	-15.62	-33.894	PASS

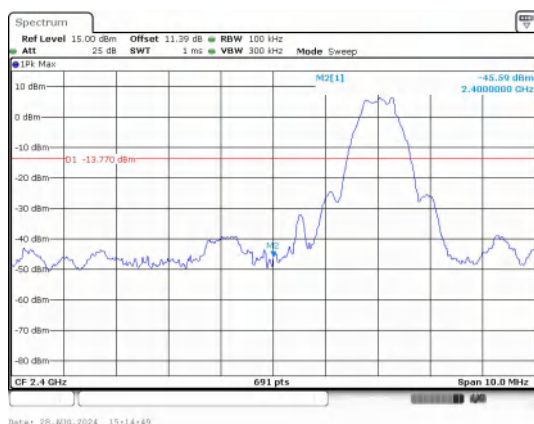
Test Graphs



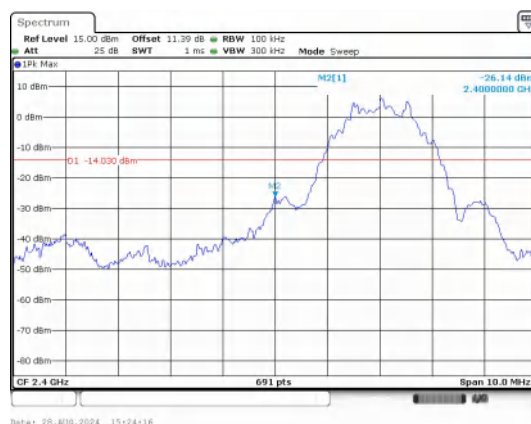
In-Band Reference Level
BLE 1M_Channel 0



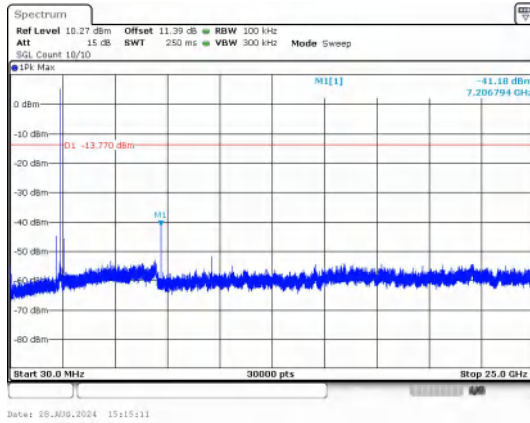
In-Band Reference Level
BLE 2M_Channel 0



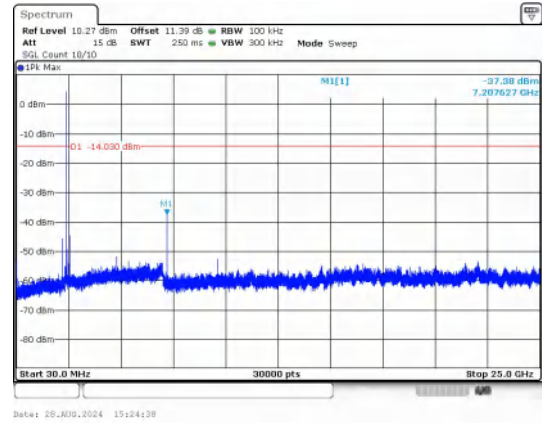
Out Of Band Emission
BLE 1M_Channel 0



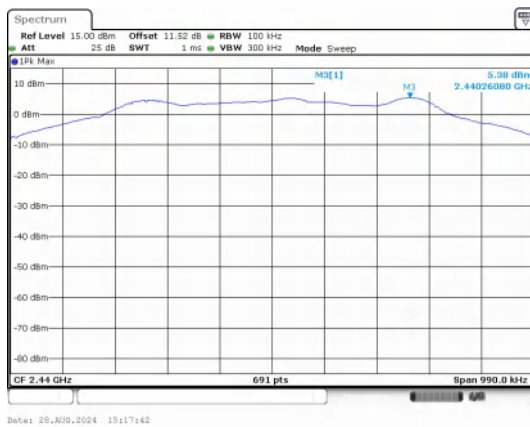
Out Of Band Emission
BLE 2M_Channel 0



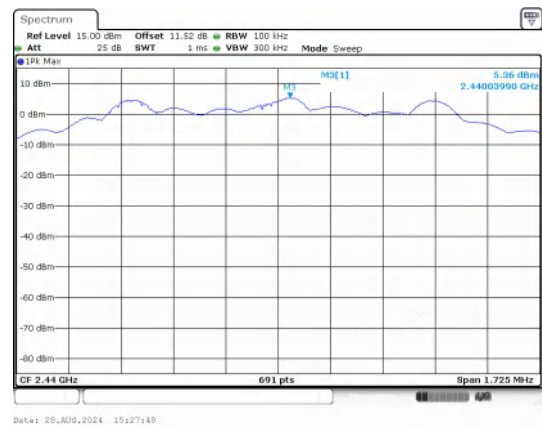
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0



