



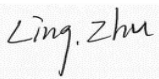
Appendix A

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

Product Name: Smart Recessed light

Test Model: SZXY002

Environmental Conditions

Temperature:	22.6℃
Relative Humidity:	53.5%
ATM Pressure:	100.0 kPa
Test Engineer:	 Ling Zhu
Supervised by:	 Li Huan



A.1 DTS Bandwidth

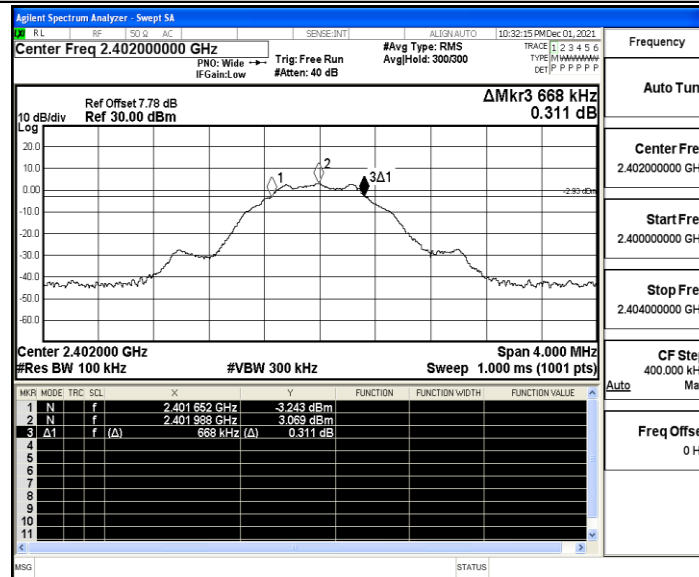
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.668	2401.652	2402.320	≥ 0.5	PASS
		2440	0.672	2439.656	2440.328	≥ 0.5	PASS
		2480	0.696	2479.640	2480.336	≥ 0.5	PASS

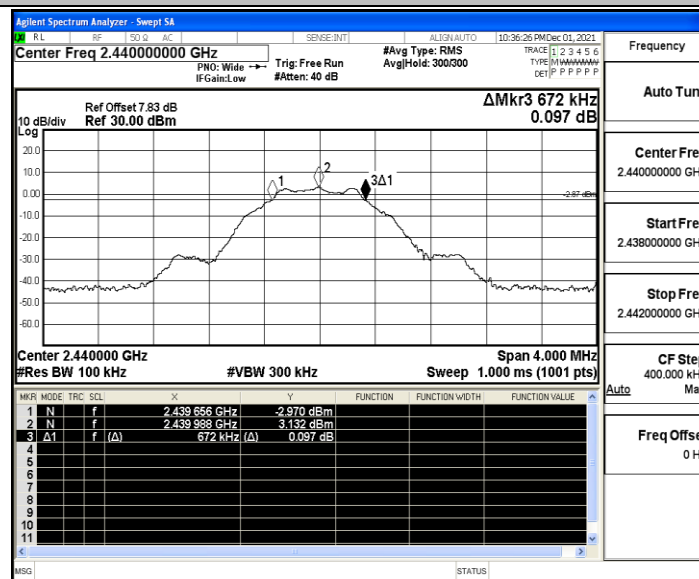


Test Graphs

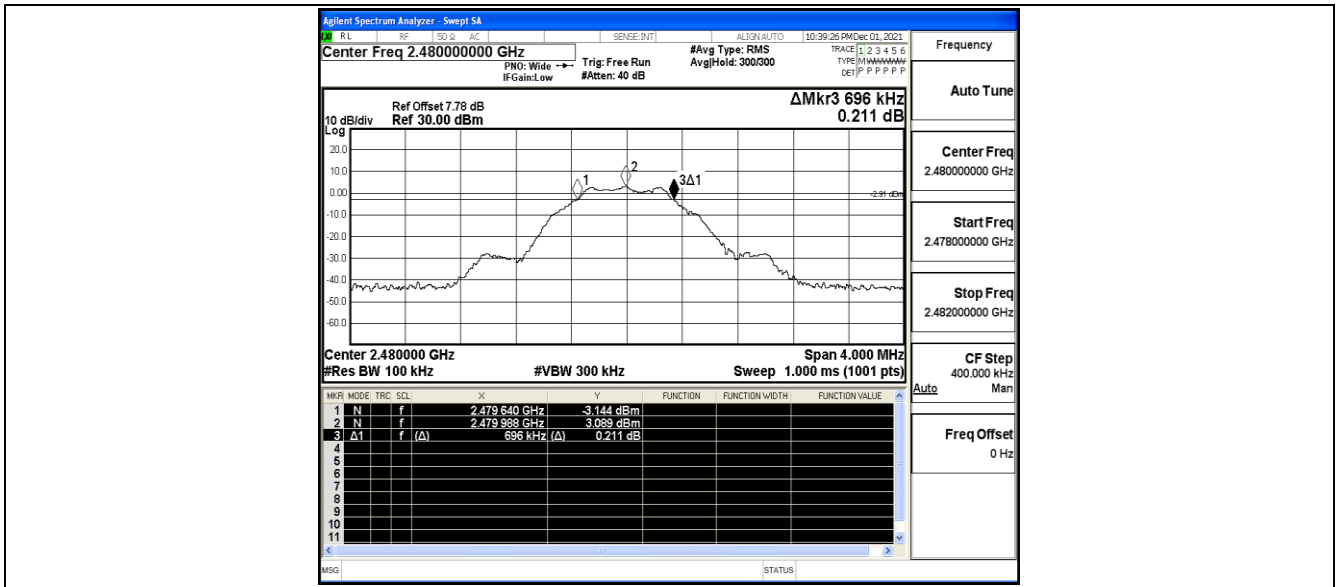
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.2 Maximum peak conducted output power

