



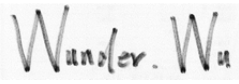
Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: Aroma diffuser

Test Model: AE103

Environmental Conditions

Temperature:	23.5℃
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	 Wunder Wu
Supervised by:	 Li Huan



A.1 DTS Bandwidth

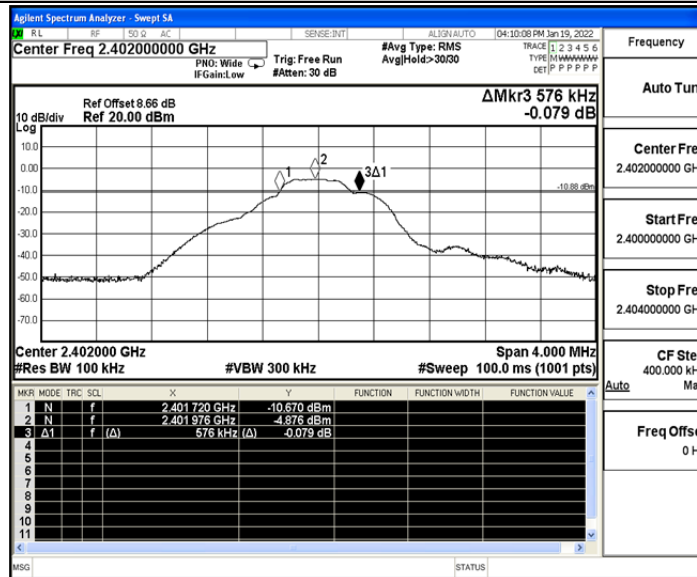
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.576	2401.720	2402.296	0.5	PASS
		2440	0.520	2439.720	2440.240	0.5	PASS
		2480	0.528	2479.720	2480.248	0.5	PASS

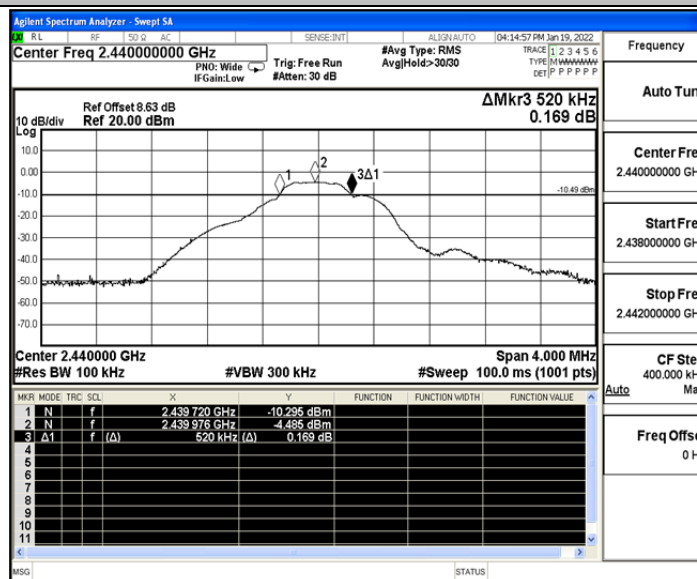


Test Graphs

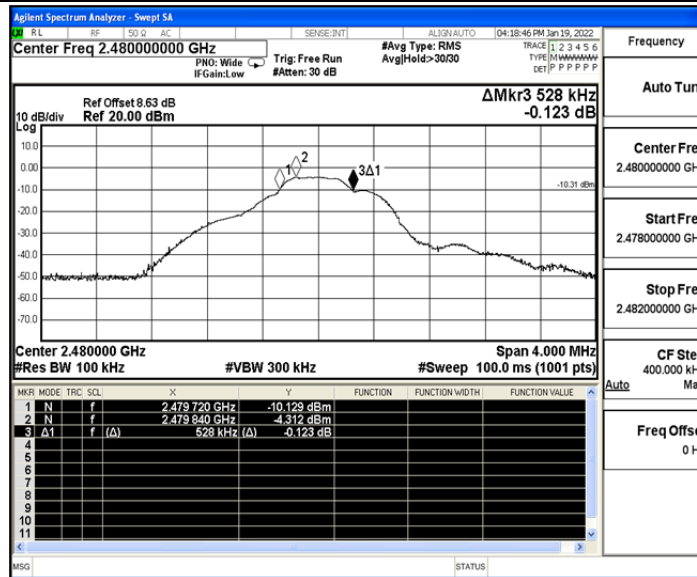
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.2 Maximum peak conducted output power

