



Appendix A

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

Product Name: Perifit

Test Model: Pink

Environmental Conditions

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



A.1 DTS Bandwidth

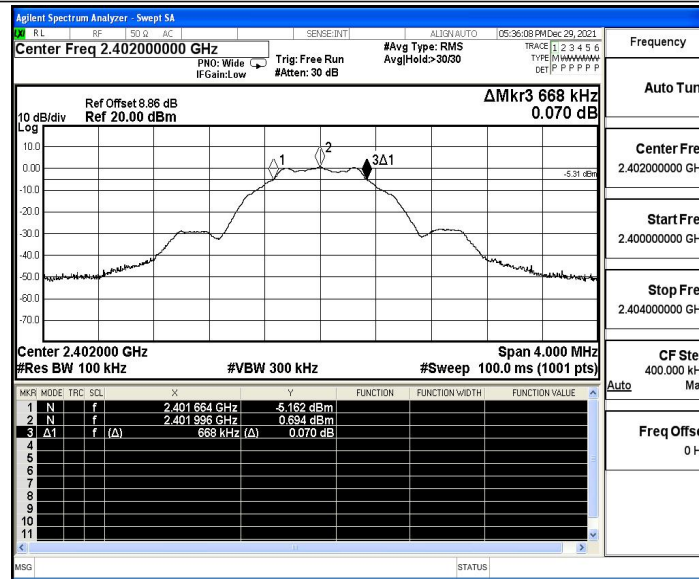
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.668	2401.664	2402.332	0.5	PASS
		2440	0.668	2439.664	2440.332	0.5	PASS
		2480	0.668	2479.664	2480.332	0.5	PASS

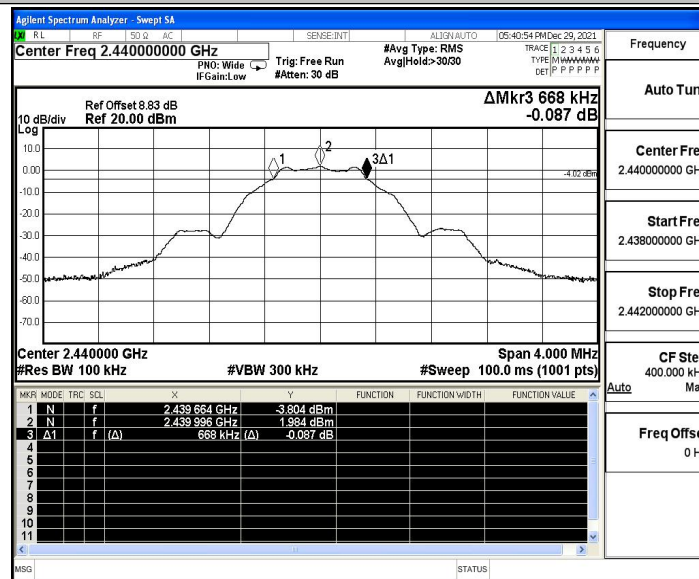


Test Graphs

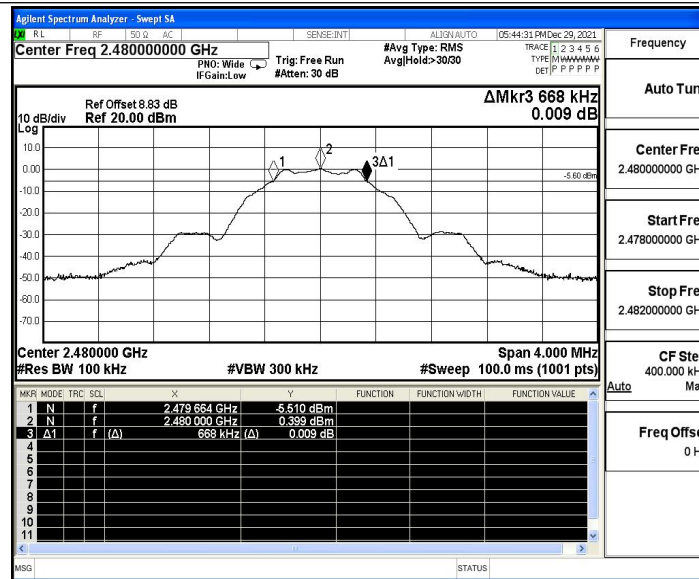
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.2 Occupied Channel Bandwidth