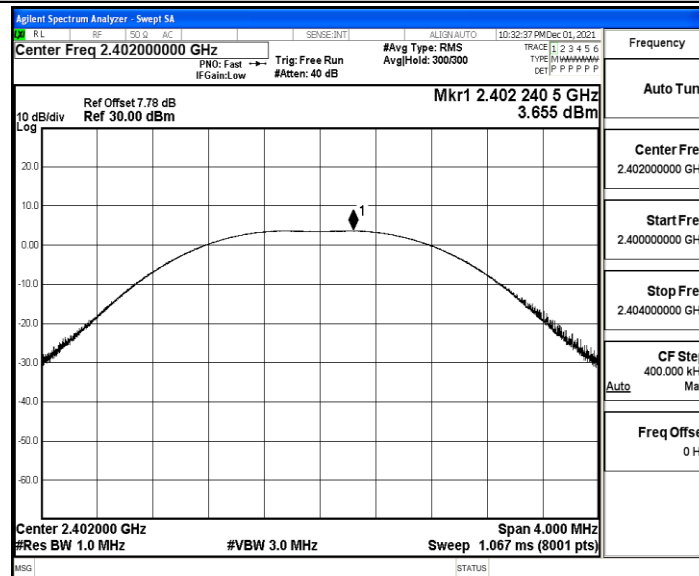
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	3.66	≤30	PASS
		2440	3.71	≤30	PASS
		2480	3.68	≤30	PASS

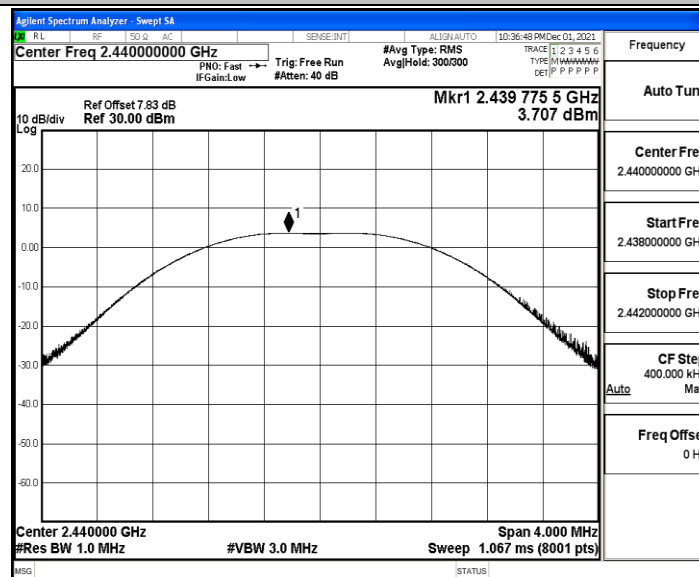


Test Graphs

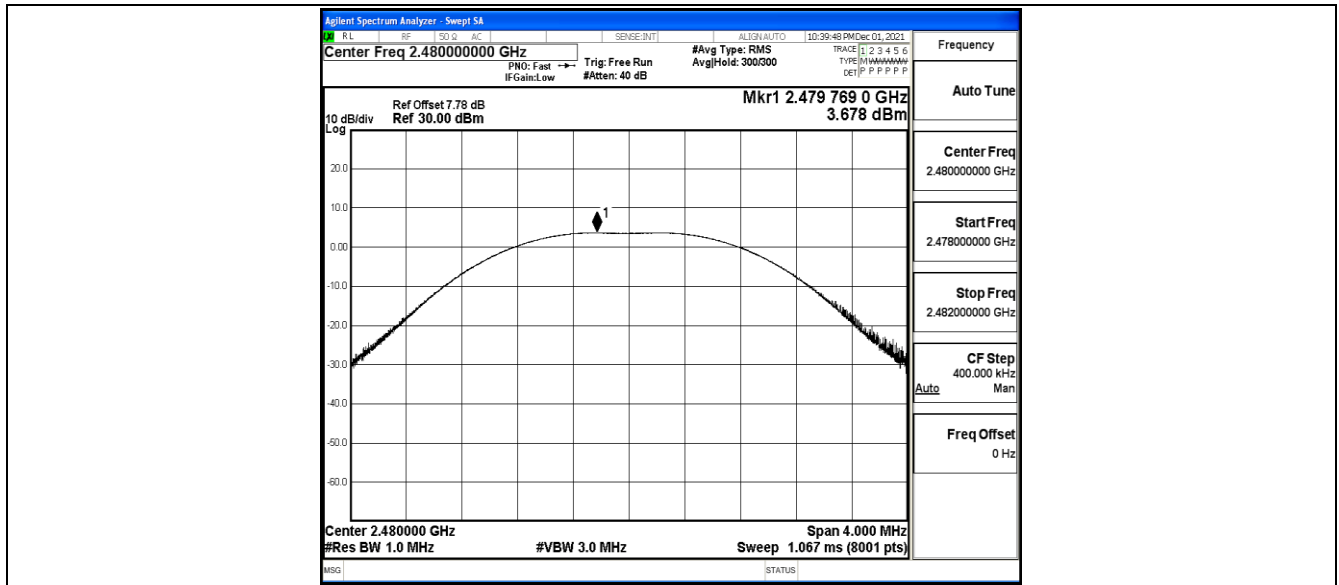
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.3 Maximum power spectral density

