





Appendix B

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

Product Name: The Twin Peaks

Test Model: OT2875

Environmental Conditions

Temperature:	23.5°C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	 Monkey Li
Supervised by:	 Li Huan



B.1 DTS Bandwidth

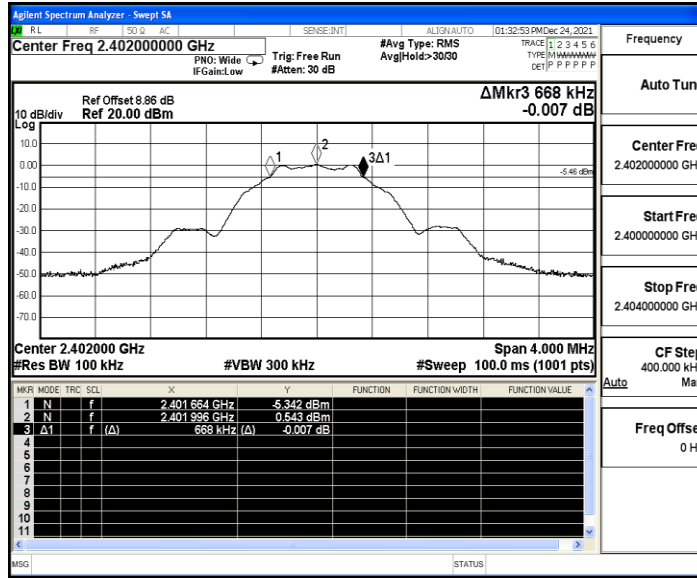
Test Result

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	0.664	2439.664	2440.328	0.5	PASS
		2480	0.668	2479.664	2480.332	0.5	PASS

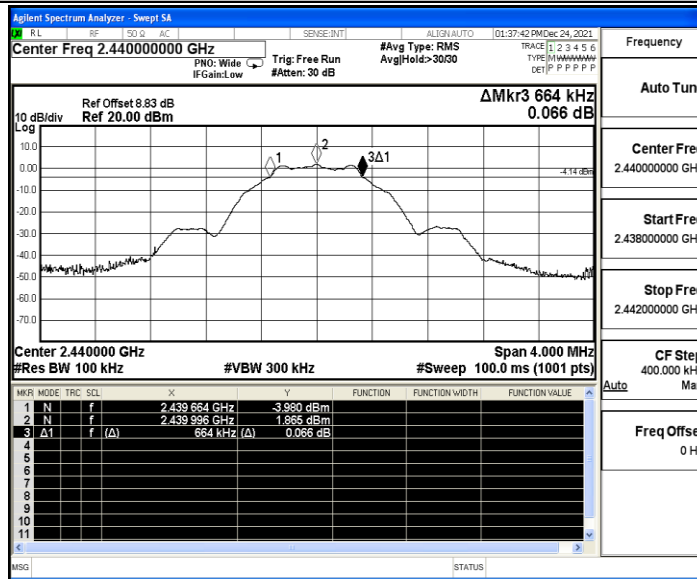


Test Graphs

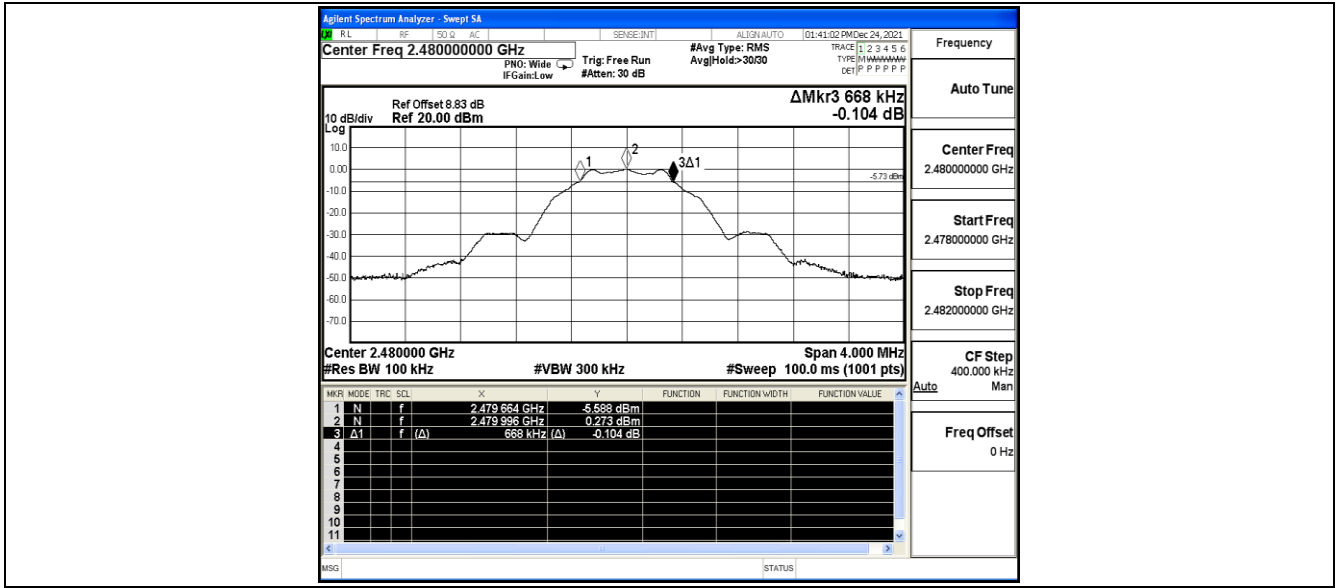
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.2 Maximum peak conducted output power