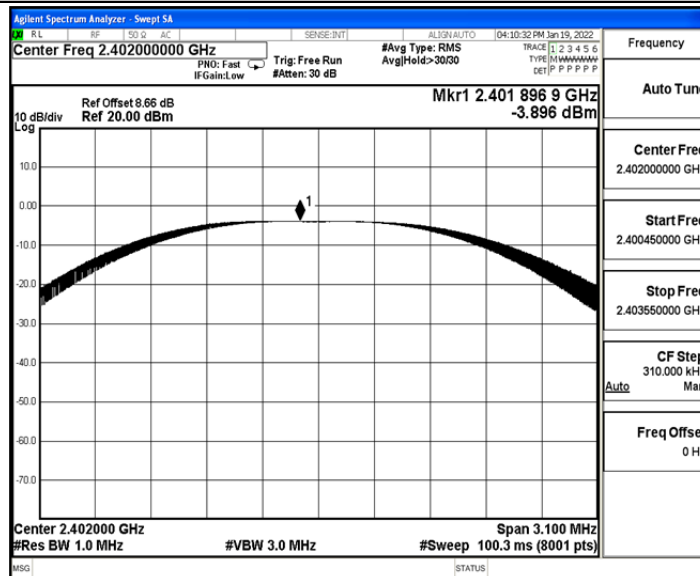
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-3.9	≤30	PASS
		2440	-3.51	≤30	PASS
		2480	-3.37	≤30	PASS

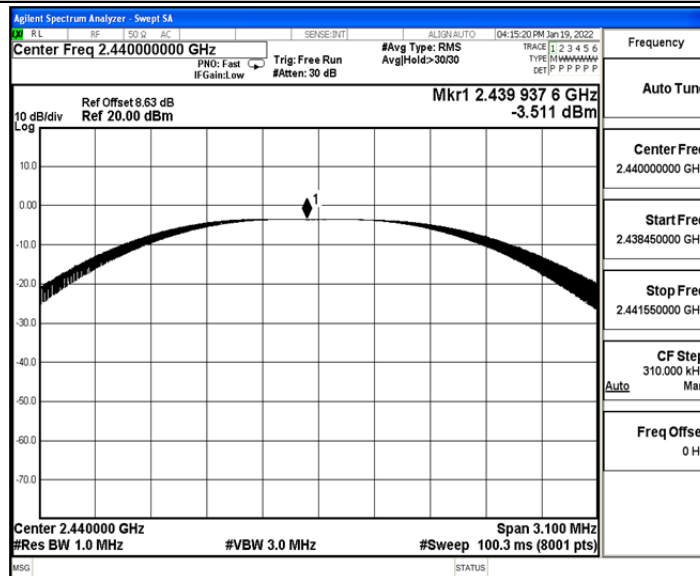


Test Graphs

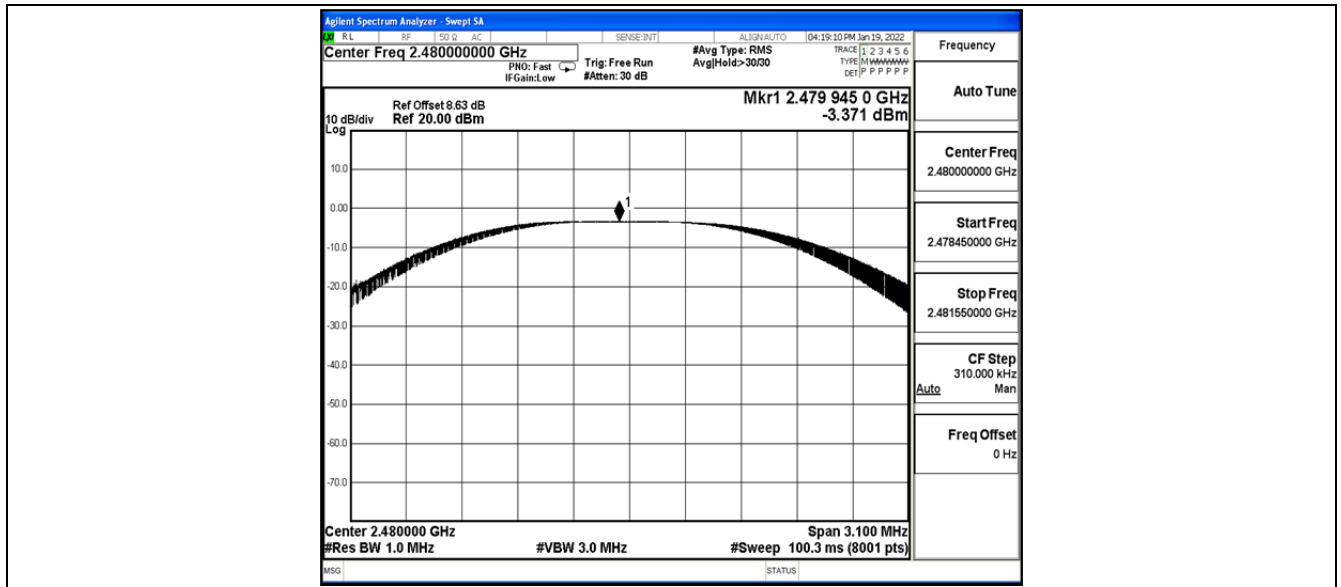
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.3 Maximum power spectral density

