



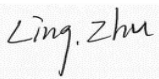
Appendix A

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

Product Name: Smart Recessed light

Test Model: SZXY001

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

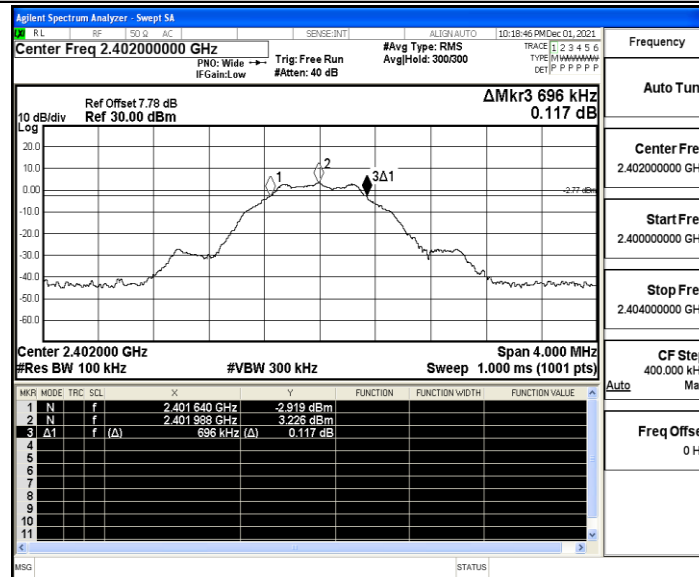
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.696	2401.640	2402.336	≥ 0.5	PASS
		2440	0.672	2439.652	2440.324	≥ 0.5	PASS
		2480	0.684	2479.644	2480.328	≥ 0.5	PASS

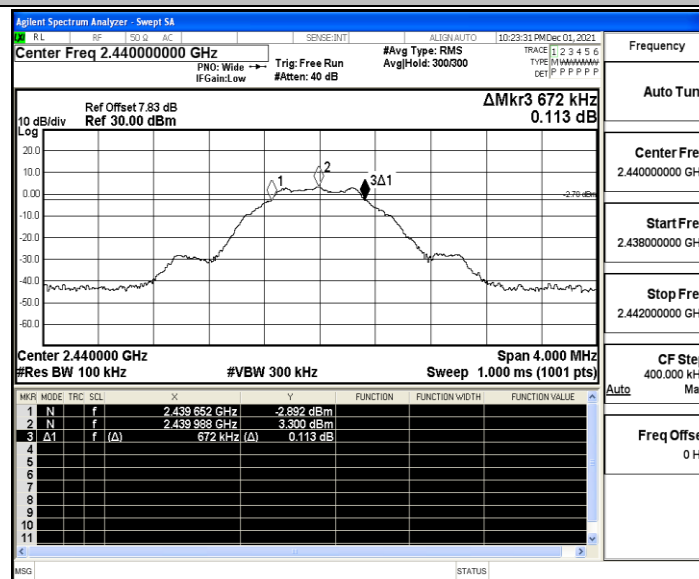


Test Graphs

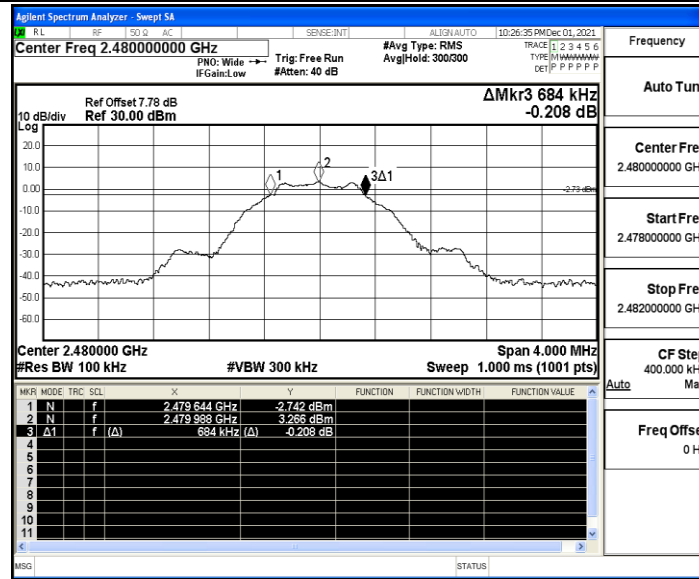
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.2 Maximum peak conducted output power