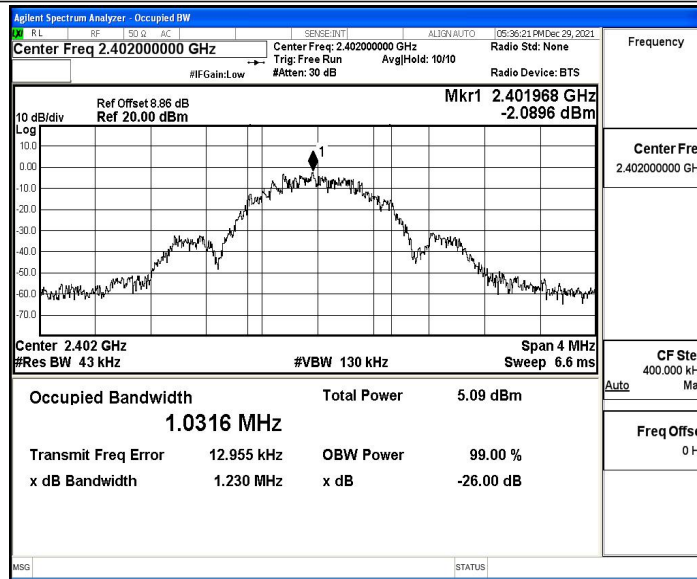
Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0316	2401.497	2402.529	---	---
		2440	1.0501	2439.485	2440.535	---	---
		2480	1.0241	2479.485	2480.509	---	---

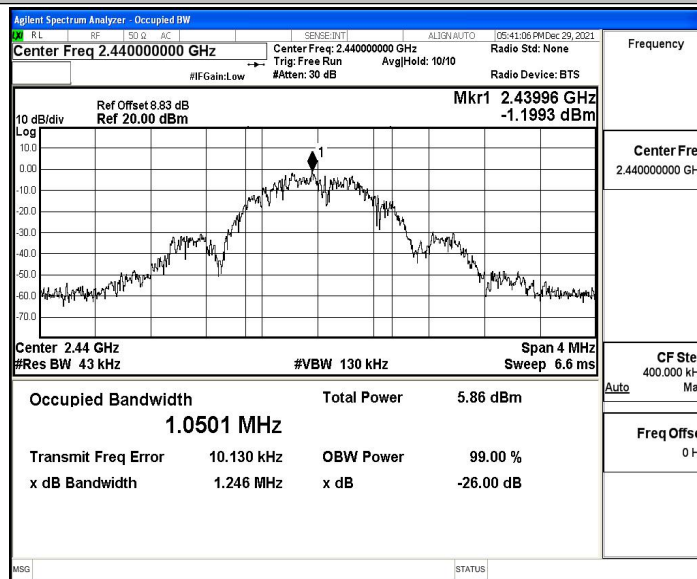


Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.3 Maximum peak conducted output power

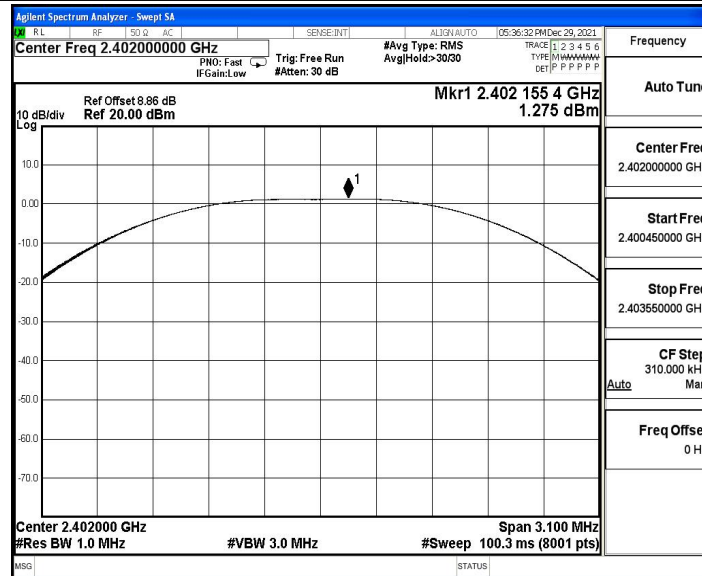
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.28	≤30	PASS
		2440	2.5	≤30	PASS
		2480	0.96	≤30	PASS

