

Appendix A

Report No.:	CISRR240911101
FCC ID:	2BDZJ-VG121
Product Name:	wireless headphone
Model No.:	VG121
Test Engineer:	Jimmy Huang
Supervised by:	Rory Huang

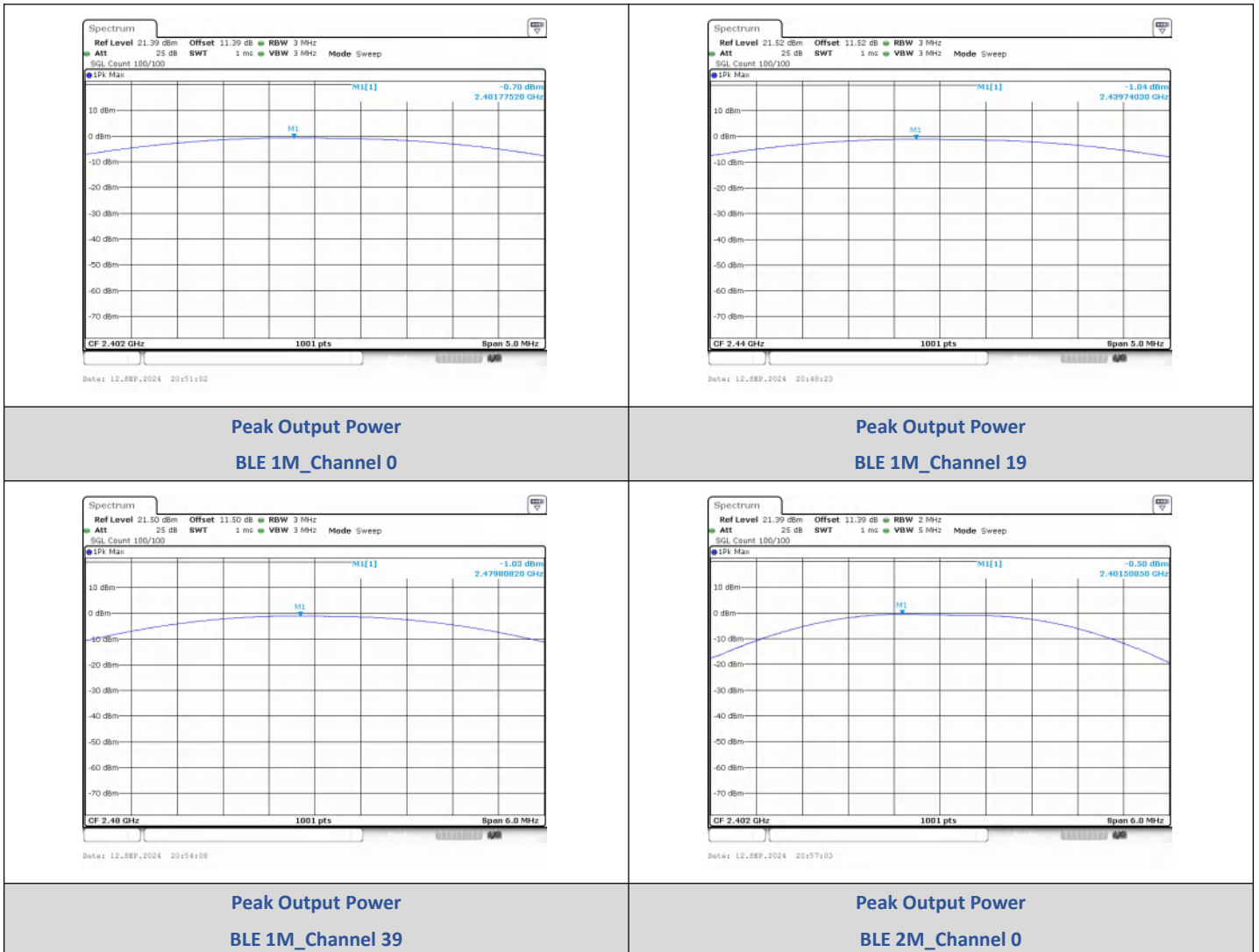
1) Conducted Output Power

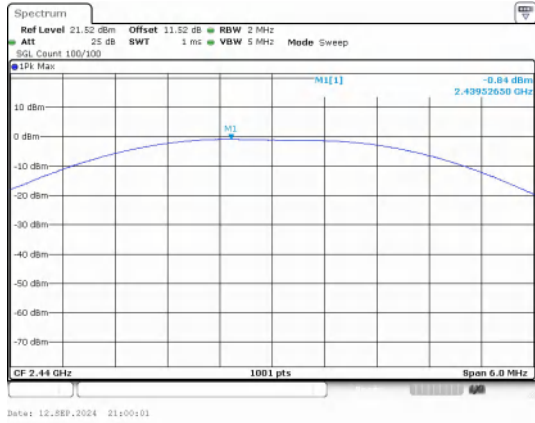
Right:

Test Result

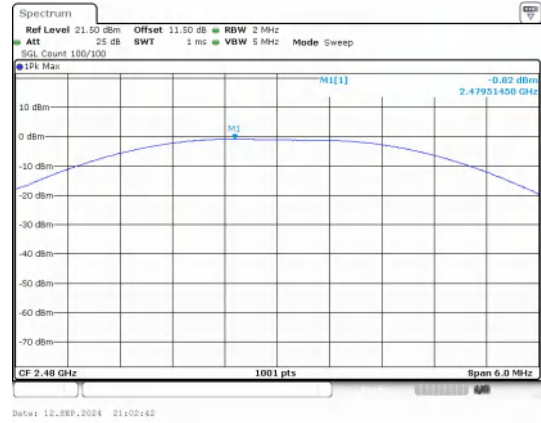
Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	-0.70	0.85	≤30	PASS
	19	-1.04	0.79	≤30	PASS
	39	-1.03	0.79	≤30	PASS
BLE 2M	0	-0.50	0.89	≤30	PASS
	19	-0.85	0.82	≤30	PASS
	39	-0.82	0.83	≤30	PASS

Test Graphs





Peak Output Power
BLE 2M_Channel 19

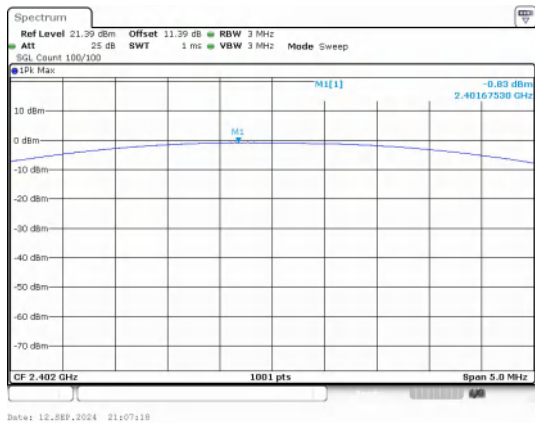


Peak Output Power
BLE 2M_Channel 39

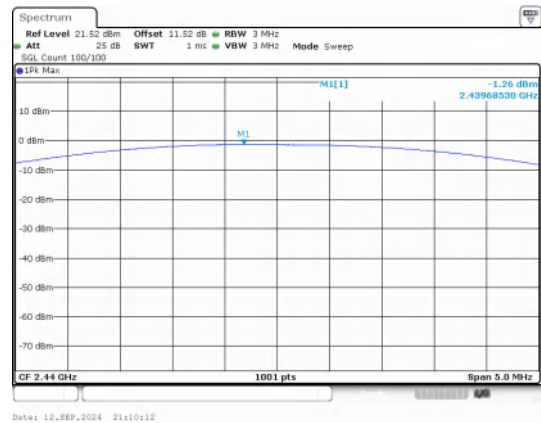
Left:
Test Result

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	-0.83	0.83	≤30	PASS
	19	-1.26	0.75	≤30	PASS
	39	-1.16	0.77	≤30	PASS
BLE 2M	0	-0.56	0.88	≤30	PASS
	19	-0.86	0.82	≤30	PASS
	39	-0.76	0.84	≤30	PASS

