

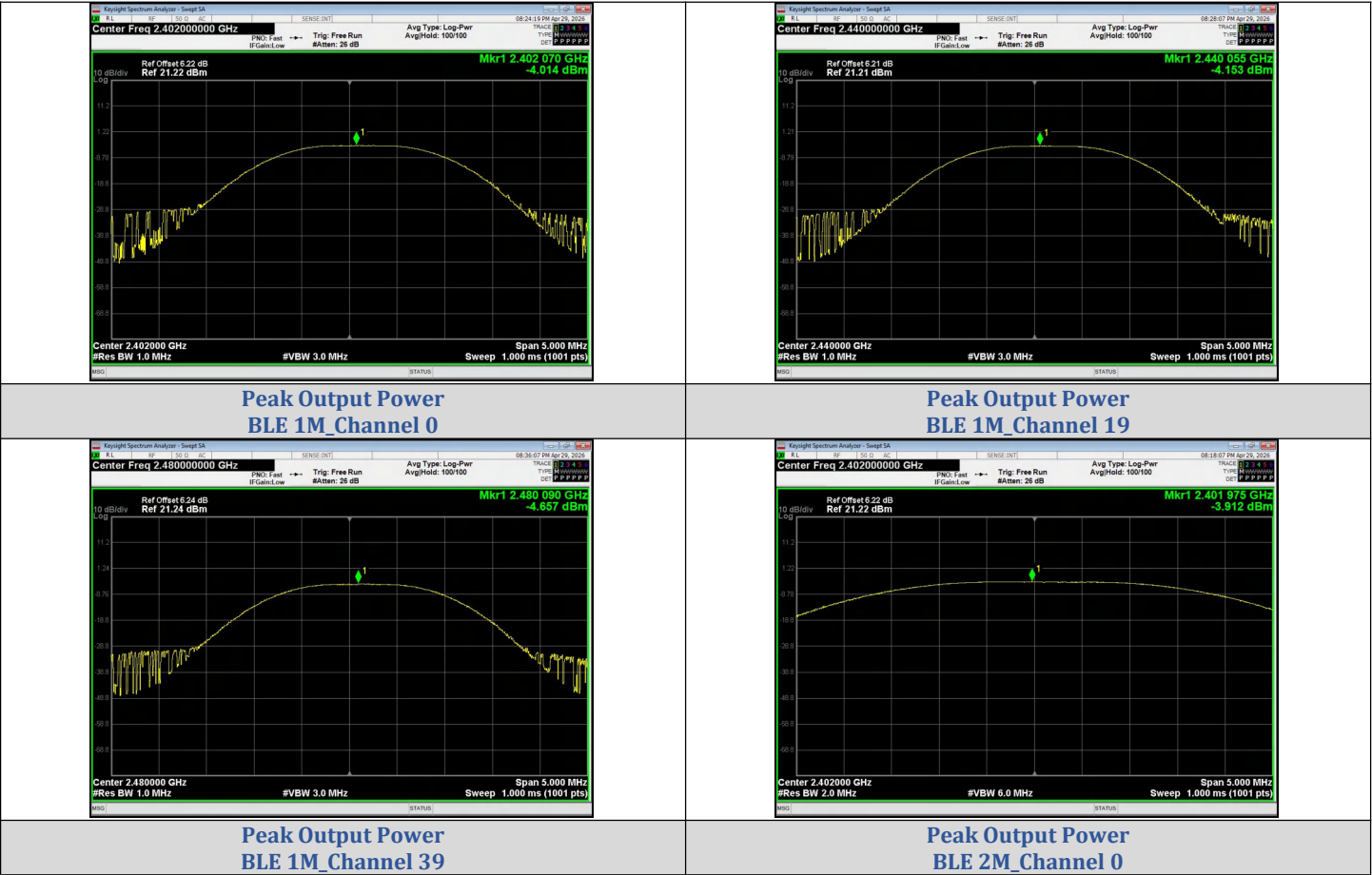
Appendix A:Test Results of Bluetooth BLE

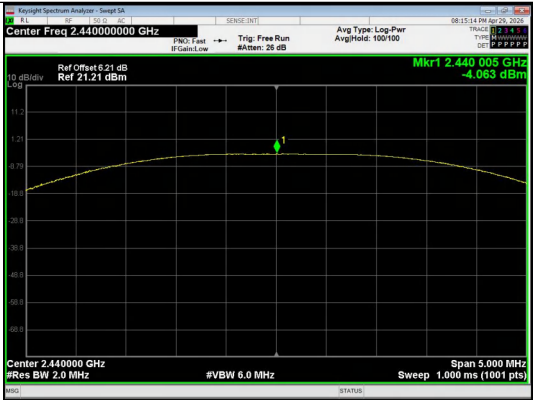
Conducted Output Power

Test Result

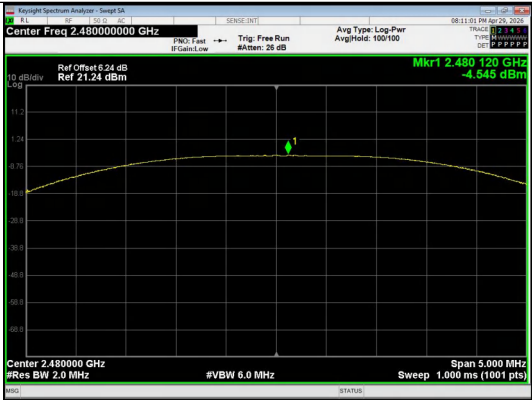
Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Max. Avg. Power (dBm)	Limit (dBm)	Result
BLE 1M	0	-4.01	0.4	None	≤30	PASS
	19	-4.15	0.38	None	≤30	PASS
	39	-4.66	0.34	None	≤30	PASS
BLE 2M	0	-3.91	0.41	None	≤30	PASS
	19	-4.06	0.39	None	≤30	PASS
	39	-4.54	0.35	None	≤30	PASS
LE Coded (S=2)	0	-3.93	0.4	None	≤30	PASS
	19	-4.13	0.39	None	≤30	PASS
	39	-4.64	0.34	None	≤30	PASS
LE Coded (S=8)	0	-3.96	0.4	None	≤30	PASS
	19	-4.28	0.37	None	≤30	PASS
	39	-4.77	0.33	None	≤30	PASS

