

RF Test Data for BT(BLE) (Conducted Measurement)**Product Name: Pro¹ X****Trade Mark: F****Test Model: QX1051****FCC ID: 2AUCLQX1050****Environmental Conditions**

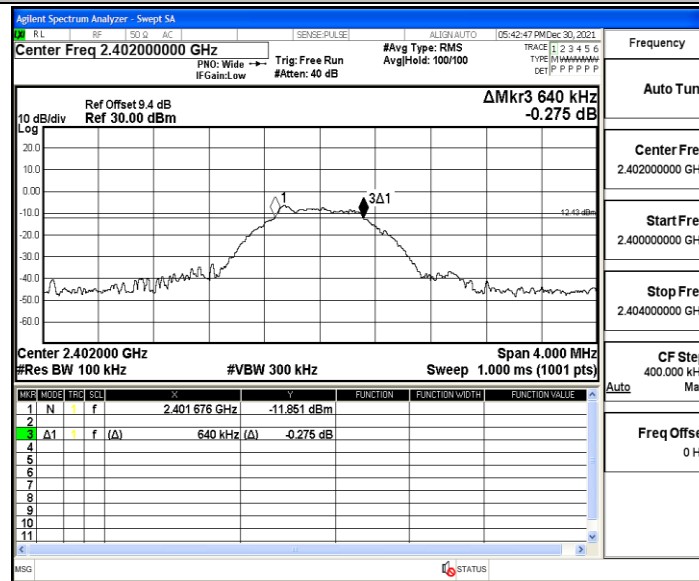
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth**Test Result**

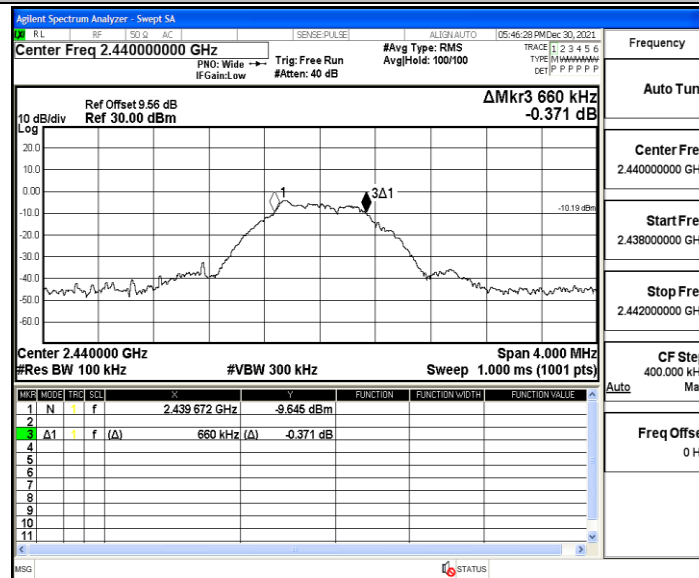
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.640	2401.676	2402.316	0.5	PASS
		2440	0.660	2439.672	2440.332	0.5	PASS
		2480	0.656	2479.664	2480.320	0.5	PASS

Test Graphs

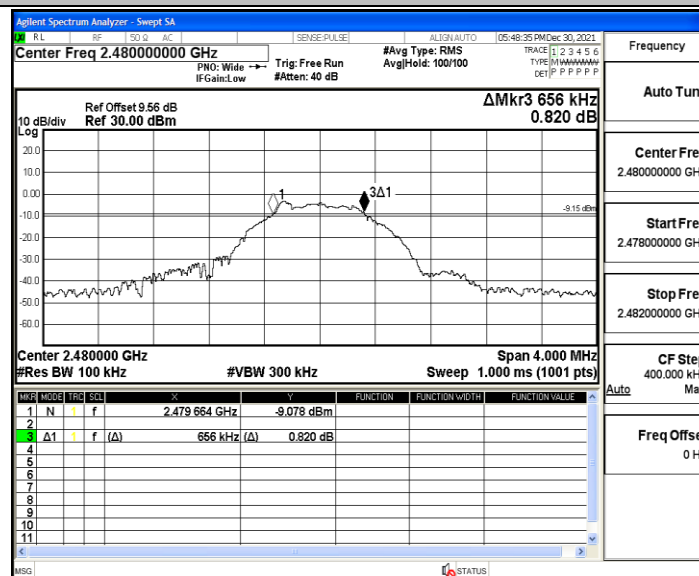
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