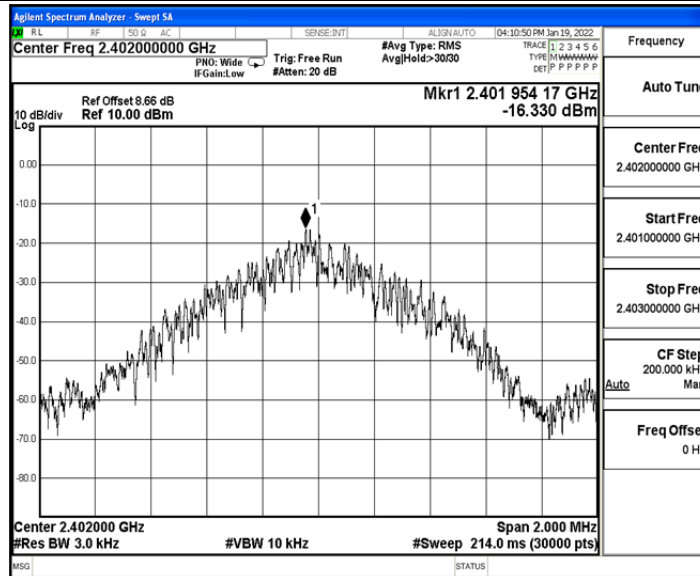
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-16.33	≤8.00	PASS
		2440	-15.77	≤8.00	PASS
		2480	-15.6	≤8.00	PASS

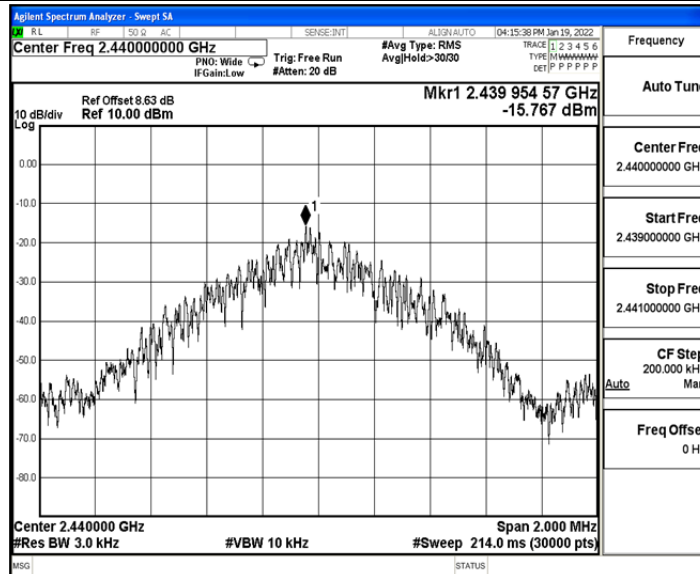


Test Graphs

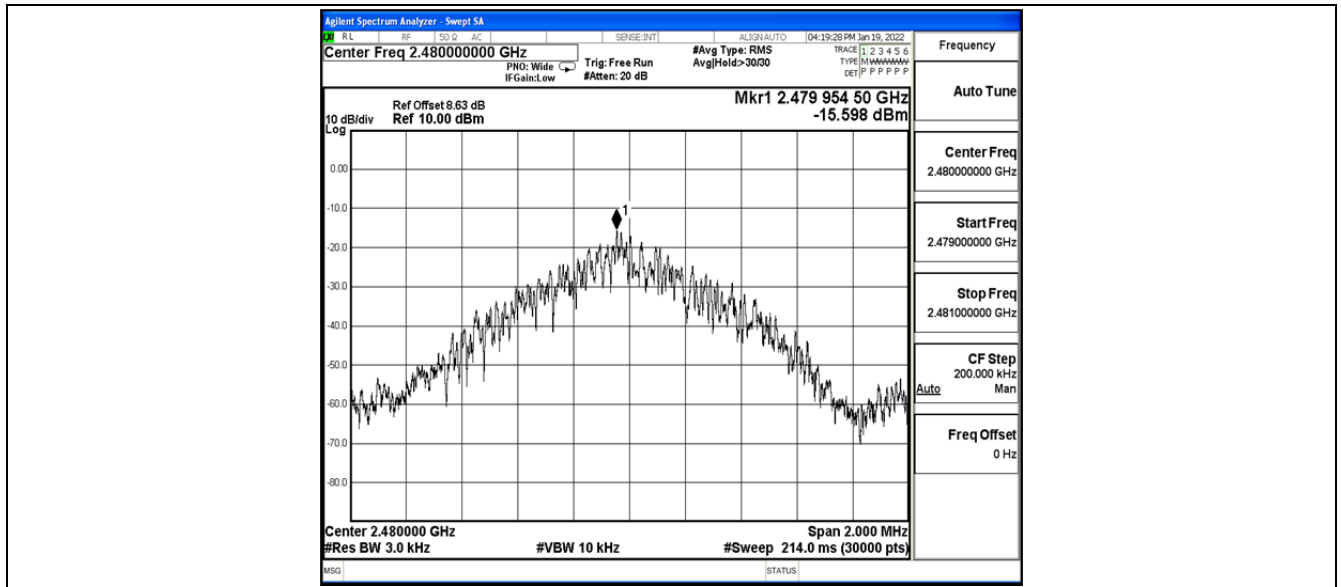
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.4 Band edge measurements

