

## RF Test Data for BT(BLE) (Conducted Measurement)

Product Name: Waterproof Bluetooth Controller

Trade Mark: RECOIL

Test Model: RB1

FCC ID: 2A6RGRB1

### Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

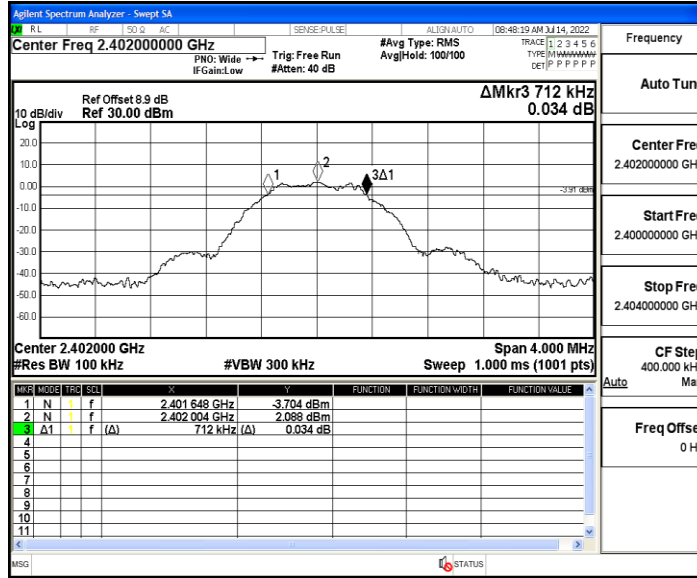
### Appendix A: DTS Bandwidth

#### Test Result

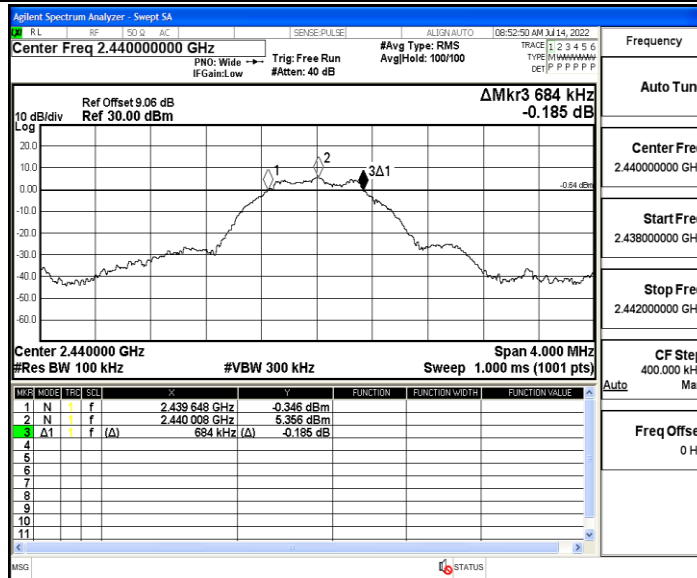
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.712	2401.648	2402.360	0.5	PASS
		2440	0.684	2439.648	2440.332	0.5	PASS
		2480	0.688	2479.652	2480.340	0.5	PASS

Test Graphs

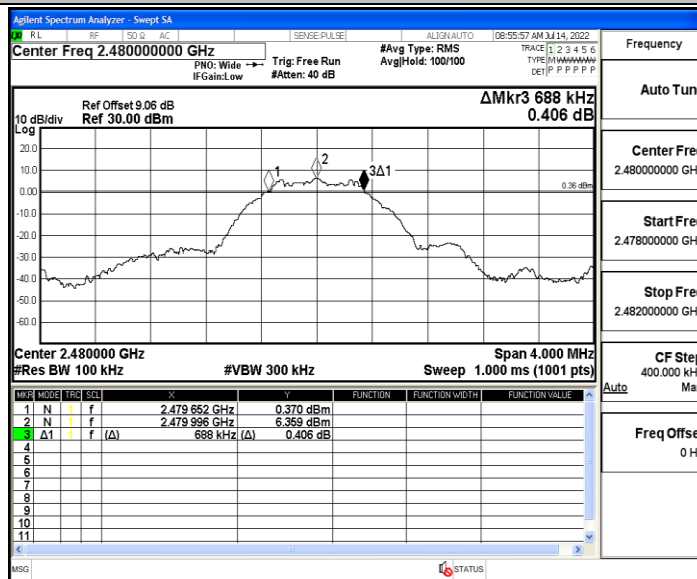
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480