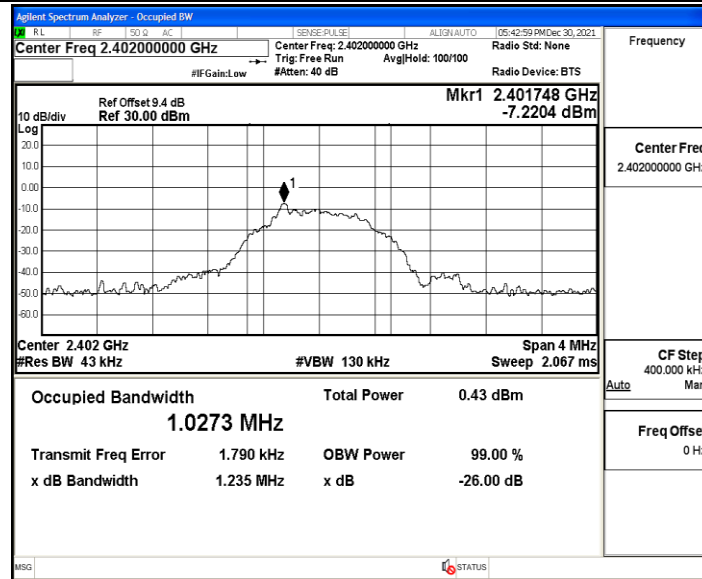
Appendix B: Occupied Channel Bandwidth

Test Result

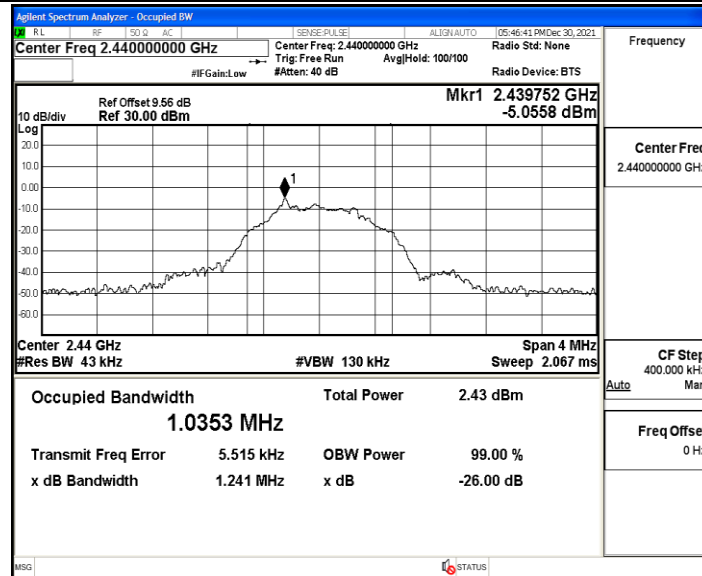
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0273	2401.488	2402.515	---	PASS
		2440	1.0353	2439.488	2440.523	---	PASS
		2480	1.0372	2479.488	2480.525	---	PASS

Test Graphs

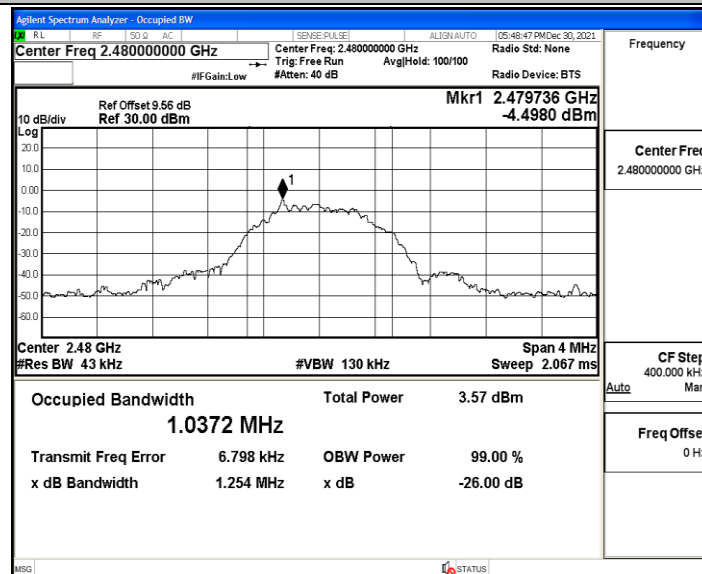
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



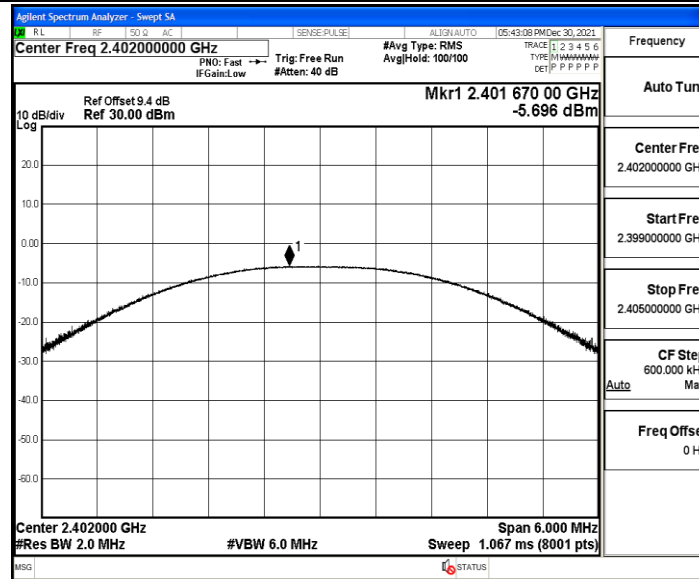
Appendix C: Maximum conducted output power

