

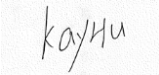
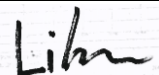


Appendix F for BT LE Test Data

Product Name: Magnetic Bluetooth headphone amplifier

Test Model: Tea

Environmental Conditions

Temperature:	22.3° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	
Supervised by:	



F.1 RF Output Power

Test Result

BT LE

Test Condition	TestMode	Antenna	Channel	EIRP[dBm]	Limit[dBm]	Verdict
NTNV	BLE_1M	Ant1	2402	7.90	20	PASS
			2440	8.22	20	PASS
			2480	8.59	20	PASS

Test Condition	TestMode	Antenna	Channel	EIRP[dBm]	Limit[dBm]	Verdict
NTLV	BLE_1M	Ant1	2402	7.83	20	PASS
			2440	8.04	20	PASS
			2480	8.48	20	PASS

Test Condition	TestMode	Antenna	Channel	EIRP[dBm]	Limit[dBm]	Verdict
NTHV	BLE_1M	Ant1	2402	6.82	20	PASS
			2440	7.13	20	PASS
			2480	7.47	20	PASS

***Note: 20 bursts had been captured for power measurement.

BT 2LE

Test Condition	TestMode	Antenna	Channel	EIRP[dBm]	Limit[dBm]	Verdict
NTNV	BLE_2M	Ant3	2402	7.84	20	PASS
			2440	8.17	20	PASS
			2480	8.53	20	PASS

Test Condition	TestMode	Antenna	Channel	EIRP[dBm]	Limit[dBm]	Verdict
NTLV	BLE_2M	Ant3	2402	7.62	20	PASS
			2440	8.09	20	PASS
			2480	8.42	20	PASS

Test Condition	TestMode	Antenna	Channel	EIRP[dBm]	Limit[dBm]	Verdict
NTHV	BLE_2M	Ant3	2402	6.74	20	PASS
			2440	7.04	20	PASS
			2480	7.45	20	PASS

***Note: 20 bursts had been captured for power measurement.



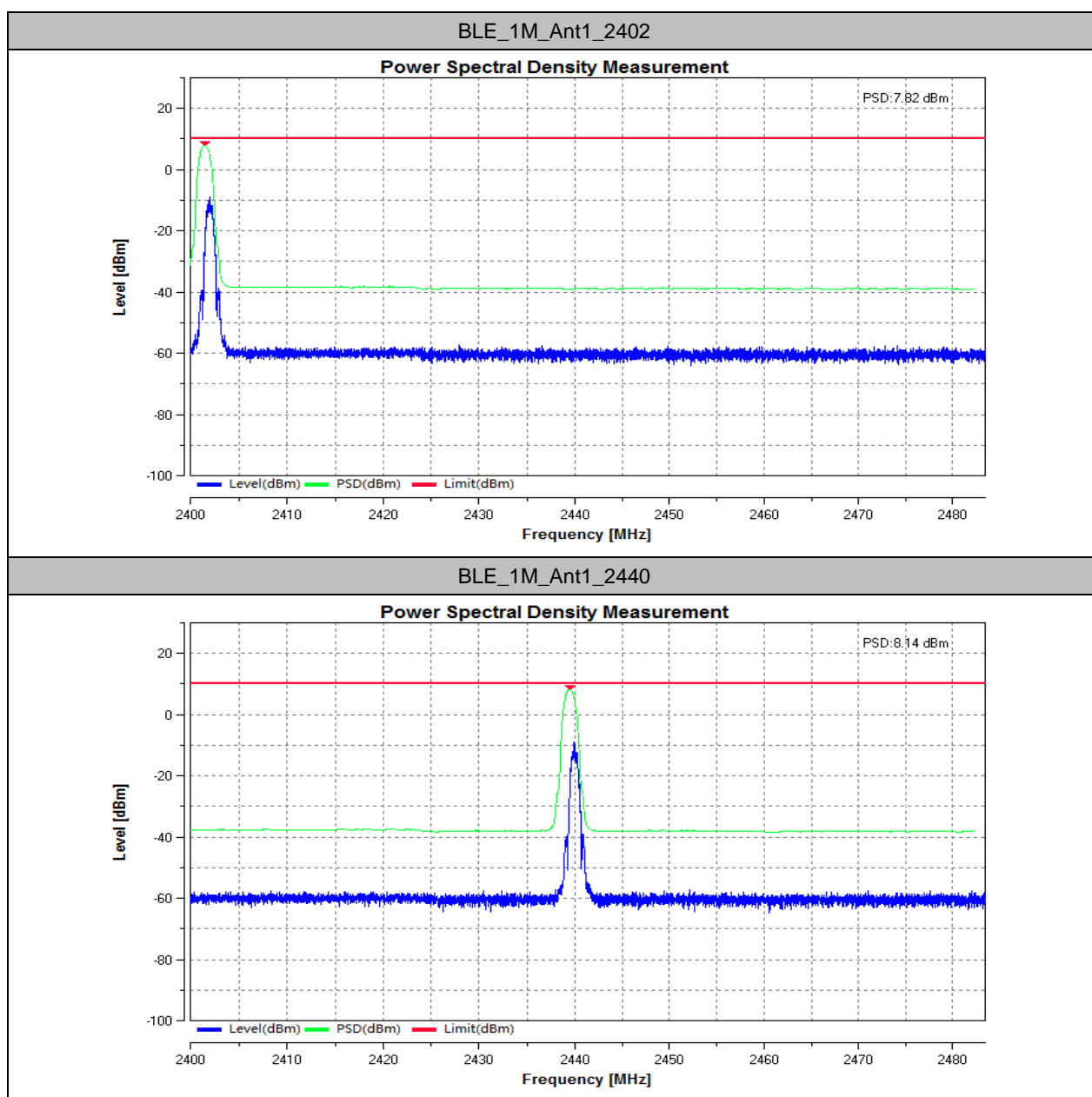
F.2 Power Spectral Density

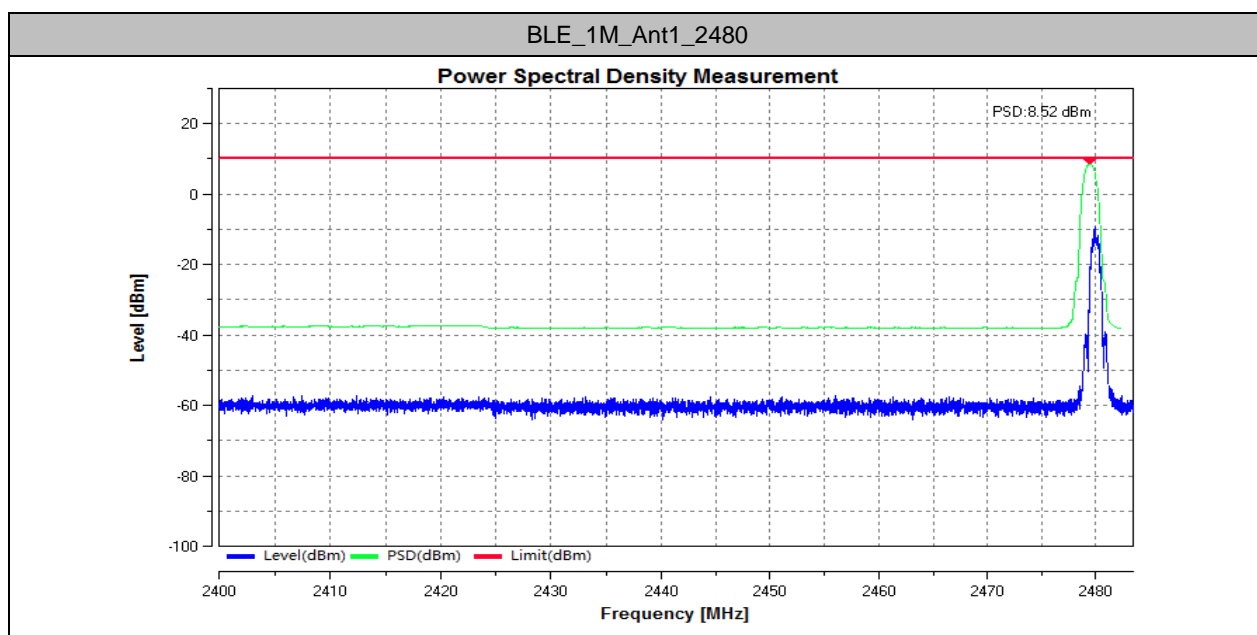
Test Result

BT LE

TestMode	Antenna	Channel	PSD[dBm/MHz]	Limit[dBm/MHz]	Verdict
BLE_1M	Ant1	2402	7.82	10	PASS
		2440	8.14	10	PASS
		2480	8.52	10	PASS

