

Appendix Report

Report No.:	CISRR25022815406
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

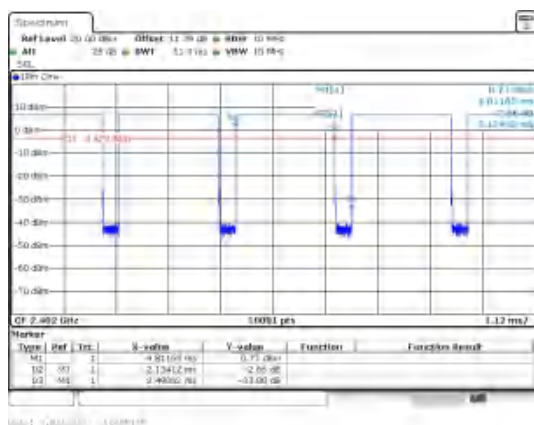
1) Duty Cycle

Test Result

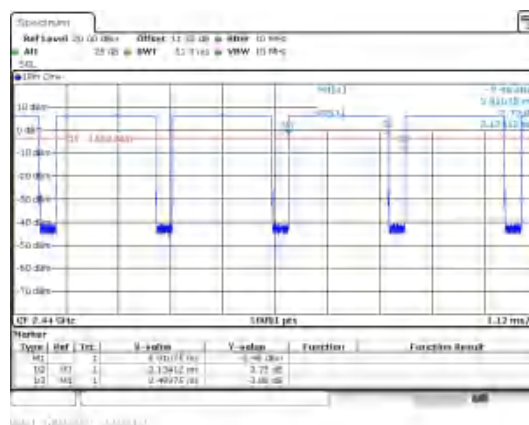
Left:

Mode	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
BLE 1M	0	2.134	2.499	85.41	0.8541	0.6849	0.4686
	19	2.134	2.500	85.37	0.8537	0.6869	0.4686
	39	2.134	2.499	85.41	0.8541	0.6849	0.4686
BLE 2M	0	1.081	2.499	43.27	0.4327	3.6381	0.9251
	19	1.081	2.499	43.27	0.4327	3.6381	0.9251
	39	1.082	2.500	43.29	0.4329	3.6361	0.9242

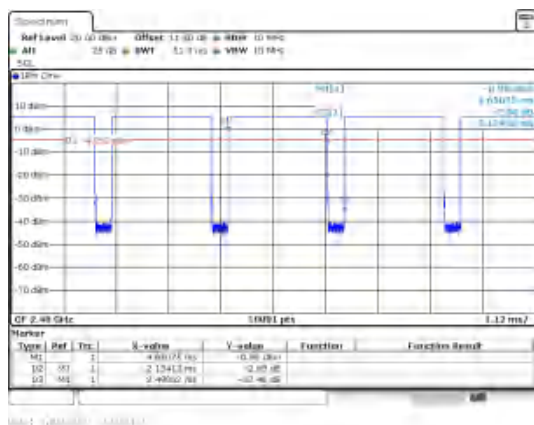
Test Graphs



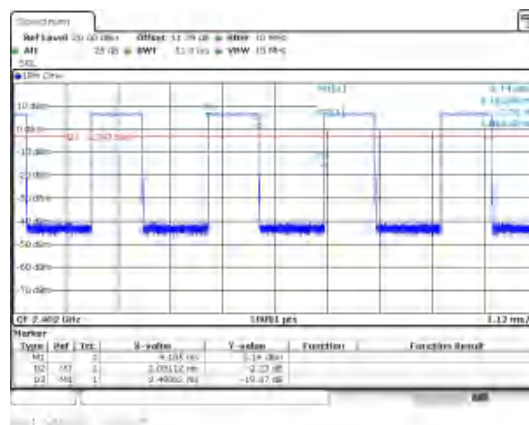
BLE 1M_Channel 0



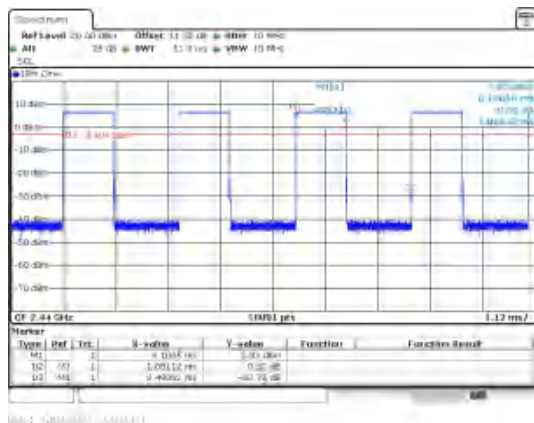
BLE 1M_Channel 19



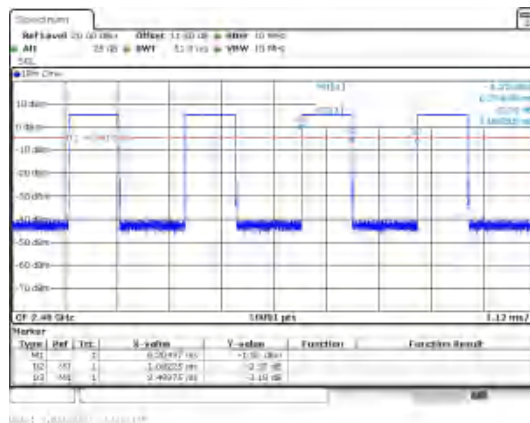
BLE 1M_Channel 39



BLE 2M_Channel 0



BLE 2M_Channel 19

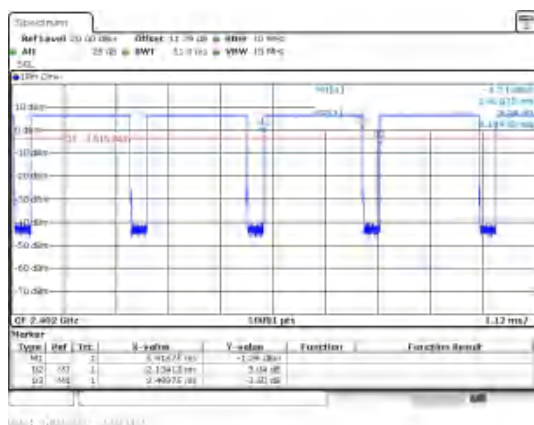


BLE 2M_Channel 39

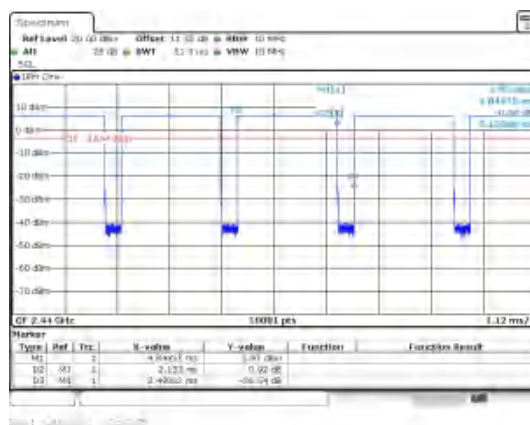
Right:

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	0.4686
	19	2.133	2.499	85.37	0.8537	0.6869	0.4688
	39	2.134	2.500	85.37	0.8537	0.6869	0.4686
BLE 2M	0	1.082	2.500	43.29	0.4329	3.6361	0.9242
	19	1.075	2.482	43.29	0.4329	3.6361	0.9302
	39	1.081	2.499	43.27	0.4327	3.6381	0.9251