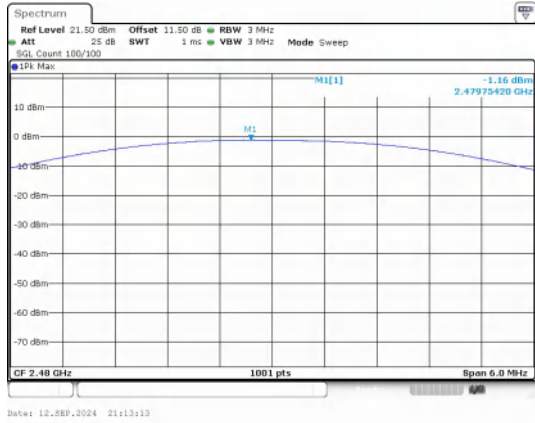
Test Graphs



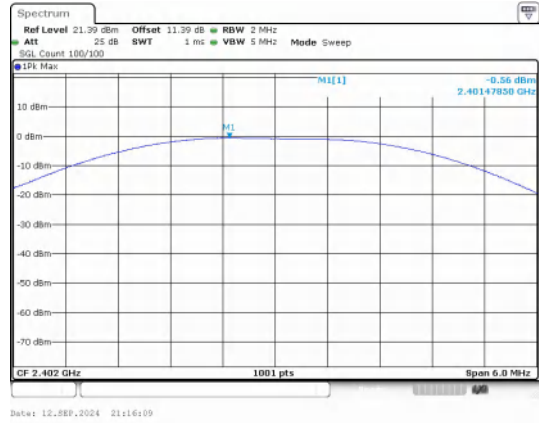
Peak Output Power
BLE 1M_Channel 0



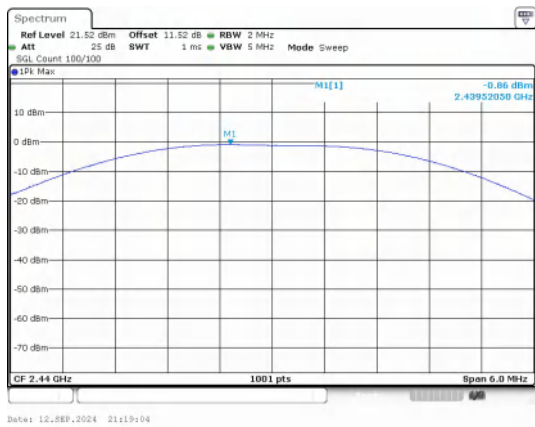
Peak Output Power
BLE 1M_Channel 19



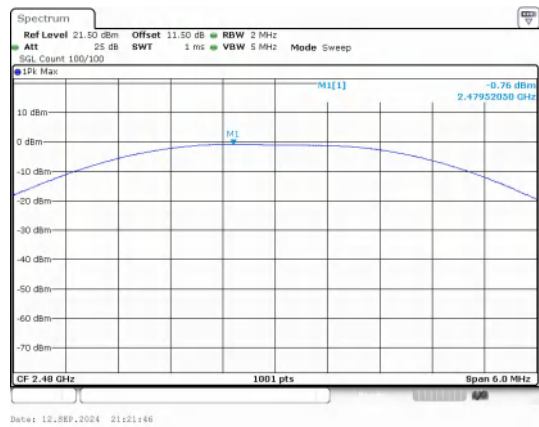
**Peak Output Power
BLE 1M_Channel 39**



**Peak Output Power
BLE 2M_Channel 0**



**Peak Output Power
BLE 2M_Channel 19**



**Peak Output Power
BLE 2M_Channel 39**

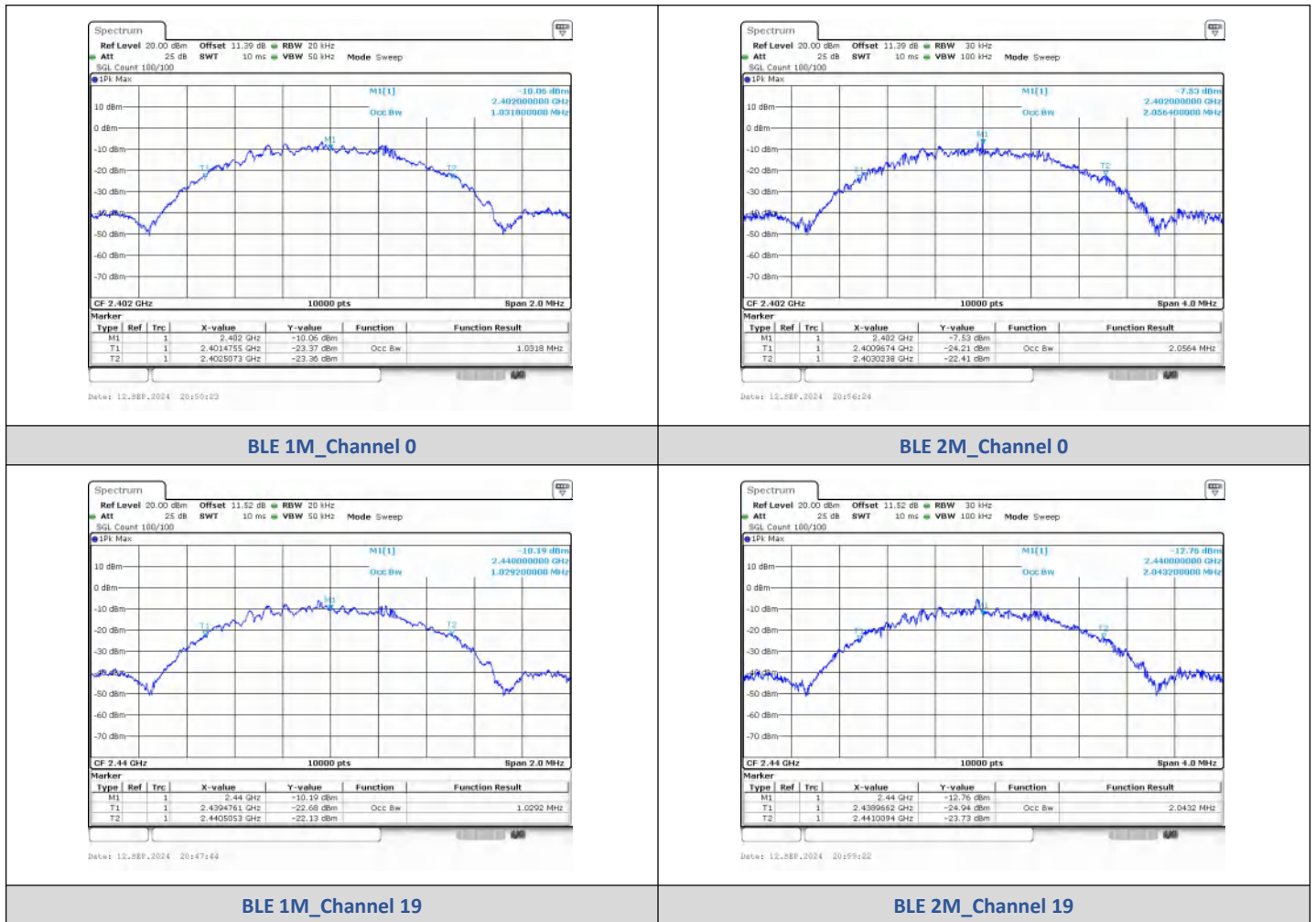
2) 99% Bandwidth

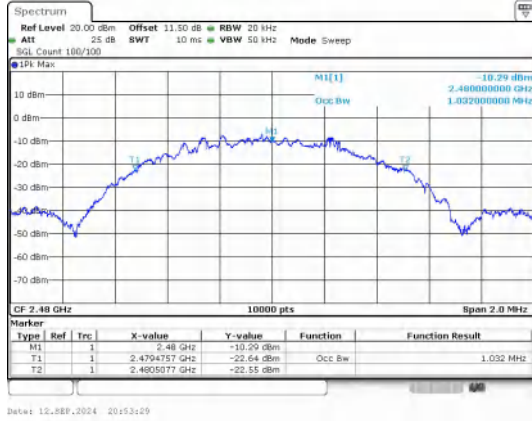
Right:

Test Result

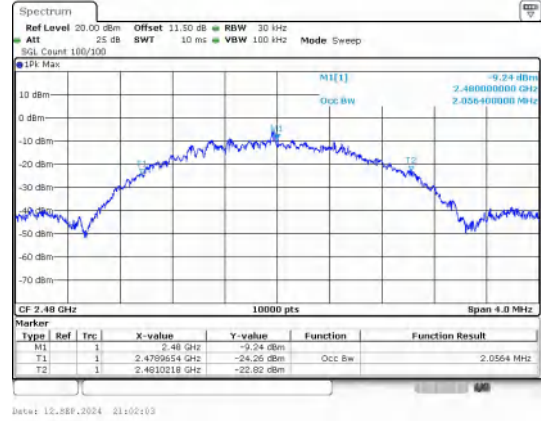
Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0320
BLE 1M	19	2440	1.0290
BLE 1M	39	2480	1.0320
BLE 2M	0	2402	2.0560
BLE 2M	19	2440	2.0430
BLE 2M	39	2480	2.0560

Test Graphs





BLE 1M_Channel 39

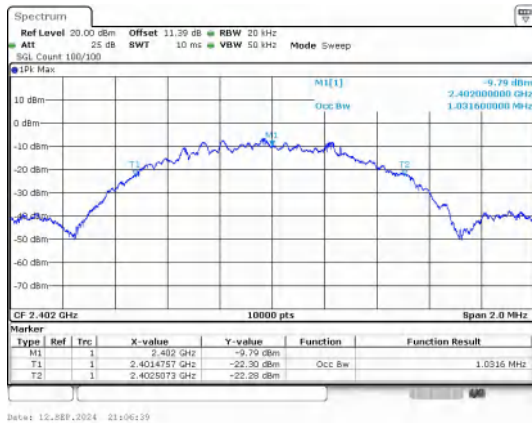


BLE 2M_Channel 39

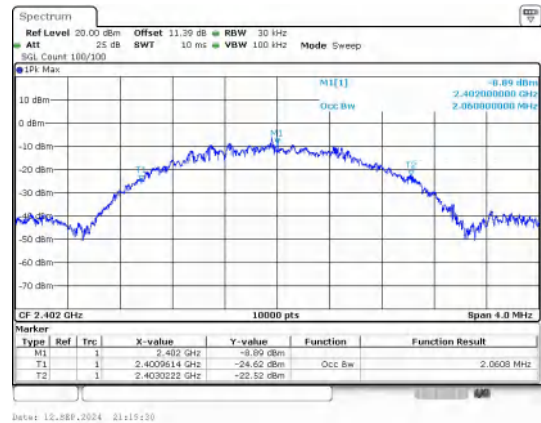
Left:
Test Result

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0320
BLE 1M	19	2440	1.0280
BLE 1M	39	2480	1.0310
BLE 2M	0	2402	2.0610
BLE 2M	19	2440	2.0510
BLE 2M	39	2480	2.0500

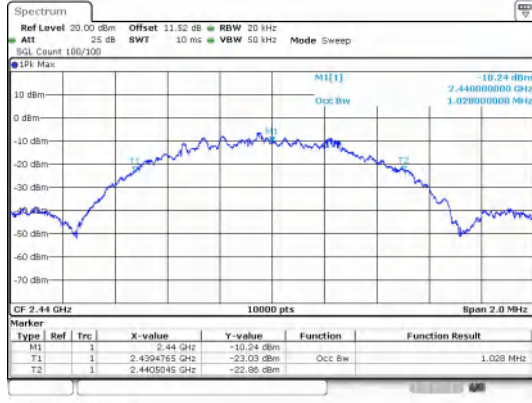
Test Graphs



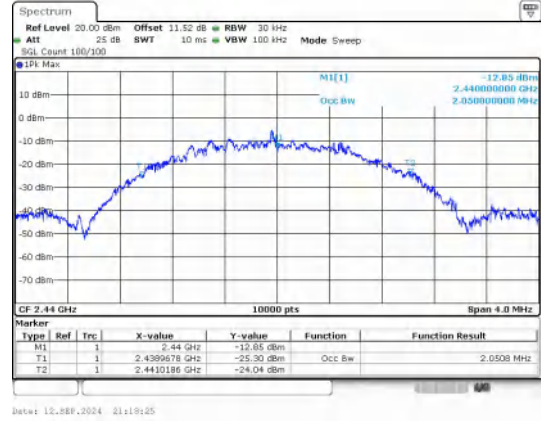
BLE 1M_Channel 0



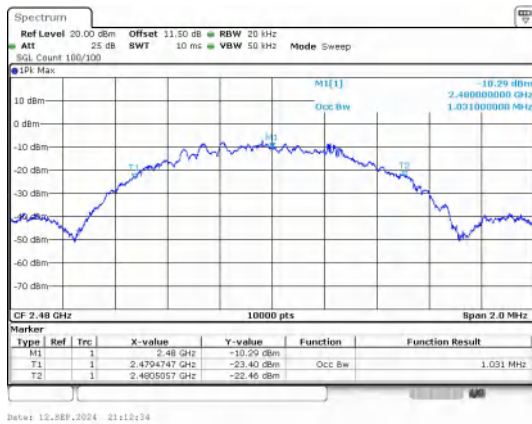
BLE 2M_Channel 0



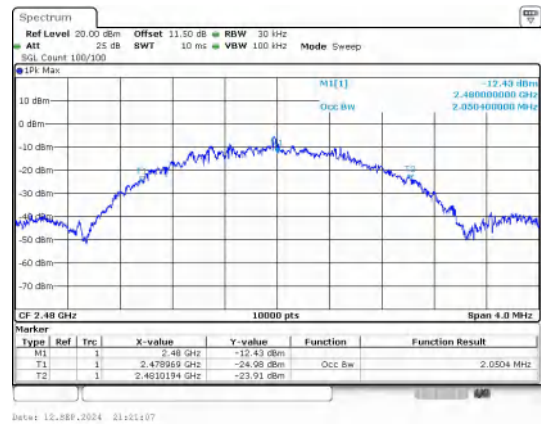
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 39

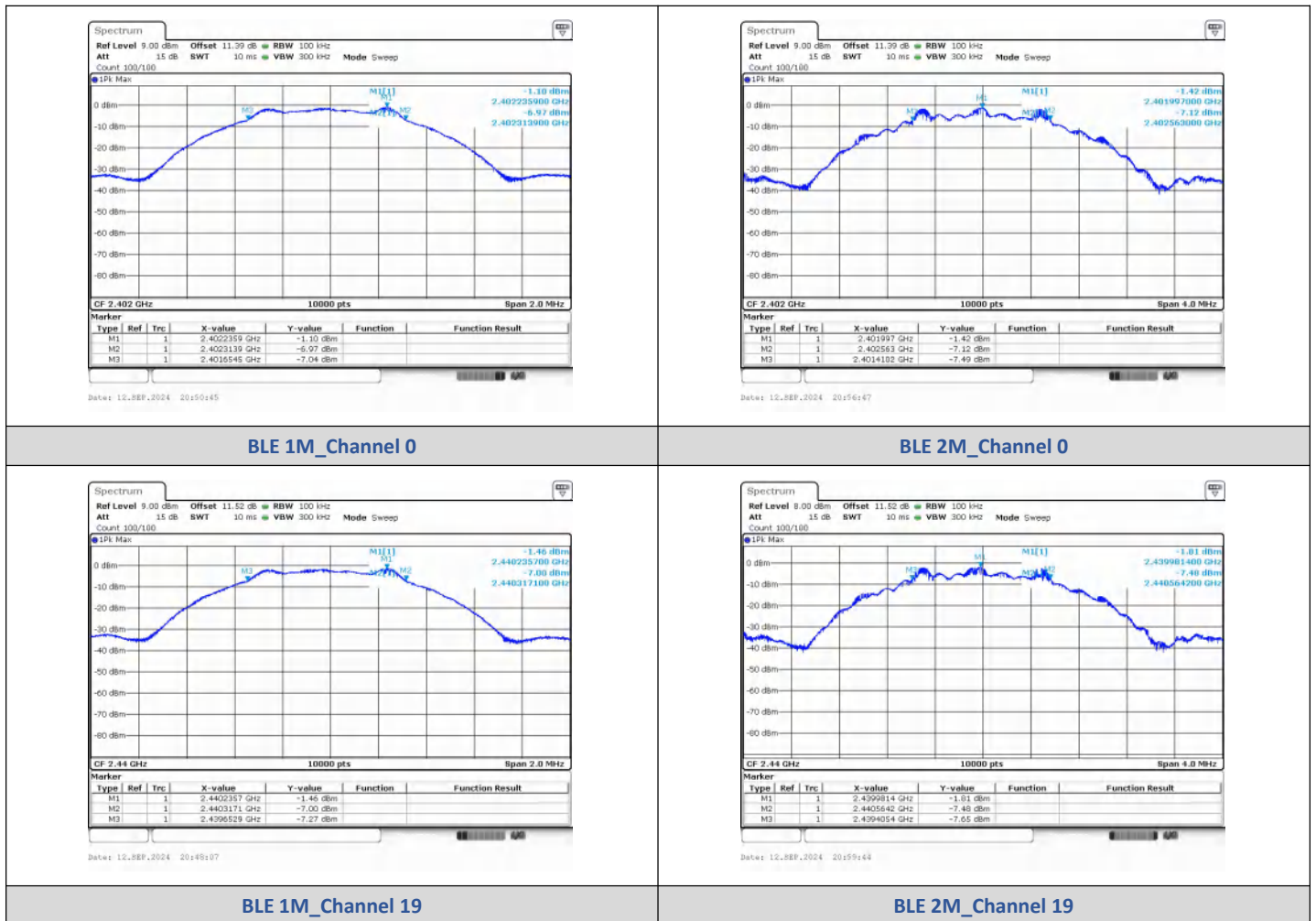
3) 6dB Bandwidth

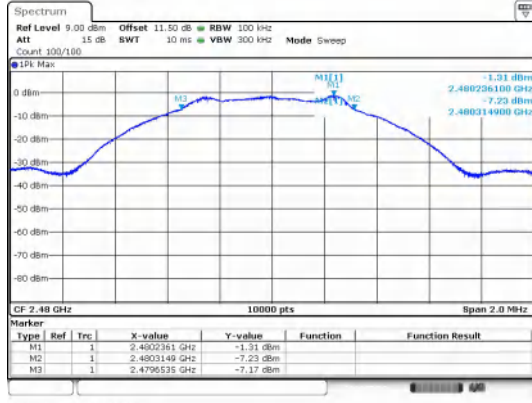
Right:

Test Result

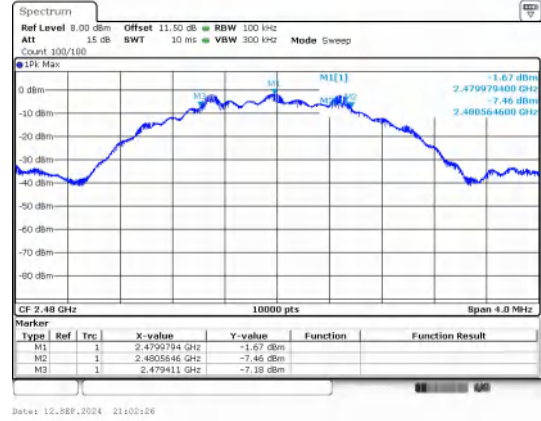
Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6600	≥0.5	PASS
	19	2440	0.6700		PASS
	39	2480	0.6600		PASS
BLE 2M	0	2402	1.150		PASS
	19	2440	1.150		PASS
	39	2480	1.150		PASS

Test Graphs





BLE 1M_Channel 39

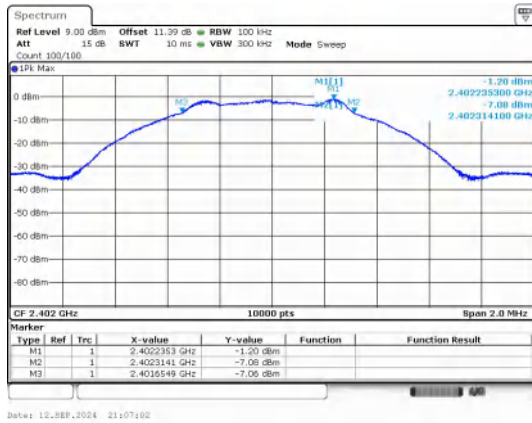


BLE 2M_Channel 39

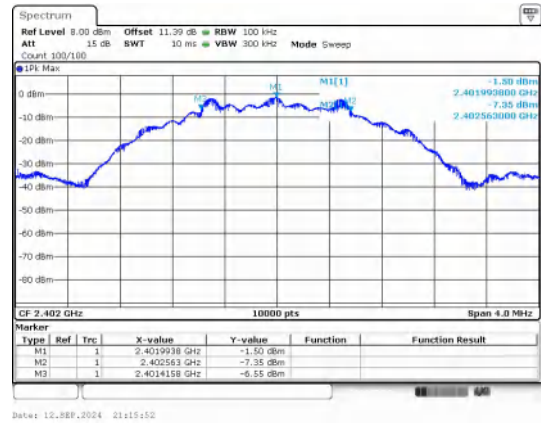
Left:
Test Result

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

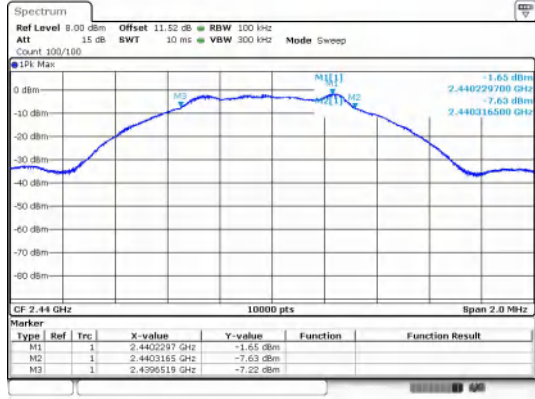
Test Graphs



BLE 1M_Channel 0

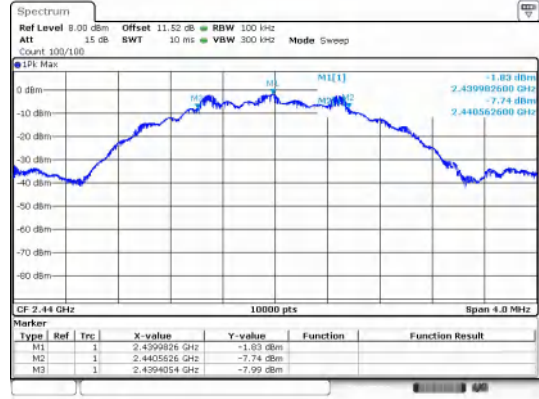


BLE 2M_Channel 0



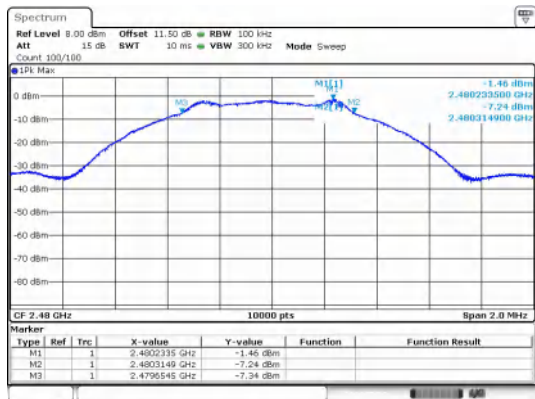
Date: 12. SEP. 2024 21:10:156

BLE 1M_Channel 19



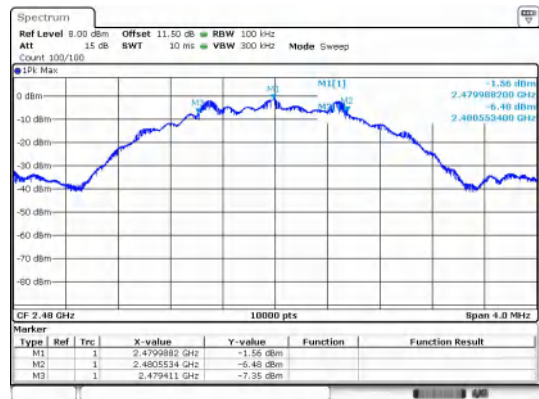
Date: 12. SEP. 2024 21:18:48

BLE 2M_Channel 19



Date: 12. SEP. 2024 21:12:156

BLE 1M_Channel 39



Date: 12. SEP. 2024 21:12:130

BLE 2M_Channel 39

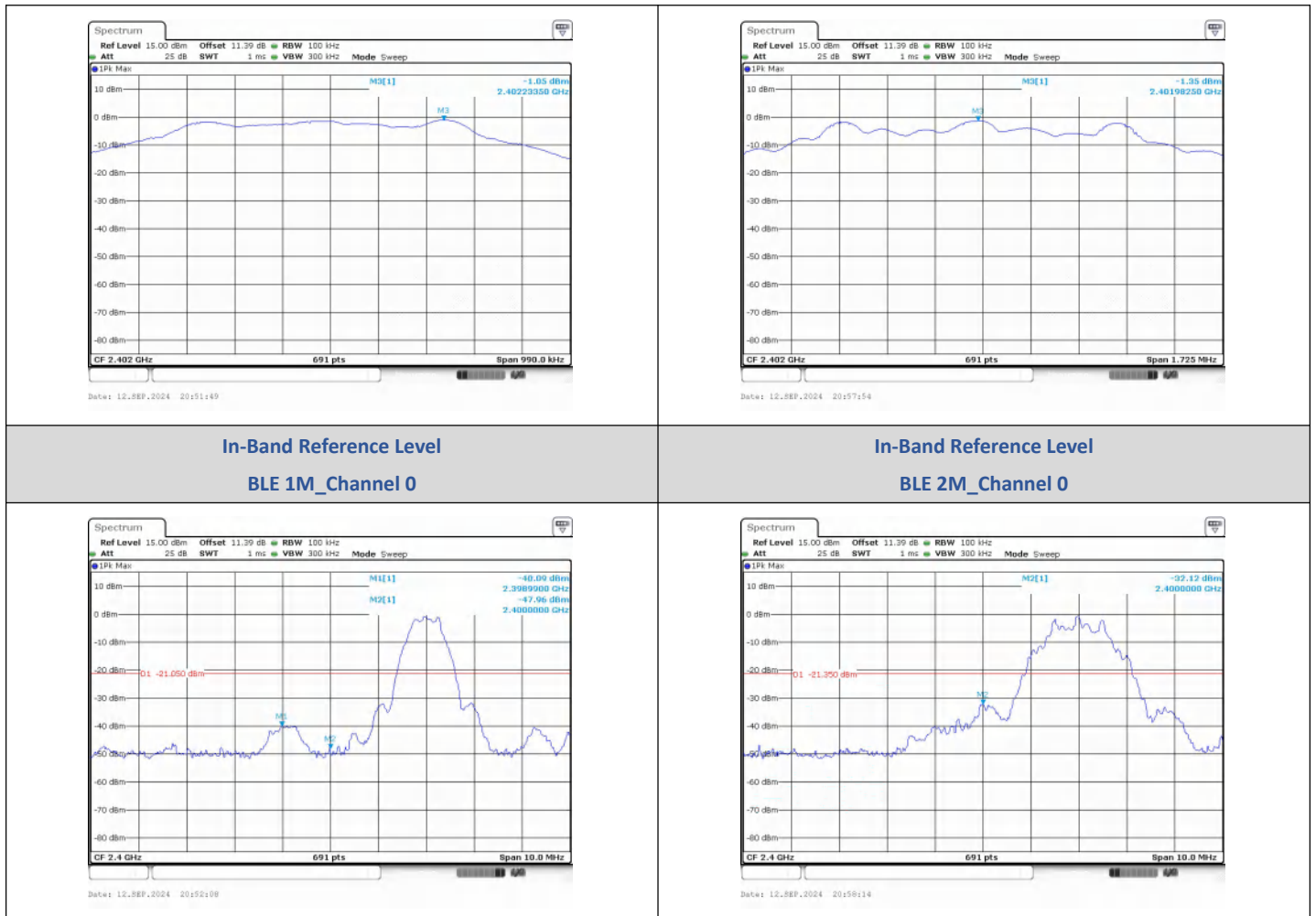
4) Conducted Out Of Band Emission

Right:

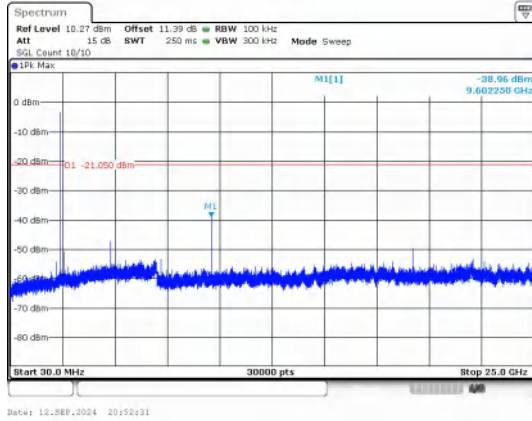
Test Result

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	
BLE 1M	0	2398.99	-40.093	-21.05	-19.043	PASS	
		2400.00	-47.963	-21.05	-26.913	PASS	
		9602.20	-38.964	-21.05	-17.914	PASS	
	19	9753.73	-35.295	-21.44	-13.855	PASS	
		39	2483.50	-46.044	-21.4	-24.644	PASS
			9914.37	-36.816	-21.4	-15.416	PASS
BLE 2M	0	2400.00	-32.116	-21.35	-10.766	PASS	
		9602.25	-39.110	-21.35	-17.760	PASS	
	19	9753.73	-34.889	-21.81	-13.079	PASS	
		39	2483.50	-49.359	-21.67	-27.689	PASS
			9914.37	-36.561	-21.67	-14.891	PASS