Test Graphs

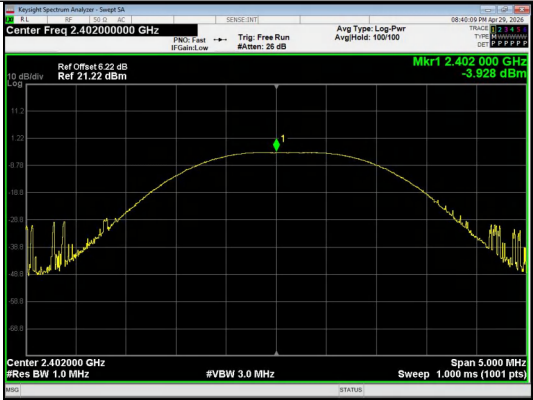




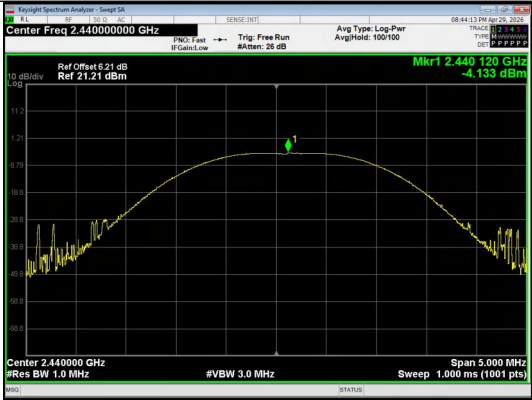
Peak Output Power
BLE 2M_Channel 19



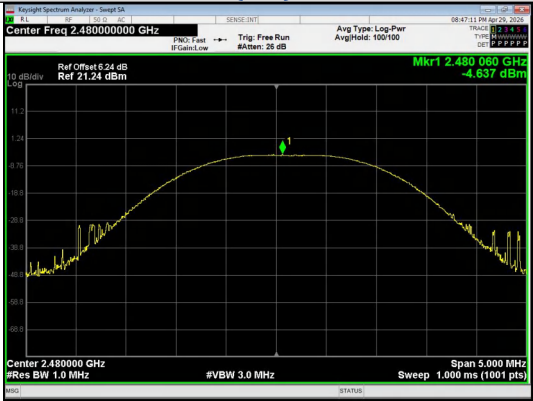
Peak Output Power
BLE 2M_Channel 39



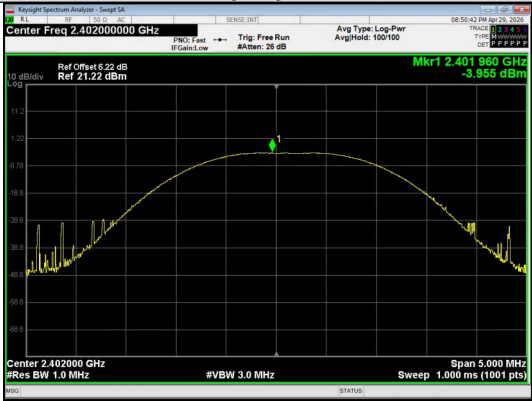
Peak Output Power
LE Coded (S=2)_Channel 0



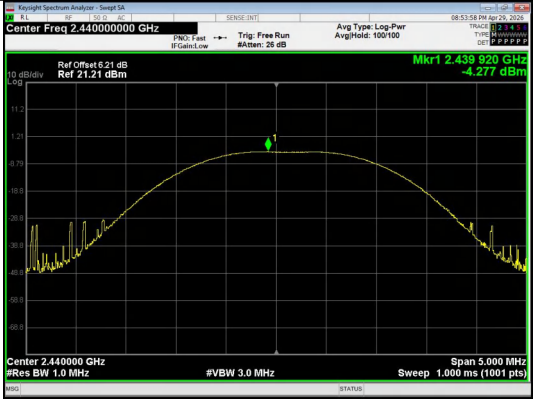
Peak Output Power
LE Coded (S=2)_Channel 19



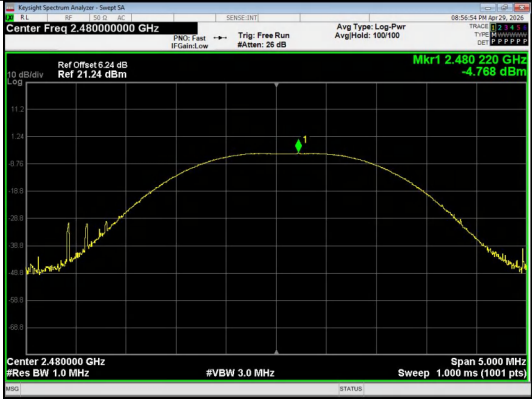
Peak Output Power
LE Coded (S=2)_Channel 39



Peak Output Power
LE Coded (S=8)_Channel 0



Peak Output Power
LE Coded (S=8)_Channel 19



Peak Output Power
LE Coded (S=8)_Channel 39

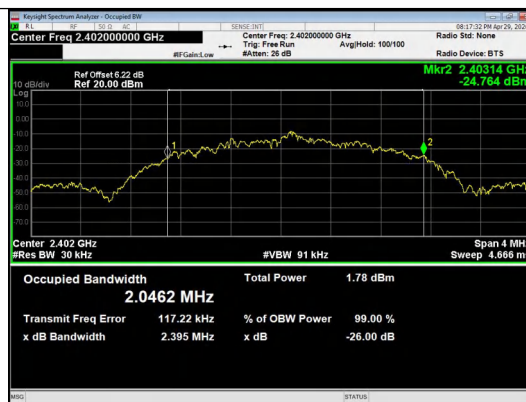
Test Result

Mode	Channel	Center Frequency (MHz)	99% BW (MHz)
BLE 1M	0	2402	1.0427
BLE 1M	19	2440	1.0403
BLE 1M	39	2480	1.0365
BLE 2M	0	2402	2.0462
BLE 2M	19	2440	2.0337
BLE 2M	39	2480	2.0289
LE Coded (S=2)	0	2402	1.0393
LE Coded (S=2)	19	2440	1.0407
LE Coded (S=2)	39	2480	1.0456
LE Coded (S=8)	0	2402	1.0703
LE Coded (S=8)	19	2440	1.0751
LE Coded (S=8)	39	2480	1.0759