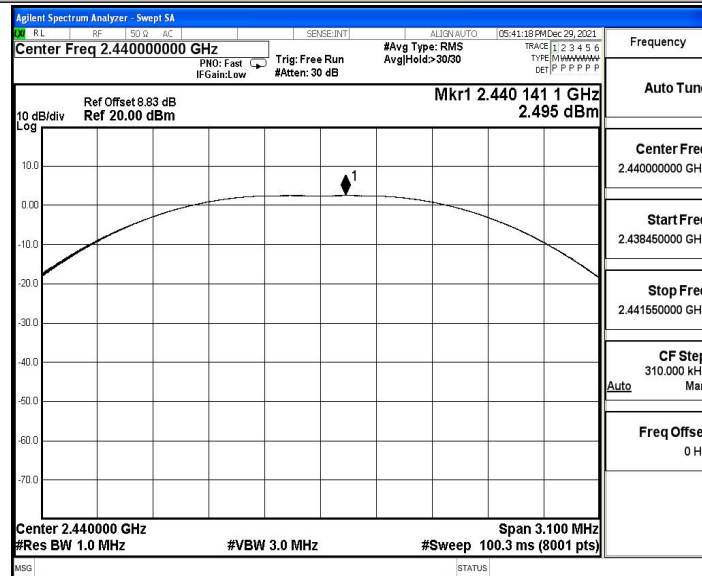


Test Graphs

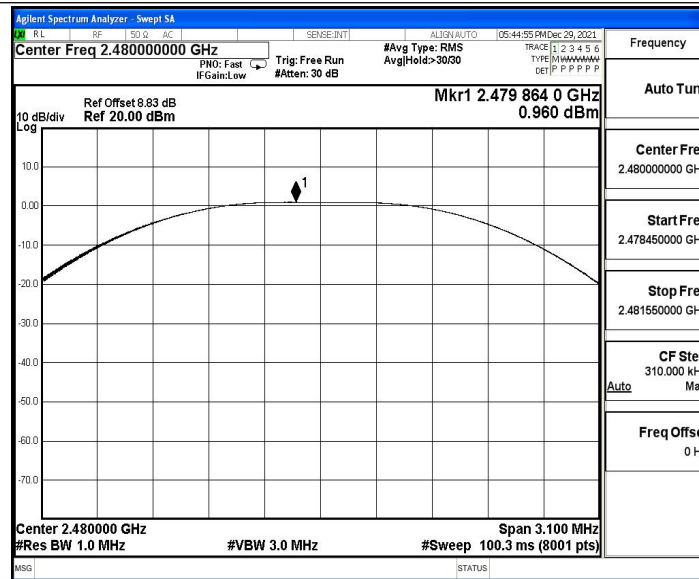
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.4 Maximum power spectral density

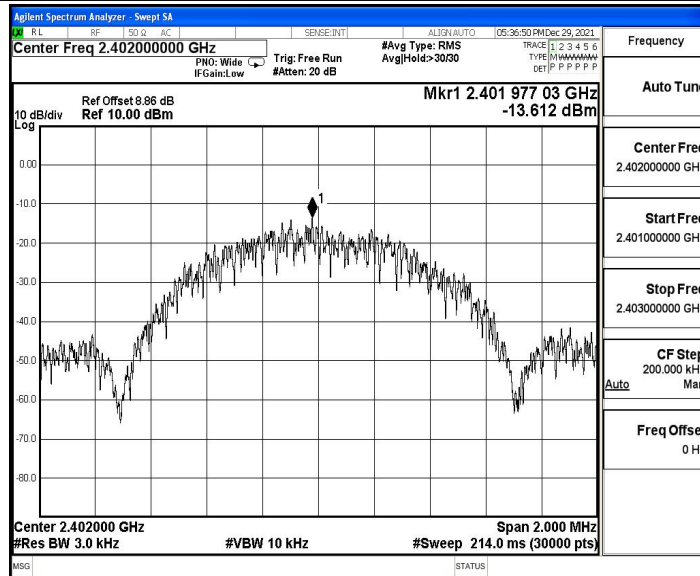
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.61	≤8.00	PASS
		2440	-12.34	≤8.00	PASS
		2480	-13.93	≤8.00	PASS

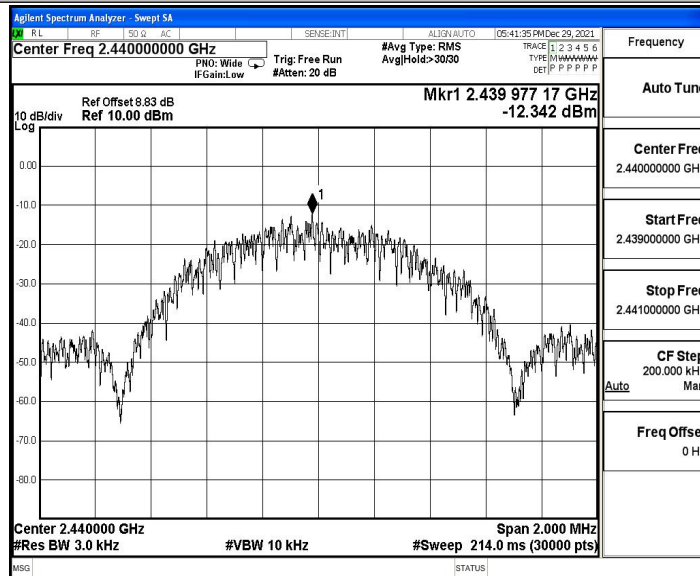


Test Graphs

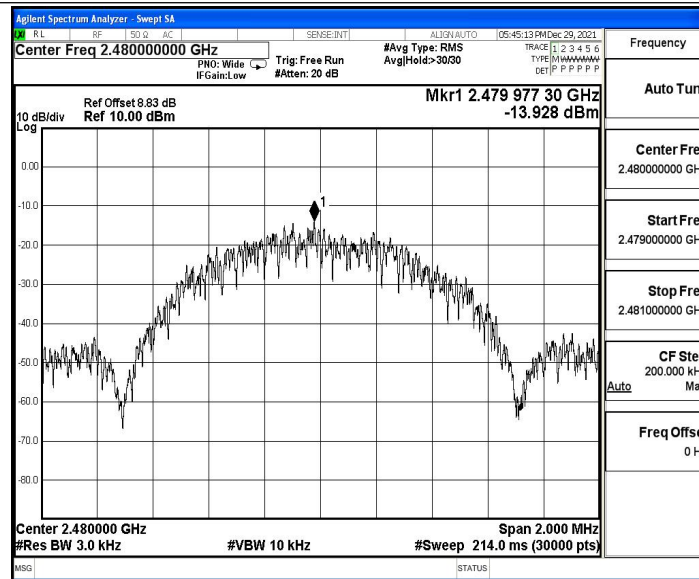
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.5 Band edge measurements