Test Graphs

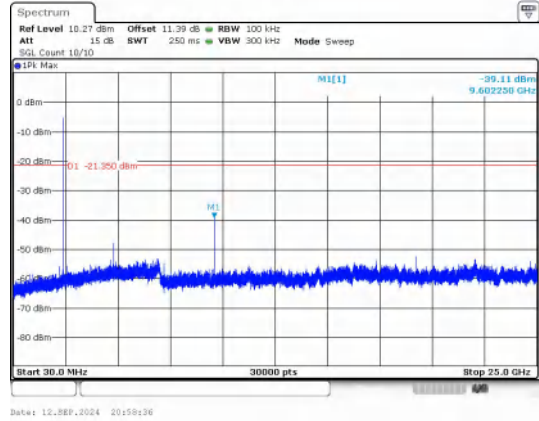


Out Of Band Emission
BLE 1M_Channel 0



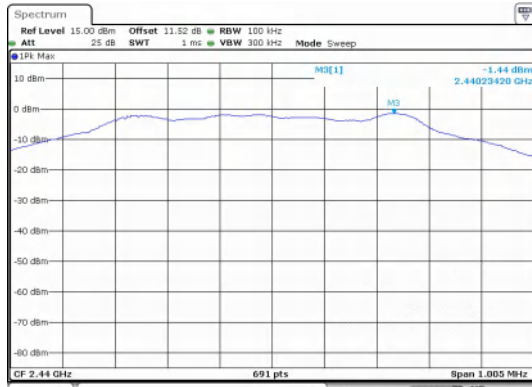
Date: 12_SEP_2024 20:52:31

Out Of Band Emission
BLE 2M_Channel 0



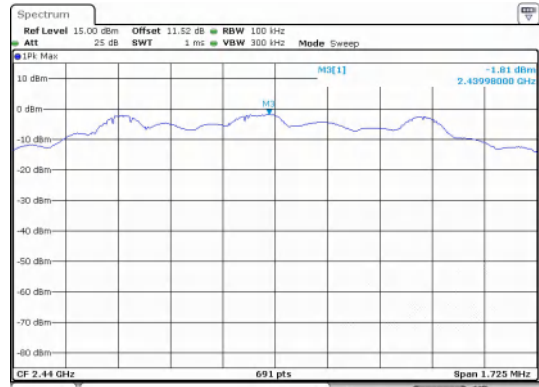
Date: 12_SEP_2024 20:59:36

30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0



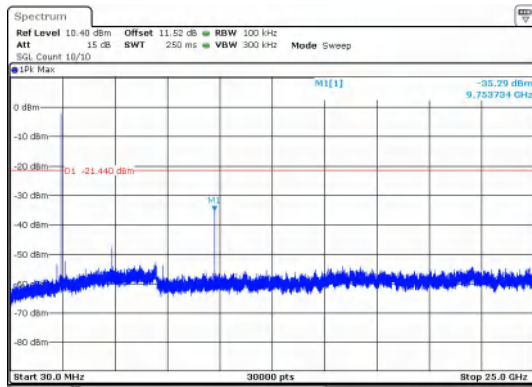
Date: 12_SEP_2024 20:49:11

30.0 MHz - 25000.0 MHz
BLE 2M_Channel 0



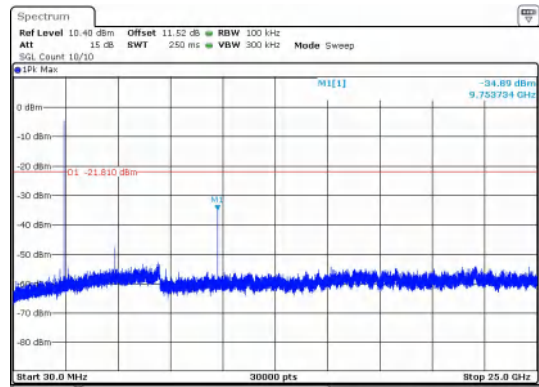
Date: 12_SEP_2024 21:00:52

In-Band Reference Level
BLE 1M_Channel 19



Date: 12_SEP_2024 20:49:35

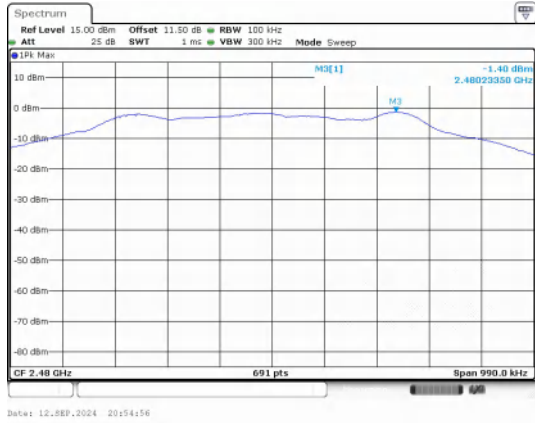
In-Band Reference Level
BLE 2M_Channel 19



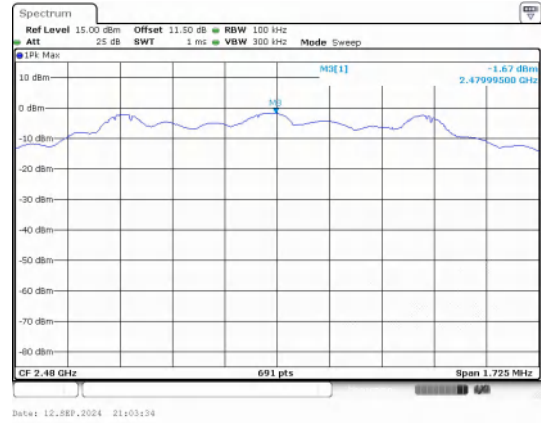
Date: 12_SEP_2024 21:01:16

30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19

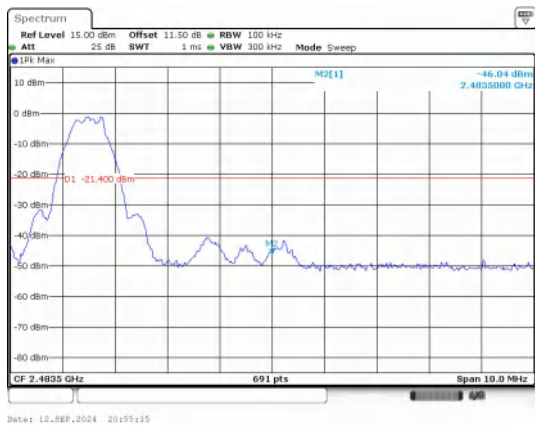
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 19



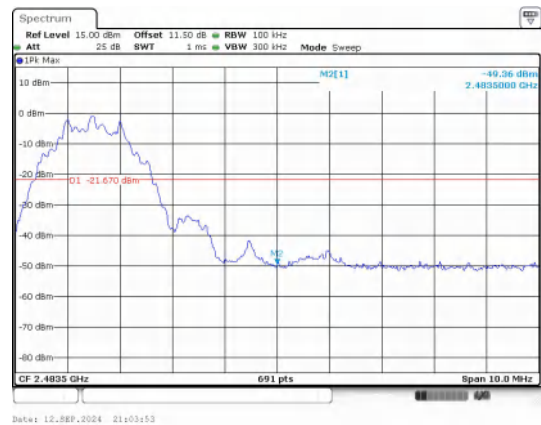
In-Band Reference Level
BLE 1M_Channel 39



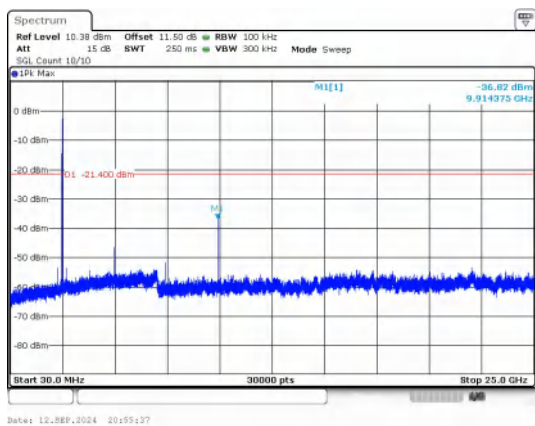
In-Band Reference Level
BLE 2M_Channel 39



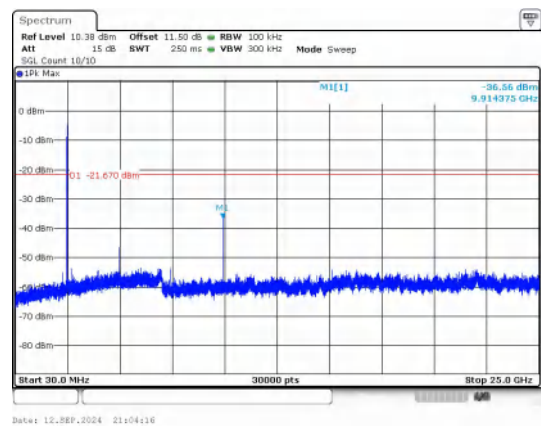
Out Of Band Emission
BLE 1M_Channel 39



Out Of Band Emission
BLE 2M_Channel 39



30.0 MHz - 25000.0 MHz
BLE 1M_Channel 39

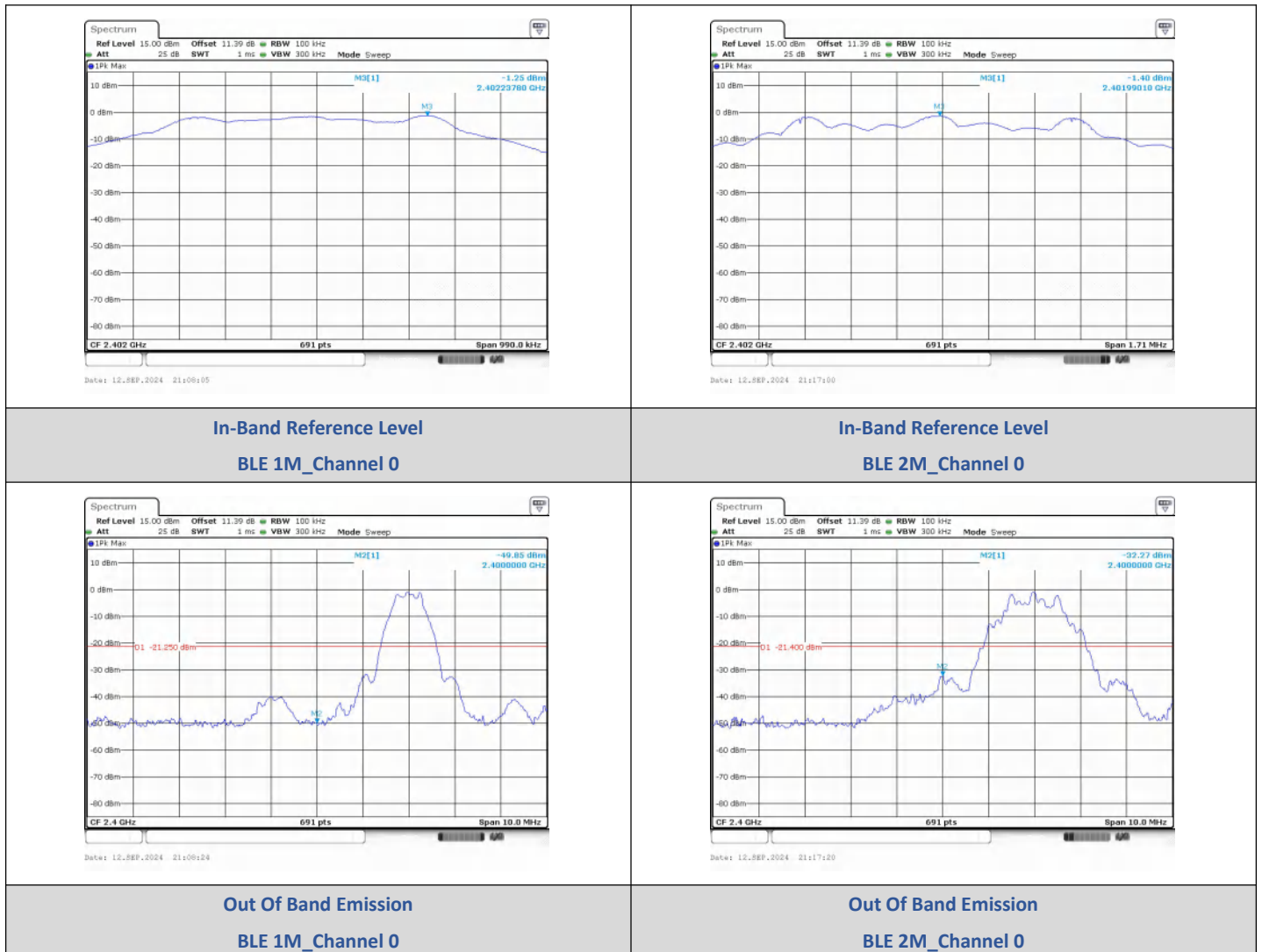


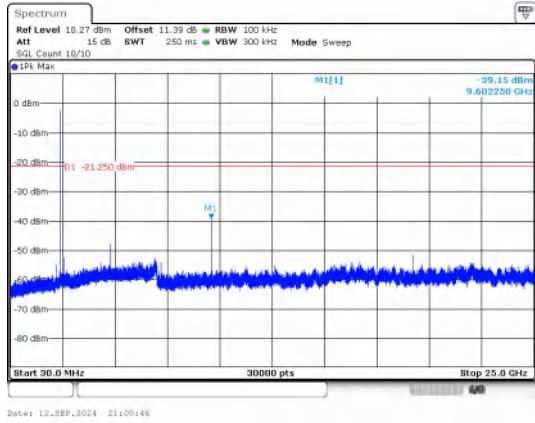
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 39

