

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

Product Name: Remote control

Trade Mark: Viya

Test Model: BH13-J

FCC ID: 2AOVU-BH13-J

### 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

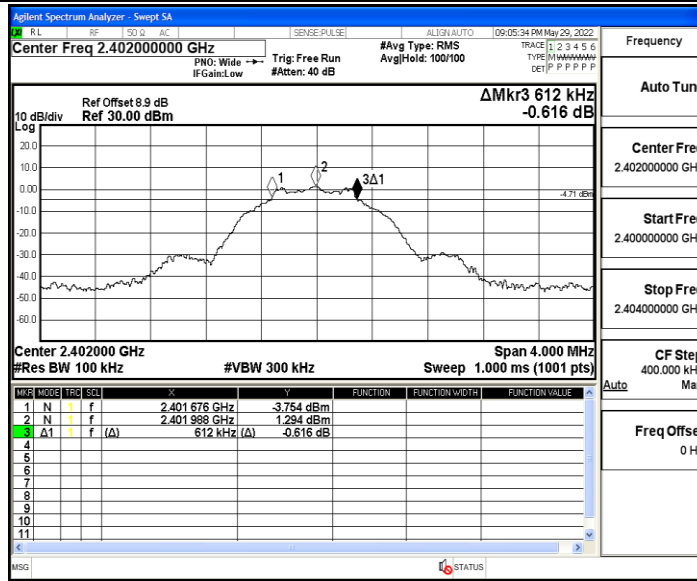
### Appendix A: DTS Bandwidth

#### Test Result

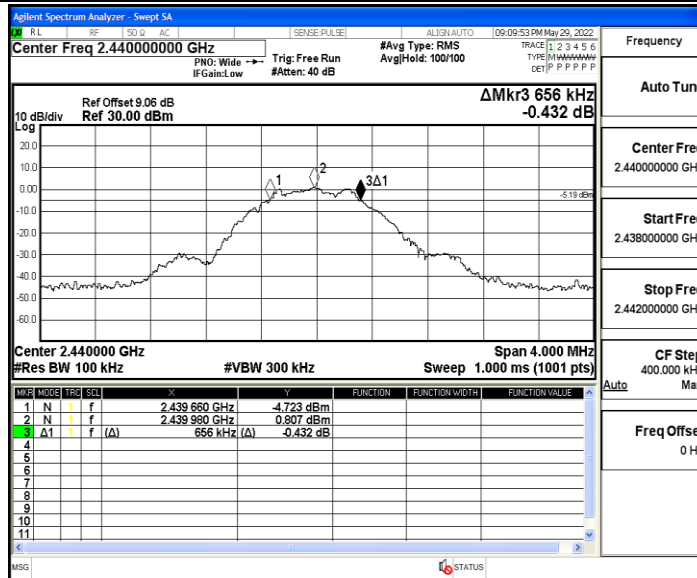
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.612	2401.676	2402.288	0.5	PASS
		2440	0.656	2439.660	2440.316	0.5	PASS
		2480	0.664	2479.652	2480.316	0.5	PASS

Test Graphs

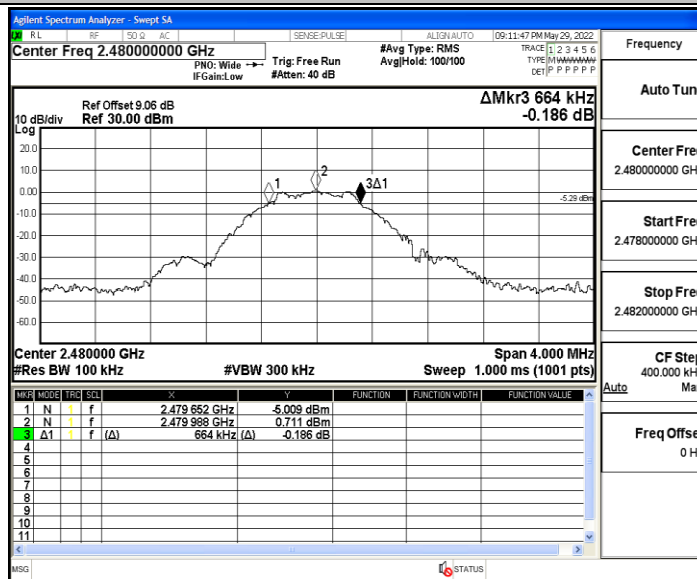
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480