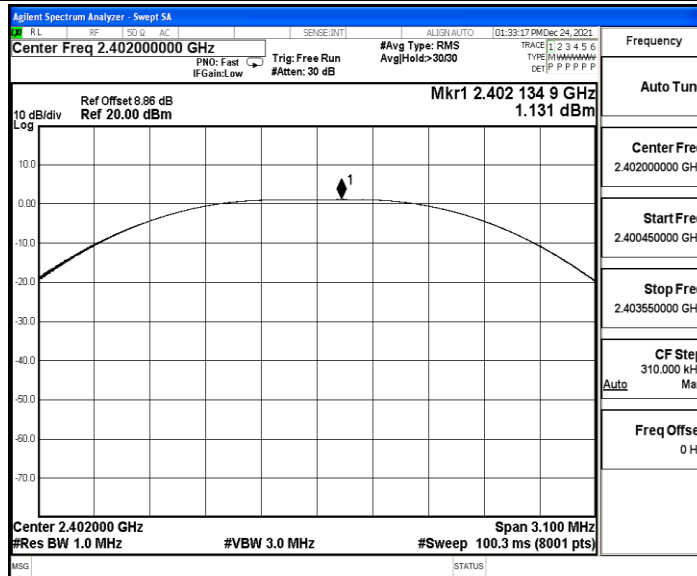
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.13	≤30	PASS
		2440	2.38	≤30	PASS
		2480	0.81	≤30	PASS

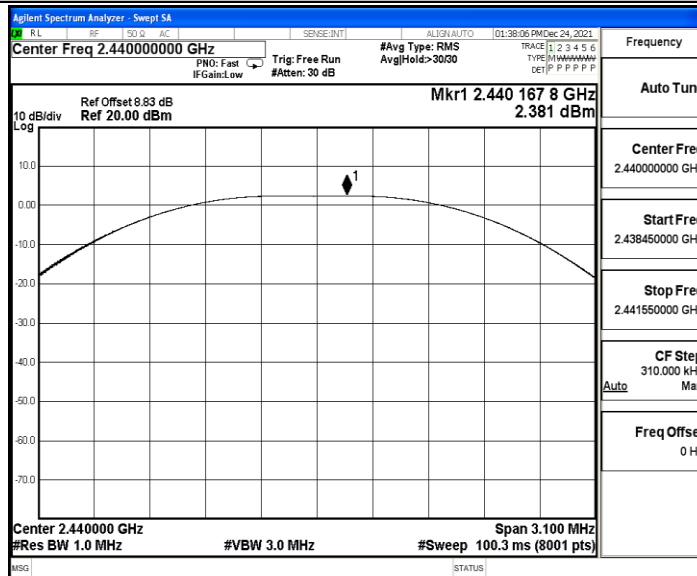


Test Graphs

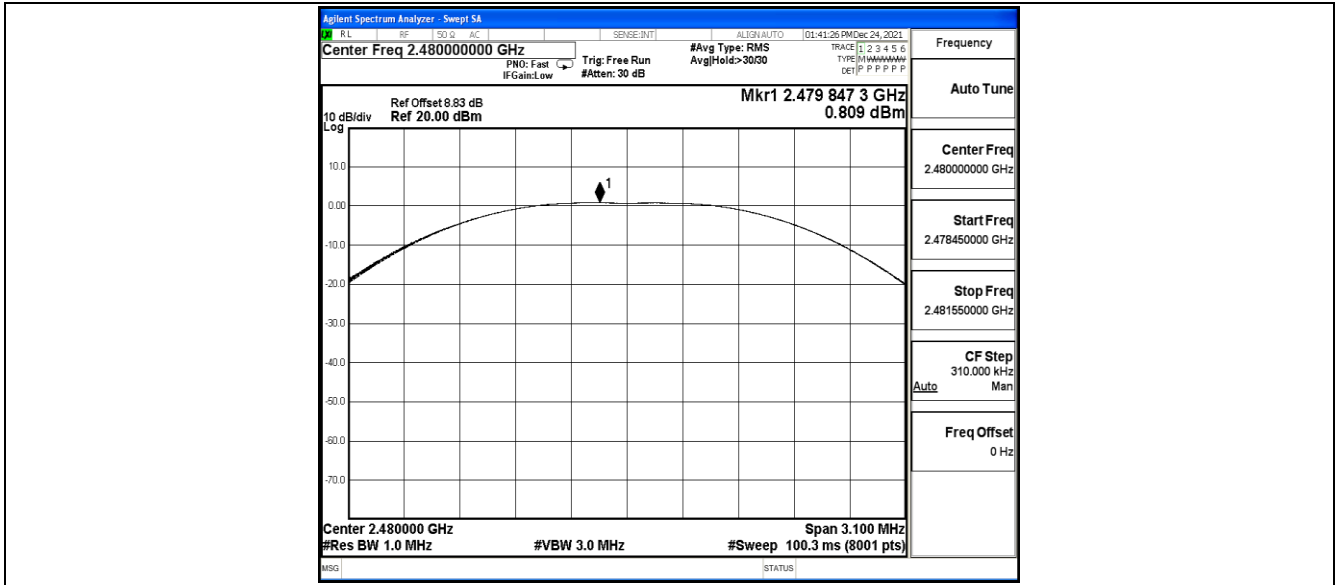
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.3 Maximum power spectral density

