



Appendix B

RF Test Data for BLE (Conducted Measurement)

Product Name: Notebook

Test Model: M116

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Bill Zhu
Supervised by:	Li Huan



B.1 6dB Bandwidth

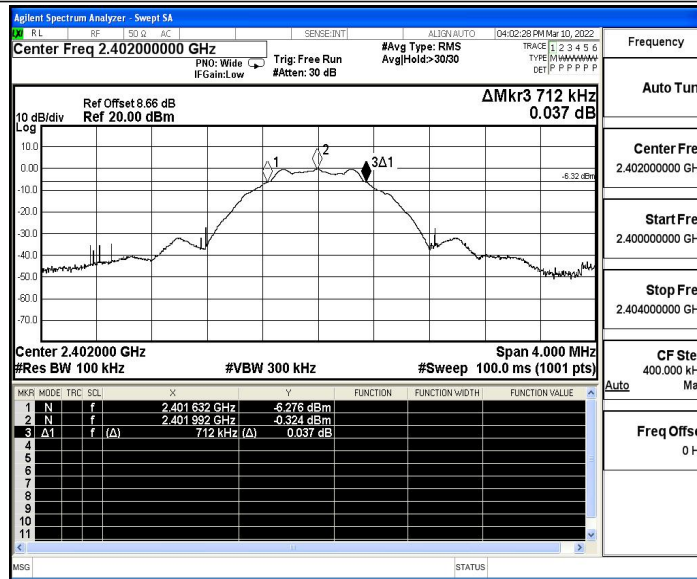
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.712	2401.632	2402.344	0.5	PASS
		2440	0.708	2439.636	2440.344	0.5	PASS
		2480	0.708	2479.636	2480.344	0.5	PASS

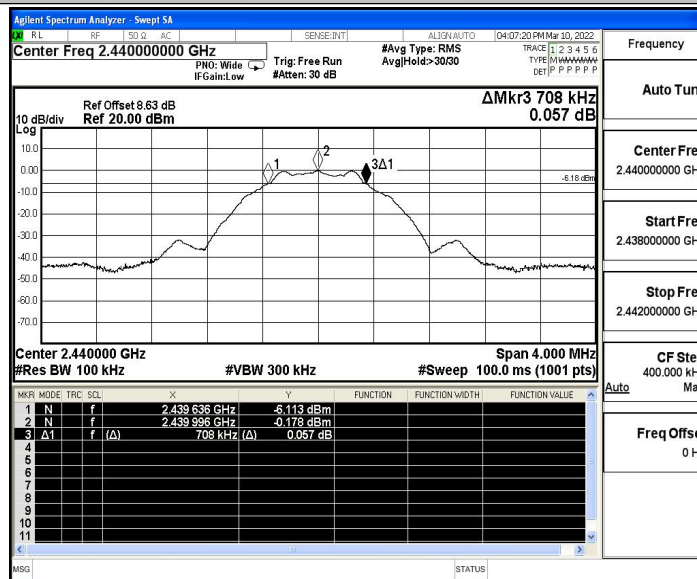


Test Graphs

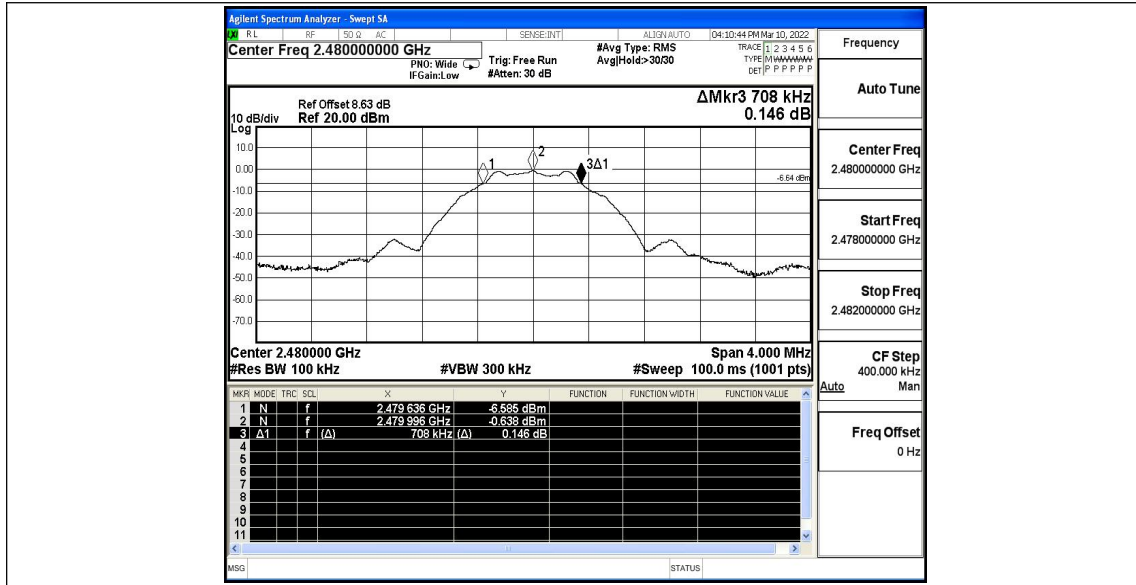
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