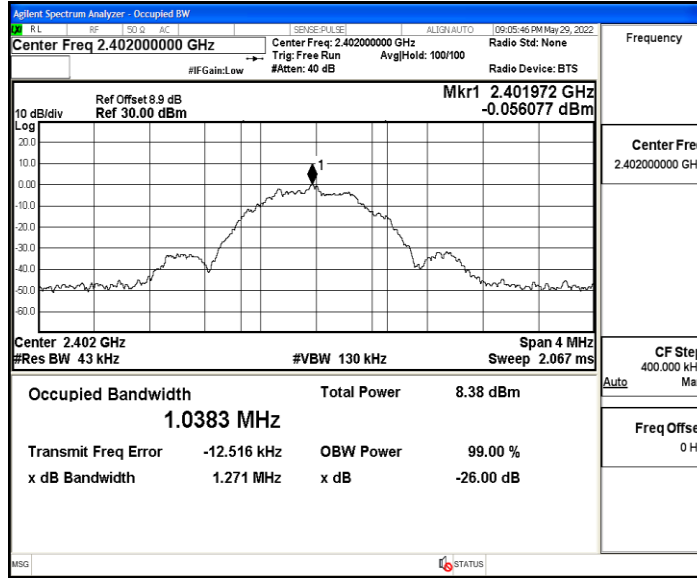
## Appendix B: Occupied Channel Bandwidth

### Test Result

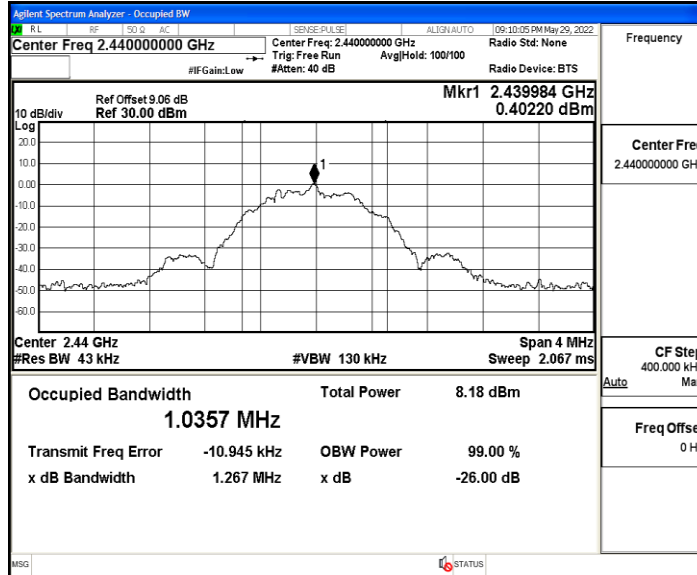
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0383	2401.468	2402.507	---	---
		2440	1.0357	2439.471	2440.507	---	---
		2480	1.0417	2479.467	2480.509	---	---

Test Graphs

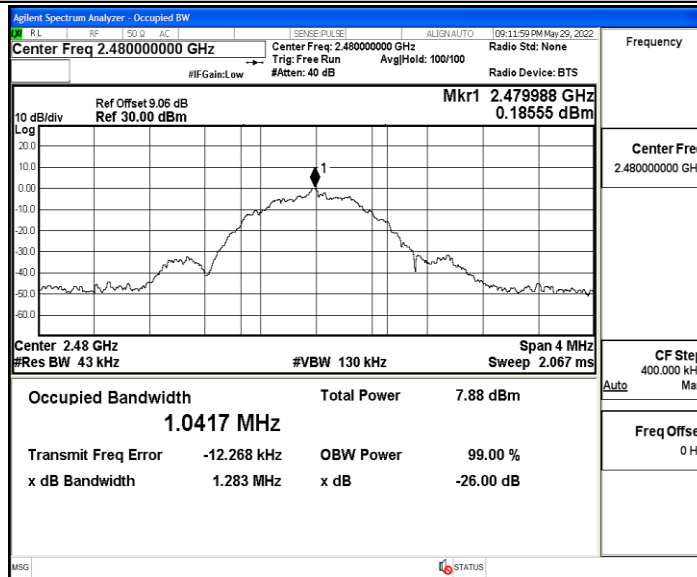
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480