Test Graphs

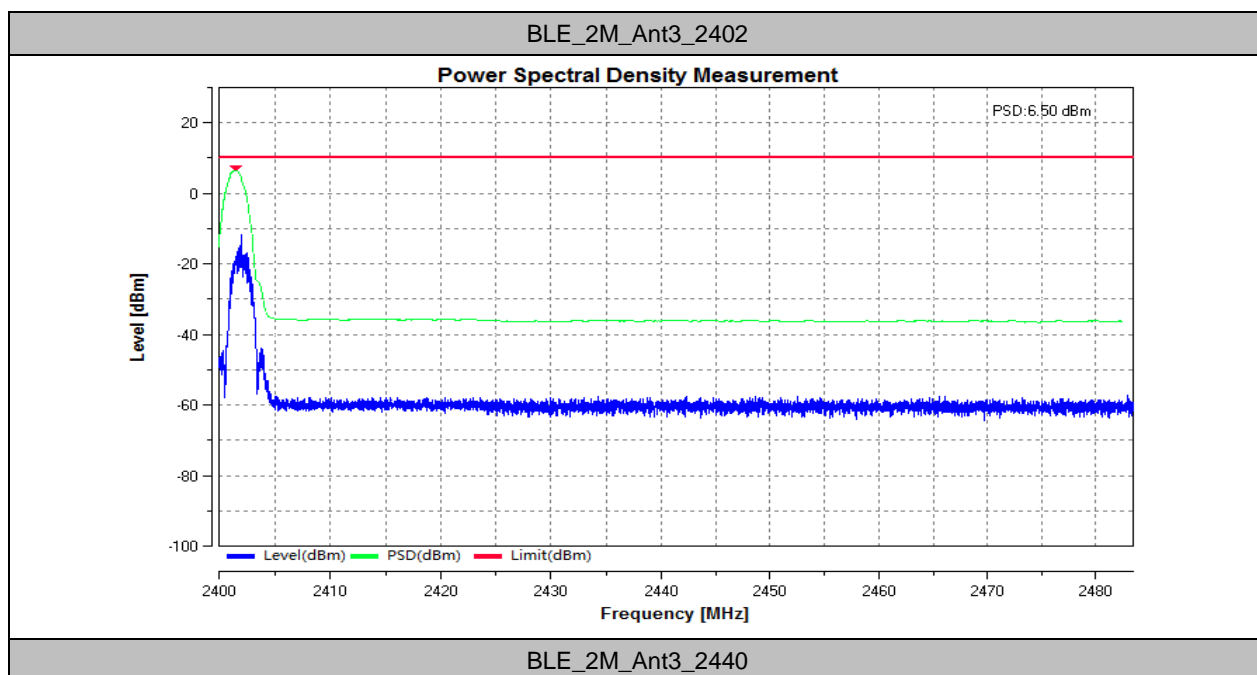


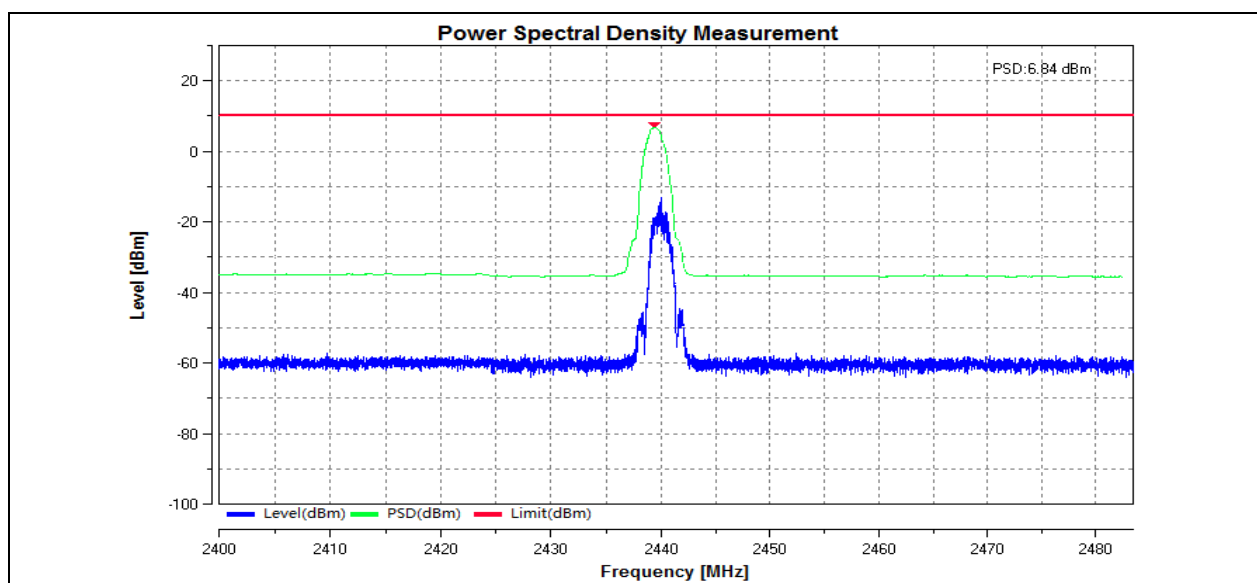


BT 2LE

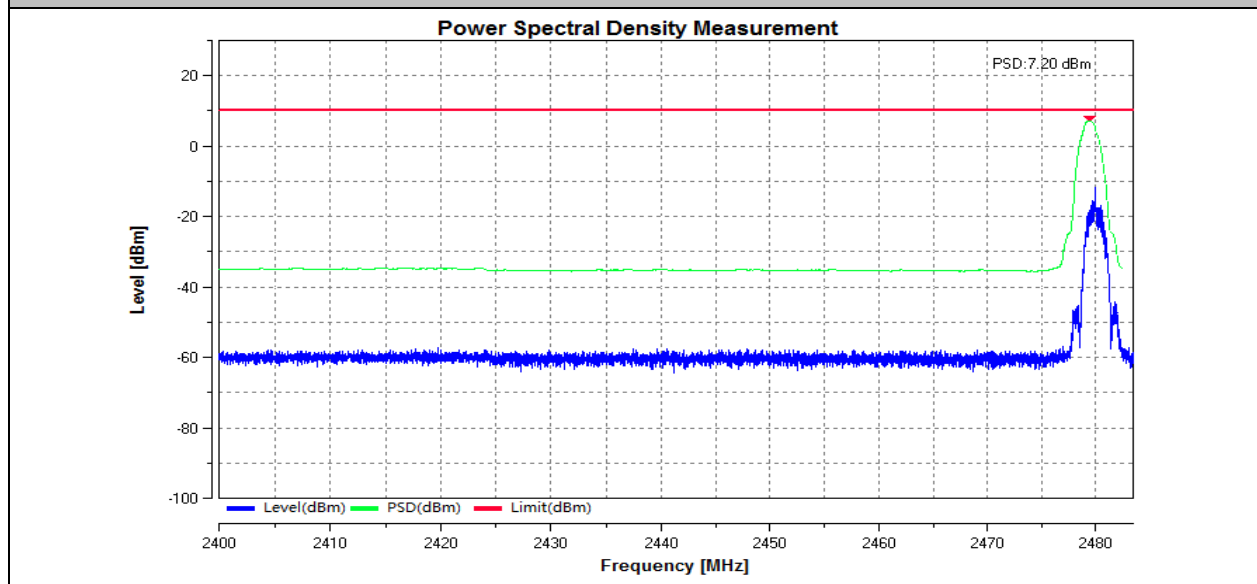
TestMode	Antenna	Channel	PSD[dBm/MHz]	Limit[dBm/MHz]	Verdict
BLE_2M	Ant3	2402	6.50	10	PASS
		2440	6.84	10	PASS
		2480	7.20	10	PASS