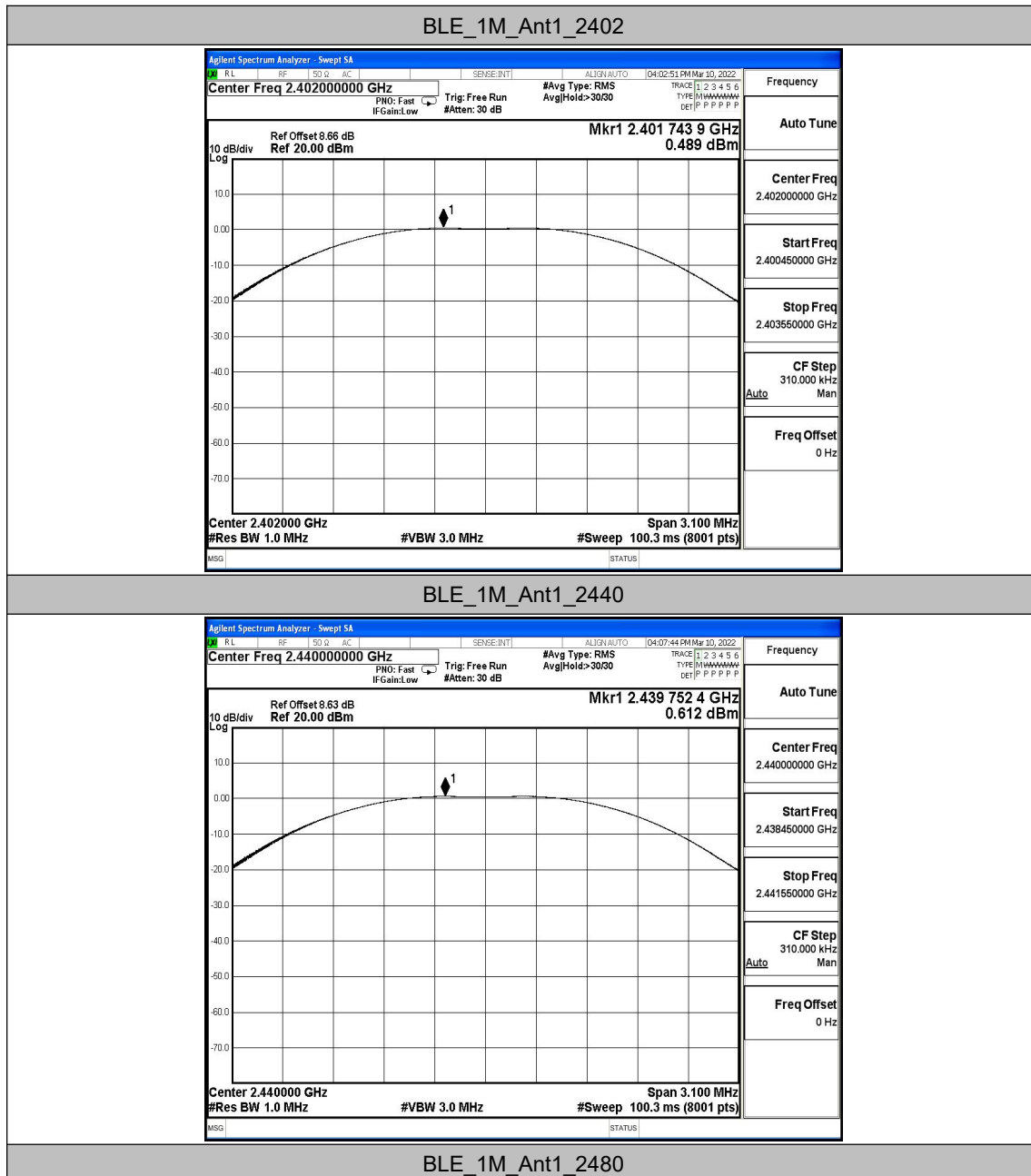
B.2 Maximum conducted output power

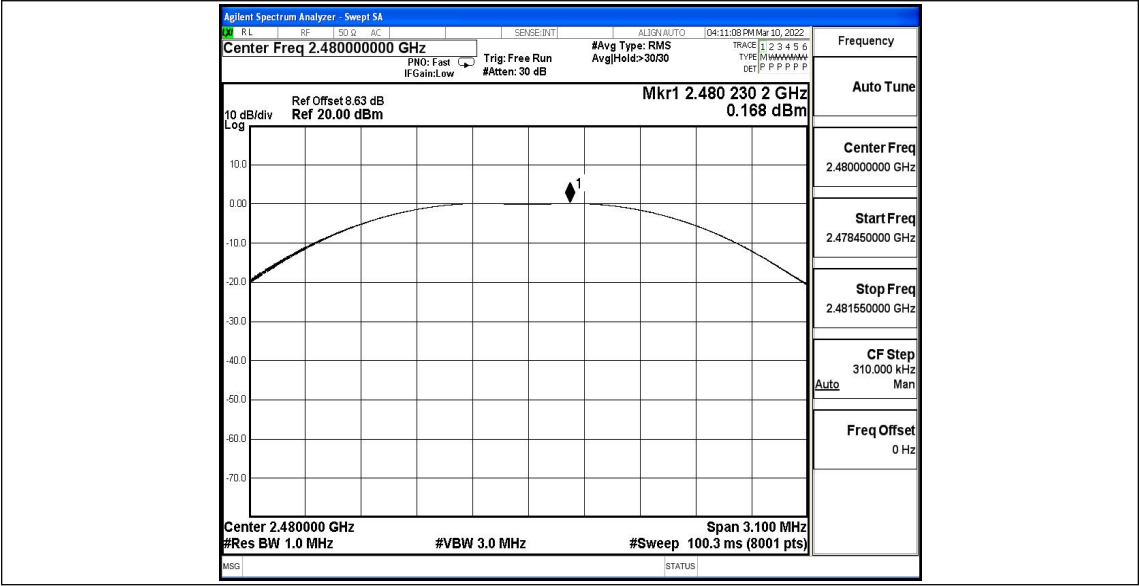
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.49	≤30	PASS
		2440	0.61	≤30	PASS
		2480	0.17	≤30	PASS



