



Appendix A

RF Test Data for BT LE V5.0(DTS) (Conducted Measurement)

Product Name: Ochsner Connected Inhaler Sensor

Trade Mark: Ochsner

Test Model: TKV01001

Environmental Conditions

Temperature:	21.1 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan



A.1 DTS Bandwidth

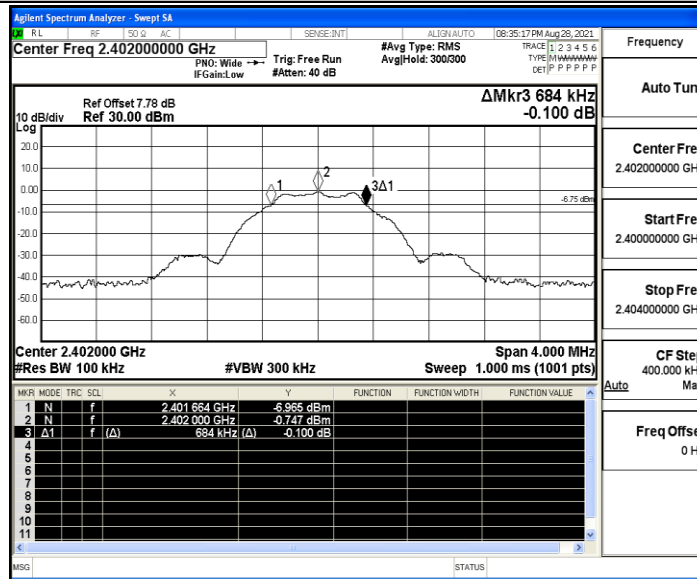
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.684	2401.664	2402.348	≥0.5	PASS
		2440	0.668	2439.672	2440.340	≥0.5	PASS
		2480	0.684	2479.660	2480.344	≥0.5	PASS

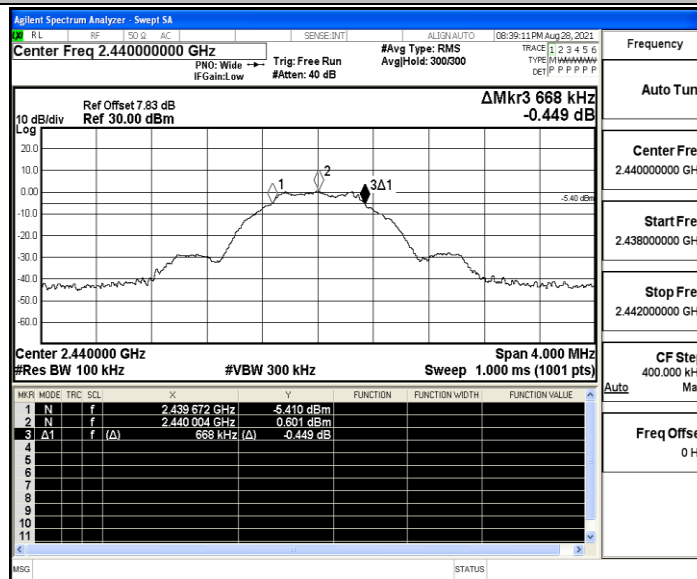


Test Graphs

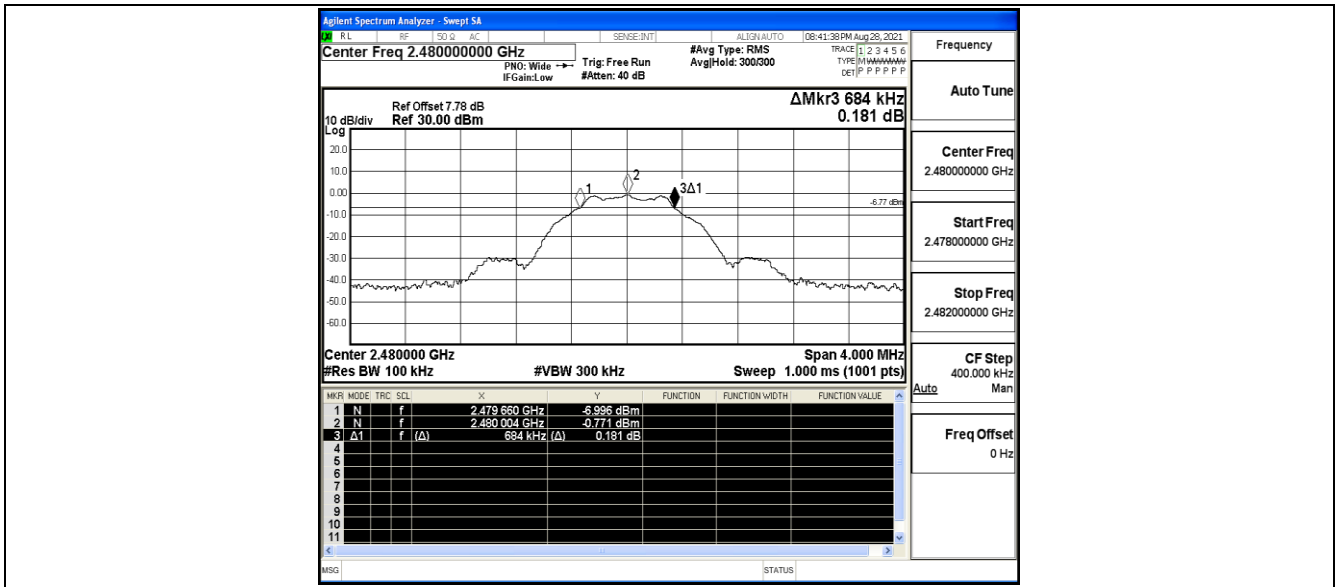
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.2 Maximum peak conducted output power

