



## Appendix B

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

Product Name: Bluetooth remote control

Test Model: HY190C651BB17

#### Environmental Conditions

Temperature:	21.6 ° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

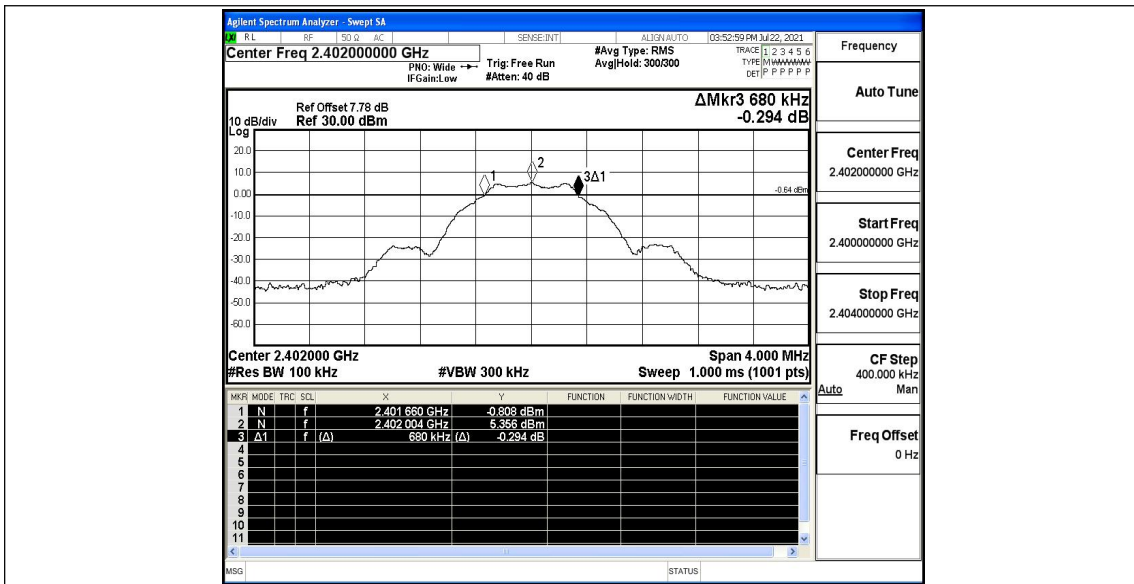
### B.1 6dB Bandwidth

#### Test Result

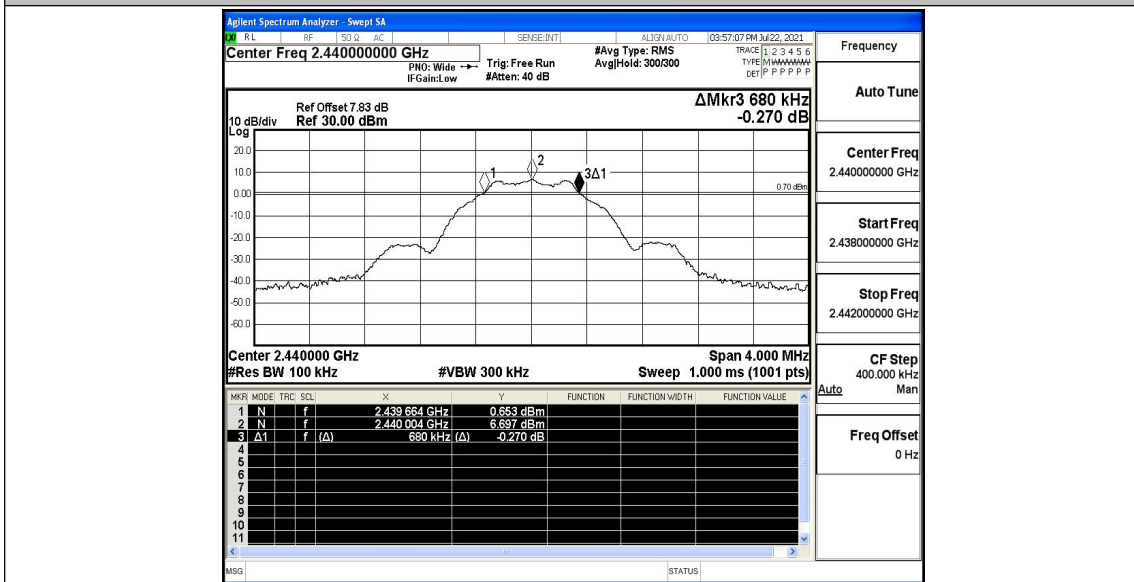
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.680	2401.660	2402.340	≥0.5	PASS
		2440	0.680	2439.664	2440.344	≥0.5	PASS
		2480	0.668	2479.668	2480.336	≥0.5	PASS