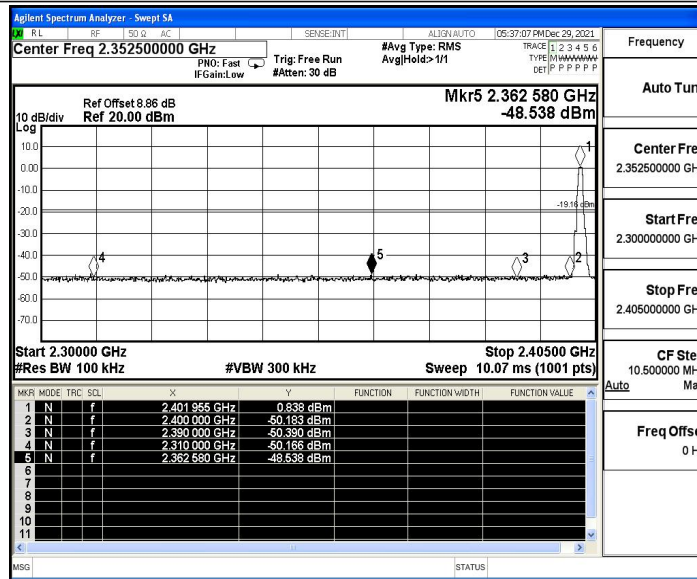
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.84	-48.54	≤ -19.16	PASS
		High	2480	0.57	-47.72	≤ -19.43	PASS

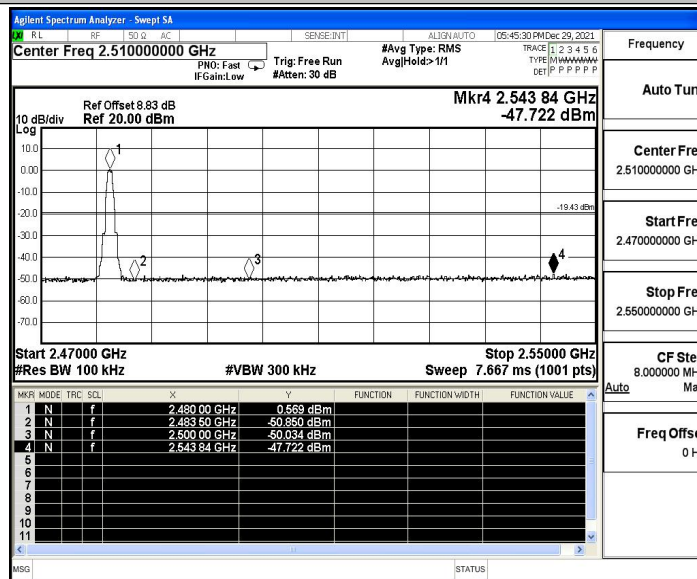


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





A.6 Conducted Spurious Emission

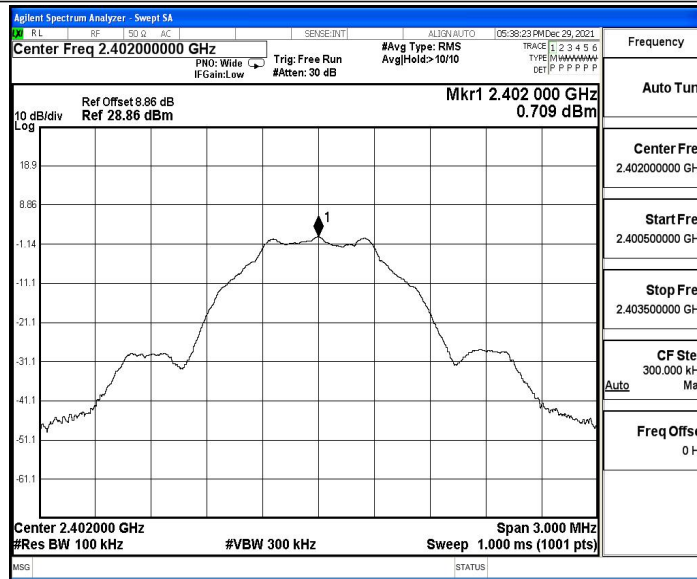
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.71	0.71	---	PASS
			30~1000	0.71	-60.38	≤ -19.29	PASS
			1000~26500	0.71	-45.38	≤ -19.29	PASS
		2440	Reference	1.98	1.98	---	PASS
			30~1000	1.98	-60.39	≤ -18.02	PASS
			1000~26500	1.98	-45.75	≤ -18.02	PASS
		2480	Reference	0.35	0.35	---	PASS
			30~1000	0.35	-60.57	≤ -19.65	PASS
			1000~26500	0.35	-45.71	≤ -19.65	PASS