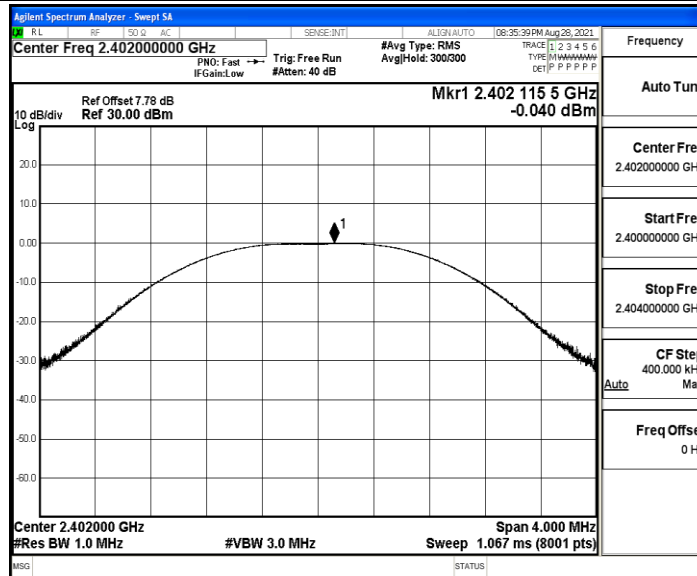
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.04	≤ 30	PASS
		2440	1.22	≤ 30	PASS
		2480	-0.11	≤ 30	PASS

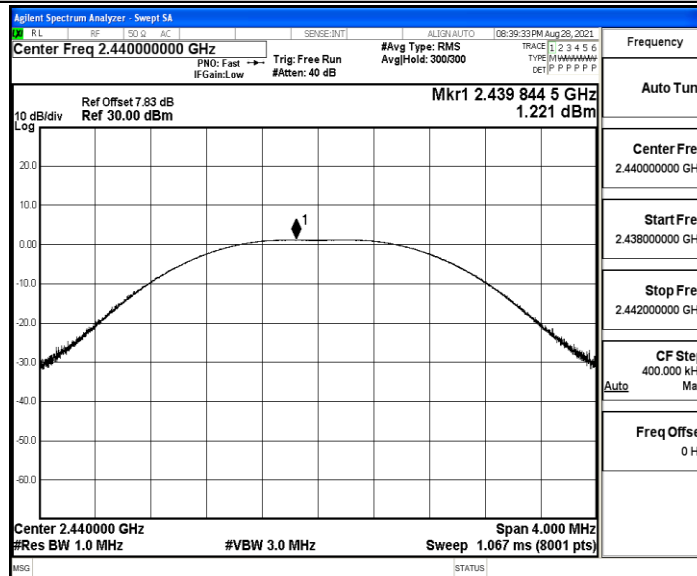


Test Graphs

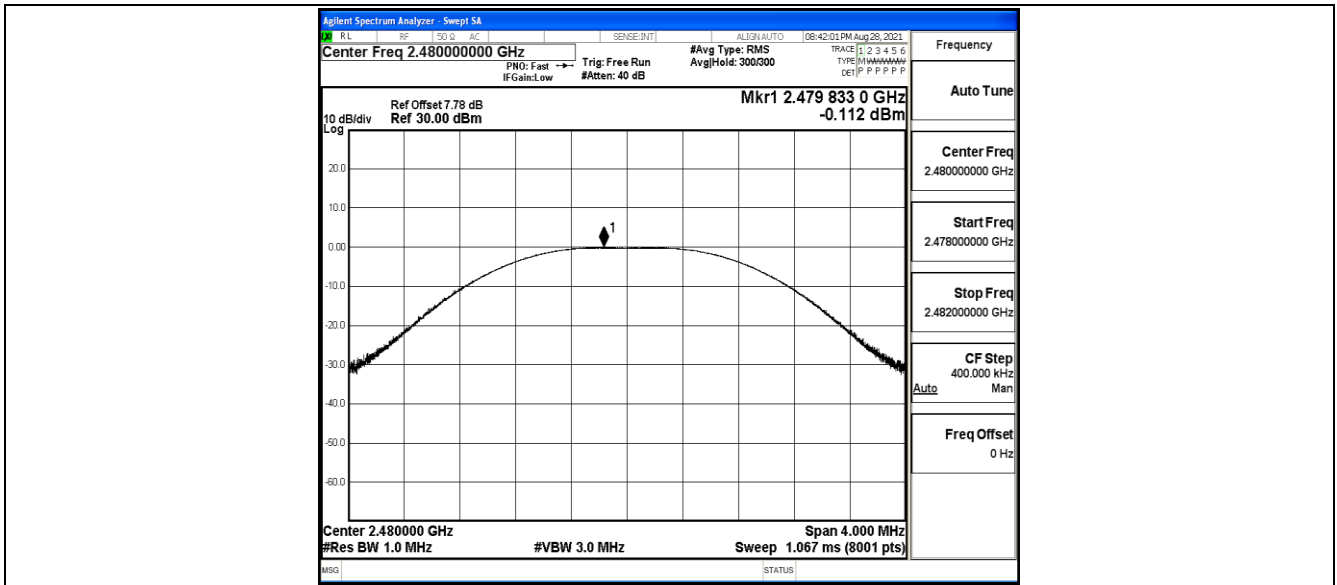
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.3 Maximum power spectral density