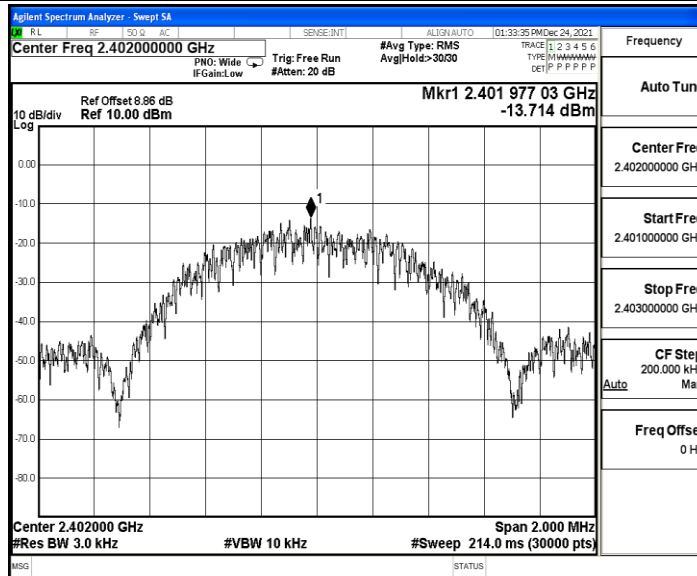
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.71	≤8.00	PASS
		2440	-12.44	≤8.00	PASS
		2480	-13.99	≤8.00	PASS

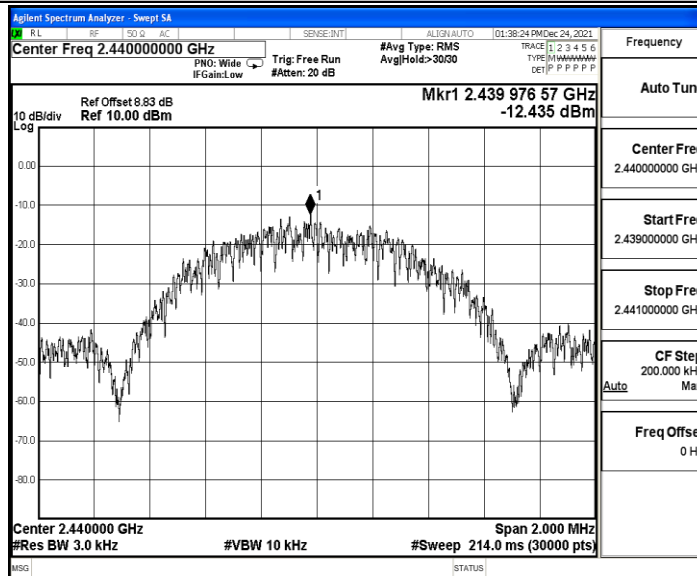


Test Graphs

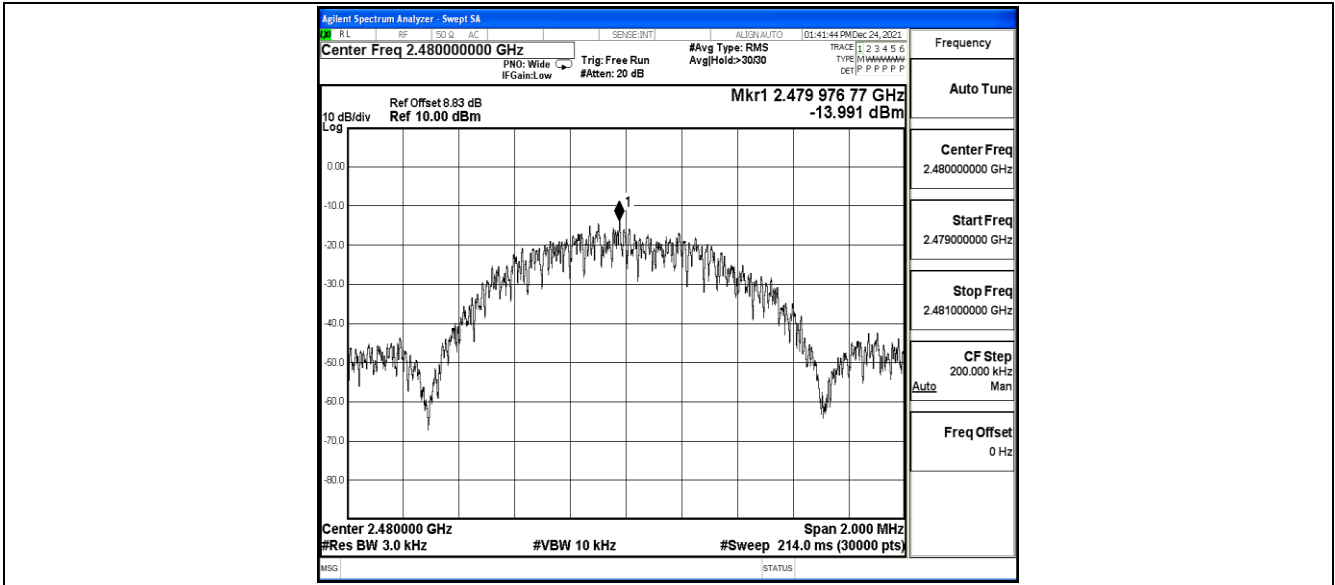
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.4 Band edge measurements