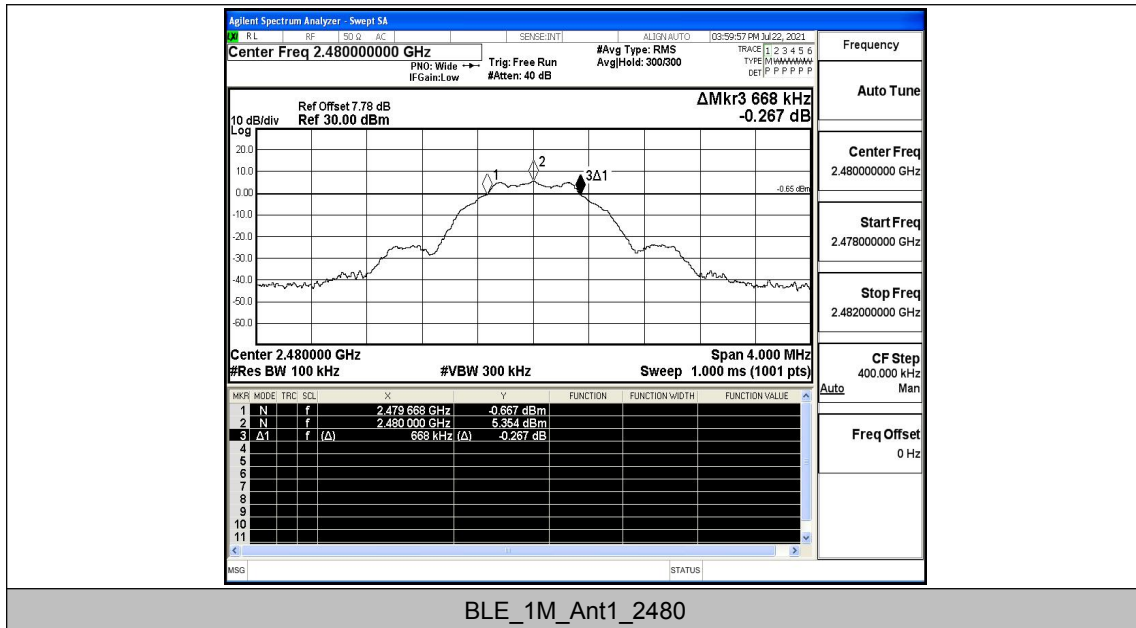
### Test Graphs



BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



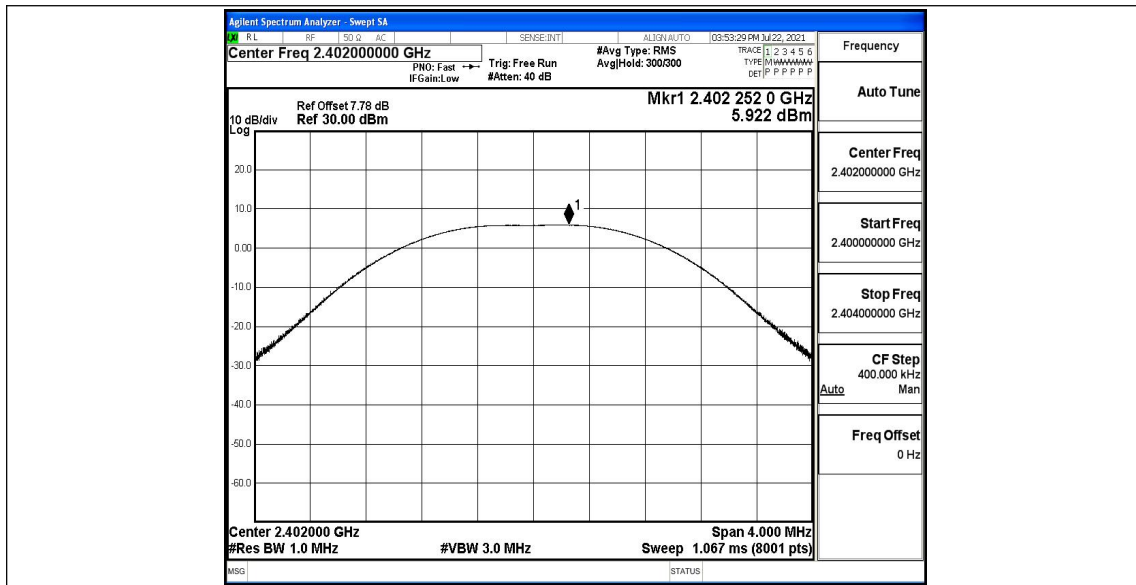


### B.3 Maximum conducted output power

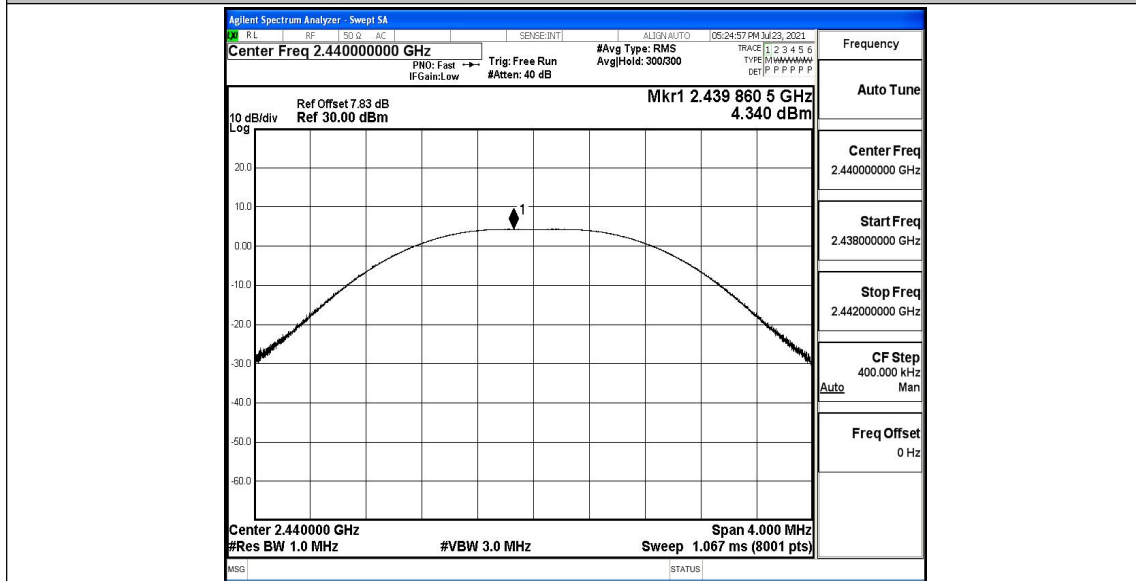
#### Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	5.92	≤30	PASS
		2440	4.34	≤30	PASS
		2480	5.92	≤30	PASS