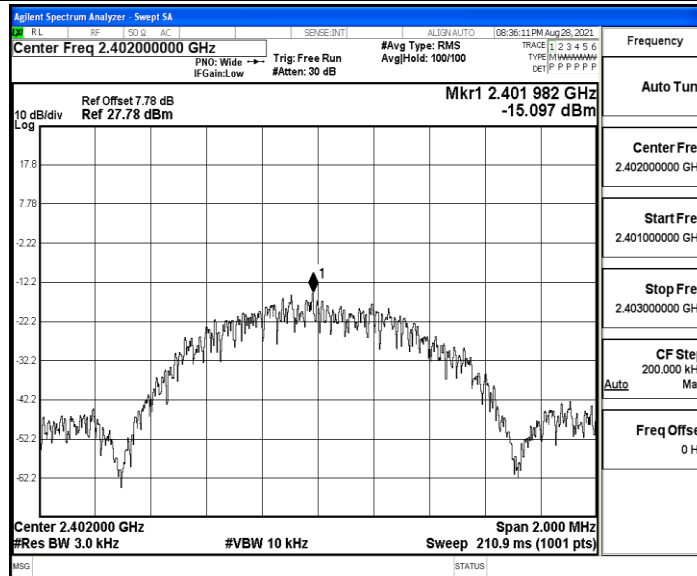
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-15.1	≤8	PASS
		2440	-13.57	≤8	PASS
		2480	-14.98	≤8	PASS