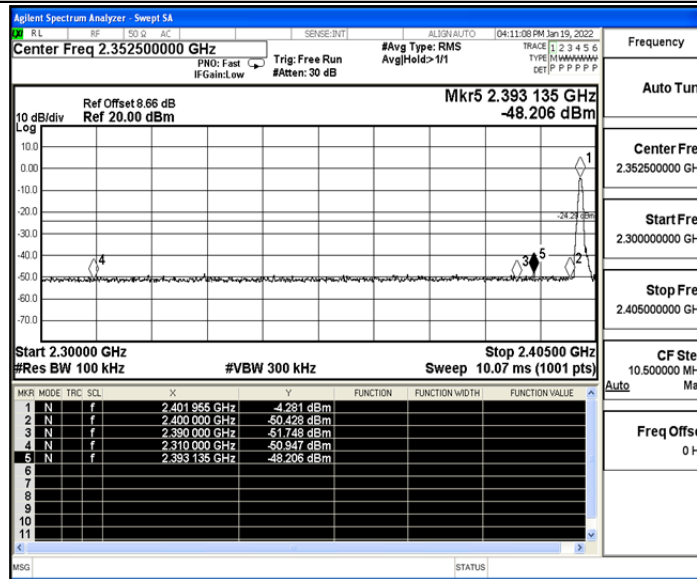
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-4.29	-48.21	≤ -24.29	PASS
		High	2480	-3.76	-47.02	≤ -23.76	PASS

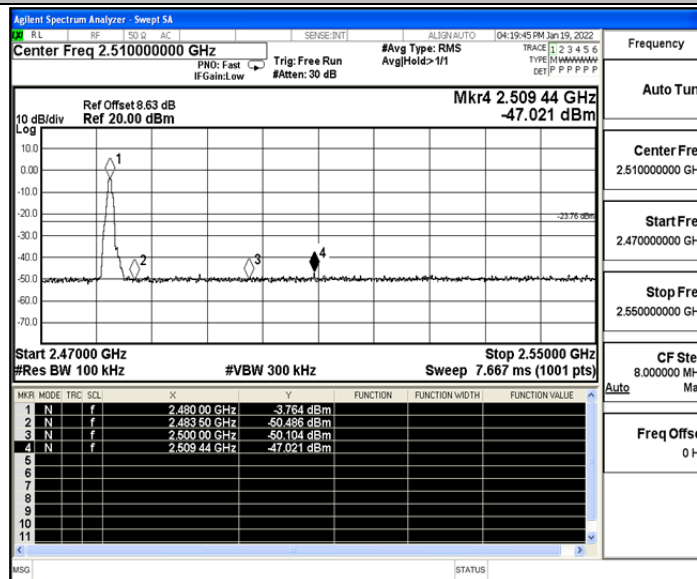


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





A.5 Conducted Spurious Emission

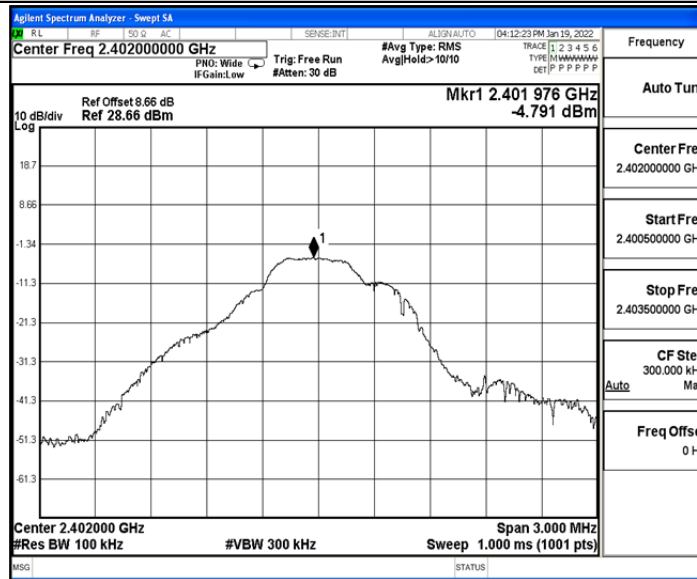
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.79	-4.79	---	PASS
			30~1000	-4.79	-56	≤ -24.79	PASS
			1000~26500	-4.79	-46.42	≤ -24.79	PASS
		2440	Reference	-4.38	-4.38	---	PASS
			30~1000	-4.38	-55.08	≤ -24.38	PASS
			1000~26500	-4.38	-45.75	≤ -24.38	PASS
		2480	Reference	-4.26	-4.26	---	PASS
			30~1000	-4.26	-55.44	≤ -24.26	PASS
			1000~26500	-4.26	-46.46	≤ -24.26	PASS