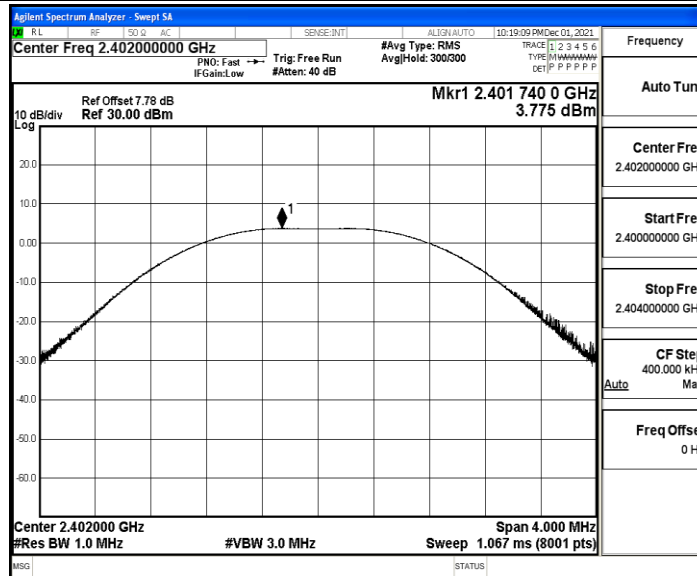
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	3.78	≤30	PASS
		2440	3.88	≤30	PASS
		2480	3.83	≤30	PASS

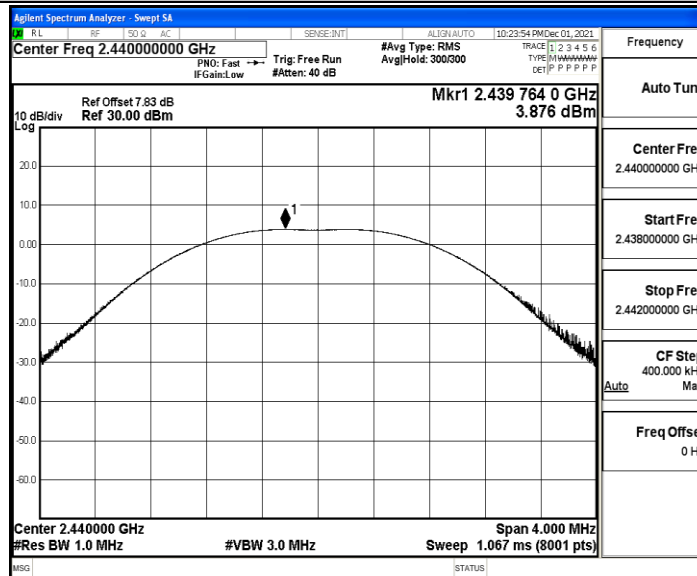


Test Graphs

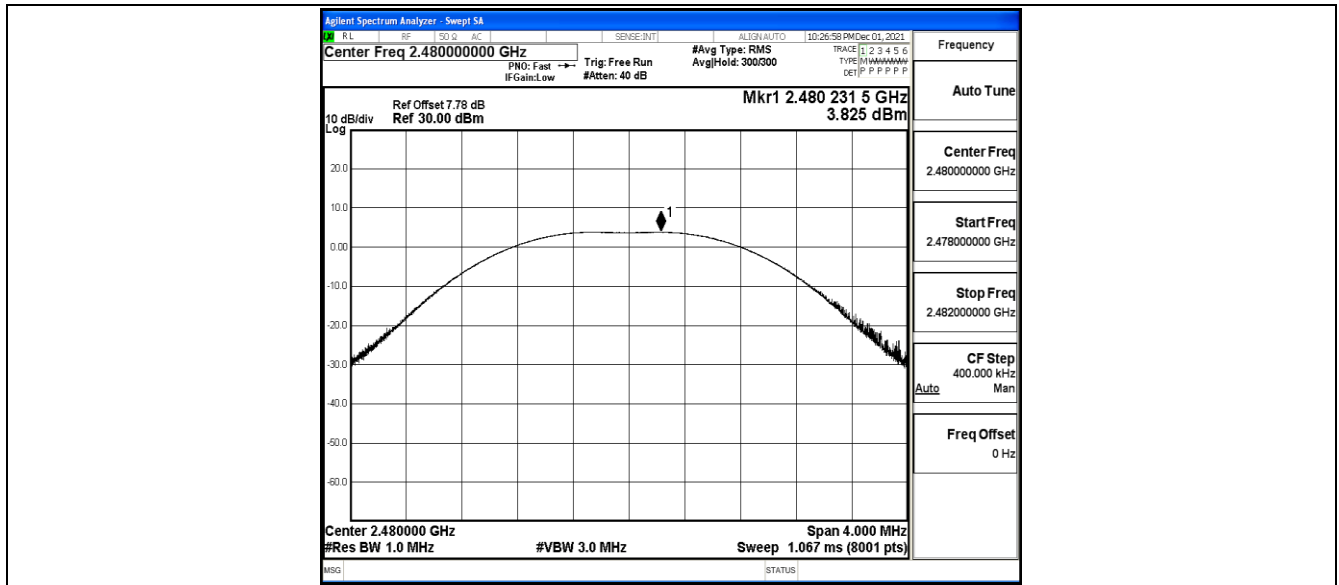
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.3 Maximum power spectral density