Test Result

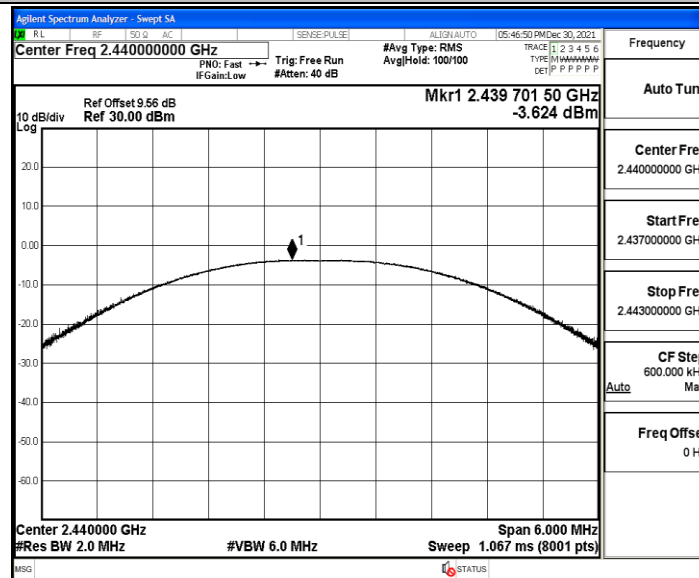
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-5.7	≤30	PASS
		2440	-3.62	≤30	PASS
		2480	-2.41	≤30	PASS

Test Graphs

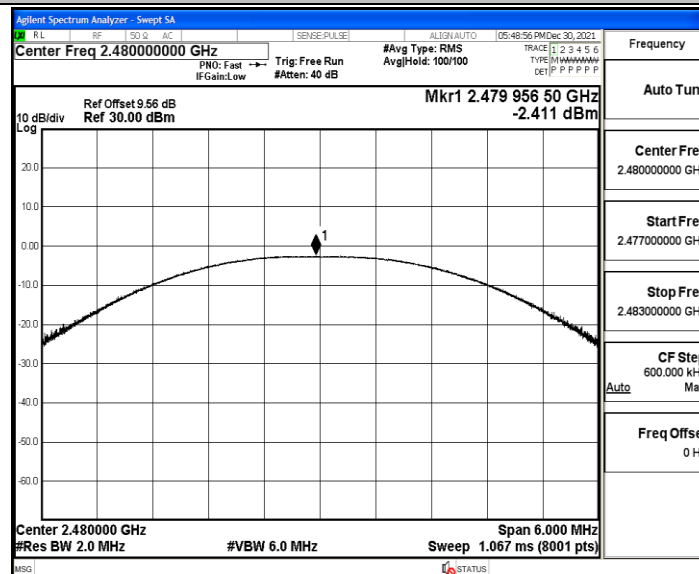
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



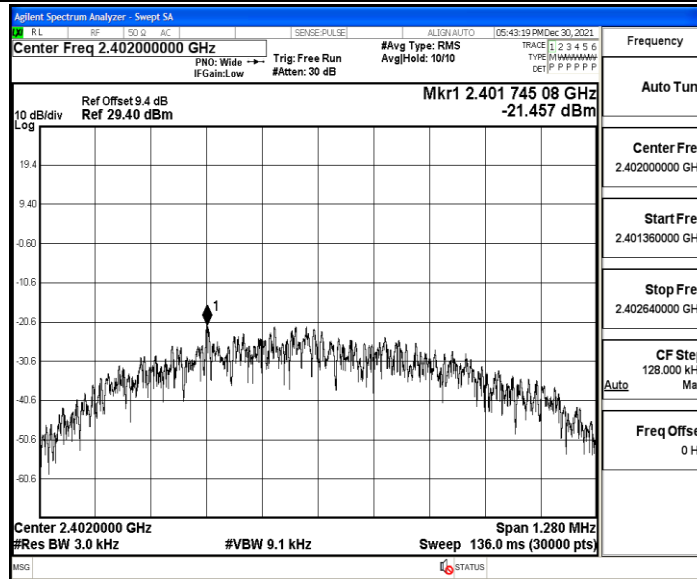
Appendix D: Maximum power spectral density

Test Result

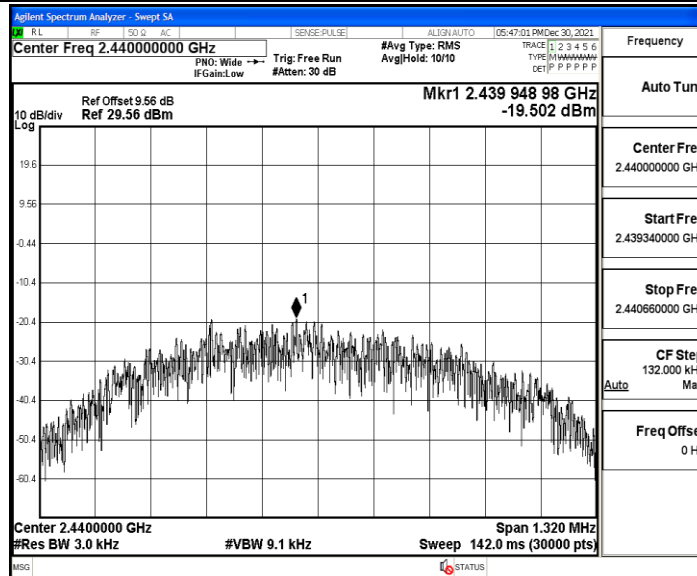
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-21.46	≤8	PASS
		2440	-19.5	≤8	PASS
		2480	-18.23	≤8	PASS