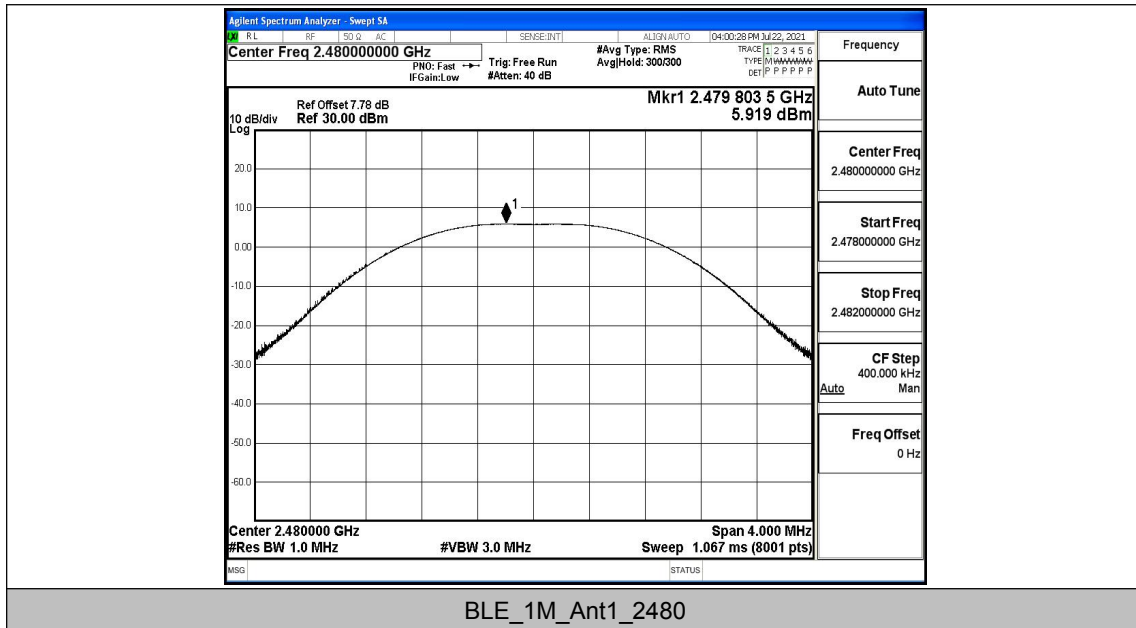
#### Test Graphs



BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



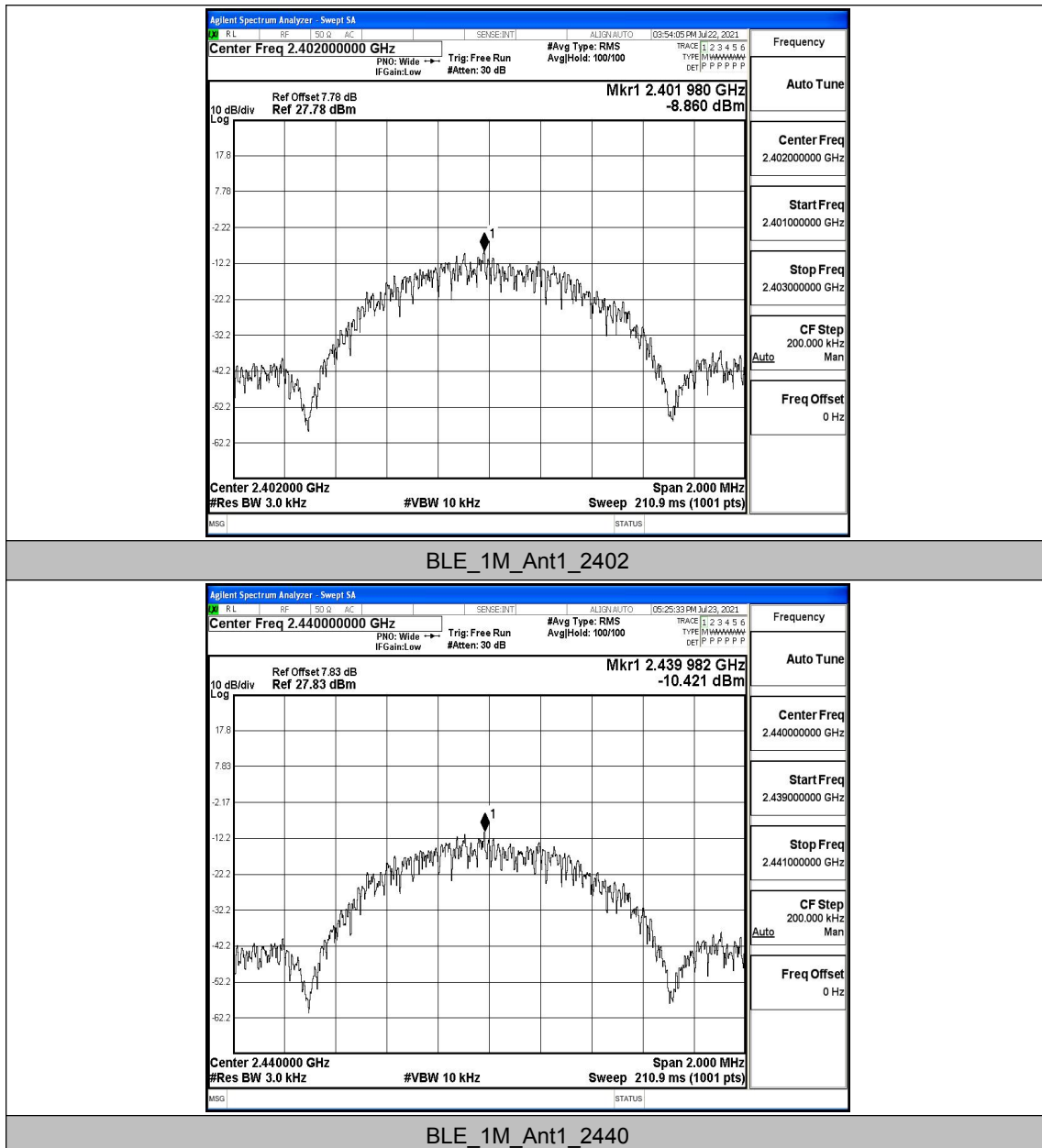


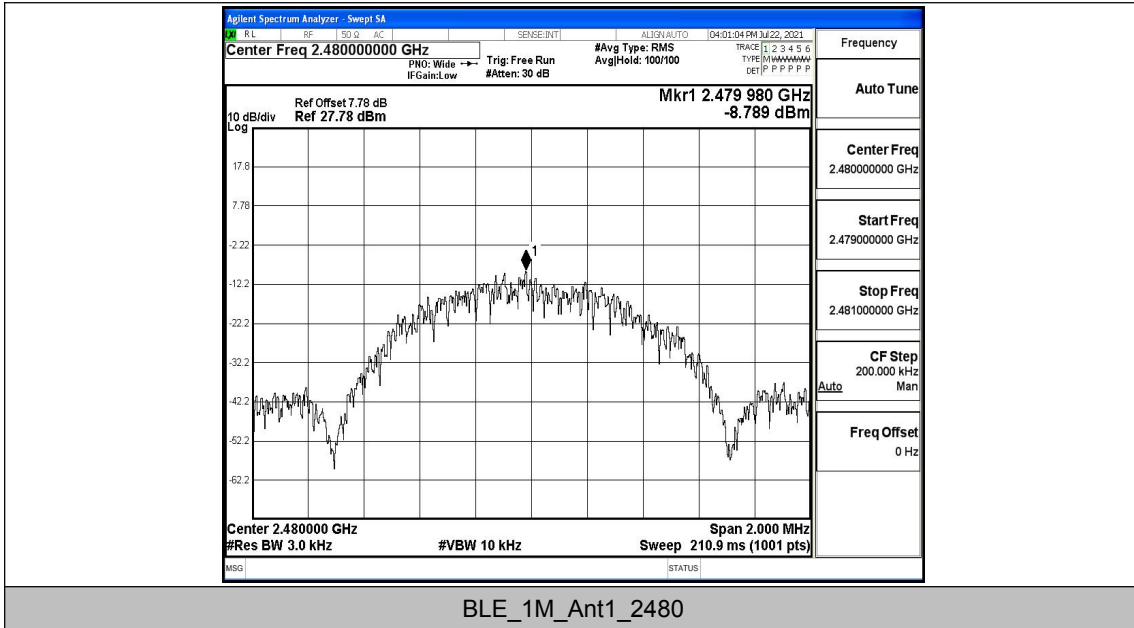
## B.4 Maximum power spectral density

### Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-8.86	≤8	PASS
		2440	-10.42	≤8	PASS
		2480	-8.79	≤8	PASS