Test Graphs







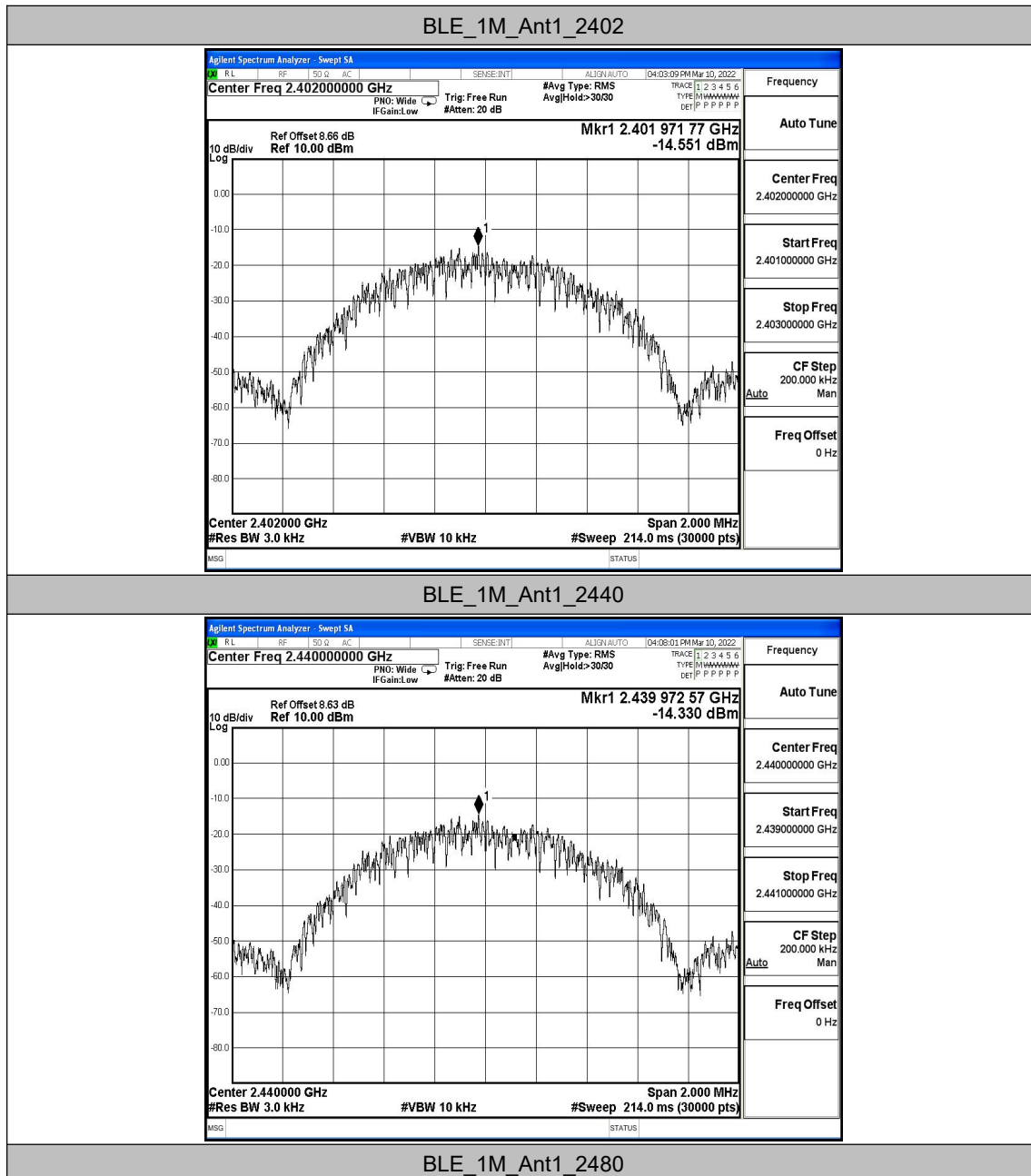
B.3 Maximum power spectral density

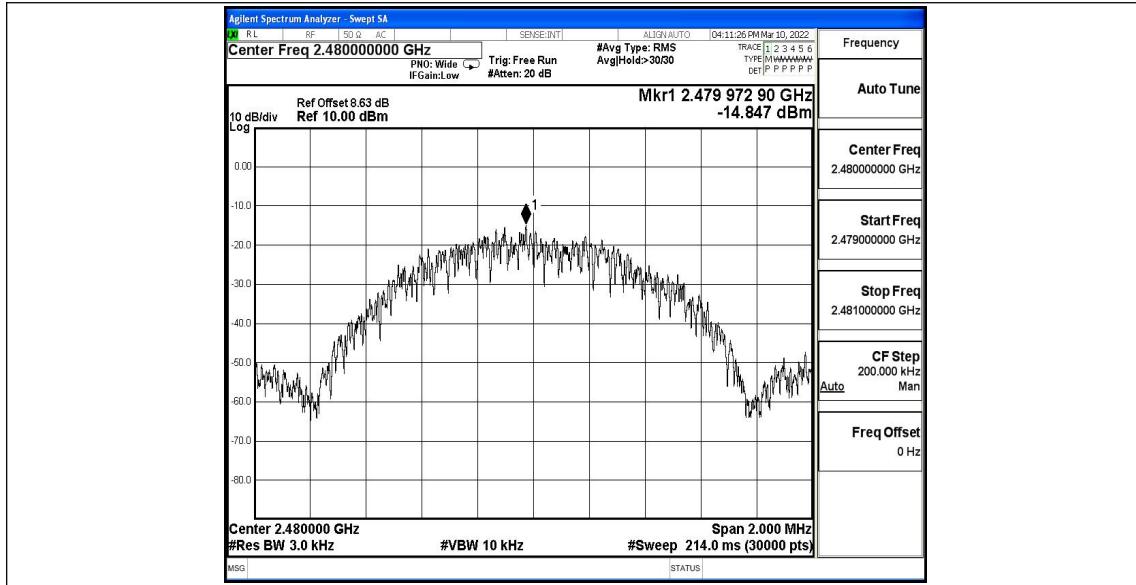
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-14.55	≤8.00	PASS
		2440	-14.33	≤8.00	PASS
		2480	-14.85	≤8.00	PASS



Test Graphs







B.4 Band edge measurements

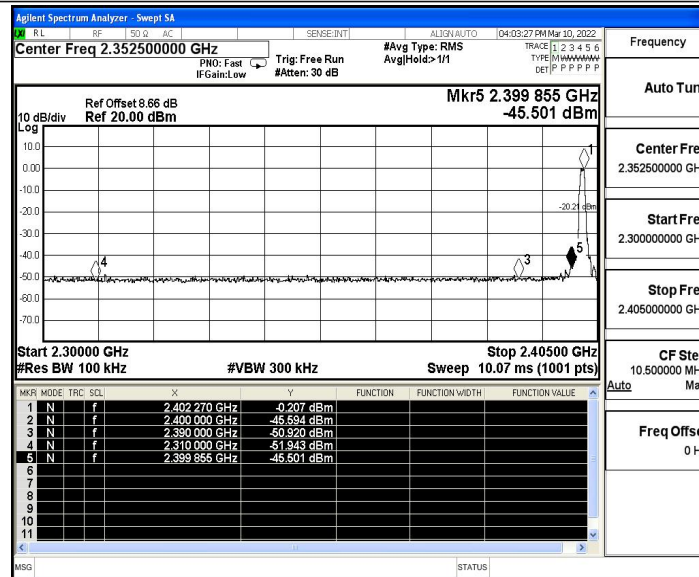
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.21	-45.53	≤-20.21	PASS
		High	2480	-0.51	-47.24	≤-20.51	PASS

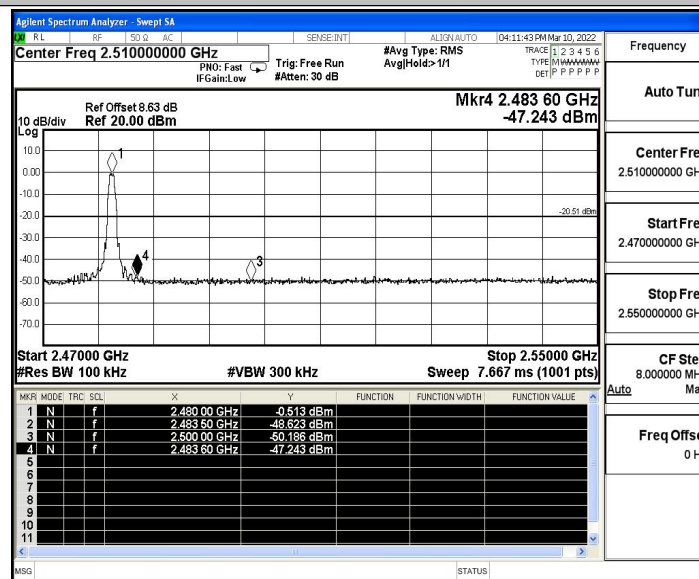