Test Graphs

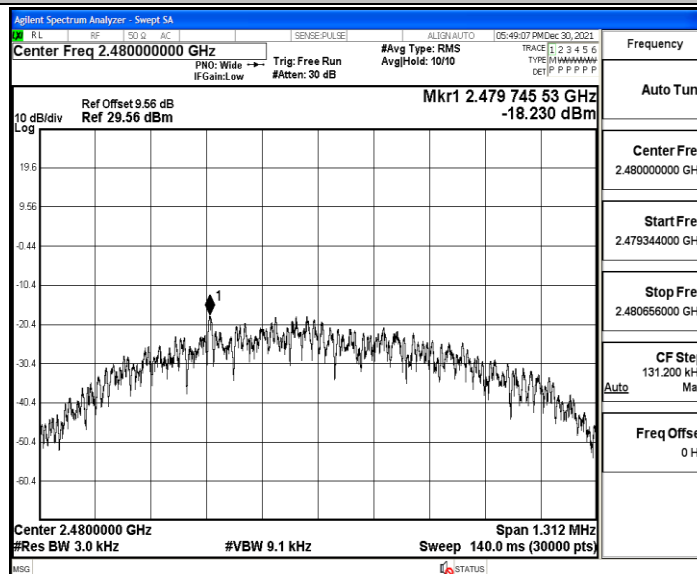
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



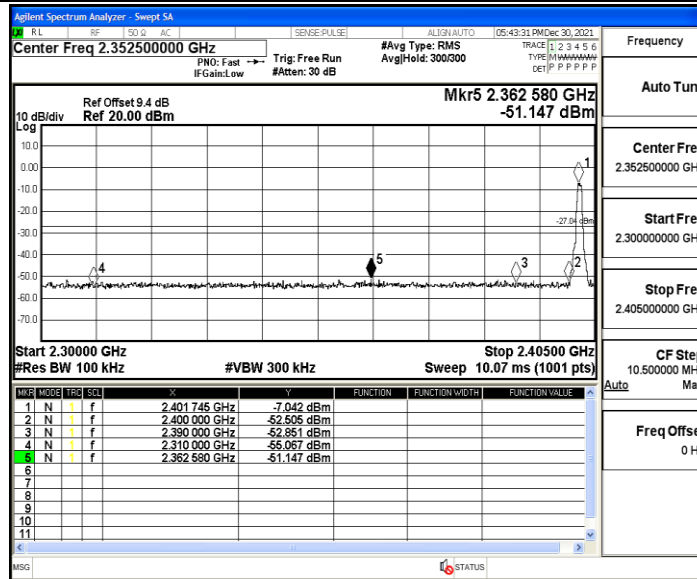
Appendix E: Band edge measurements

Test Result

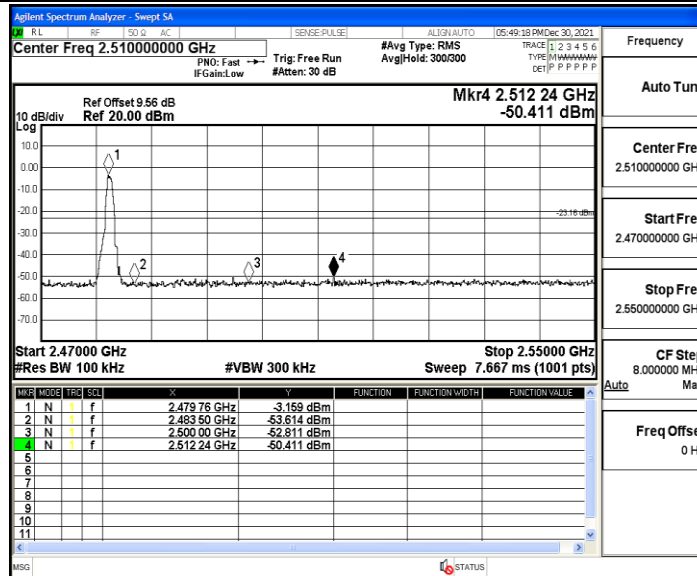
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-7.04	-51.15	≤ -27.04	PASS
		High	2480	-3.16	-50.41	≤ -23.16	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