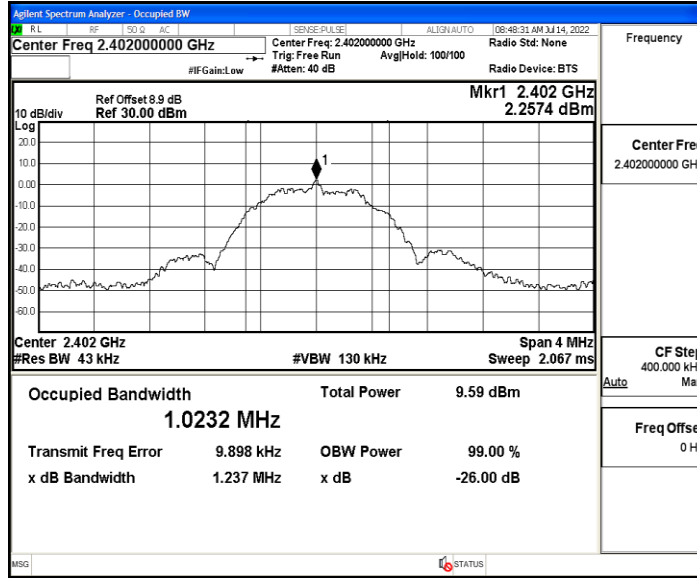
## Appendix B: Occupied Channel Bandwidth

### Test Result

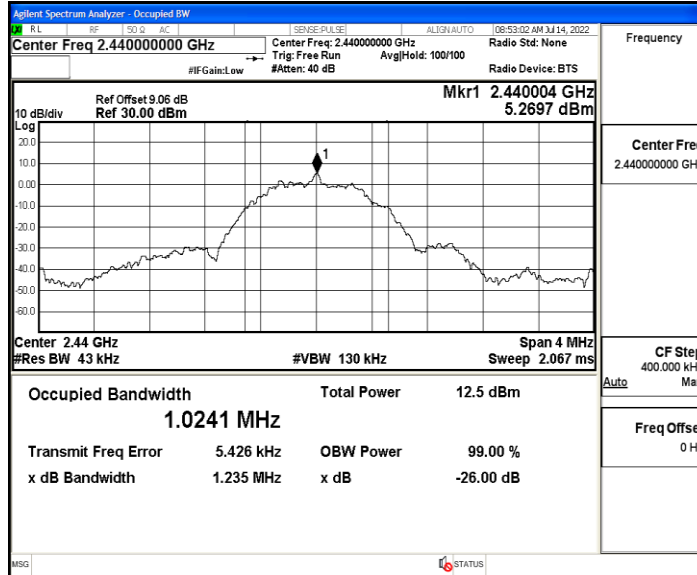
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0232	2401.498	2402.522	---	---
		2440	1.0241	2439.493	2440.517	---	---
		2480	1.0244	2479.492	2480.517	---	---

Test Graphs

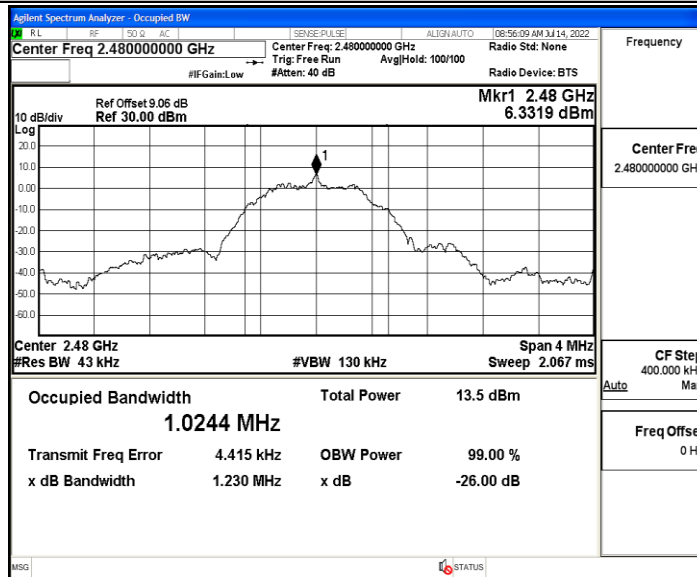
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480