Test Graphs



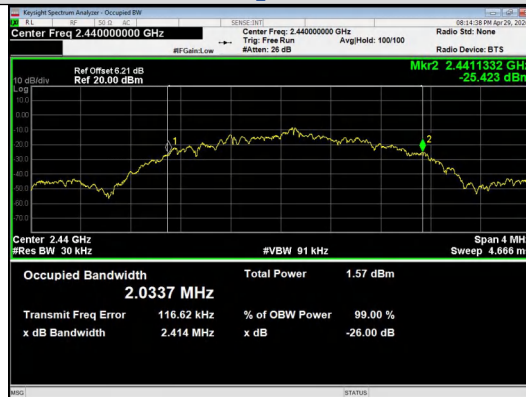
BLE 1M_Channel 0



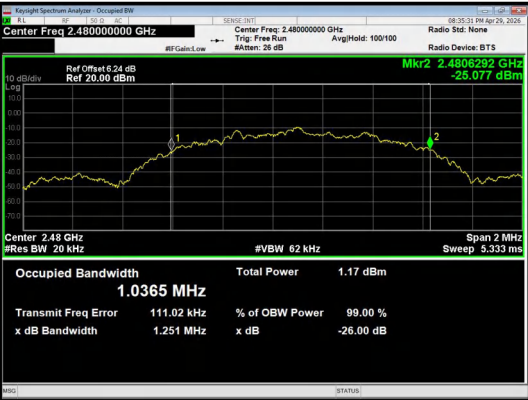
BLE 2M_Channel 0



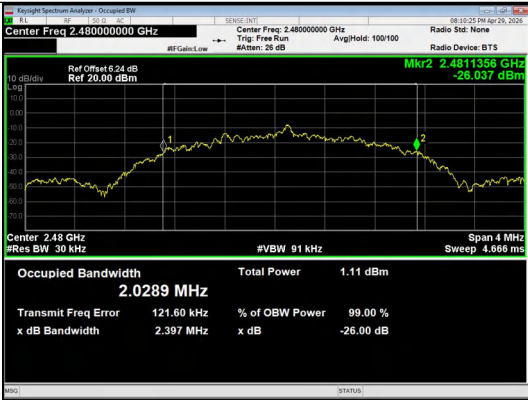
BLE 1M_Channel 19



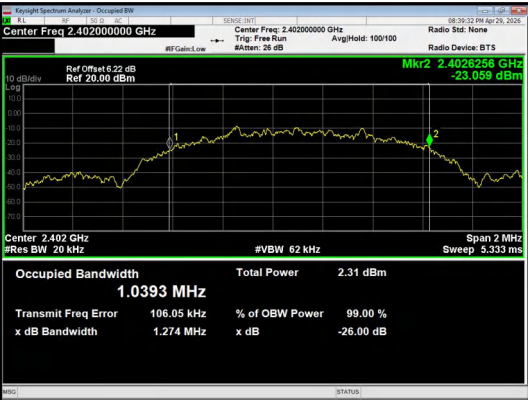
BLE 2M_Channel 19



BLE 1M_Channel 39



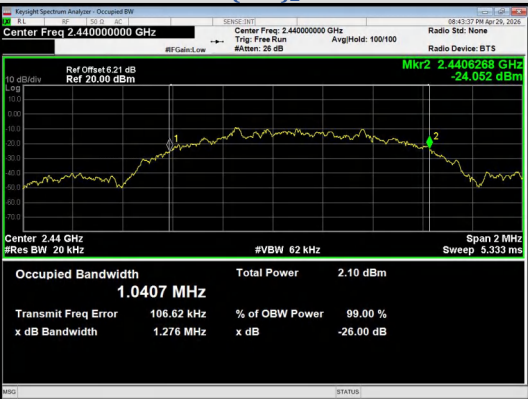
BLE 2M_Channel 39



LE Coded (S=2)_Channel 0



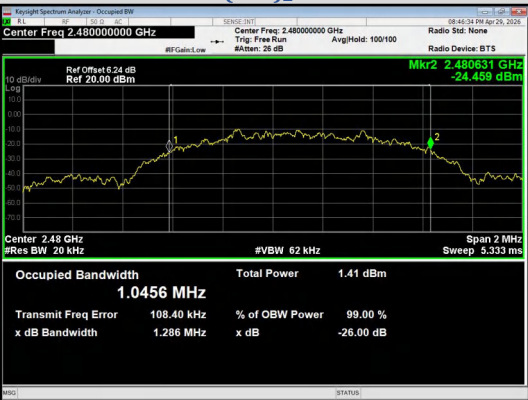
LE Coded (S=8)_Channel 0



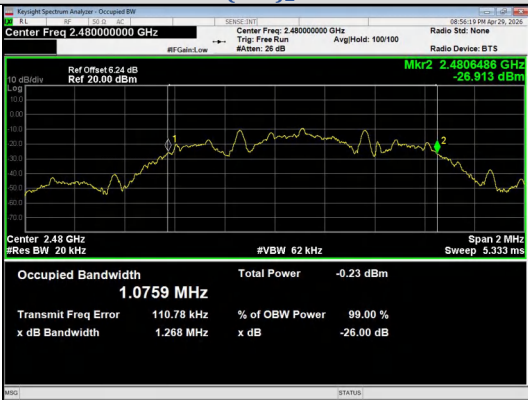
LE Coded (S=2)_Channel 19



LE Coded (S=8)_Channel 19



LE Coded (S=2)_Channel 39



LE Coded (S=8)_Channel 39

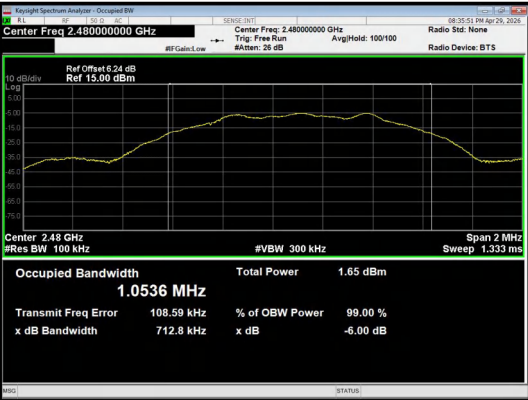
6dB Bandwidth

Test Result

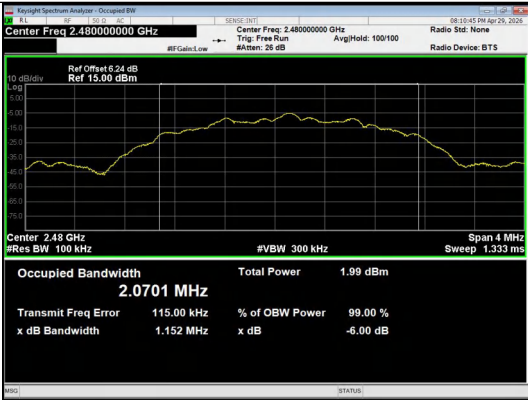
Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6910	≥0.5	PASS
	19	2440	0.7000		PASS
	39	2480	0.7128		PASS
BLE 2M	0	2402	1.151		PASS
	19	2440	1.159		PASS
	39	2480	1.152		PASS
LE Coded (S=2)	0	2402	0.6934		PASS
	19	2440	0.6905		PASS
	39	2480	0.7086		PASS
LE Coded (S=8)	0	2402	0.6519		PASS
	19	2440	0.6544		PASS
	39	2480	0.6494		PASS

