

RF Test Data for BT(BLE) (Conducted Measurement)**Product Name: Set Top Box****Trade Mark: N/A****Test Model: SN8BKCC****FCC ID: 2AOVU-SN8BKC****Environmental Conditions**

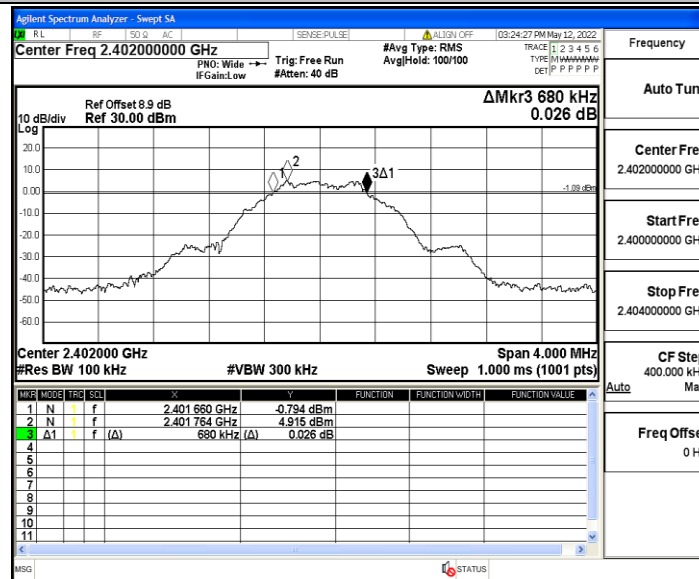
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth**Test Result**

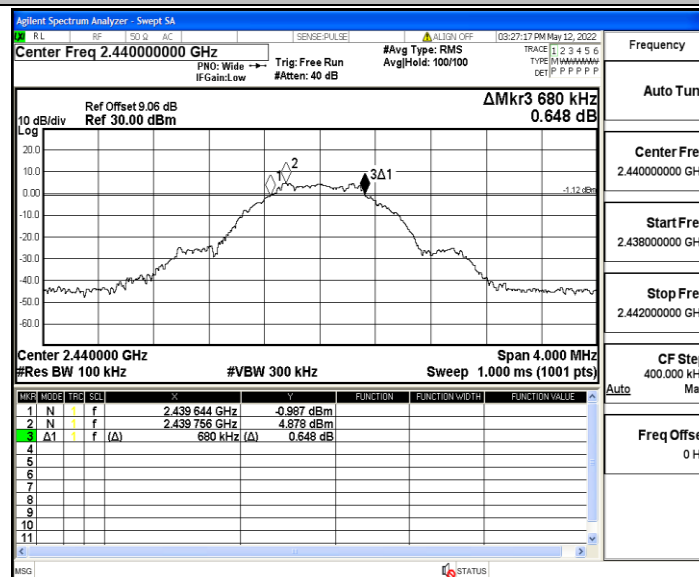
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.680	2401.660	2402.340	0.5	PASS
		2440	0.680	2439.644	2440.324	0.5	PASS
		2480	0.676	2479.648	2480.324	0.5	PASS
BLE_2M	Ant1	2402	1.184	2401.400	2402.584	0.5	PASS
		2440	1.248	2439.340	2440.588	0.5	PASS
		2480	1.208	2479.392	2480.600	0.5	PASS

Test Graphs

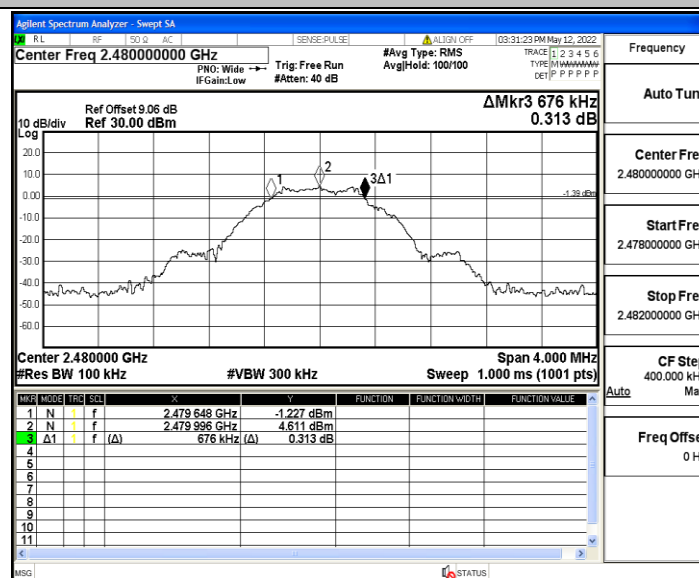
BLE_1M_Ant1_2402



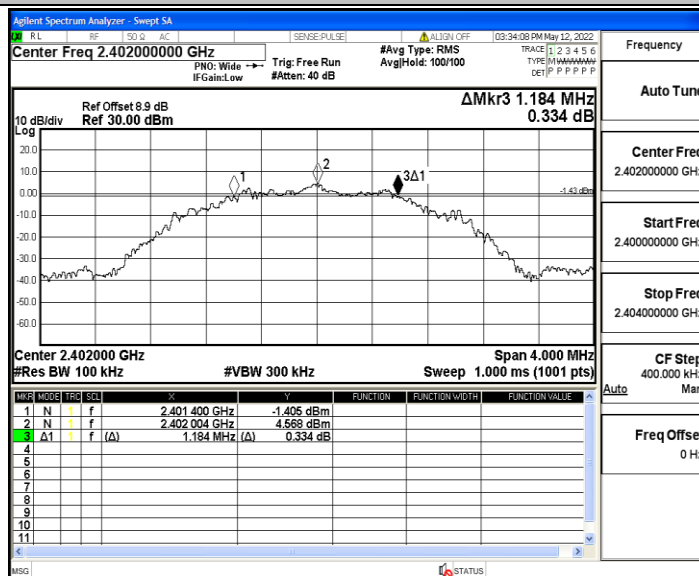
BLE_1M_Ant1_2440



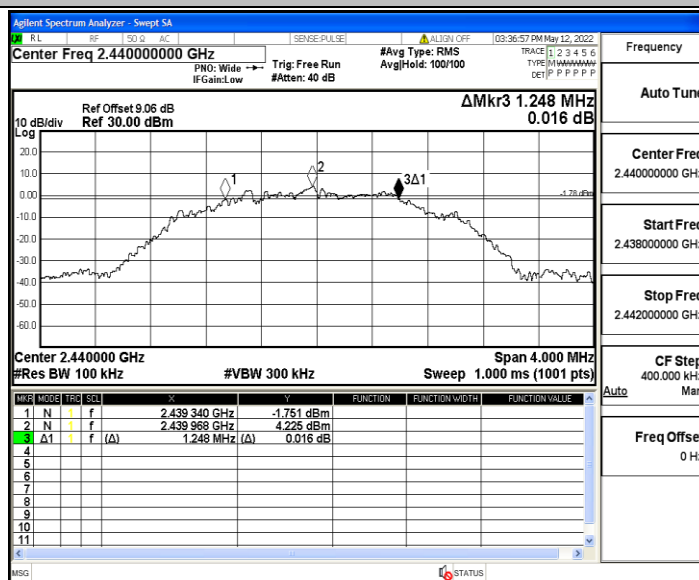
BLE_1M_Ant1_2480



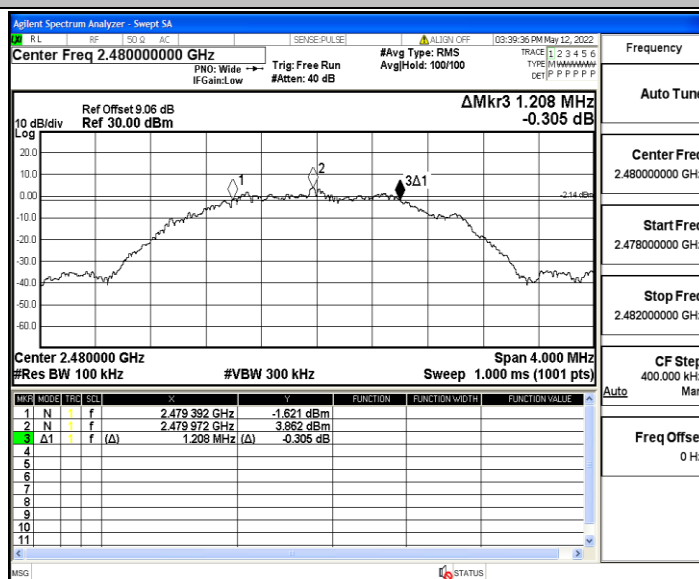
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



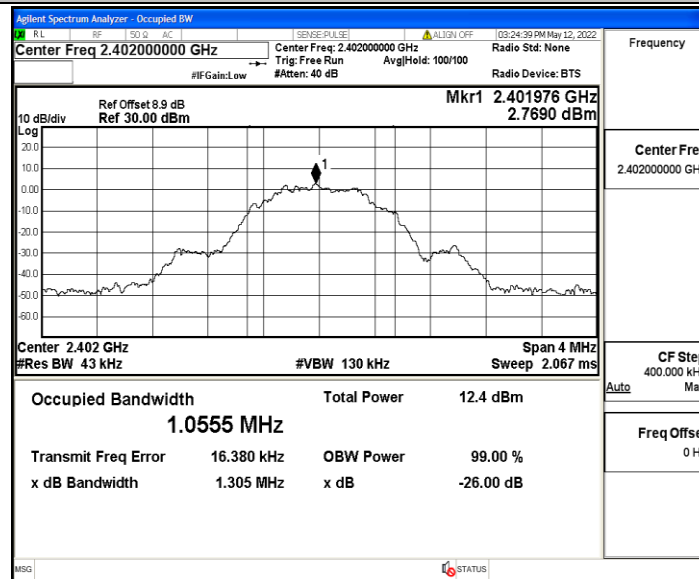
Appendix B: Occupied Channel Bandwidth

Test Result

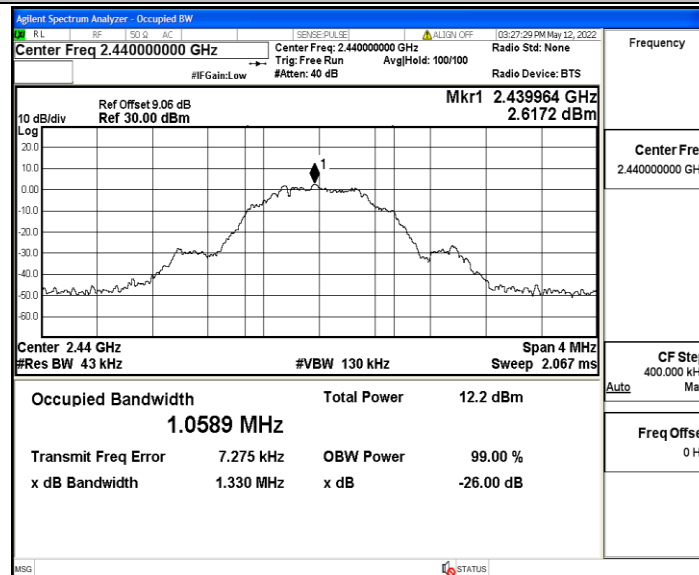
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0555	2401.489	2402.544	---	PASS
		2440	1.0589	2439.478	2440.537	---	PASS
		2480	1.0553	2479.477	2480.532	---	PASS
BLE_2M	Ant1	2402	2.0435	2401.001	2403.044	---	PASS
		2440	2.0569	2438.992	2441.049	---	PASS
		2480	2.0519	2478.989	2481.041	---	PASS