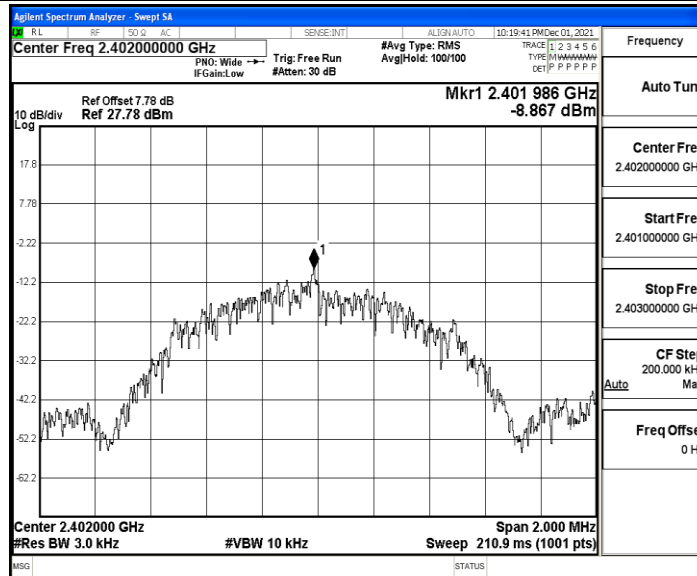
Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-8.87	≤8	PASS
		2440	-8.81	≤8	PASS
		2480	-8.81	≤8	PASS

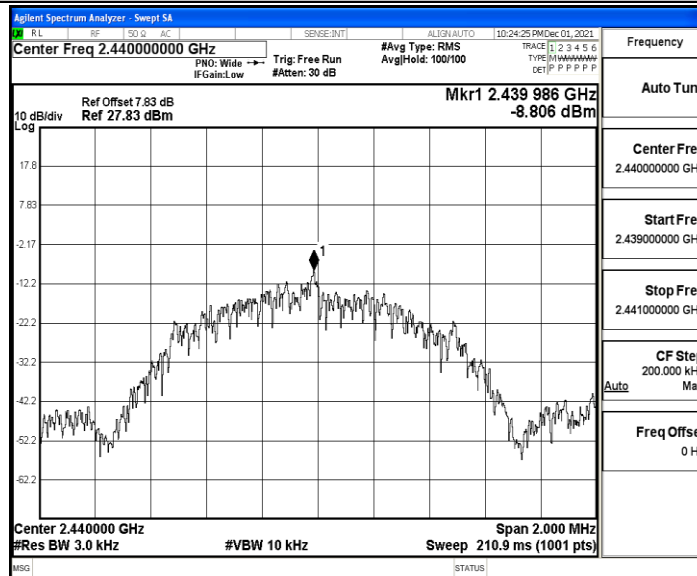


Test Graphs

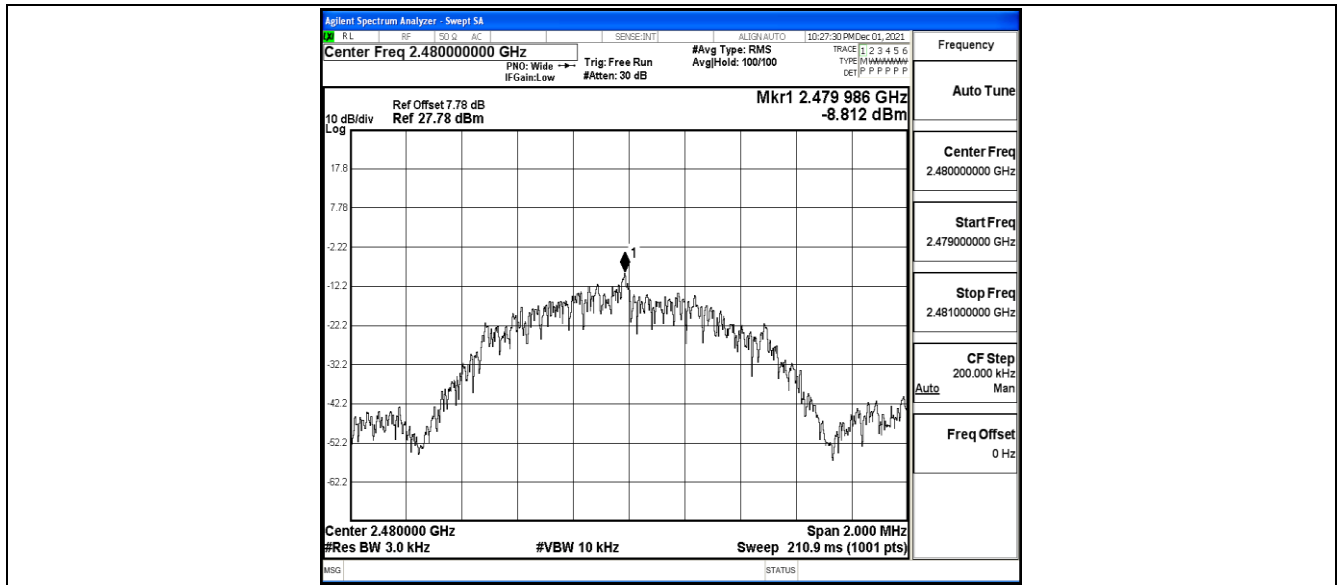
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.4 Band edge measurements