Test Graphs

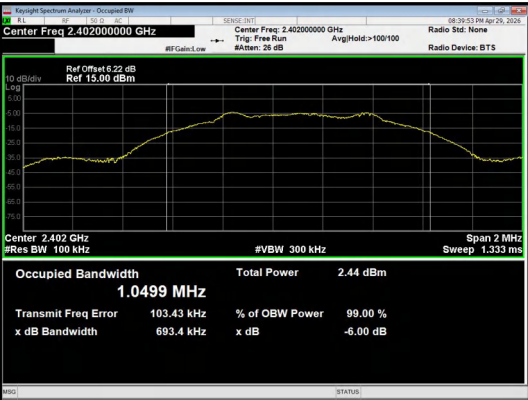




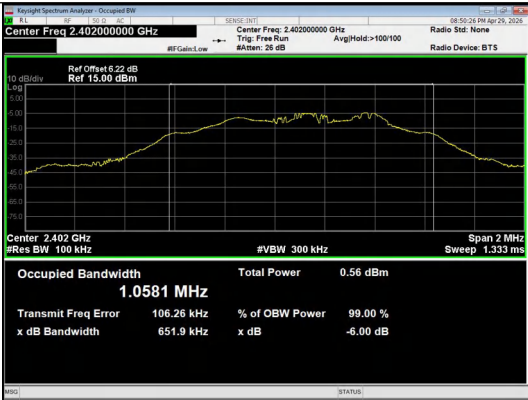
BLE 1M_Channel 39



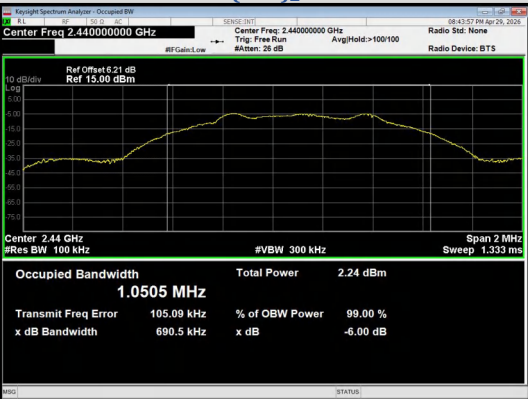
BLE 2M_Channel 39



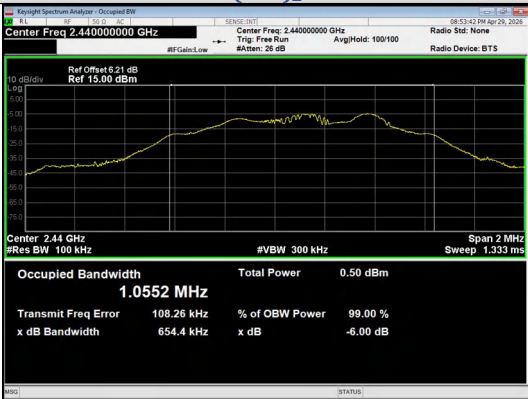
LE Coded (S=2)_Channel 0



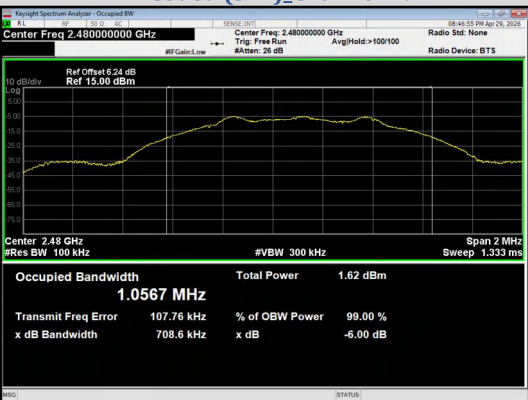
LE Coded (S=8)_Channel 0



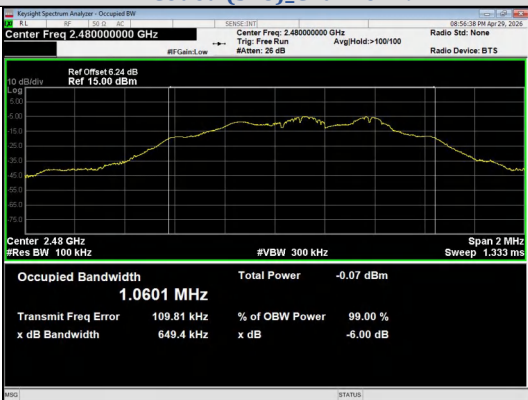
LE Coded (S=2)_Channel 19



LE Coded (S=8)_Channel 19



LE Coded (S=2)_Channel 39



LE Coded (S=8)_Channel 39

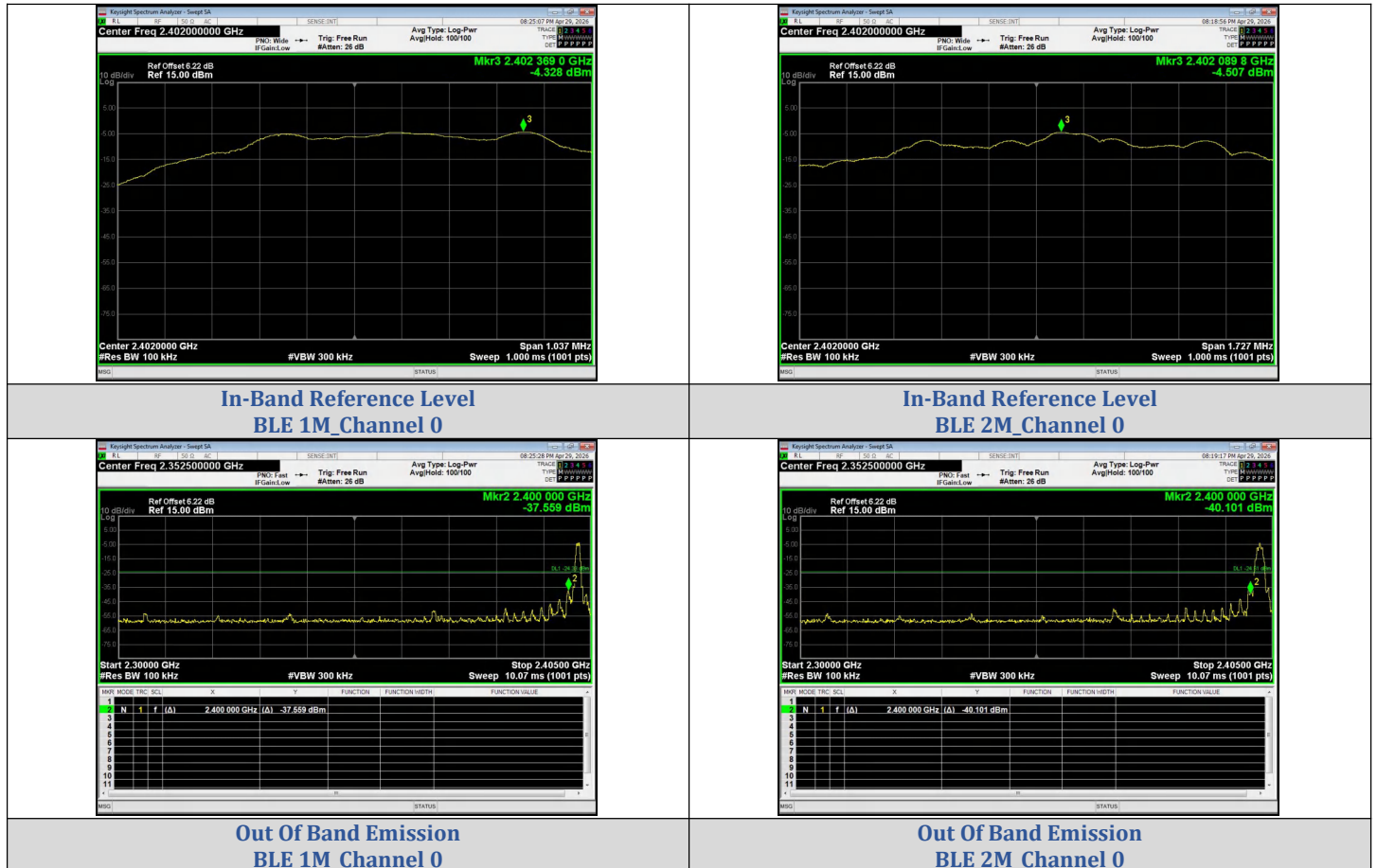
Conducted Spurious & Band Edge Emission

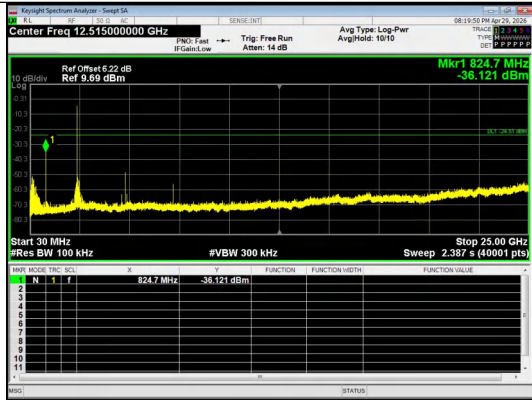
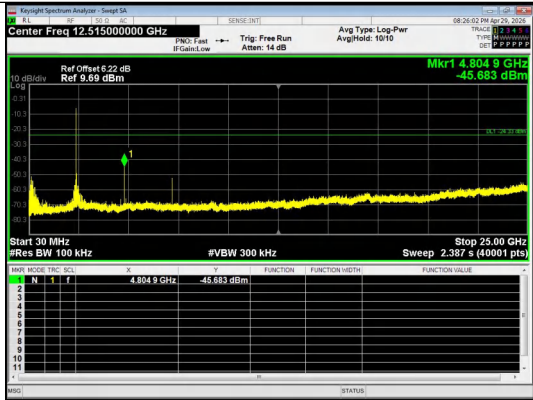
Test Result

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2400.00	-37.559	-24.33	-13.229	PASS
		4804.89	-45.683	-24.33	-21.353	PASS
	19	4881.05	-45.729	-24.61	-21.119	PASS
	39	2483.50	-55.279	-25.09	-30.189	PASS
		4960.95	-46.551	-25.09	-21.461	PASS