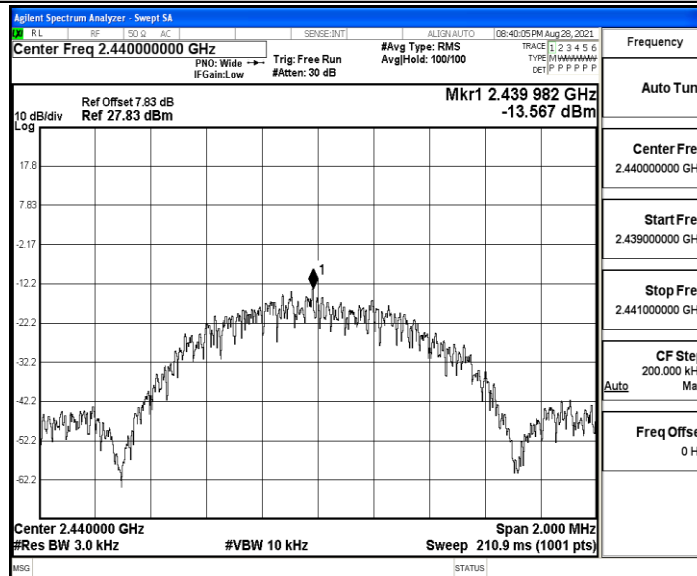


Test Graphs

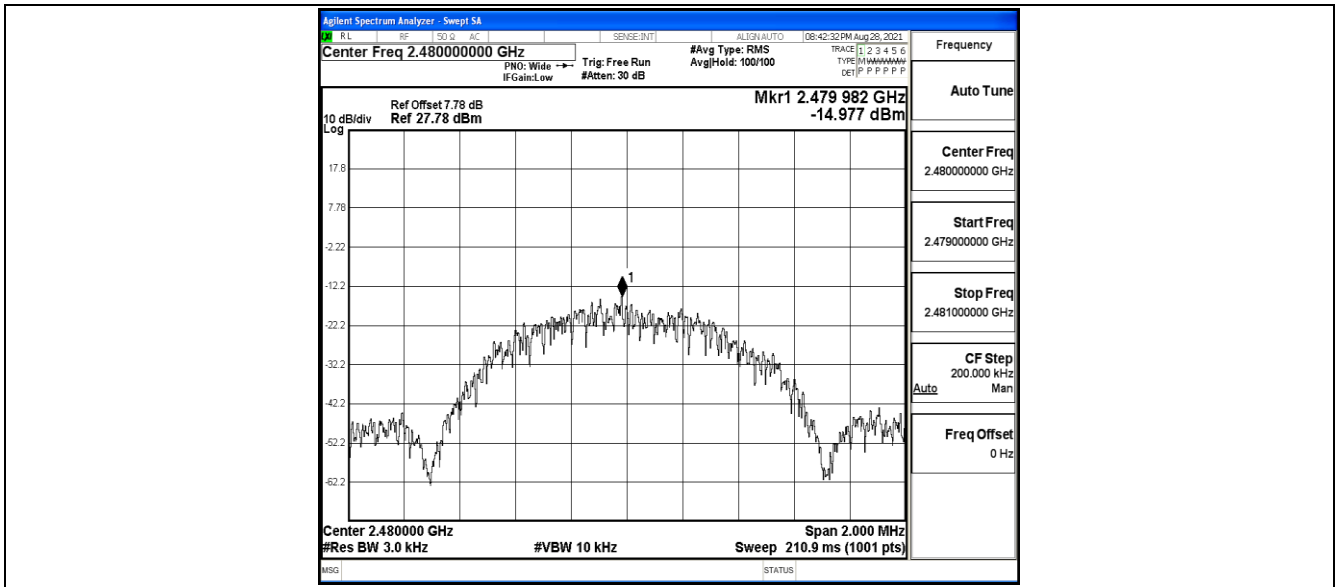
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.4 Band edge measurements

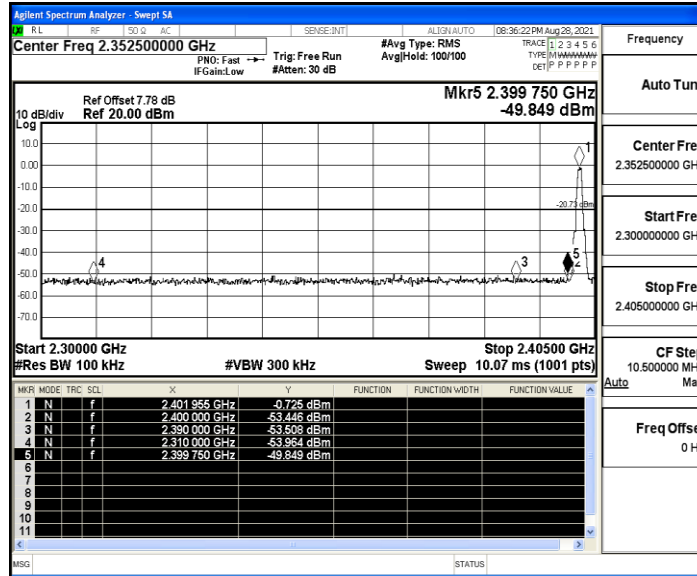
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.73	-49.85	≤ -20.73	PASS
		High	2480	-0.63	-49.17	≤ -20.63	PASS