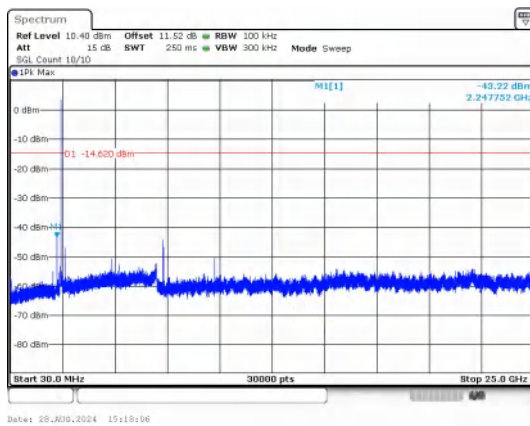
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 0



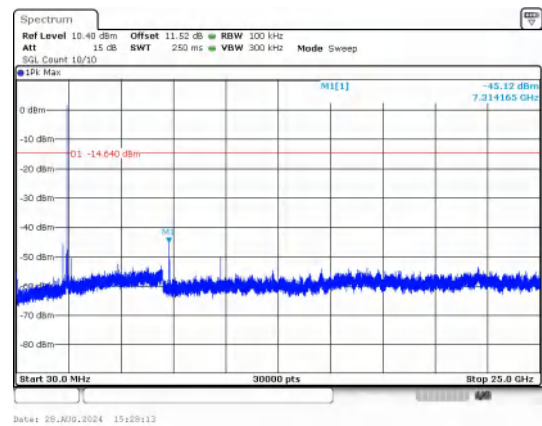
In-Band Reference Level
BLE 1M_Channel 19



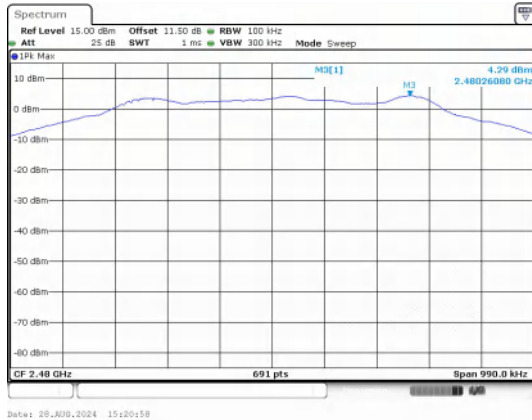
In-Band Reference Level
BLE 2M_Channel 19



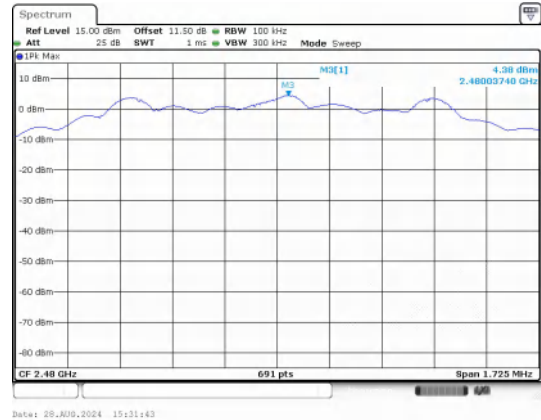
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19



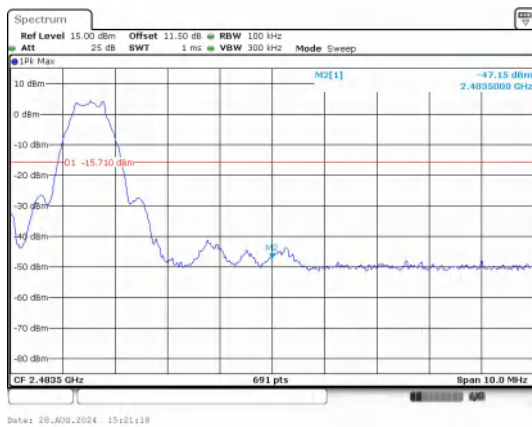
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 19



In-Band Reference Level
BLE 1M_Channel 39



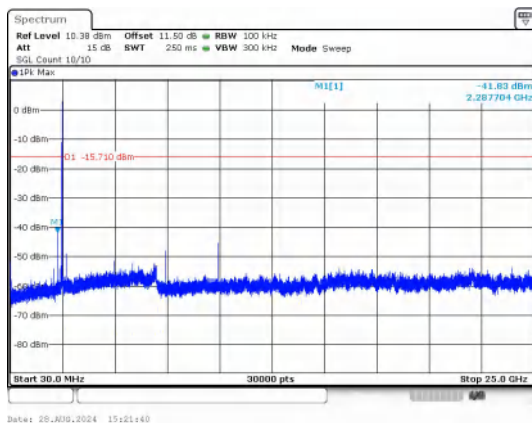
In-Band Reference Level
BLE 2M_Channel 39



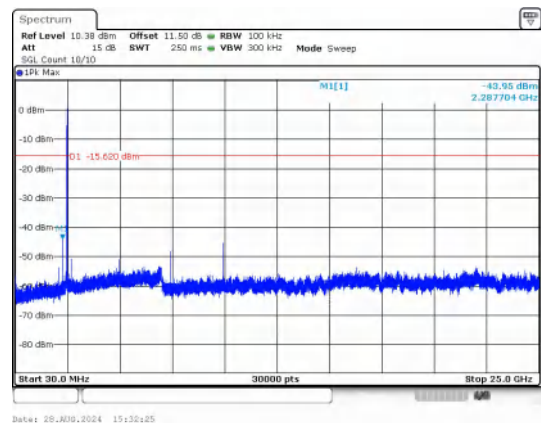
Out Of Band Emission
BLE 1M_Channel 39



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