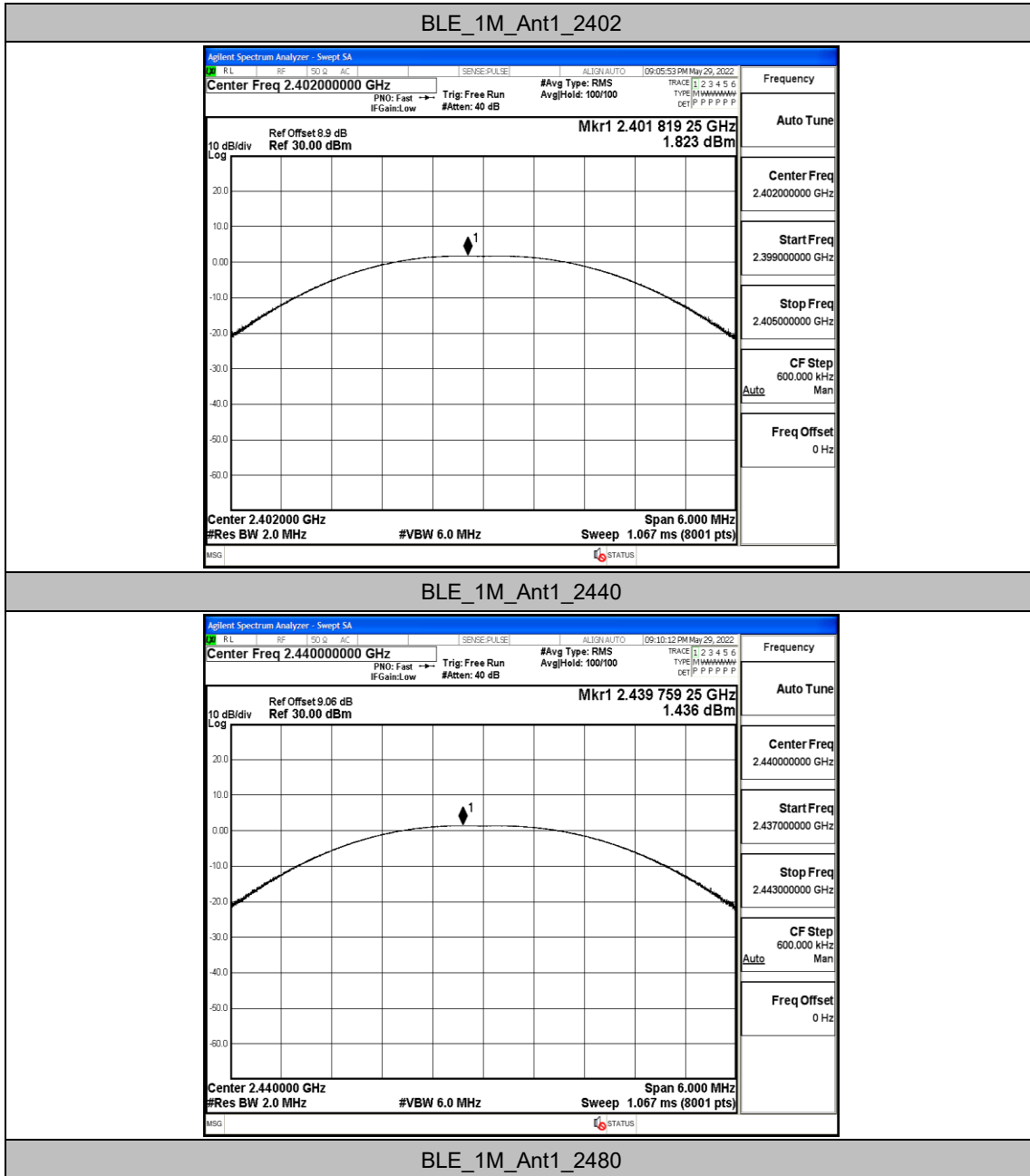


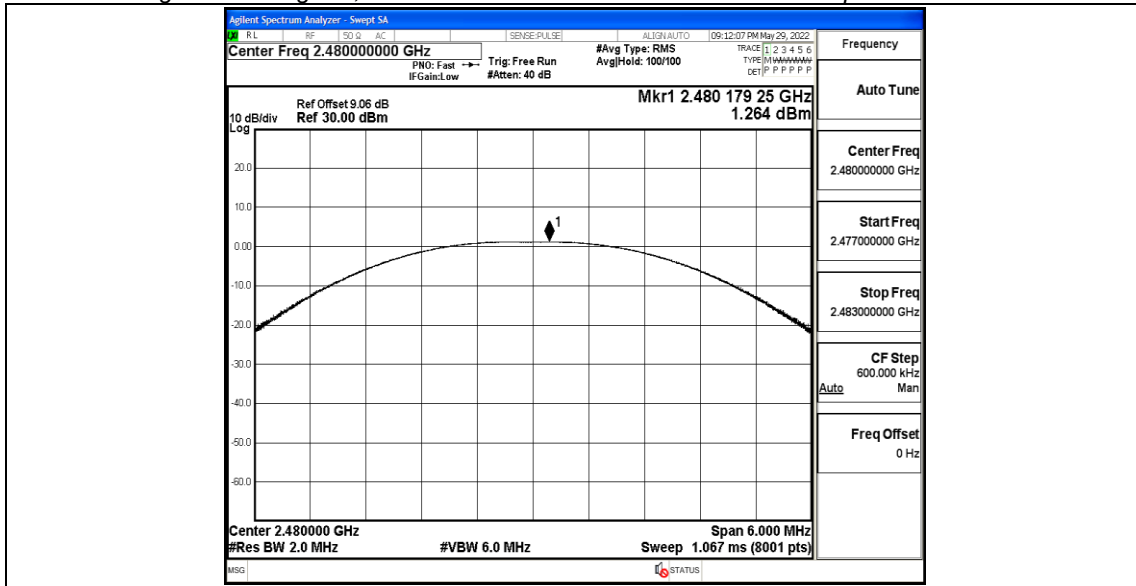
## Appendix C: Maximum conducted output power

### Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.82	≤30	PASS
