



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Digital Modeling Amplifier for Gutiar Vocal

Test Model: GX-5

Environmental Conditions

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



B.1 DTS Bandwidth

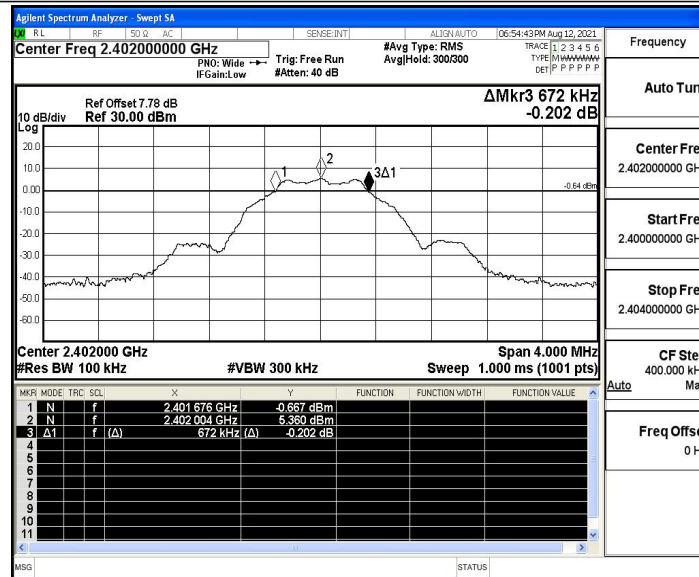
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.672	2401.676	2402.348	≥0.5	PASS
		2440	0.668	2439.672	2440.340	≥0.5	PASS
		2480	0.684	2479.664	2480.348	≥0.5	PASS

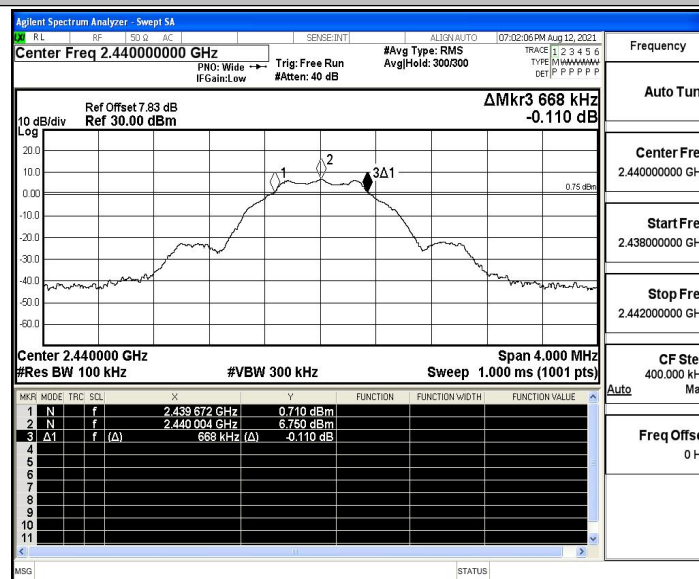


Test Graphs

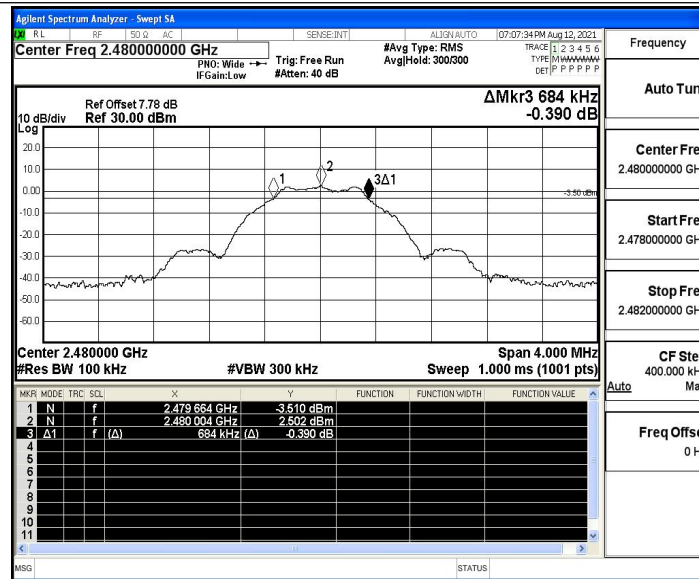
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.2 Maximum peak conducted output power