Test Graphs

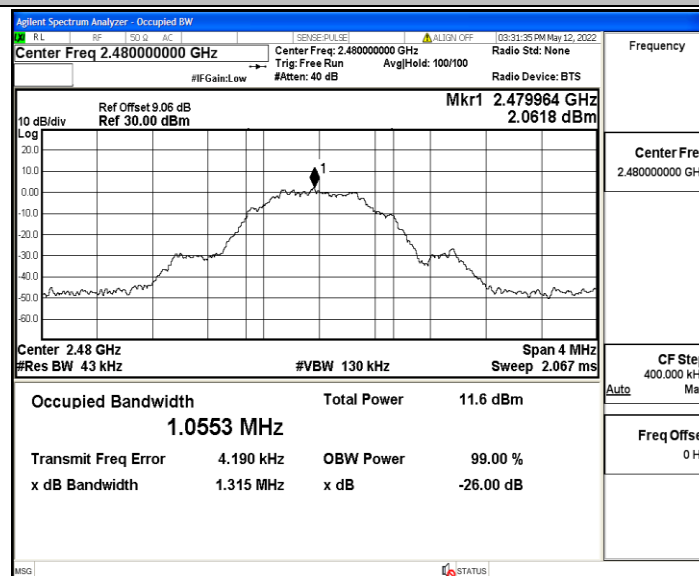
BLE_1M_Ant1_2402



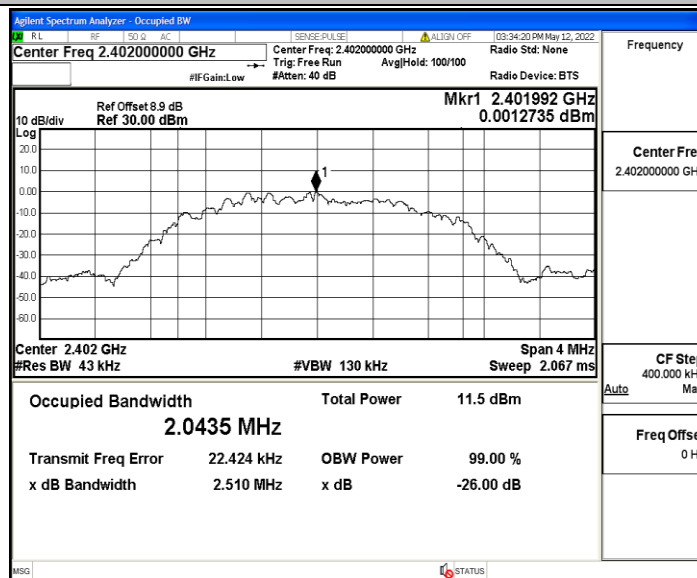
BLE_1M_Ant1_2440



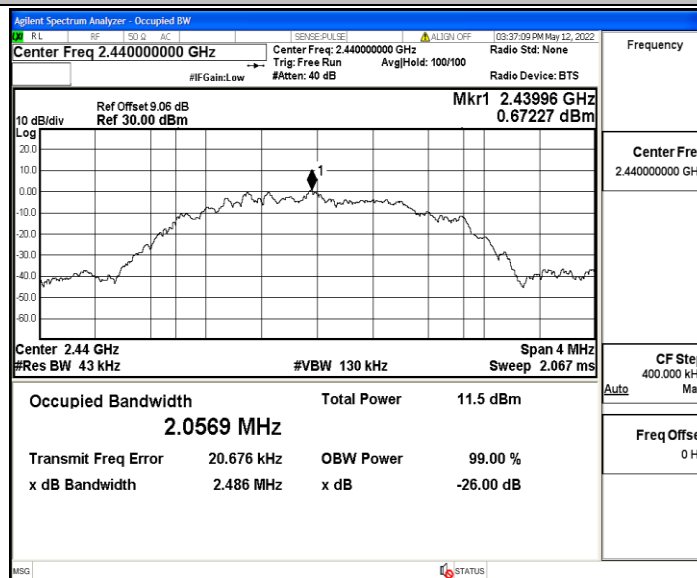
BLE_1M_Ant1_2480



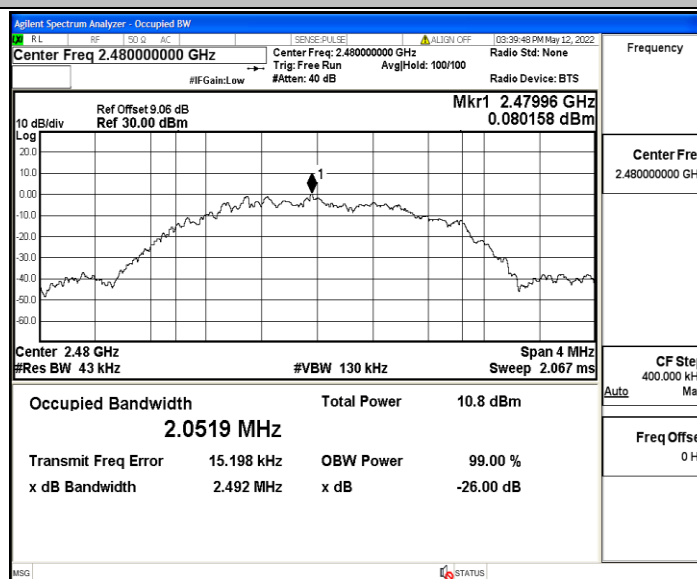
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



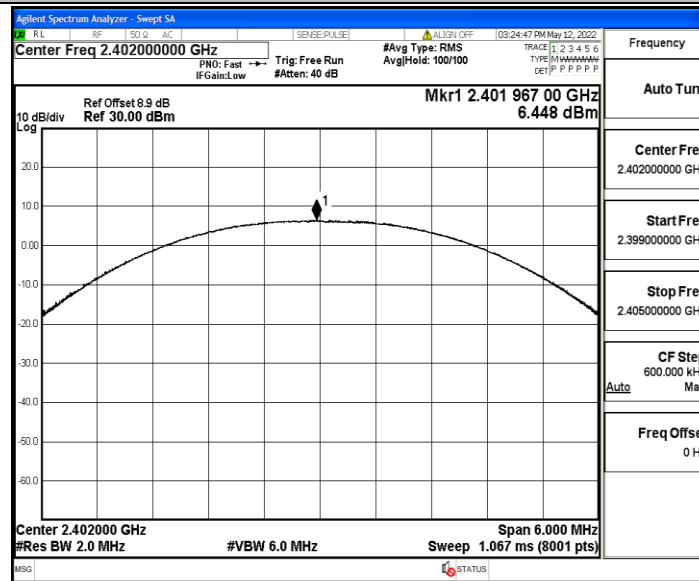
Appendix C: Maximum conducted output power

Test Result

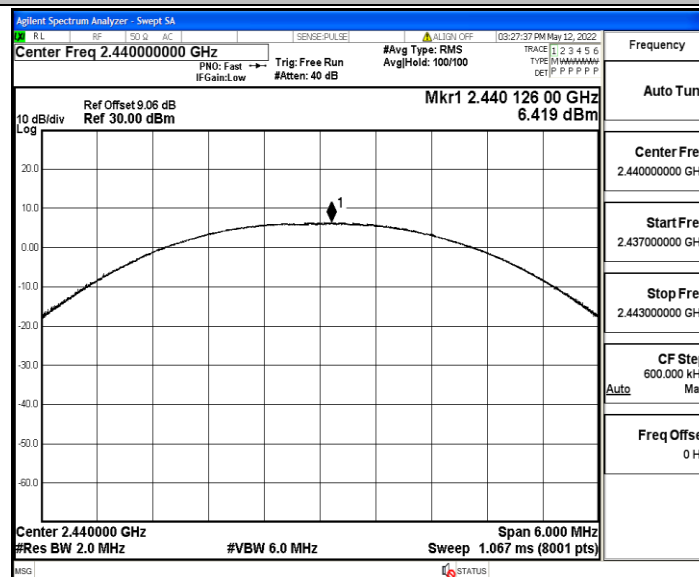
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	6.45	<=30	PASS
		2440	6.42	<=30	PASS
		2480	5.94	<=30	PASS
BLE_2M	Ant1	2402	6.54	<=30	PASS
		2440	6.51	<=30	PASS
		2480	5.97	<=30	PASS