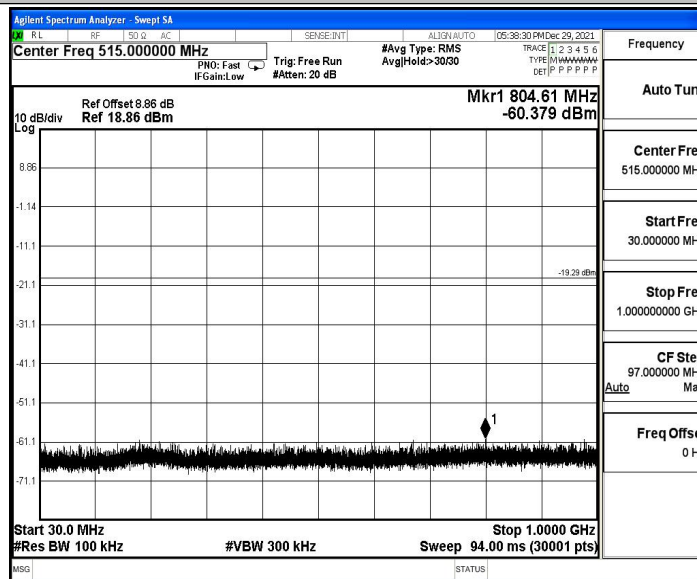


Test Graphs

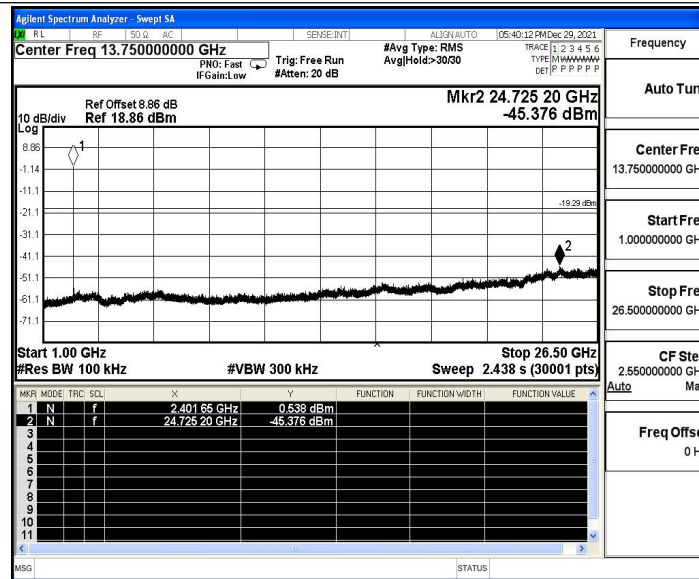
BLE_1M_Ant1_2402_0~Reference



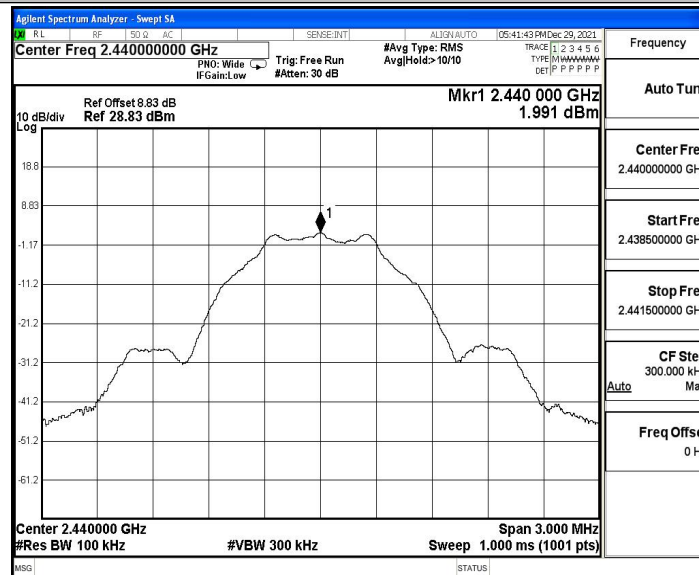
BLE_1M_Ant1_2402_30~1000



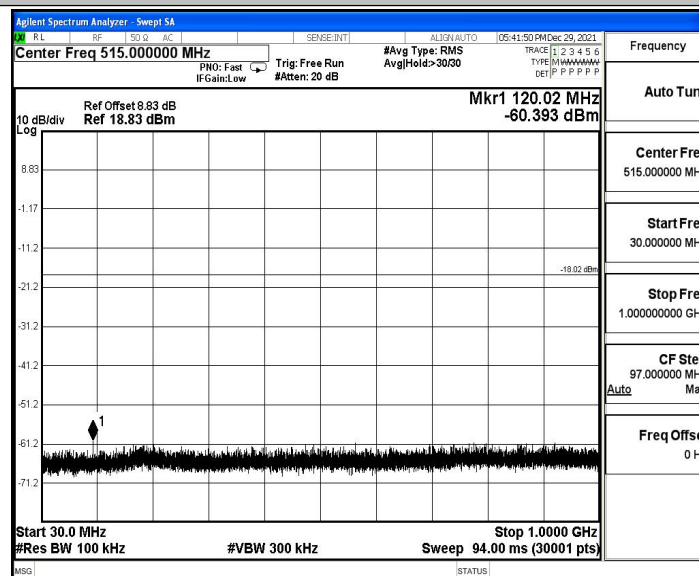
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