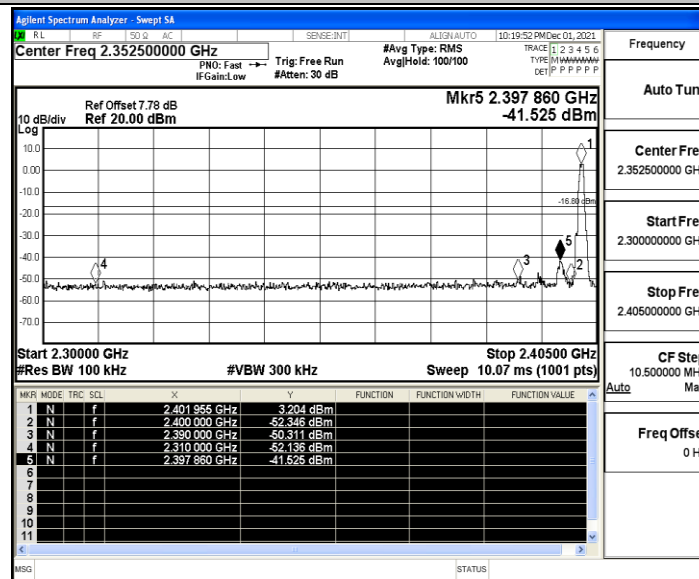
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	3.20	-41.53	≤ -16.8	PASS
		High	2480	3.26	-40.87	≤ -16.74	PASS

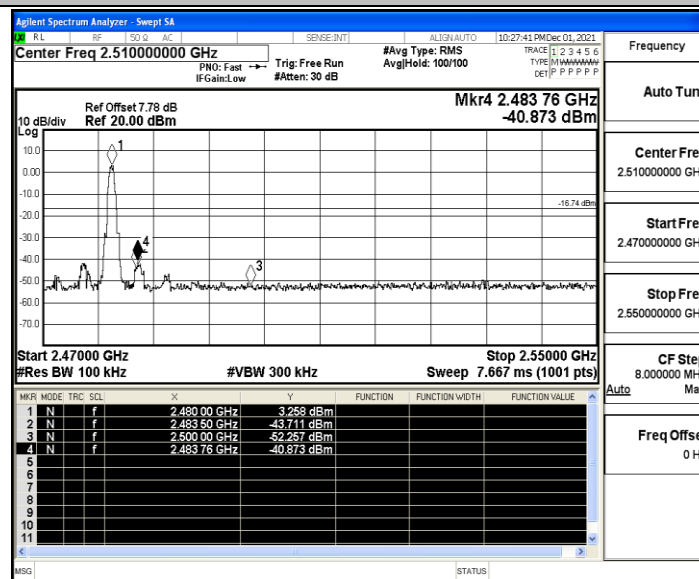


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





A.5 Conducted Spurious Emission

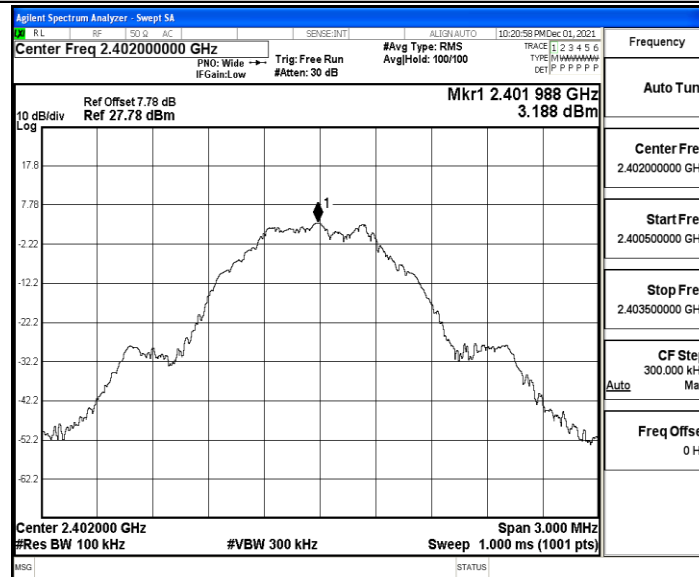
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	3.19	3.19	---	PASS
			30~1000	3.19	-61.64	≤ -16.81	PASS
			1000~26500	3.19	-46.77	≤ -16.81	PASS
		2440	Reference	3.23	3.23	---	PASS
			30~1000	3.23	-60.92	≤ -16.77	PASS
			1000~26500	3.23	-46.62	≤ -16.77	PASS
		2480	Reference	3.24	3.24	---	PASS
			30~1000	3.24	-60.44	≤ -16.76	PASS
			1000~26500	3.24	-47.62	≤ -16.76	PASS