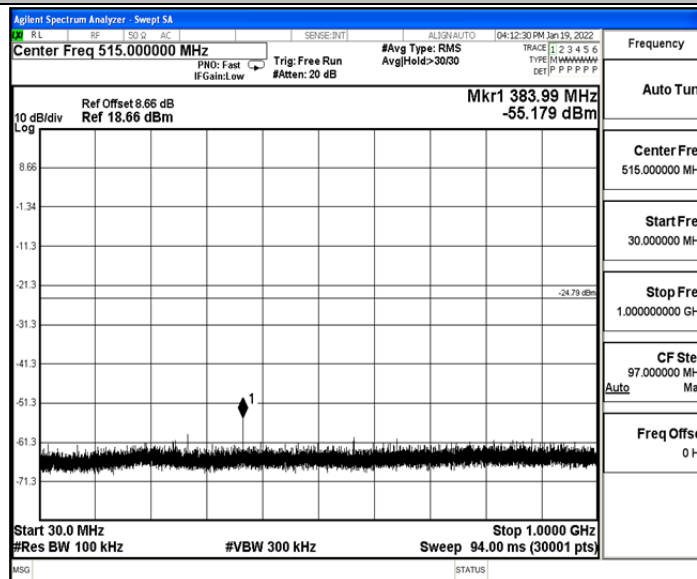


Test Graphs

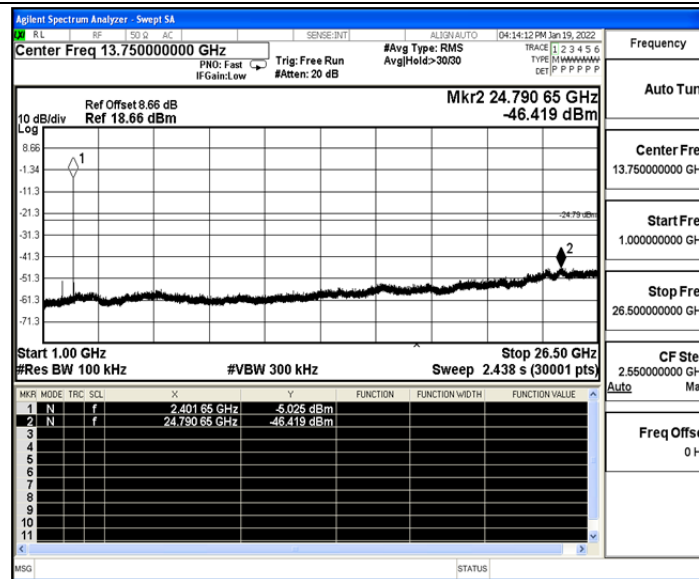
BLE_1M_Ant1_2402_0~Reference



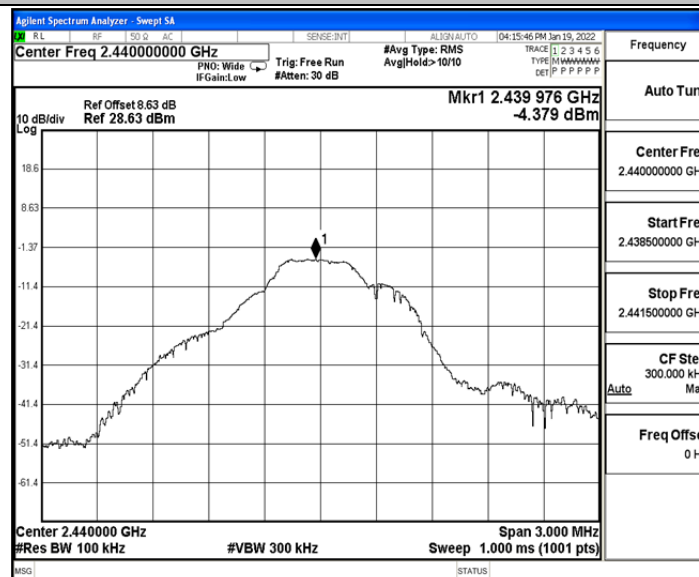
BLE_1M_Ant1_2402_30~1000



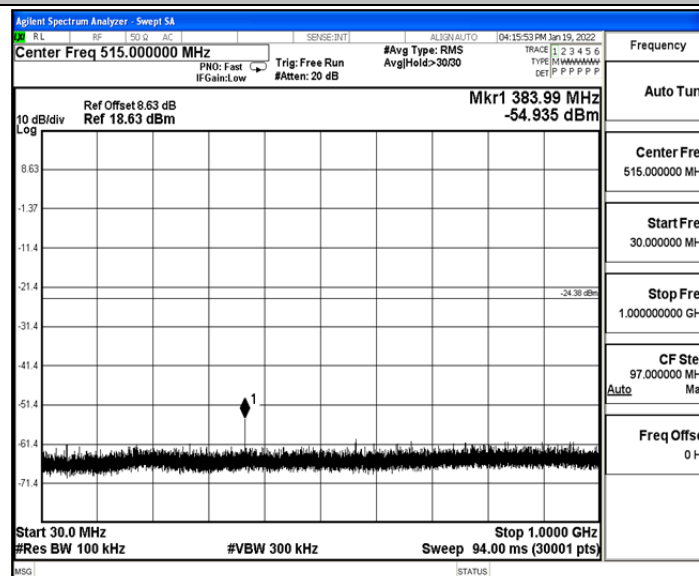
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

