

RF Test Data for BT(BLE) (Conducted Measurement)**Product Name: NucBox5****Trade Mark: GMKtec****Test Model: KB5****FCC ID: 2AXUD-KB5****Environmental Conditions**

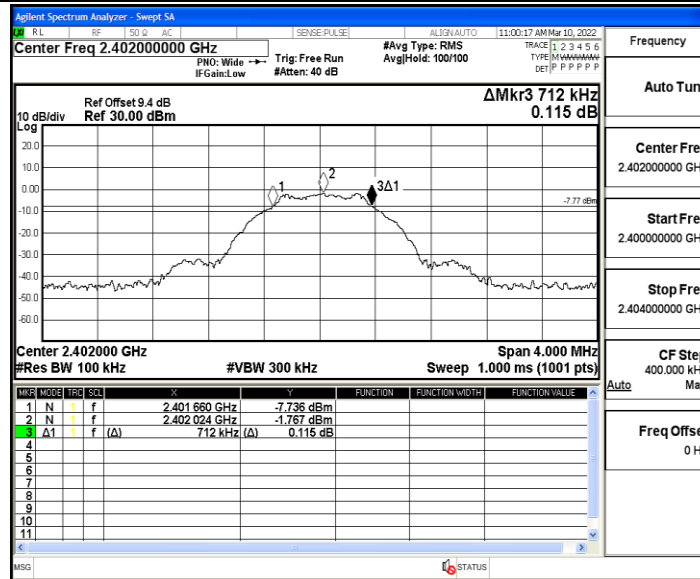
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth**Test Result**

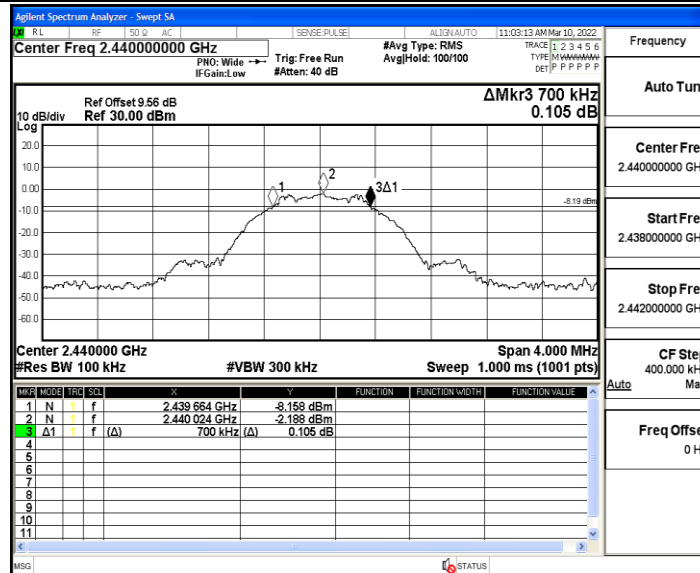
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.712	2401.660	2402.372	0.5	PASS
		2440	0.700	2439.664	2440.364	0.5	PASS
		2480	0.708	2479.660	2480.368	0.5	PASS

Test Graphs

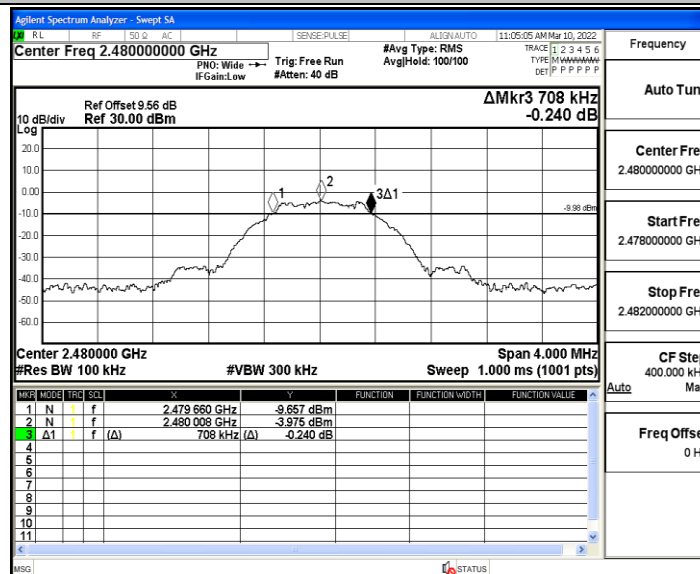
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