Test Graphs





BLE_2M_Ant3_2480





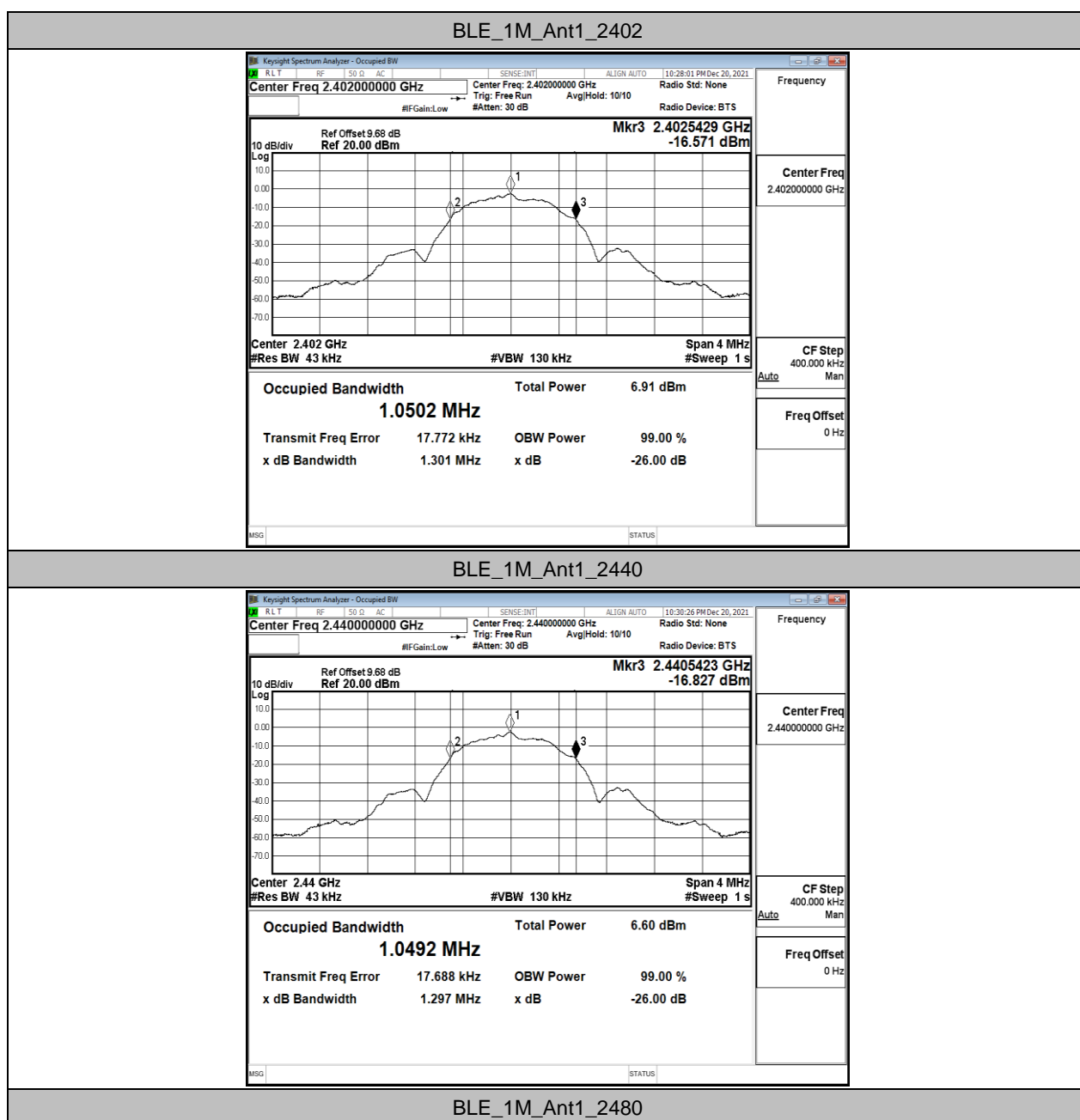
F.3 Occupied Channel Bandwidth

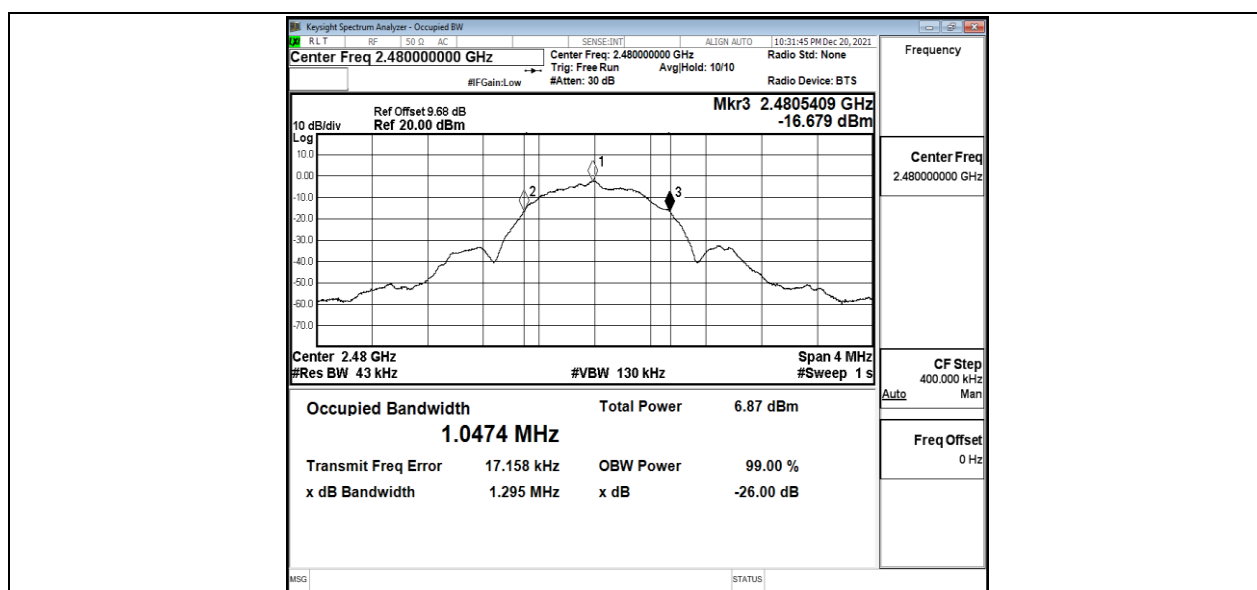
Test Result

BT LE

TestMode	Antenna	Channel	OCB[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0502	2401.4927	2402.5429	2400 to 2483.5	PASS
		2440	1.0492	2439.4931	2440.5423	2400 to 2483.5	PASS
		2480	1.0474	2479.4935	2480.5409	2400 to 2483.5	PASS

Test Graphs

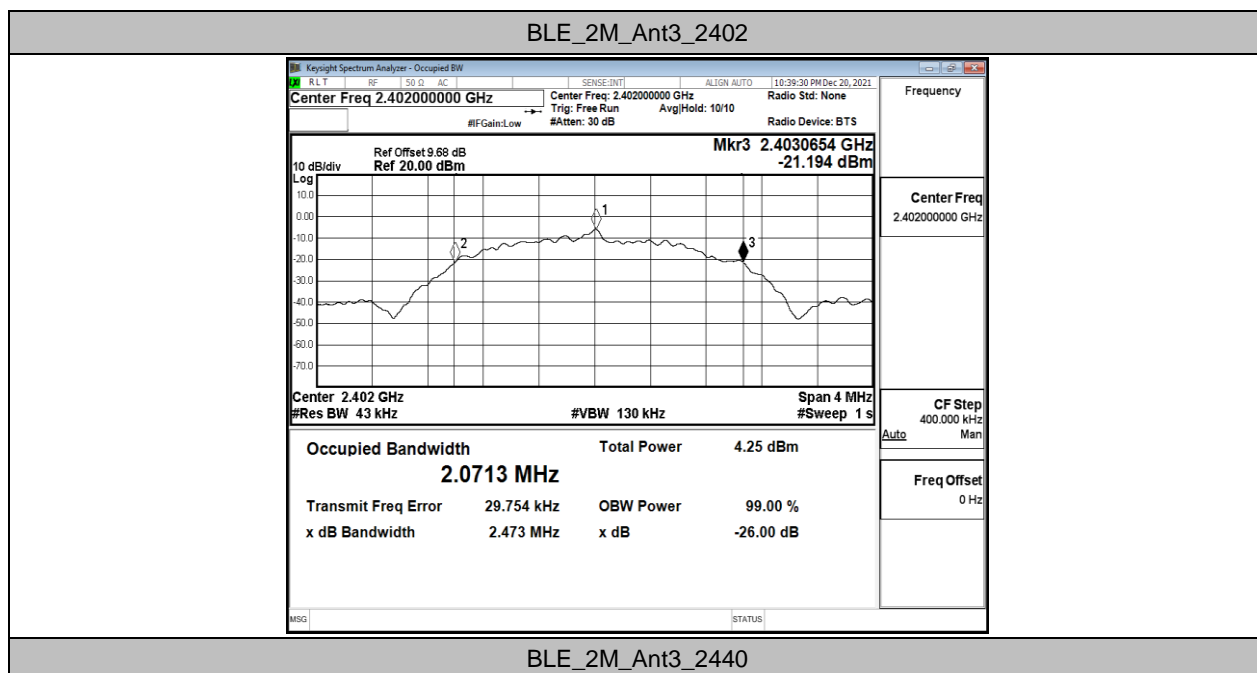


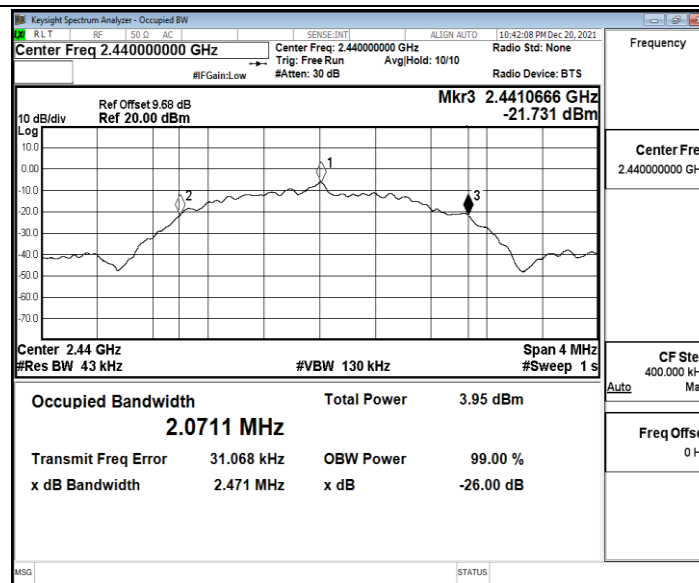


BT 2LE

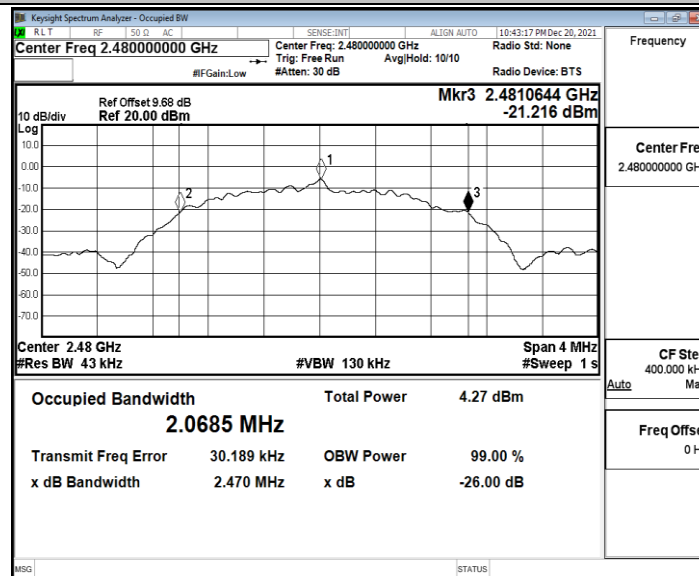
TestMode	Antenna	Channel	OCB[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_2M	Ant3	2402	2.0713	2400.9941	2403.0654	2400 to 2483.5	PASS
		2440	2.0711	2438.9955	2441.0666	2400 to 2483.5	PASS
		2480	2.0685	2478.9959	2481.0644	2400 to 2483.5	PASS