### Test Graphs





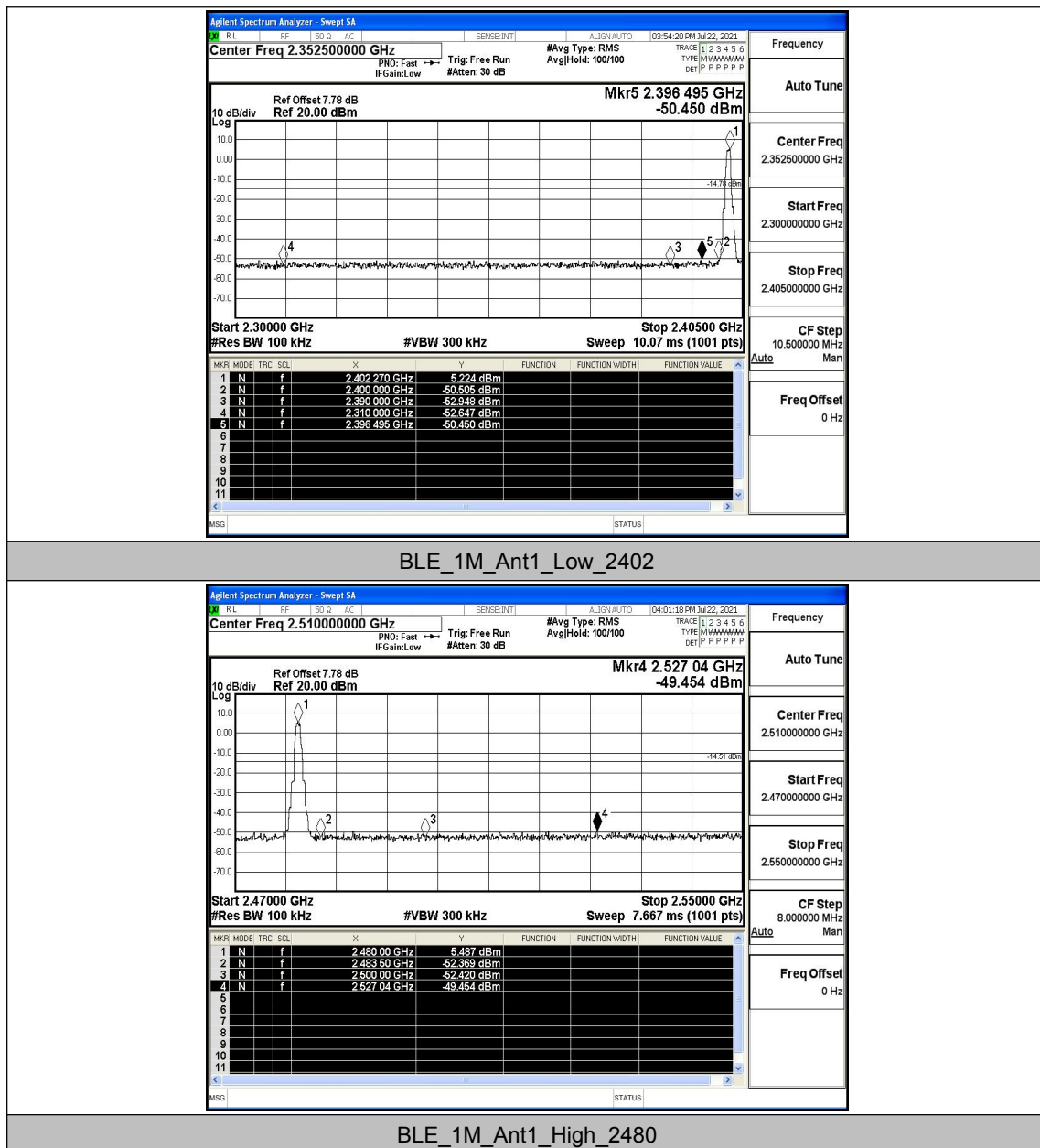


## B.5 Band edge measurements

### Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	5.22	-50.45	≤-14.78	PASS
		High	2480	5.49	-49.45	≤-14.51	PASS