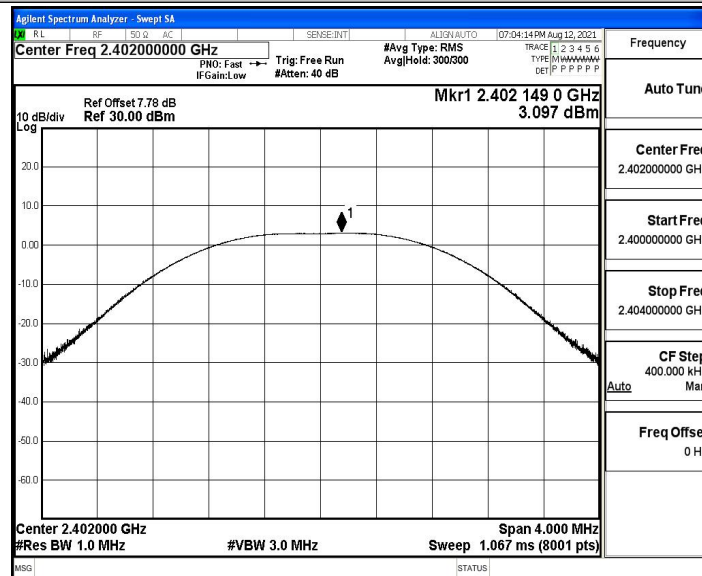
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	3.1	≤30	PASS
		2440	4.42	≤30	PASS
		2480	3.06	≤30	PASS

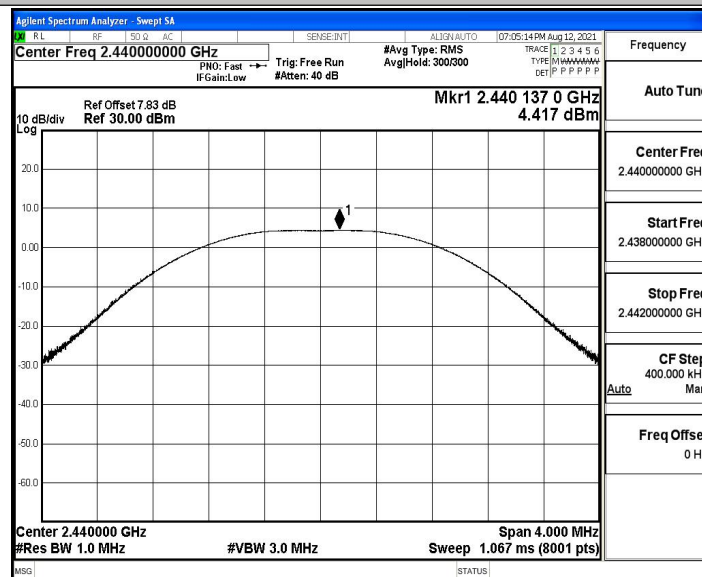


Test Graphs

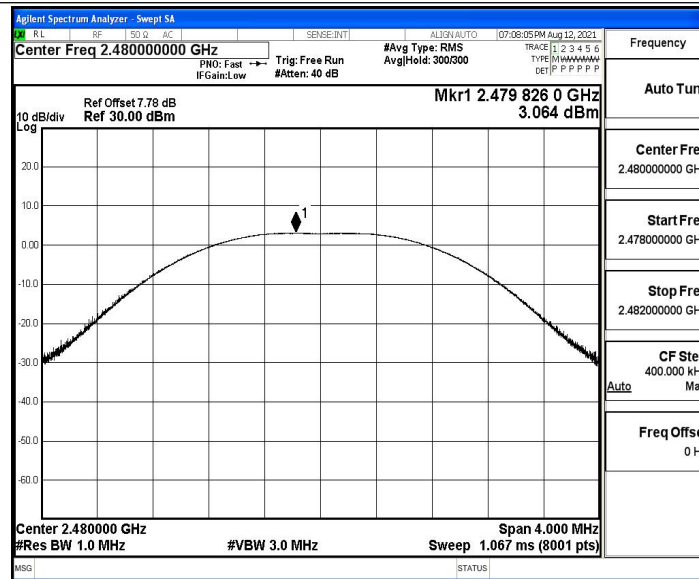
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.3 Maximum power spectral density