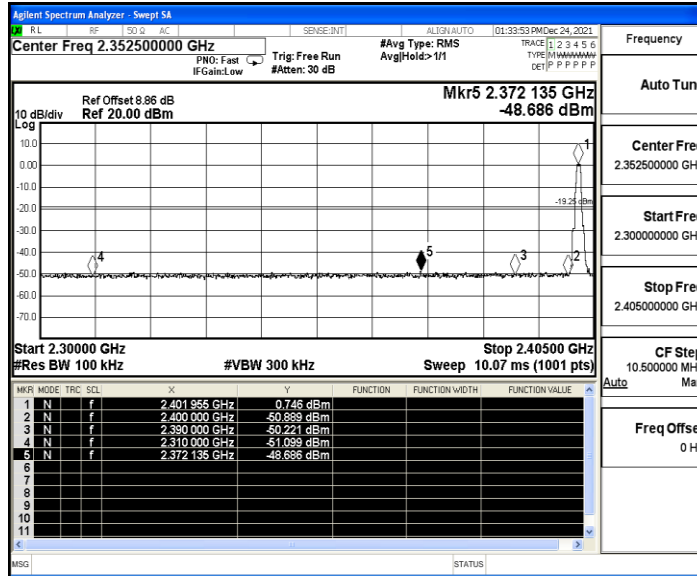
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.75	-48.69	≤-19.25	PASS
		High	2480	0.36	-47.89	≤-19.64	PASS

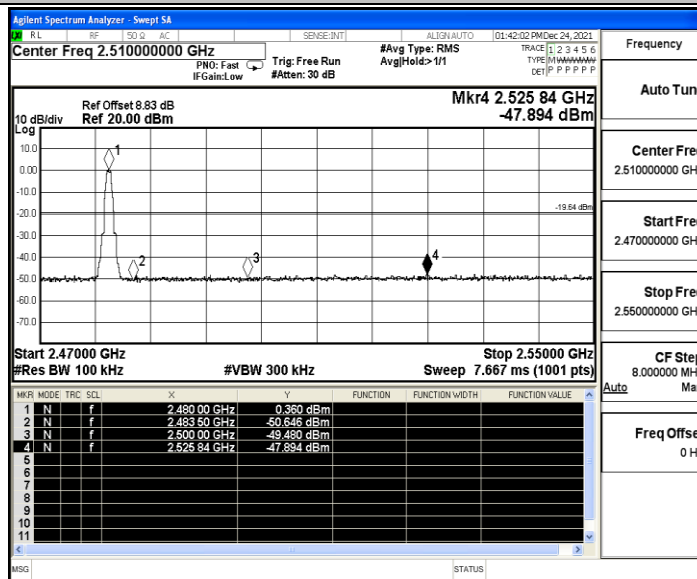


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





B.5 Conducted Spurious Emission

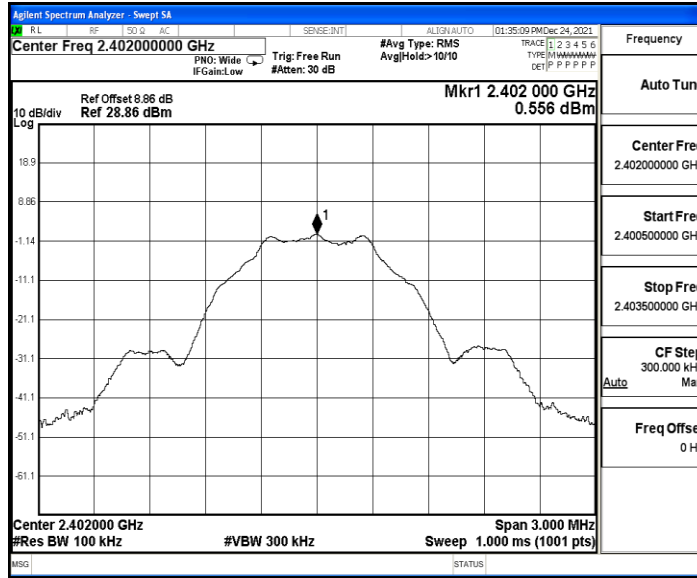
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.56	0.56	---	PASS
			30~1000	0.56	-60.06	≤-19.44	PASS
			1000~26500	0.56	-45.63	≤-19.44	PASS
		2440	Reference	1.88	1.88	---	PASS
			30~1000	1.88	-60.05	≤-18.12	PASS
			1000~26500	1.88	-45.93	≤-18.12	PASS
		2480	Reference	0.27	0.27	---	PASS
			30~1000	0.27	-60.07	≤-19.73	PASS
			1000~26500	0.27	-45.49	≤-19.73	PASS