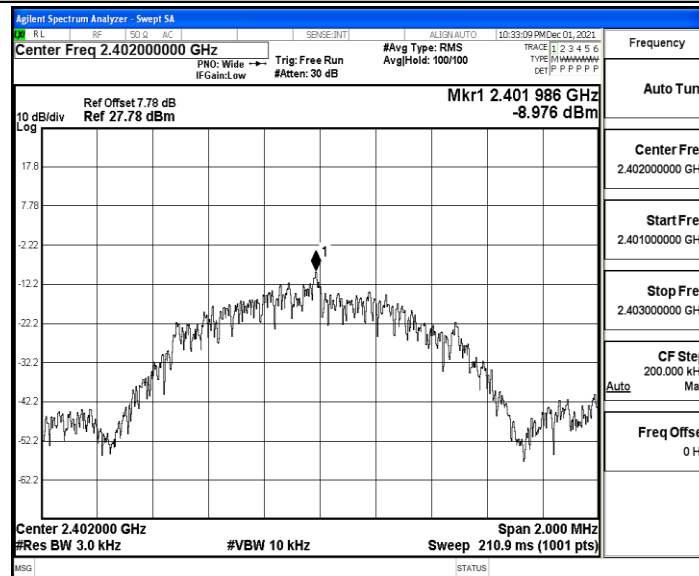
Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-8.98	≤8	PASS
		2440	-8.95	≤8	PASS
		2480	-8.95	≤8	PASS

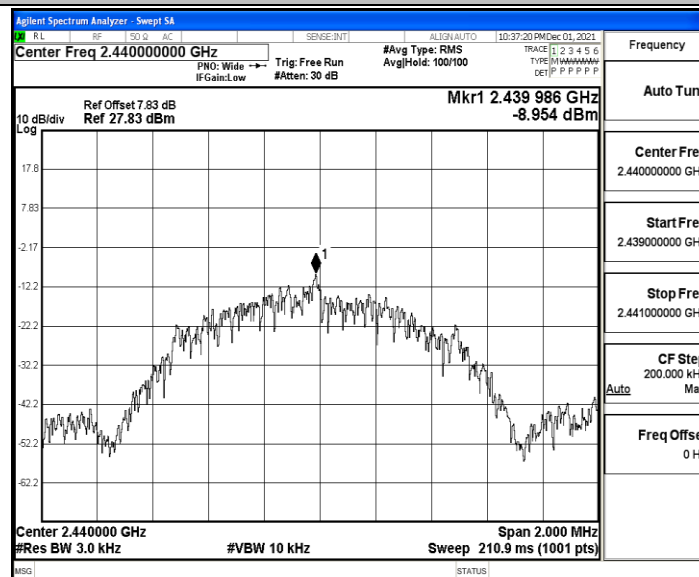


Test Graphs

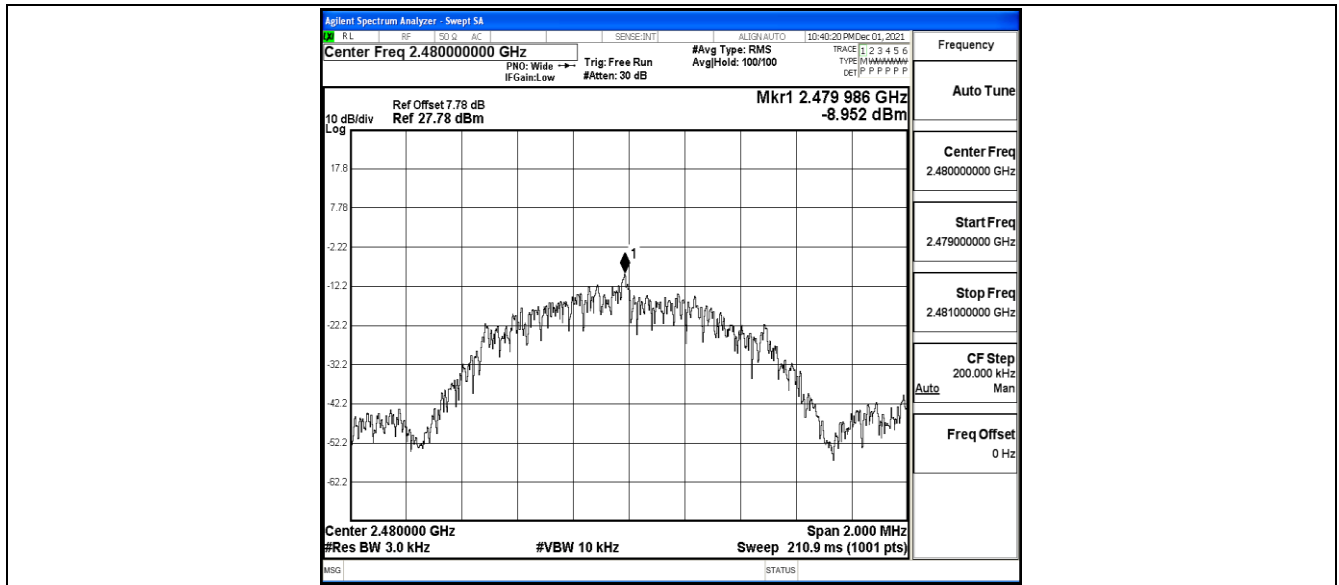
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.4 Band edge measurements