		2440	1.44	≤30	PASS
		2480	1.26	≤30	PASS

### Test Graphs





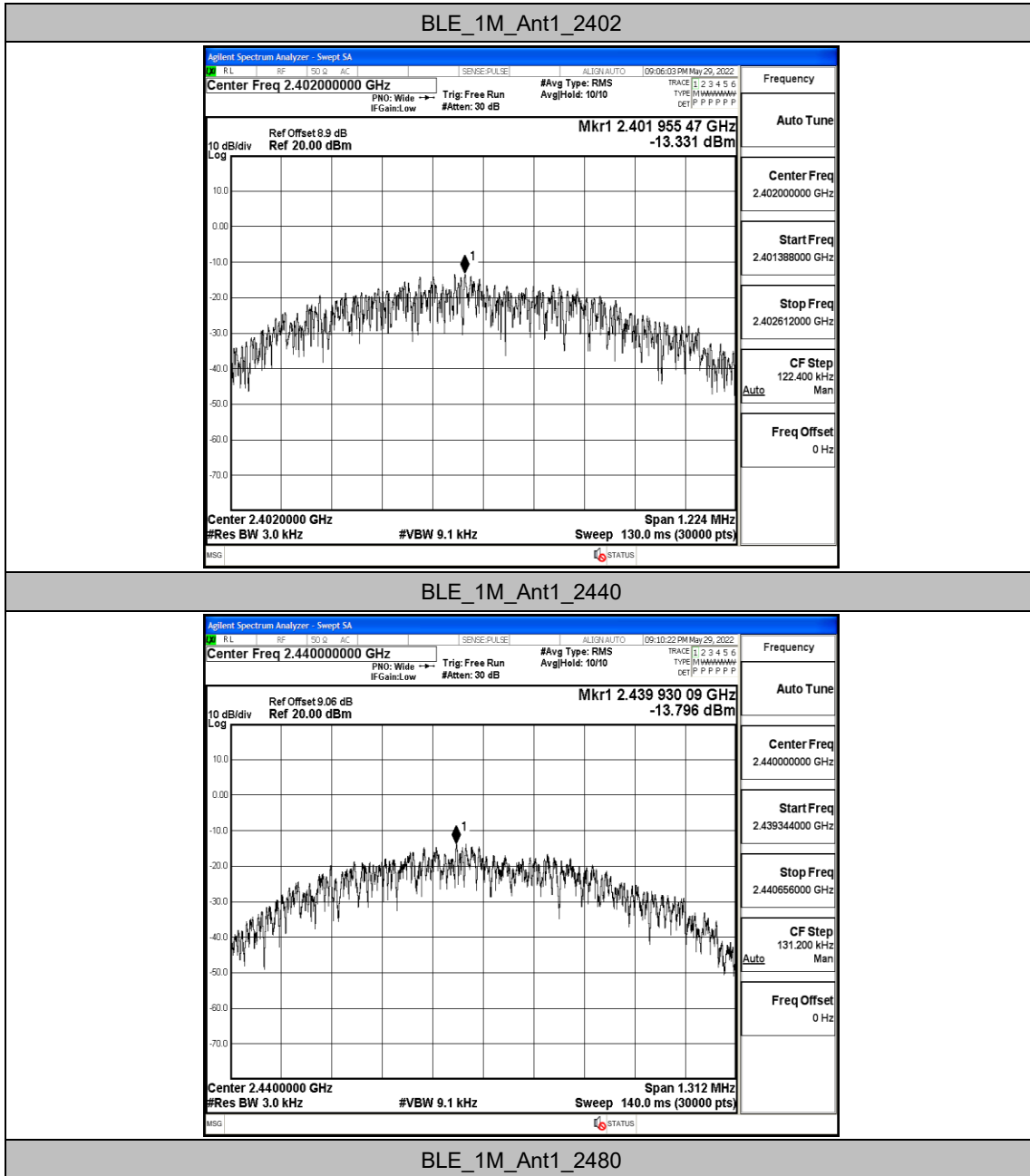
## Appendix D: Maximum power spectral density