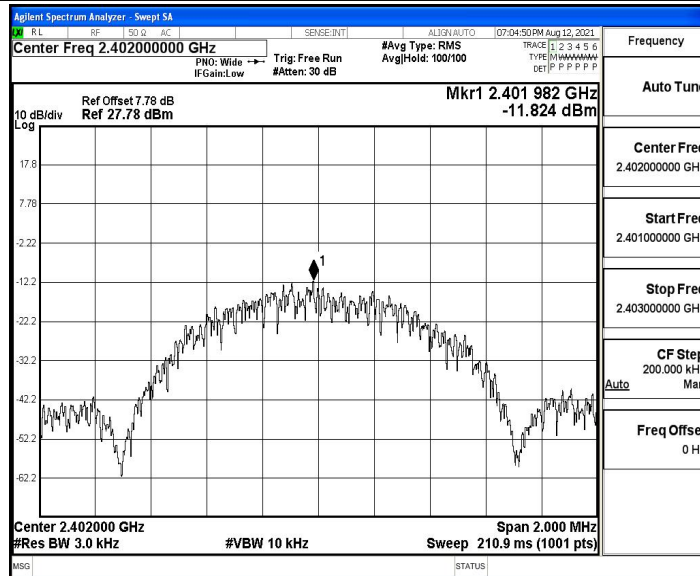
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-11.82	≤8	PASS
		2440	-10.4	≤8	PASS
		2480	-11.75	≤8	PASS

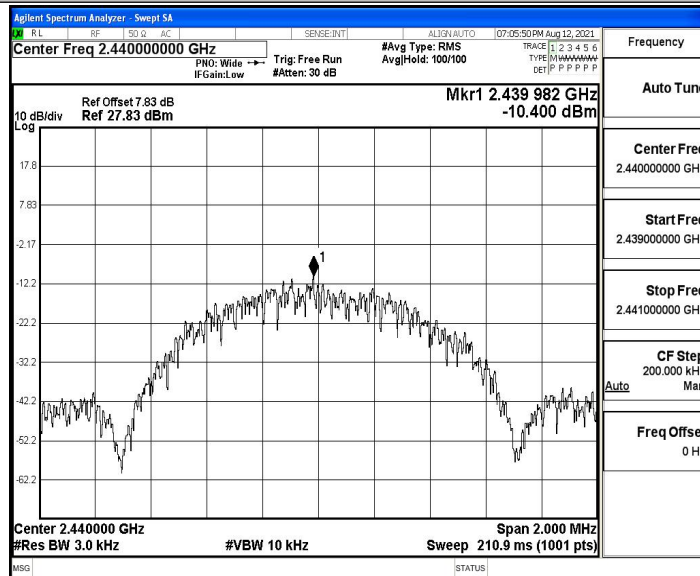


Test Graphs

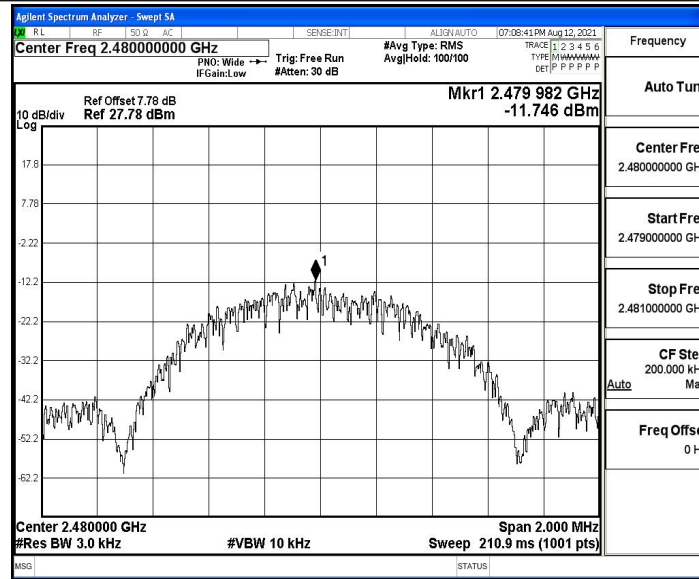
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





B.4 Band edge measurements

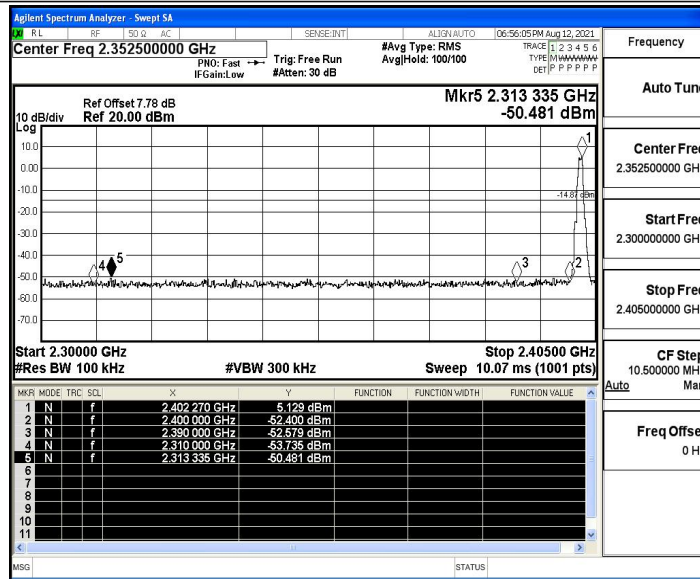
Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	5.13	-50.48	≤ -14.87	PASS
		High	2480	2.29	-49.28	≤ -17.71	PASS