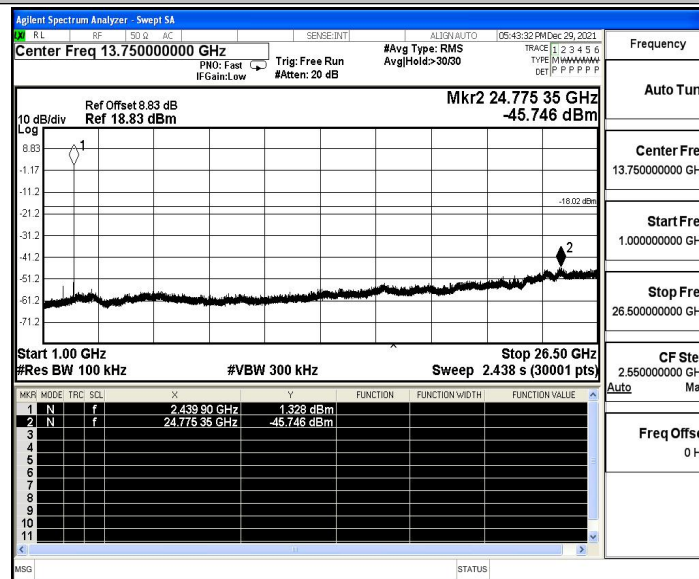


BLE_1M_Ant1_2440_30~1000

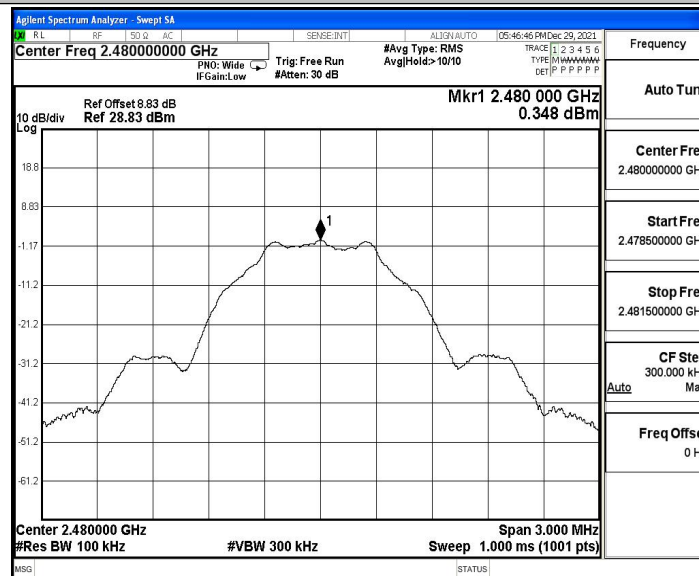




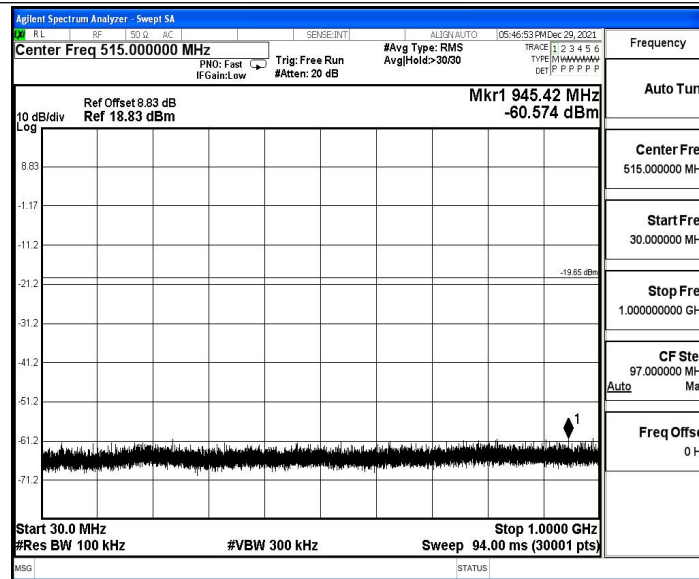
BLE_1M_Ant1_2440_1000~26500



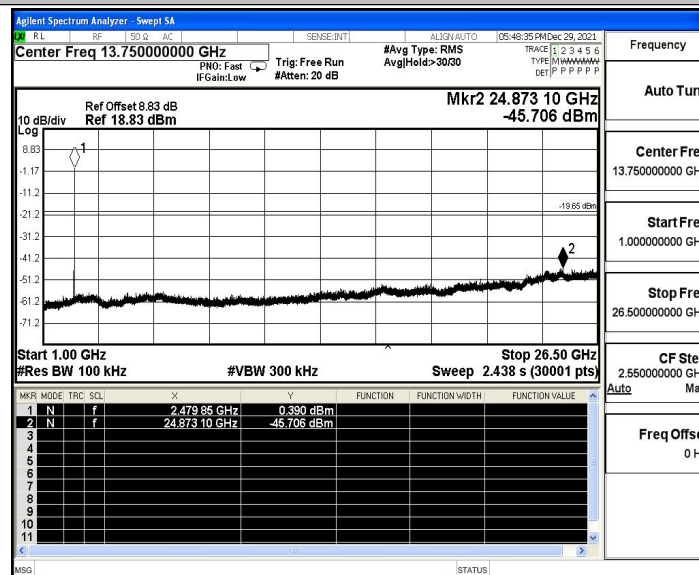
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





A.7 Duty Cycle

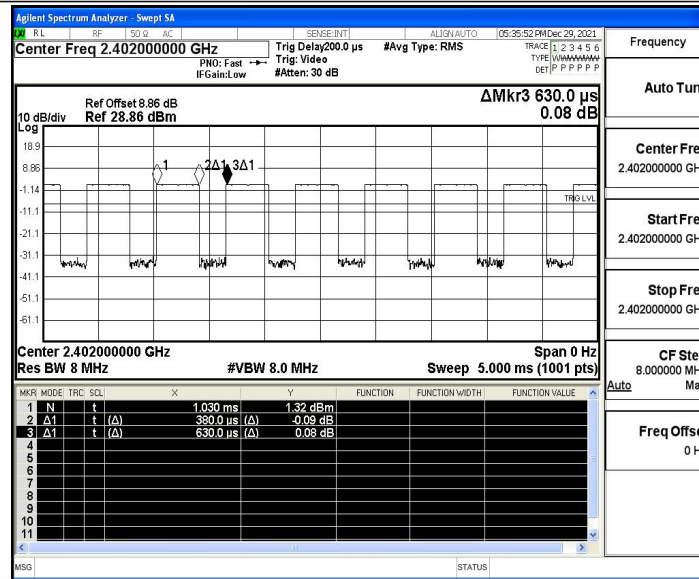