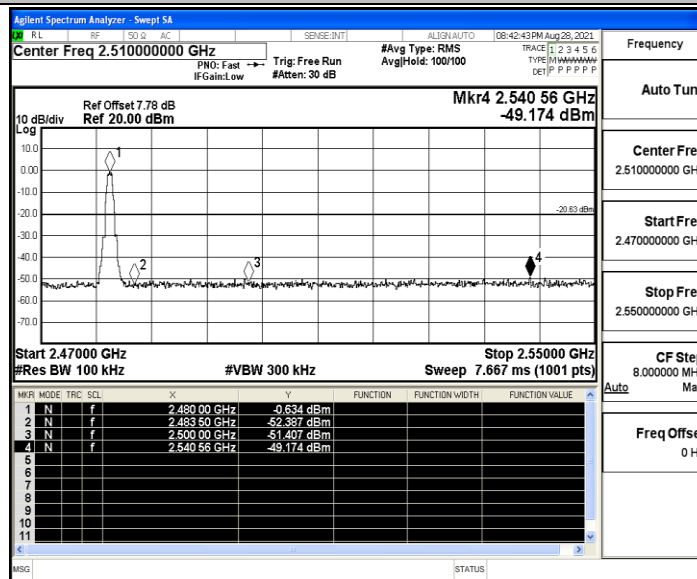


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





A.5 Conducted Spurious Emission

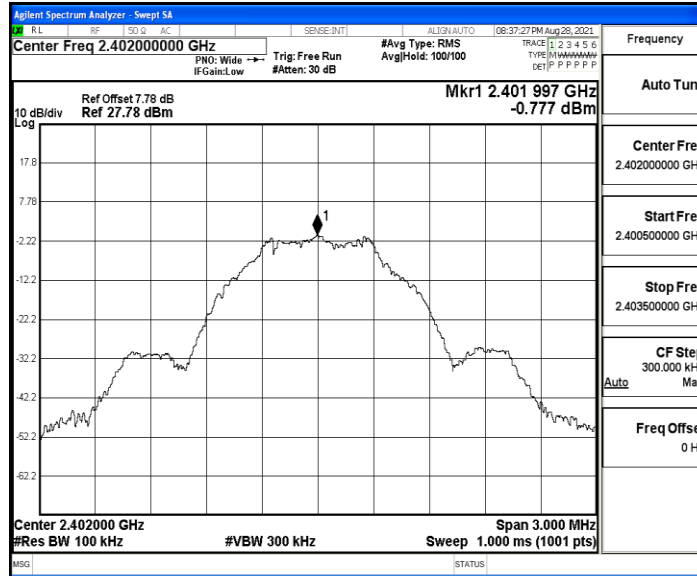
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.78	-0.78	---	PASS
			30~1000	-0.78	-60.75	≤ -20.78	PASS
			1000~26500	-0.78	-47.28	≤ -20.78	PASS
		2440	Reference	0.10	0.10	---	PASS
			30~1000	0.10	-61.64	≤ -19.9	PASS
			1000~26500	0.10	-47.35	≤ -19.9	PASS
		2480	Reference	-0.83	-0.83	---	PASS
			30~1000	-0.83	-61.68	≤ -20.83	PASS
			1000~26500	-0.83	-47.25	≤ -20.83	PASS