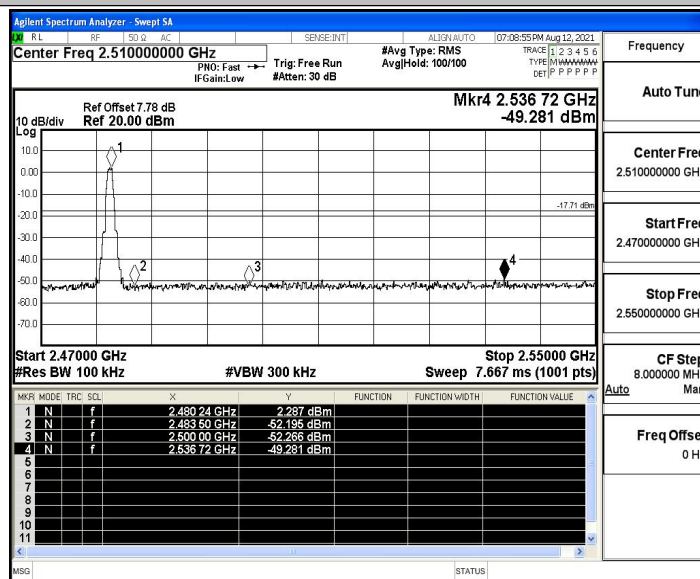


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480





B.5 Conducted Spurious Emission

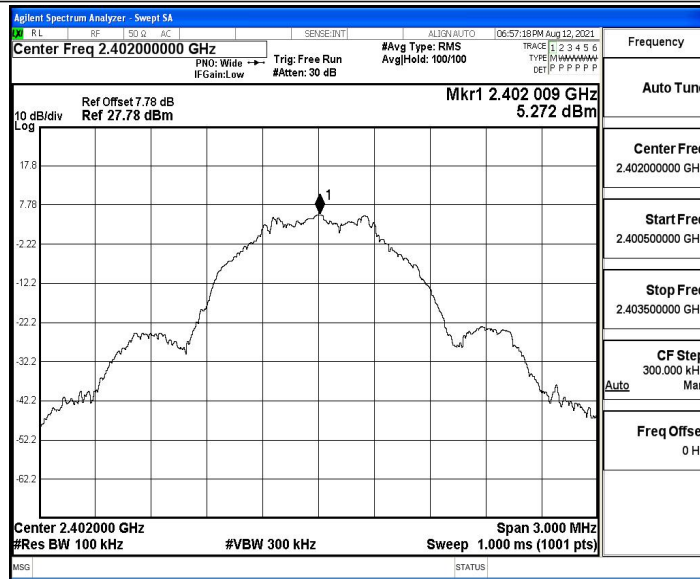
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	5.27	5.27	---	PASS
			30~1000	5.27	-46.64	≤ -14.73	PASS
			1000~26500	5.27	-48.16	≤ -14.73	PASS
		2440	Reference	3.80	3.80	---	PASS
			30~1000	3.80	-59.38	≤ -16.2	PASS
			1000~26500	3.80	-47.07	≤ -16.2	PASS
		2480	Reference	2.36	2.36	---	PASS
			30~1000	2.36	-60.57	≤ -17.64	PASS
			1000~26500	2.36	-47.42	≤ -17.64	PASS