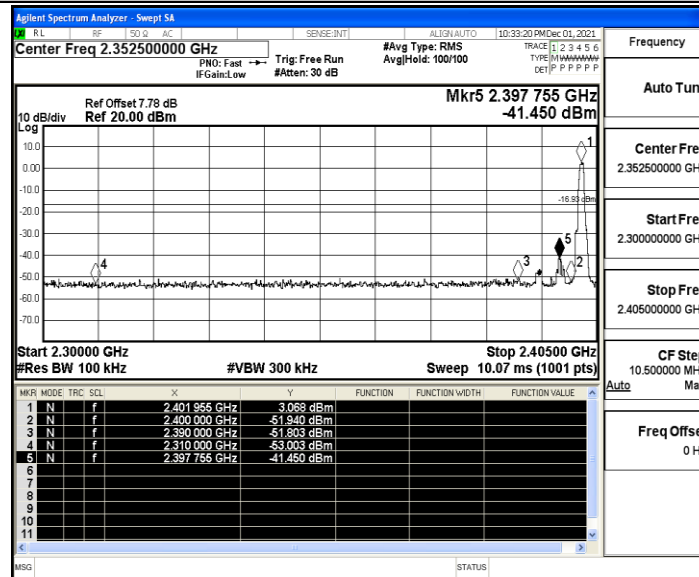
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	3.07	-41.45	≤ -16.93	PASS
		High	2480	3.10	-41.41	≤ -16.9	PASS

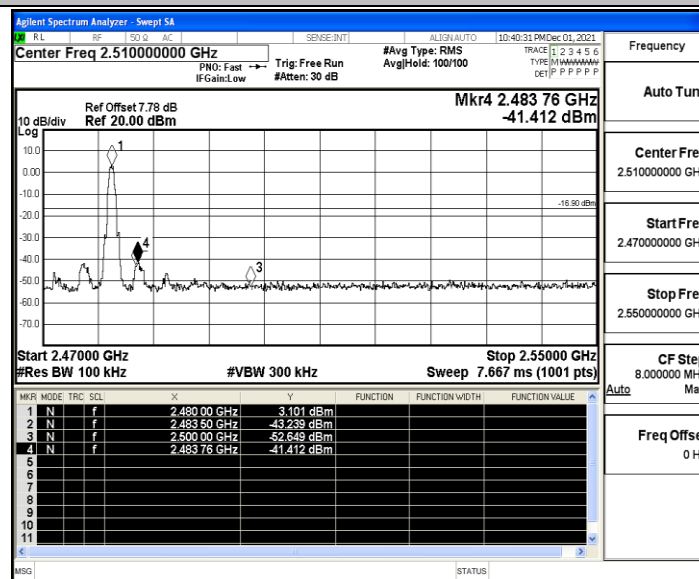


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





A.5 Conducted Spurious Emission

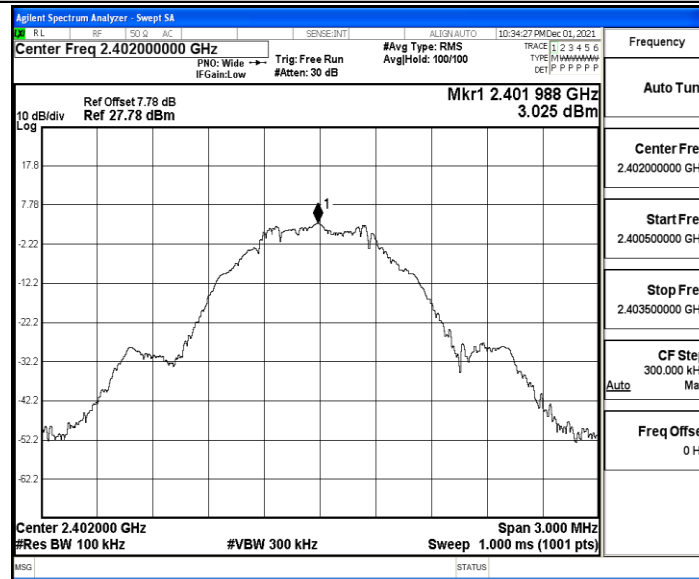
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	3.03	3.03	---	PASS
			30~1000	3.03	-61.85	≤-16.98	PASS
			1000~26500	3.03	-47.13	≤-16.98	PASS
		2440	Reference	3.09	3.09	---	PASS
			30~1000	3.09	-62.13	≤-16.91	PASS
			1000~26500	3.09	-47.42	≤-16.91	PASS
		2480	Reference	3.08	3.08	---	PASS
			30~1000	3.08	-61.54	≤-16.92	PASS
			1000~26500	3.08	-46.62	≤-16.92	PASS