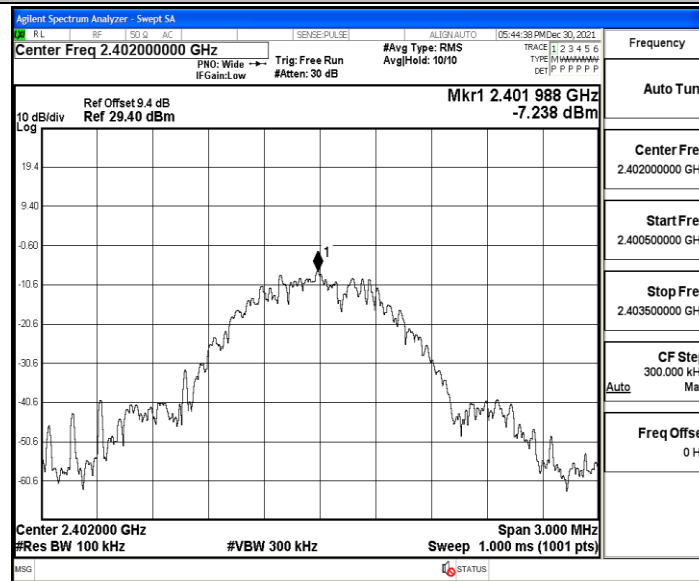
Appendix F: Conducted Spurious Emission

Test Result

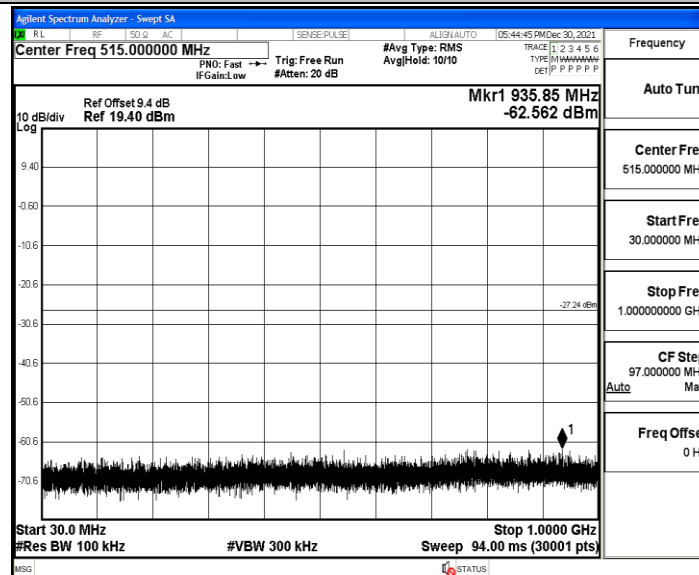
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-7.24	-7.24	---	PASS
			30~1000	-7.24	-62.56	≤-27.24	PASS
			1000~26500	-7.24	-53.79	≤-27.24	PASS
		2440	Reference	-4.99	-4.99	---	PASS
			30~1000	-4.99	-62.53	≤-24.99	PASS
			1000~26500	-4.99	-53.76	≤-24.99	PASS
		2480	Reference	-5.06	-5.06	---	PASS
			30~1000	-5.06	-62.02	≤-25.06	PASS
			1000~26500	-5.06	-52.86	≤-25.06	PASS