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





B.5 Conducted Spurious Emission

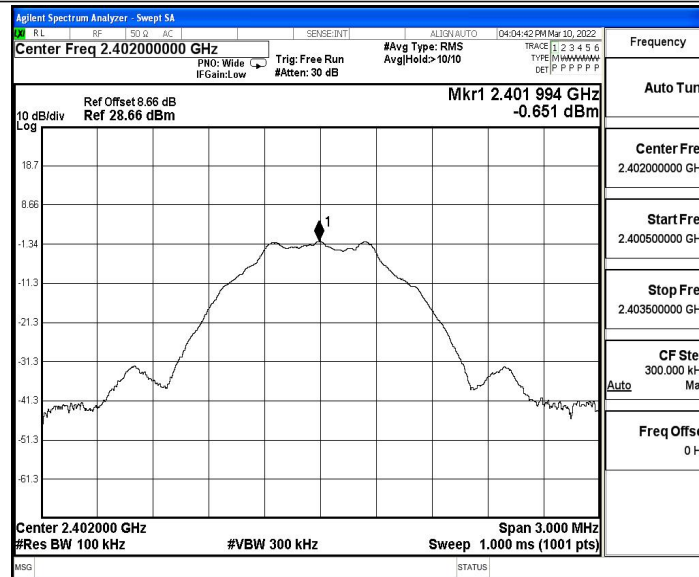
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.66	-0.66	---	PASS
			30~1000	-0.66	-60.13	≤-20.66	PASS
			1000~26500	-0.66	-45.47	≤-20.66	PASS
		2440	Reference	-0.20	-0.20	---	PASS
			30~1000	-0.20	-60.75	≤-20.2	PASS
			1000~26500	-0.20	-46.04	≤-20.2	PASS
		2480	Reference	-0.63	-0.63	---	PASS
			30~1000	-0.63	-26.74	≤-20.63	PASS
			1000~26500	-0.63	-45.58	≤-20.63	PASS