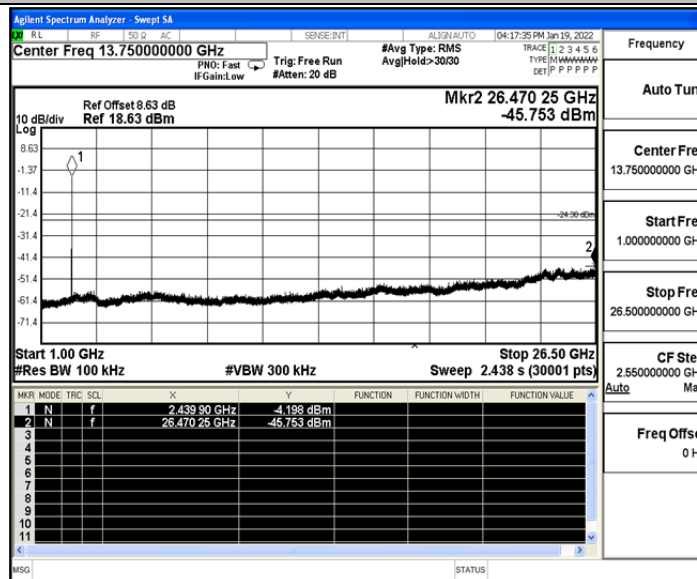


BLE_1M_Ant1_2440_30~1000

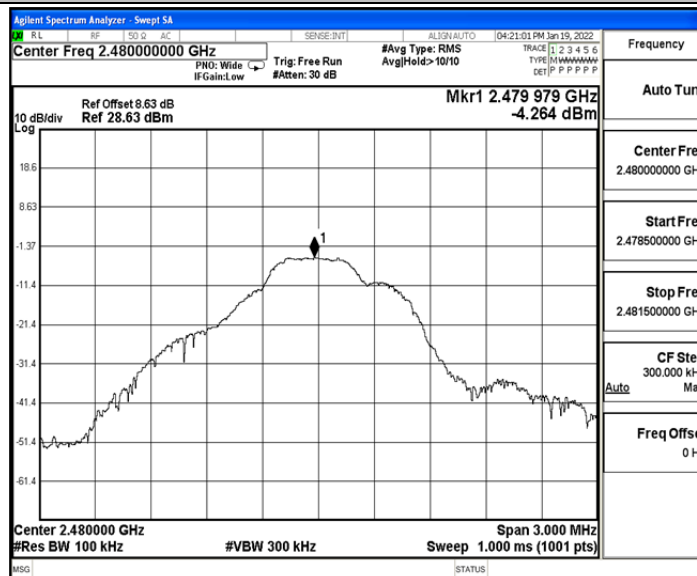




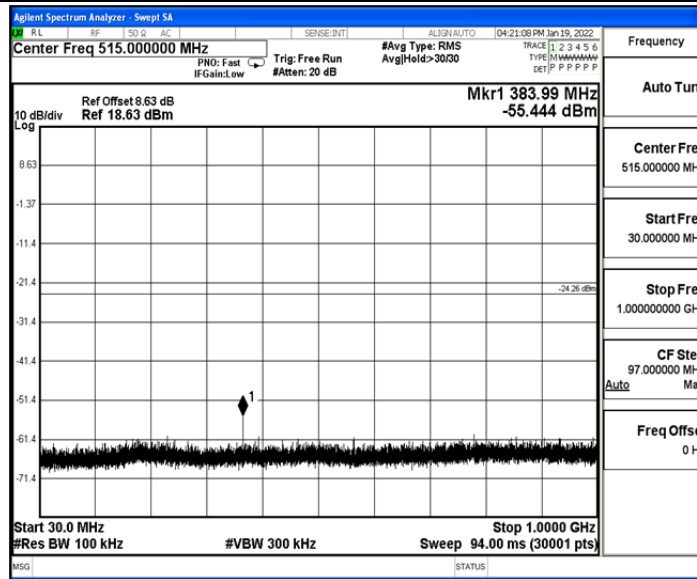
BLE_1M_Ant1_2440_1000~26500



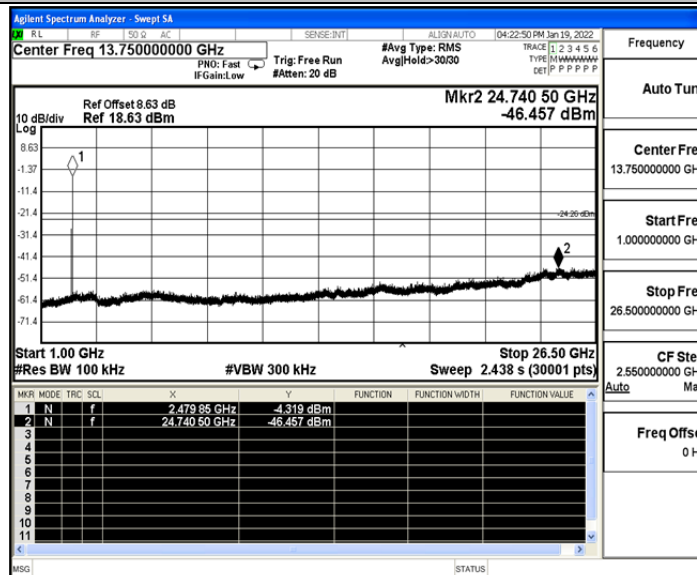
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





A.6 Duty Cycle

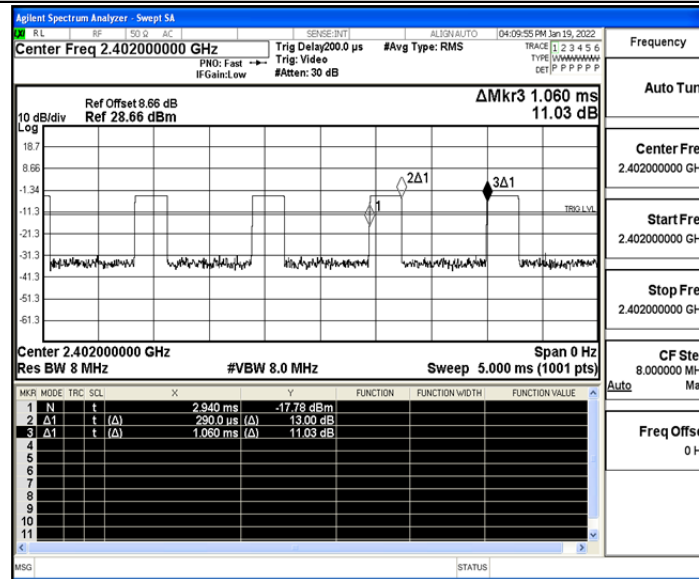
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.29	1.06	0.2736	27.36	5.63	---	---
		2440	0.29	1.06	0.2736	27.36	5.63	---	---
		2480	0.29	1.06	0.2736	27.36	5.63	---	---

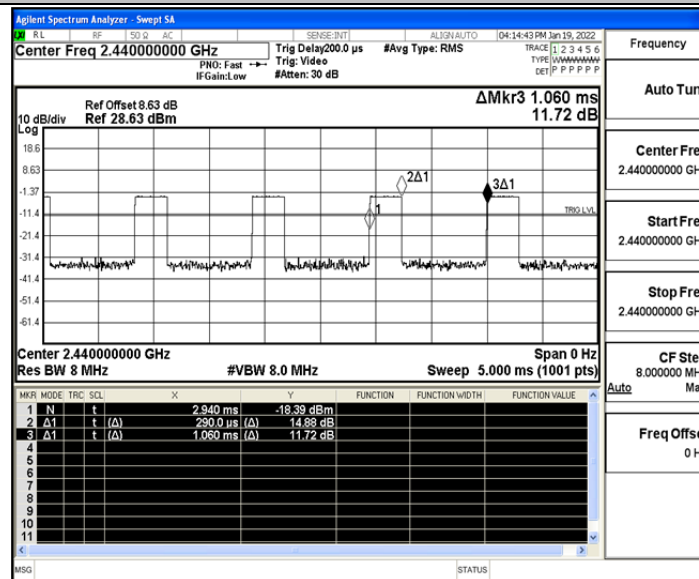


Test Graphs

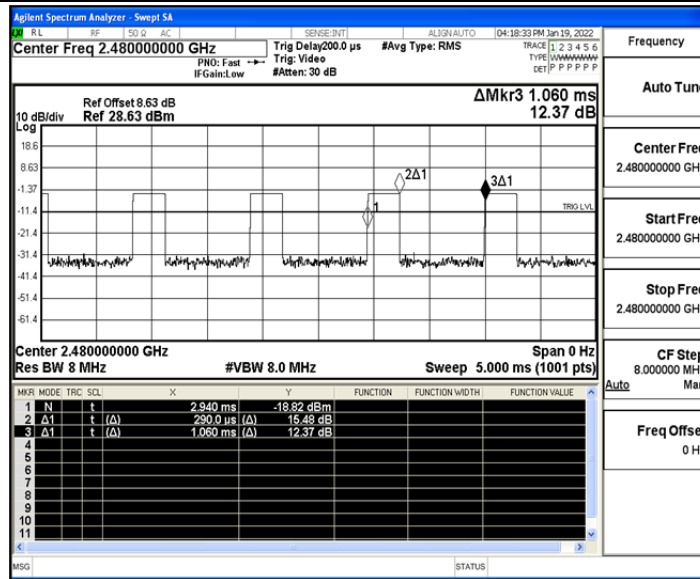
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.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	-47.44	≤-41.20	47.76	≤54	PASS
				AV	2383.790	-46.48	≤-41.20	48.72	≤54	PASS
				AV	2390.000	-46.79	≤-41.20	48.41	≤54	PASS
				Peak	2310.000	-38.61	≤-21.20	56.59	≤74	PASS
				Peak	2388.410	-36.46	≤-21.20	58.74	≤74	PASS
				Peak	2390.000	-37.87	≤-21.20	57.33	≤74	PASS
		High	2480	AV	2483.500	-46.39	≤-41.20	48.81	≤54	PASS
				AV	2498.160	-45.78	≤-41.20	49.42	≤54	PASS
				AV	2500.000	-46.46	≤-41.20	48.74	≤54	PASS
				Peak	2483.500	-37.42	≤-21.20	57.78	≤74	PASS
				Peak	2497.840	-35.86	≤-21.20	59.34	≤74	PASS
				Peak	2500.000	-37.38	≤-21.20	57.82	≤74	PASS