Test Graphs

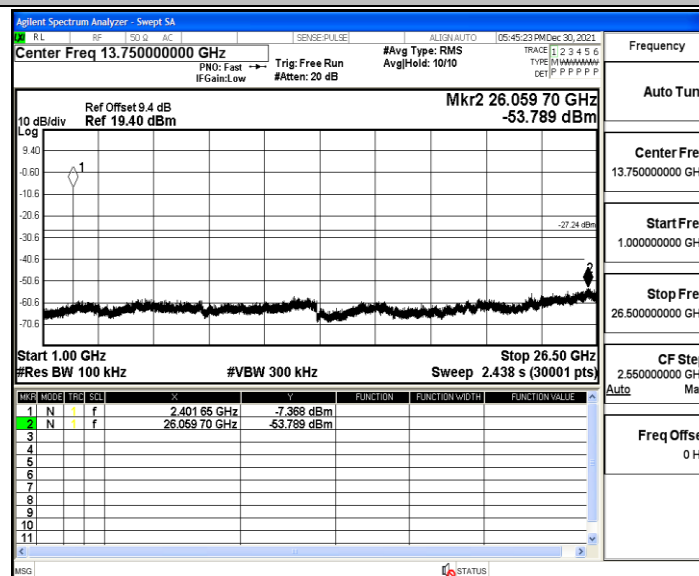
BLE_1M_Ant1_2402_0~Reference



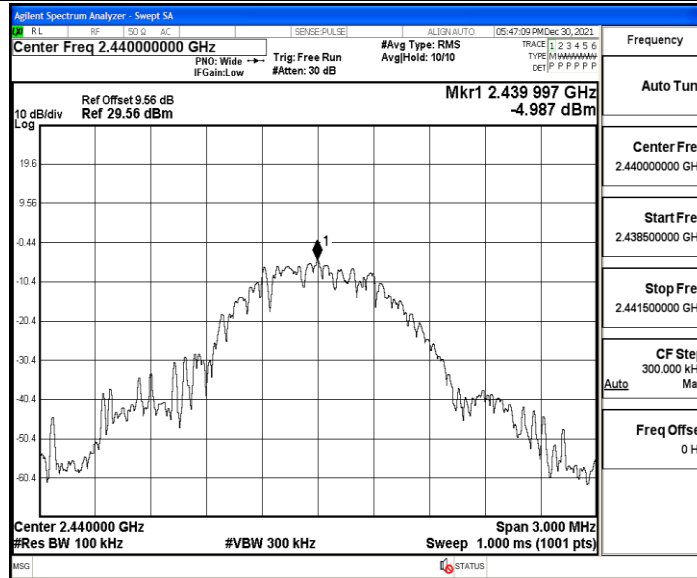
BLE_1M_Ant1_2402_30~1000



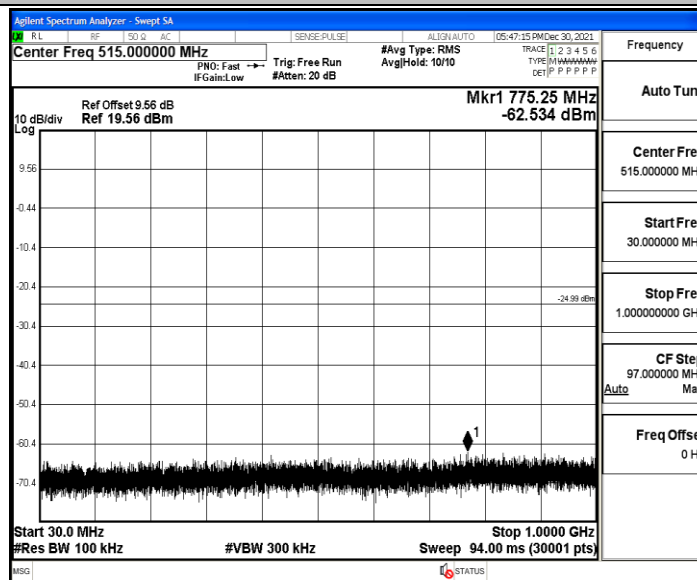
BLE_1M_Ant1_2402_1000~26500



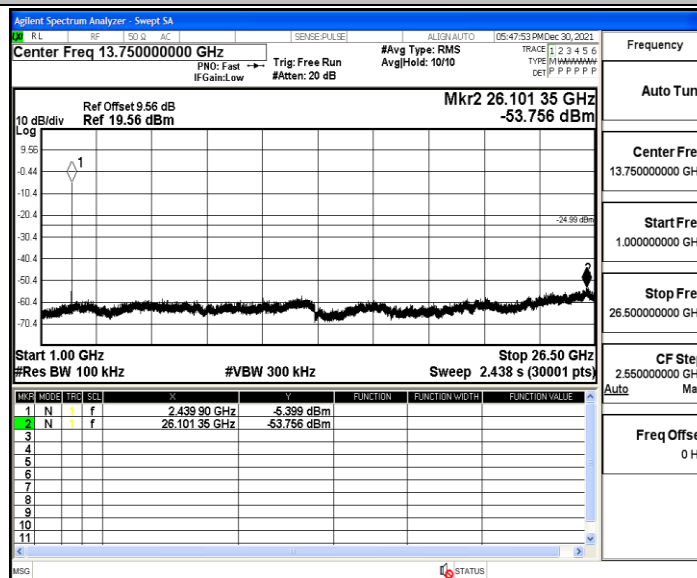
BLE_1M_Ant1_2440_0~Reference



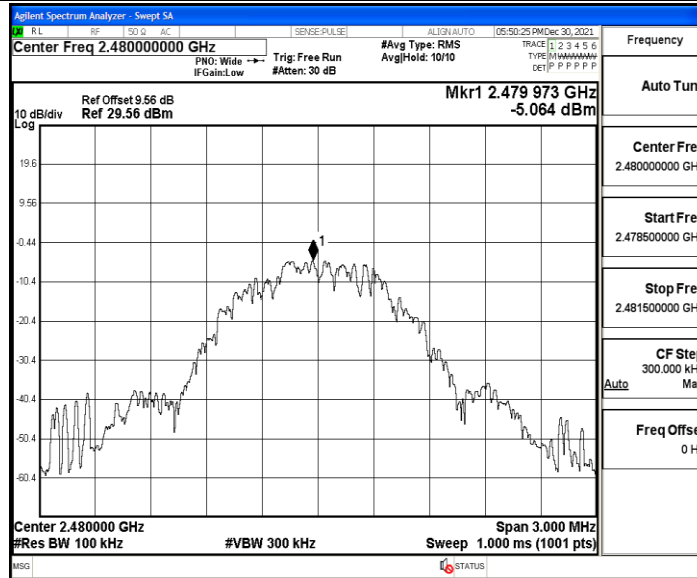
BLE_1M_Ant1_2440_30~1000



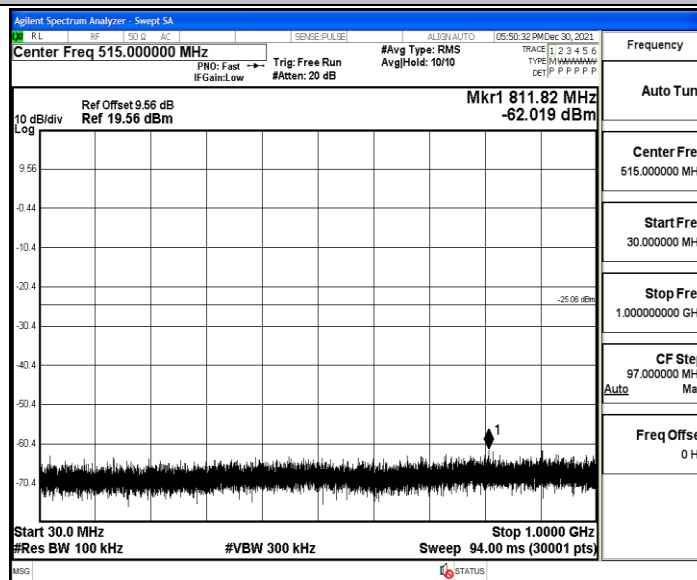
BLE_1M_Ant1_2440_1000~26500



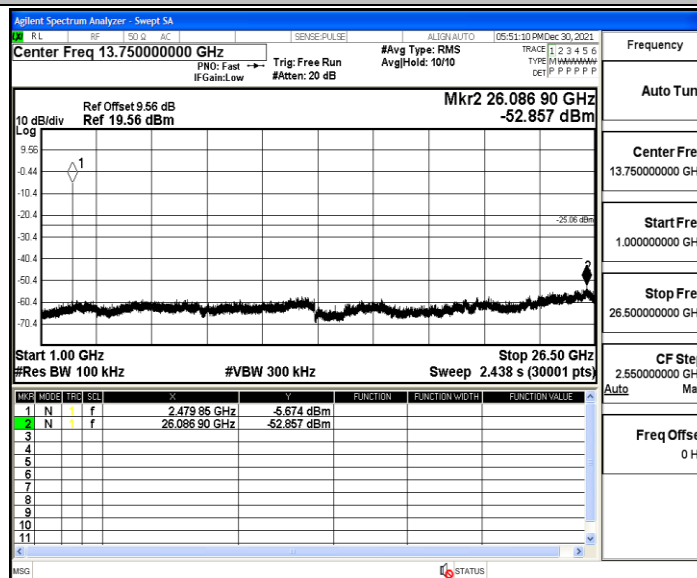