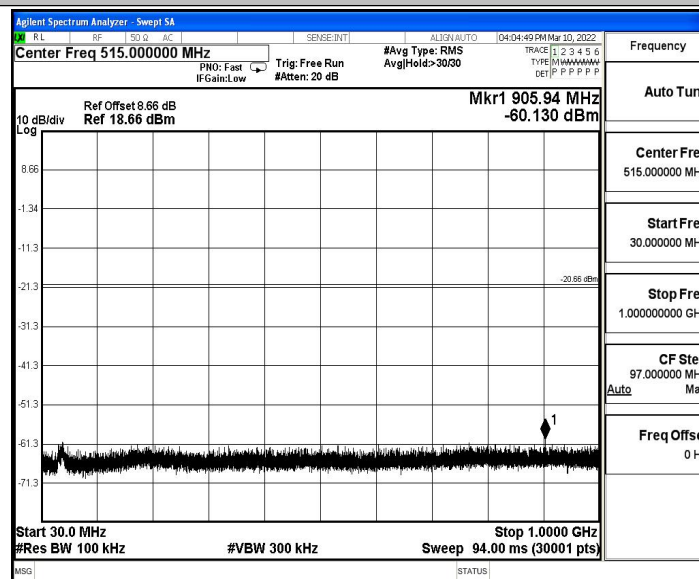


Test Graphs

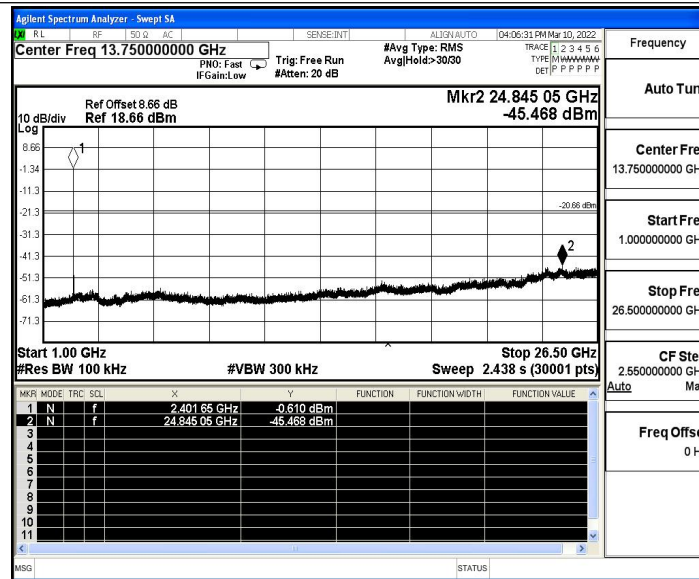
BLE_1M_Ant1_2402_0~Reference



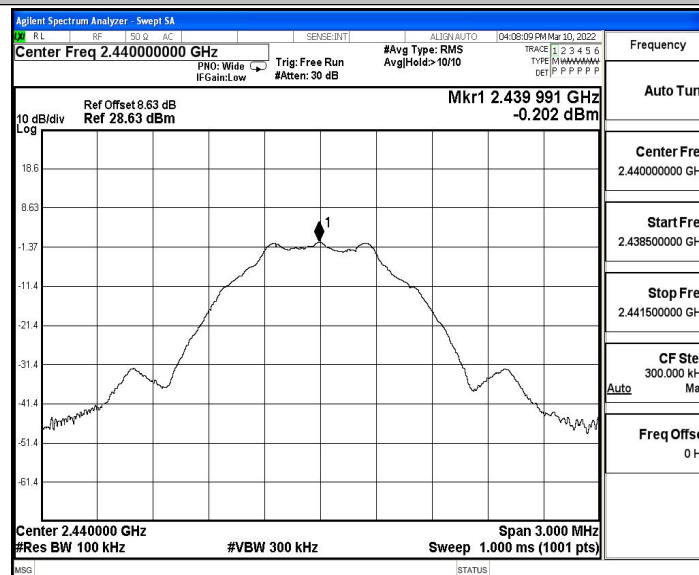
BLE_1M_Ant1_2402_30~1000



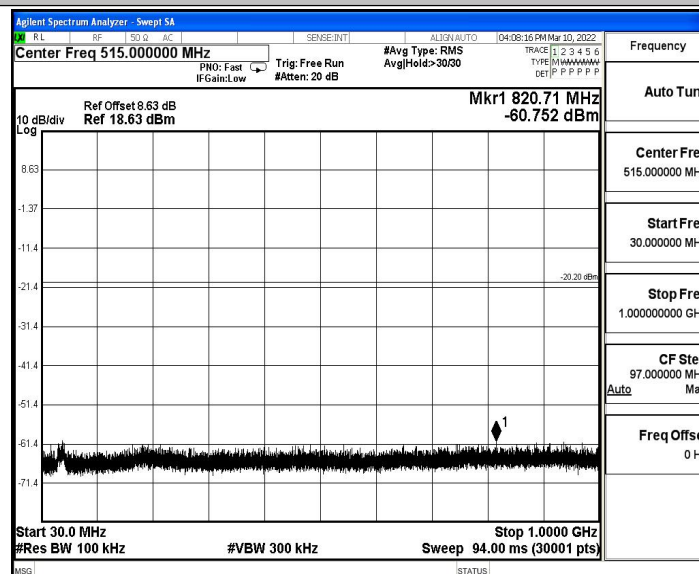
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