BLE 2M	0	824.67	-36.121	-24.51	-11.611	PASS
		2400.00	-40.101	-24.51	-15.591	PASS
	19	824.67	-46.933	-24.69	-22.243	PASS
	39	833.41	-37.560	-25.04	-12.520	PASS
		2483.50	-48.013	-25.04	-22.973	PASS
LE Coded (S=2)	0	2400.00	-38.013	-24.19	-13.823	PASS
		3497.08	-40.033	-24.19	-15.843	PASS
	19	3472.74	-43.043	-24.49	-18.553	PASS
	39	2483.50	-56.127	-25.04	-31.087	PASS
		4960.95	-45.465	-25.04	-20.425	PASS
LE Coded (S=8)	0	2400.00	-38.233	-24.32	-13.913	PASS
		3472.74	-44.235	-24.32	-19.915	PASS
	19	4881.05	-48.402	-24.63	-23.772	PASS
	39	2483.50	-55.362	-25.19	-30.172	PASS
		4960.95	-43.847	-25.19	-18.657	PASS

Note: input compensation coefficient (dB)= Cable Loss (dB)

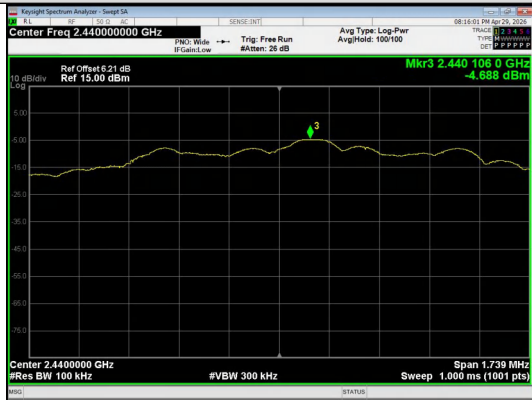
Test Graphs





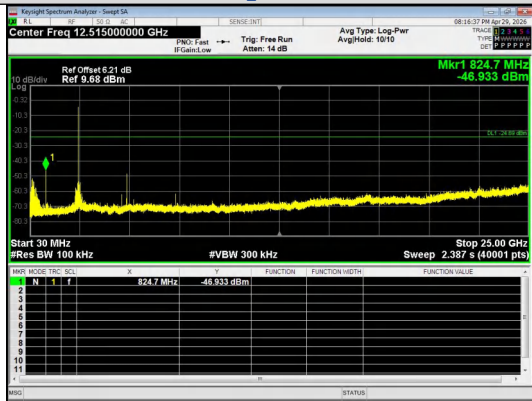
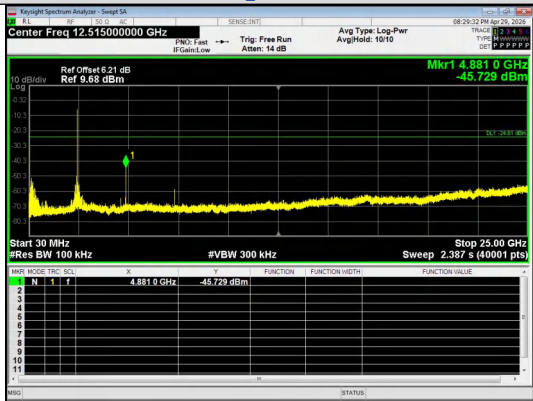
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0