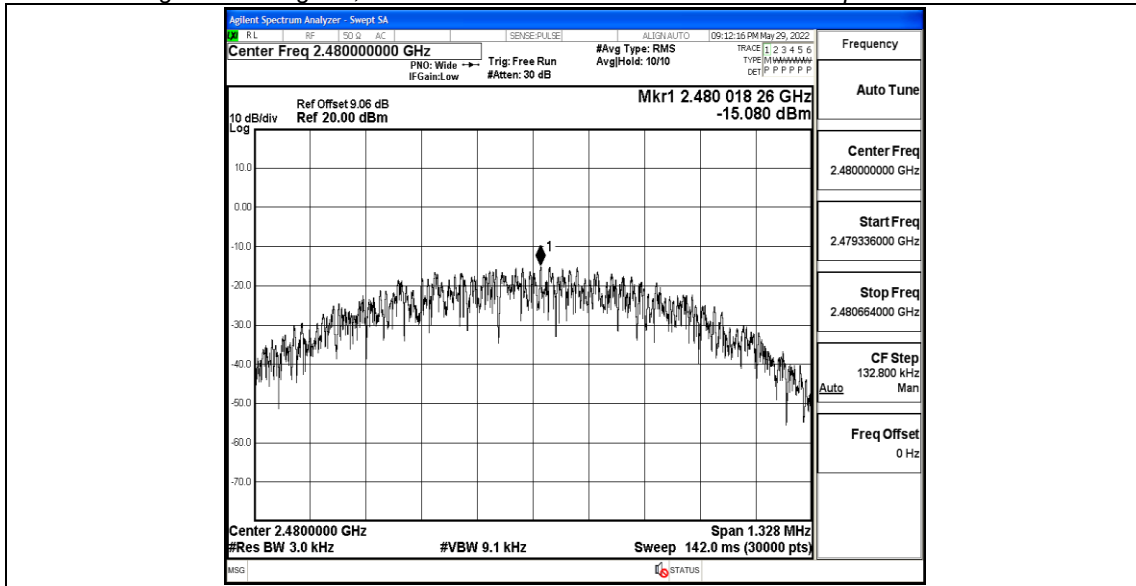
### Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.33	≤8.00	PASS
		2440	-13.8	≤8.00	PASS
		2480	-15.08	≤8.00	PASS