Test Graphs





BLE_2M_Ant3_2480





F.4 Transmitter Unwanted Emissions In The Out-Of-BandDomain

Test Result

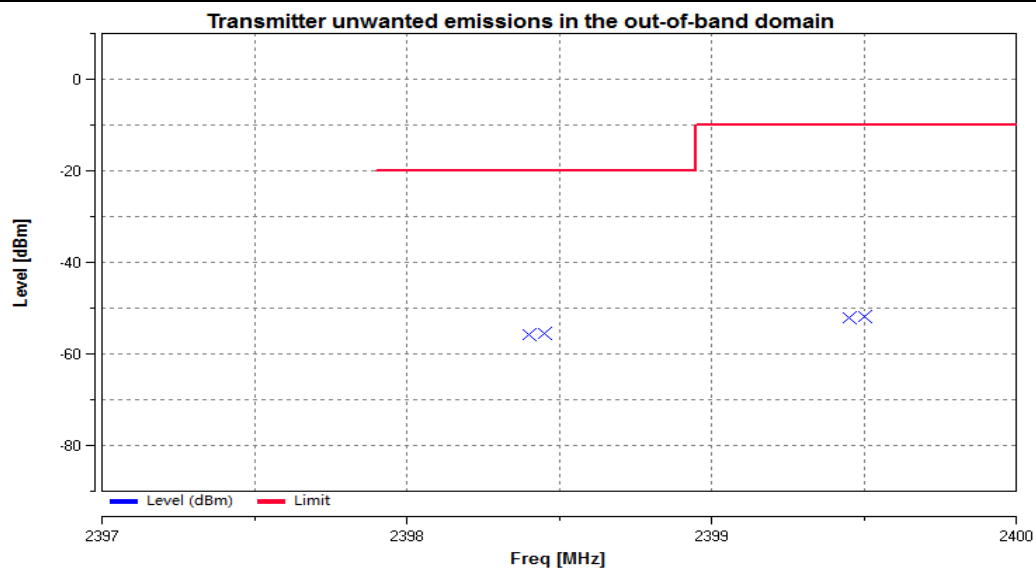
BT LE

TestMode	Antenna	Channel	Freq. [MHz]	Level[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	2398.3996	-55.75	-20.00	PASS
			2398.4498	-55.63	-20.00	PASS
			2399.4498	-52.16	-10.00	PASS
			2399.5	-51.80	-10.00	PASS
			2484	-60.12	-10.00	PASS
			2484.0502	-60.17	-10.00	PASS
			2485.0502	-60.11	-20.00	PASS
			2485.1004	-60.09	-20.00	PASS
		2480	2398.4052	-60.06	-20.00	PASS
			2398.4526	-60.05	-20.00	PASS
			2399.4526	-60.14	-10.00	PASS
			2399.5	-60.08	-10.00	PASS
			2484	-56.35	-10.00	PASS
			2484.0474	-56.39	-10.00	PASS
			2485.0474	-57.39	-20.00	PASS
			2485.0948	-57.46	-20.00	PASS