Test Graphs

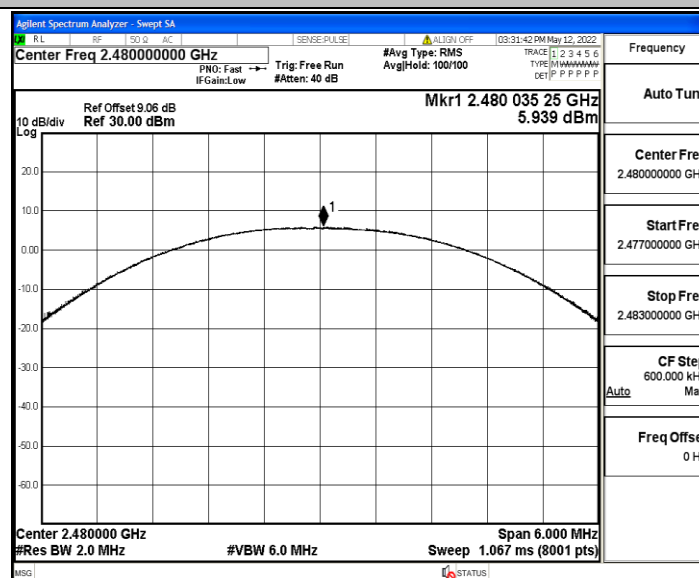
BLE_1M_Ant1_2402



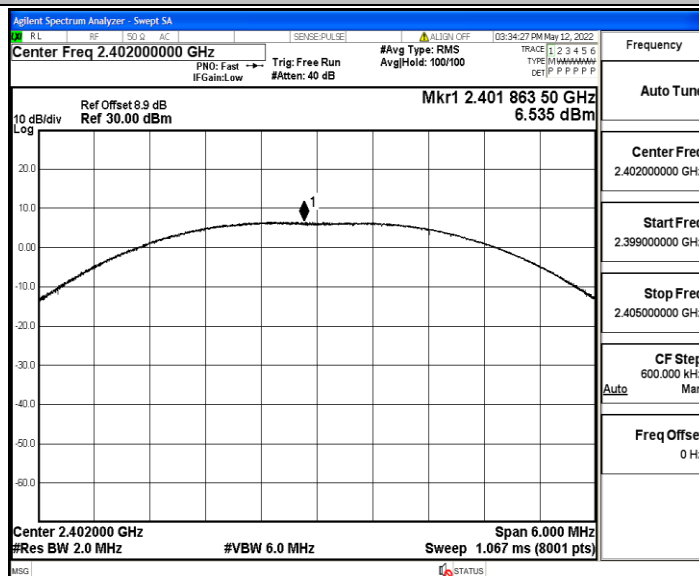
BLE_1M_Ant1_2440



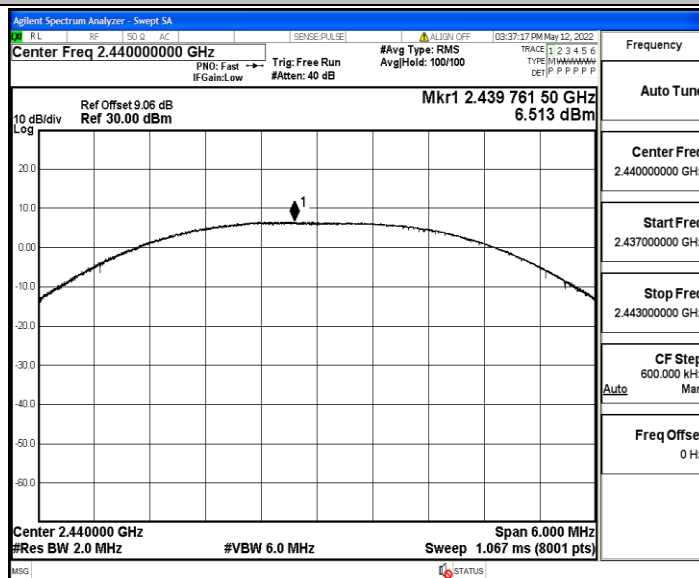
BLE_1M_Ant1_2480



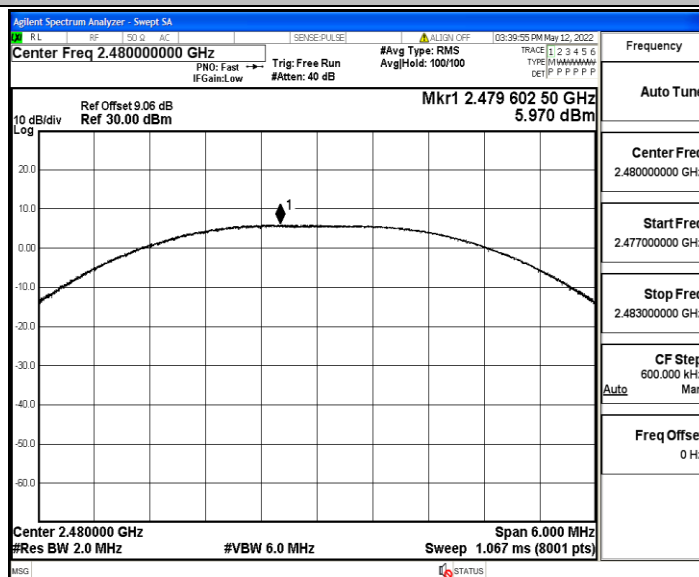
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



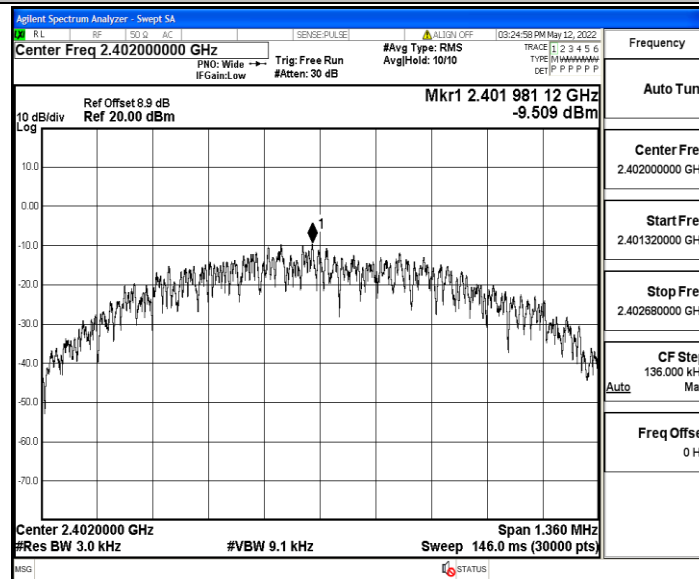
Appendix D: Maximum power spectral density

Test Result

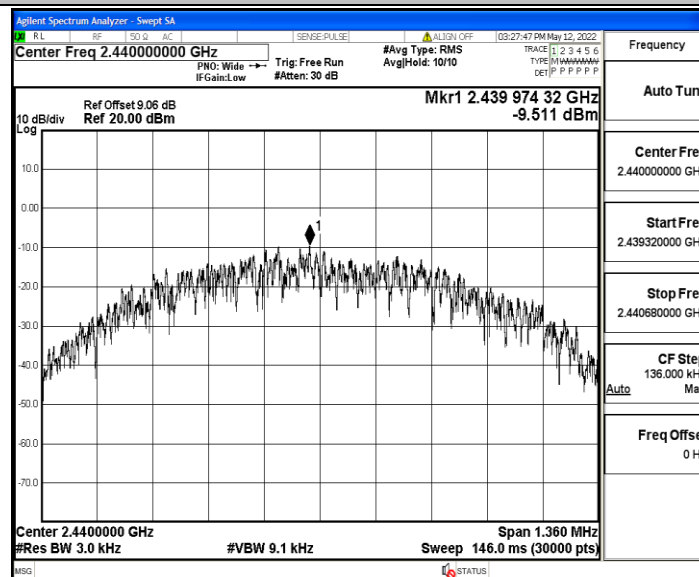
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.51	<=8	PASS
		2440	-9.51	<=8	PASS
		2480	-10.36	<=8	PASS
BLE_2M	Ant1	2402	-11.81	<=8	PASS
		2440	-11.88	<=8	PASS
		2480	-12.38	<=8	PASS