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



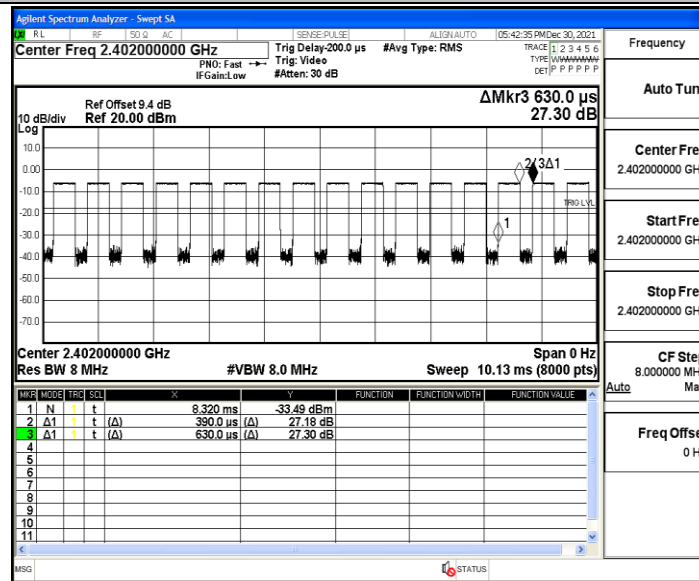
Appendix G: Duty Cycle

Test Result

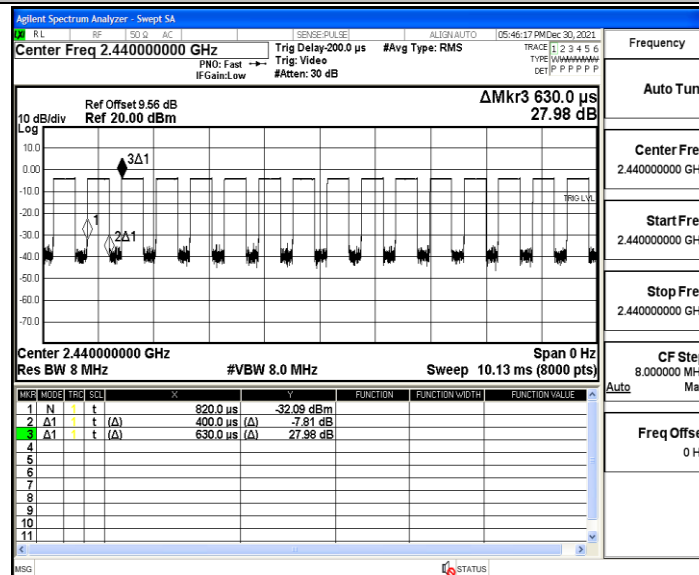
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T
BLE_1M	Ant1	2402	0.39	0.63	61.90	2.56
		2440	0.40	0.63	63.49	2.50
		2480	0.39	0.62	62.90	2.56

Test Graphs

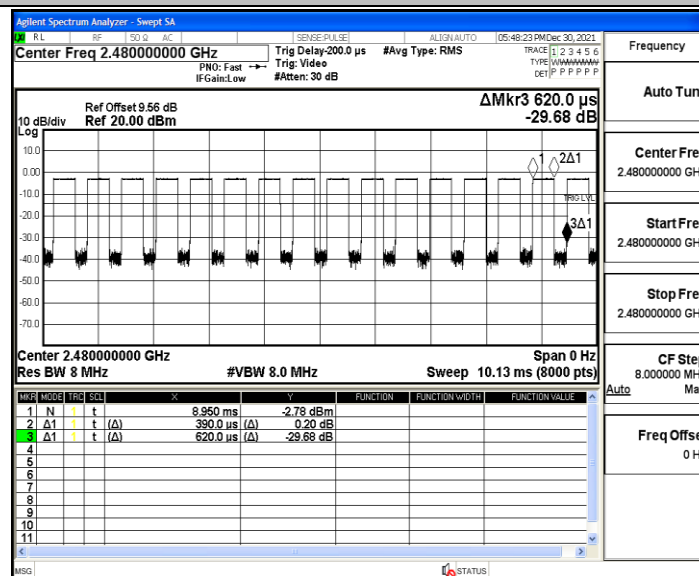
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix H: Emissions in Restricted Bands