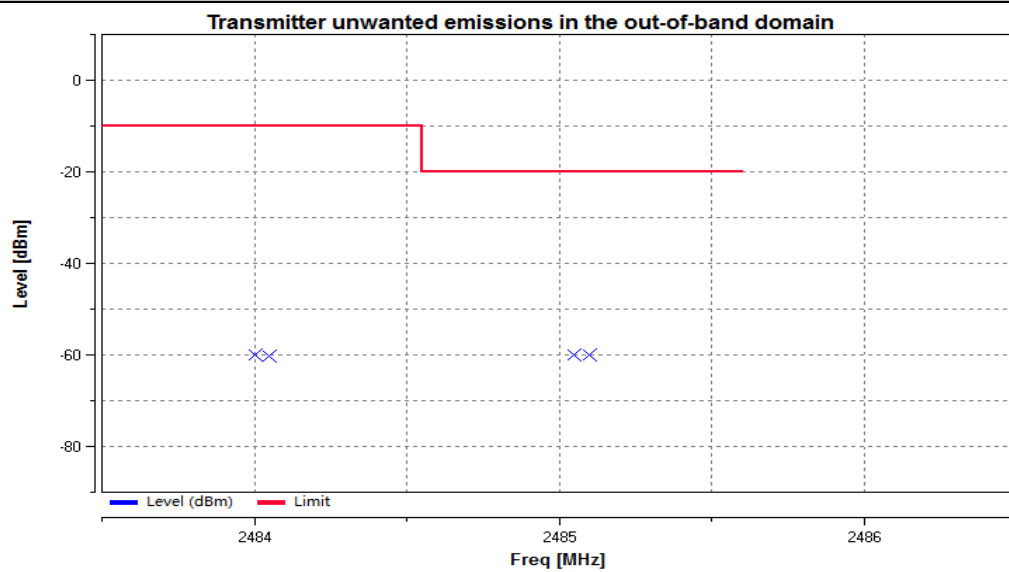


Test Graphs

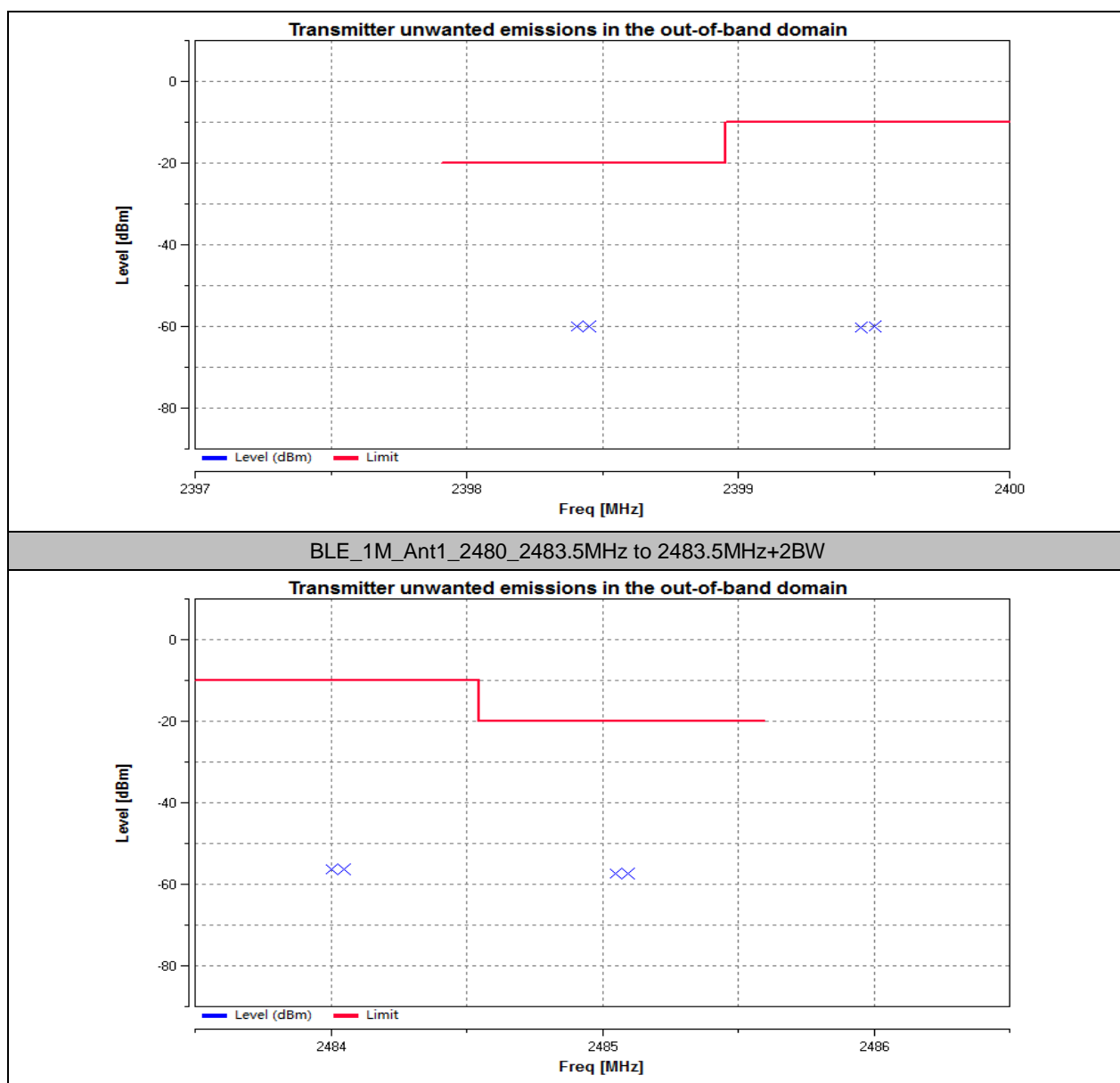
BLE_1M_Ant1_2402_2400MHz-2BW to 2400MHz



BLE_1M_Ant1_2402_2483.5MHz to 2483.5MHz+2BW



BLE_1M_Ant1_2480_2400MHz-2BW to 2400MHz





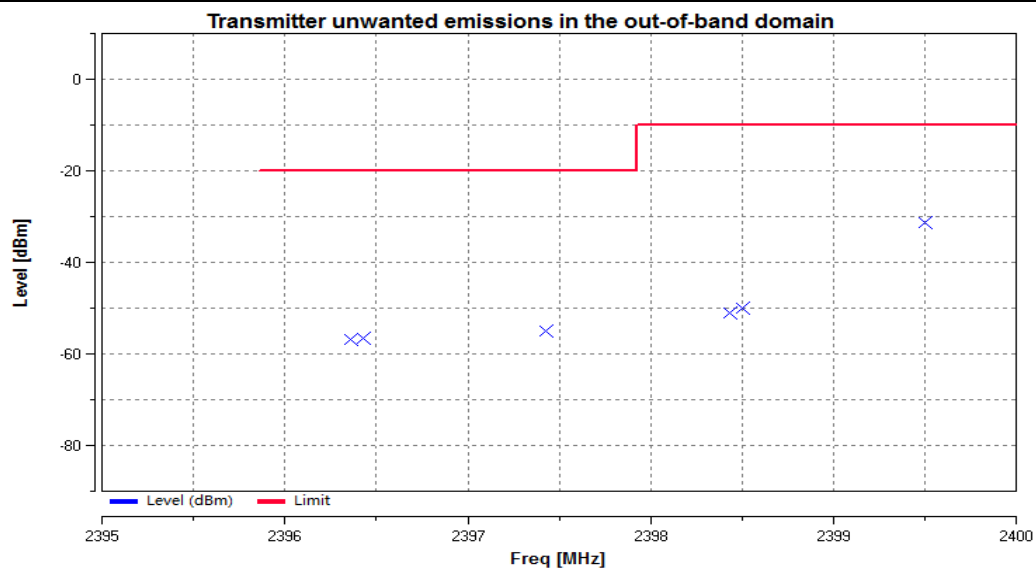
BT 2LE

TestMode	Antenna	Channel	Freq. [MHz]	Level[dBm]	Limit[dBm]	Verdict
BLE_2M	Ant3	2402	2396.3574	-56.83	-20.00	PASS
			2396.4287	-56.66	-20.00	PASS
			2397.4287	-54.93	-20.00	PASS
			2398.4287	-50.99	-10.00	PASS
			2398.5	-50.03	-10.00	PASS
			2399.5	-31.40	-10.00	PASS
			2484	-60.34	-10.00	PASS
			2485	-60.14	-10.00	PASS
			2485.0713	-60.11	-10.00	PASS
			2486.0713	-59.60	-20.00	PASS
			2487.0713	-60.14	-20.00	PASS
			2487.1426	-60.07	-20.00	PASS
		2480	2396.363	-60.19	-20.00	PASS
			2396.4315	-60.15	-20.00	PASS
			2397.4315	-60.33	-20.00	PASS
			2398.4315	-60.21	-10.00	PASS
			2398.5	-60.30	-10.00	PASS
			2399.5	-60.30	-10.00	PASS
			2484	-54.53	-10.00	PASS
			2485	-57.53	-10.00	PASS
			2485.0685	-57.61	-10.00	PASS
			2486.0685	-58.67	-20.00	PASS
			2487.0685	-59.19	-20.00	PASS
			2487.137	-59.17	-20.00	PASS