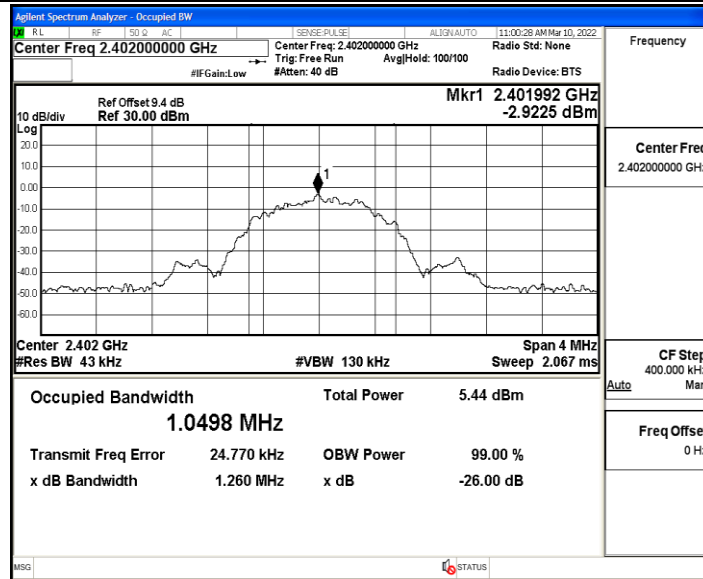
Appendix B: Occupied Channel Bandwidth

Test Result

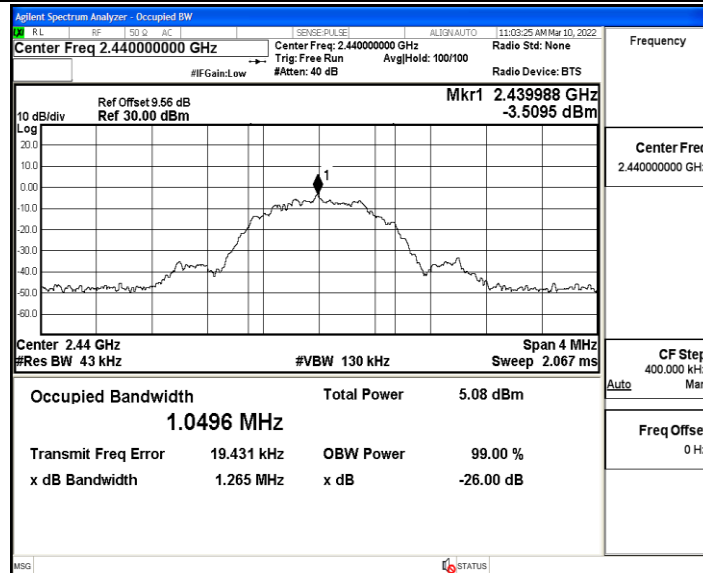
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0498	2401.500	2402.550	---	PASS
		2440	1.0496	2439.495	2440.544	---	PASS
		2480	1.0553	2479.494	2480.550	---	PASS

Test Graphs

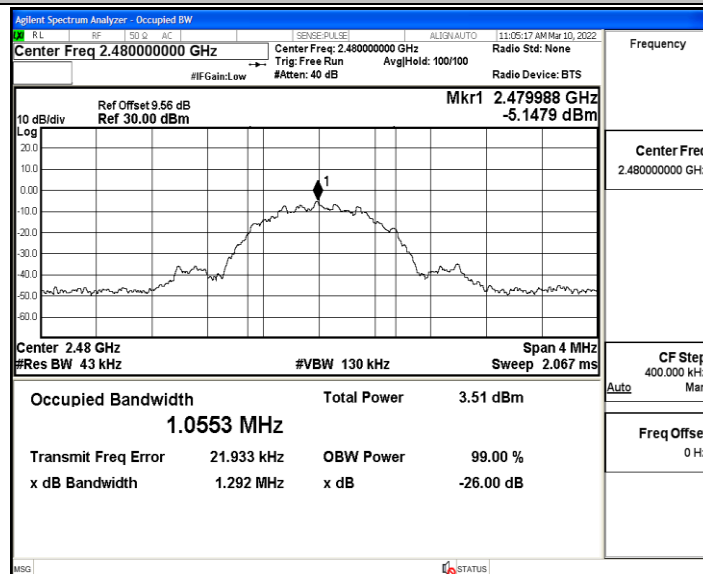
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



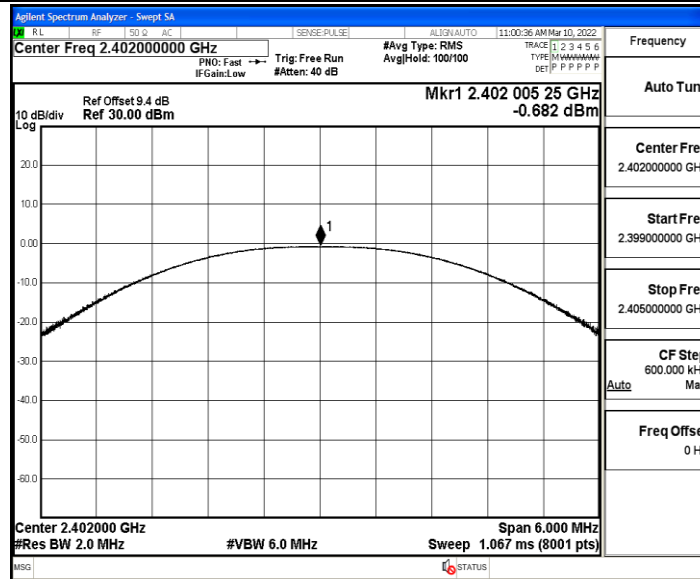
Appendix C: Maximum conducted output power