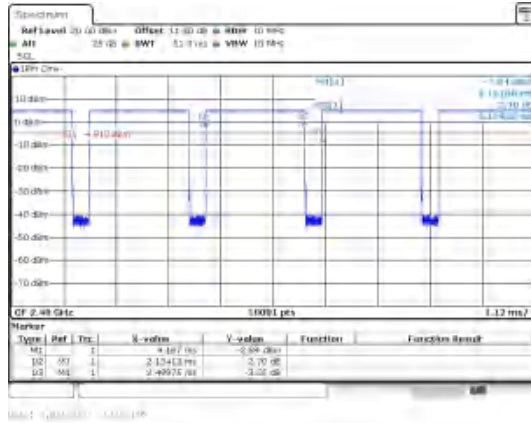
Test Graphs



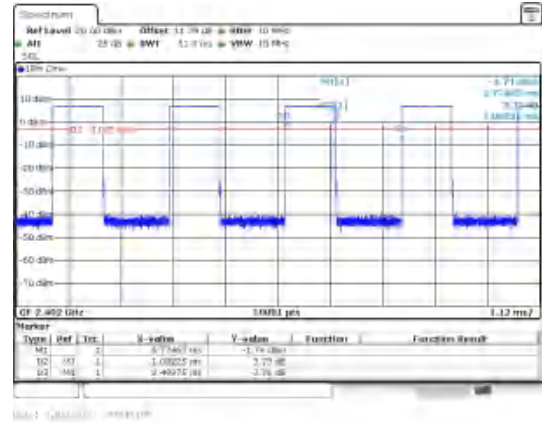
BLE 1M_Channel 0



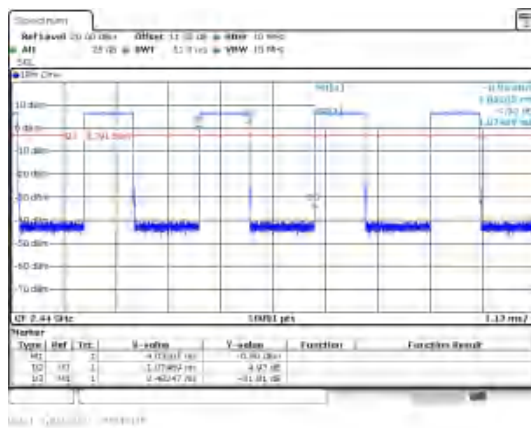
BLE 1M_Channel 19



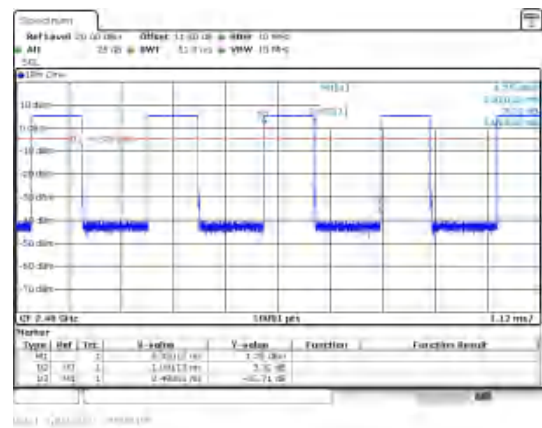
BLE 1M_Channel 39



BLE 2M_Channel 0



BLE 2M_Channel 19



BLE 2M_Channel 39

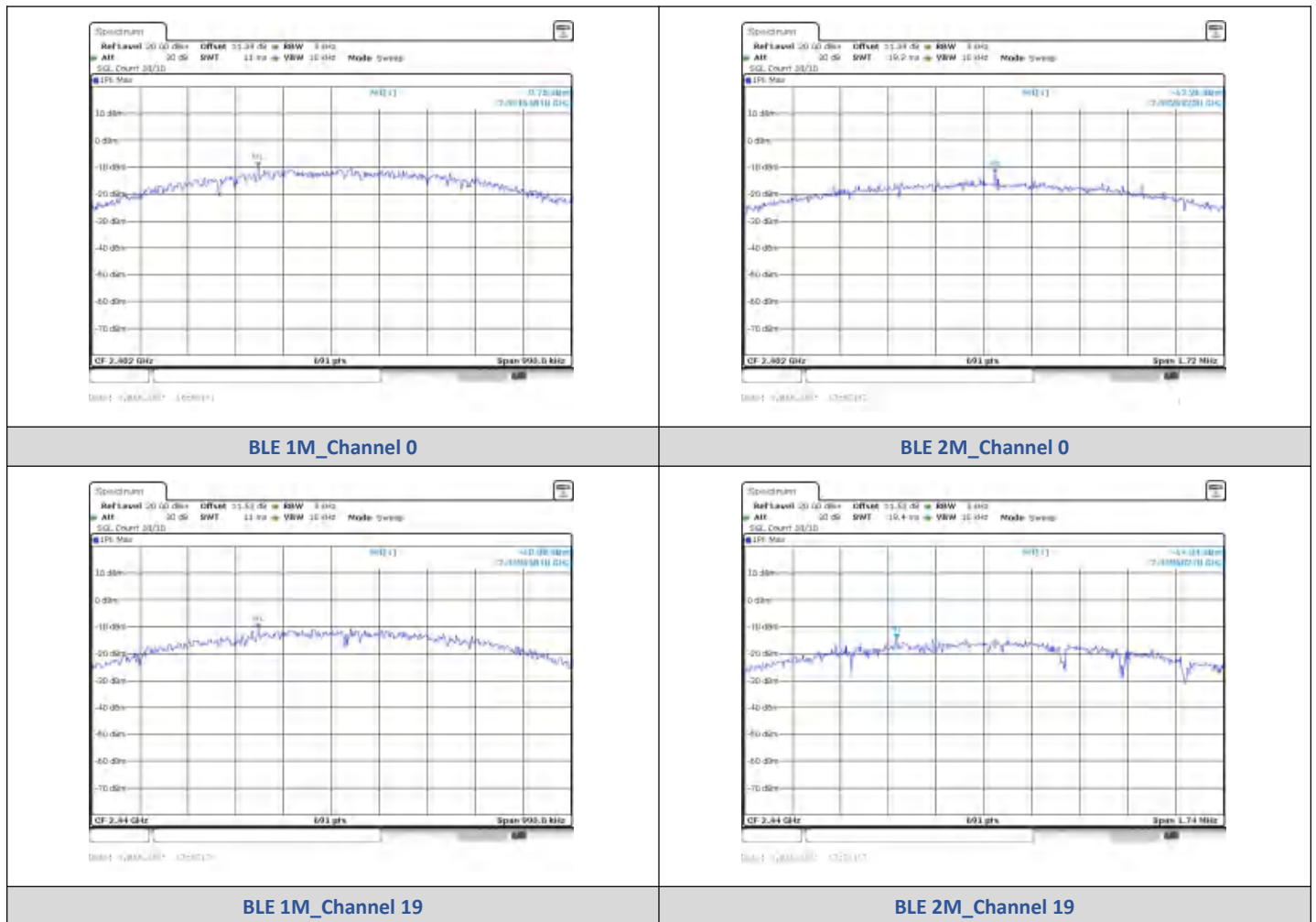
2) Power Spectral Density

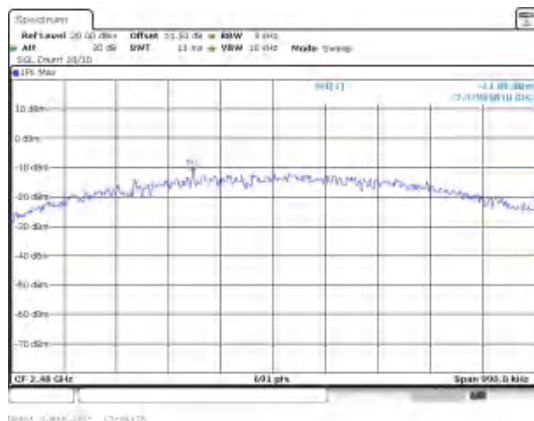
Test Result

Left:

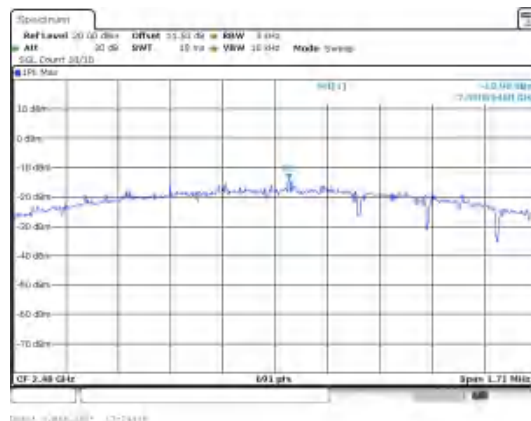
Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-9.750	≤8	PASS
BLE 1M	19	-10.380	≤8	PASS
BLE 1M	39	-11.860	≤8	PASS
BLE 2M	0	-12.260	≤8	PASS
BLE 2M	19	-14.340	≤8	PASS
BLE 2M	39	-13.900	≤8	PASS

Test Graphs





BLE 1M_Channel 39

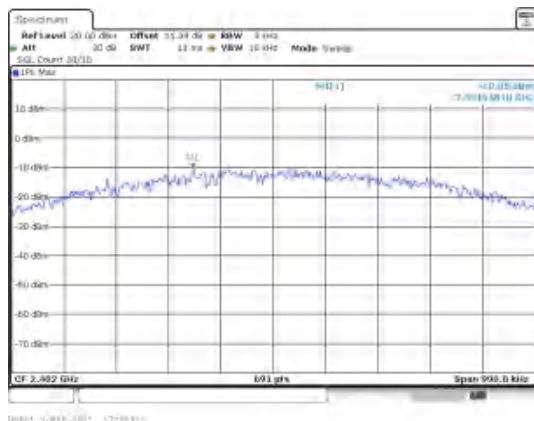


BLE 2M_Channel 39

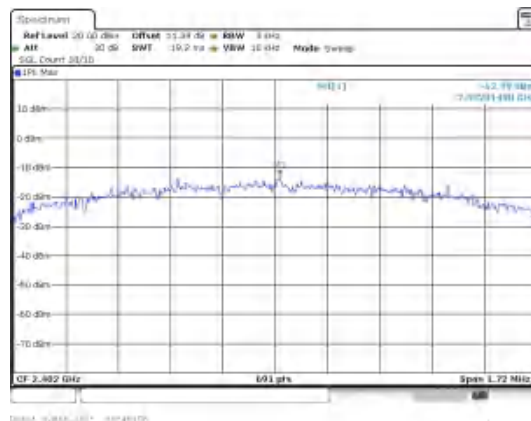
Right:

Mode	Channel	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE 1M	0	-10.350	≤8	PASS
BLE 1M	19	-10.470	≤8	PASS
BLE 1M	39	-11.480	≤8	PASS
BLE 2M	0	-12.490	≤8	PASS
BLE 2M	19	-11.750	≤8	PASS
BLE 2M	39	-14.260	≤8	PASS

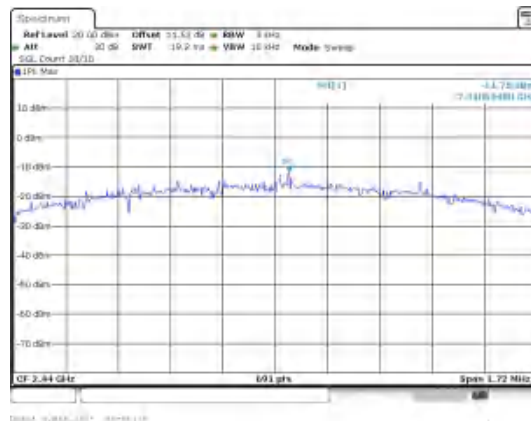
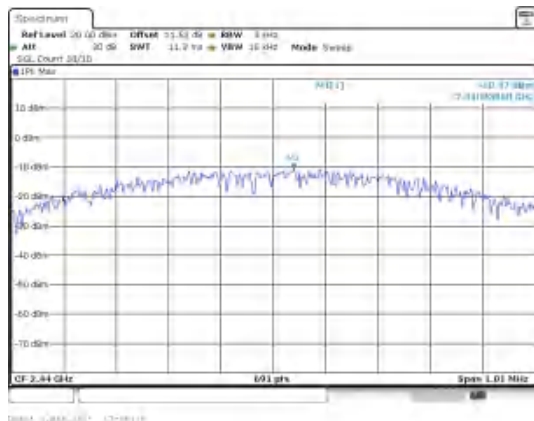
Test Graphs

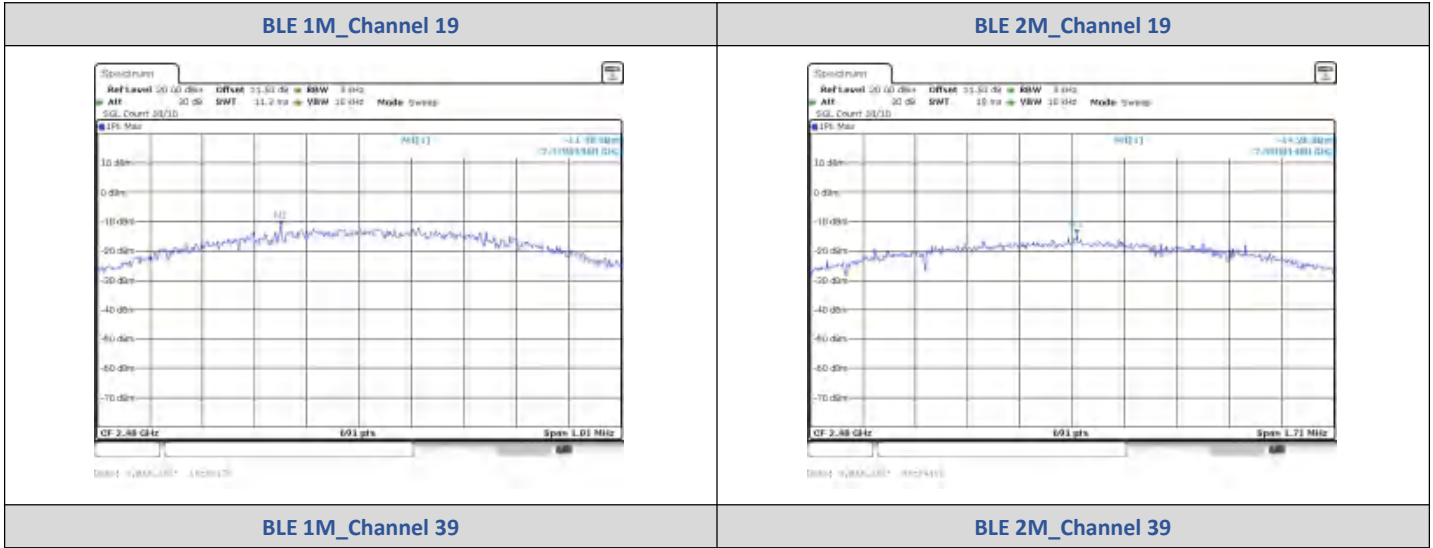


BLE 1M_Channel 0



BLE 2M_Channel 0





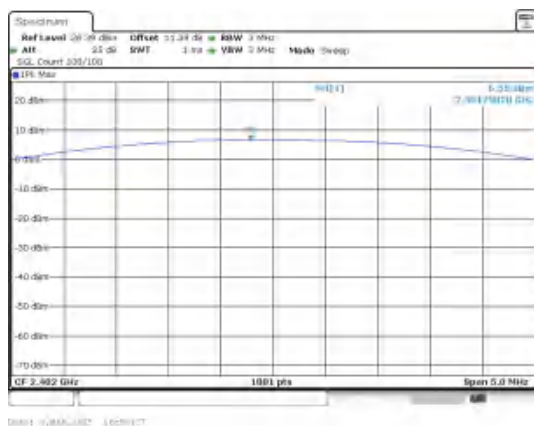
3) Conducted Output Power

Test Result

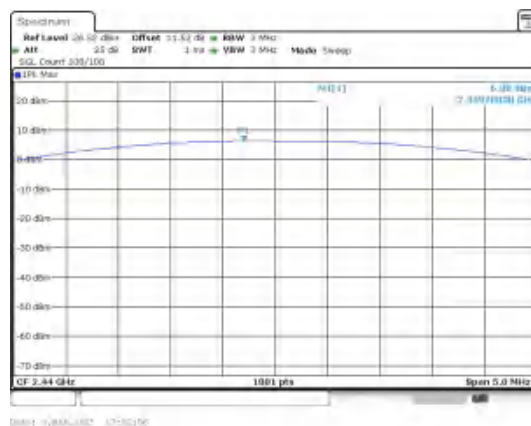
Left:

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	6.55	4.52	≤30	PASS
	19	6.38	4.35	≤30	PASS
	39	5.19	3.3	≤30	PASS
BLE 2M	0	6.69	4.67	≤30	PASS
	19	6.64	4.61	≤30	PASS
	39	5.48	3.53	≤30	PASS