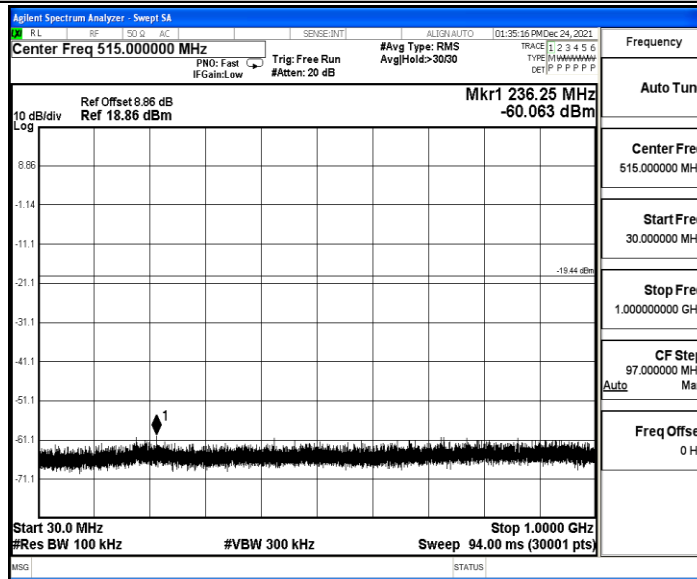


Test Graphs

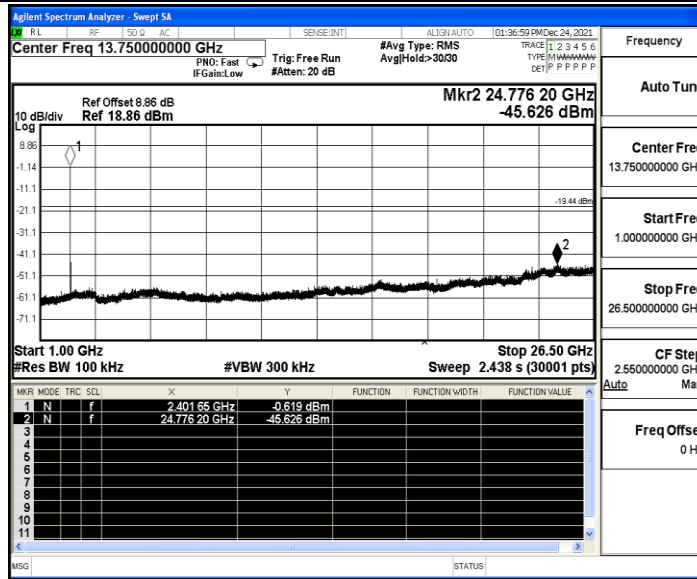
BLE_1M_Ant1_2402_0~Reference



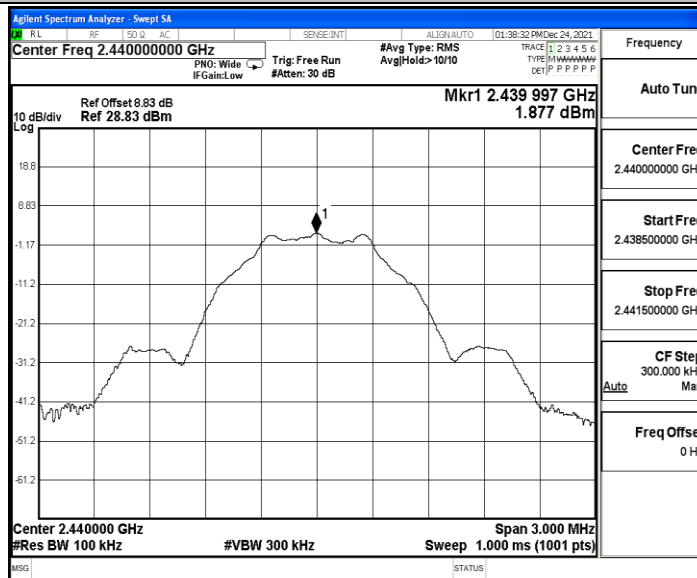
BLE_1M_Ant1_2402_30~1000



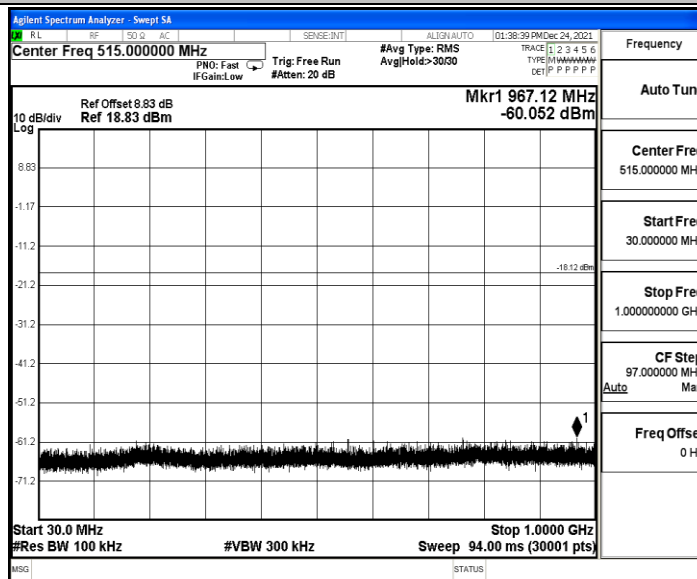
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