Test Graphs

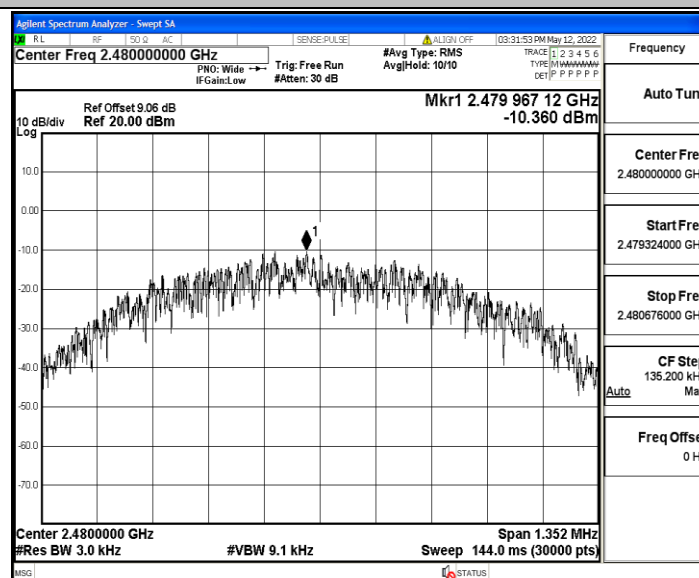
BLE_1M_Ant1_2402



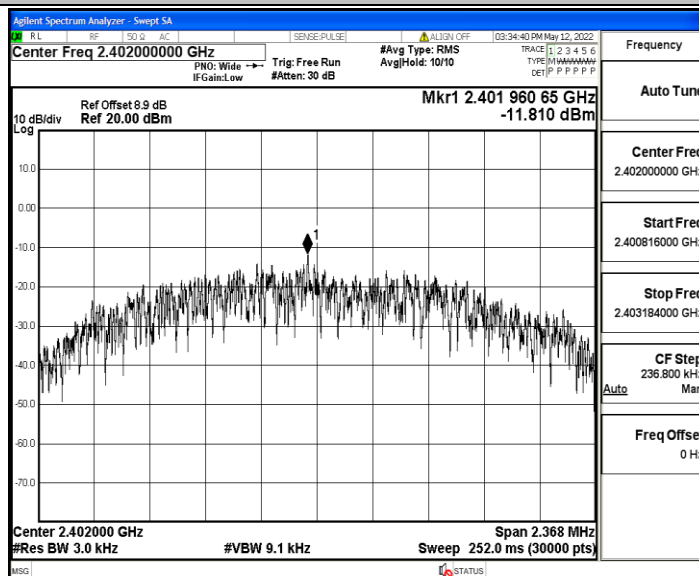
BLE_1M_Ant1_2440



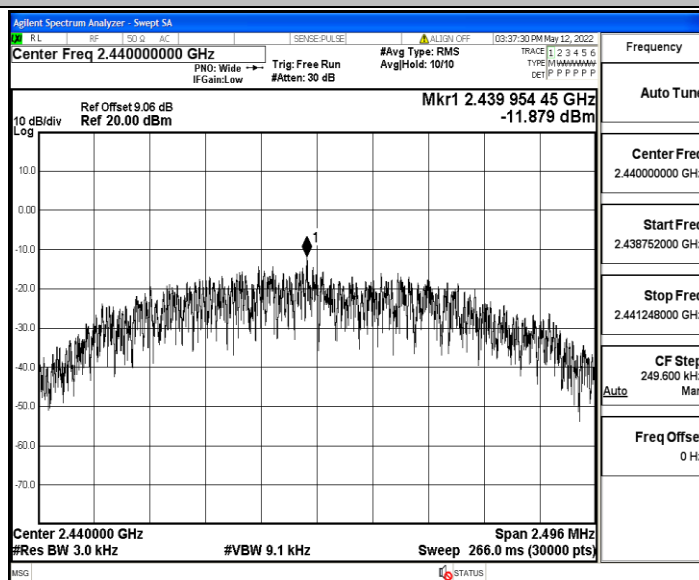
BLE_1M_Ant1_2480



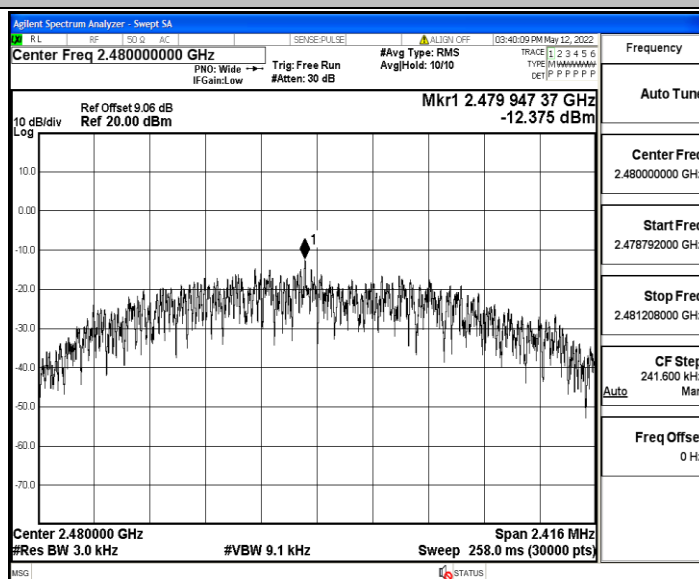
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



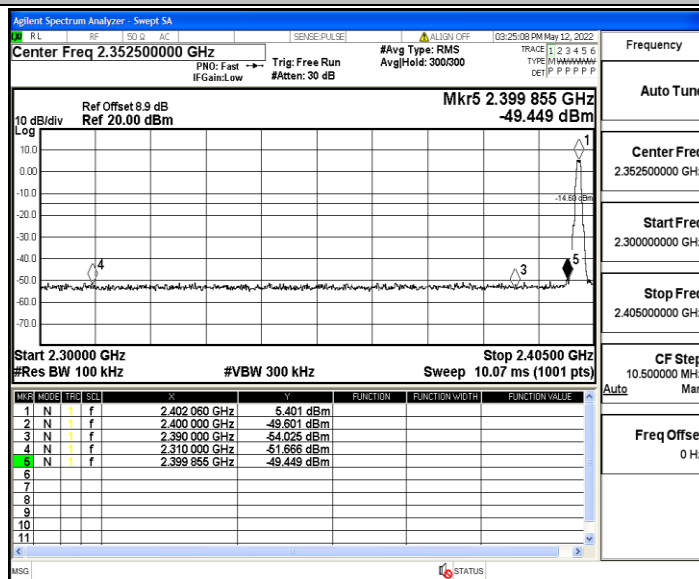
Appendix E: Band edge measurements

Test Result

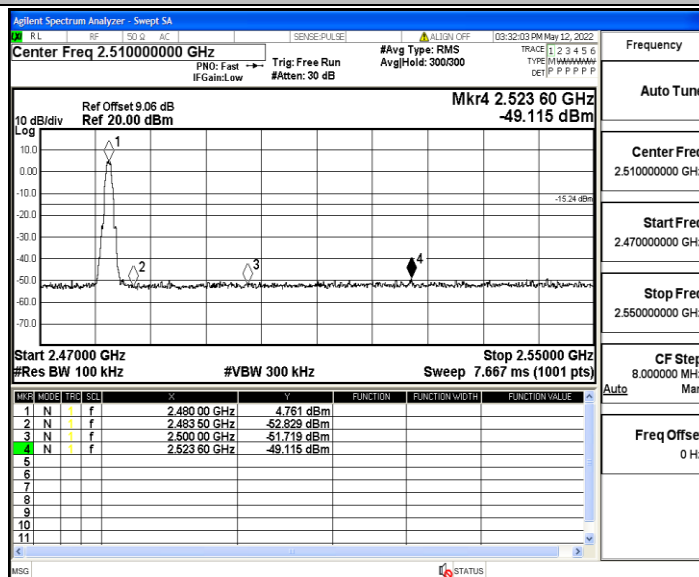
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	5.40	-49.45	≤ -14.6	PASS
		High	2480	4.76	-49.12	≤ -15.24	PASS
BLE_2M	Ant1	Low	2402	4.71	-36.57	≤ -15.29	PASS
		High	2480	4.22	-49.18	≤ -15.78	PASS

Test Graphs

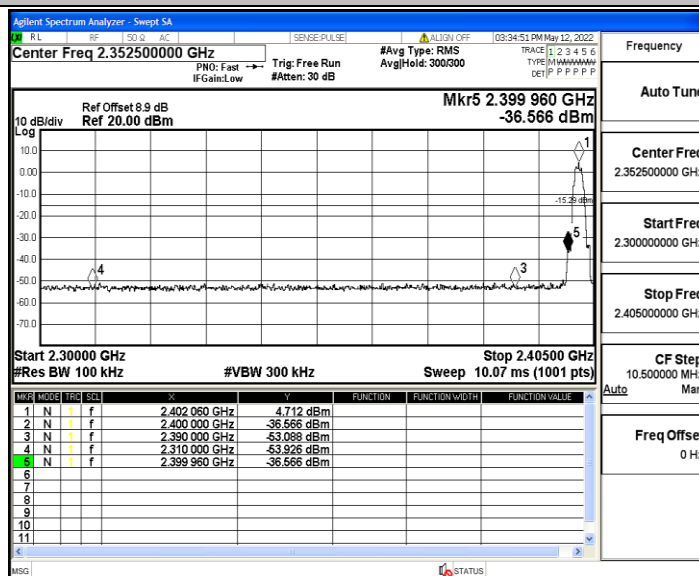
BLE_1M_Ant1_Low_2402



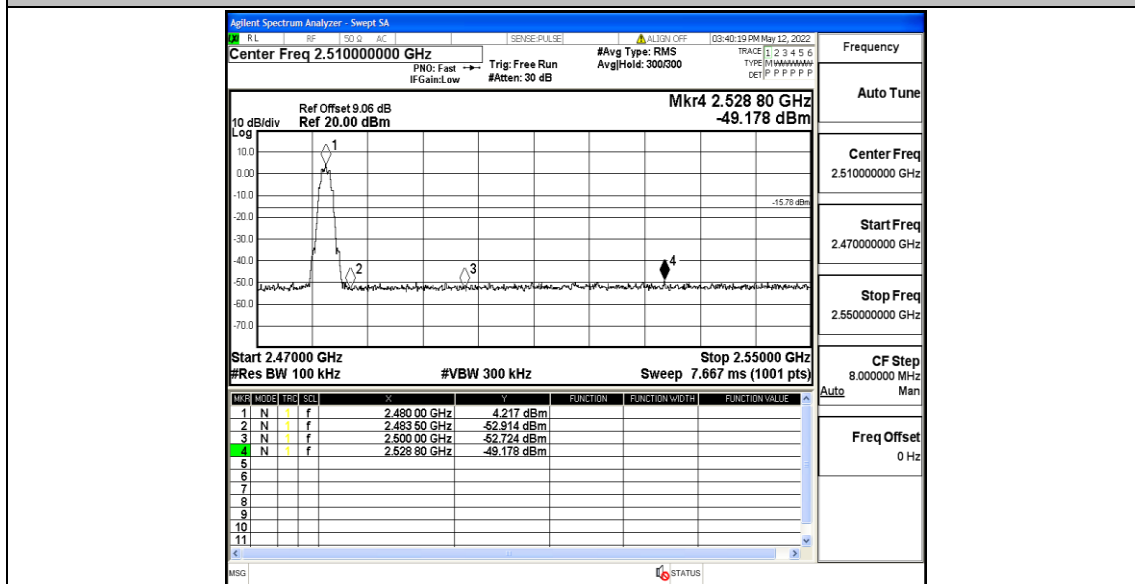
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480



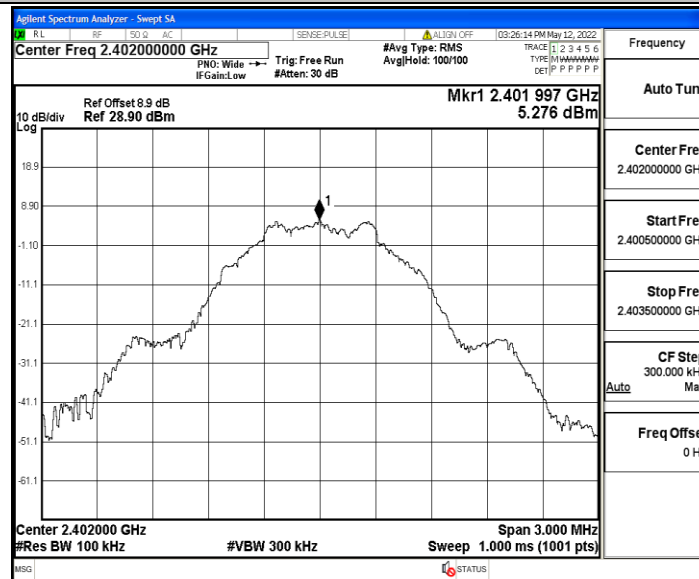
Appendix F: Conducted Spurious Emission

Test Result

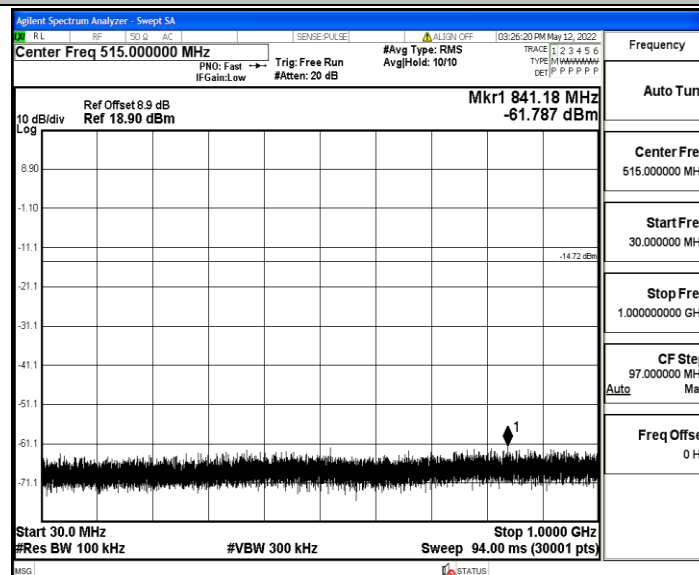
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	5.28	5.28	---	PASS
			30~1000	5.28	-61.79	≤-14.72	PASS
			1000~26500	5.28	-46.96	≤-14.72	PASS
		2440	Reference	5.11	5.11	---	PASS
			30~1000	5.11	-61.67	≤-14.89	PASS
			1000~26500	5.11	-49.18	≤-14.89	PASS
		2480	Reference	4.66	4.66	---	PASS
			30~1000	4.66	-61.4	≤-15.34	PASS
			1000~26500	4.66	-49.75	≤-15.34	PASS
BLE_2M	Ant1	2402	Reference	3.99	3.99	---	PASS
			30~1000	3.99	-61.62	≤-16.01	PASS
			1000~26500	3.99	-48.13	≤-16.01	PASS
		2440	Reference	4.65	4.65	---	PASS
			30~1000	4.65	-61.74	≤-15.35	PASS
			1000~26500	4.65	-50.02	≤-15.35	PASS
		2480	Reference	4.14	4.14	---	PASS
			30~1000	4.14	-61.18	≤-15.86	PASS
			1000~26500	4.14	-50.51	≤-15.86	PASS