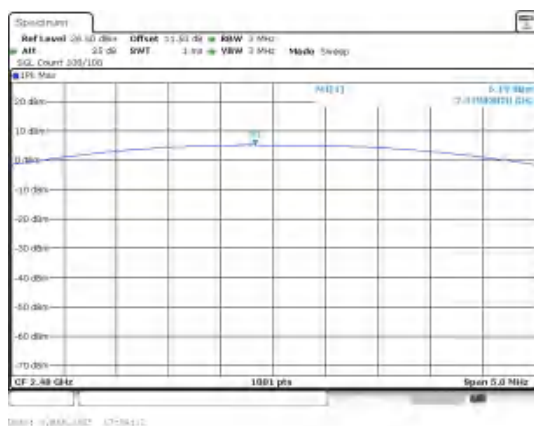
Test Graphs



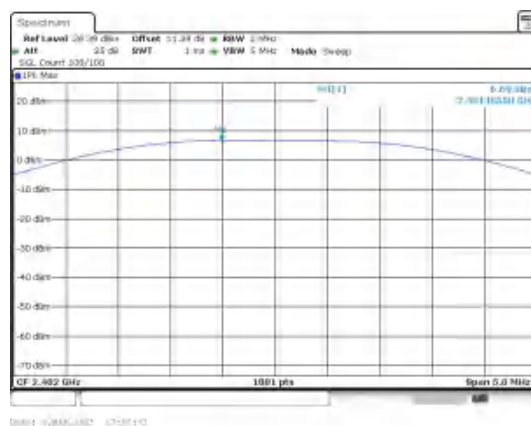
Peak Output Power
BLE 1M_Channel 0



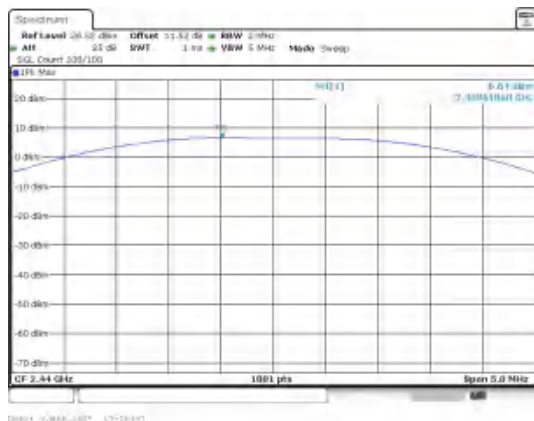
Peak Output Power
BLE 1M_Channel 19



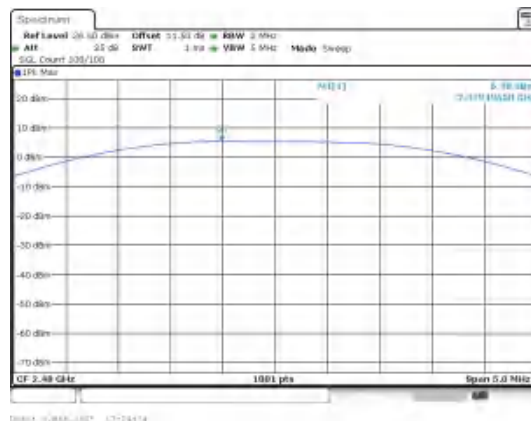
Peak Output Power
BLE 1M_Channel 39



Peak Output Power
BLE 2M_Channel 0



Peak Output Power
BLE 2M_Channel 19

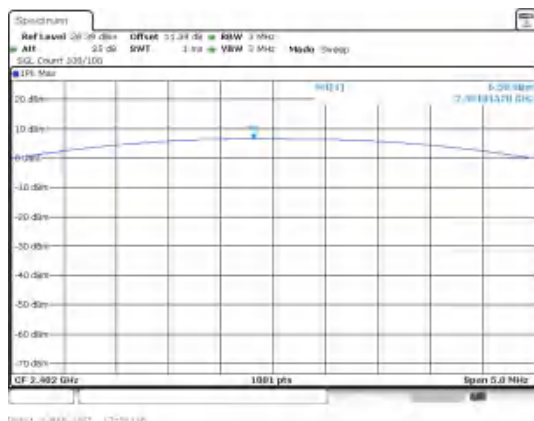


Peak Output Power
BLE 2M_Channel 39

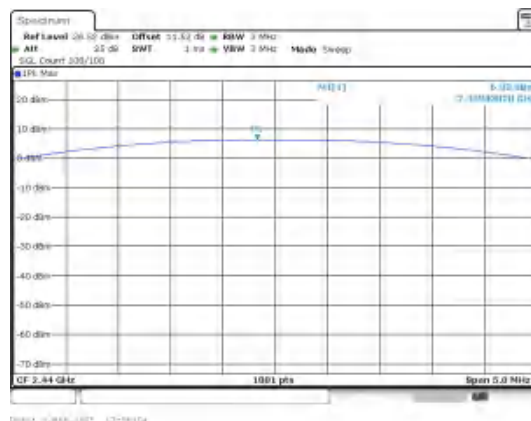
Right:

Mode	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
BLE 1M	0	6.50	4.47	≤30	PASS
	19	6.33	4.3	≤30	PASS
	39	5.11	3.24	≤30	PASS
BLE 2M	0	6.91	4.91	≤30	PASS
	19	6.65	4.62	≤30	PASS
	39	5.50	3.55	≤30	PASS