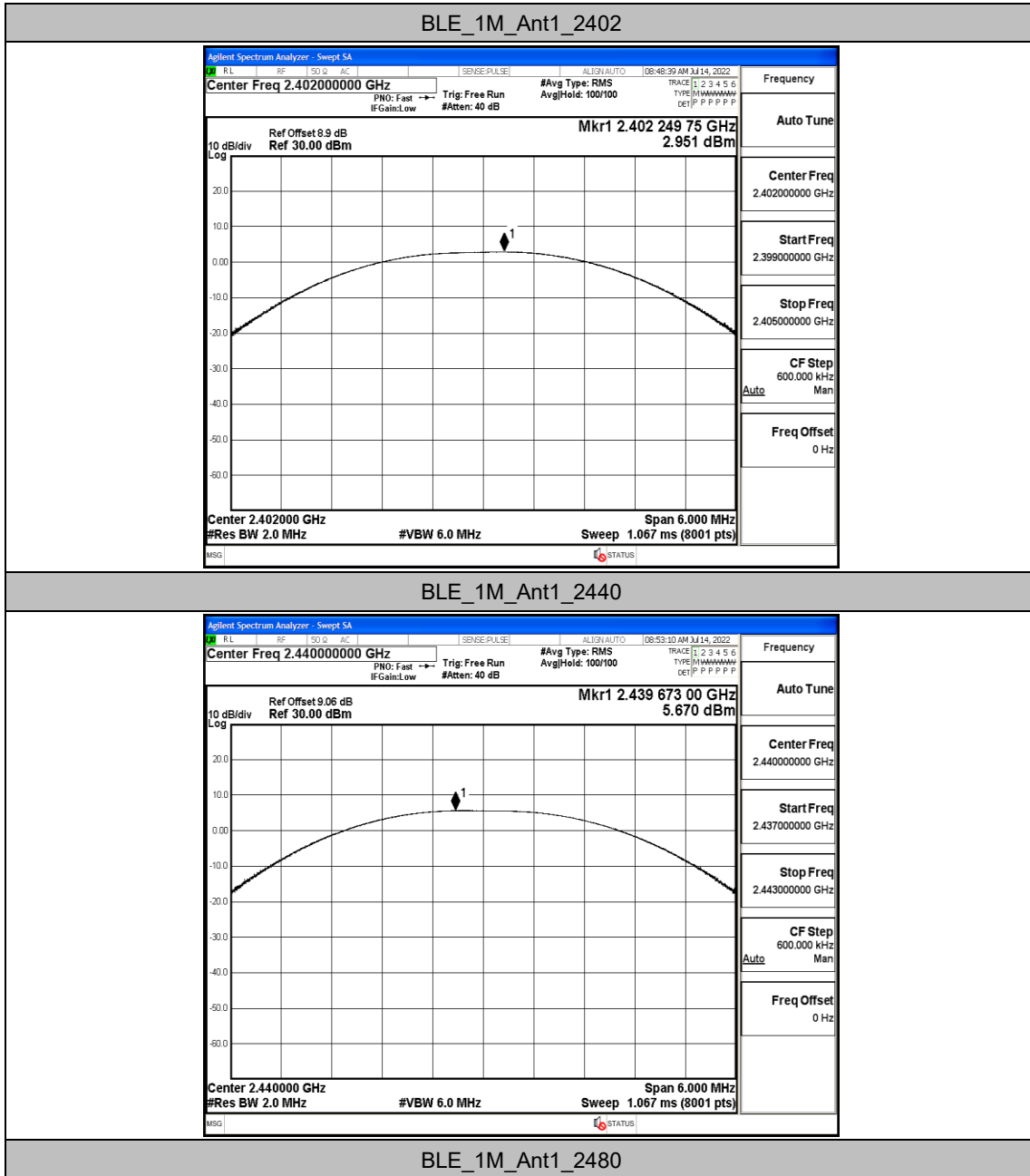


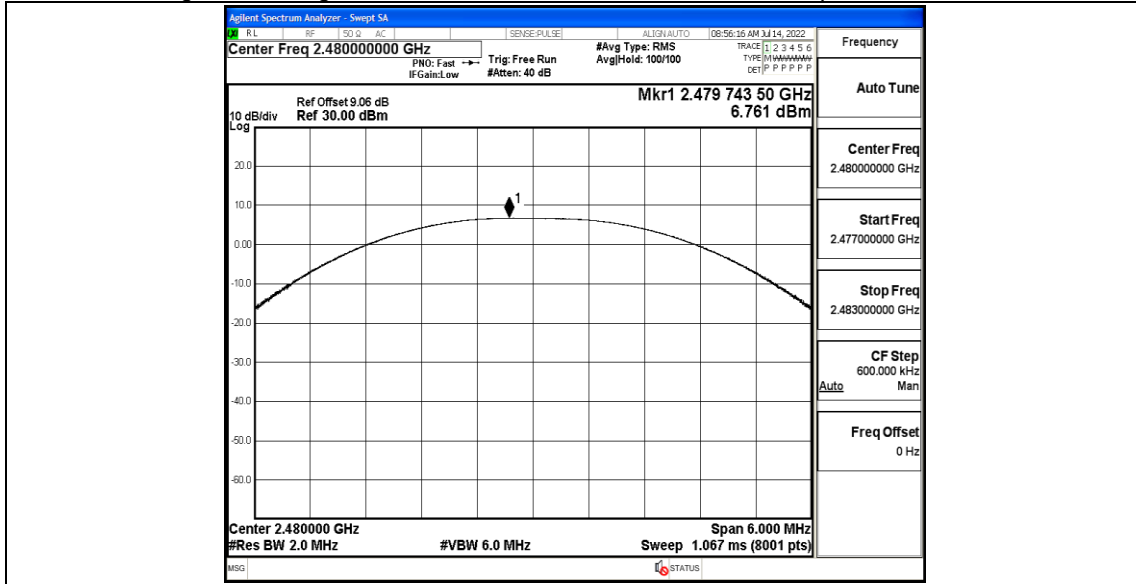
## Appendix C: Maximum Peak conducted output power

### Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	2.95	≤30	PASS
		2440	5.67	≤30	PASS
		2480	6.76	≤30	PASS