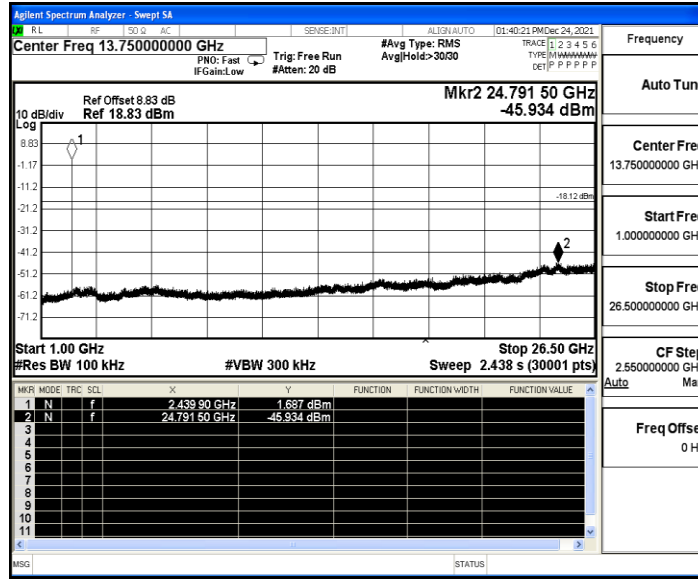


BLE_1M_Ant1_2440_30~1000

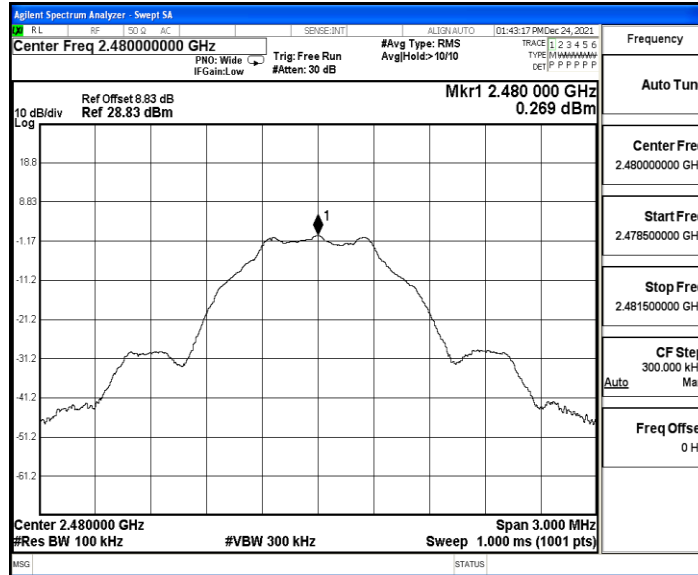




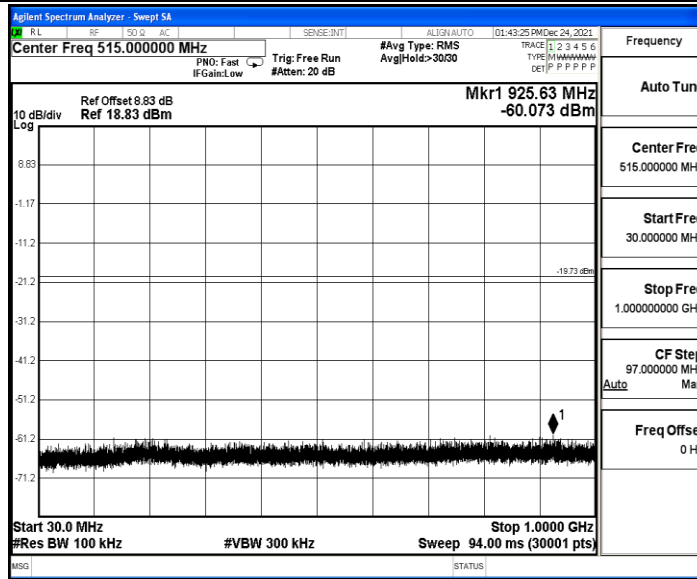
BLE_1M_Ant1_2440_1000~26500



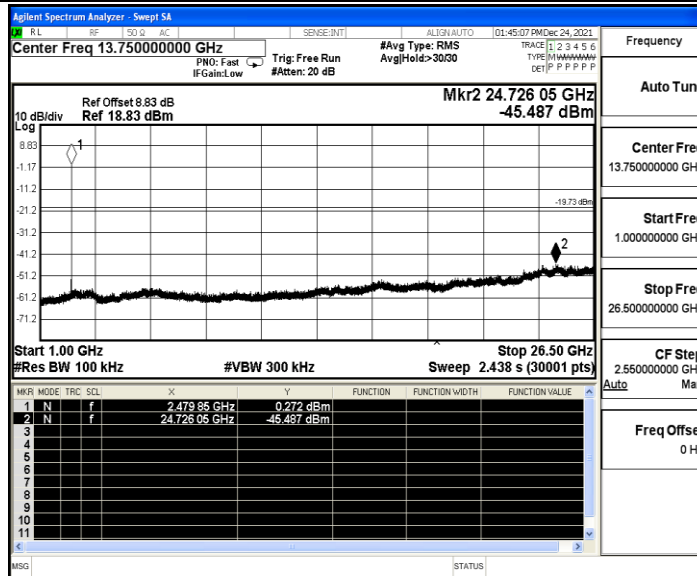
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