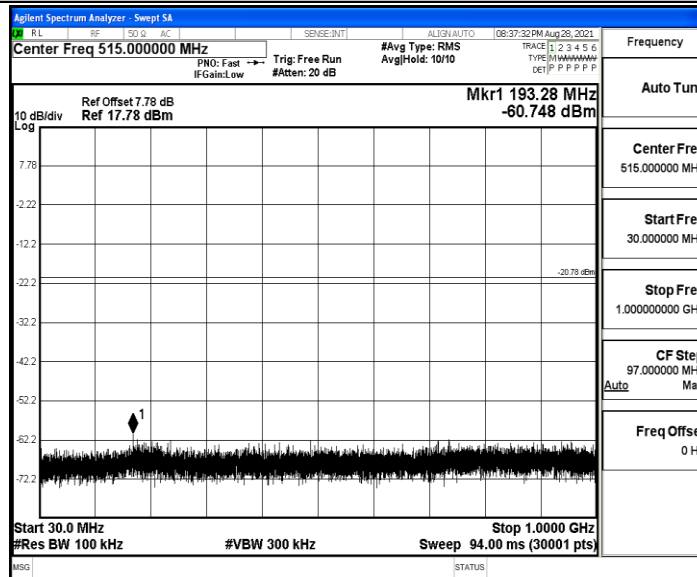


Test Graphs

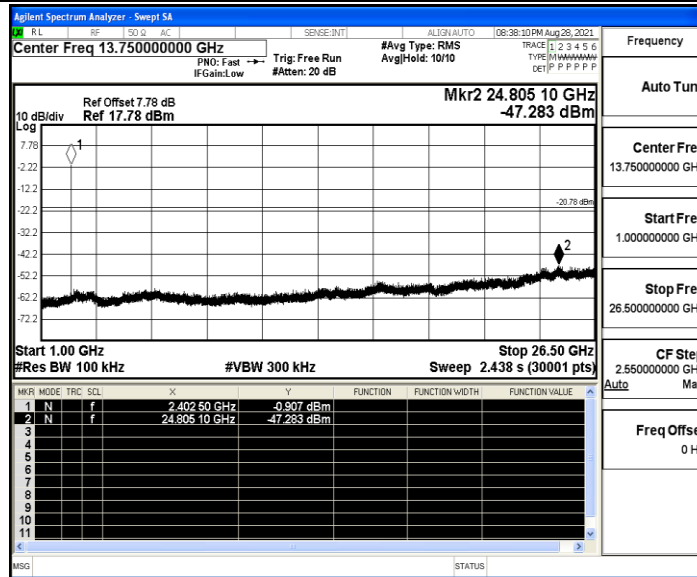
BLE_1M_Ant1_2402_0~Reference



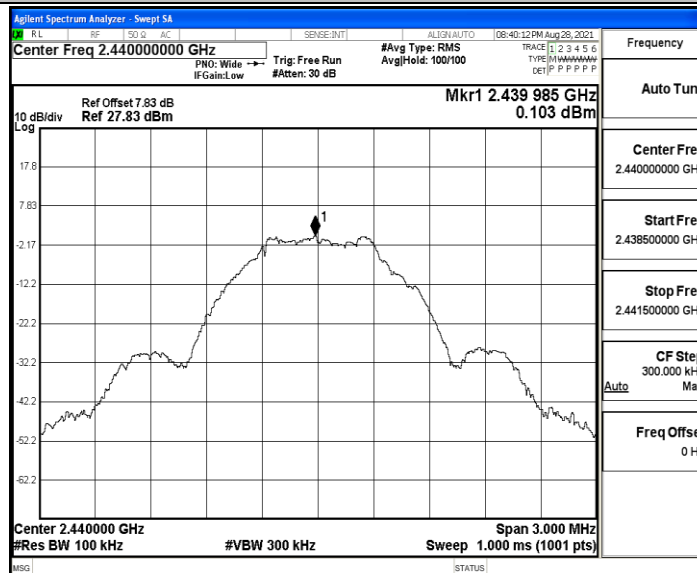
BLE_1M_Ant1_2402_30~1000



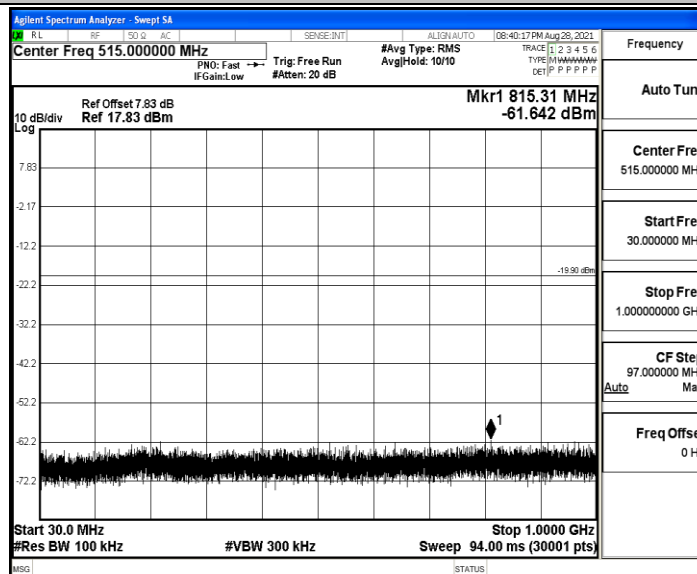
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