**Left:
Test Result**

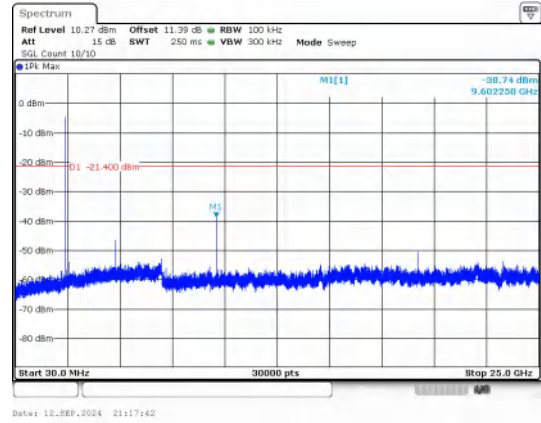
Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2399.00	-39.854	-21.25	-18.604	PASS
		2400.00	-49.846	-21.25	-28.596	PASS
		9602.20	-39.148	-21.25	-17.898	PASS
	19	9753.73	-35.095	-21.66	-13.435	PASS
		2483.50	-45.581	-21.53	-24.051	PASS
		9914.37	-36.913	-21.53	-15.383	PASS
BLE 2M	0	2400.00	-32.267	-21.4	-10.867	PASS
		9602.25	-38.738	-21.4	-17.338	PASS
	19	9753.73	-35.106	-21.81	-13.296	PASS
		2483.50	-50.126	-21.6	-28.526	PASS
	39	9914.37	-36.651	-21.6	-15.051	PASS

Test Graphs

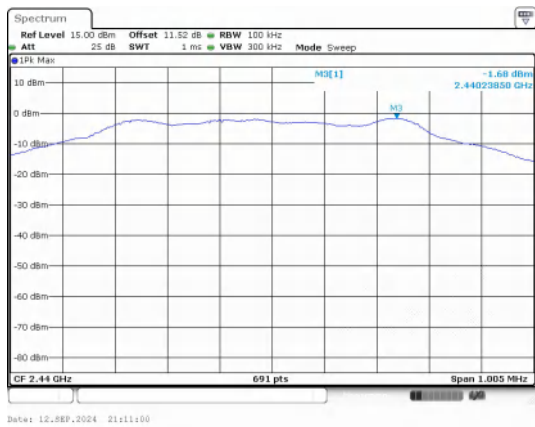




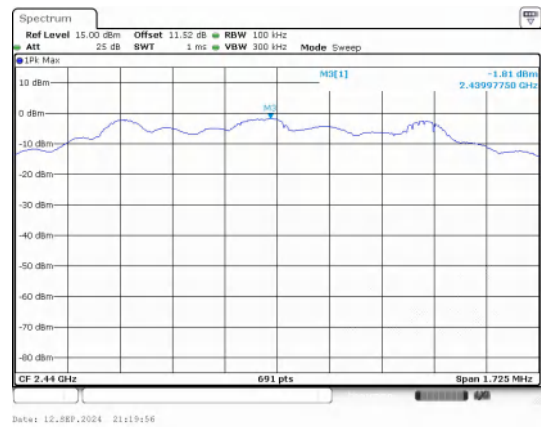
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0



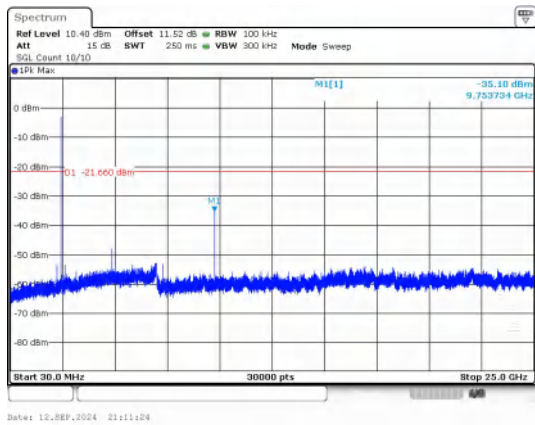
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 0



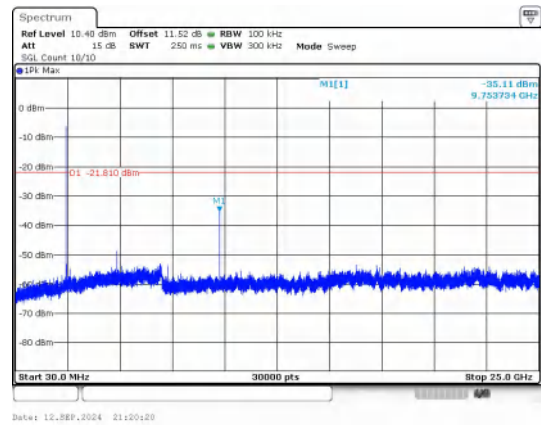
In-Band Reference Level
BLE 1M_Channel 19



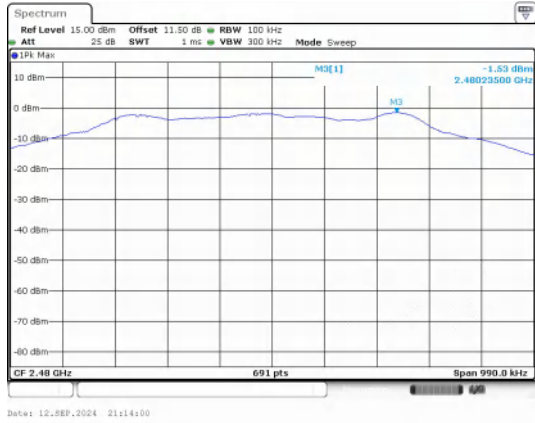
In-Band Reference Level
BLE 2M_Channel 19



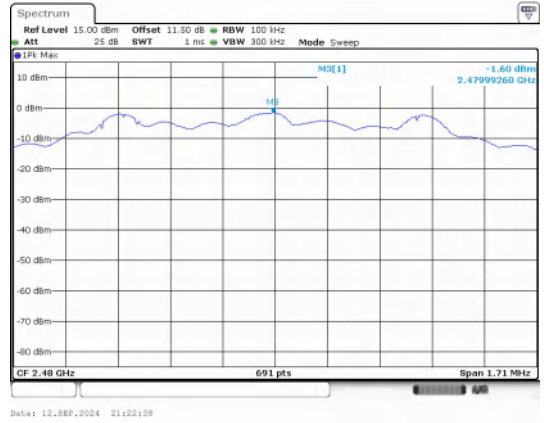
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19



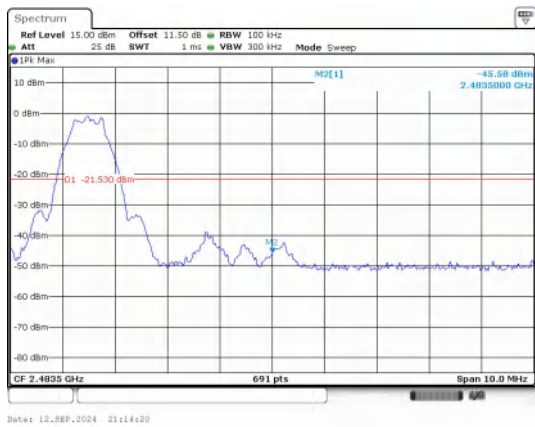
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 19



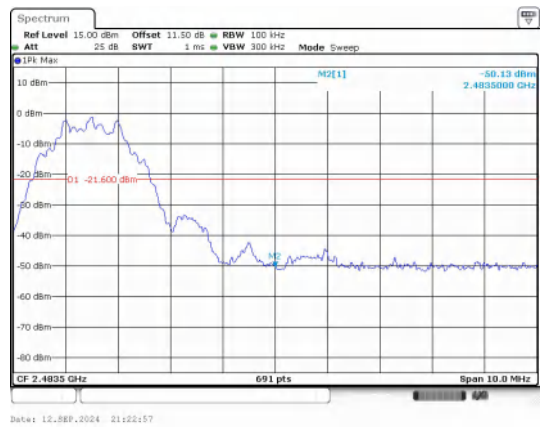
In-Band Reference Level
BLE 1M_Channel 39



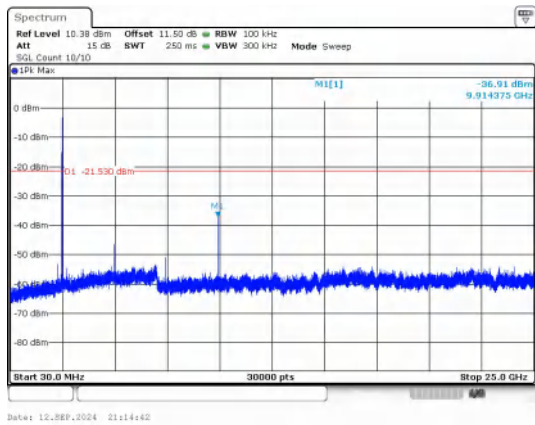
In-Band Reference Level
BLE 2M_Channel 39