### Test Graphs





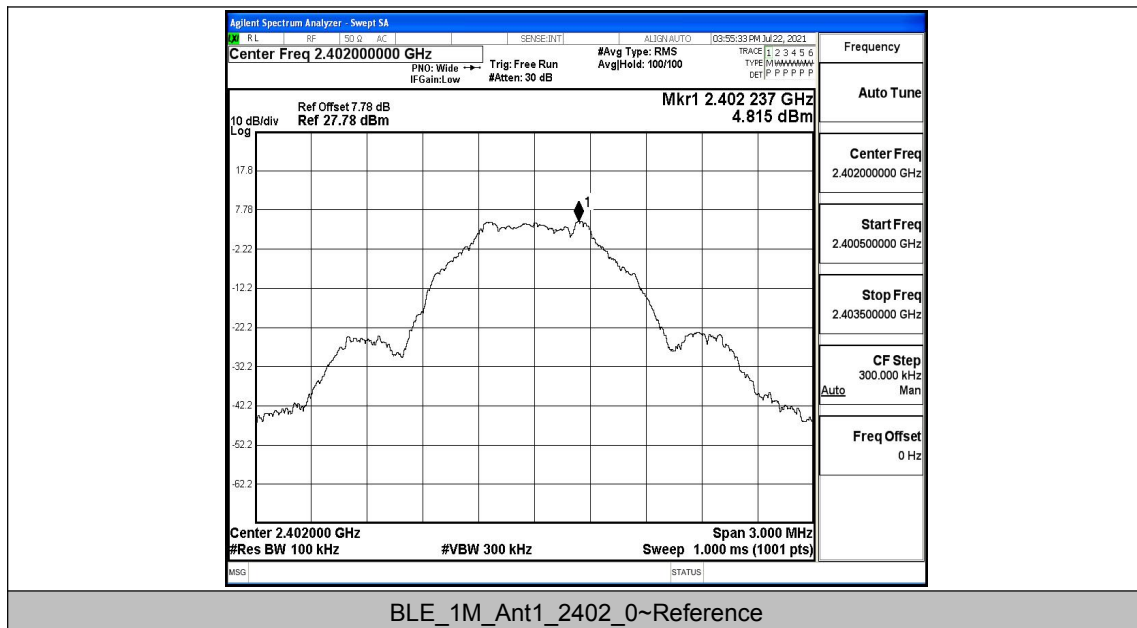


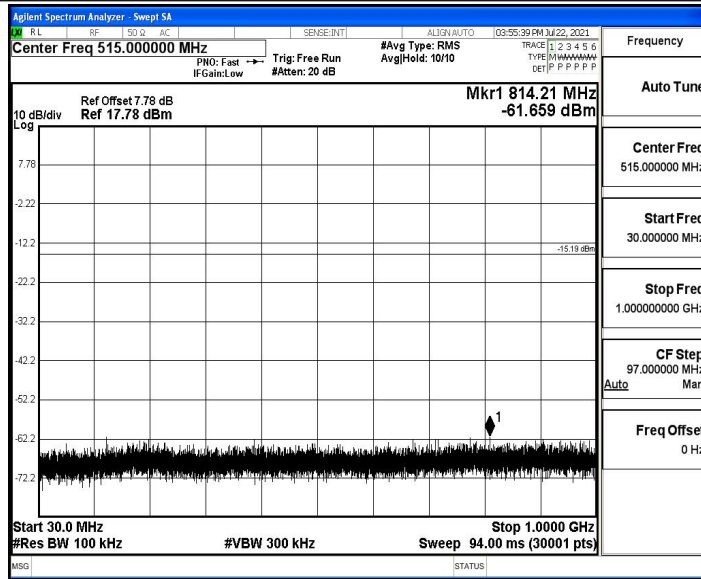
## B.6 Conducted Spurious Emission

### Test Result

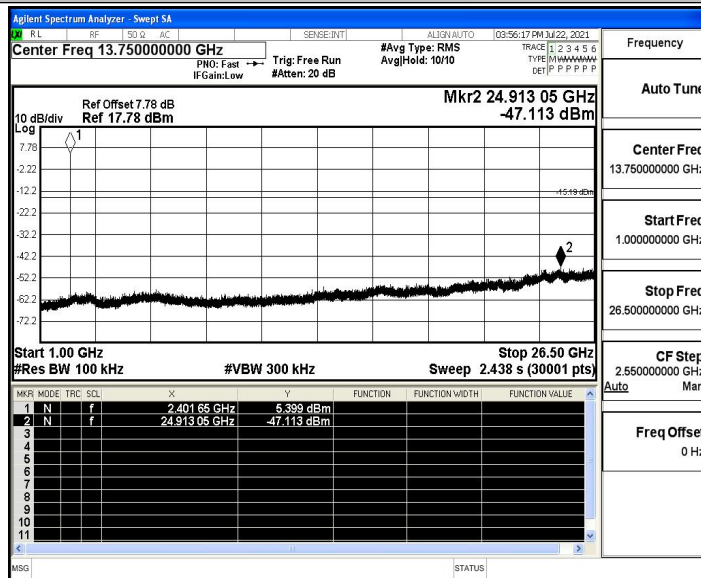
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	4.82	4.82	---	PASS
			30~1000	4.82	-61.66	≤-15.19	PASS
			1000~26500	4.82	-47.11	≤-15.19	PASS
		2440	Reference	6.11	6.11	---	PASS
			30~1000	6.11	-61.74	≤-13.89	PASS
			1000~26500	6.11	-47.6	≤-13.89	PASS
		2480	Reference	5.32	5.32	---	PASS
			30~1000	5.32	-61.35	≤-14.68	PASS
			1000~26500	5.32	-47.64	≤-14.68	PASS