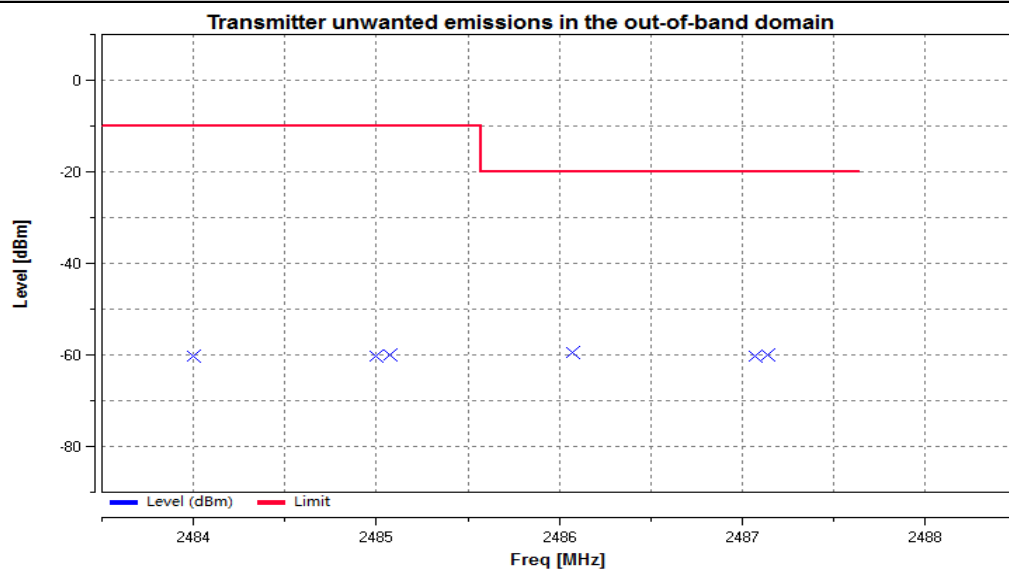


Test Graphs

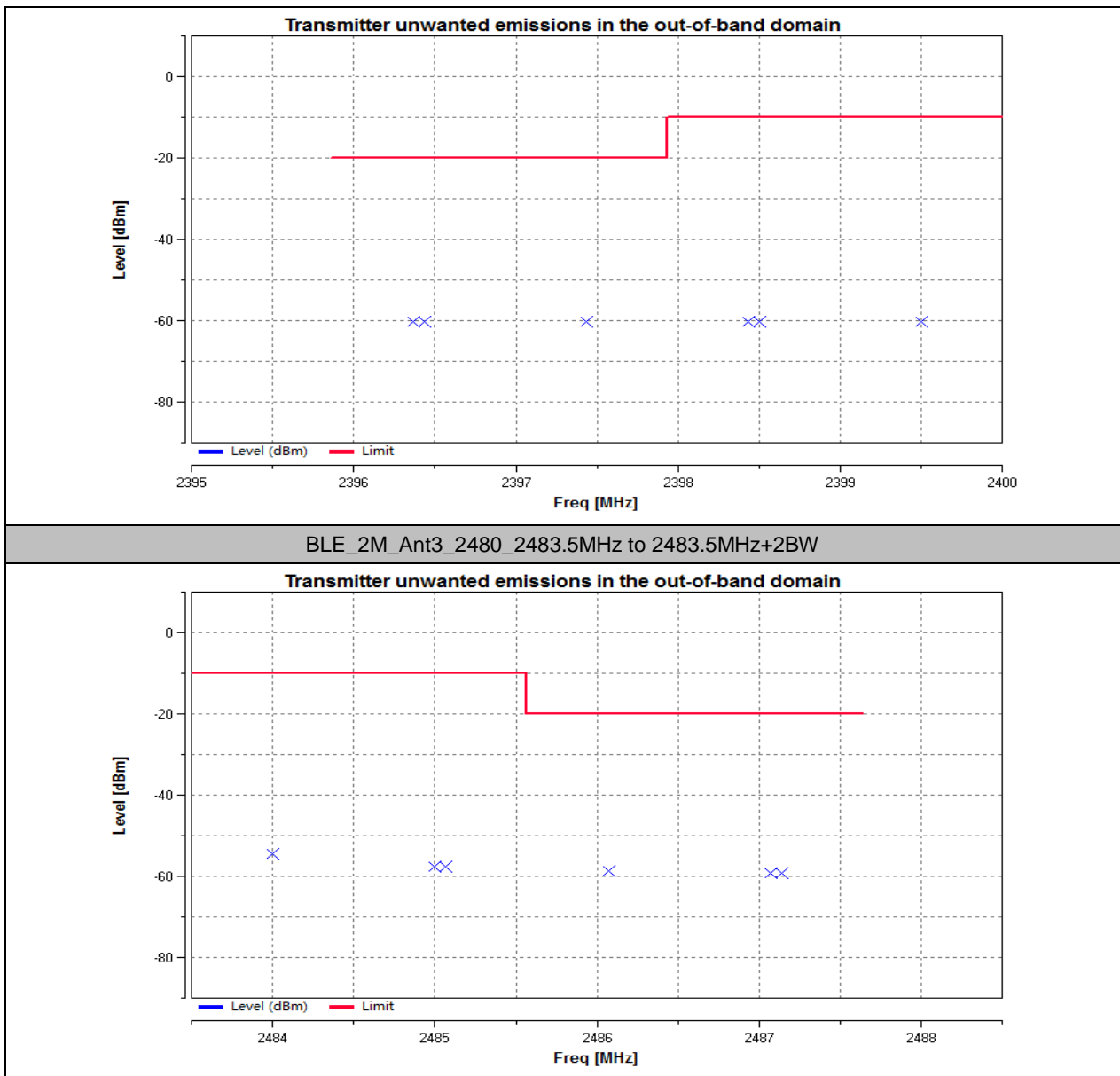
BLE_2M_Ant3_2402_2400MHz-2BW to 2400MHz



BLE_2M_Ant3_2402_2483.5MHz to 2483.5MHz+2BW



BLE_2M_Ant3_2480_2400MHz-2BW to 2400MHz





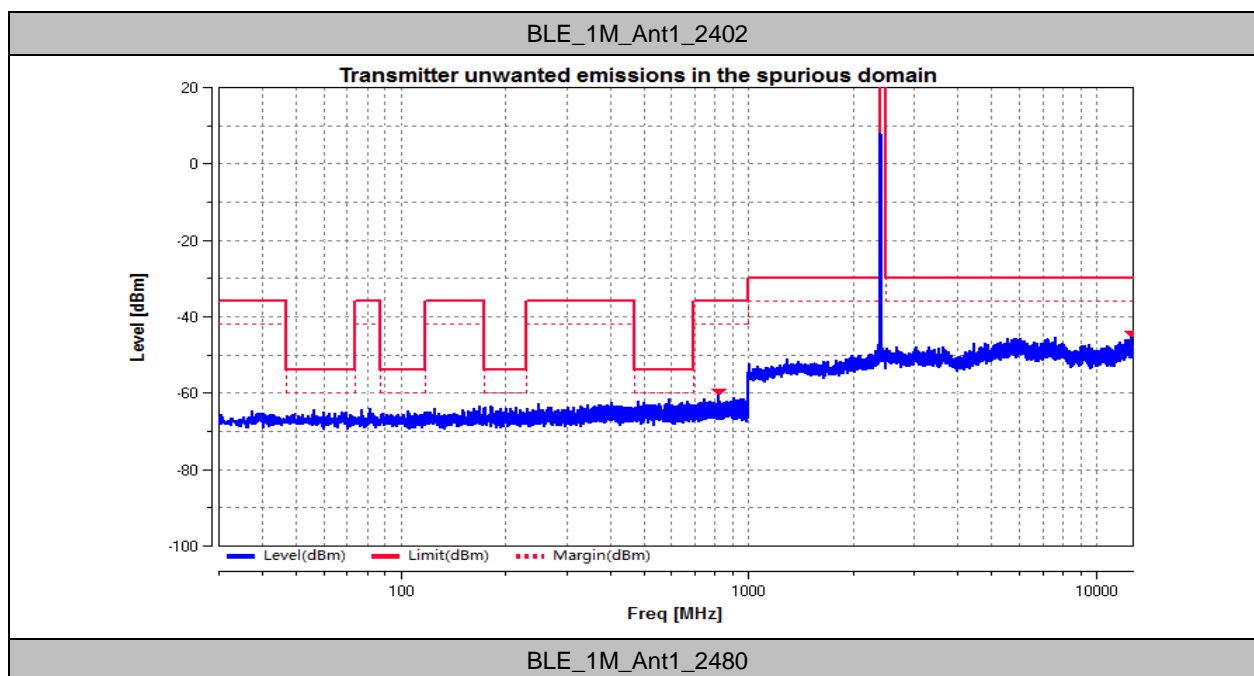
F.5 Transmitter unwanted emissions in the spurious domain

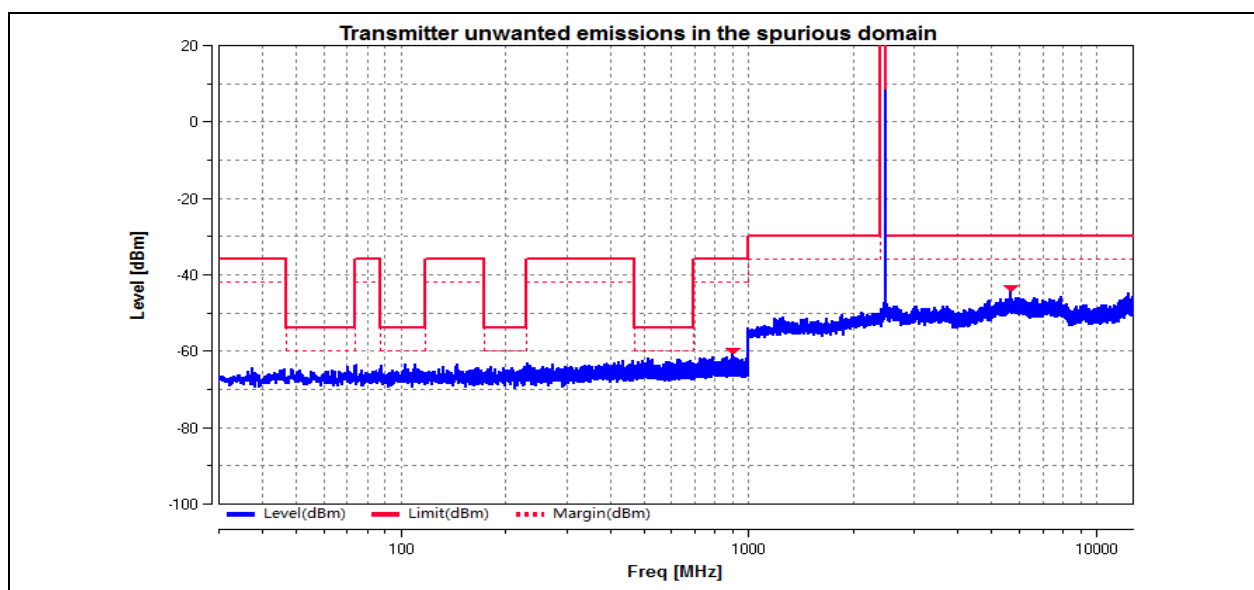
Test Result-Pre-scan

BT LE

TestMode	Antenna	Channel	Freq. [MHz]	Level[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	821.52	-60.66	-36	PASS
			12597.25	-45.45	-30	PASS
		2480	898.27	-60.94	-36	PASS
			5654.47	-44.57	-30	PASS