### Test Graphs





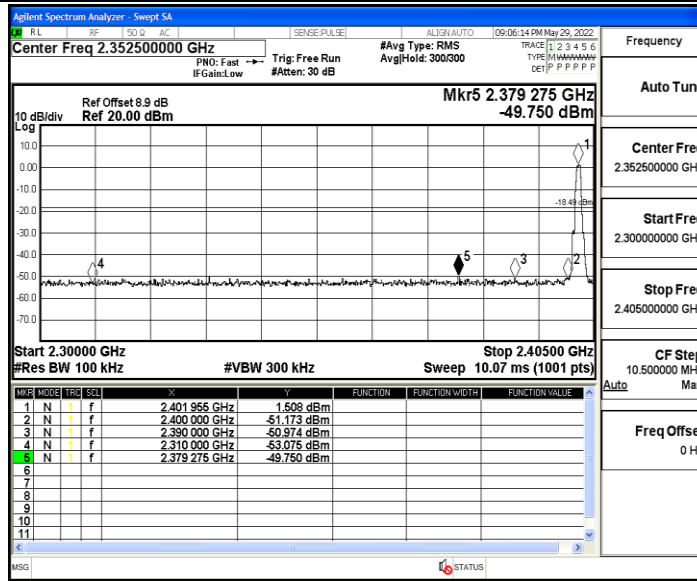
## Appendix E: Band edge measurements

### Test Result

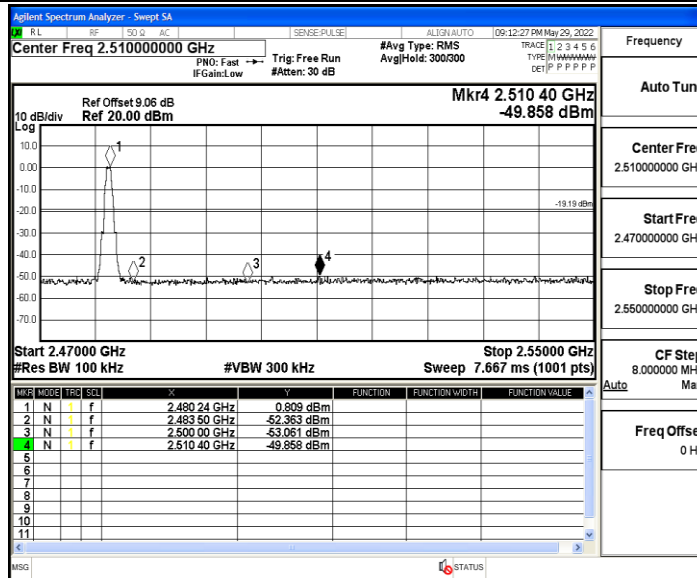
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.51	-49.75	≤-18.49	PASS
		High	2480	0.81	-49.86	≤-19.19	PASS