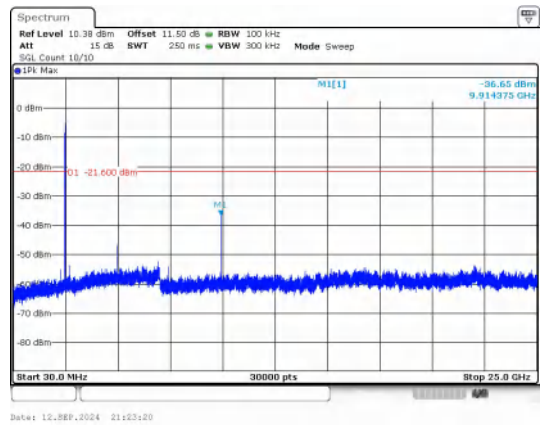
Out Of Band Emission
BLE 1M_Channel 39



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

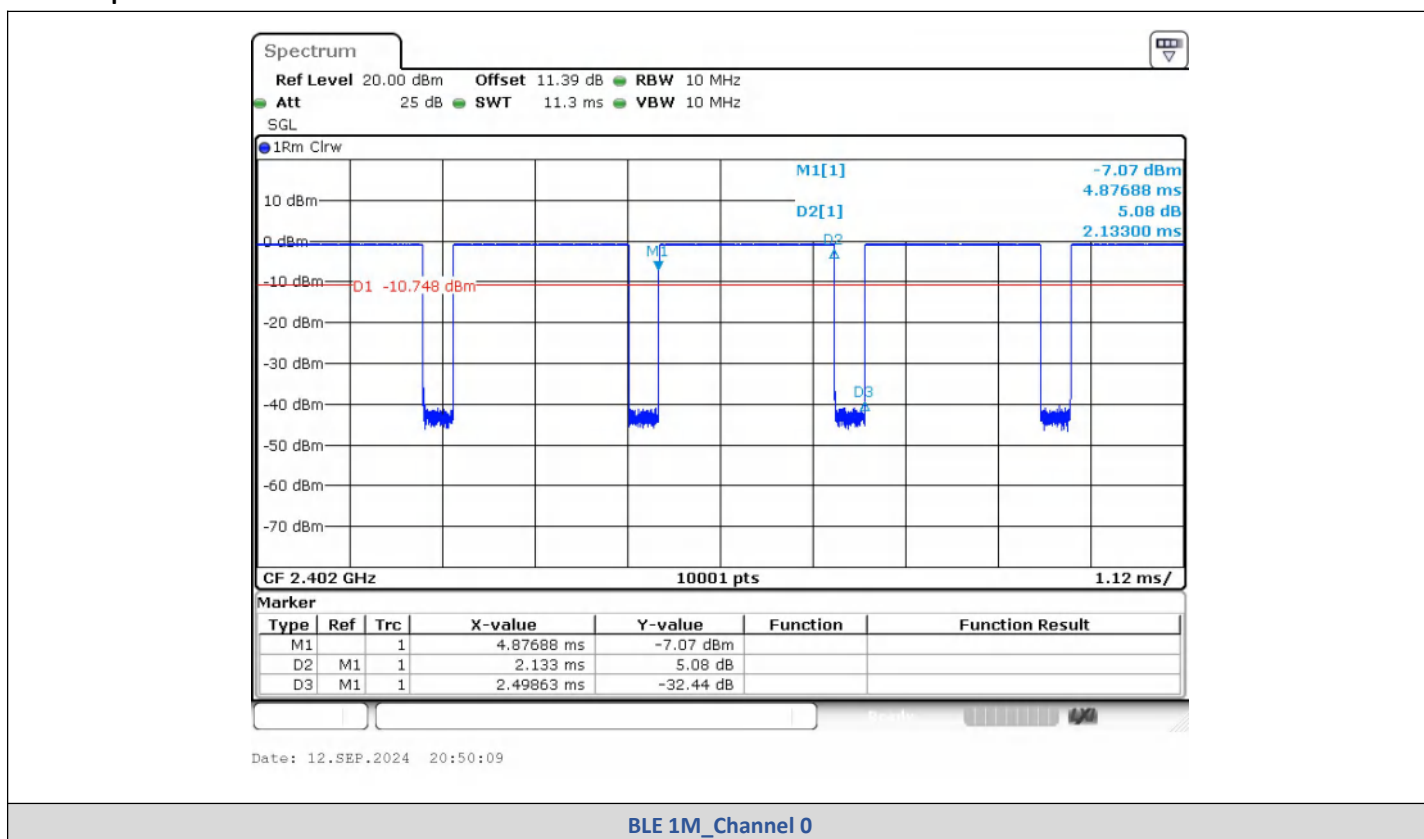
5) Duty Cycle

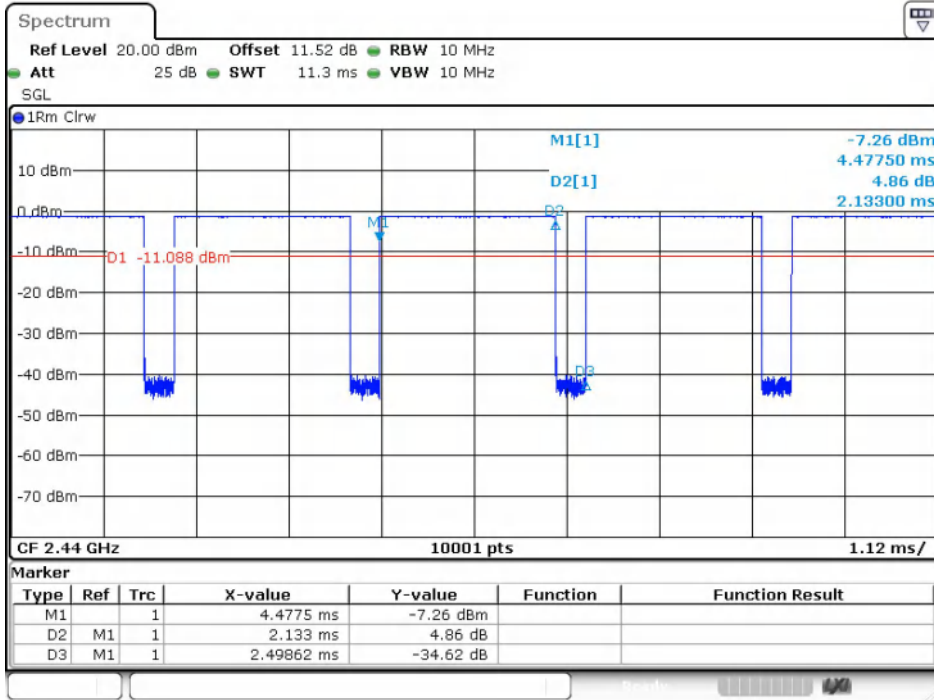
Right:

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	2.499	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	2.500	43.25	0.4325	3.6401	0.93
	19	1.081	2.500	43.25	0.4325	3.6401	0.93
	39	1.081	2.499	43.27	0.4327	3.6381	0.93