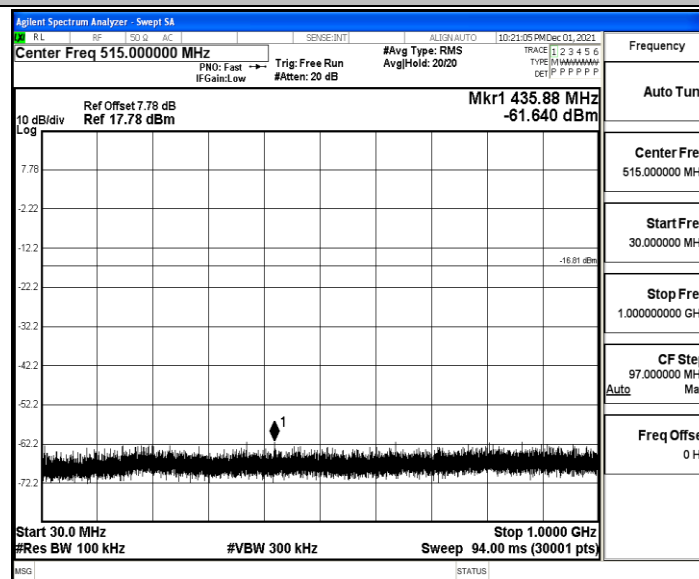


Test Graphs

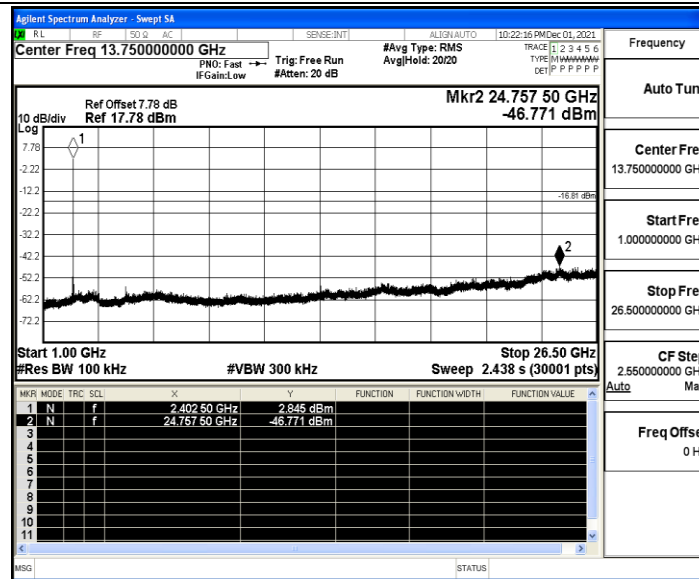
BLE_1M_Ant1_2402_0~Reference



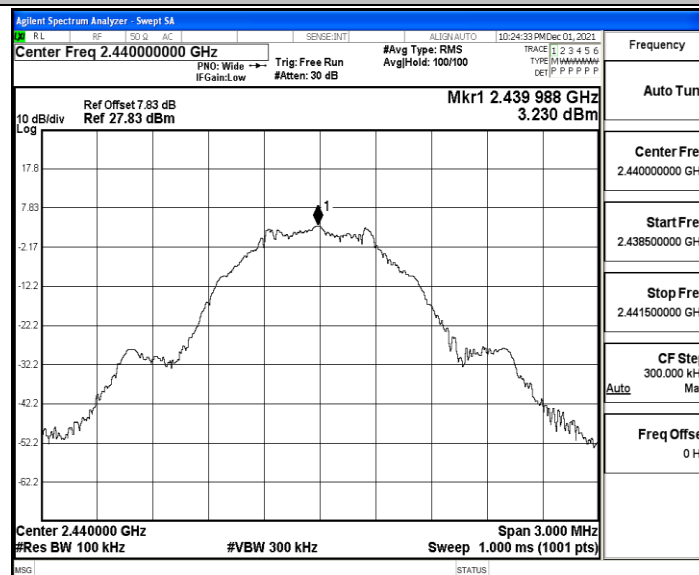
BLE_1M_Ant1_2402_30~1000



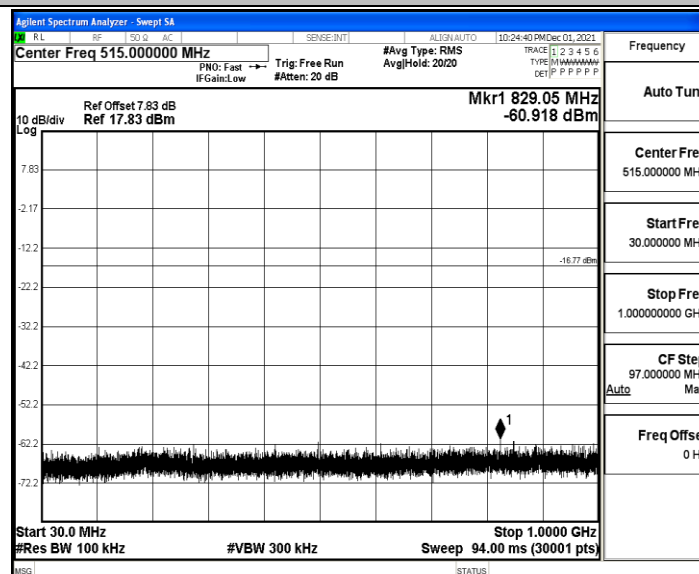
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