### Test Graphs

BLE\_1M\_Ant1\_Low\_2402



BLE\_1M\_Ant1\_High\_2480

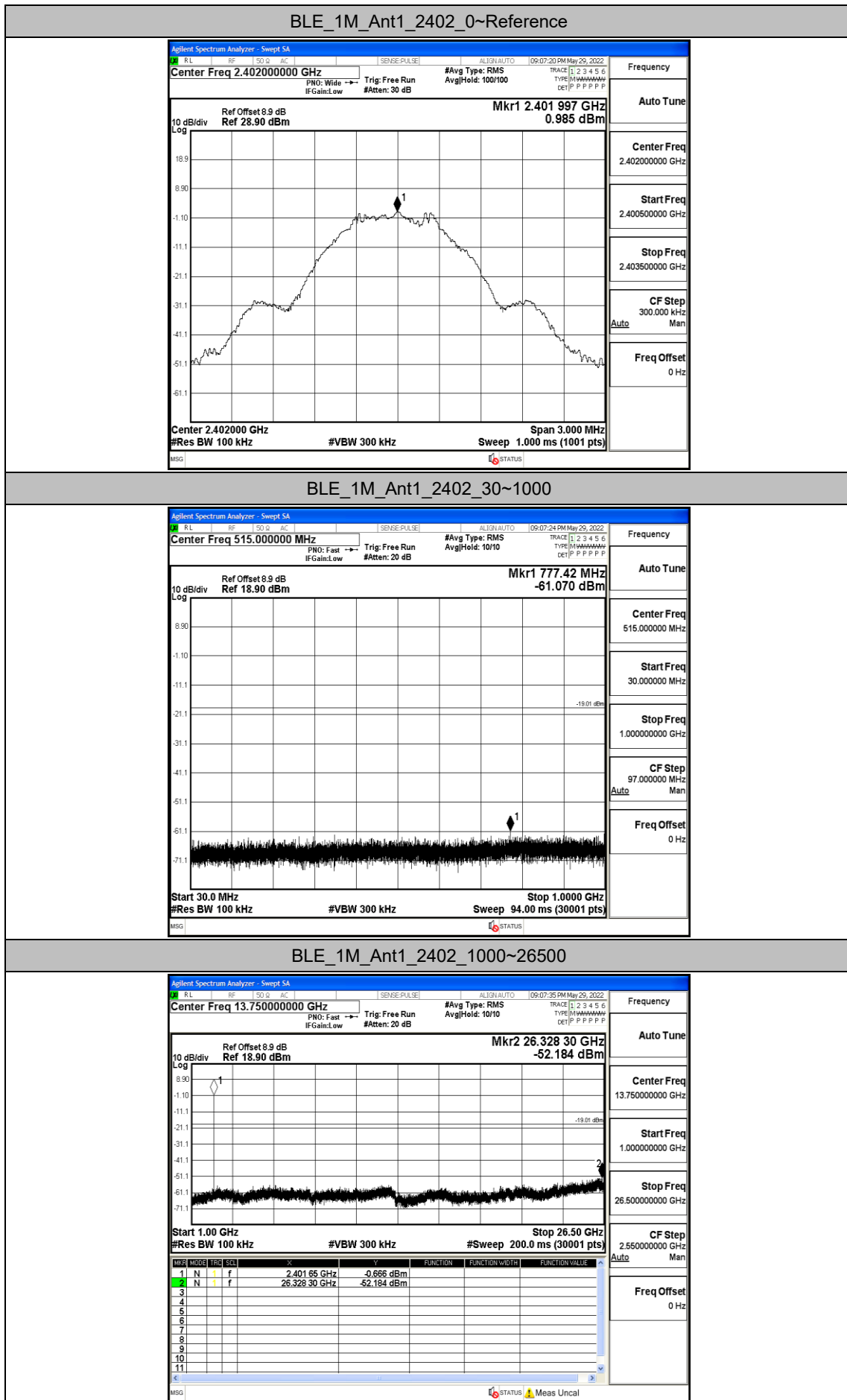


## Appendix F: Conducted Spurious Emission

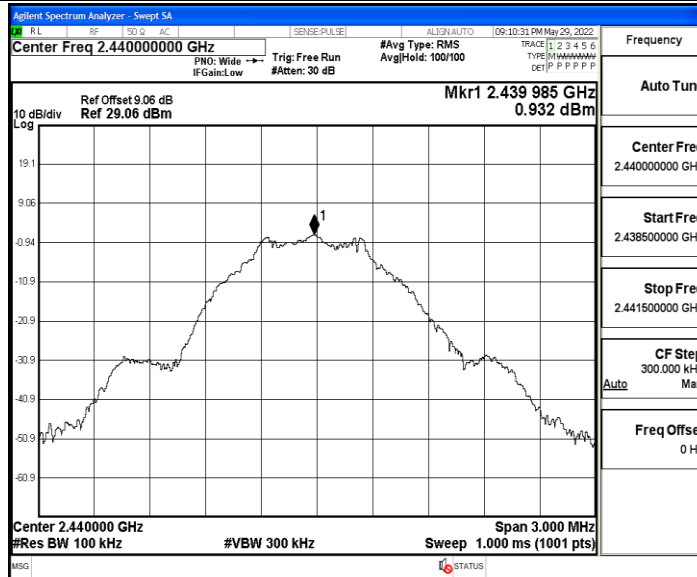
### Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.99	0.99	---	PASS
			30~1000	0.99	-61.07	≤-19.01	PASS
			1000~26500	0.99	-52.18	≤-19.01	PASS
		2440	Reference	0.93	0.93	---	PASS
			30~1000	0.93	-61.58	≤-19.07	PASS
			1000~26500	0.93	-51.56	≤-19.07	PASS
		2480	Reference	0.74	0.74	---	PASS
			30~1000	0.74	-60.76	≤-19.26	PASS
			1000~26500	0.74	-51.38	≤-19.26	PASS