30.0 MHz - 25000.0 MHz
BLE 2M_Channel 0



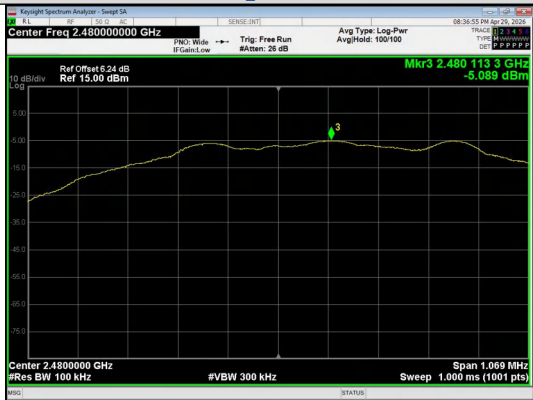
In-Band Reference Level
BLE 1M_Channel 19

In-Band Reference Level
BLE 2M_Channel 19



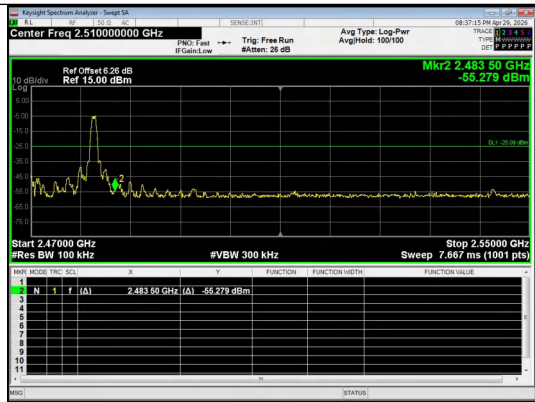
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19

30.0 MHz - 25000.0 MHz
BLE 2M_Channel 19

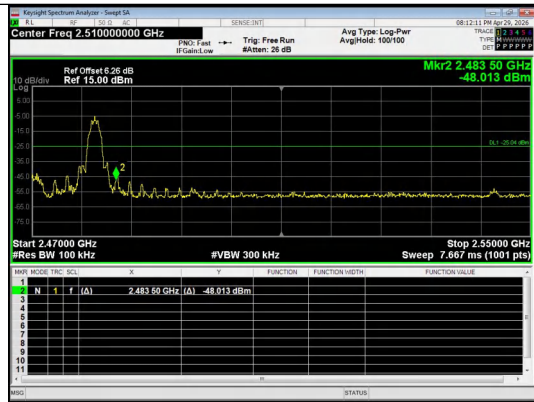


In-Band Reference Level
BLE 1M_Channel 39

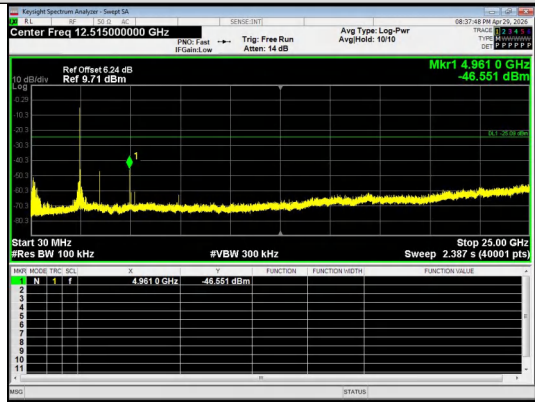
In-Band Reference Level
BLE 2M_Channel 39



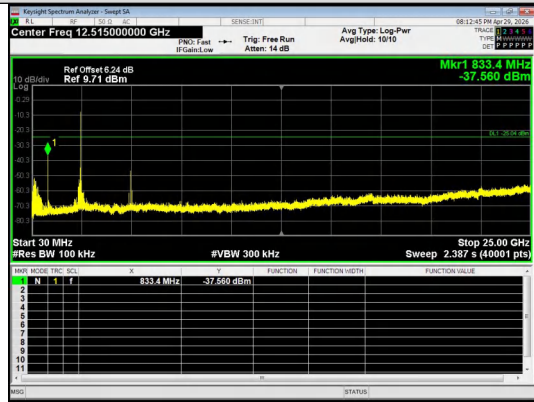
Out Of Band Emission
BLE 1M_Channel 39



Out Of Band Emission
BLE 2M_Channel 39



30.0 MHz - 25000.0 MHz
BLE 1M_Channel 39



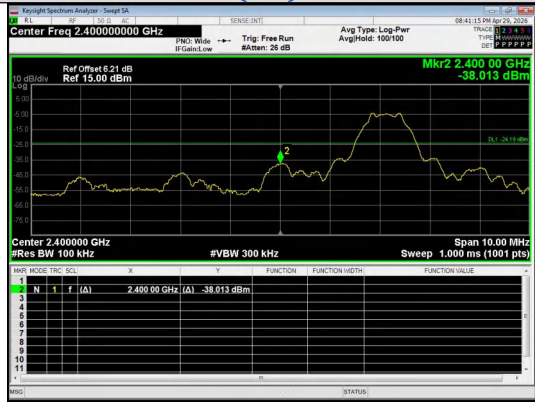
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 39



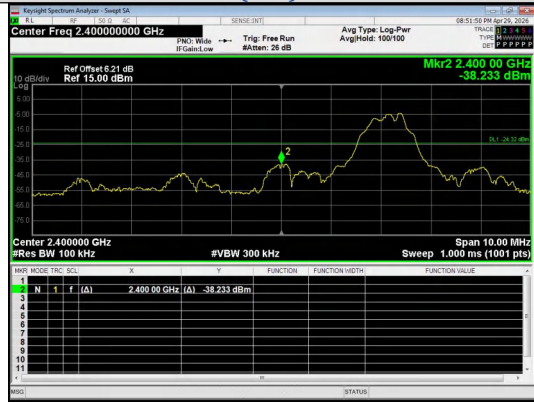
In-Band Reference Level
LE Coded (S=2)_Channel 0