### Test Graphs

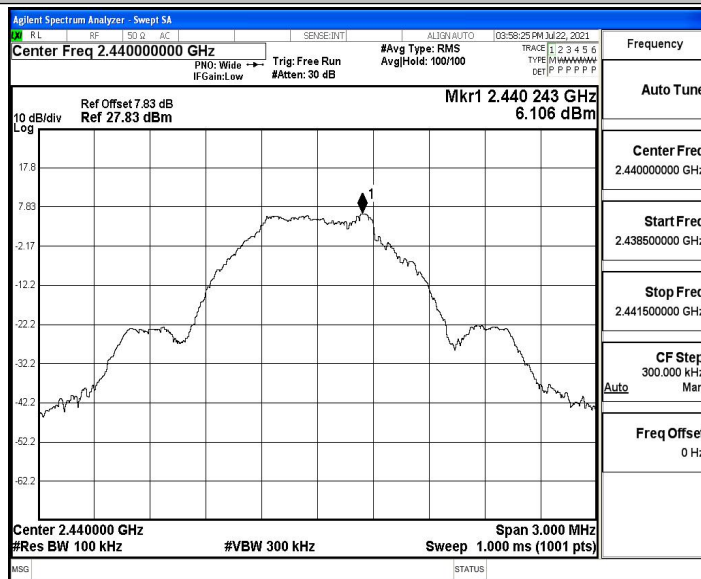




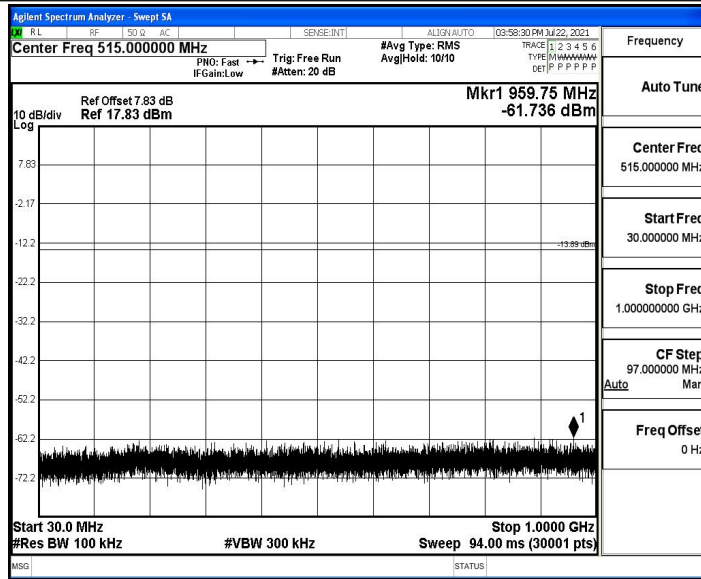
BLE\_1M\_Ant1\_2402\_30~1000



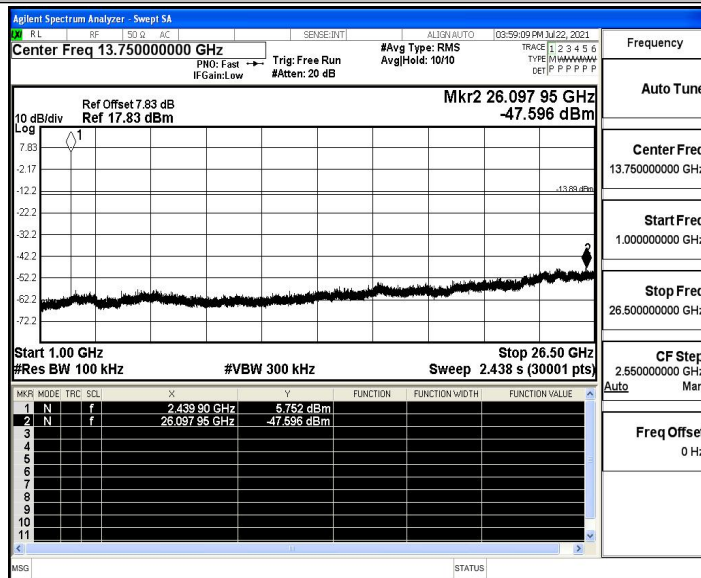
BLE\_1M\_Ant1\_2402\_1000~26500



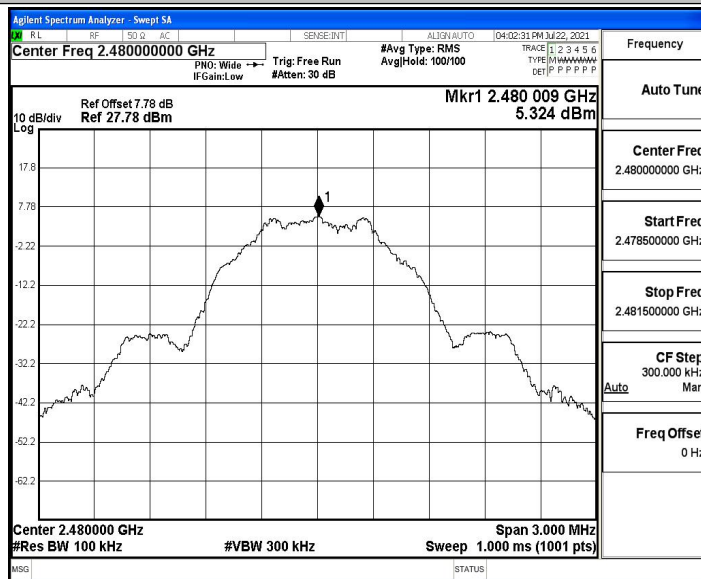
BLE\_1M\_Ant1\_2440\_0~Reference



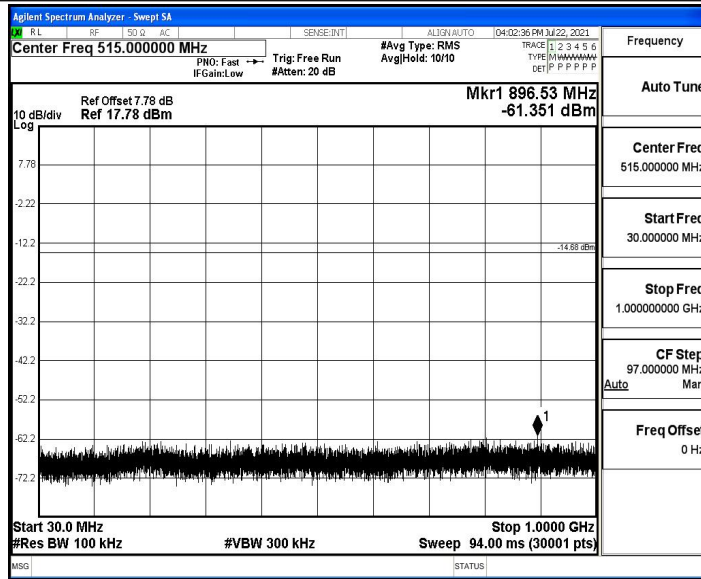
BLE\_1M\_Ant1\_2440\_30~1000



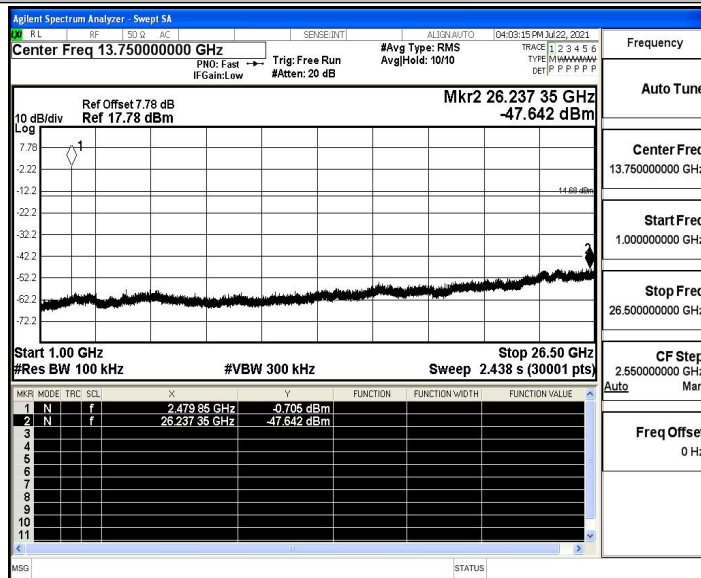
BLE\_1M\_Ant1\_2440\_1000~26500



BLE\_1M\_Ant1\_2480\_0~Reference



BLE\_1M\_Ant1\_2480\_30~1000



BLE\_1M\_Ant1\_2480\_1000~26500

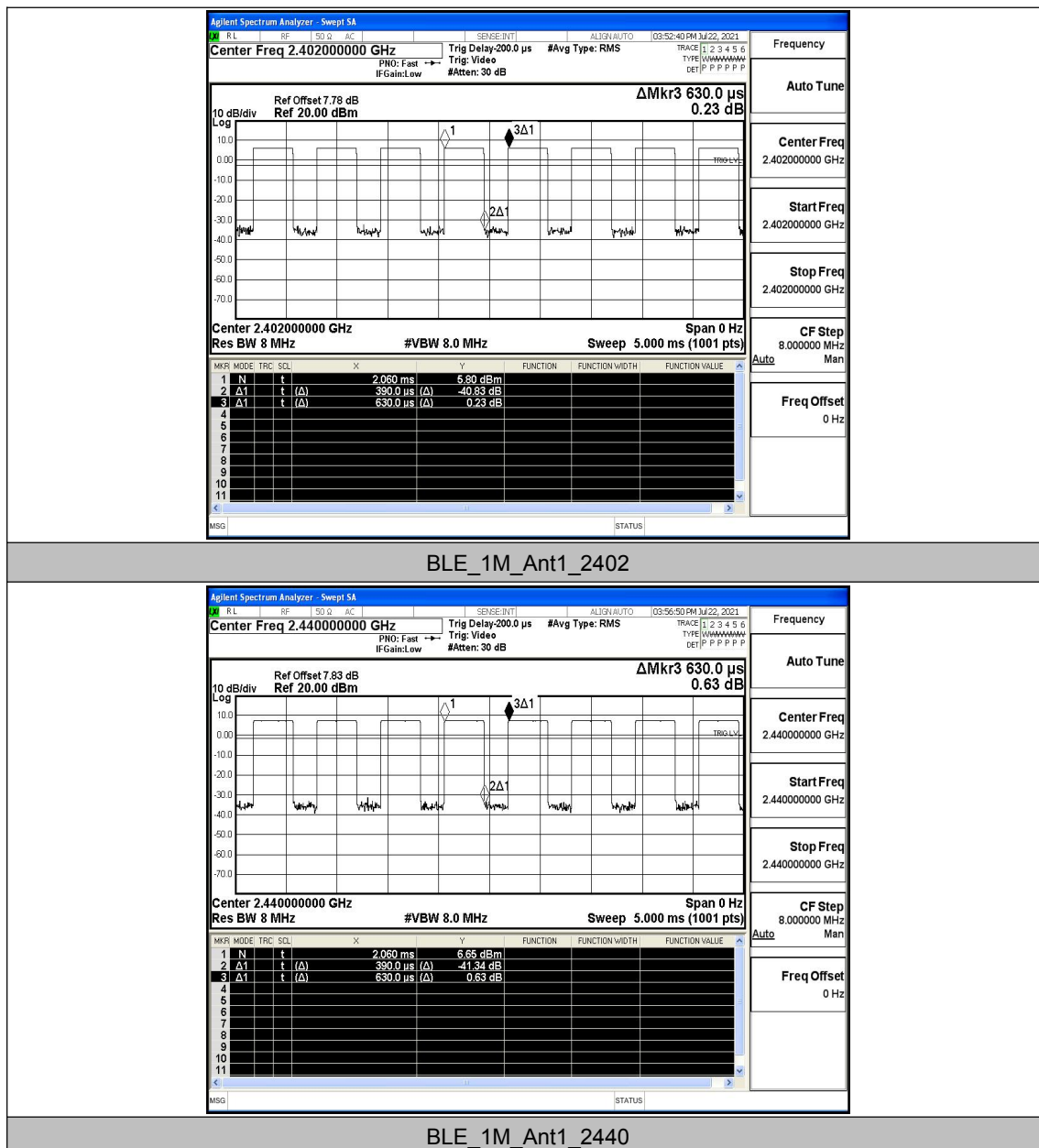


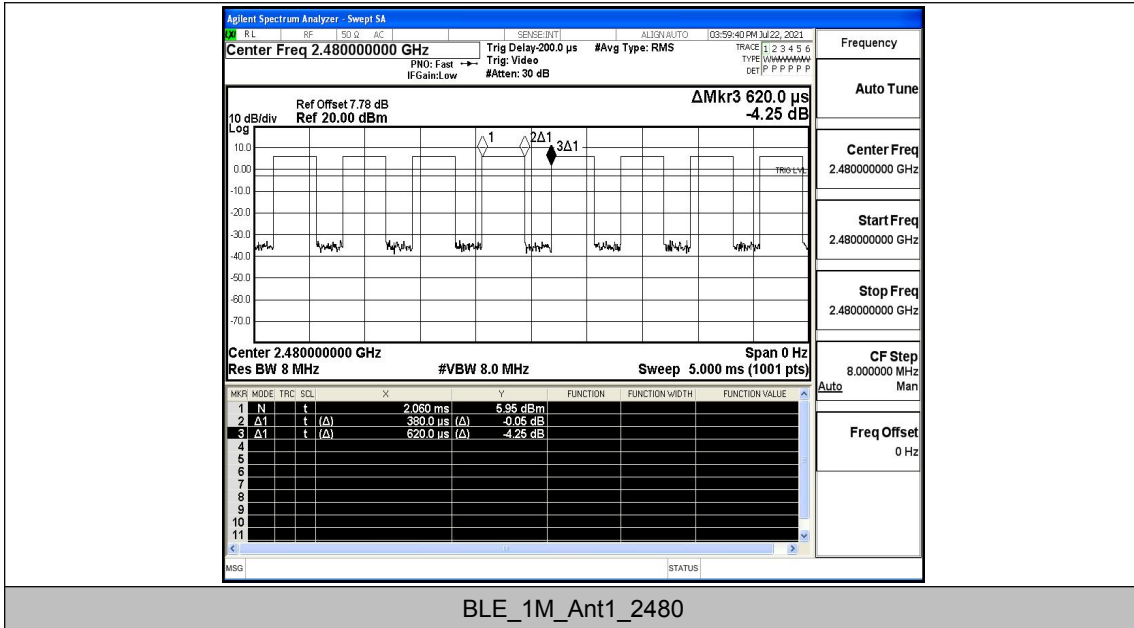
## B.7 Duty Cycle

### Test Result

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

### Test Graphs





BLE\_1M\_Ant1\_2480