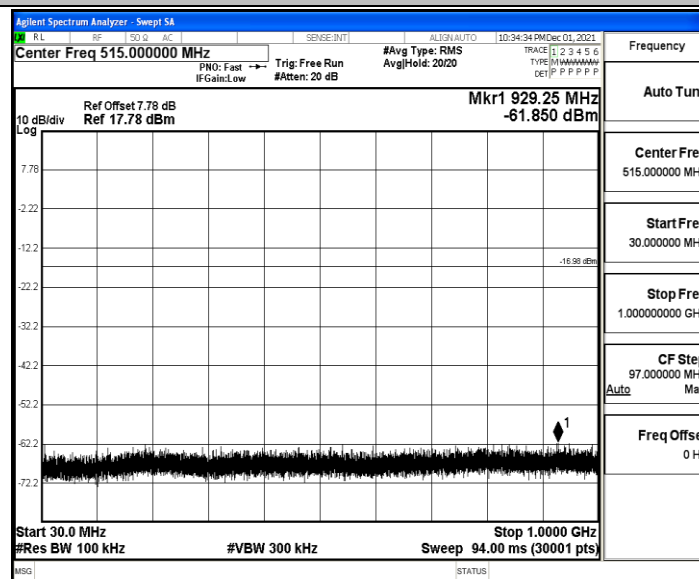


Test Graphs

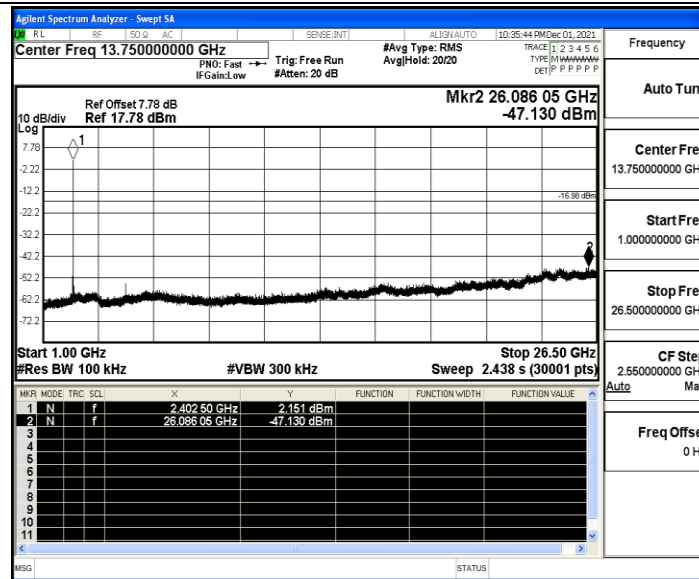
BLE_1M_Ant1_2402_0~Reference



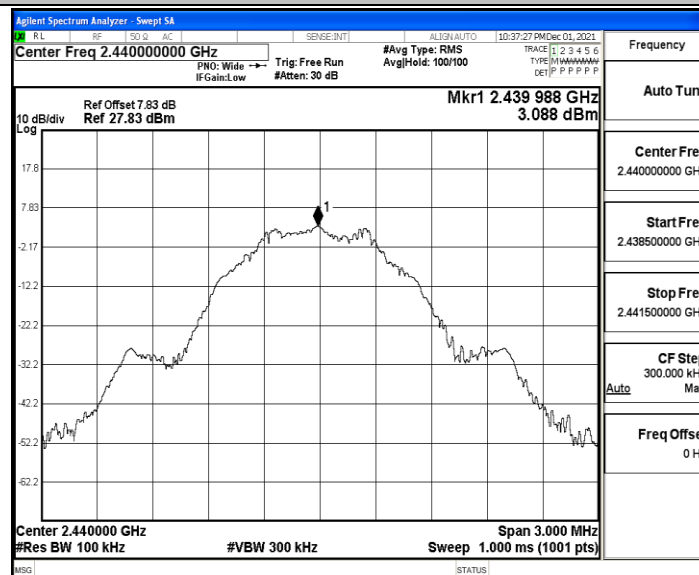
BLE_1M_Ant1_2402_30~1000



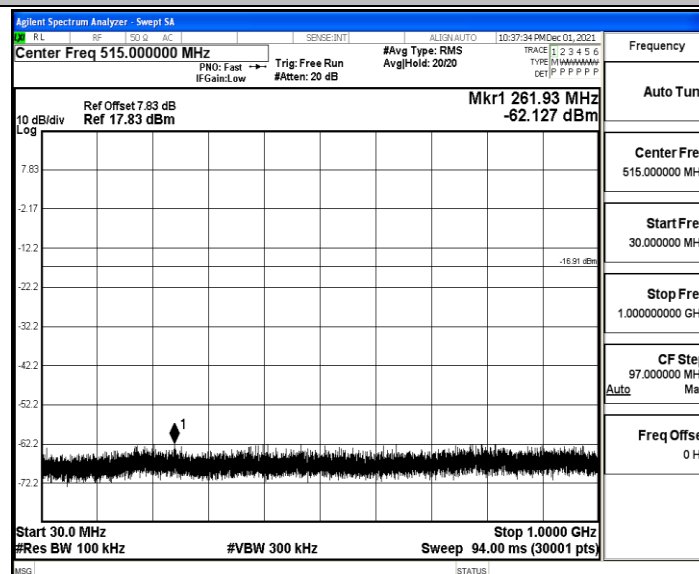
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