In-Band Reference Level
LE Coded (S=8)_Channel 0

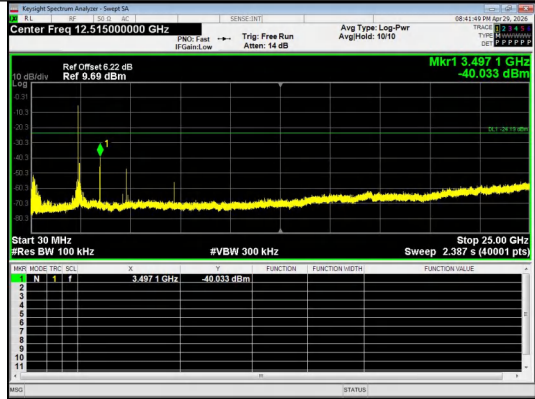


Out Of Band Emission

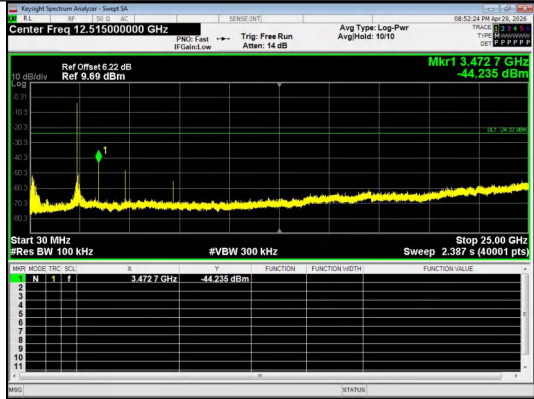


Out Of Band Emission

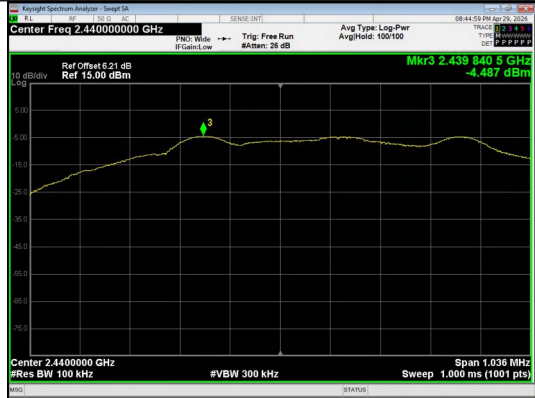
LE Coded (S=2)_Channel 0



LE Coded (S=8)_Channel 0



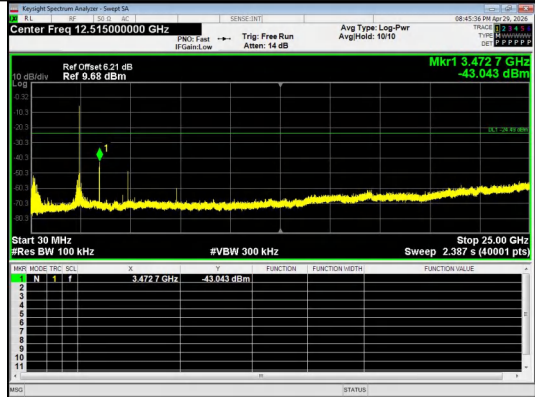
30.0 MHz - 25000.0 MHz
LE Coded (S=2)_Channel 0



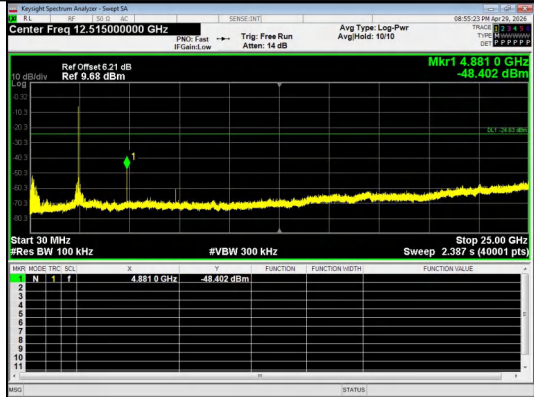
30.0 MHz - 25000.0 MHz
LE Coded (S=8)_Channel 0



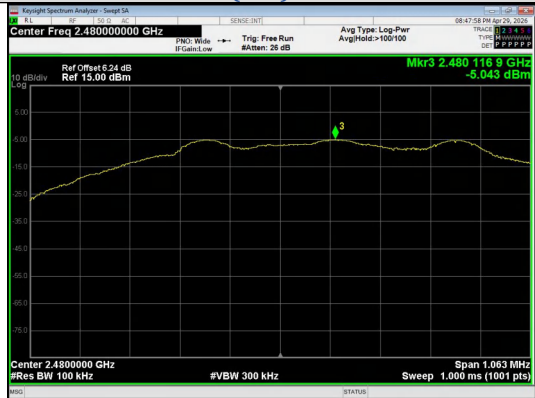
In-Band Reference Level
LE Coded (S=2)_Channel 19



In-Band Reference Level
LE Coded (S=8)_Channel 19



30.0 MHz - 25000.0 MHz
LE Coded (S=2)_Channel 19



30.0 MHz - 25000.0 MHz
LE Coded (S=8)_Channel 19



In-Band Reference Level
LE Coded (S=2)_Channel 39

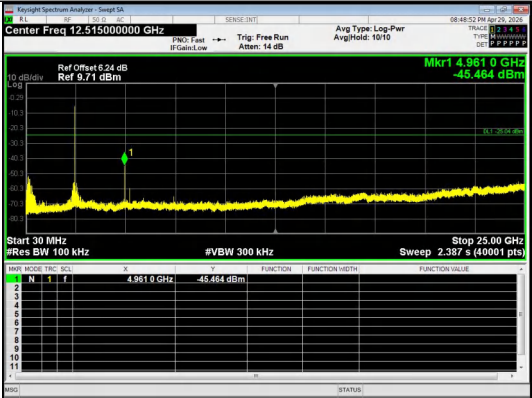
In-Band Reference Level
LE Coded (S=8)_Channel 39



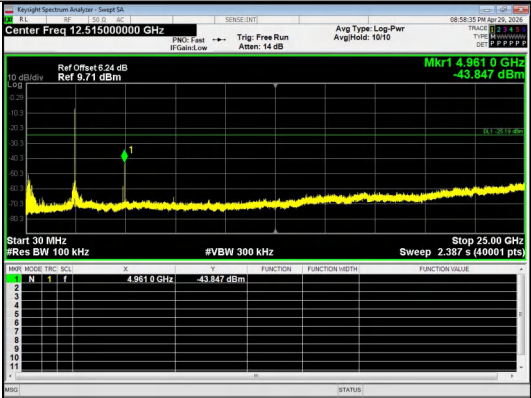
Out Of Band Emission
LE Coded (S=2)_Channel 39



Out Of Band Emission
LE Coded (S=8)_Channel 39



30.0 MHz - 25000.0 MHz
LE Coded (S=2)_Channel 39



30.0 MHz - 25000.0 MHz
LE Coded (S=8)_Channel 39

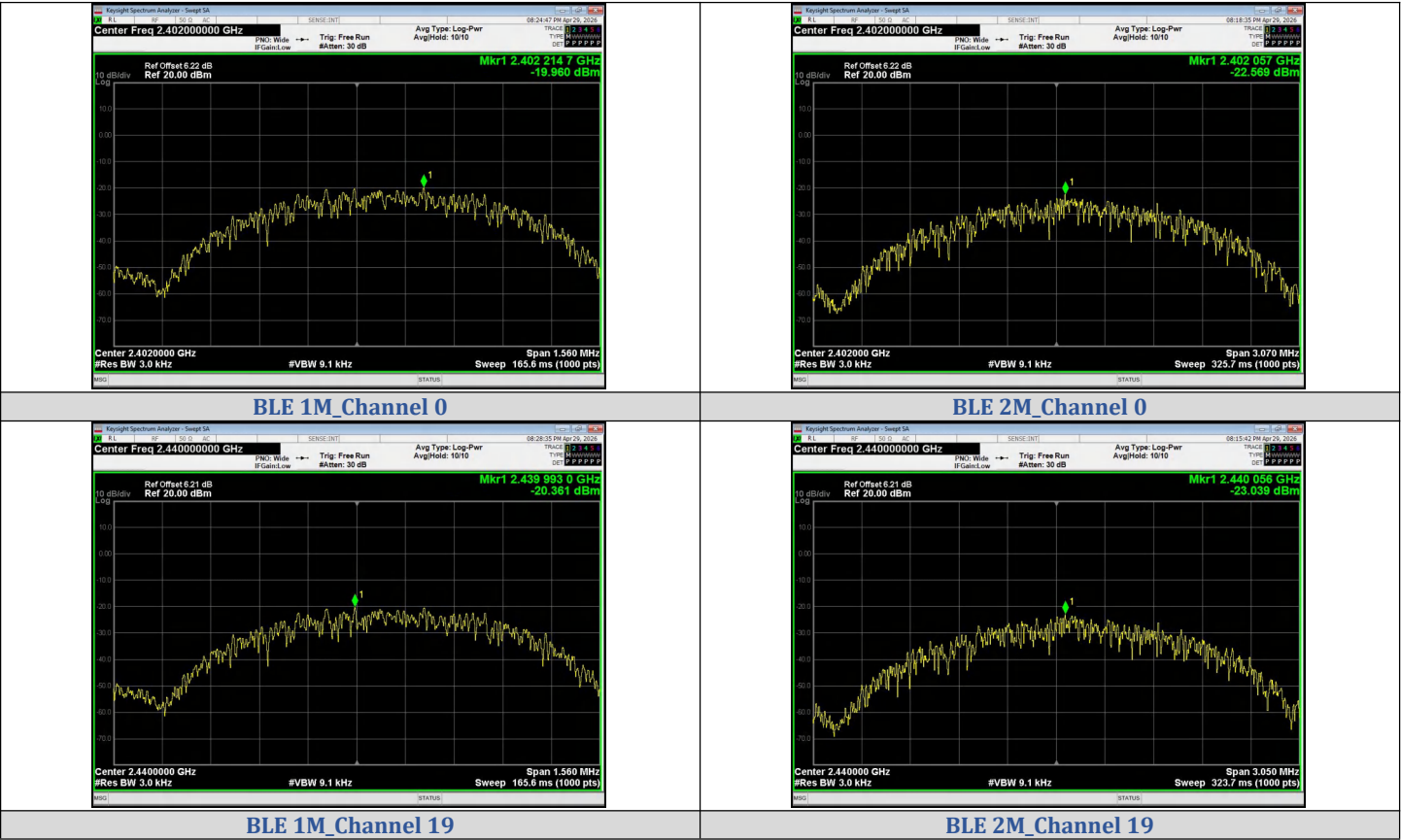
FCC ID:2ARJH-T20S4AM

Power Spectral Density

Test Result

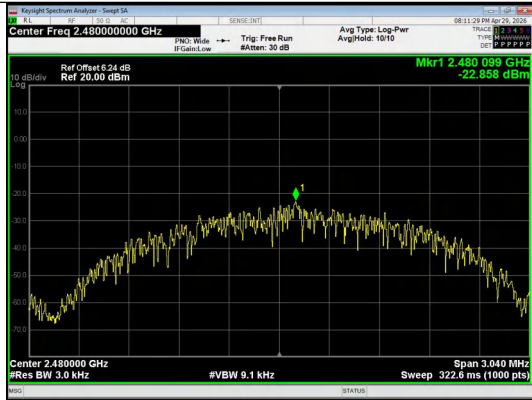
Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-19.960	≤8	PASS
BLE 1M	19	-20.360	≤8	PASS
BLE 1M	39	-20.950	≤8	PASS
BLE 2M	0	-22.570	≤8	PASS
BLE 2M	19	-23.040	≤8	PASS
BLE 2M	39	-22.860	≤8	PASS
LE Coded (S=2)	0	-10.200	≤8	PASS
LE Coded (S=2)	19	-10.400	≤8	PASS
LE Coded (S=2)	39	-11.060	≤8	PASS
LE Coded (S=8)	0	-9.980	≤8	PASS
LE Coded (S=8)	19	-10.220	≤8	PASS
LE Coded (S=8)	39	-10.930	≤8	PASS

Test Graphs

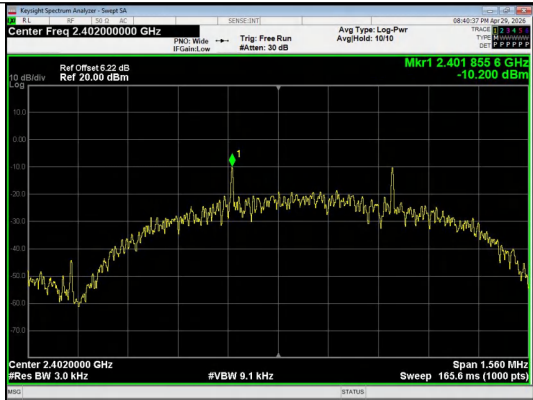




BLE 1M_Channel 39



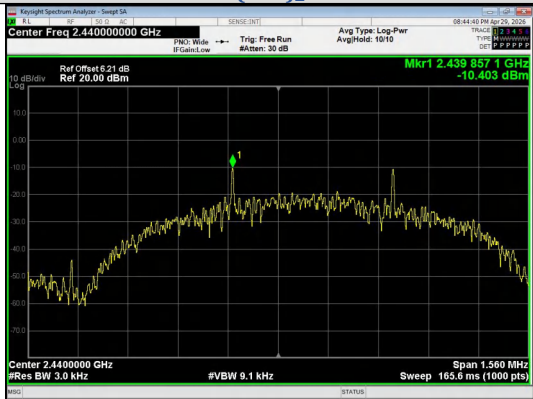
BLE 2M_Channel 39



LE Coded (S=2)_Channel 0



LE Coded (S=8)_Channel 0



LE Coded (S=2)_Channel 19



LE Coded (S=8)_Channel 19



LE Coded (S=2)_Channel 39



LE Coded (S=8)_Channel 39