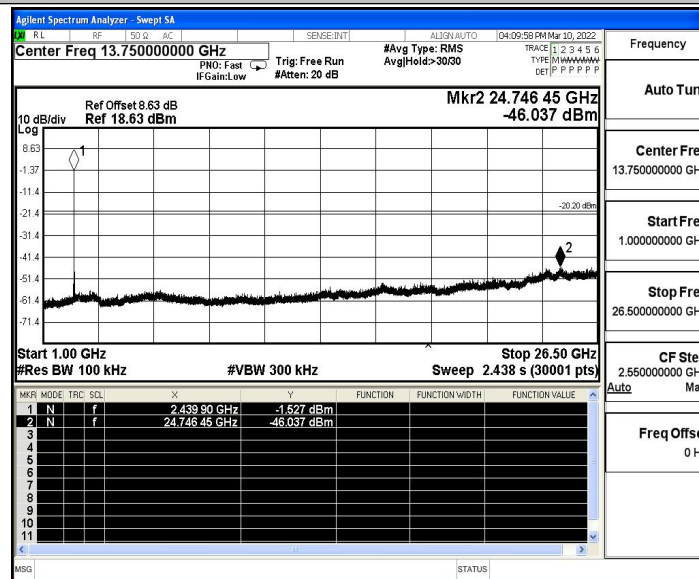


BLE_1M_Ant1_2440_30~1000

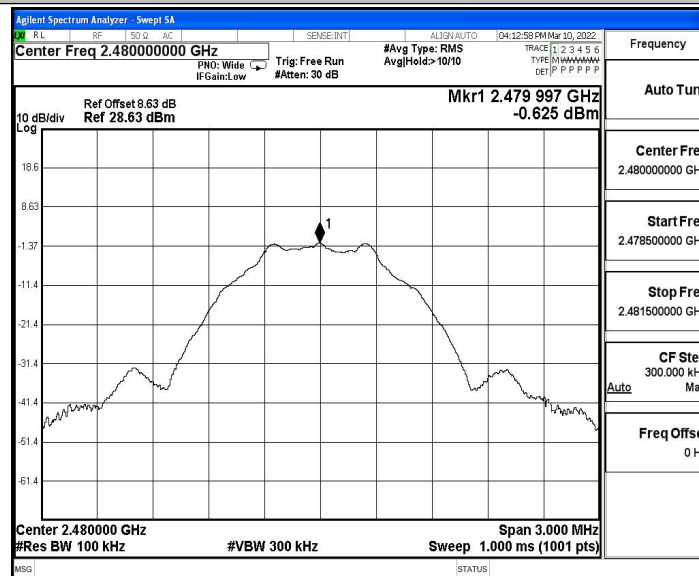




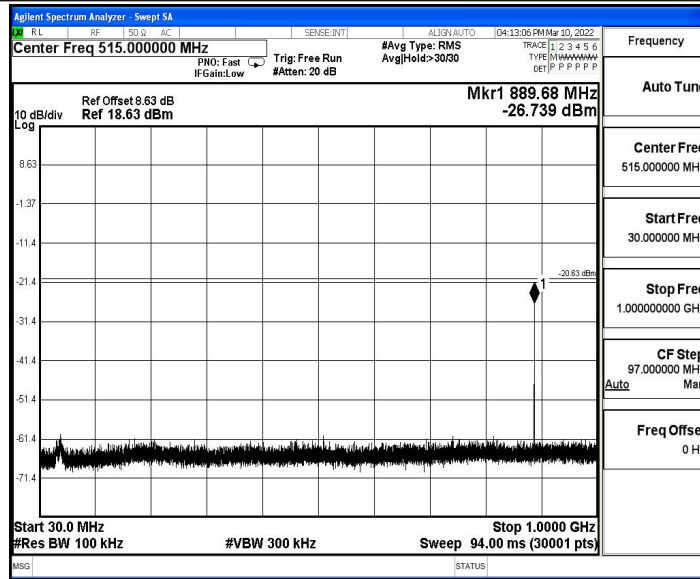
BLE_1M_Ant1_2440_1000~26500



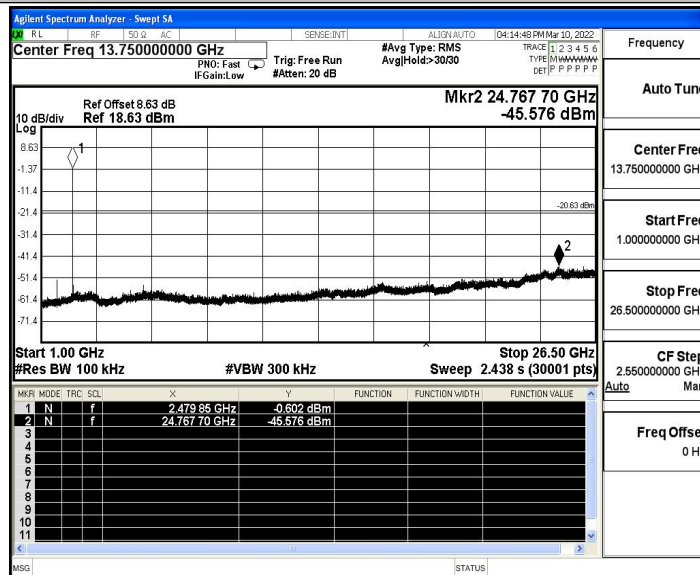
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