## B.8 Emissions in Restricted Bands

### Test Result

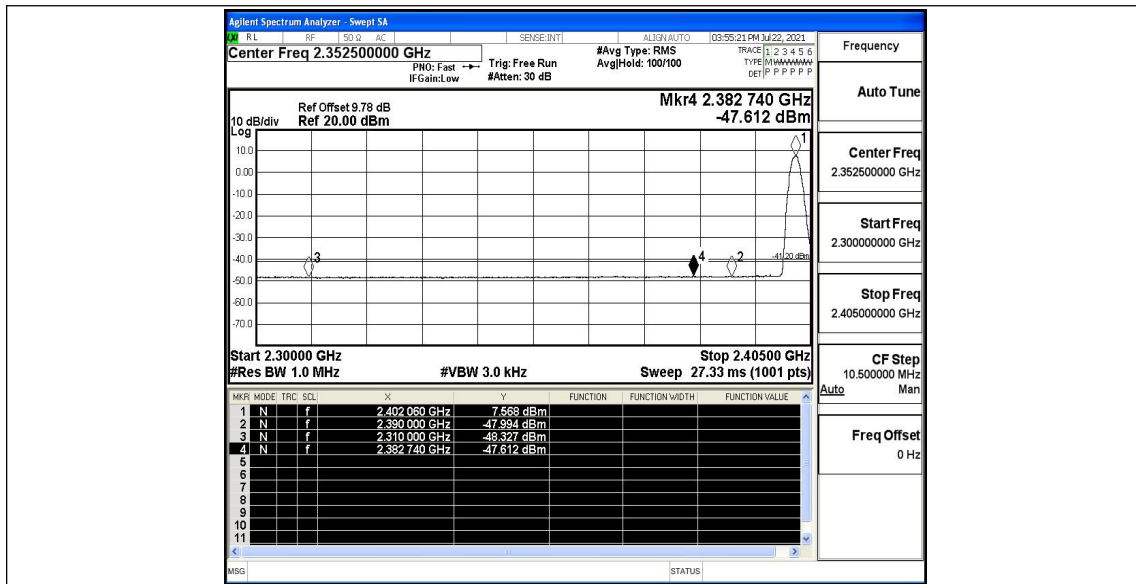
TestMode	Antenna	Channel Name	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.33	≤-41.20	46.87	≤54	PASS
				AV	2382.740	-47.61	≤-41.20	47.59	≤54	PASS
				AV	2390.000	-47.99	≤-41.20	47.21	≤54	PASS
				Peak	2310.000	-42.12	≤-21.20	53.08	≤74	PASS
				Peak	2382.110	-39.08	≤-21.20	56.12	≤74	PASS
				Peak	2390.000	-41	≤-21.20	54.20	≤74	PASS
		High	2480	AV	2483.500	-45.93	≤-41.20	49.27	≤54	PASS
				AV	2483.520	-45.93	≤-41.20	49.27	≤54	PASS
				AV	2500.000	-47.62	≤-41.20	47.58	≤54	PASS
				Peak	2483.500	-40.46	≤-21.20	54.74	≤74	PASS
				Peak	2497.680	-38.74	≤-21.20	56.46	≤74	PASS
				Peak	2500.000	-40.13	≤-21.20	55.07	≤74	PASS