Test Result

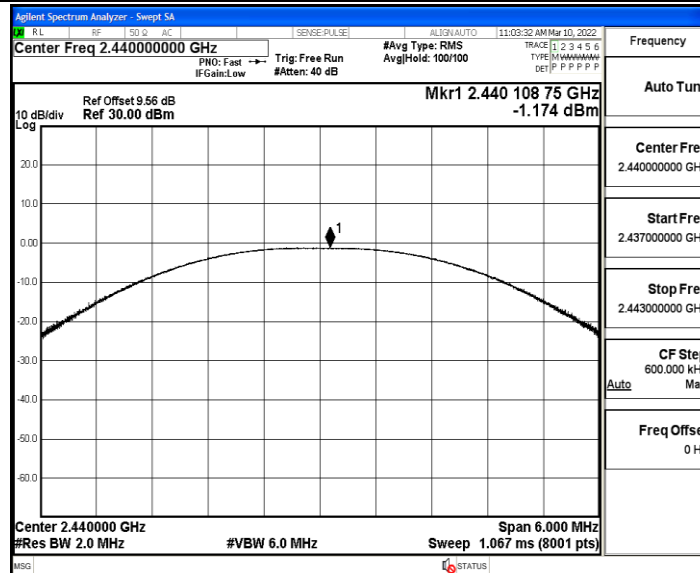
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.68	≤30	PASS
		2440	-1.17	≤30	PASS
		2480	-2.7	≤30	PASS

Test Graphs

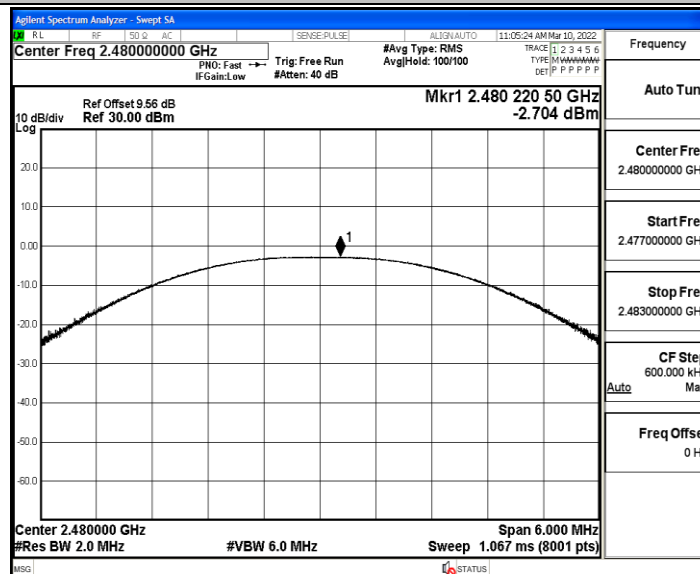
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



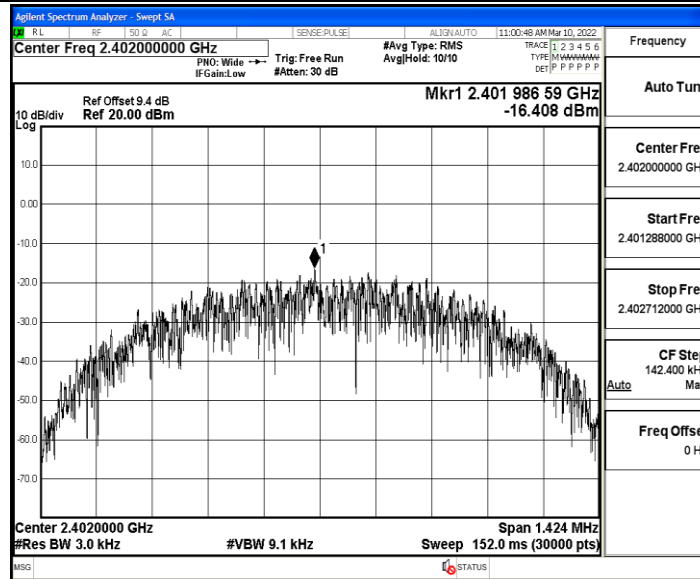
Appendix D: Maximum power spectral density

Test Result

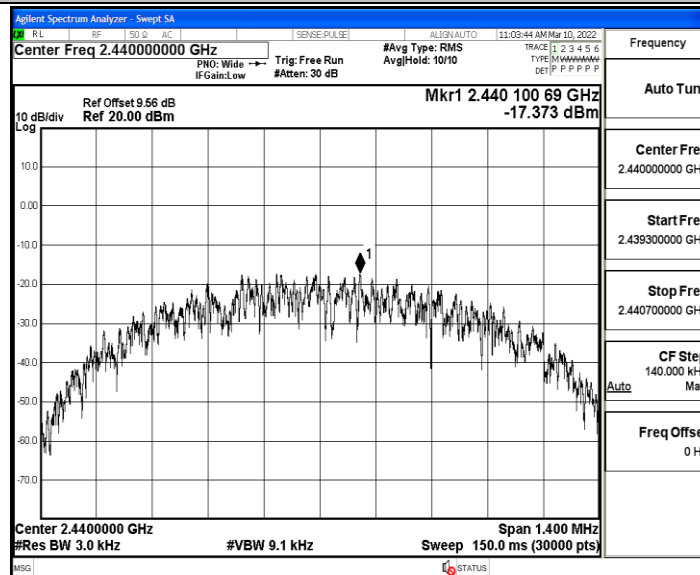
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-16.41	≤8	PASS
		2440	-17.37	≤8	PASS
		2480	-17.23	≤8	PASS