B.6 Duty Cycle

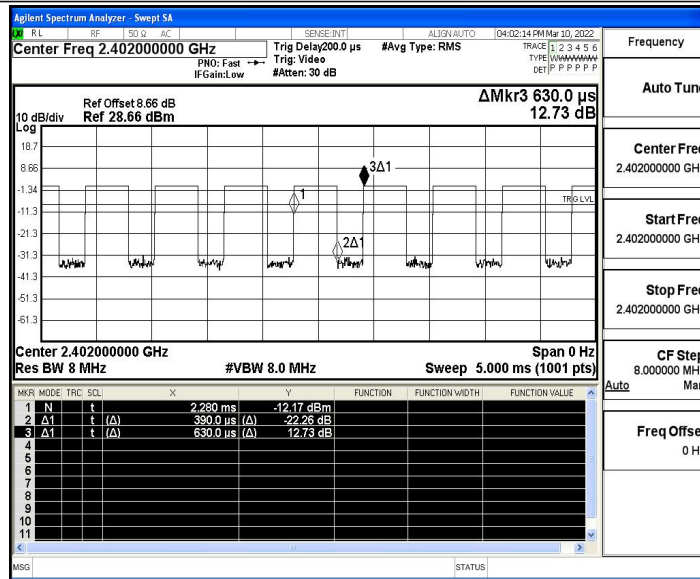
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.39	0.63	0.6190	61.90	2.08	---	---
		2440	0.39	0.63	0.6190	61.90	2.08	---	---
		2480	0.38	0.62	0.6129	61.29	2.13	---	---

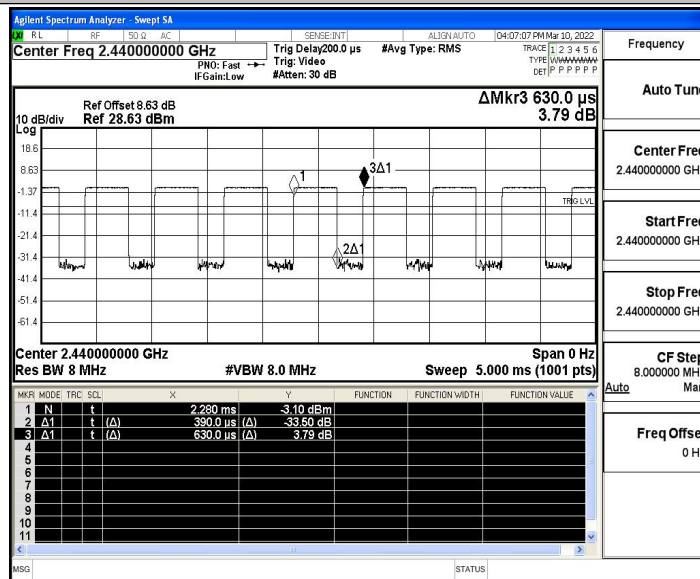


Test Graphs

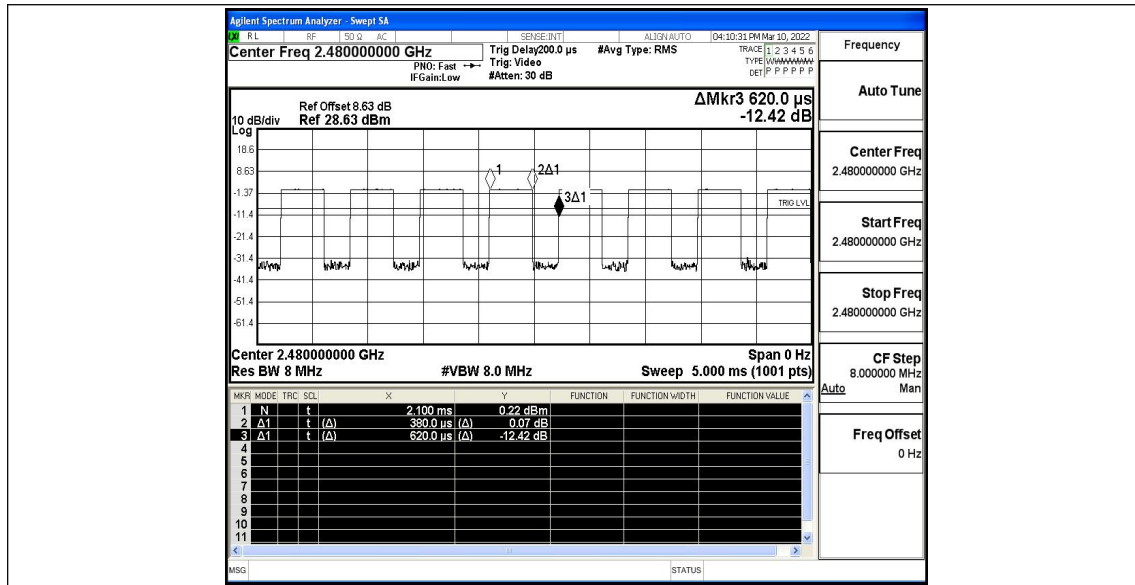
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-47.65	≤-41.20	47.55	≤54	PASS
				AV	2362.160	-46.74	≤-41.20	48.46	≤54	PASS
				AV	2390.000	-47.08	≤-41.20	48.12	≤54	PASS
				Peak	2310.000	-38.24	≤-21.20	56.96	≤74	PASS
				Peak	2374.340	-36.29	≤-21.20	58.91	≤74	PASS
				Peak	2390.000	-38.15	≤-21.20	57.05	≤74	PASS
		High	2480	AV	2483.500	-46.05	≤-41.20	49.15	≤54	PASS
				AV	2483.520	-46.05	≤-41.20	49.15	≤54	PASS
				AV	2500.000	-46.75	≤-41.20	48.45	≤54	PASS
				Peak	2483.500	-33.24	≤-21.20	61.96	≤74	PASS
				Peak	2483.680	-31.71	≤-21.20	63.49	≤74	PASS
				Peak	2500.000	-38.1	≤-21.20	57.10	≤74	PASS