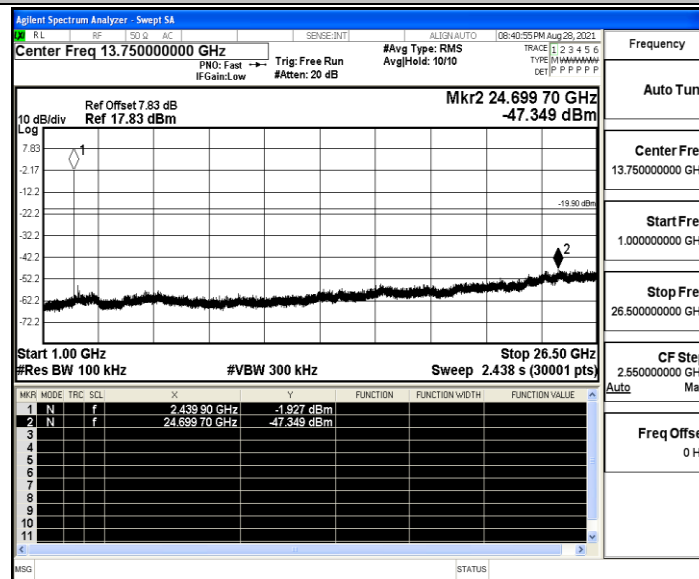


BLE_1M_Ant1_2440_30~1000

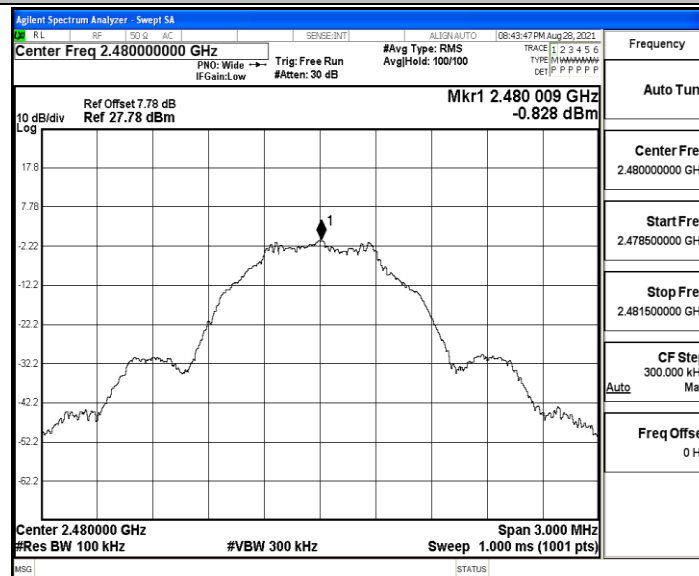




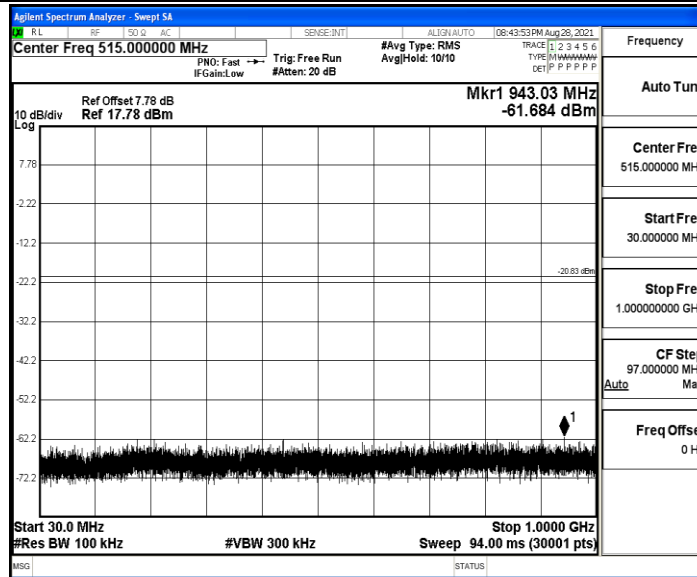
BLE_1M_Ant1_2440_1000-26500



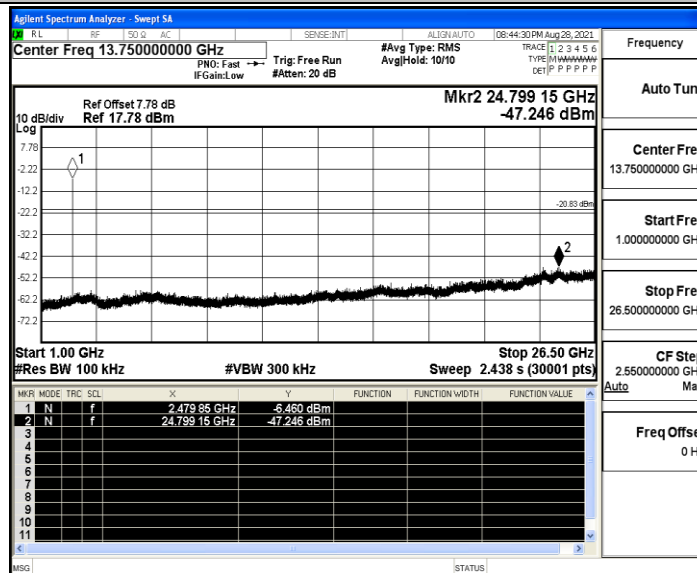
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