Test Graphs

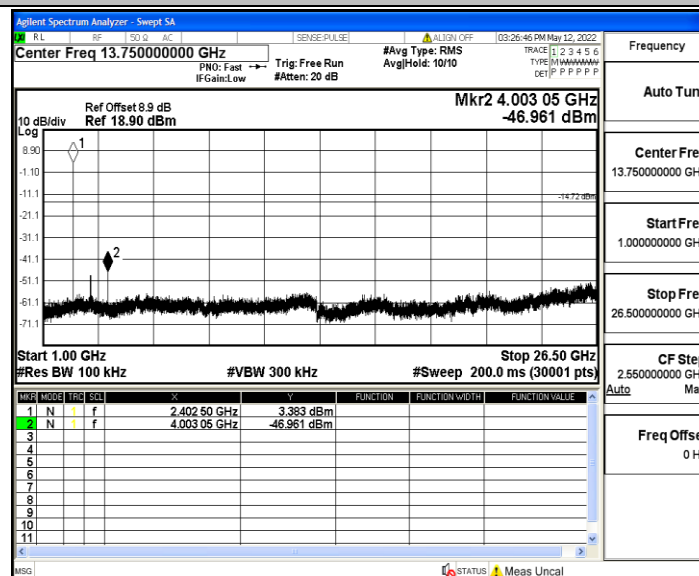
BLE_1M_Ant1_2402_0~Reference



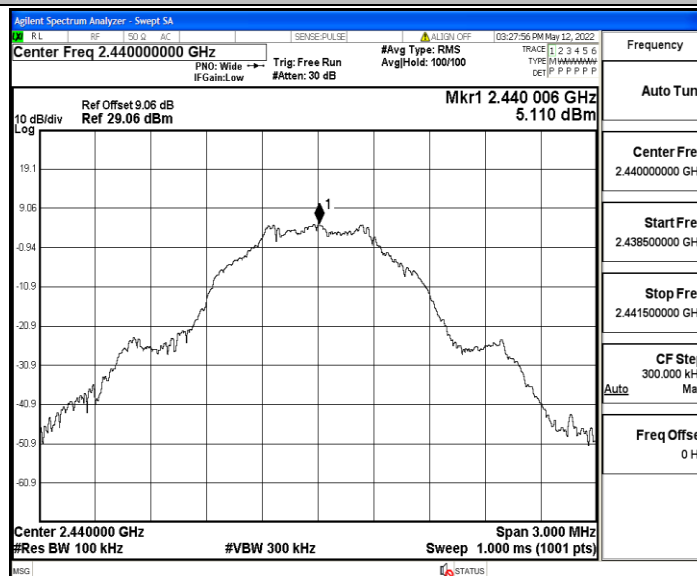
BLE_1M_Ant1_2402_30~1000



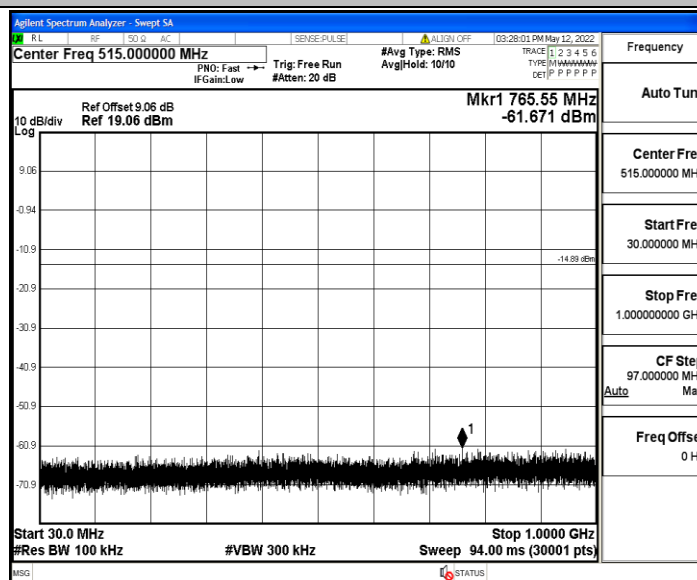
BLE_1M_Ant1_2402_1000~26500



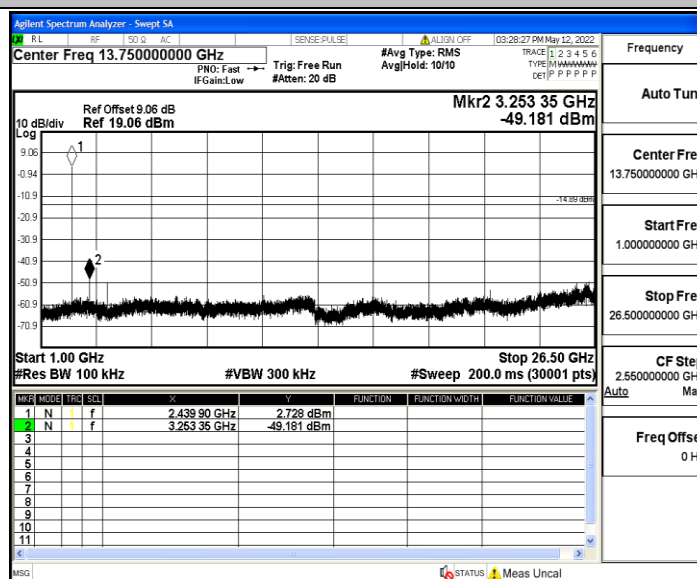
BLE_1M_Ant1_2440_0~Reference



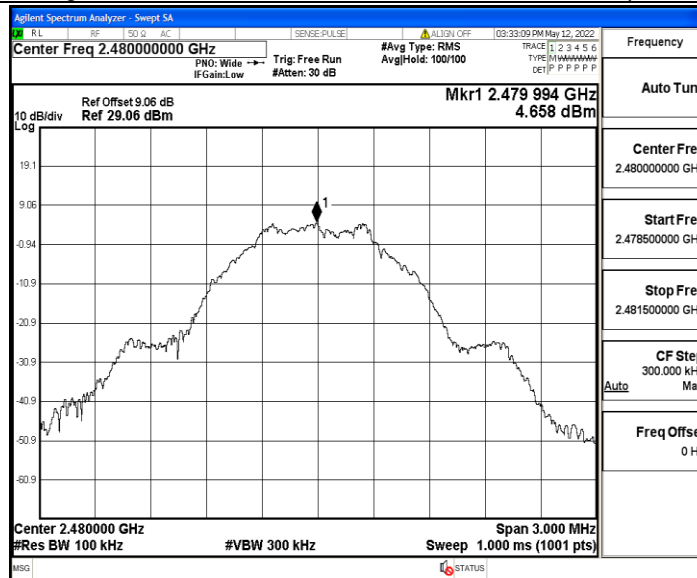
BLE_1M_Ant1_2440_30~1000



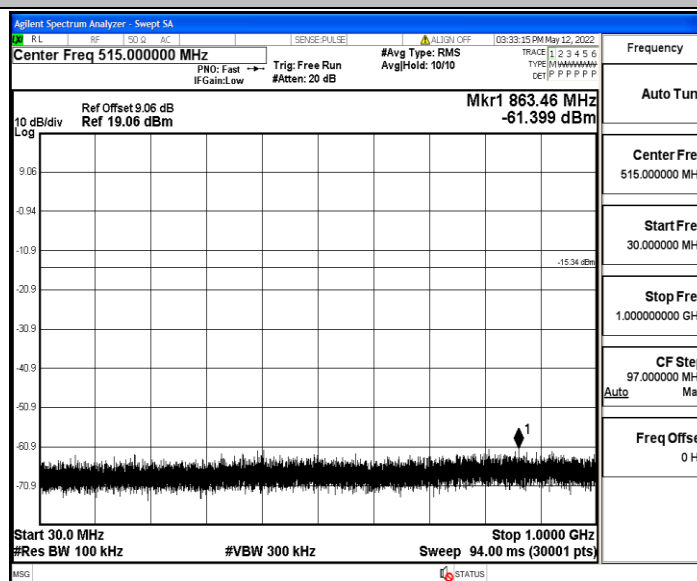
BLE_1M_Ant1_2440_1000~26500



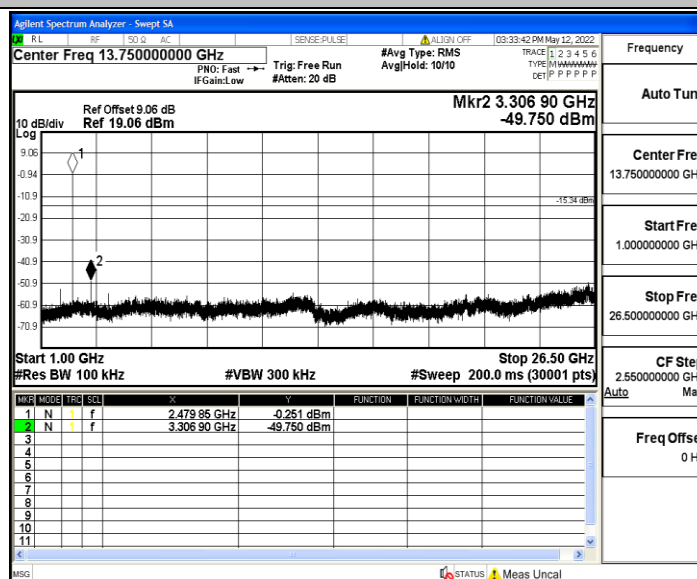
BLE_1M_Ant1_2480_0~Reference



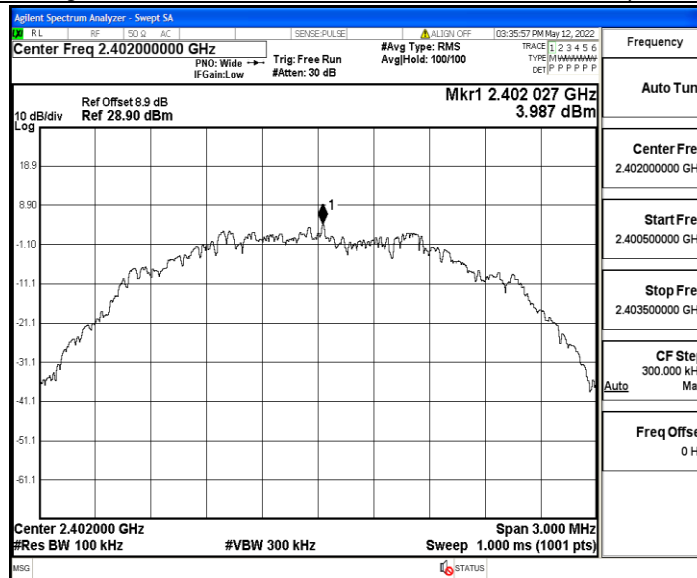
BLE_1M_Ant1_2480_30~1000



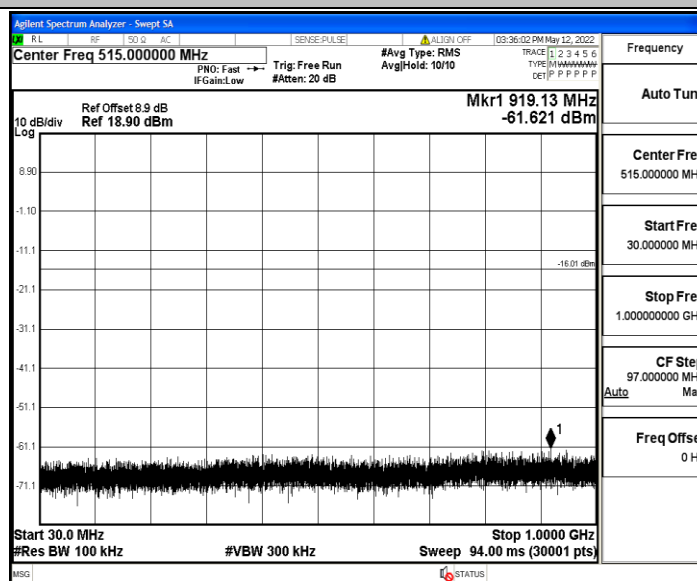