Test Result

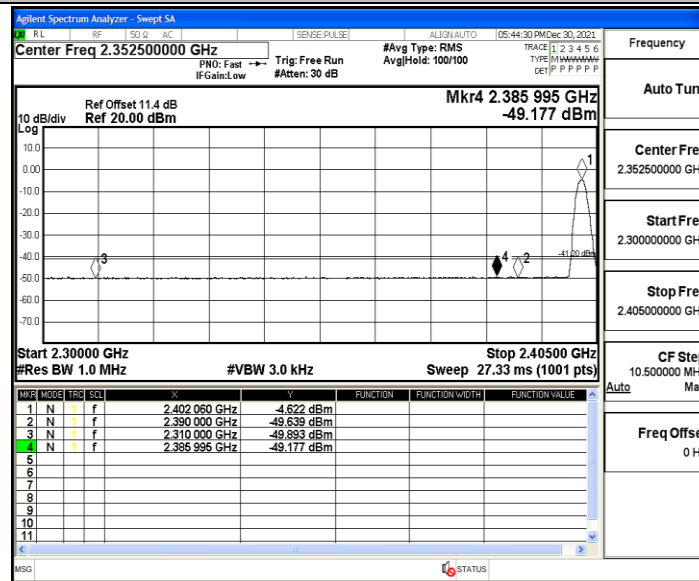
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-49.89	≤-41.20	PASS
				AV	2385.995	-49.18	≤-41.20	PASS
				AV	2390.000	-49.64	≤-41.20	PASS
				Peak	2310.000	-44	≤-21.20	PASS
				Peak	2315.855	-39.38	≤-21.20	PASS
				Peak	2390.000	-43.85	≤-21.20	PASS
		High	2480	AV	2483.500	-48.87	≤-41.20	PASS
				AV	2498.880	-48.59	≤-41.20	PASS
				AV	2500.000	-48.79	≤-41.20	PASS
				Peak	2483.500	-42.29	≤-21.20	PASS
				Peak	2496.480	-40.07	≤-21.20	PASS
				Peak	2500.000	-40.32	≤-21.20	PASS

Note:

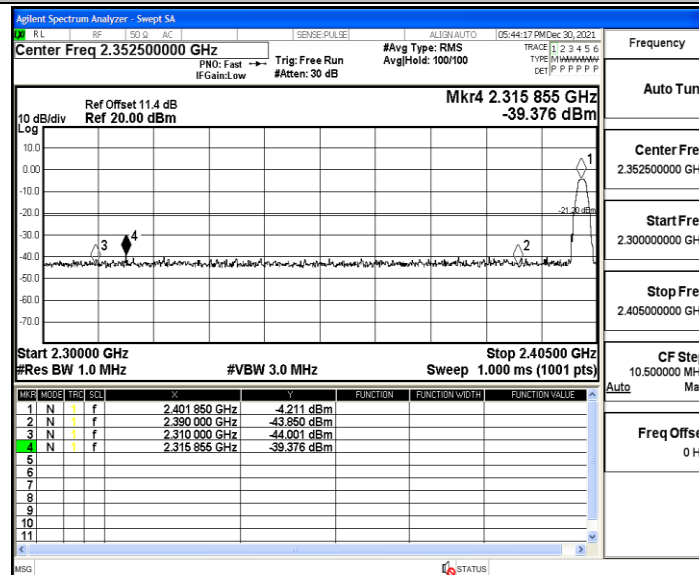
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

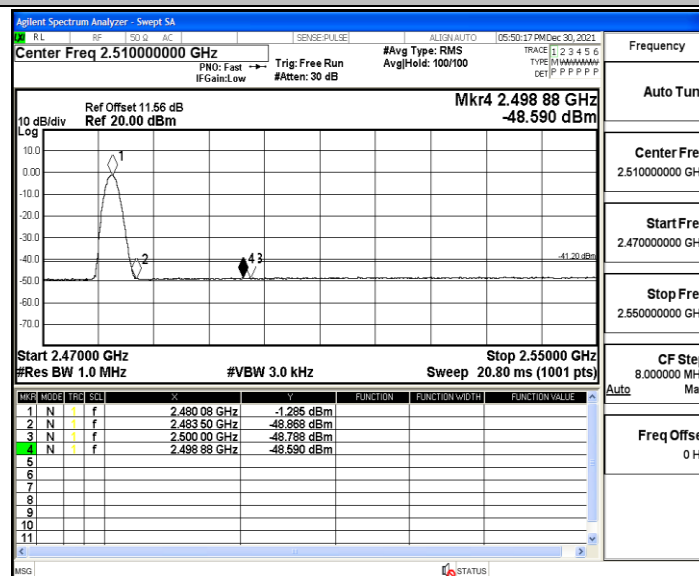
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