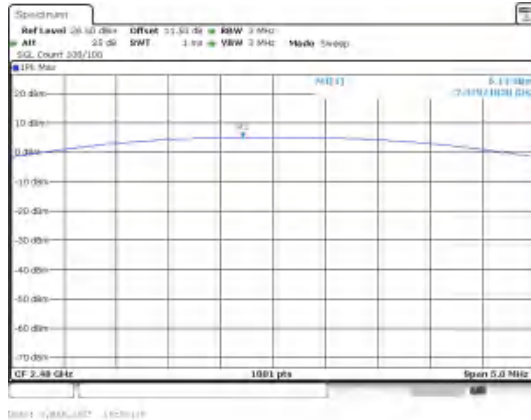
Test Graphs



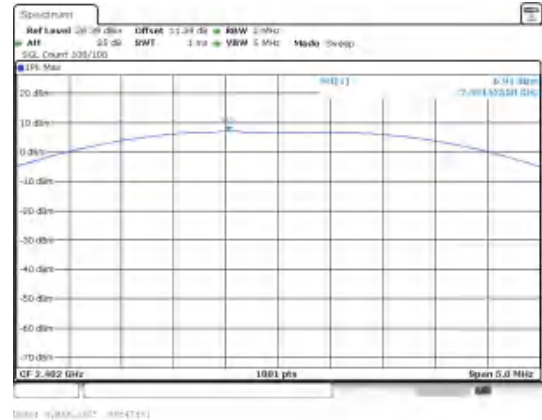
Peak Output Power
BLE 1M_Channel 0



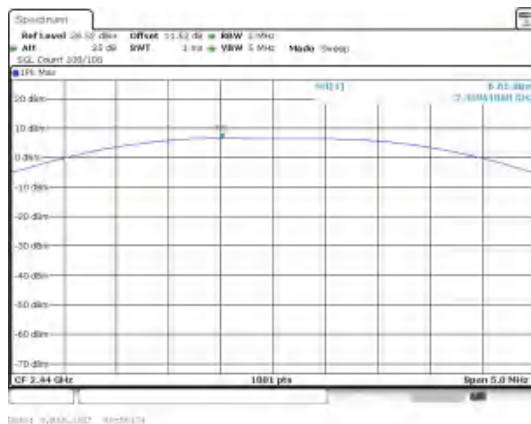
Peak Output Power
BLE 1M_Channel 19



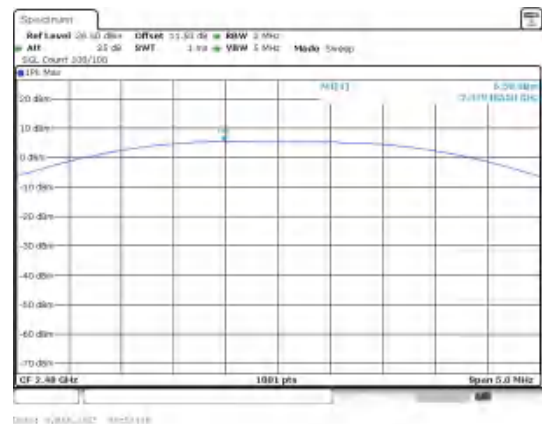
Peak Output Power
BLE 1M_Channel 39



Peak Output Power
BLE 2M_Channel 0



Peak Output Power
BLE 2M_Channel 19



Peak Output Power
BLE 2M_Channel 39

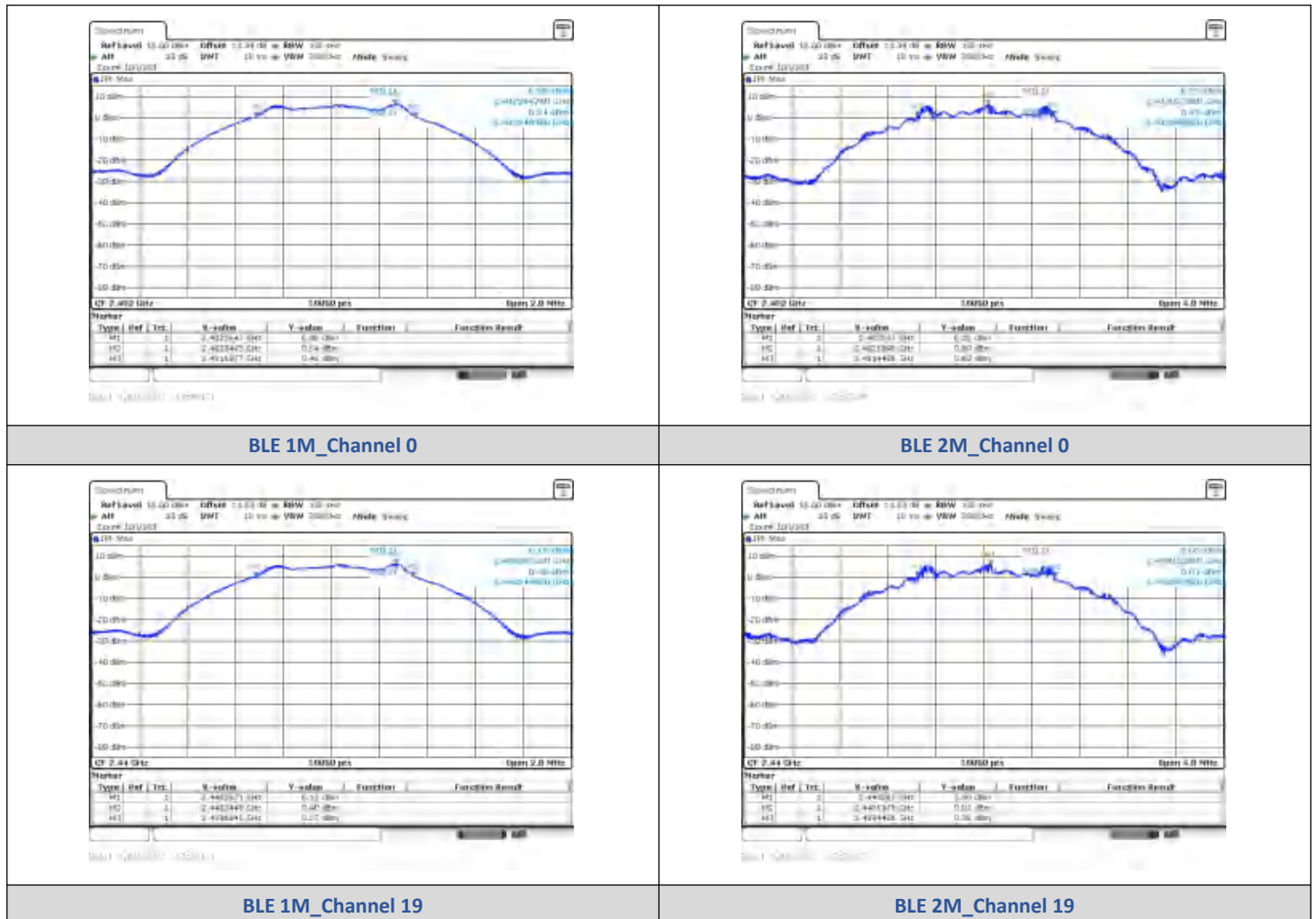
4) 6dB Bandwidth

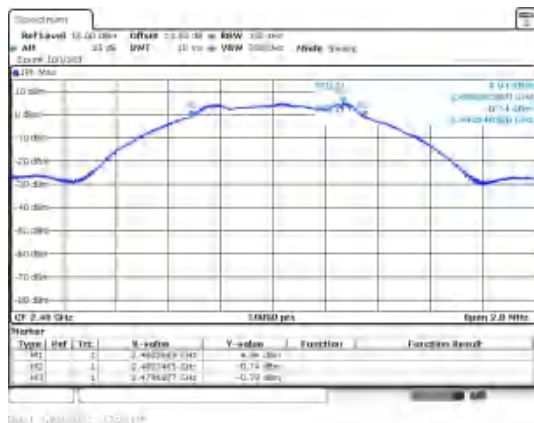
Test Result

Left:

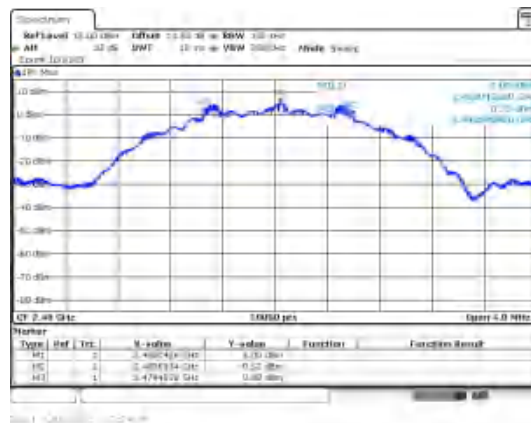
Mode	Channel	Center Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	Result
BLE 1M	0	2402	0.6600	≥0.5	PASS
	19	2440	0.6600		PASS
	39	2480	0.6600		PASS
BLE 2M	0	2402	1.150		PASS
	19	2440	1.160		PASS
	39	2480	1.140		PASS

Test Graphs





BLE 1M_Channel 39

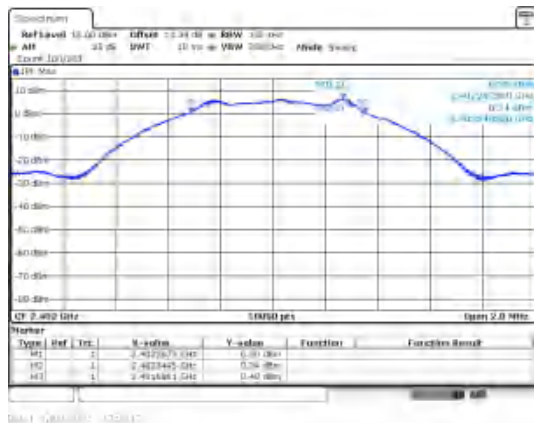


BLE 2M_Channel 39

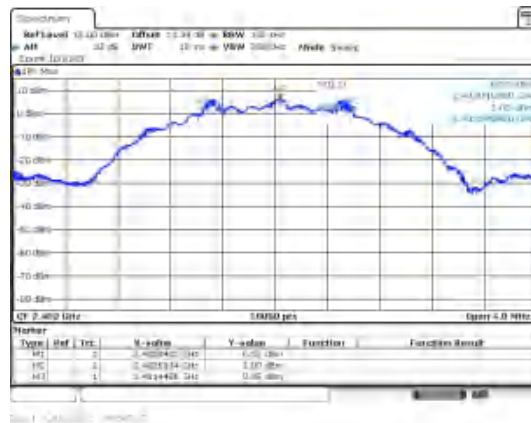
Right:

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	0.6700		PASS
BLE 2M	0	2402	1.150		PASS
	19	2440	1.150		PASS
	39	2480	1.140		PASS

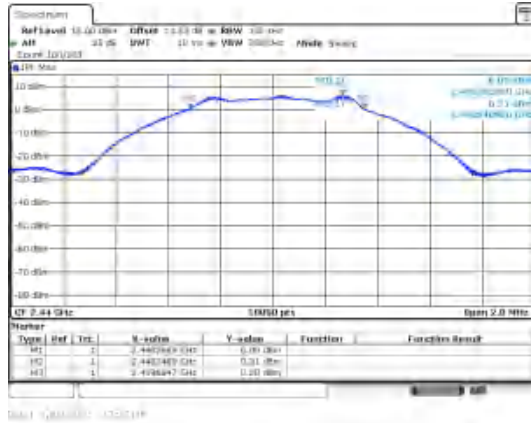
Test Graphs



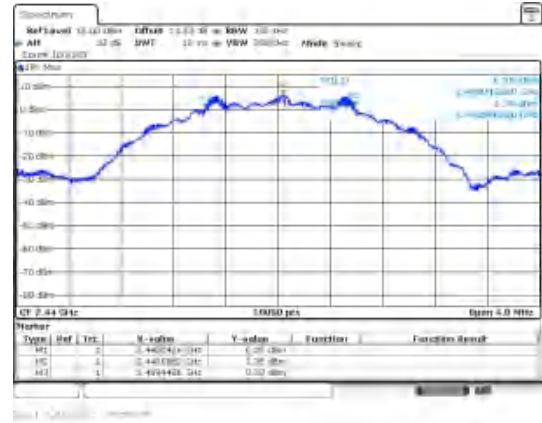
BLE 1M_Channel 0



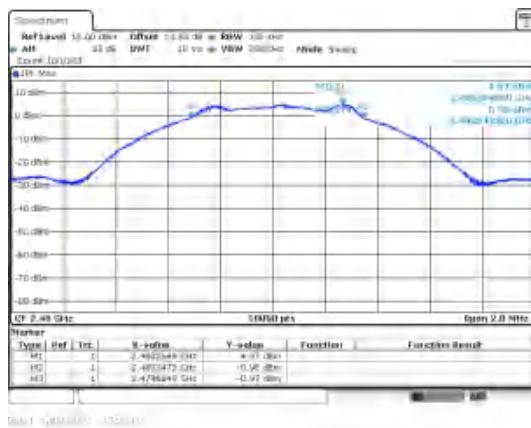
BLE 2M_Channel 0



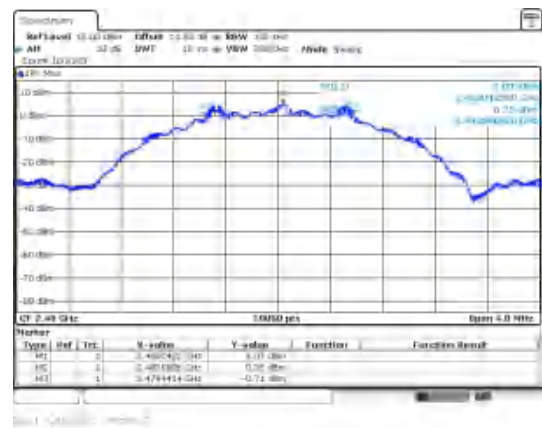
BLE 1M_Channel 19



BLE 2M_Channel 19



BLE 1M_Channel 39



BLE 2M_Channel 39

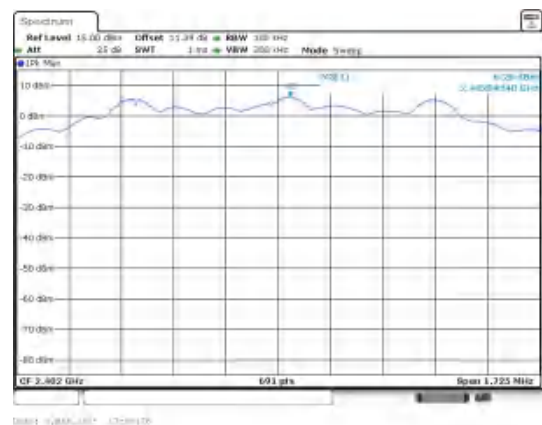
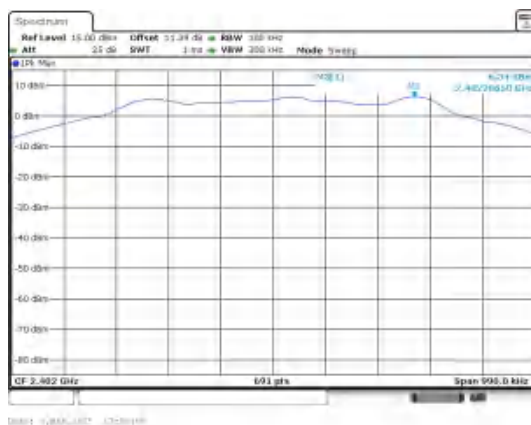
5) Conducted Out Of Band Emission