BLE_1M_Ant1_2480_1000~26500



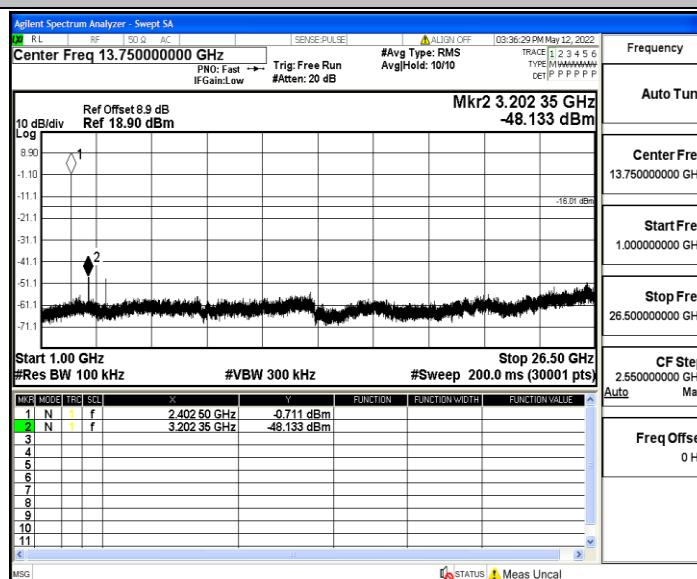
BLE_2M_Ant1_2402_0~Reference



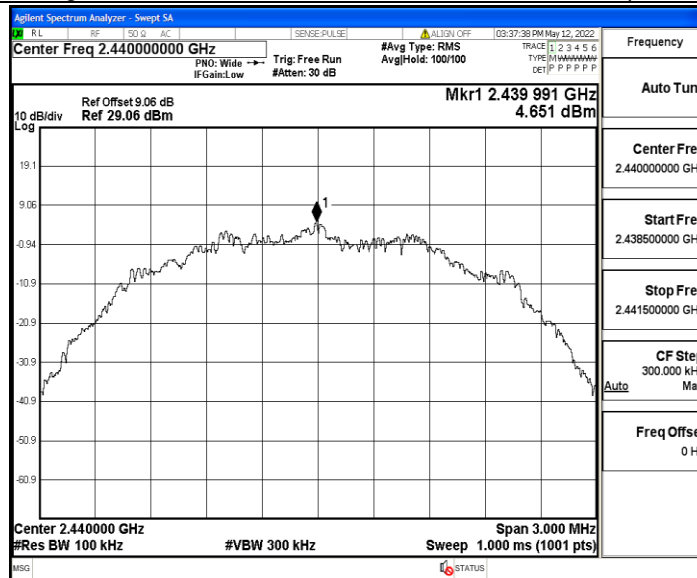
BLE_2M_Ant1_2402_30~1000



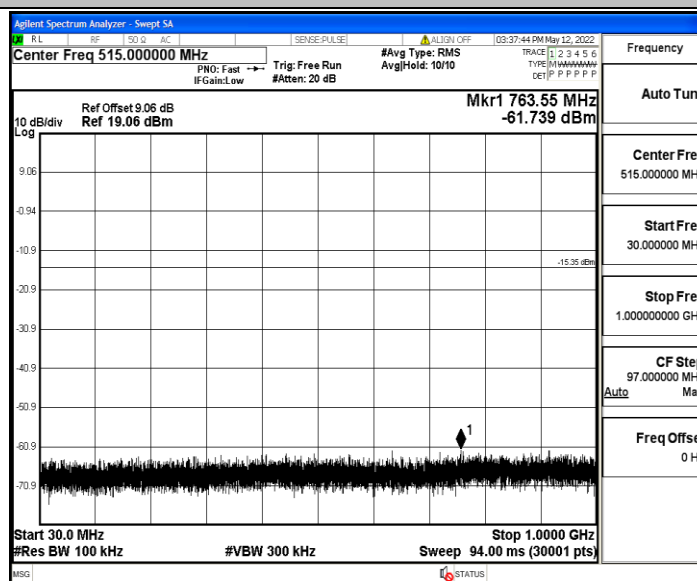
BLE_2M_Ant1_2402_1000~26500



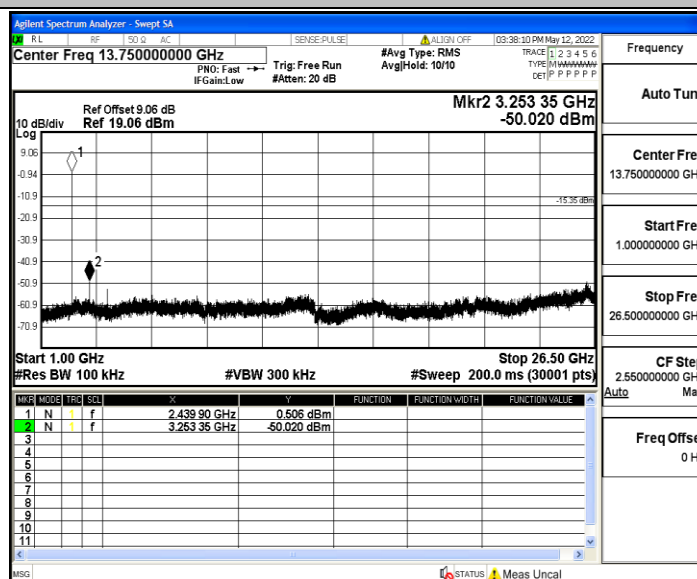
BLE_2M_Ant1_2440_0~Reference



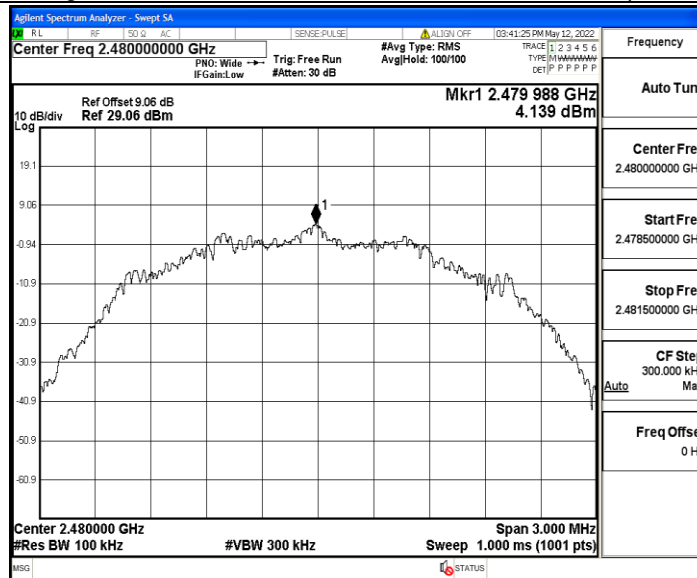
BLE_2M_Ant1_2440_30~1000



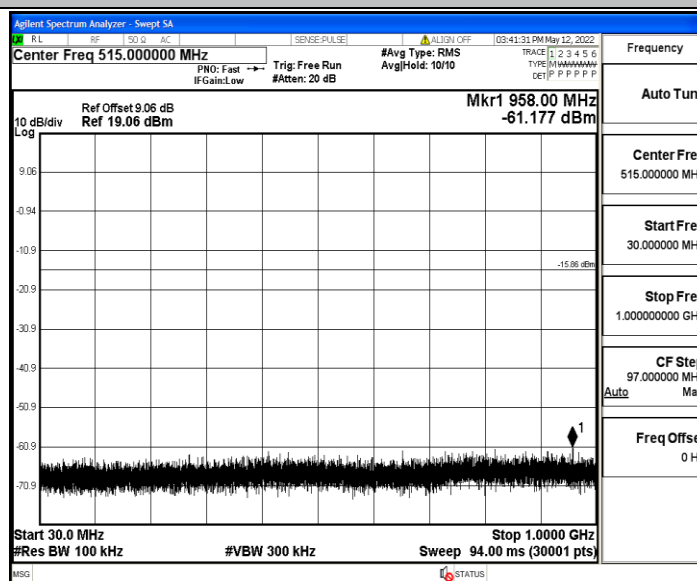
BLE_2M_Ant1_2440_1000~26500



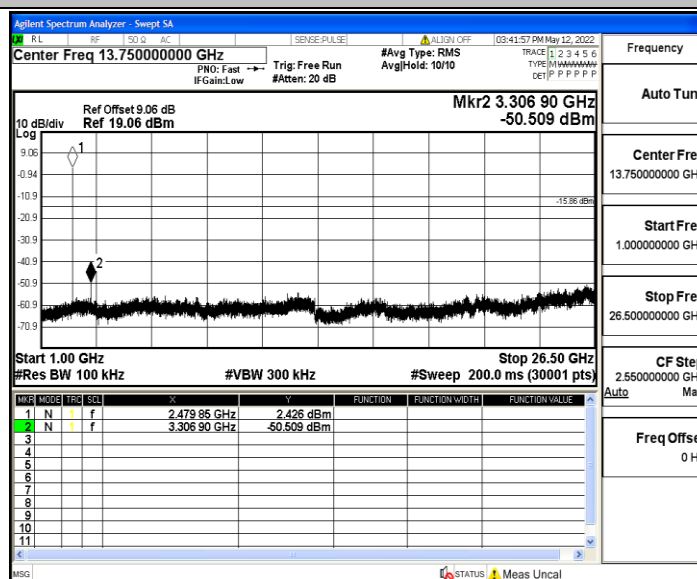
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500



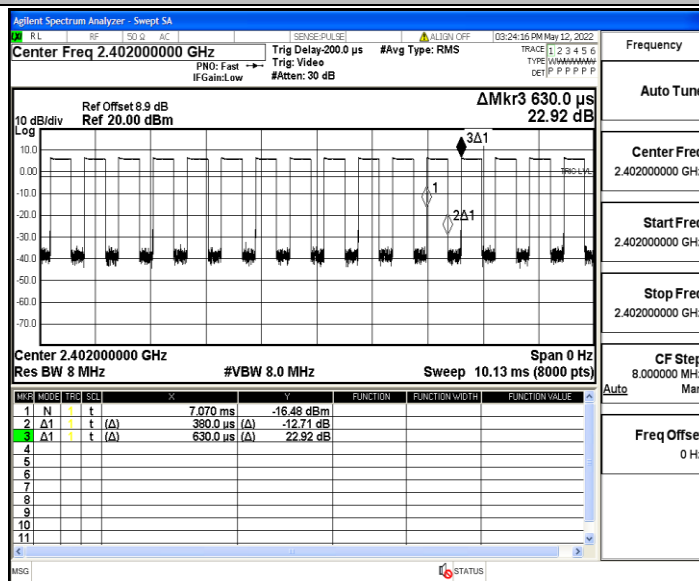