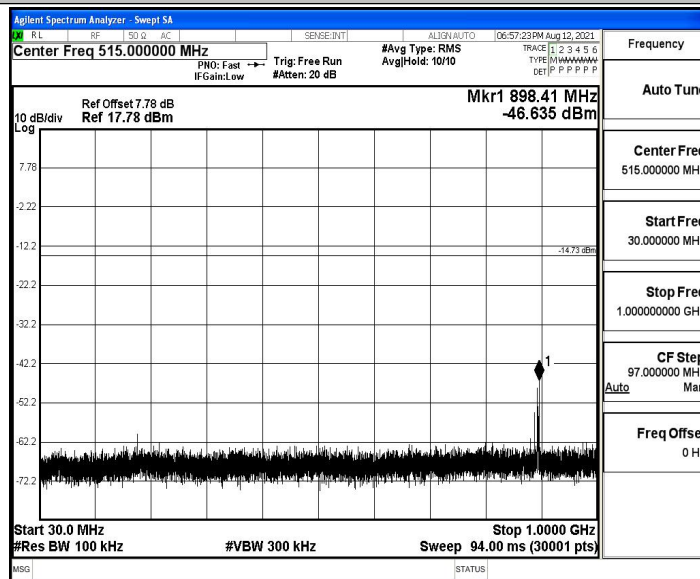


Test Graphs

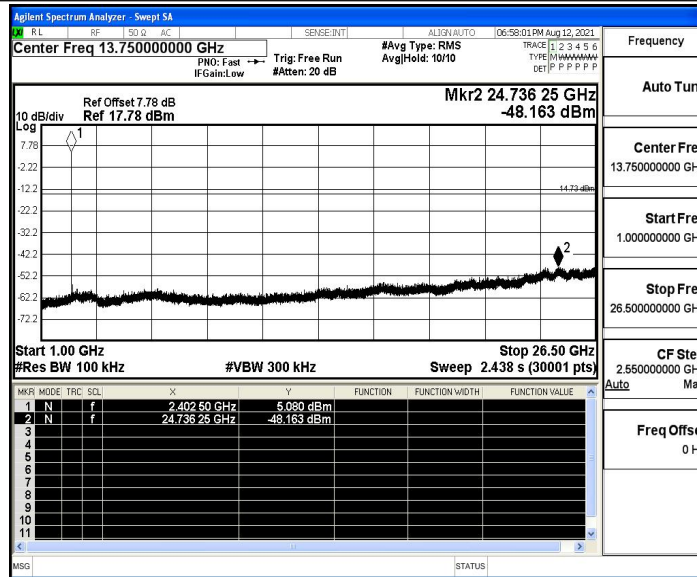
BLE_1M_Ant1_2402_0~Reference



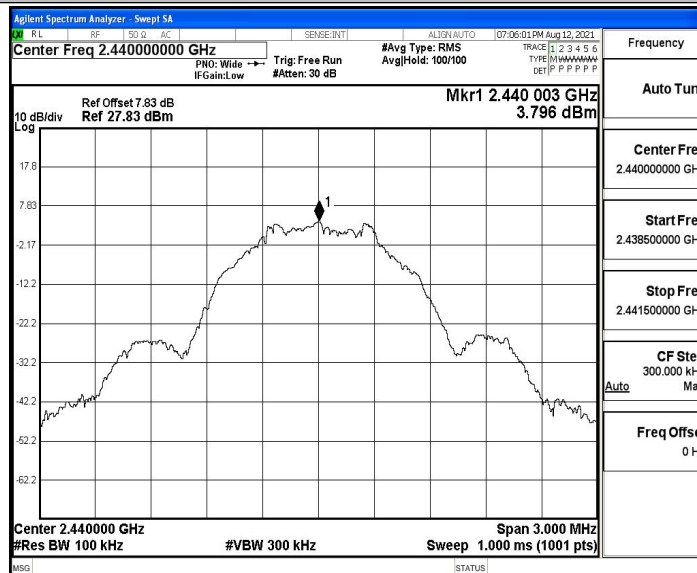
BLE_1M_Ant1_2402_30~1000



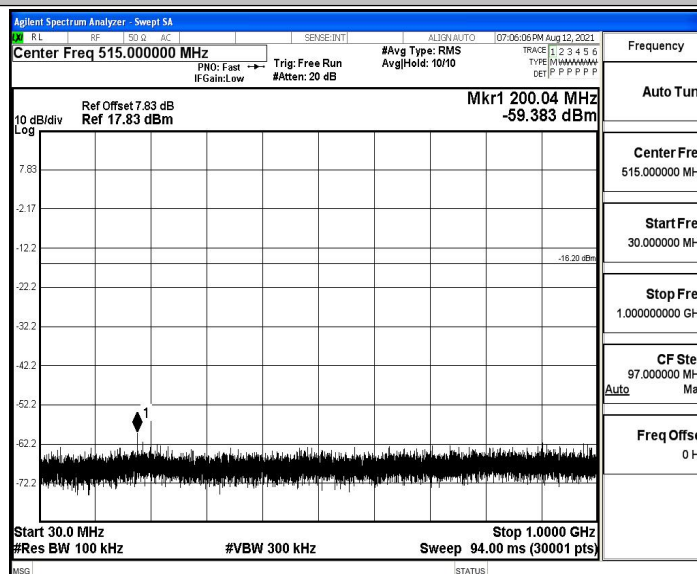
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference