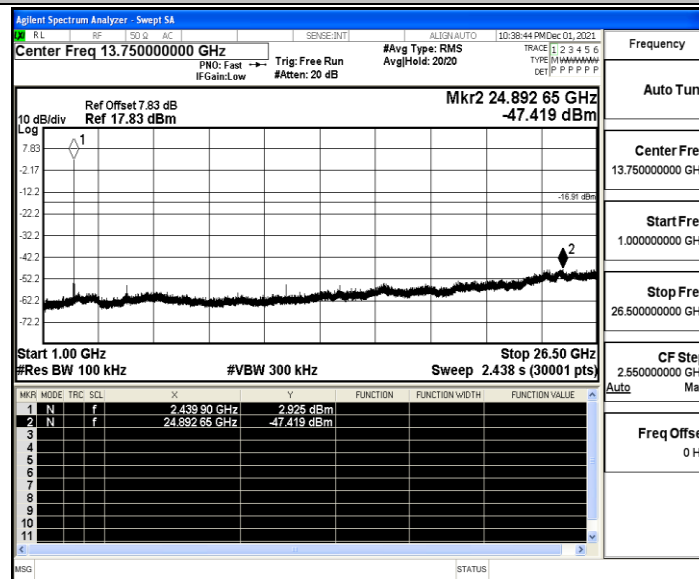


BLE_1M_Ant1_2440_30~1000

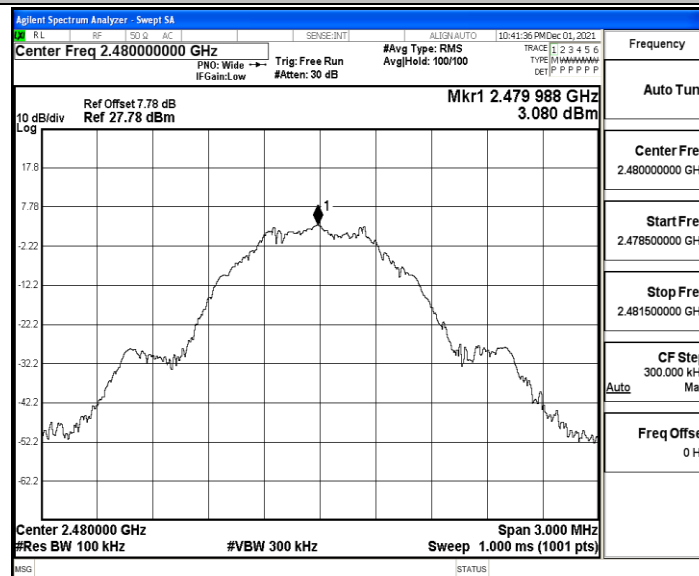




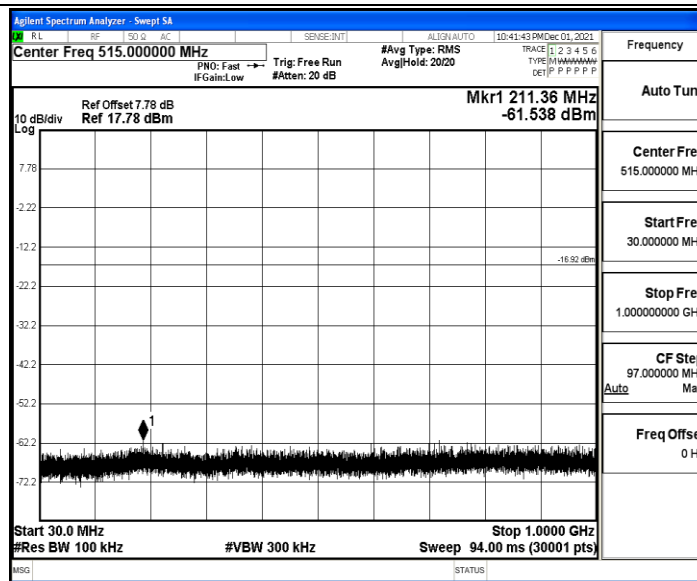
BLE_1M_Ant1_2440_1000-26500



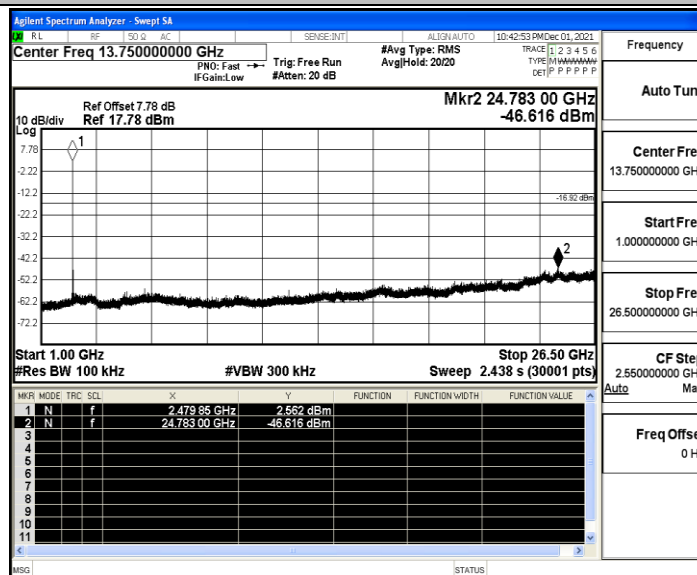
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





A.6 Duty Cycle

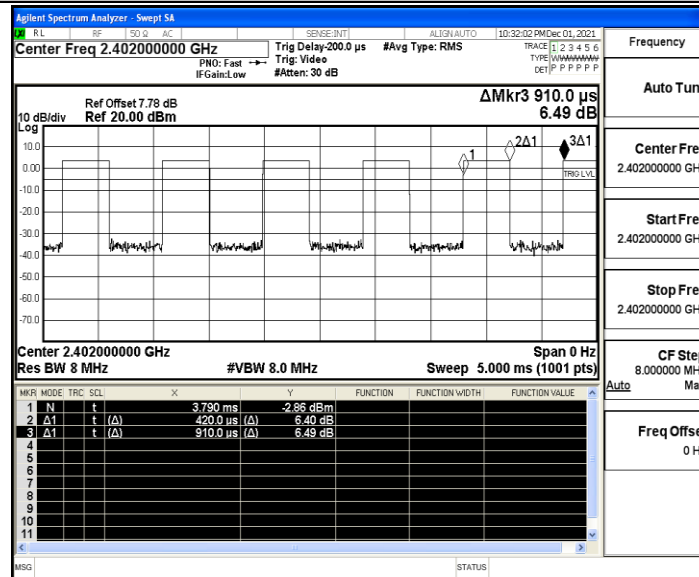
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.42	0.91	0.4615	46.15	3.36	---	PASS
		2440	0.42	0.91	0.4615	46.15	3.36	---	PASS
		2480	0.41	0.90	0.4556	45.56	3.41	---	PASS