Note:

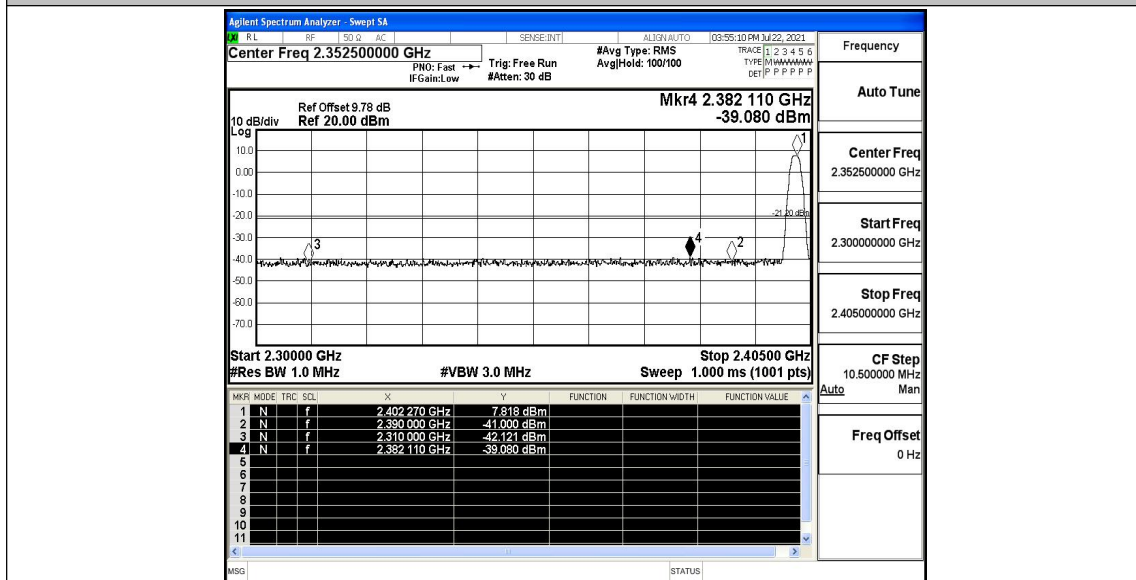
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



### Test Graphs

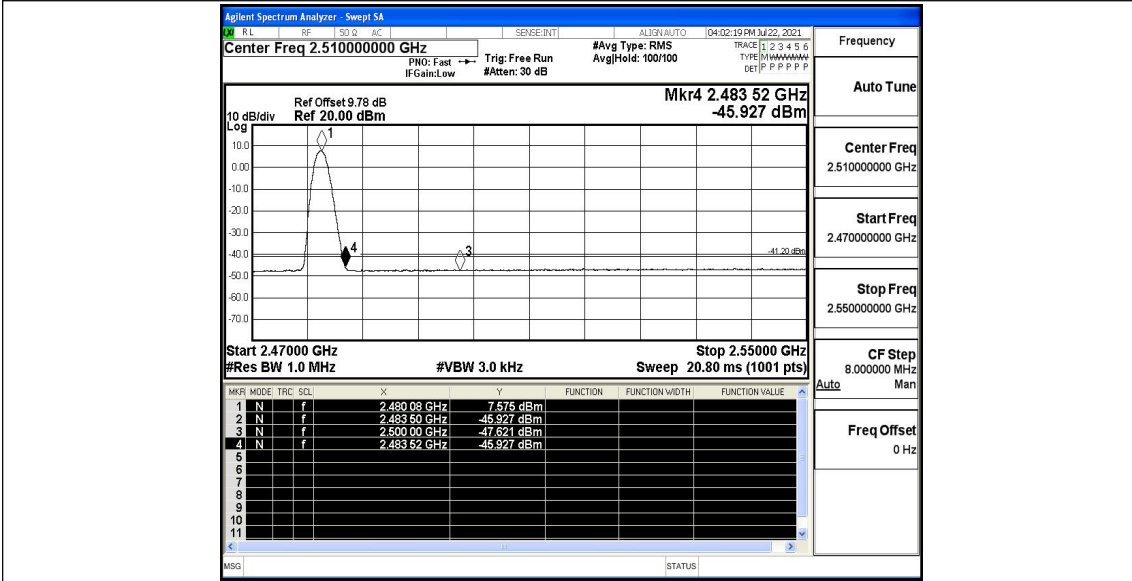


BLE\_1M\_Ant1\_Low\_2402\_AV

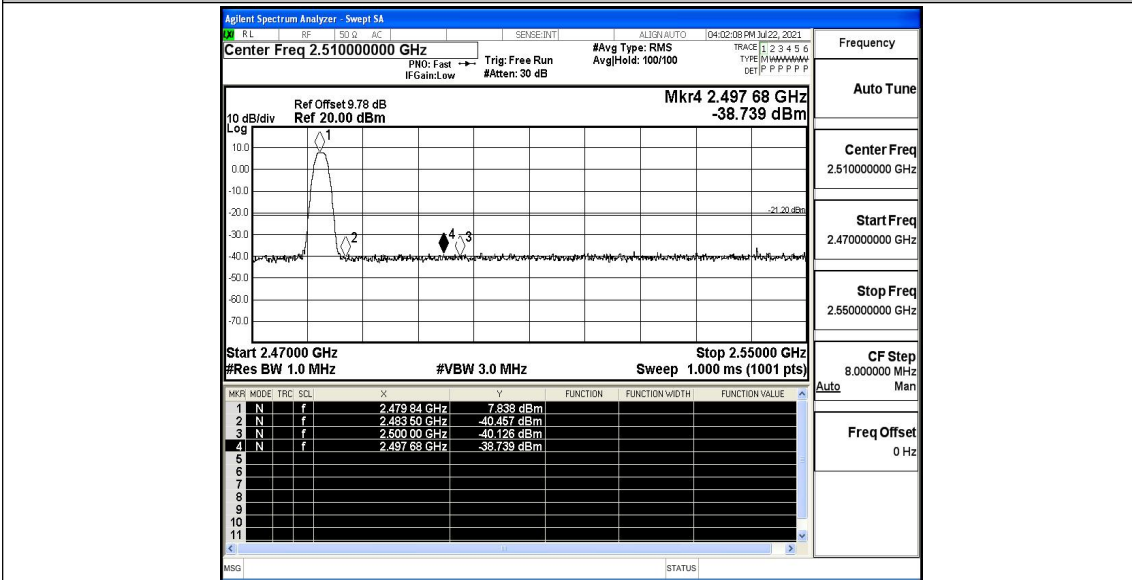


BLE\_1M\_Ant1\_Low\_2402\_Peak





BLE\_1M\_Ant1\_High\_2480\_AV



BLE\_1M\_Ant1\_High\_2480\_Peak