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.38	0.63	0.6032	60.32	2.20	---	---
		2440	0.39	0.63	0.6190	61.90	2.08	---	---
		2480	0.39	0.63	0.6190	61.90	2.08	---	---

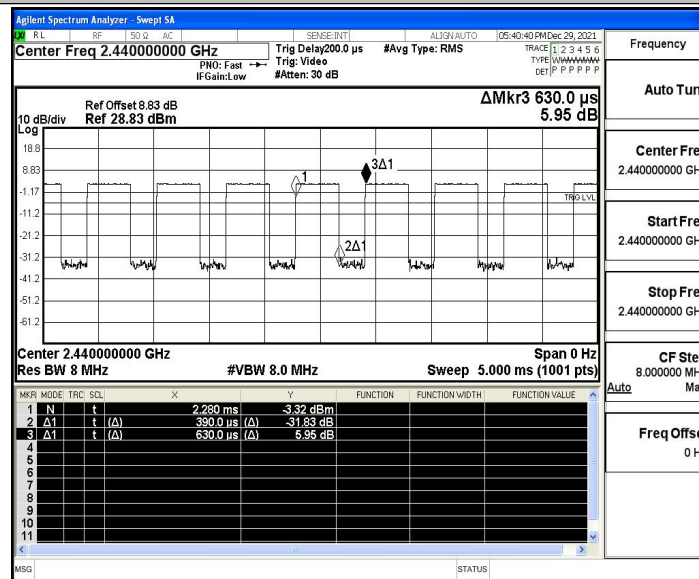


Test Graphs

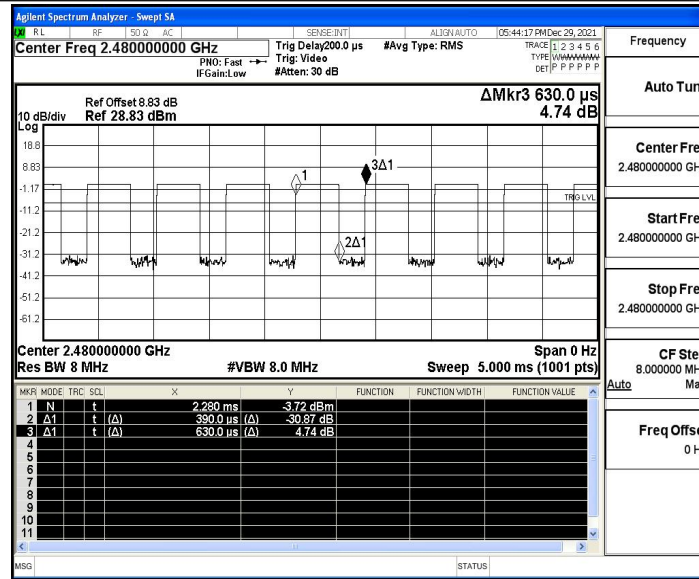
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