Appendix G: Duty Cycle

Test Result

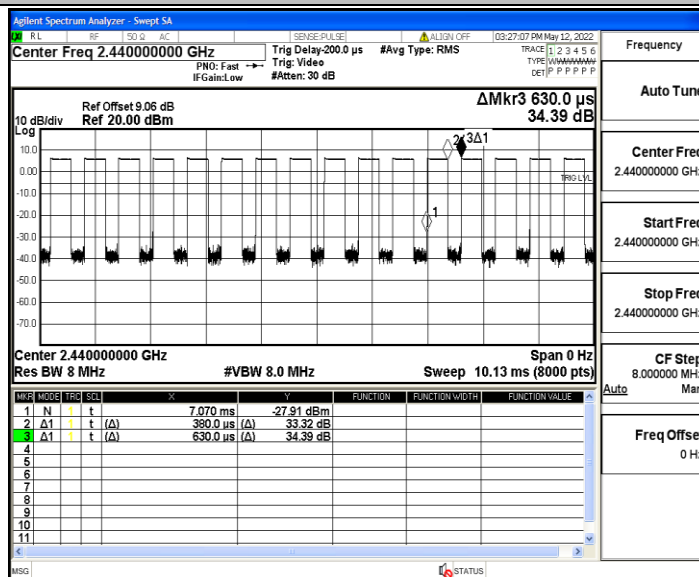
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T [kHz]
BLE_1M	Ant1	2402	0.38	0.63	60.32	2.63
		2440	0.38	0.63	60.32	2.63
		2480	0.38	0.62	61.29	2.63
BLE_2M	Ant1	2402	0.19	0.62	30.65	5.26
		2440	0.19	0.62	30.65	5.26
		2480	0.19	0.62	30.65	5.26

Test Graphs

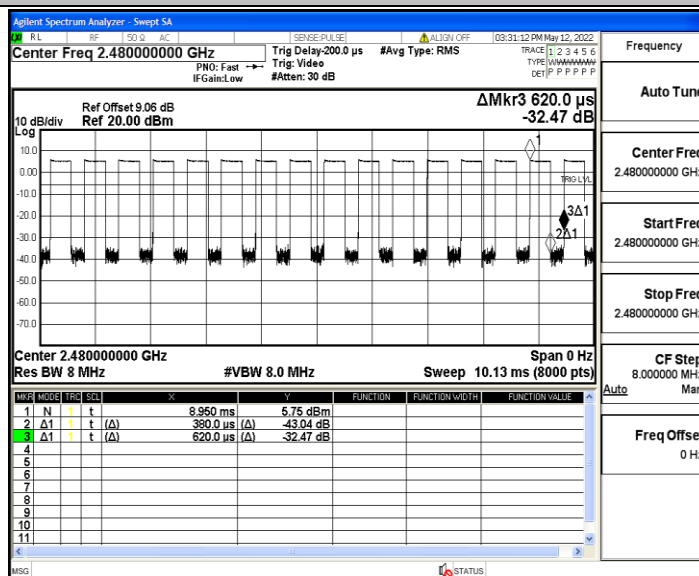
BLE_1M_Ant1_2402



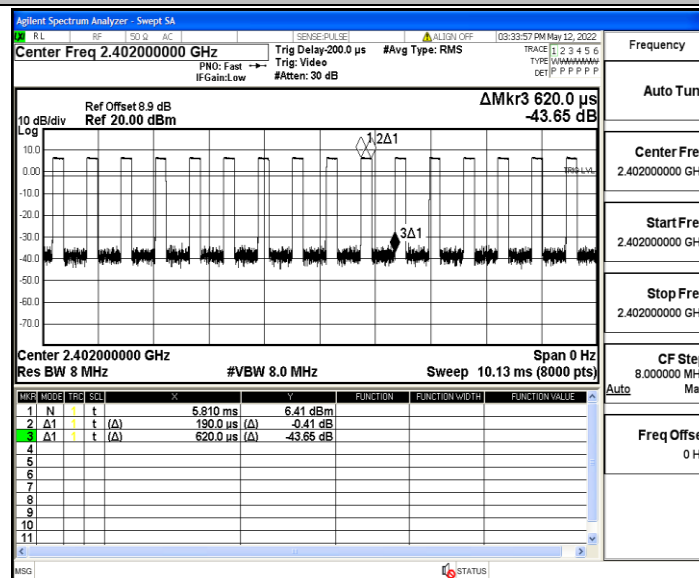
BLE_1M_Ant1_2440



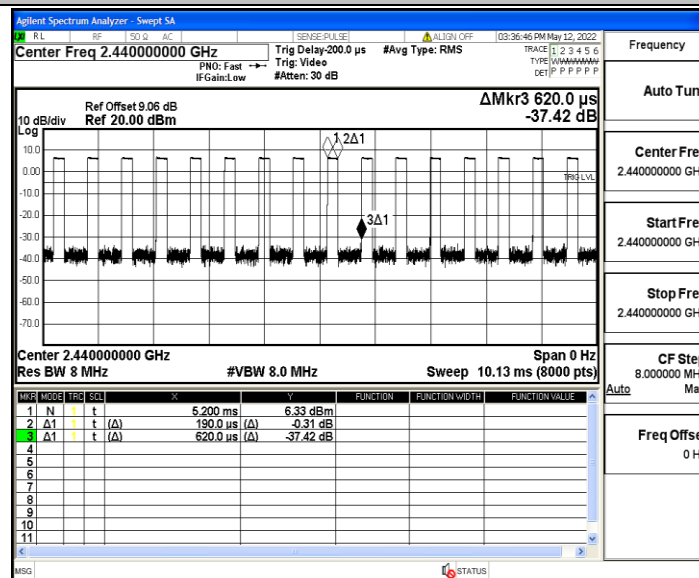
BLE_1M_Ant1_2480



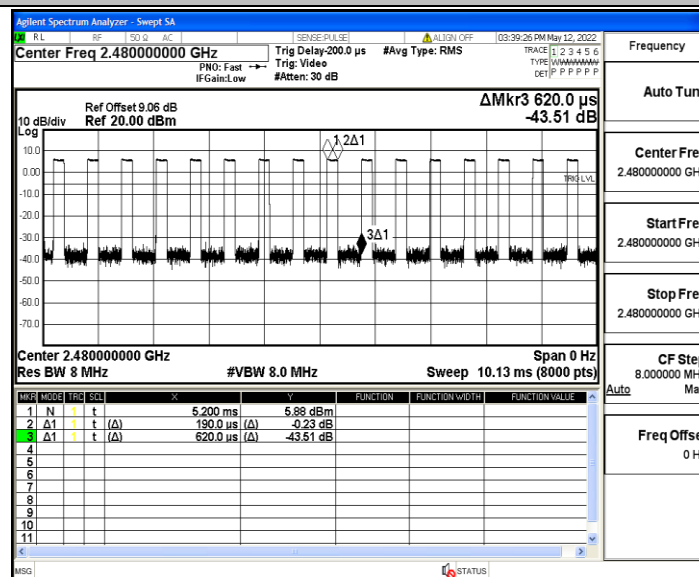
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