Test Result

Left:

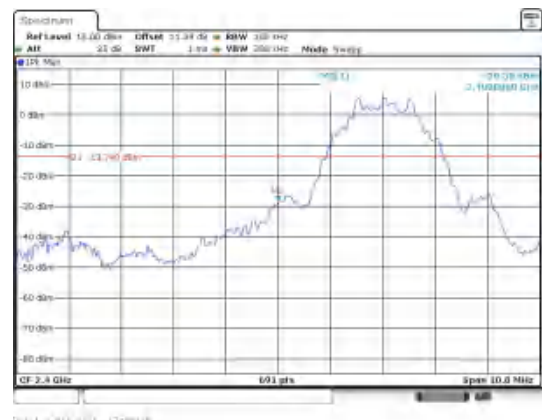
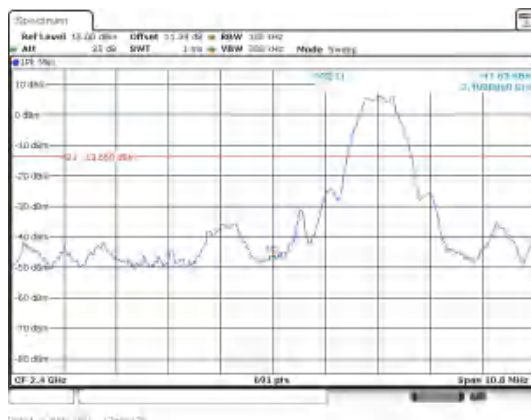
Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2399.00	-36.013	-13.66	-22.353	PASS
		2400.00	-47.630	-13.66	-33.970	PASS
		7206.80	-39.986	-13.66	-26.326	PASS
	19	9753.73	-40.192	-13.85	-26.342	PASS
	39	2483.50	-44.310	-15.06	-29.250	PASS
		9914.37	-37.167	-15.06	-22.107	PASS
BLE 2M	0	2400.00	-28.300	-13.74	-14.560	PASS
		9602.25	-41.160	-13.74	-27.420	PASS
	19	9753.73	-40.051	-13.82	-26.231	PASS
	39	2483.50	-49.880	-14.99	-34.890	PASS
		9914.37	-36.851	-14.99	-21.861	PASS

Test Graphs

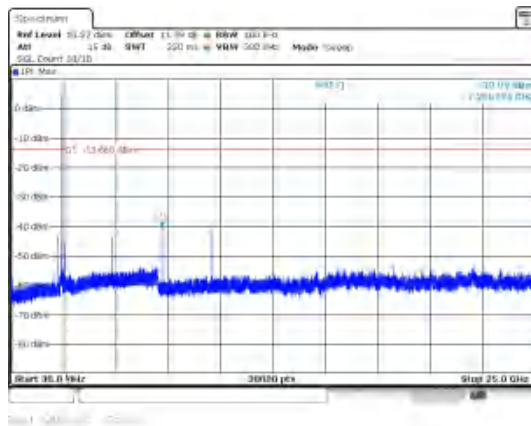


In-Band Reference Level
BLE 1M_Channel 0

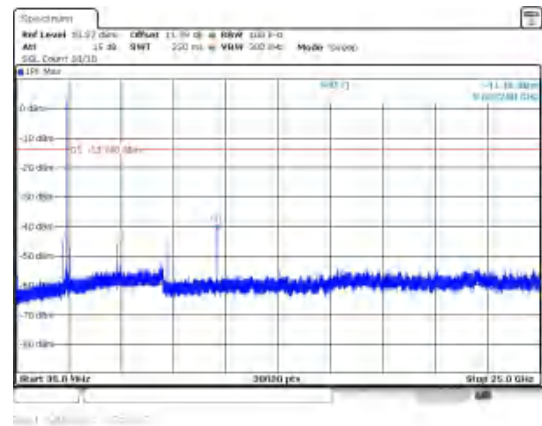
In-Band Reference Level
BLE 2M_Channel 0



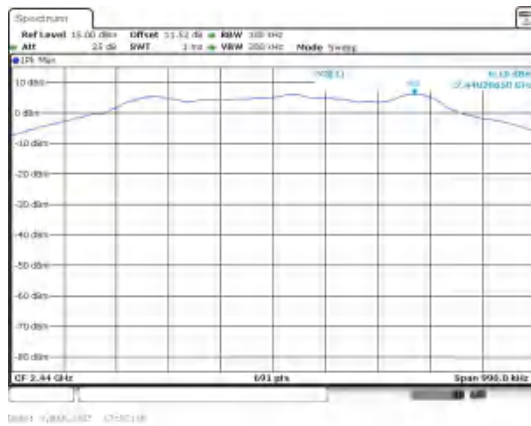
Out Of Band Emission
BLE 1M_Channel 0



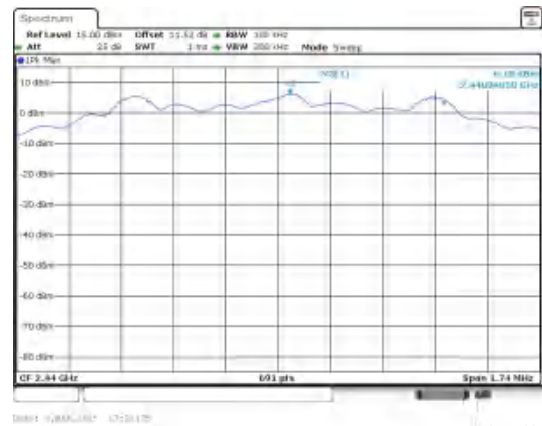
Out Of Band Emission
BLE 2M_Channel 0



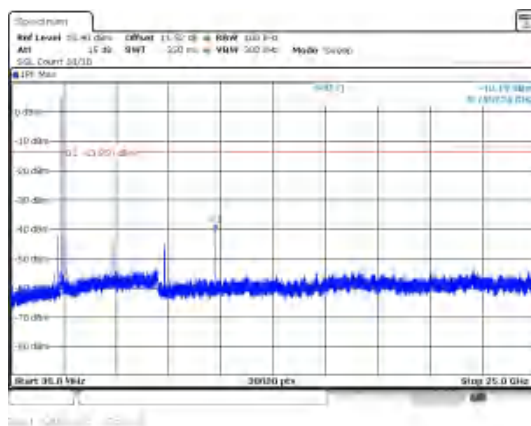
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0



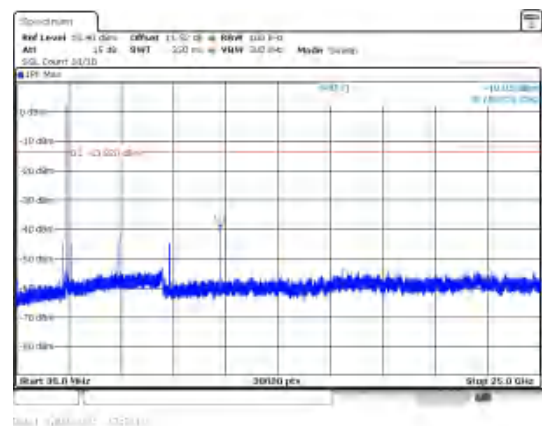
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 0