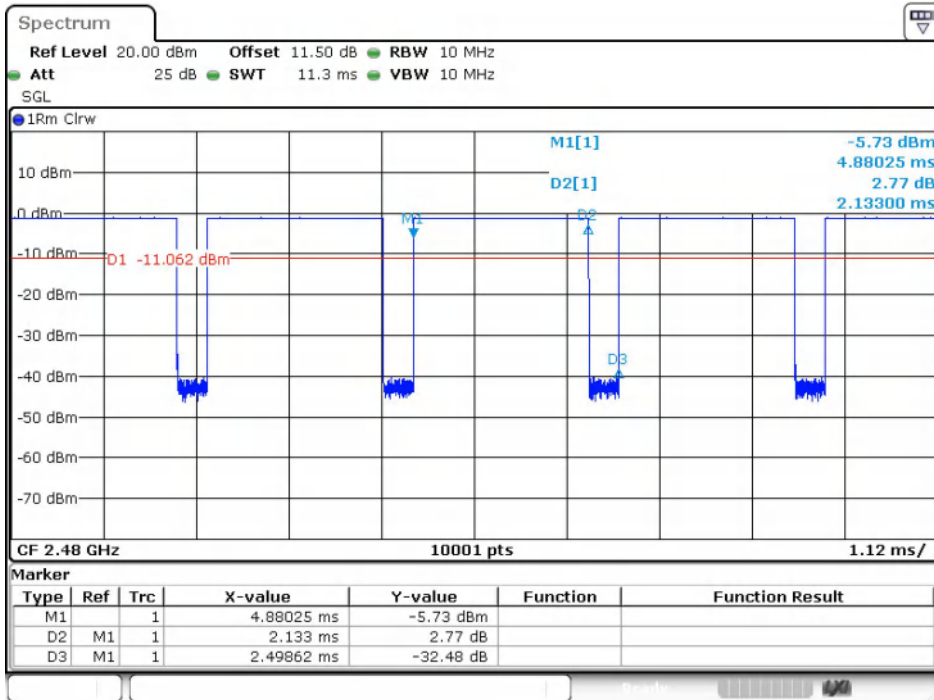
Test Graphs





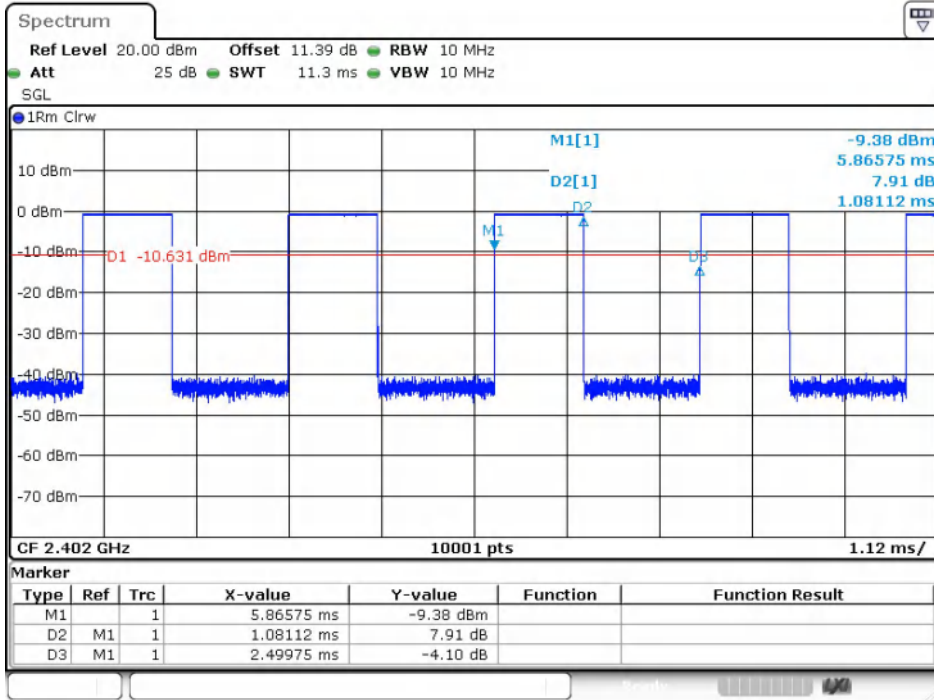
Date: 12.SEP.2024 20:47:30

BLE 1M_Channel 19



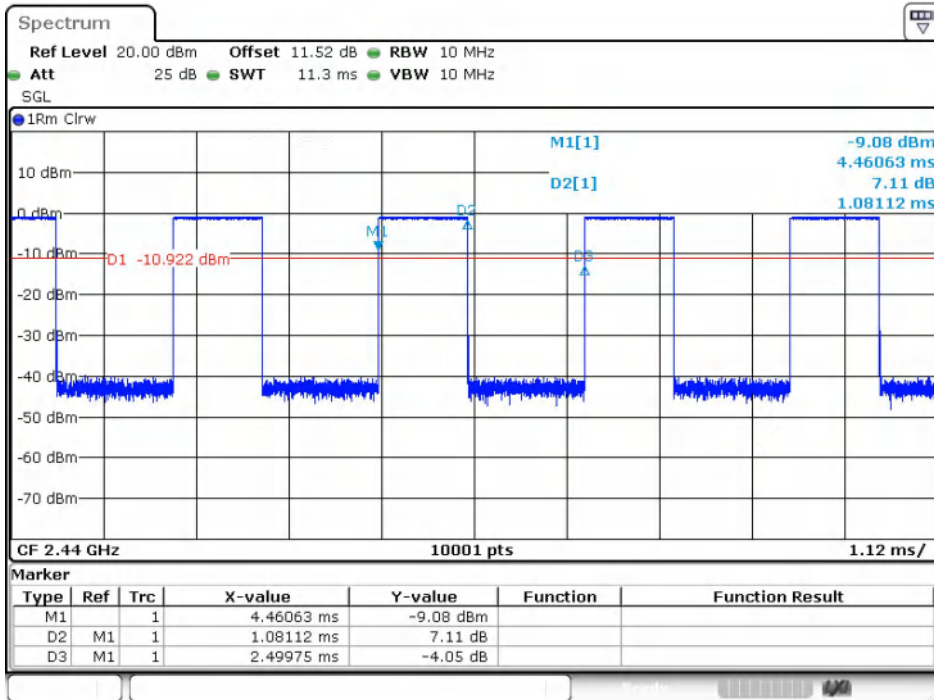
Date: 12.SEP.2024 20:53:15

BLE 1M_Channel 39



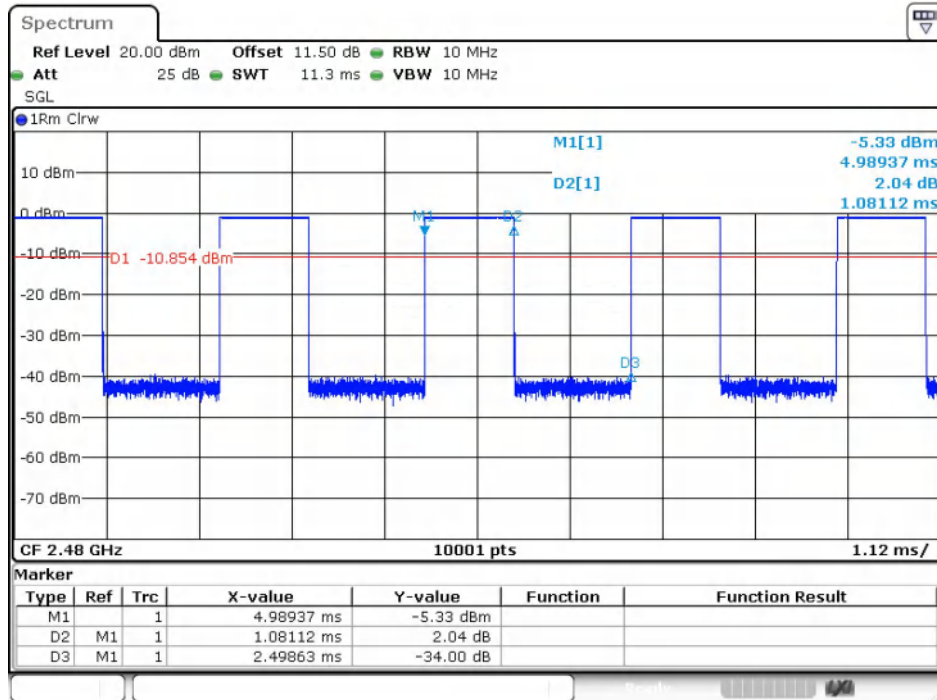
Date: 12.SEP.2024 20:56:10

BLE 2M_Channel 0



Date: 12.SEP.2024 20:59:07

BLE 2M_Channel 19



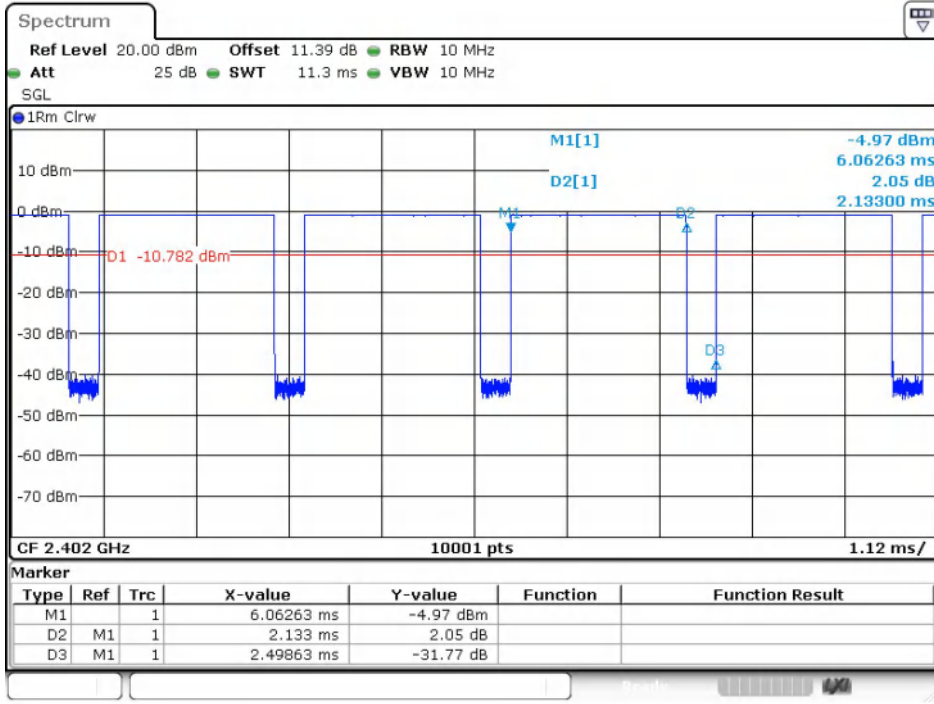
Date: 12.SEP.2024 21:01:49

BLE 2M_Channel 39

Left:
Test Result

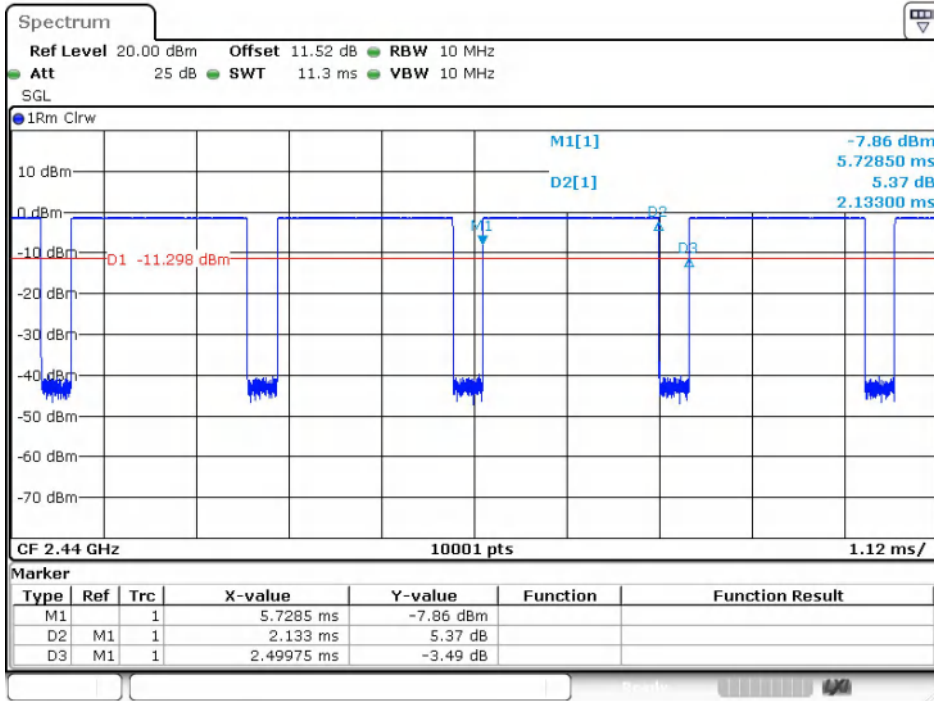
Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
BLE 1M	0	2.133	2.499	85.37	0.8537	0.6869	0.47
	19	2.133	2.500	85.33	0.8533	0.689	0.47
	39	2.133	2.499	85.37	0.8537	0.6869	0.47
BLE 2M	0	1.081	2.499	43.27	0.4327	3.6381	0.93
	19	1.081	2.499	43.27	0.4327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