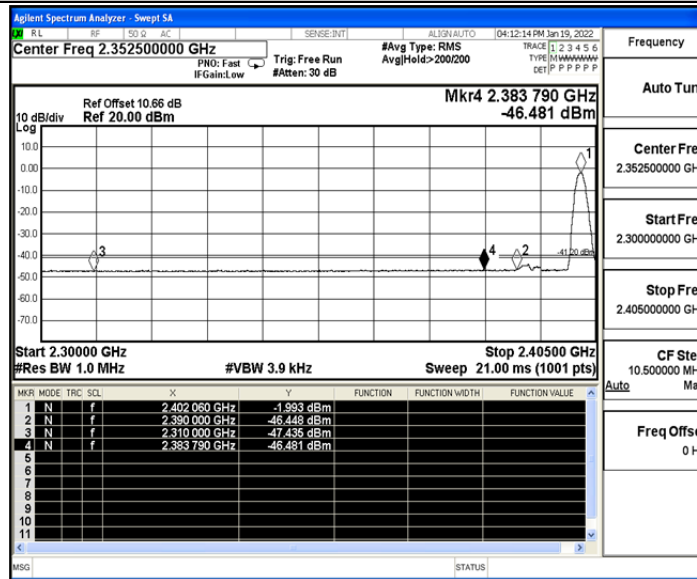
Note:

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.

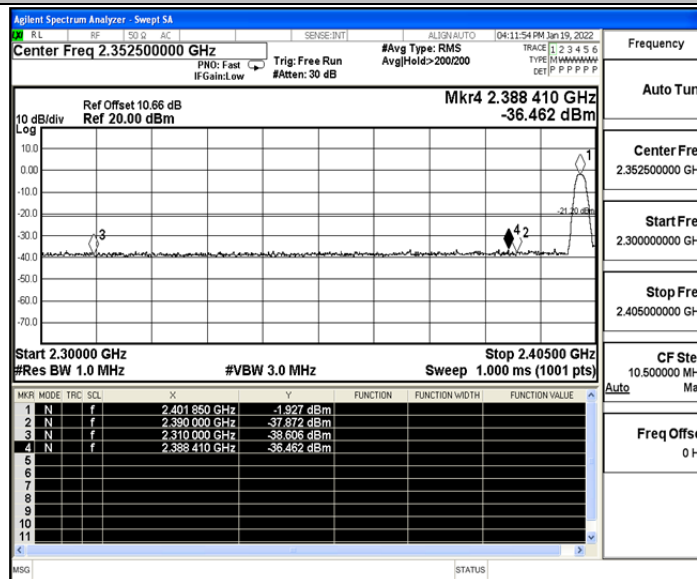


Test Graphs

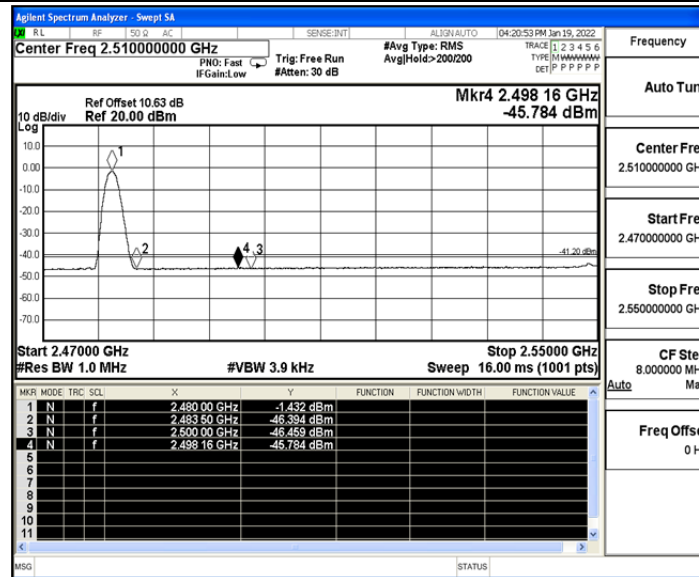
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