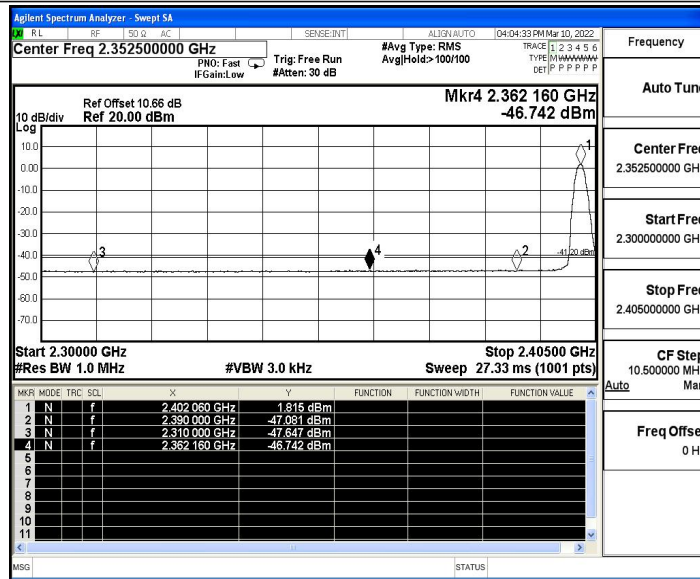
Note:

1. The Antenna Gain is compensated in the graph.
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.

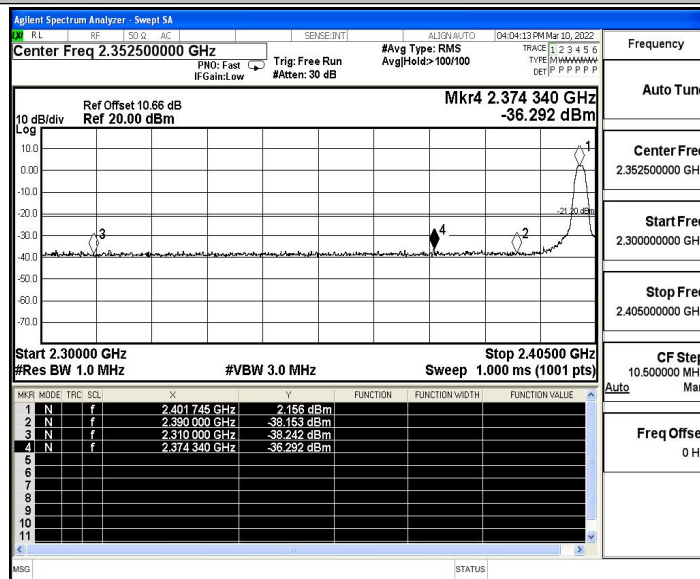


Test Graphs

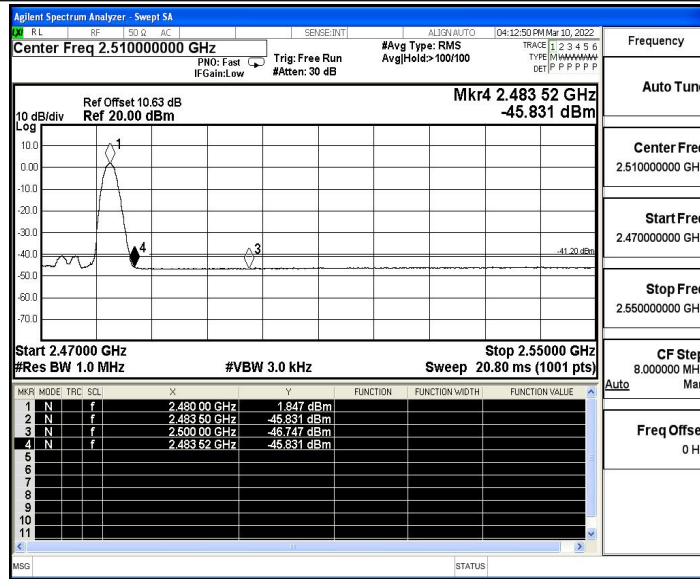
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