Test Graphs

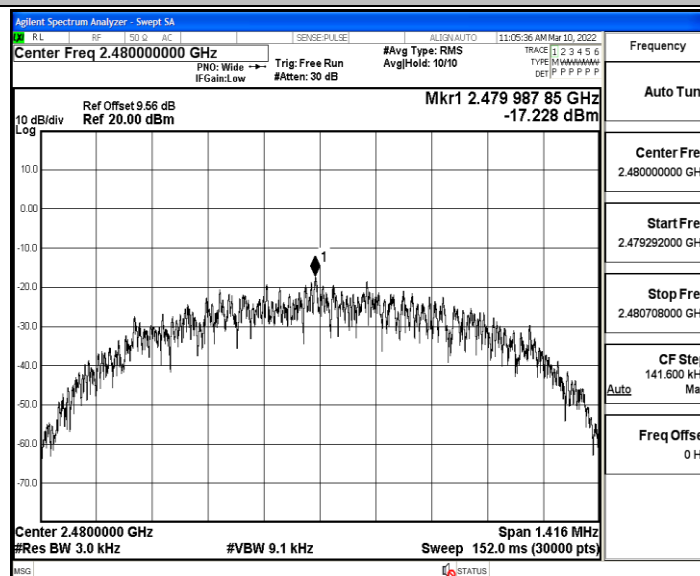
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



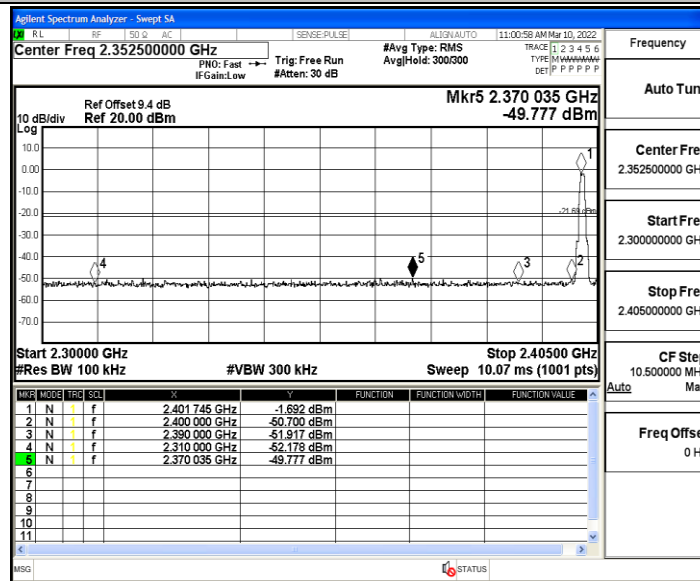
Appendix E: Band edge measurements

Test Result

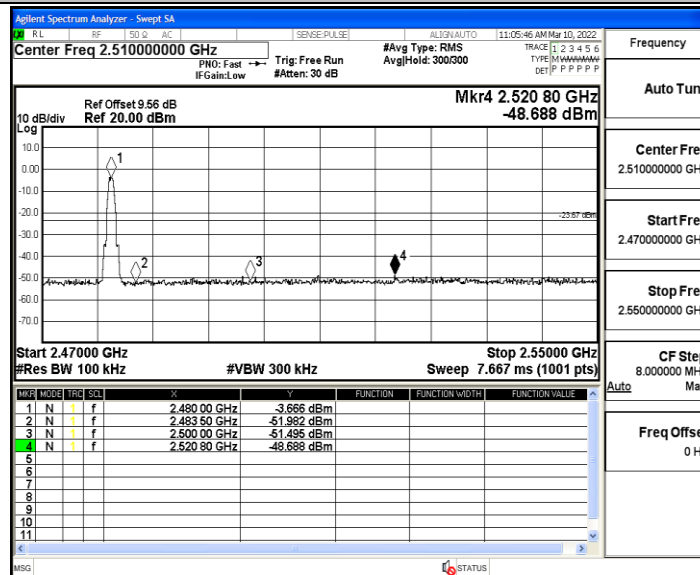
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.69	-49.78	≤-21.69	PASS
		High	2480	-3.67	-48.69	≤-23.67	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