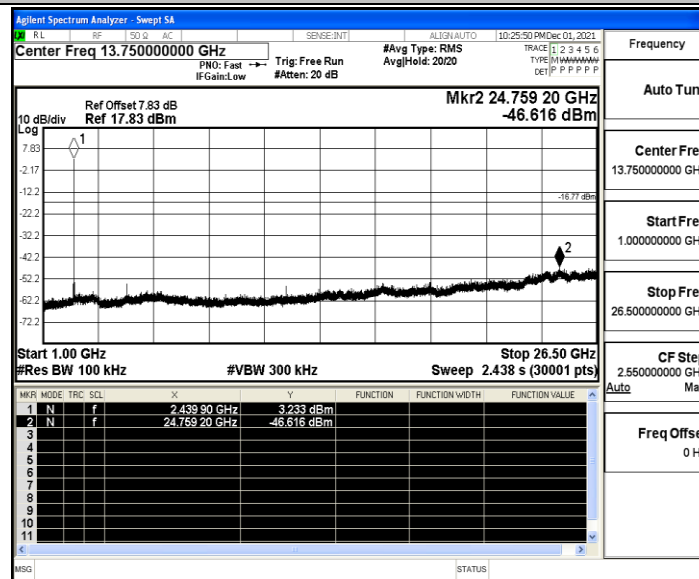


BLE_1M_Ant1_2440_30~1000

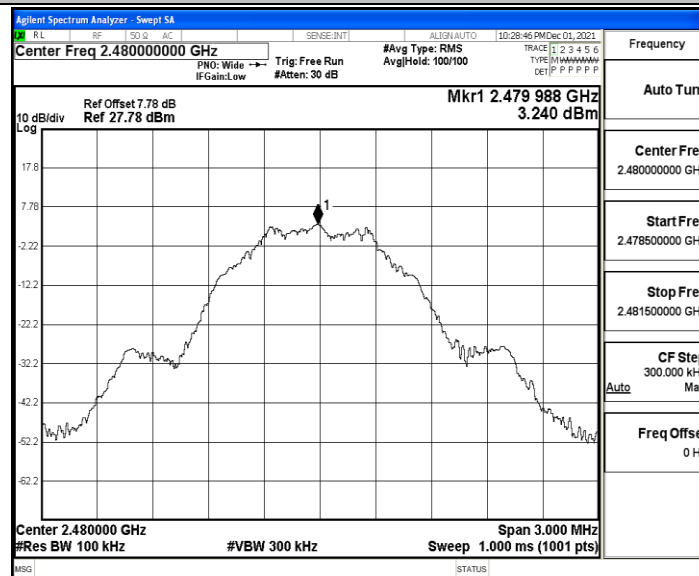




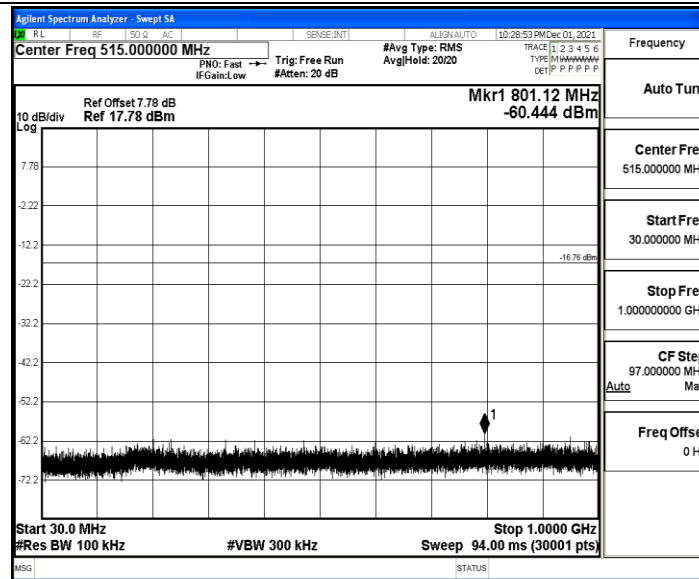
BLE_1M_Ant1_2440_1000-26500



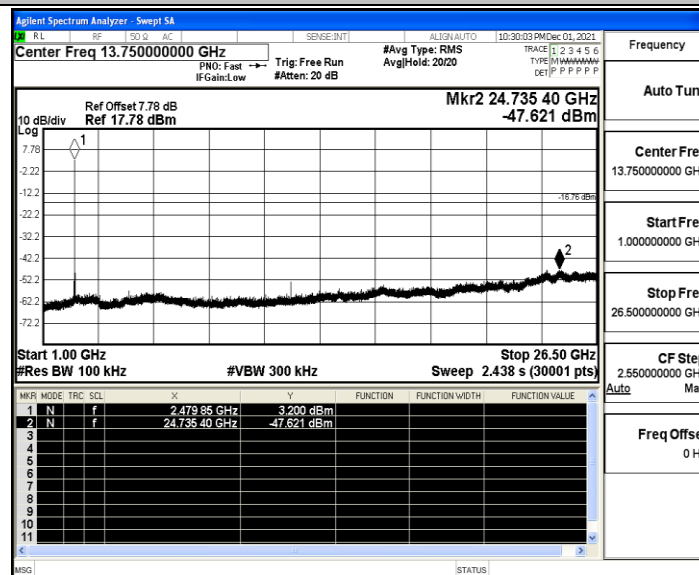
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000-26500





A.6 Duty Cycle

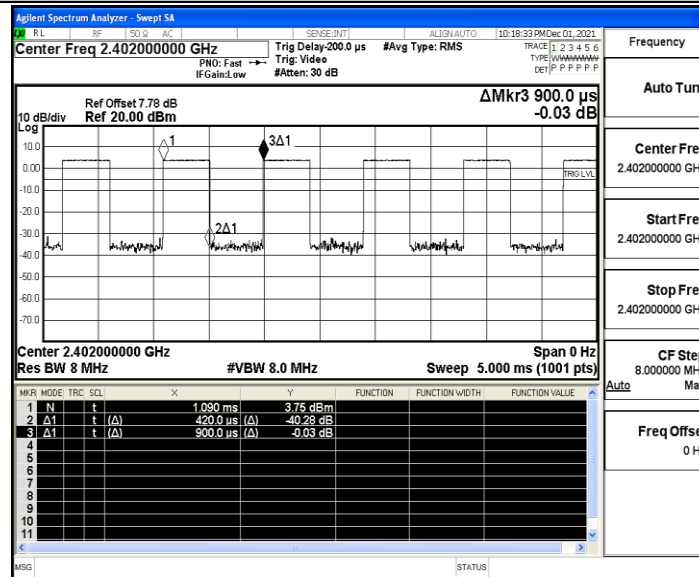
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.42	0.90	0.4667	46.67	3.31	---	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