### Test Graphs





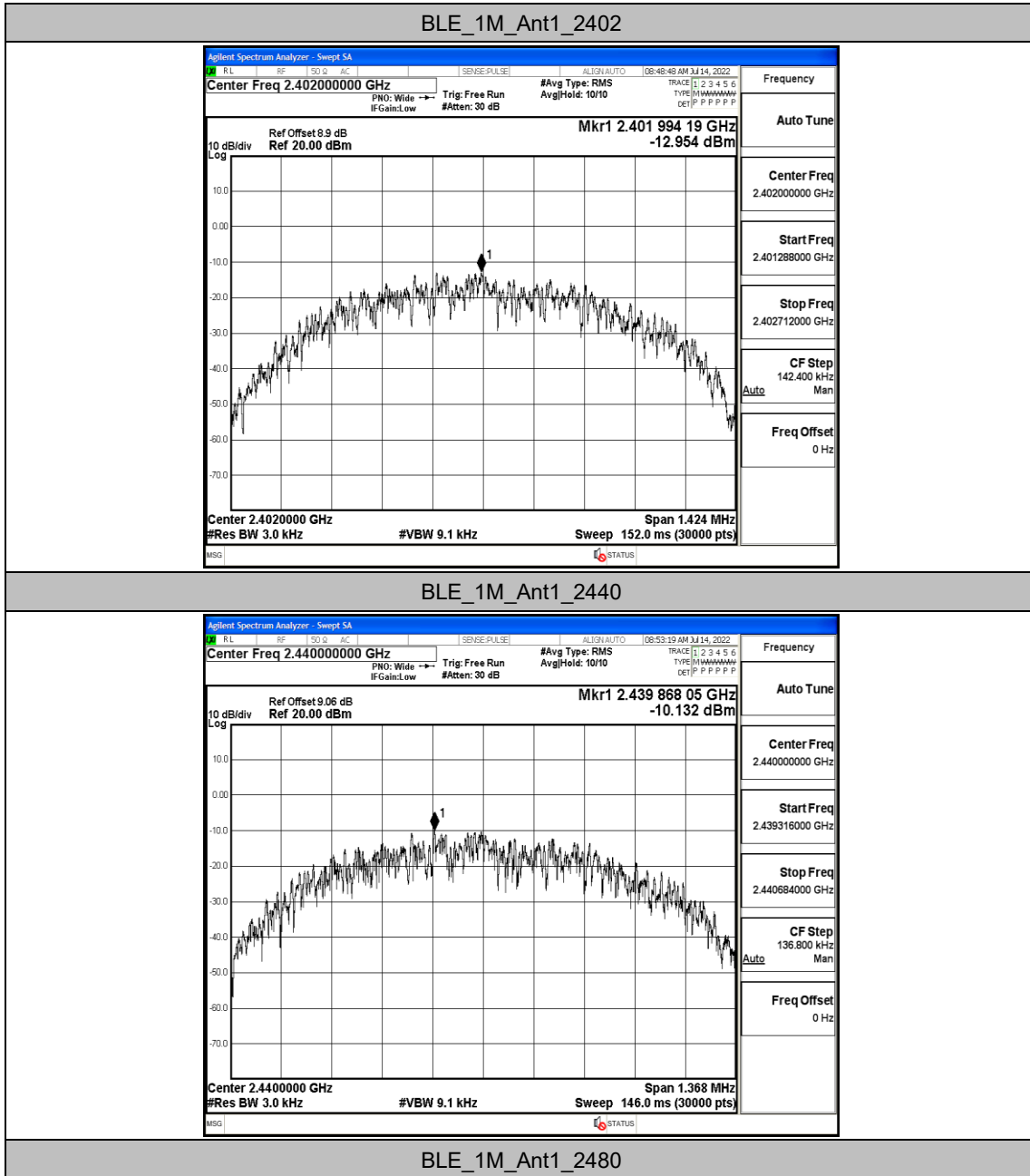
## Appendix D: Maximum power spectral density