In-Band Reference Level
BLE 1M_Channel 19

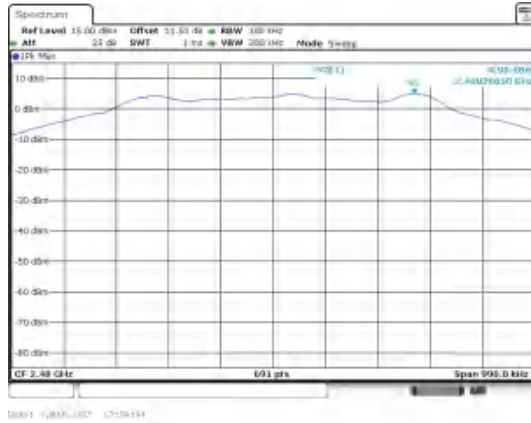


In-Band Reference Level
BLE 2M_Channel 19

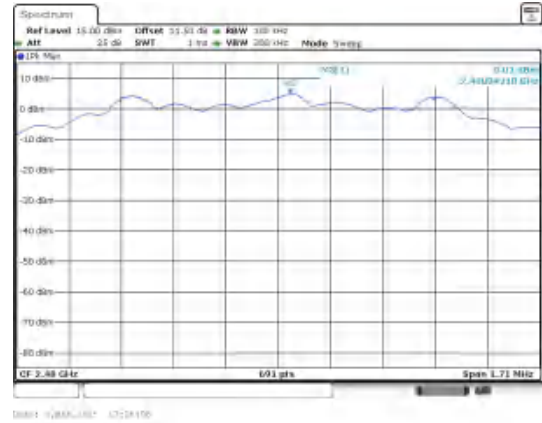


30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19

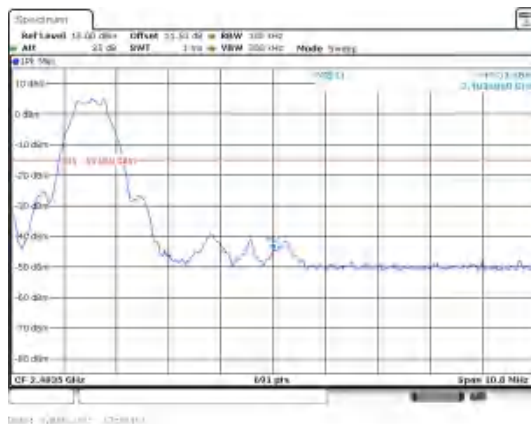
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 19



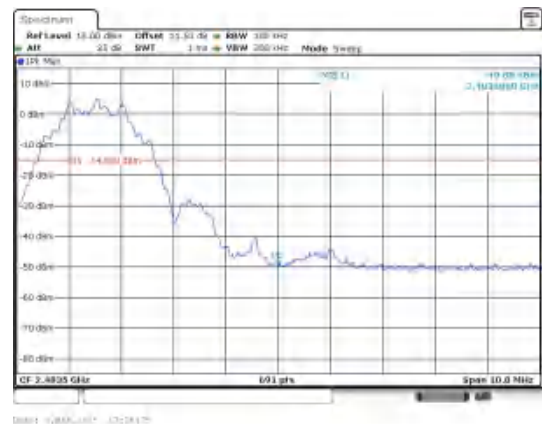
In-Band Reference Level
BLE 1M_Channel 39



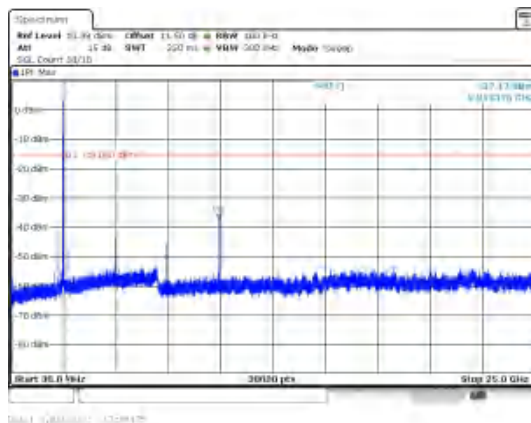
In-Band Reference Level
BLE 2M_Channel 39



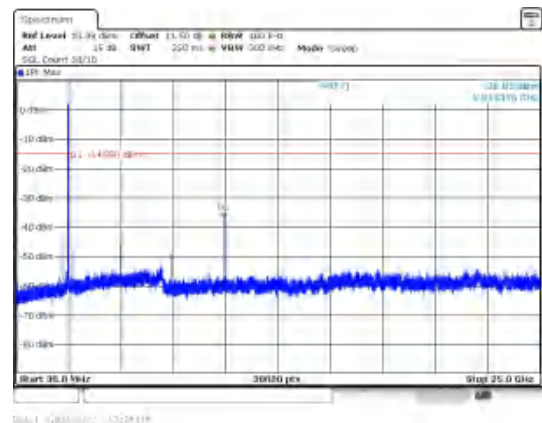
Out Of Band Emission
BLE 1M_Channel 39



Out Of Band Emission
BLE 2M_Channel 39



30.0 MHz - 25000.0 MHz
BLE 1M_Channel 39

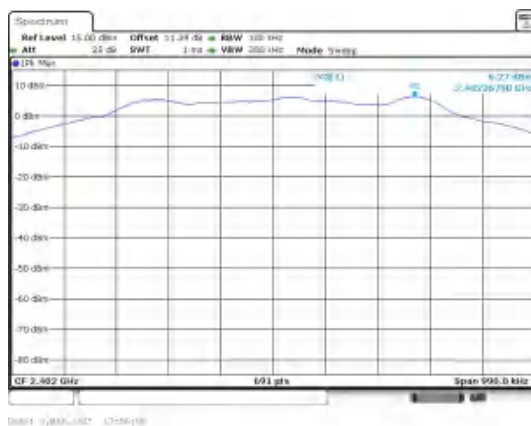


30.0 MHz - 25000.0 MHz
BLE 2M_Channel 39

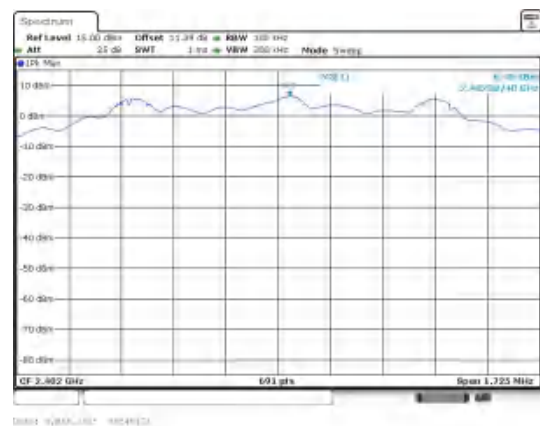
Right:

Mode	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
BLE 1M	0	2399.00	-36.545	-13.73	-22.815	PASS
		2400.00	-46.570	-13.73	-32.840	PASS
		7206.00	-39.452	-13.73	-25.722	PASS
	19	9753.73	-40.498	-13.92	-26.578	PASS
	39	2483.50	-44.560	-15.14	-29.420	PASS
		9914.37	-37.358	-15.14	-22.218	PASS
BLE 2M	0	2400.00	-25.760	-13.51	-12.250	PASS
		9602.25	-41.314	-13.51	-27.804	PASS
	19	9753.73	-39.940	-13.79	-26.150	PASS
	39	2483.50	-49.530	-14.96	-34.570	PASS
		9914.37	-36.497	-14.96	-21.537	PASS

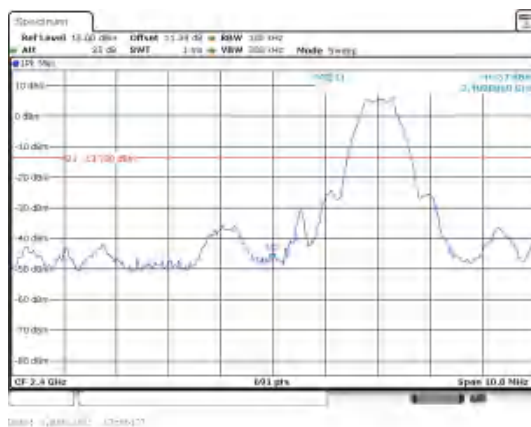
Test Graphs



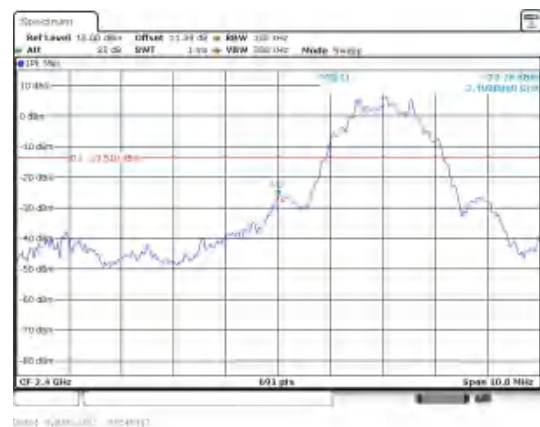
In-Band Reference Level
BLE 1M_Channel 0



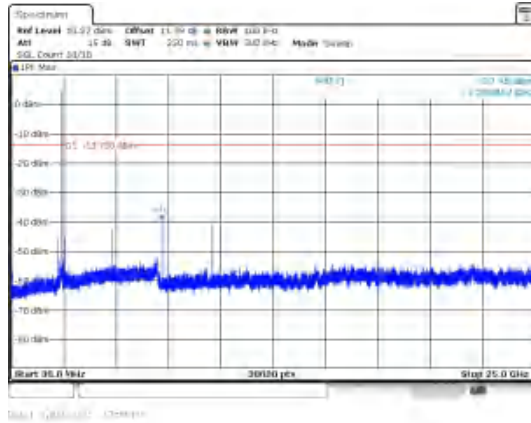
In-Band Reference Level
BLE 2M_Channel 0