B.6 Duty Cycle

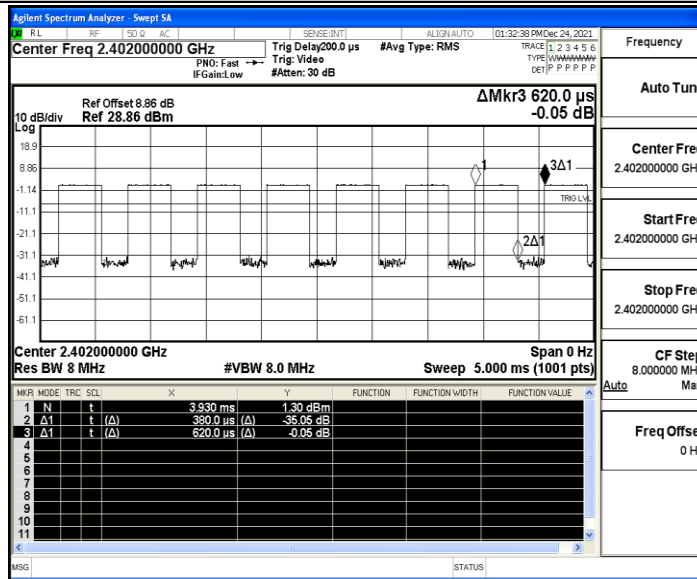
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.38	0.62	0.6129	61.29	2.13	---	---
		2440	0.39	0.63	0.6190	61.90	2.08	---	---
		2480	0.38	0.63	0.6032	60.32	2.20	---	---

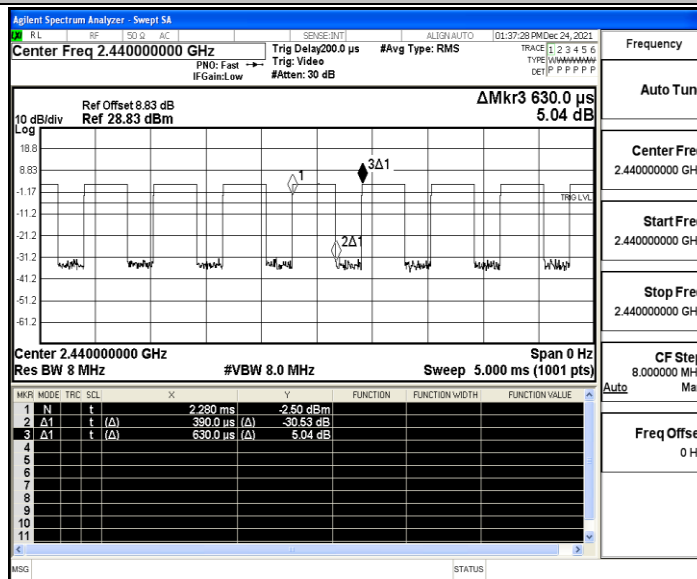


Test Graphs

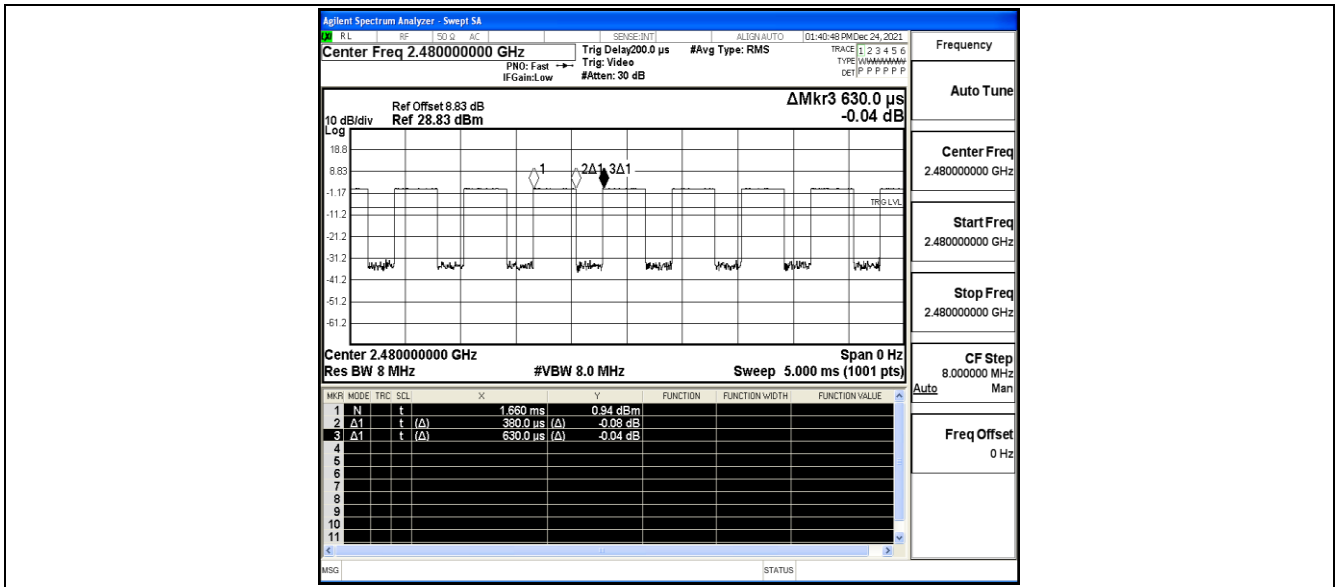
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.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	-47.09	≤-41.20	48.11	≤54	PASS
				AV	2385.365	-46.58	≤-41.20	48.62	≤54	PASS
				AV	2390.000	-46.46	≤-41.20	48.74	≤54	PASS
				Peak	2310.000	-38.84	≤-21.20	56.36	≤74	PASS
				Peak	2383.055	-36.31	≤-21.20	58.89	≤74	PASS
				Peak	2390.000	-38.05	≤-21.20	57.15	≤74	PASS
		High	2480	AV	2483.500	-46	≤-41.20	49.20	≤54	PASS
				AV	2495.920	-45.76	≤-41.20	49.44	≤54	PASS
				AV	2500.000	-46.22	≤-41.20	48.98	≤54	PASS
				Peak	2483.500	-36.26	≤-21.20	58.94	≤74	PASS
				Peak	2492.640	-34.65	≤-21.20	60.55	≤74	PASS
				Peak	2500.000	-37.85	≤-21.20	57.35	≤74	PASS