Test Graphs-Pre-scan

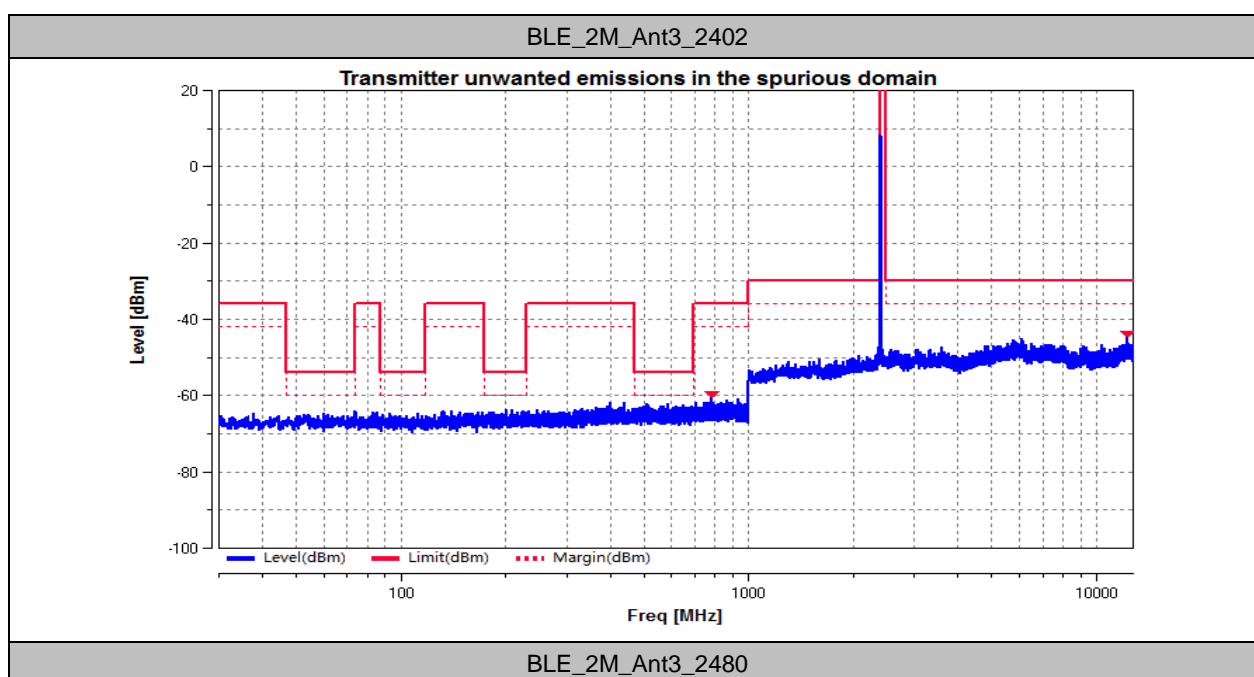


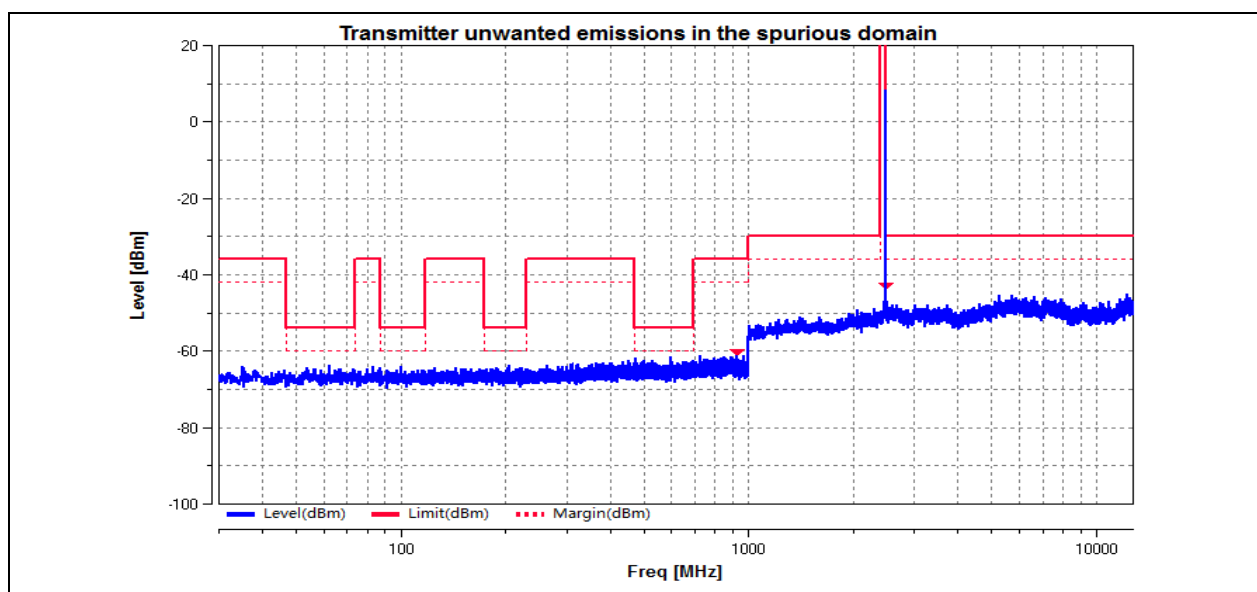


BT 2LE

TestMode	Antenna	Channel	Freq. [MHz]	Level[dBm]	Limit[dBm]	Verdict
BLE_2M	Ant3	2402	786.84	-60.4	-36	PASS
			12296.16	-44.75	-30	PASS
		2480	930.89	-61.11	-36	PASS
			2487.84	-43.9	-30	PASS

Test Graphs-Pre-scan







F.6 Receiver spurious emissions

Test Result-Pre-scan

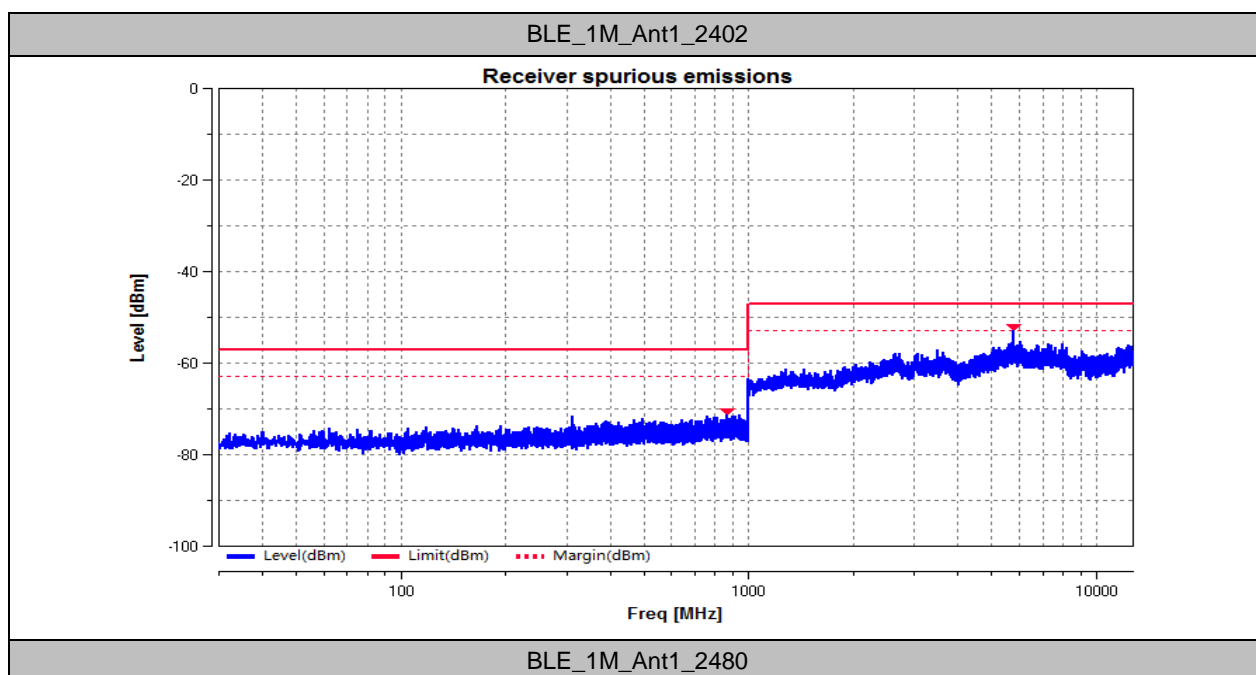
BT LE

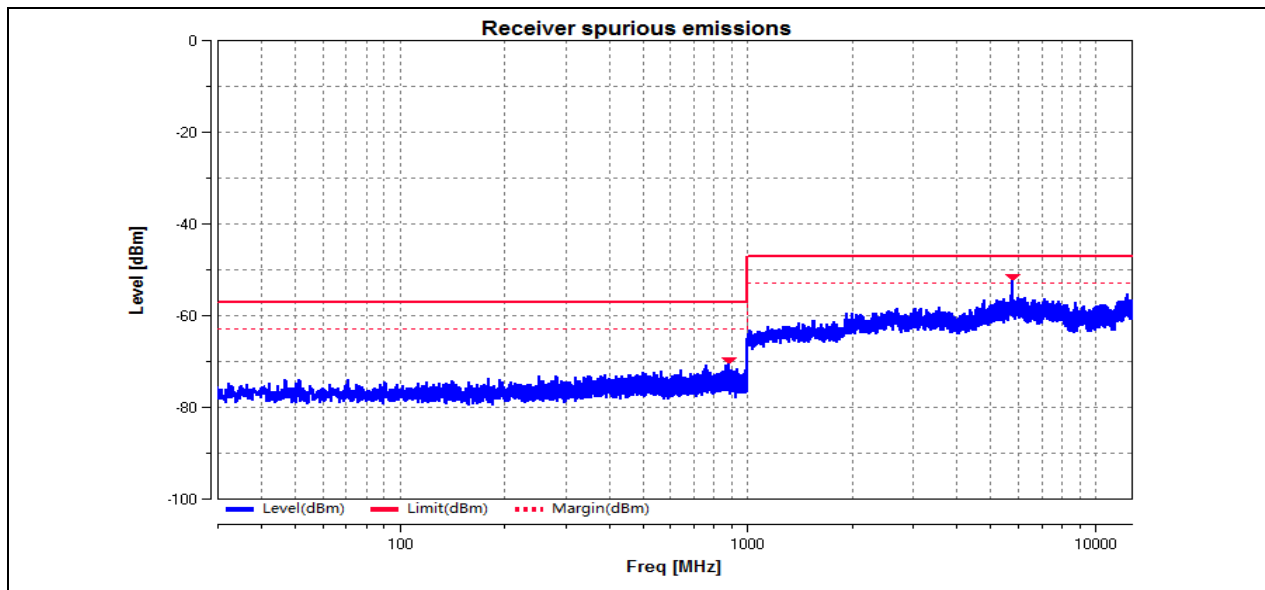
TestMode	Antenna	Channel	Freq. [MHz]	Level[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	5760.22	-52.83	-47	See table below
		2480	5760.22	-52.29	-47	See table below

Test Result- Emissions identified during the pre-scan

TestMode	Antenna	Channel	Freq. [MHz]	Level[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	5760.22	-74.68	-47	PASS
		2480	5760.22	-79.80	-47	PASS