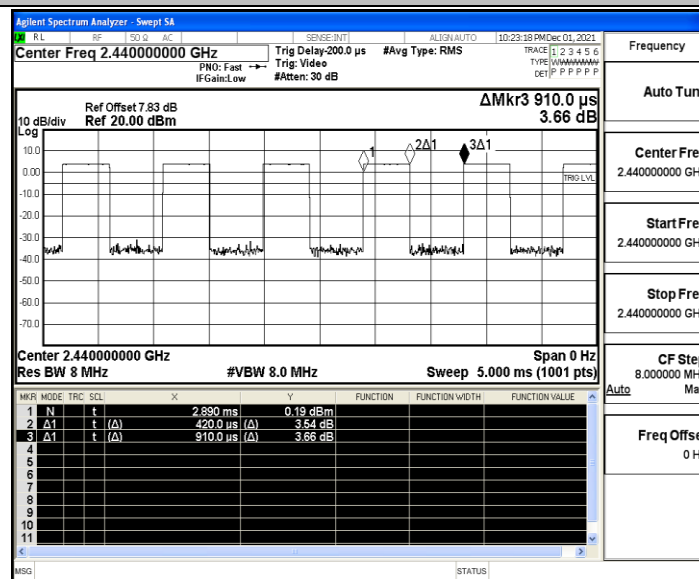


Test Graphs

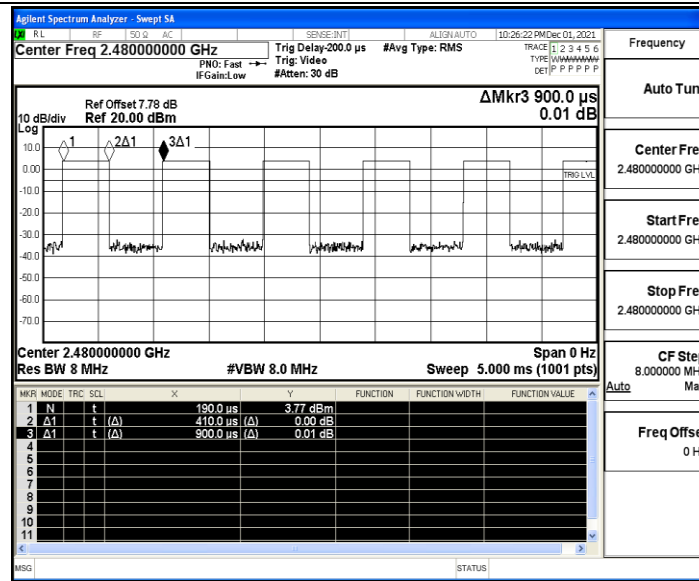
BLE_1M_Ant1_2402



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	-48.45	≤-41.20	46.75	≤54	PASS
				AV	2389.460	-46.78	≤-41.20	48.42	≤54	PASS
				AV	2390.000	-47.04	≤-41.20	48.16	≤54	PASS
				Peak	2310.000	-42.48	≤-21.20	52.72	≤74	PASS
				Peak	2389.565	-32.67	≤-21.20	62.53	≤74	PASS
				Peak	2390.000	-41.5	≤-21.20	53.70	≤74	PASS
		High	2480	AV	2483.500	-41.66	≤-41.20	53.54	≤54	PASS