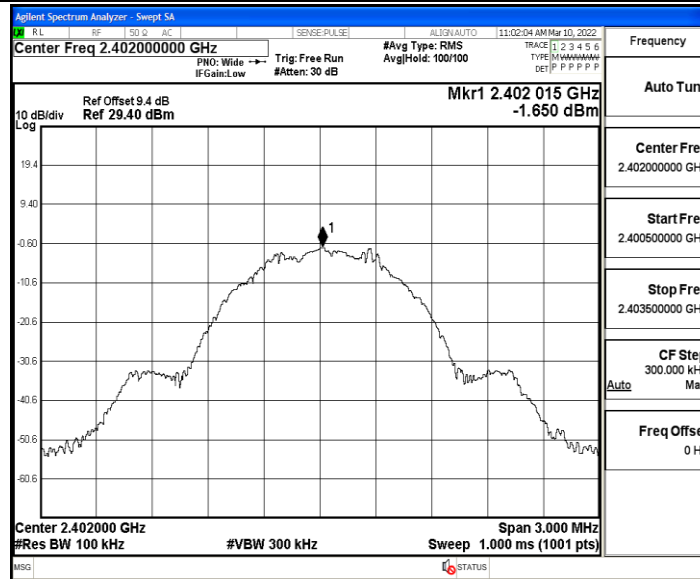
Appendix F: Conducted Spurious Emission

Test Result

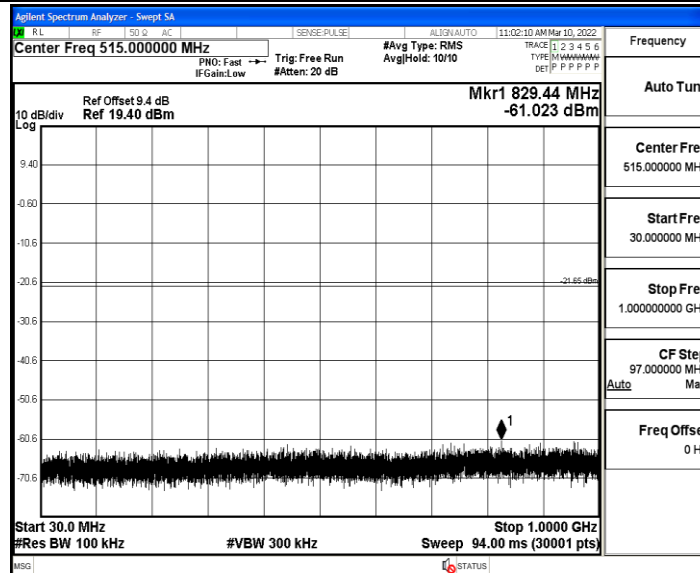
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-1.65	-1.65	---	PASS
			30~1000	-1.65	-61.02	≤-21.65	PASS
			1000~26500	-1.65	-50.49	≤-21.65	PASS
		2440	Reference	-2.18	-2.18	---	PASS
			30~1000	-2.18	-61.27	≤-22.18	PASS
			1000~26500	-2.18	-51.68	≤-22.18	PASS
		2480	Reference	-3.82	-3.82	---	PASS
			30~1000	-3.82	-61.08	≤-23.82	PASS
			1000~26500	-3.82	-50.77	≤-23.82	PASS