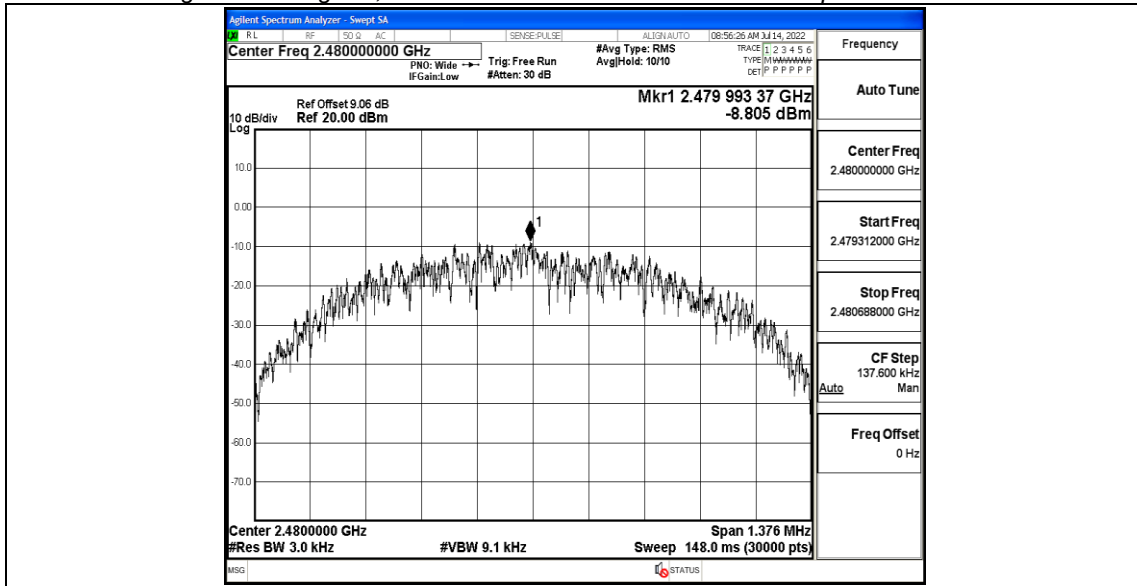
### Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-12.95	≤8.00	PASS
		2440	-10.13	≤8.00	PASS
		2480	-8.81	≤8.00	PASS



### Test Graphs





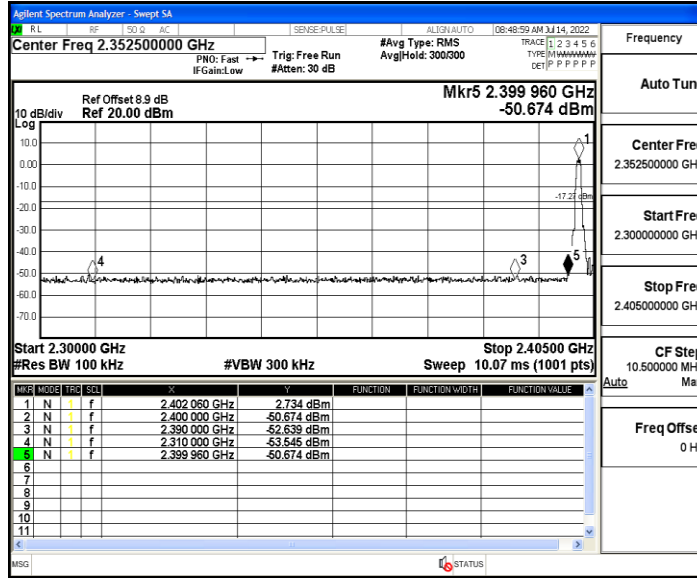
## Appendix E: Band edge measurements

### Test Result

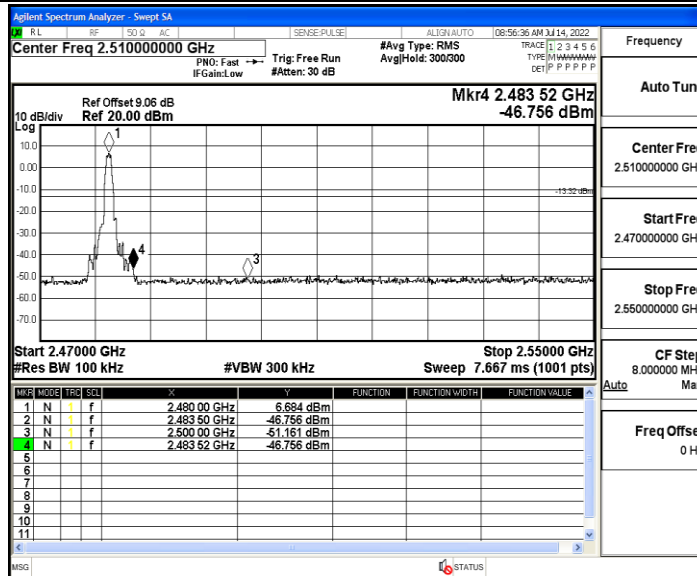
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	2.73	-50.67	≤-17.27	PASS
		High	2480	6.68	-46.76	≤-13.32	PASS