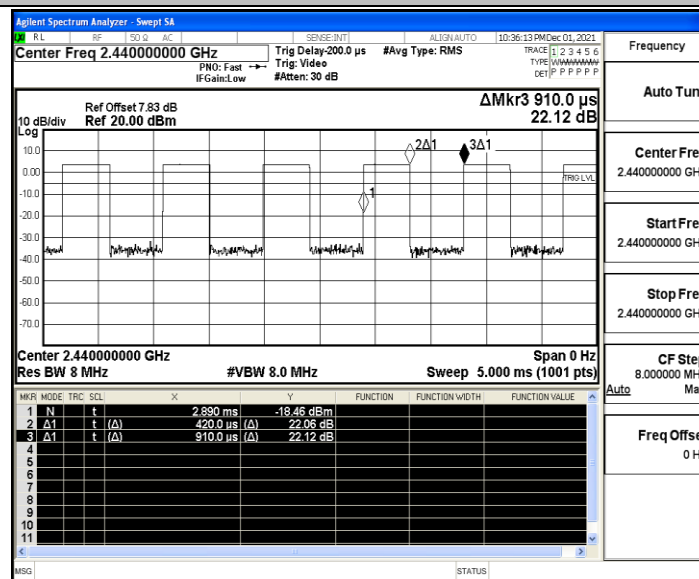


Test Graphs

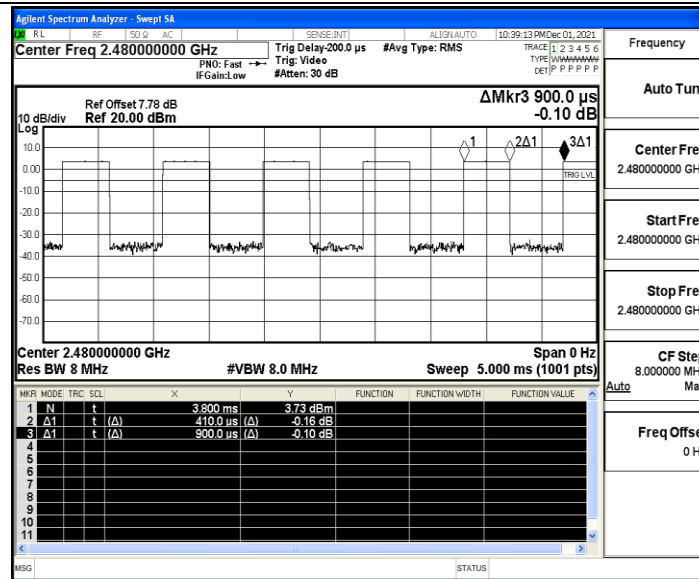
BLE_1M_Ant1_2402



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	-48.62	≤-41.20	46.58	≤54	PASS
				AV	2389.775	-46.58	≤-41.20	48.62	≤54	PASS
				AV	2390.000	-46.89	≤-41.20	48.31	≤54	PASS
				Peak	2310.000	-42.46	≤-21.20	52.74	≤74	PASS
				Peak	2389.985	-36.26	≤-21.20	58.94	≤74	PASS
				Peak	2390.000	-36.26	≤-21.20	58.94	≤74	PASS
		High	2480	AV	2483.500	-41.61	≤-41.20	53.59	≤54	PASS