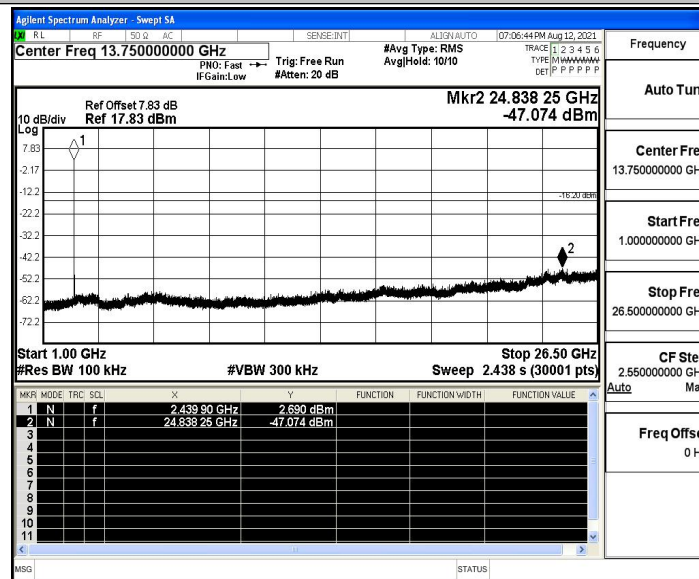


BLE_1M_Ant1_2440_30~1000

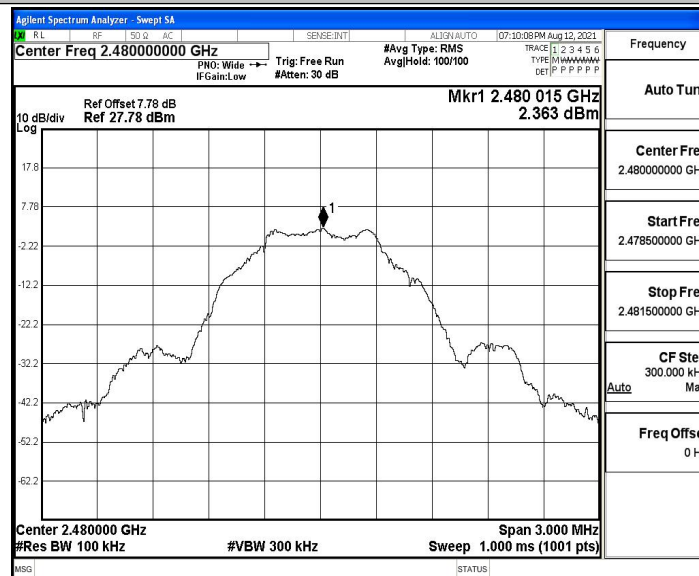




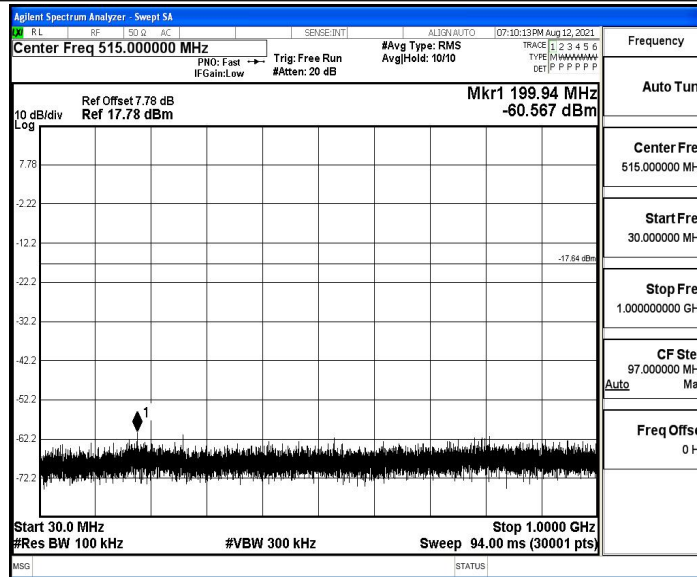
BLE_1M_Ant1_2440_1000~26500



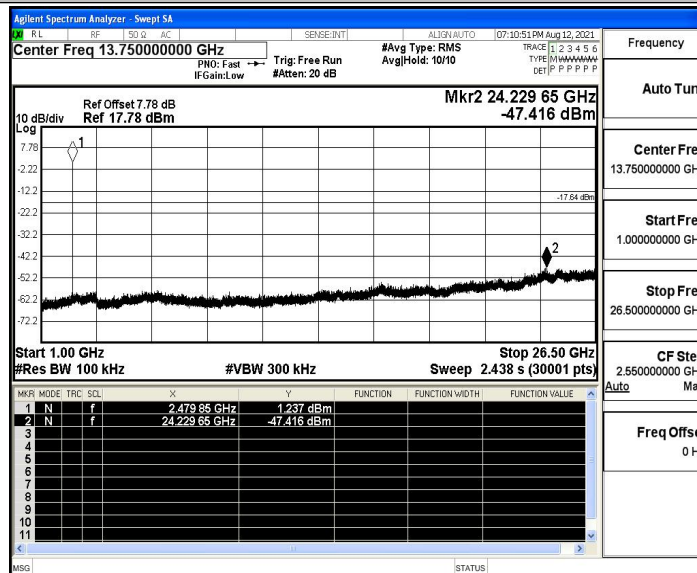
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500





B.6 Duty Cycle

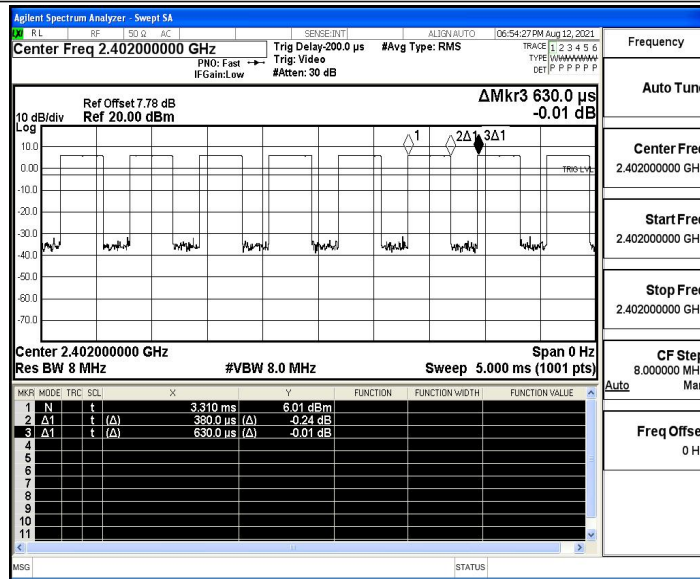
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Minimum VBW(KHz)	Limit	Verdict
BLE_1M	Ant1	2402	0.38	0.63	0.6032	60.32	2.20	2.63	---	PASS
		2440	0.38	0.63	0.6032	60.32	2.20	2.63	---	PASS
		2480	0.38	0.62	0.6129	61.29	2.13	2.63	---	PASS

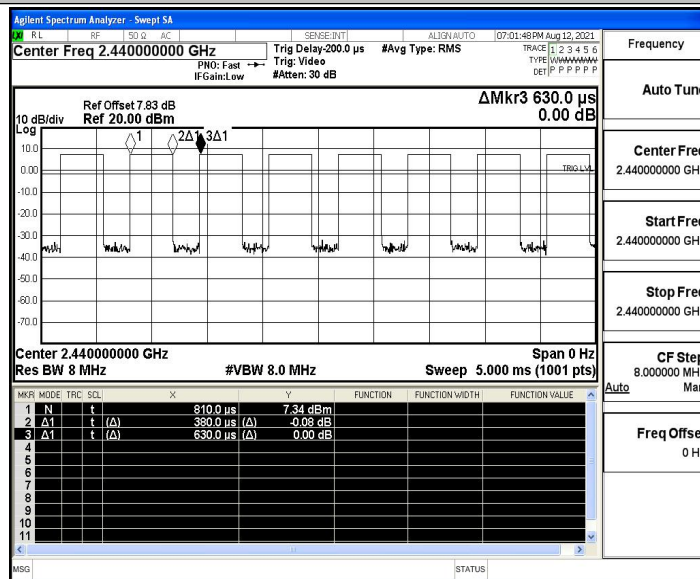


Test Graphs

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	-48.61	≤-41.20	46.59	≤54	PASS
				AV	2383.265	-47.53	≤-41.20	47.67	≤54	PASS
				AV	2390.000	-48.08	≤-41.20	47.12	≤54	PASS
				Peak	2310.000	-41.11	≤-21.20	54.09	≤74	PASS
				Peak	2353.865	-38.78	≤-21.20	56.42	≤74	PASS
				Peak	2390.000	-42.35	≤-21.20	52.85	≤74	PASS
		High	2480	AV	2483.500	-46.59	≤-41.20	48.61	≤54	PASS
				AV	2483.520	-46.59	≤-41.20	48.61	≤54	PASS
				AV	2500.000	-47.64	≤-41.20	47.56	≤54	PASS
				Peak	2483.500	-41.42	≤-21.20	53.78	≤74	PASS
				Peak	2490.880	-39.09	≤-21.20	56.11	≤74	PASS
				Peak	2500.000	-40.29	≤-21.20	54.91	≤74	PASS