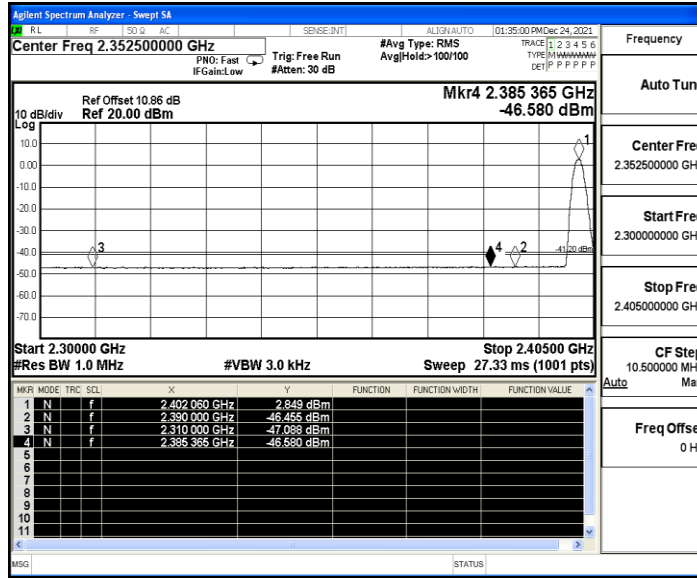
Note:

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.

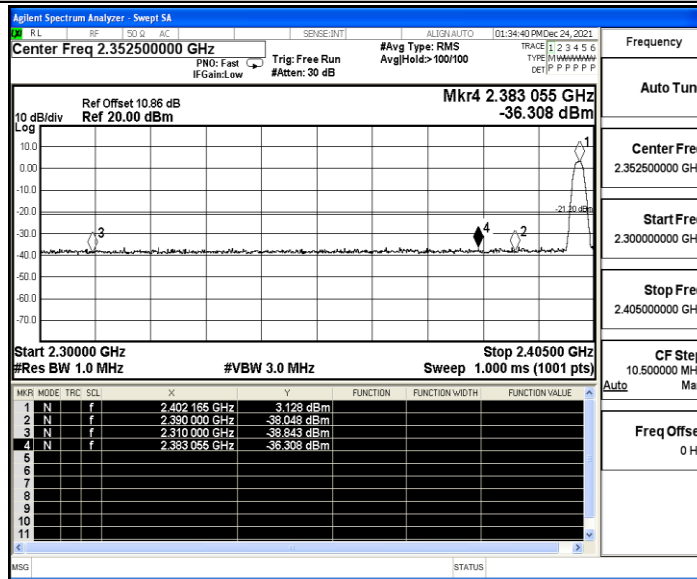


Test Graphs

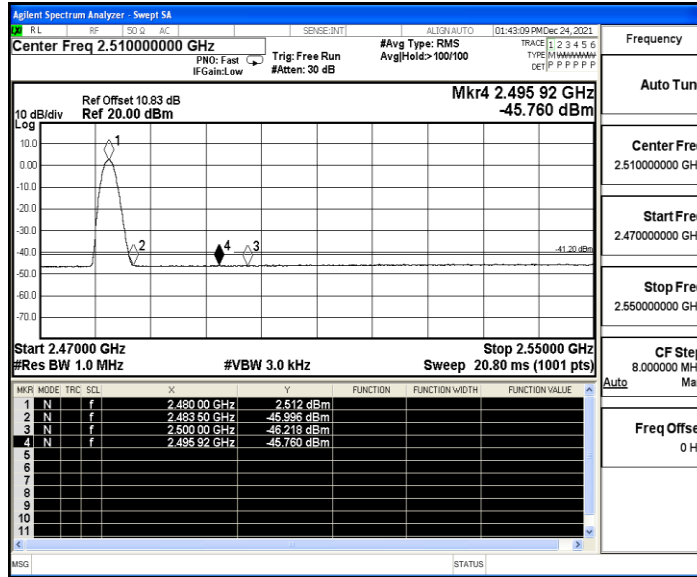
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