				AV	2483.520	-41.61	≤-41.20	53.59	≤54	PASS
				AV	2500.000	-47.63	≤-41.20	47.57	≤54	PASS
				Peak	2483.500	-26.35	≤-21.20	68.85	≤74	PASS
				Peak	2484.000	-24.08	≤-21.20	71.12	≤74	PASS
				Peak	2500.000	-40.15	≤-21.20	55.05	≤74	PASS

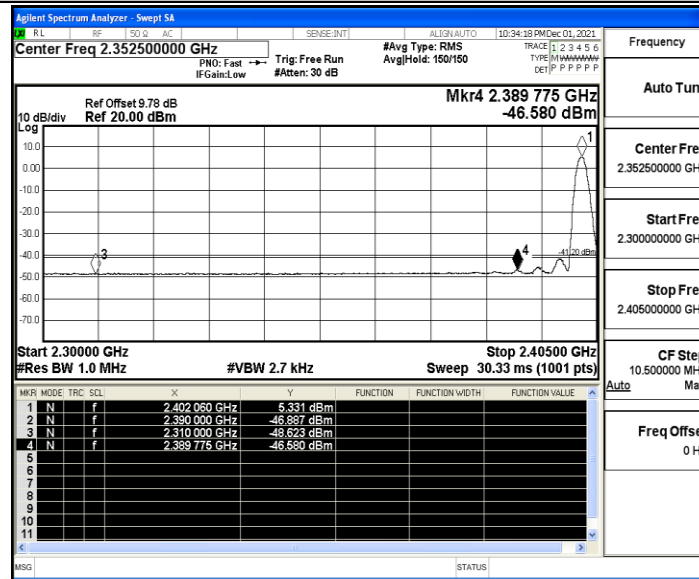
Note:

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.

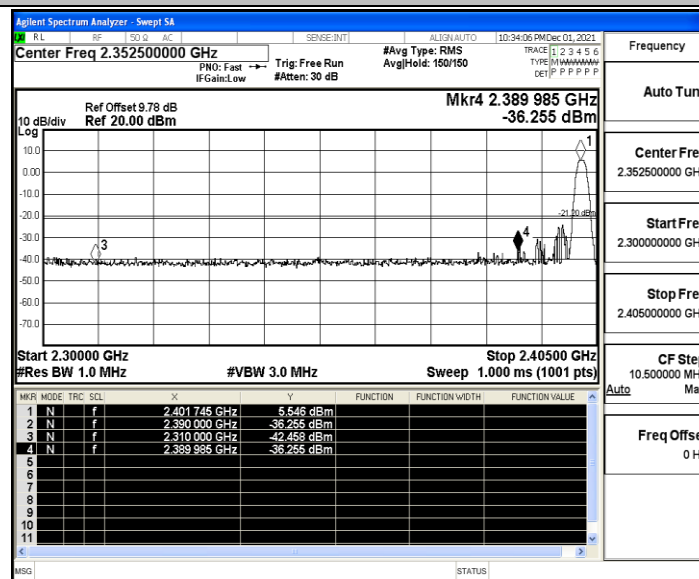


Test Graphs

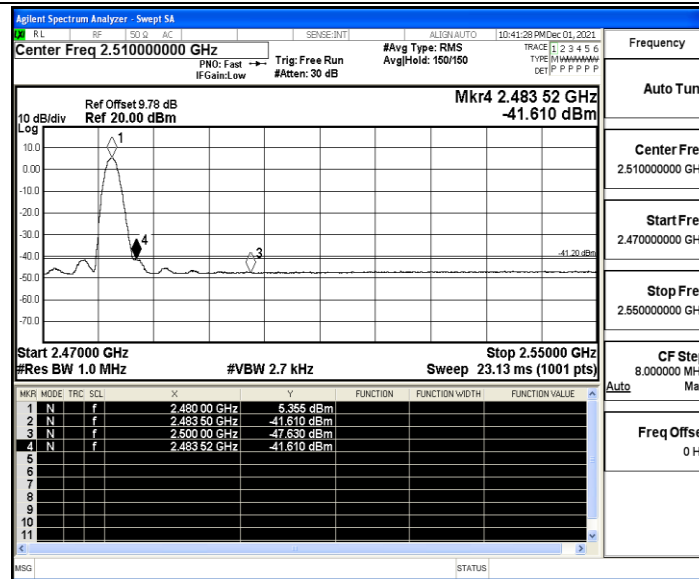
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