A.6 Duty Cycle

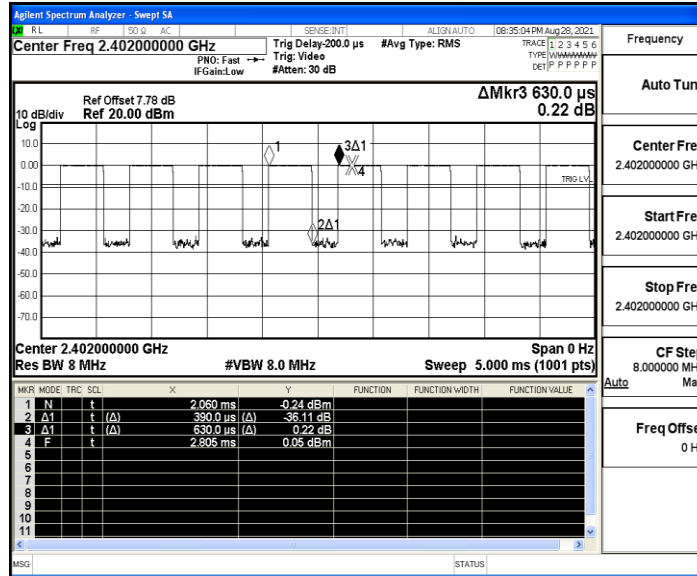
Test Result

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

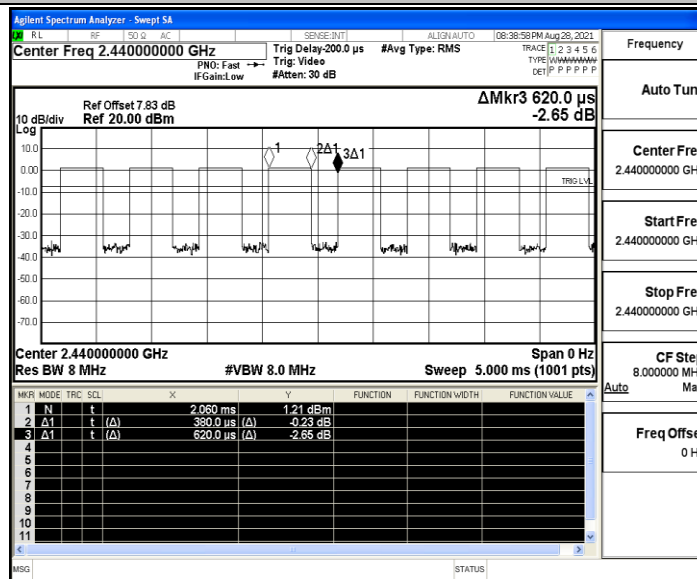


Test Graphs

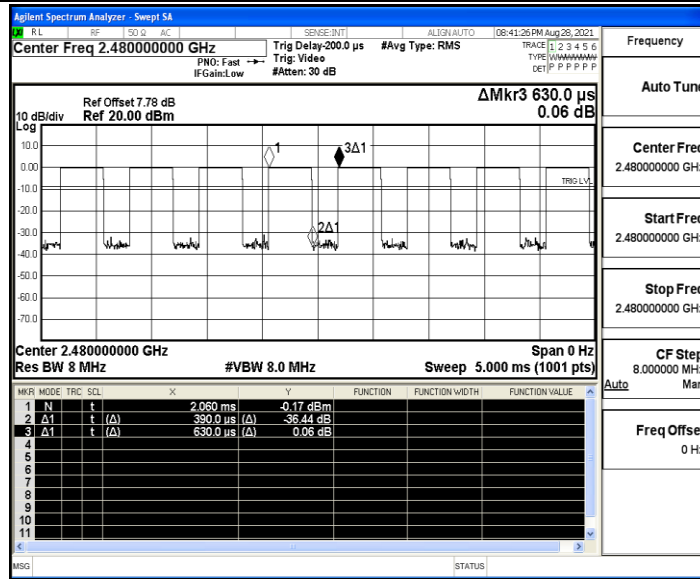
BLE_1M_Ant1_2402



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	-48.56	≤-41.20	46.64	≤54	PASS
				AV	2386.415	-47.71	≤-41.20	47.49	≤54	PASS
				AV	2390.000	-47.98	≤-41.20	47.22	≤54	PASS
				Peak	2310.000	-41.73	≤-21.20	53.47	≤74	PASS
				Peak	2317.430	-38.4	≤-21.20	56.80	≤74	PASS
				Peak	2390.000	-41.06	≤-21.20	54.14	≤74	PASS
		High	2480	AV	2483.500	-47.24	≤-41.20	47.96	≤54	PASS
				AV	2496.000	-46.86	≤-41.20	48.34	≤54	PASS
				AV	2500.000	-47.38	≤-41.20	47.82	≤54	PASS
				Peak	2483.500	-41.36	≤-21.20	53.84	≤74	PASS
				Peak	2484.080	-38.23	≤-21.20	56.97	≤74	PASS
				Peak	2500.000	-40.56	≤-21.20	54.64	≤74	PASS

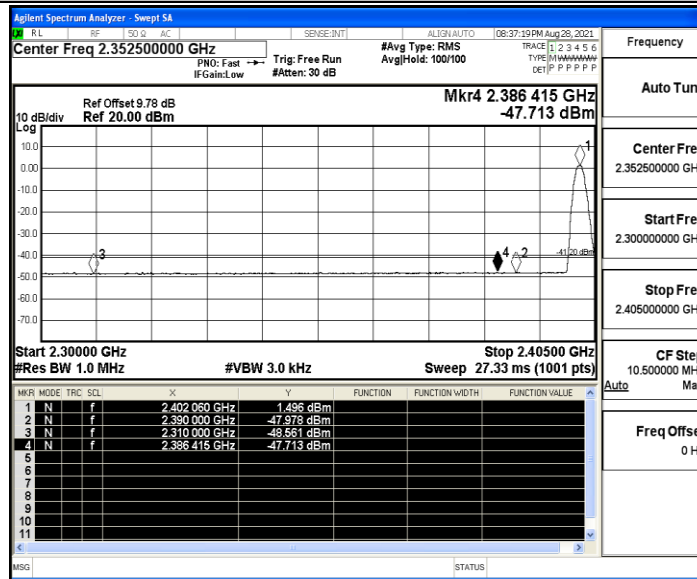
Note:

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.

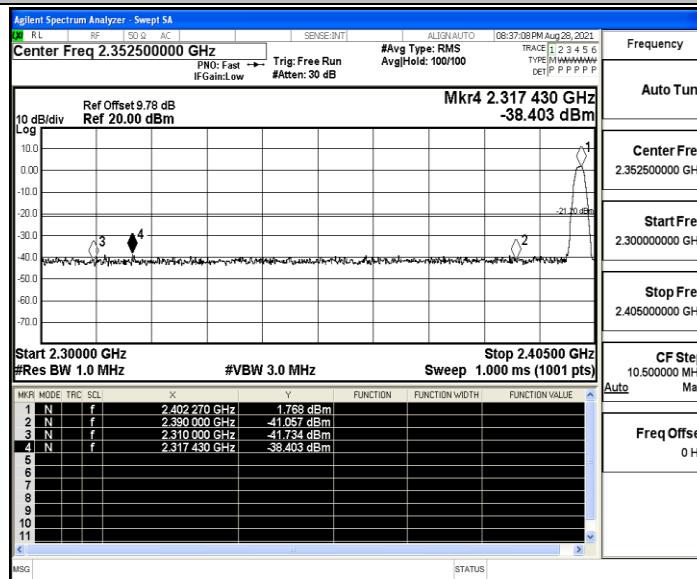


Test Graphs

BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV