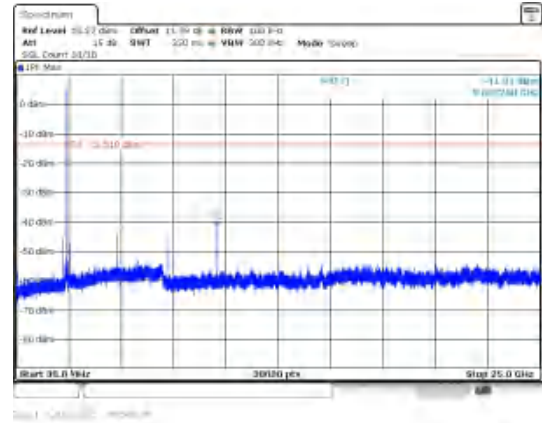
Out Of Band Emission
BLE 1M_Channel 0



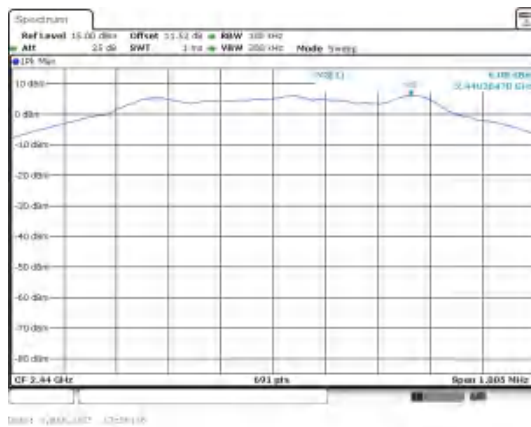
Out Of Band Emission
BLE 2M_Channel 0



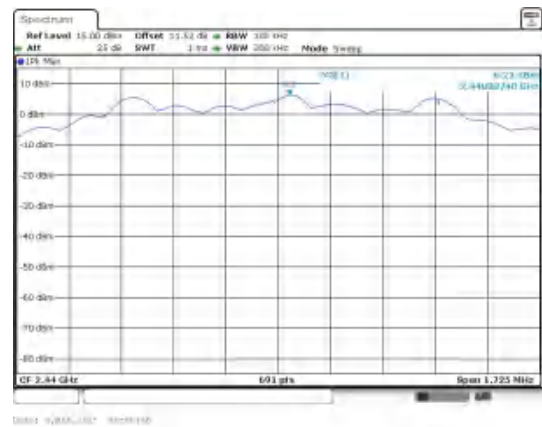
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 0



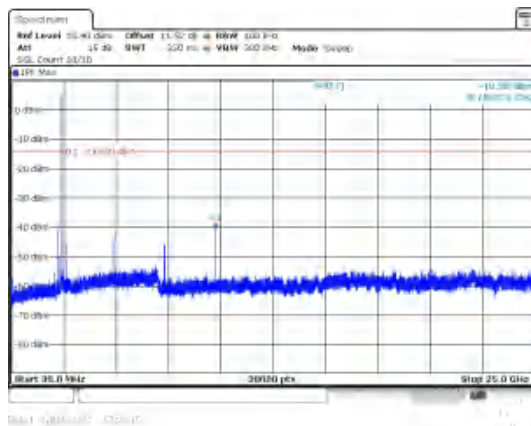
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 0



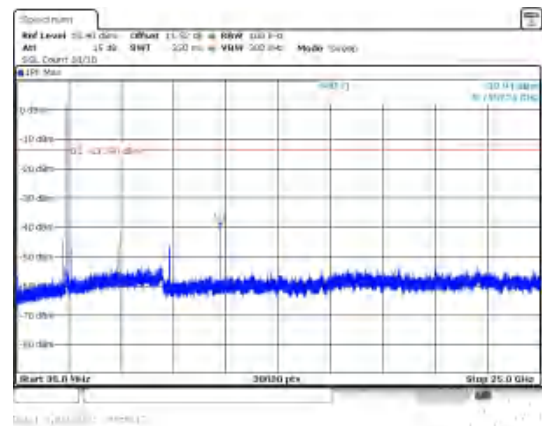
In-Band Reference Level
BLE 1M_Channel 19



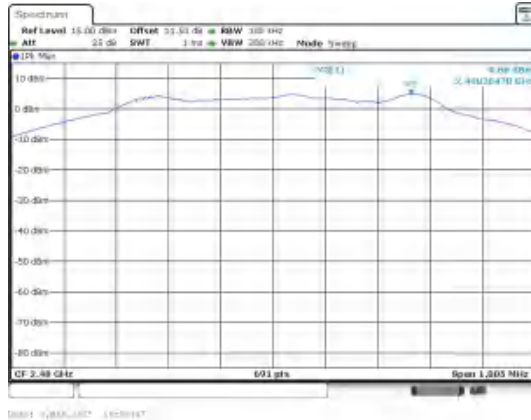
In-Band Reference Level
BLE 2M_Channel 19



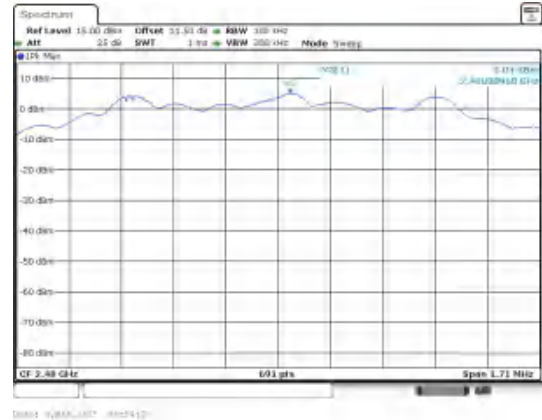
30.0 MHz - 25000.0 MHz
BLE 1M_Channel 19



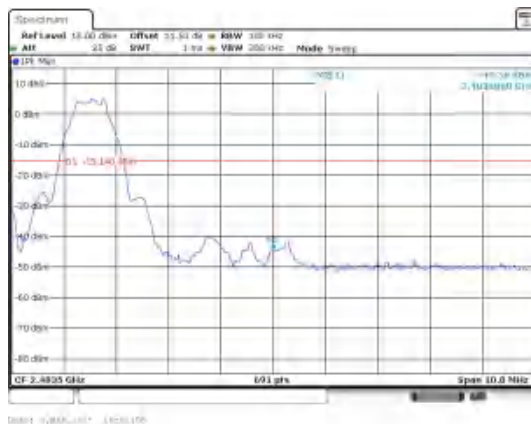
30.0 MHz - 25000.0 MHz
BLE 2M_Channel 19



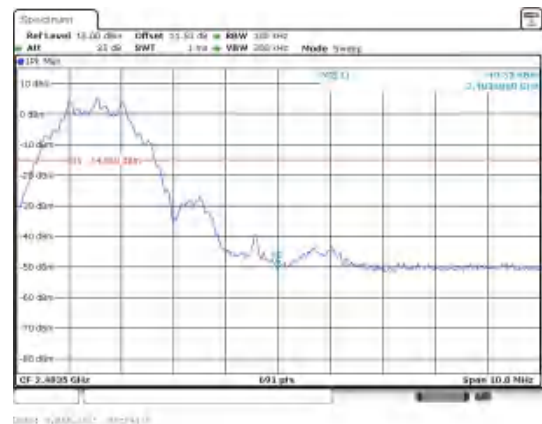
In-Band Reference Level
BLE 1M_Channel 39



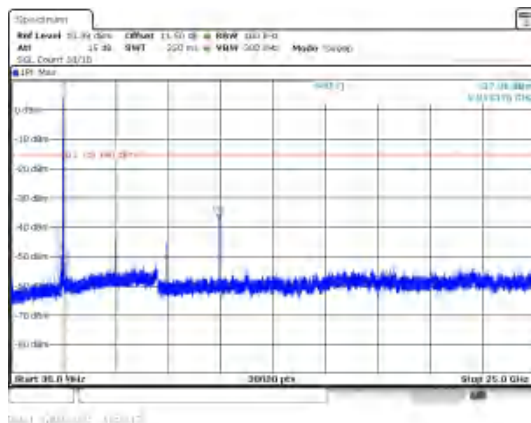
In-Band Reference Level
BLE 2M_Channel 39



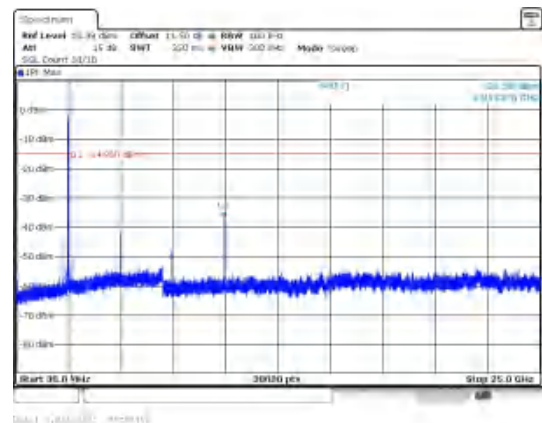
Out Of Band Emission
BLE 1M_Channel 39



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

-----End of the report-----