Test Graphs

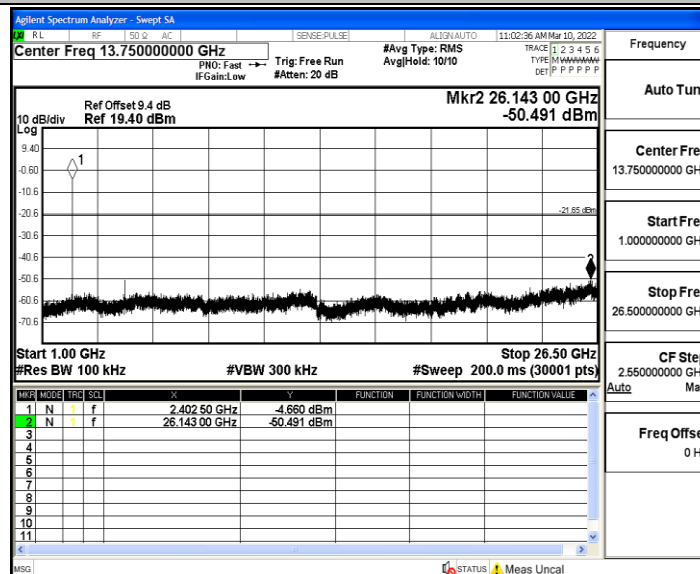
BLE_1M_Ant1_2402_0~Reference



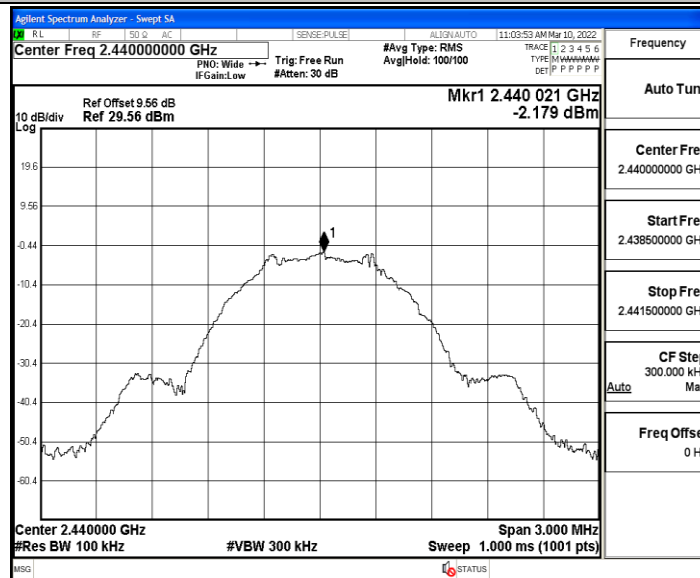
BLE_1M_Ant1_2402_30~1000



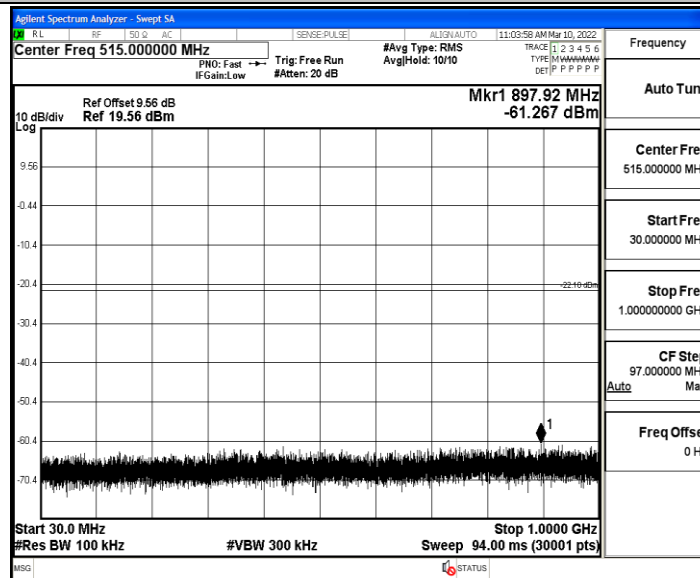
BLE_1M_Ant1_2402_1000~26500



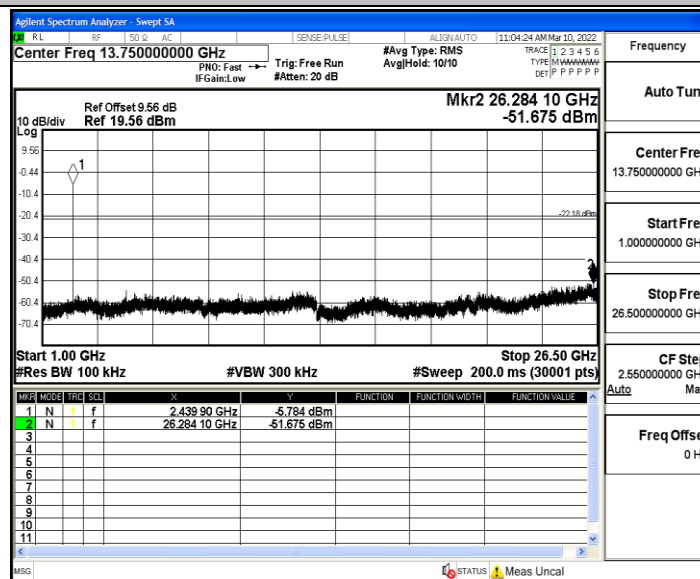
BLE_1M_Ant1_2440_0~Reference



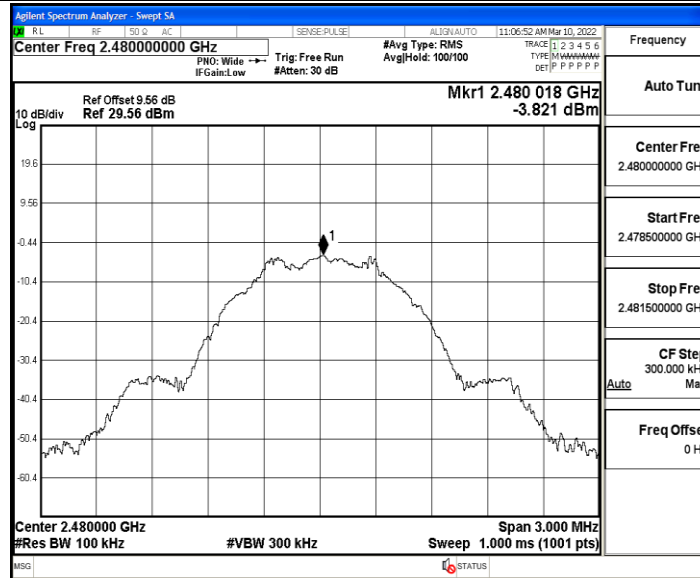
BLE_1M_Ant1_2440_30~1000



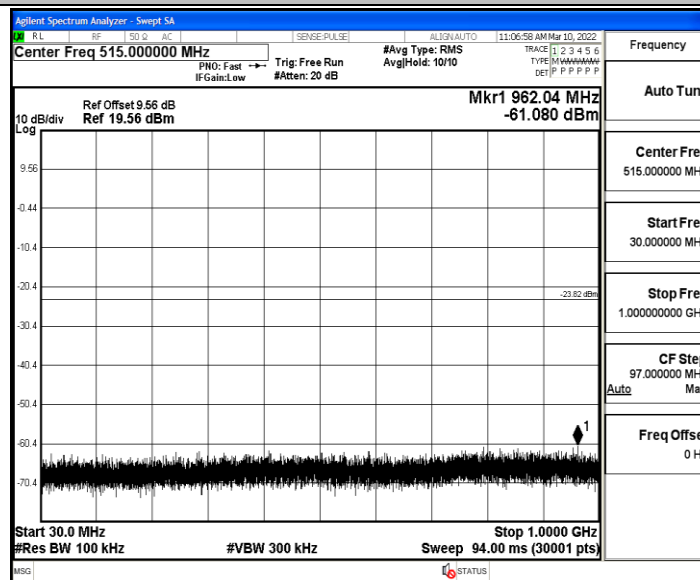
BLE_1M_Ant1_2440_1000~26500



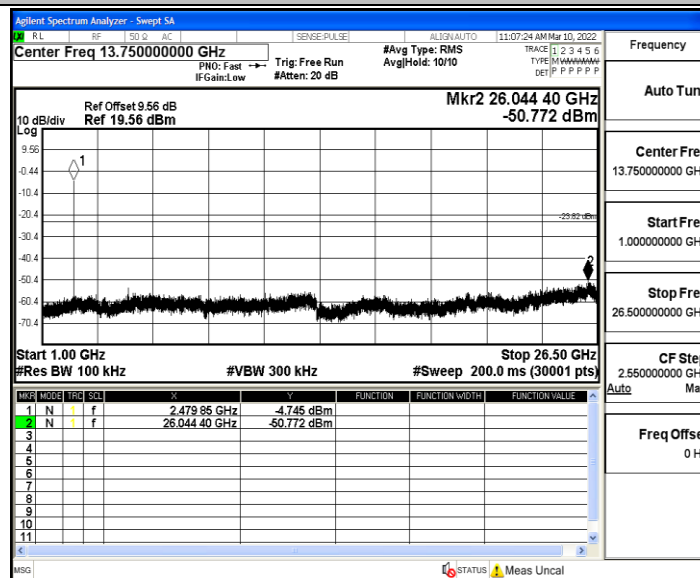