Test Graphs

BLE\_1M\_Ant1\_Low\_2402



BLE\_1M\_Ant1\_High\_2480

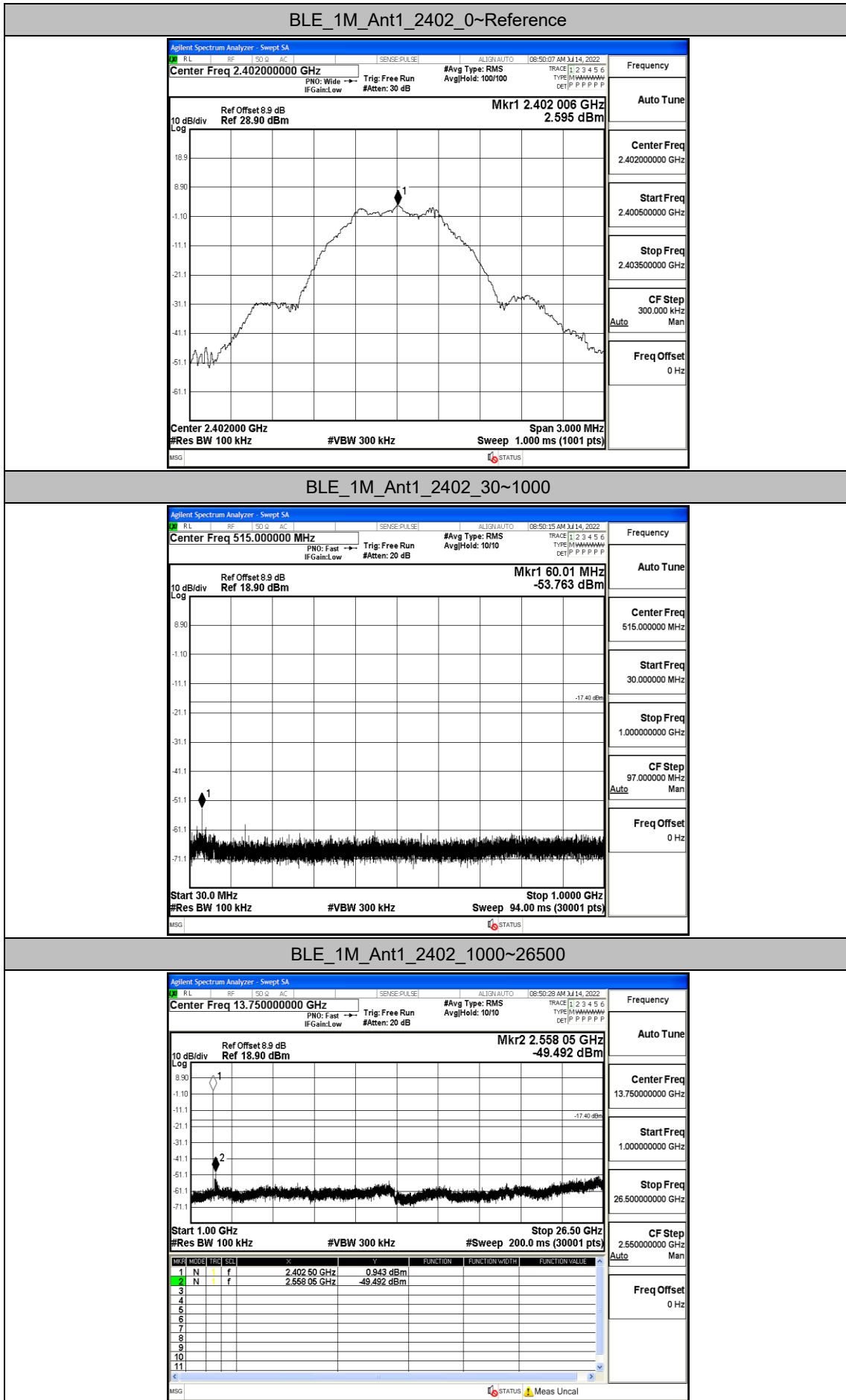


## Appendix F: Conducted Spurious Emission

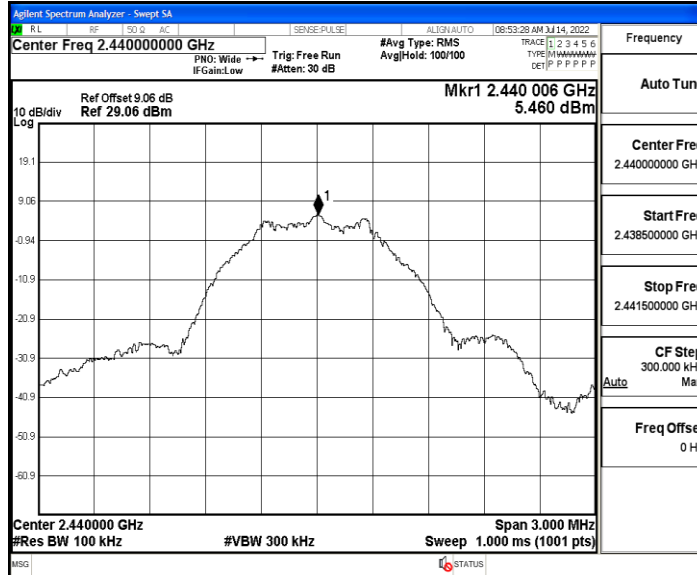
### Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	2.60	2.60	---	PASS
			30~1000	2.60	-53.76	≤-17.4	PASS
			1000~26500	2.60	-49.49	≤-17.4	PASS
		2440	Reference	5.46	5.46	---	PASS
			30~1000	5.46	-53.79	≤-14.54	PASS
			1000~26500	5.46	-50.04	≤-14.54	PASS
		2480	Reference	6.06	6.06	---	PASS
			30~1000	6.06	-55.03	≤-13.94	PASS
			1000~26500	6.06	-47.3	≤-13.94	PASS