Appendix H: Emissions in Restricted Bands

Test Result

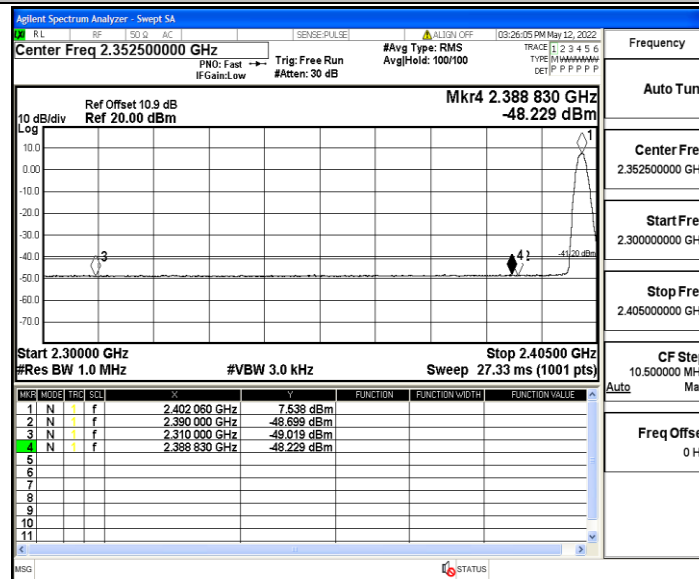
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-49.02	≤-41.20	PASS
				AV	2388.830	-48.23	≤-41.20	PASS
				AV	2390.000	-48.7	≤-41.20	PASS
				Peak	2310.000	-41.47	≤-21.20	PASS
				Peak	2313.335	-37.98	≤-21.20	PASS
				Peak	2390.000	-42.45	≤-21.20	PASS
		High	2480	AV	2483.500	-46.31	≤-41.20	PASS
				AV	2483.520	-46.31	≤-41.20	PASS
				Peak	2500.000	-48.15	≤-41.20	PASS
				Peak	2483.500	-41.82	≤-21.20	PASS
				Peak	2490.160	-39.01	≤-21.20	PASS
BLE_2M	Ant1	Low	2402	AV	2500.000	-42.01	≤-21.20	PASS
				AV	2310.000	-48.53	≤-41.20	PASS
				AV	2333.705	-47.72	≤-41.20	PASS
				Peak	2390.000	-48.4	≤-41.20	PASS
				Peak	2310.000	-41.24	≤-21.20	PASS
				Peak	2386.100	-39.42	≤-21.20	PASS
		High	2480	AV	2390.000	-41.77	≤-21.20	PASS
				AV	2483.500	-45.16	≤-41.20	PASS
				Peak	2483.520	-45.16	≤-41.20	PASS
				Peak	2500.000	-47.42	≤-41.20	PASS
				Peak	2483.500	-41.79	≤-21.20	PASS

Note:

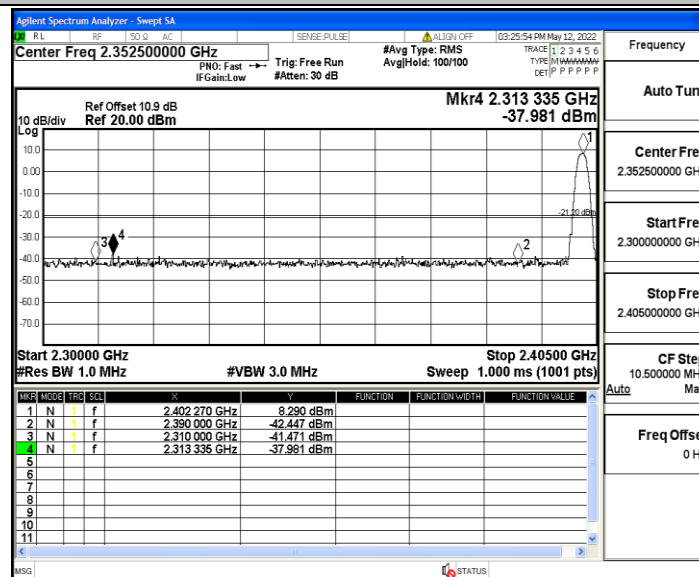
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

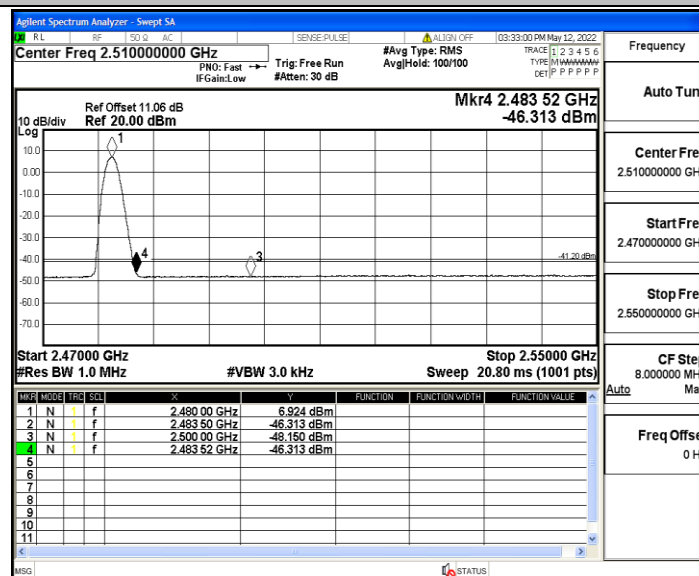
BLE_1M_Ant1_Low_2402_AV



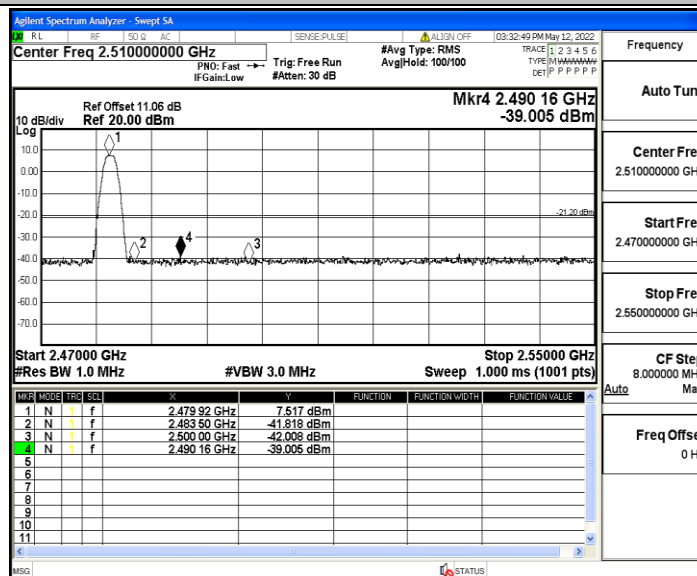
BLE_1M_Ant1_Low_2402_Peak



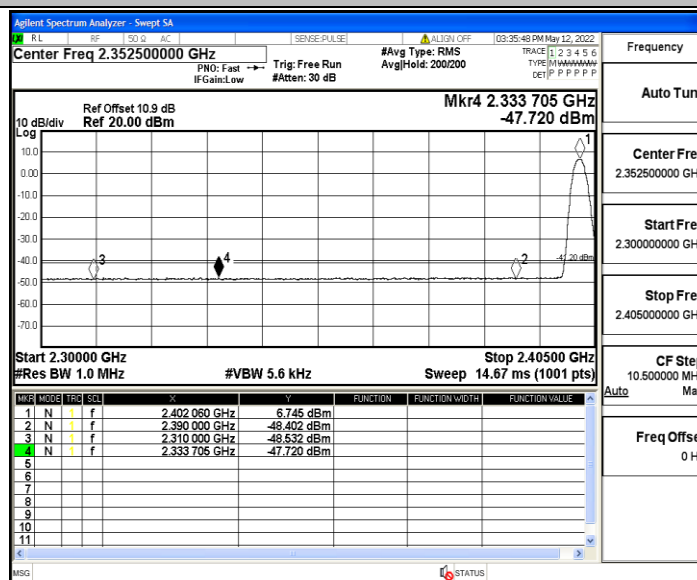
BLE_1M_Ant1_High_2480_AV



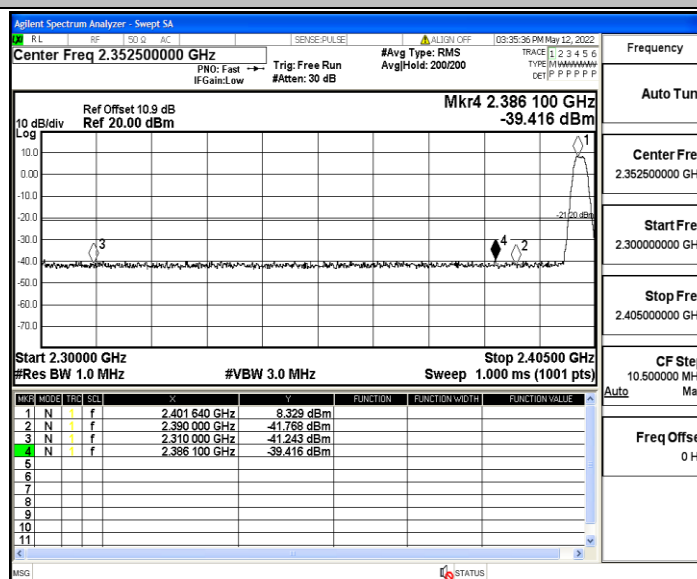
BLE_1M_Ant1_High_2480_Peak



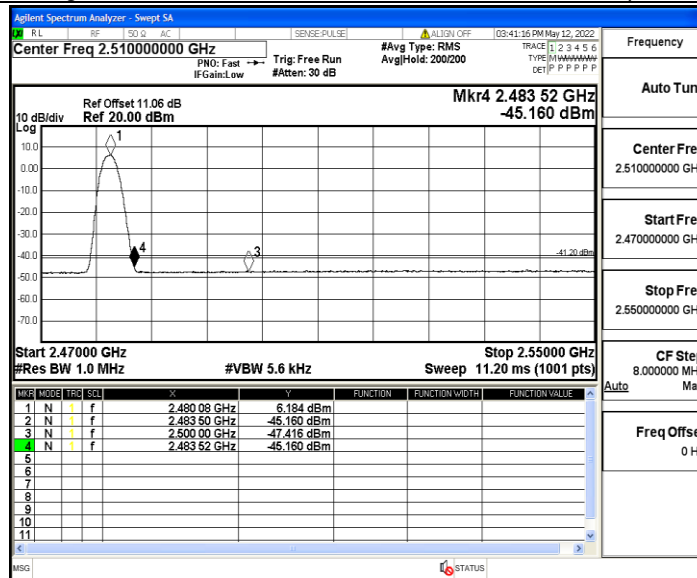
BLE_2M_Ant1_Low_2402_AV



BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV



BLE_2M_Ant1_High_2480_Peak