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



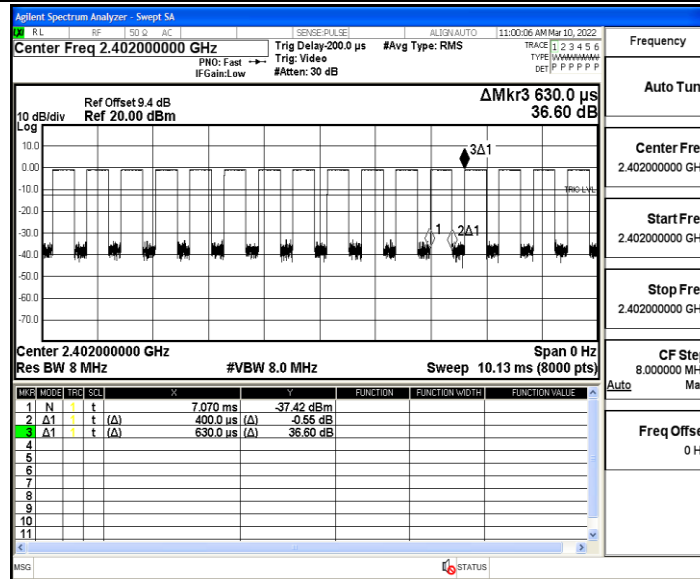
Appendix G: Duty Cycle

Test Result

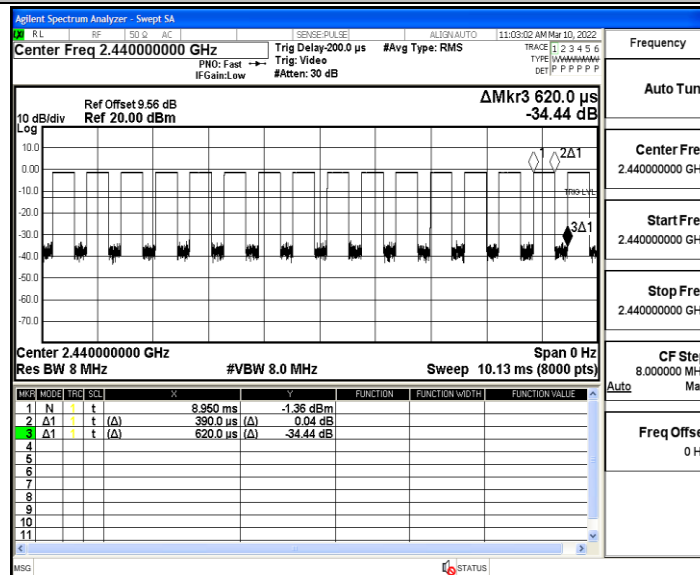
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.40	0.63	63.49	2.50
		2440	0.39	0.62	62.90	2.56
		2480	0.39	0.62	62.90	2.56

Test Graphs

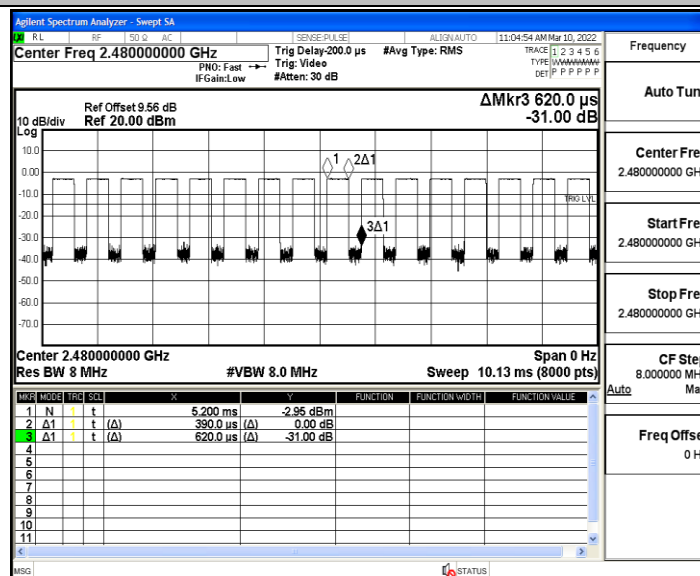
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix H: Emissions in Restricted Bands