				AV	2483.680	-41.23	≤-41.20	53.97	≤54	PASS
				AV	2500.000	-47.26	≤-41.20	47.94	≤54	PASS
				Peak	2483.500	-25.58	≤-21.20	69.62	≤74	PASS
				Peak	2484.080	-24.06	≤-21.20	71.14	≤74	PASS
				Peak	2500.000	-40	≤-21.20	55.20	≤74	PASS

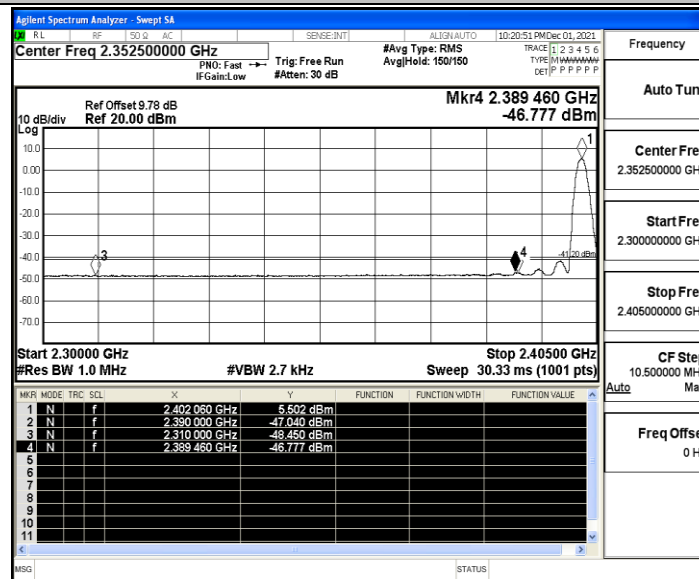
Note:

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.

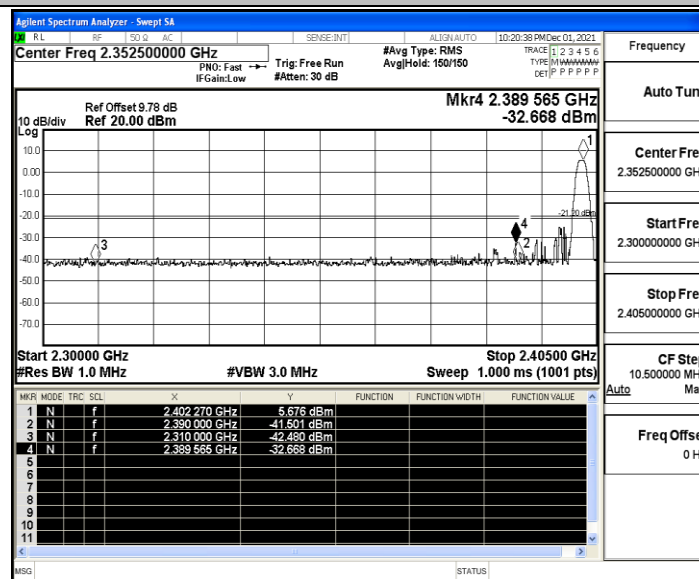


Test Graphs

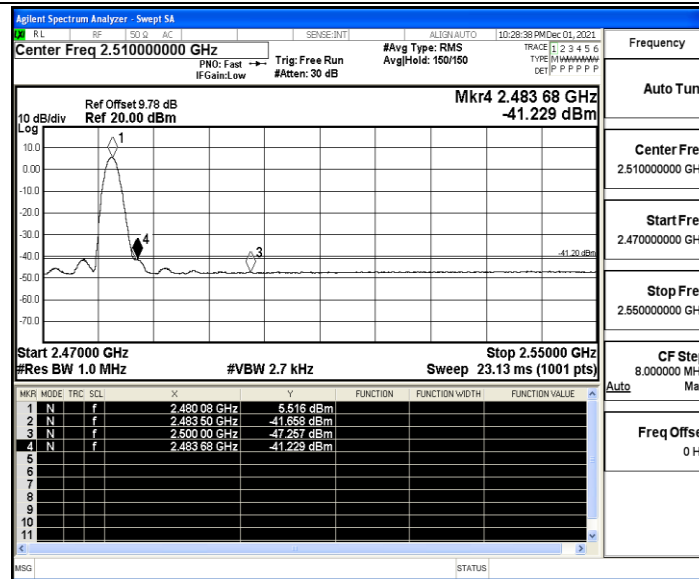
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