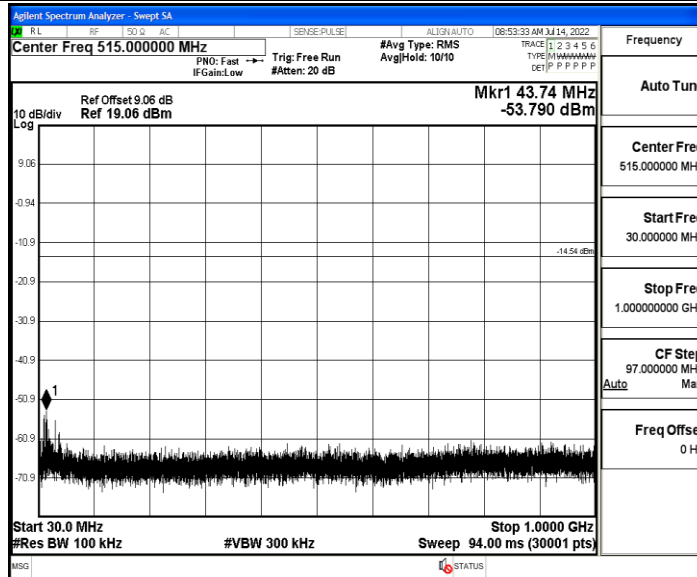
Test Graphs



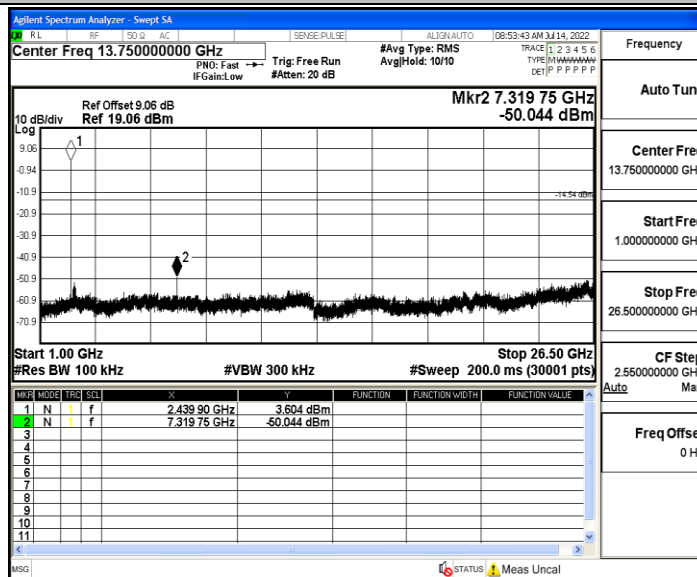
BLE\_1M\_Ant1\_2440\_0~Reference



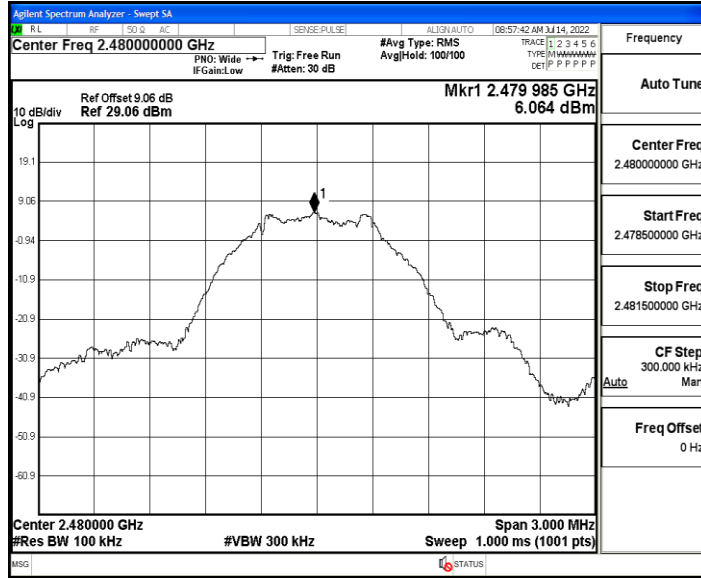
BLE\_1M\_Ant1\_2440\_30~1000



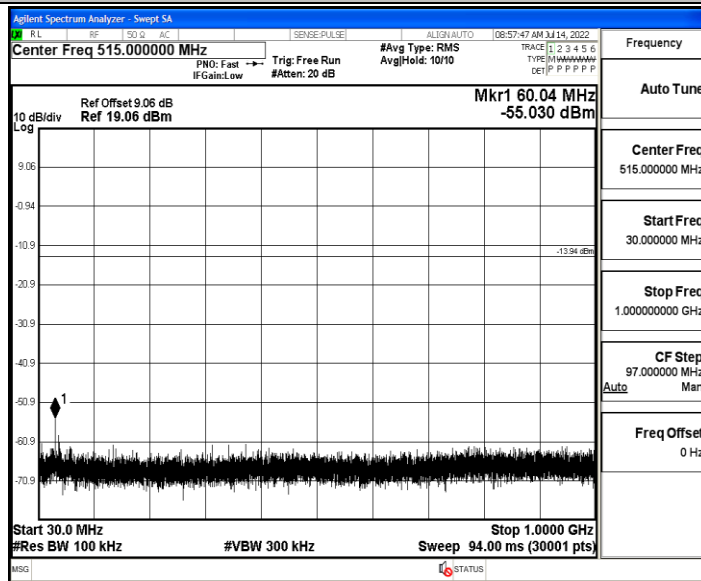
BLE\_1M\_Ant1\_2440\_1000~26500



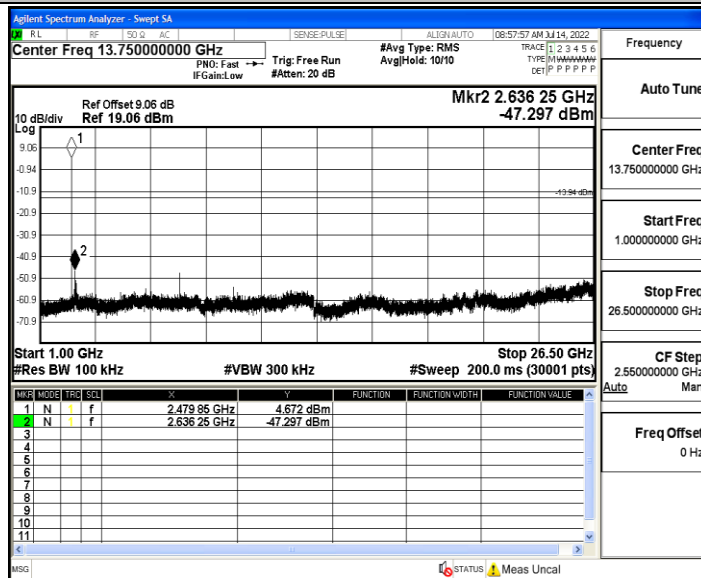
BLE\_1M\_Ant1\_2480\_0~Reference