Test Graphs



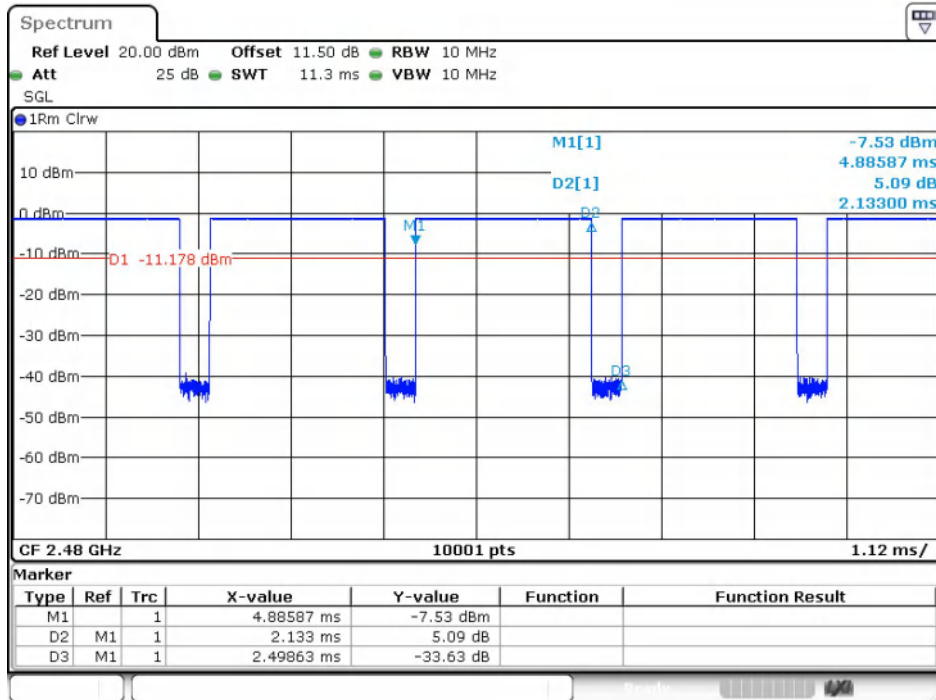
Date: 12.SEP.2024 21:06:25

BLE 1M_Channel 0



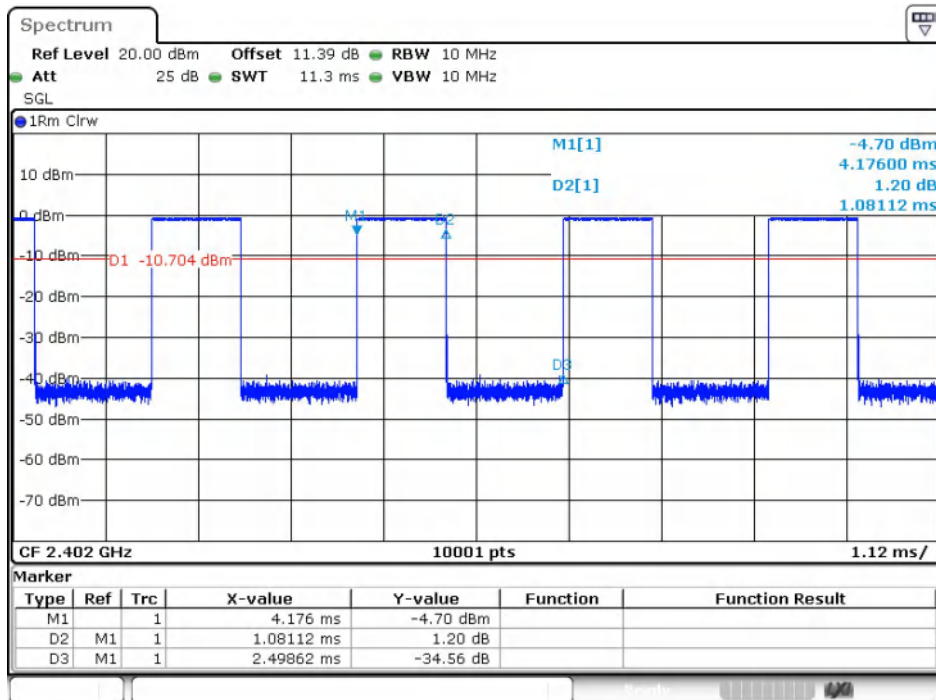
Date: 12.SEP.2024 21:09:19

BLE 1M_Channel 19



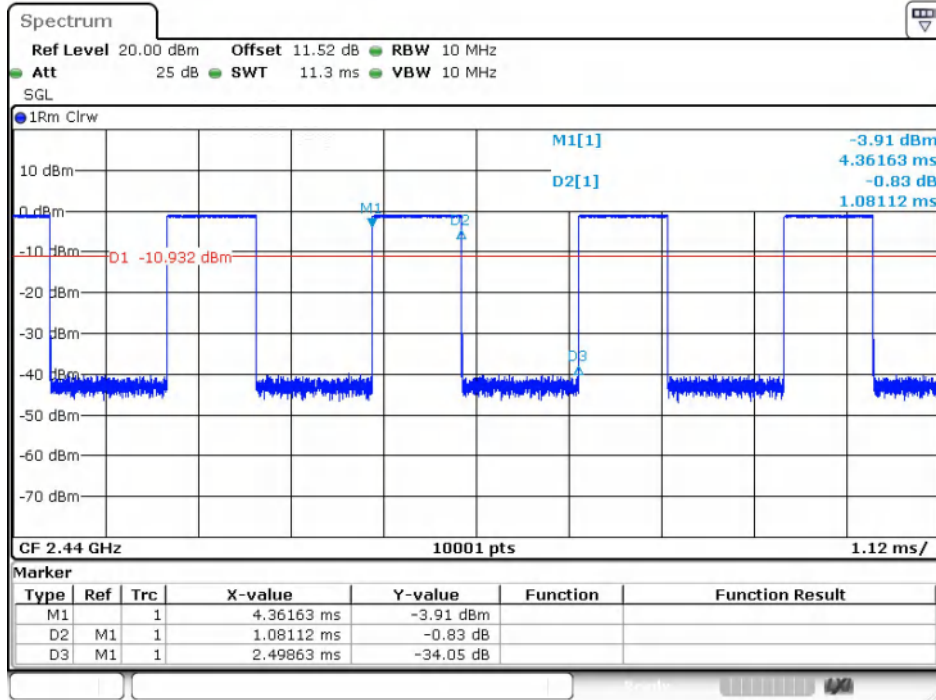
Date: 12.SEP.2024 21:12:19

BLE 1M_Channel 39



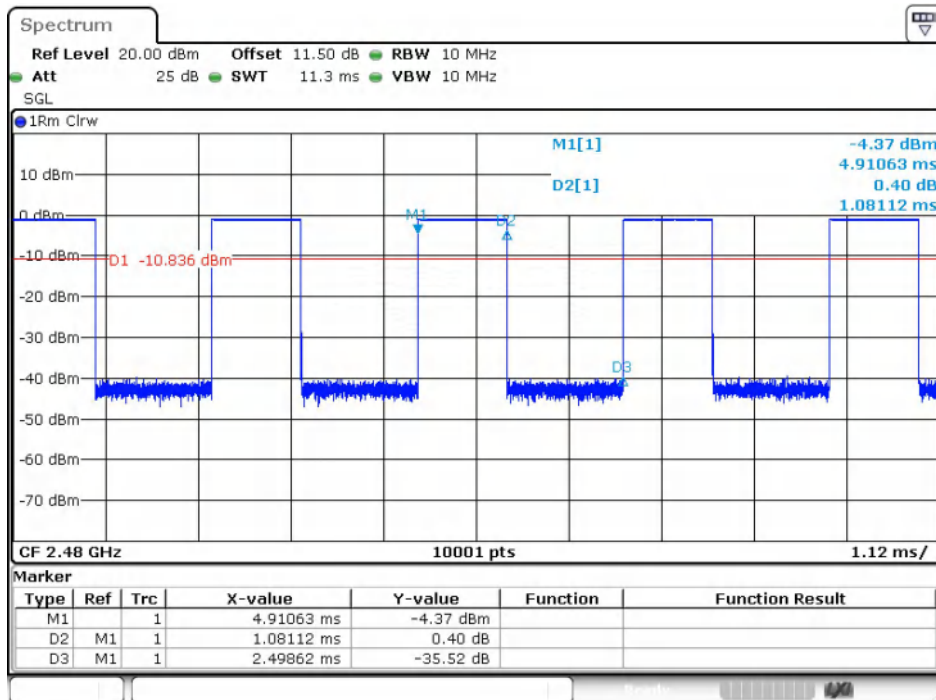
Date: 12.SEP.2024 21:15:15

BLE 2M_Channel 0



Date: 12.SEP.2024 21:18:11

BLE 2M_Channel 19



Date: 12.SEP.2024 21:20:53

BLE 2M_Channel 39

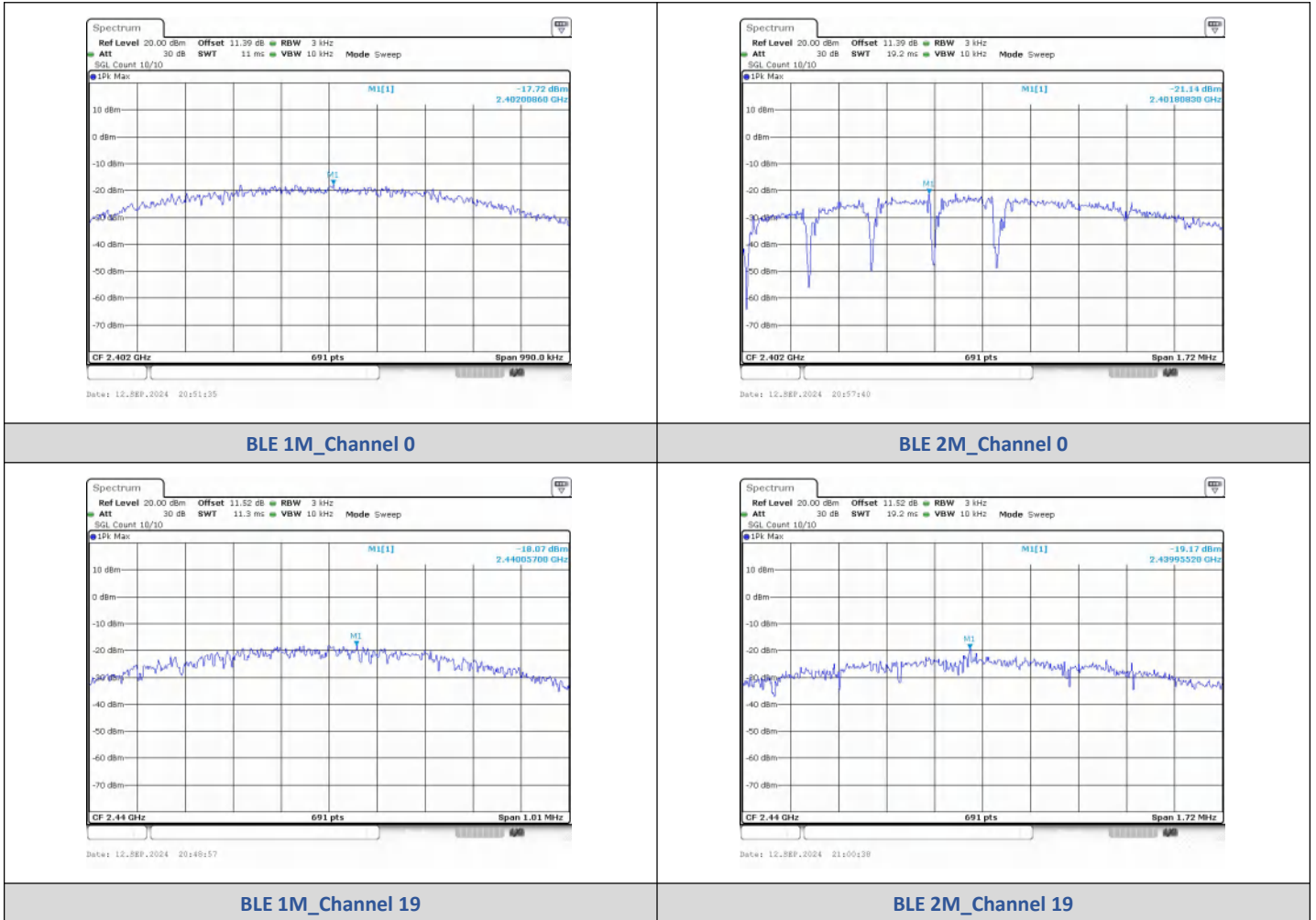
6) Power Spectral Density

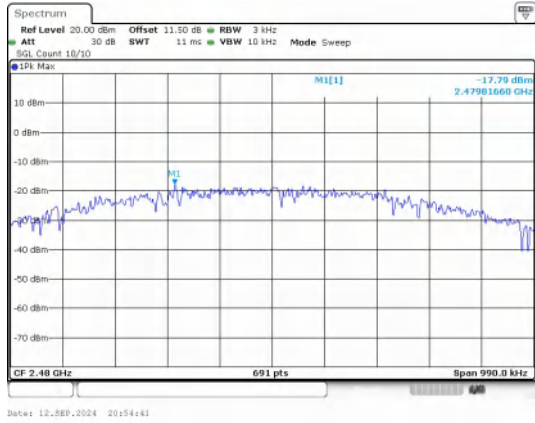
Right:

Test Result

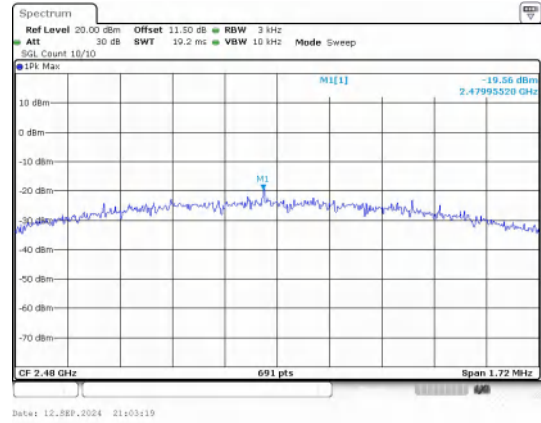
Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-17.721	≤8	PASS
BLE 1M	19	-18.068	≤8	PASS
BLE 1M	39	-17.789	≤8	PASS
BLE 2M	0	-21.145	≤8	PASS
BLE 2M	19	-19.169	≤8	PASS
BLE 2M	39	-19.563	≤8	PASS

Test Graphs





BLE 1M_Channel 39

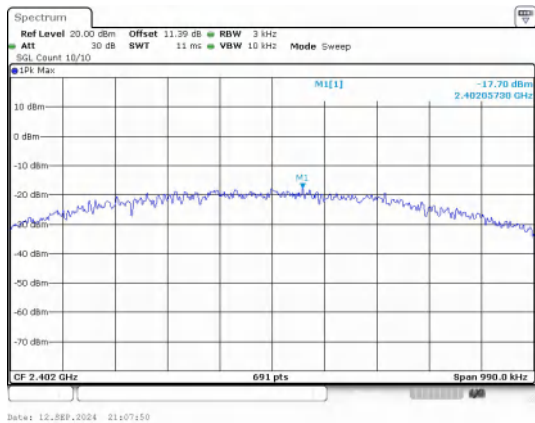


BLE 2M_Channel 39

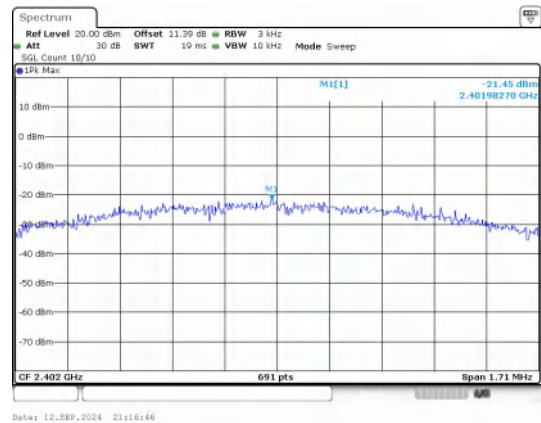
**Left:
Test Result**

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-17.699	≤8	PASS
BLE 1M	19	-17.877	≤8	PASS
BLE 1M	39	-18.273	≤8	PASS
BLE 2M	0	-21.446	≤8	PASS
BLE 2M	19	-21.560	≤8	PASS
BLE 2M	39	-19.295	≤8	PASS

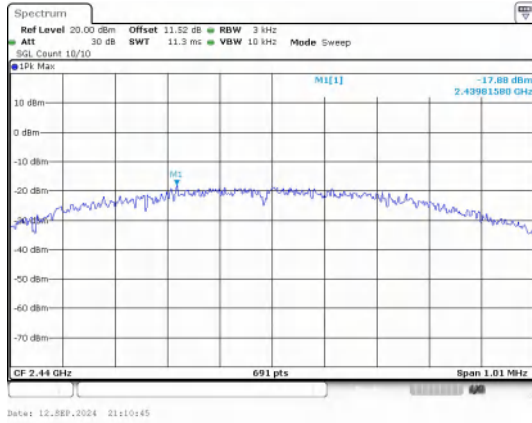
Test Graphs



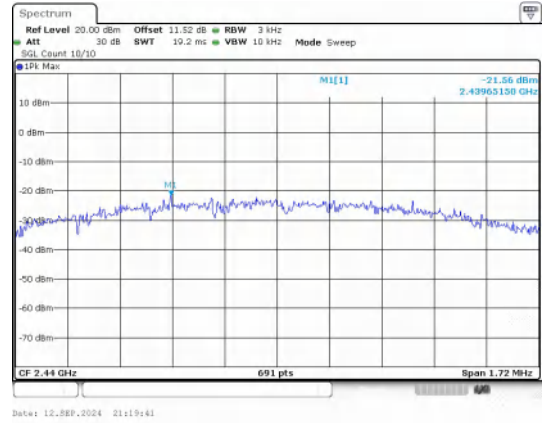
BLE 1M_Channel 0



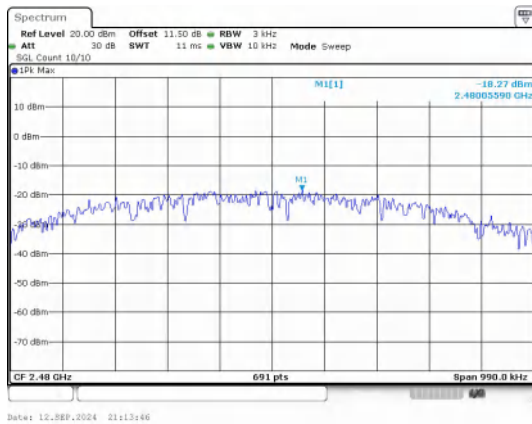
BLE 2M_Channel 0



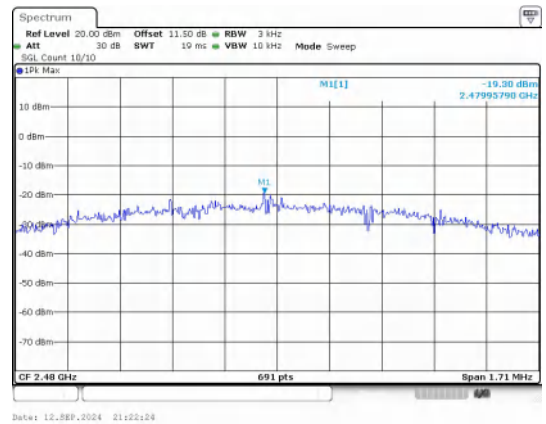
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 39