Test Result

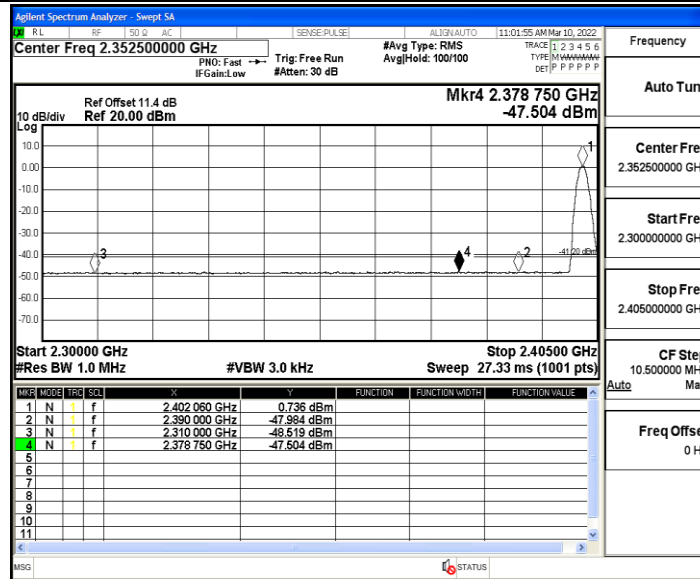
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.52	≤-41.20	PASS
				AV	2378.750	-47.5	≤-41.20	PASS
				AV	2390.000	-47.98	≤-41.20	PASS
				Peak	2310.000	-41.68	≤-21.20	PASS
				Peak	2369.195	-39.06	≤-21.20	PASS
				Peak	2390.000	-42.26	≤-21.20	PASS
		High	2480	AV	2483.500	-47.5	≤-41.20	PASS
				AV	2499.600	-47.18	≤-41.20	PASS
				AV	2500.000	-47.59	≤-41.20	PASS
				Peak	2483.500	-42.06	≤-21.20	PASS
				Peak	2497.360	-38.21	≤-21.20	PASS
				Peak	2500.000	-40.74	≤-21.20	PASS

Note:

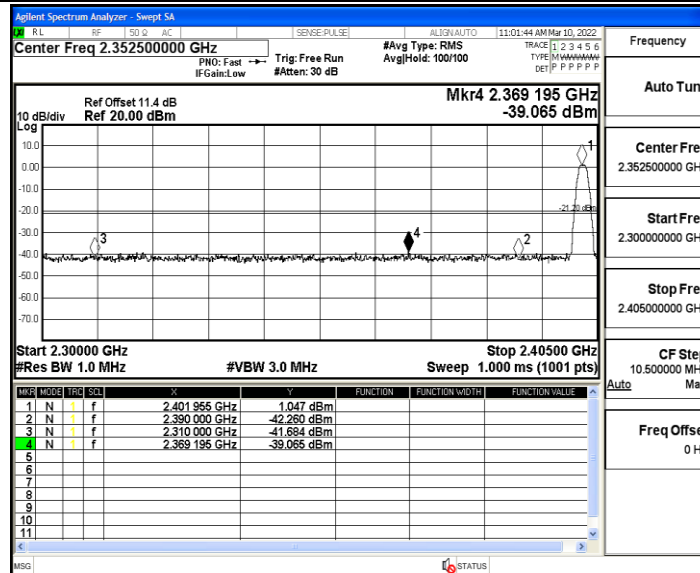
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

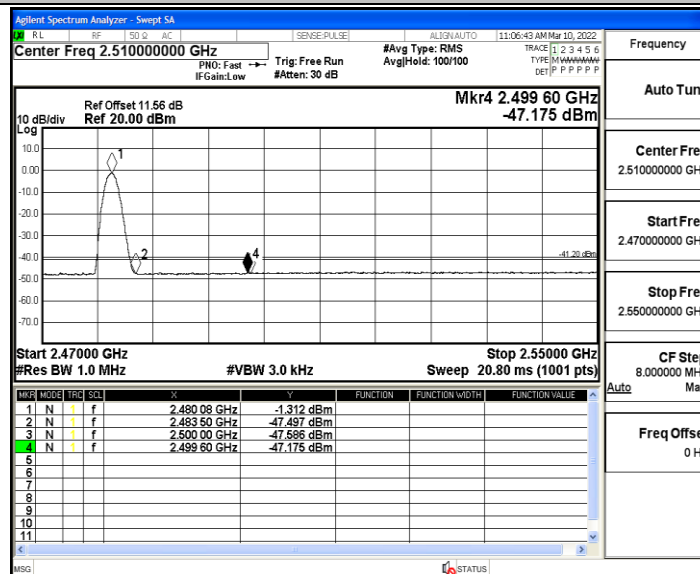
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