BLE\_1M\_Ant1\_2480\_30~1000



BLE\_1M\_Ant1\_2480\_1000~26500



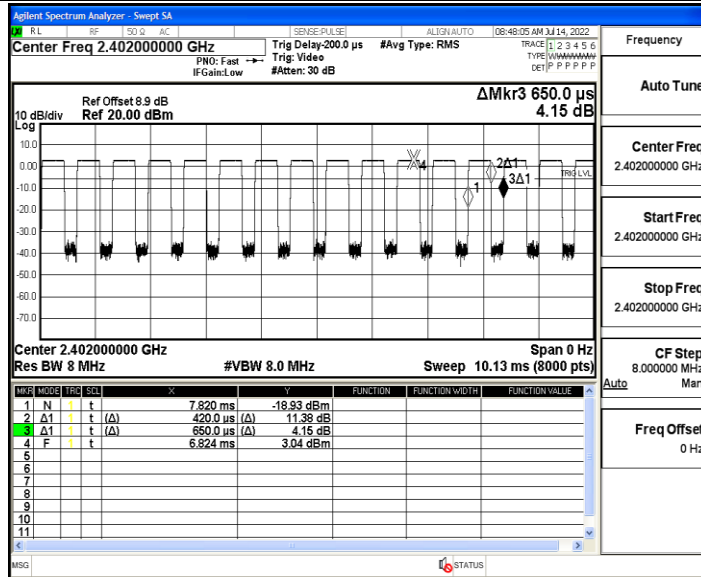


## Appendix G: Duty Cycle

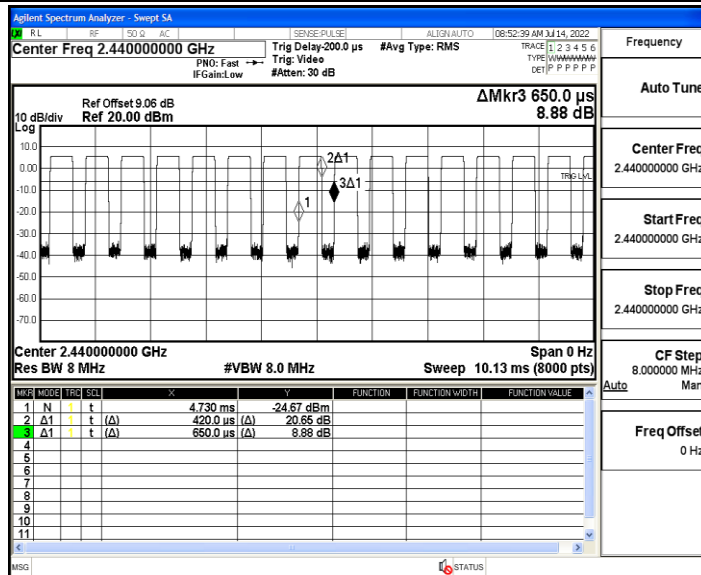
### Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.42	0.65	64.62	2.38
		2440	0.42	0.65	64.62	2.38
		2480	0.42	0.65	64.62	2.38

BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480