A.8 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	-47.42	≤-41.20	47.78	≤54	PASS
				AV	2382.845	-46.39	≤-41.20	48.81	≤54	PASS
				AV	2390.000	-46.96	≤-41.20	48.24	≤54	PASS
				Peak	2310.000	-39	≤-21.20	56.20	≤74	PASS
				Peak	2349.350	-35.97	≤-21.20	59.23	≤74	PASS
				Peak	2390.000	-37.88	≤-21.20	57.32	≤74	PASS
		High	2480	AV	2483.500	-46.09	≤-41.20	49.11	≤54	PASS
				AV	2496.400	-45.99	≤-41.20	49.21	≤54	PASS
				AV	2500.000	-46.03	≤-41.20	49.17	≤54	PASS
				Peak	2483.500	-36.45	≤-21.20	58.75	≤74	PASS
				Peak	2495.040	-36.38	≤-21.20	58.82	≤74	PASS
				Peak	2500.000	-37.43	≤-21.20	57.77	≤74	PASS

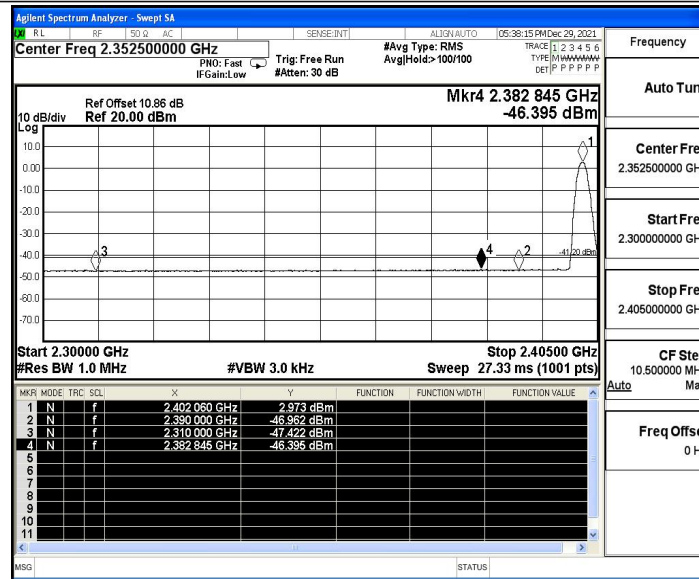
Note:

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.

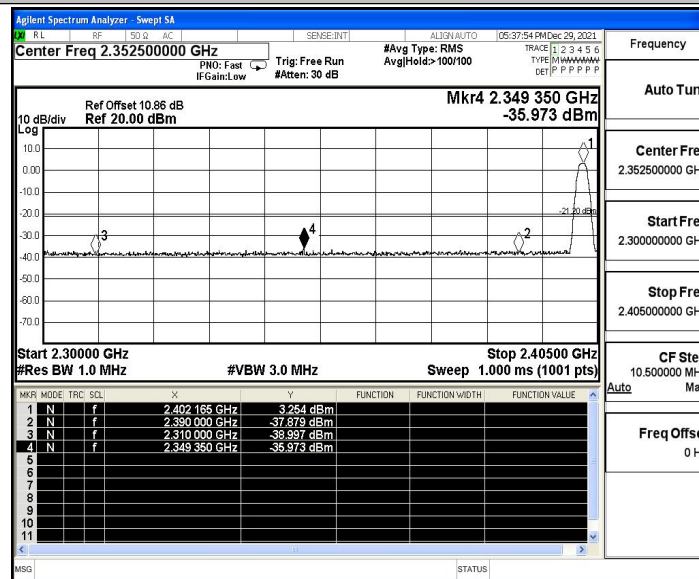


Test Graphs

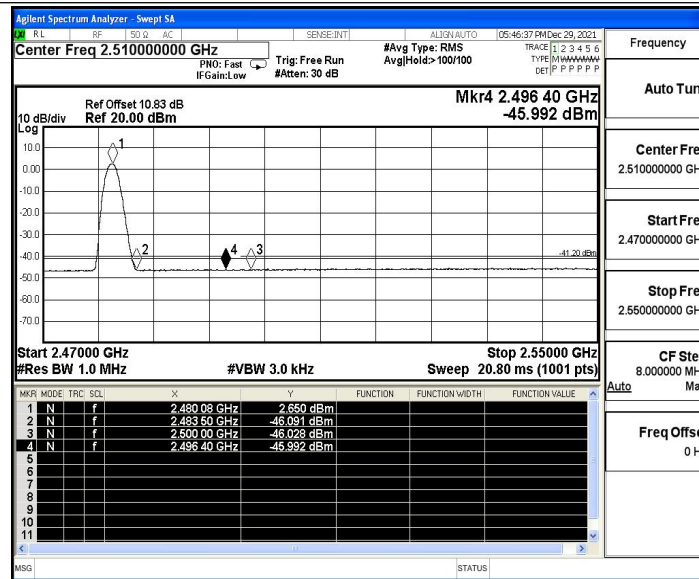
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