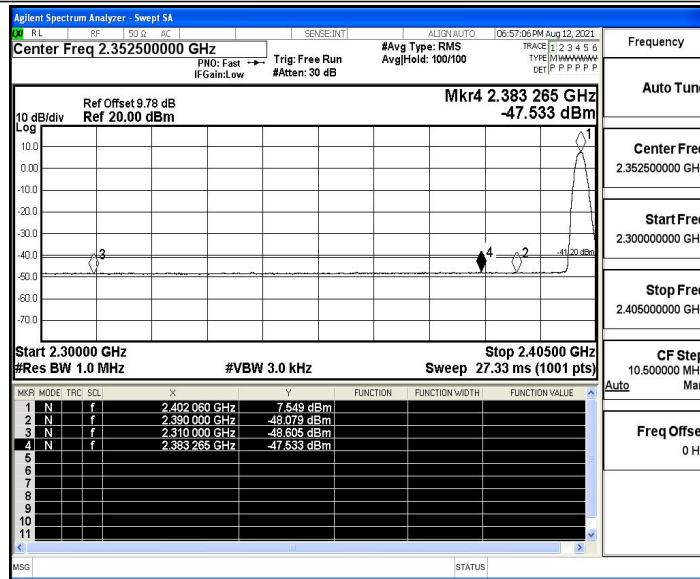
Note:

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.

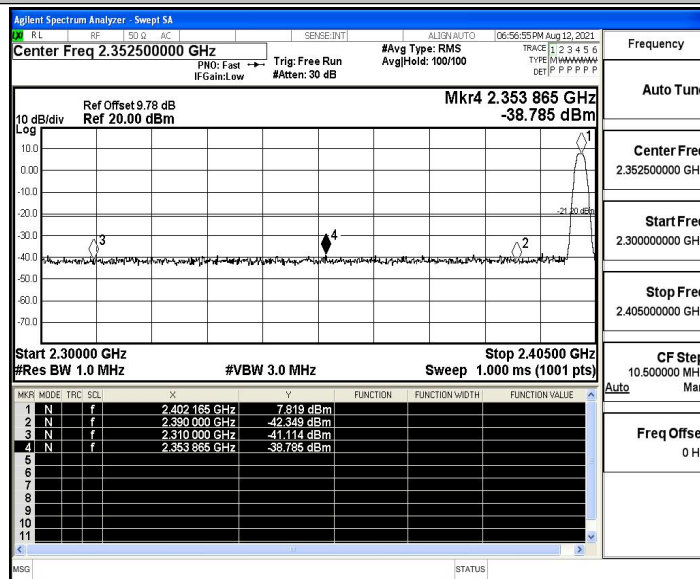


Test Graphs

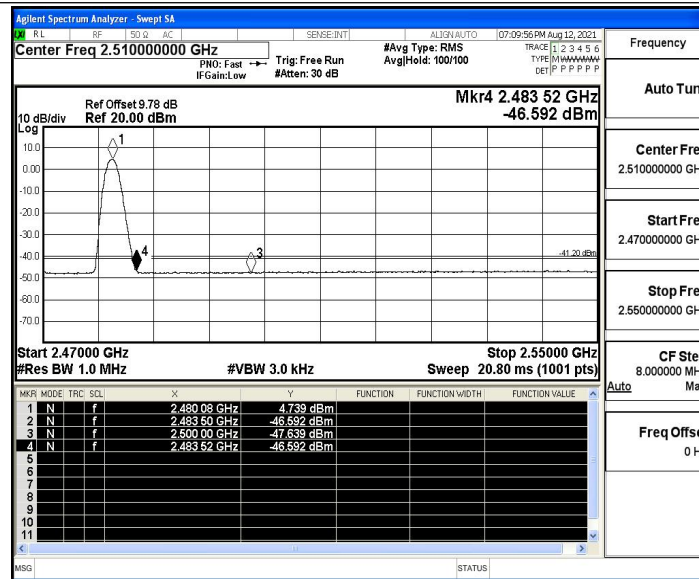
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