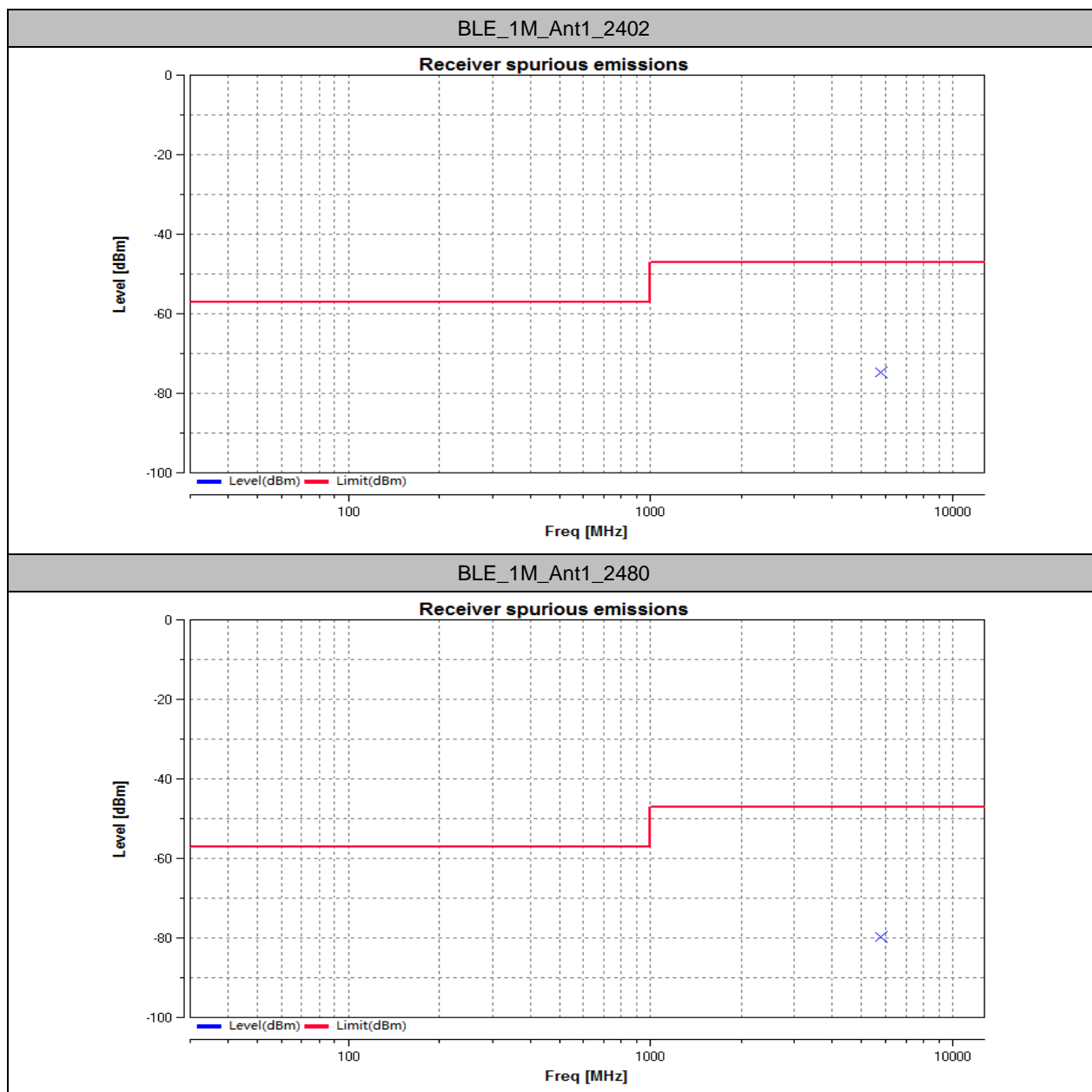
Test Graphs-Pre-scan







Test Graphs- Emissions identified during the pre-scan

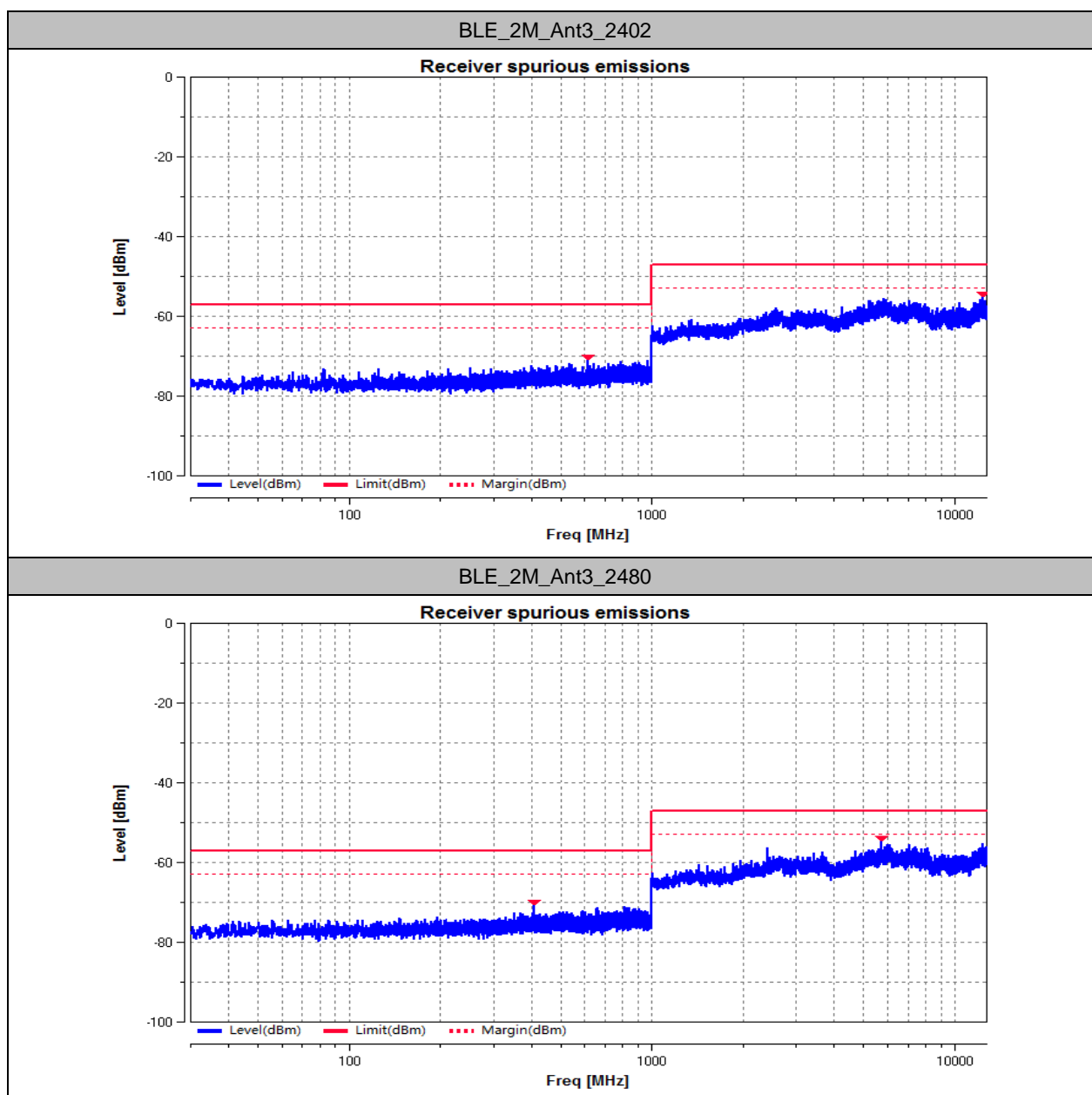




BT 2LE

TestMode	Antenna	Channel	Freq. [MHz]	Level[dBm]	Limit[dBm]	Verdict
BLE_2M	Ant3	2402	613.46	-71.13	-57.00	PASS
			12360.78	-55.25	-47.00	PASS
		2480	407.57	-70.84	-57.00	PASS
			5723.5	-54.8	-47.00	PASS

Test Graphs-Pre-scan





F.7 Receiver Blocking

BT LE

Test Mode	Test Channel (MHz)	Wanted Signal Mean Power from Companion Device (dBm)	Blocking Signal Frequency (MHz)	Blocking Signal Power (dBm)		Type of Blocking Signal	PER(%)		Test Result
				Test Value	Limit		Test Value	Limit	
BLE	2402	-59	2380	-25	≥ -34	CW	6.58	10	Pass
			2504	-33	≥ -34	CW	4.66	10	Pass
			2300	-23	≥ -34	CW	6.97	10	Pass
			2584	-26	≥ -34	CW	6.71	10	Pass
	2480	-59	2380	-24	≥ -34	CW	5.31	10	Pass
			2504	-24	≥ -34	CW	3.95	10	Pass
			2300	-29	≥ -34	CW	3.32	10	Pass
			2584	-23	≥ -34	CW	6.84	10	Pass

BT 2LE

Test Mode	Test Channel (MHz)	Wanted Signal Mean Power from Companion Device (dBm)	Blocking Signal Frequency (MHz)	Blocking Signal Power (dBm)		Type of Blocking Signal	PER(%)		Test Result
				Test Value	Limit		Test Value	Limit	
BLE	2402	-59	2380	-29	≥ -34	CW	6.88	10	Pass
			2504	-30	≥ -34	CW	3.20	10	Pass
			2300	-31	≥ -34	CW	6.50	10	Pass
			2584	-22	≥ -34	CW	6.53	10	Pass
	2480	-59	2380	-25	≥ -34	CW	4.85	10	Pass
			2504	-33	≥ -34	CW	3.61	10	Pass
			2300	-23	≥ -34	CW	5.05	10	Pass
			2584	-24	≥ -34	CW	4.10	10	Pass