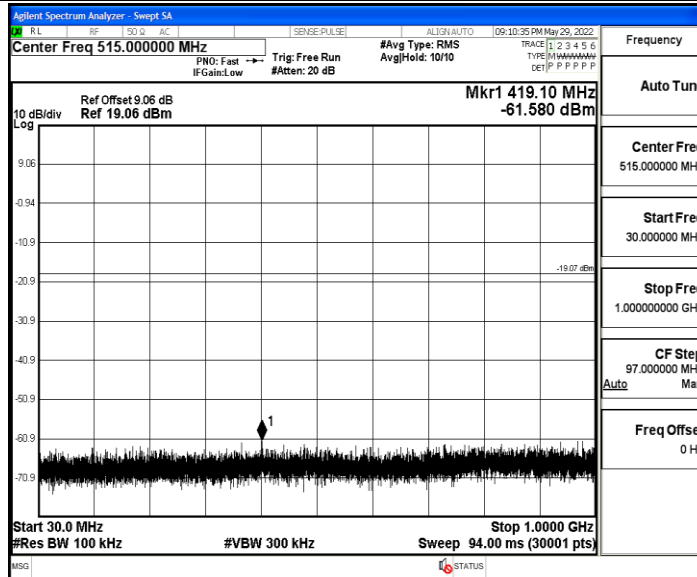
### Test Graphs



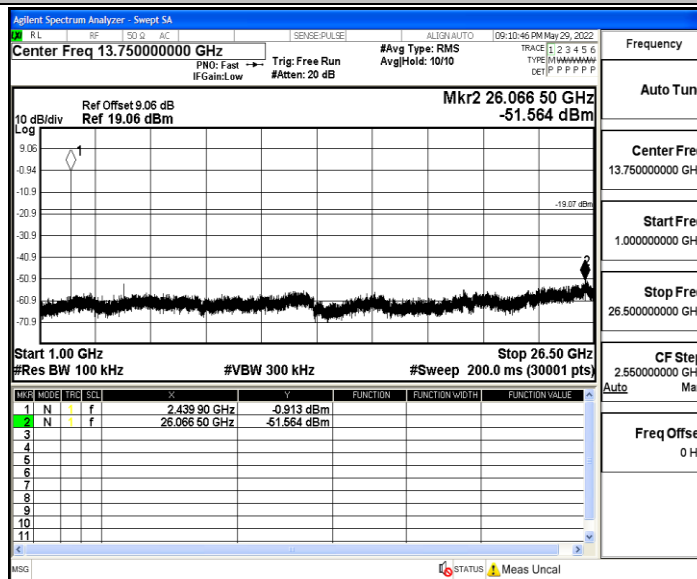
BLE\_1M\_Ant1\_2440\_0~Reference



BLE\_1M\_Ant1\_2440\_30~1000



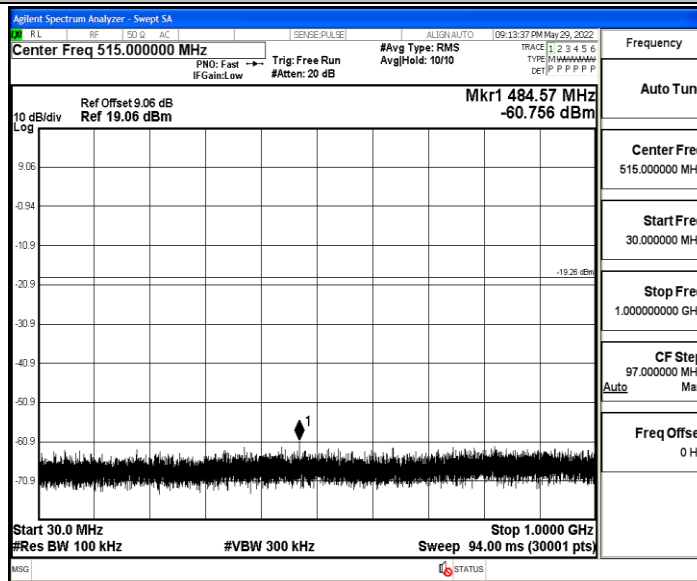
BLE\_1M\_Ant1\_2440\_1000~26500



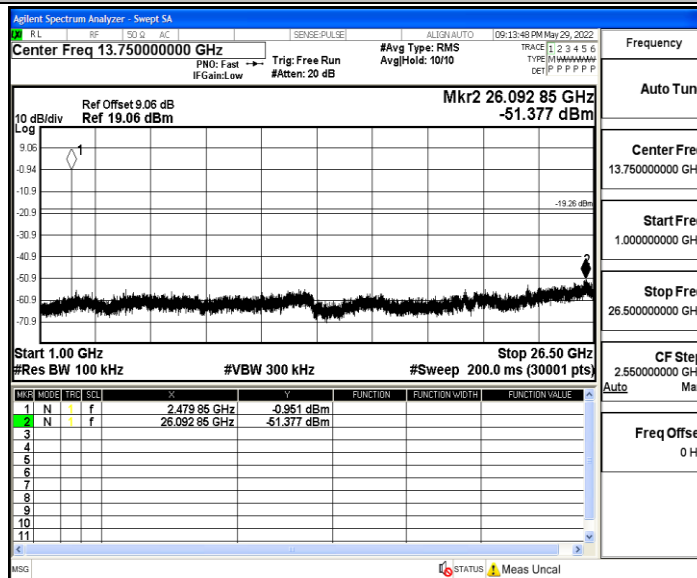
BLE\_1M\_Ant1\_2480\_0~Reference



BLE\_1M\_Ant1\_2480\_30~1000



BLE\_1M\_Ant1\_2480\_1000~26500





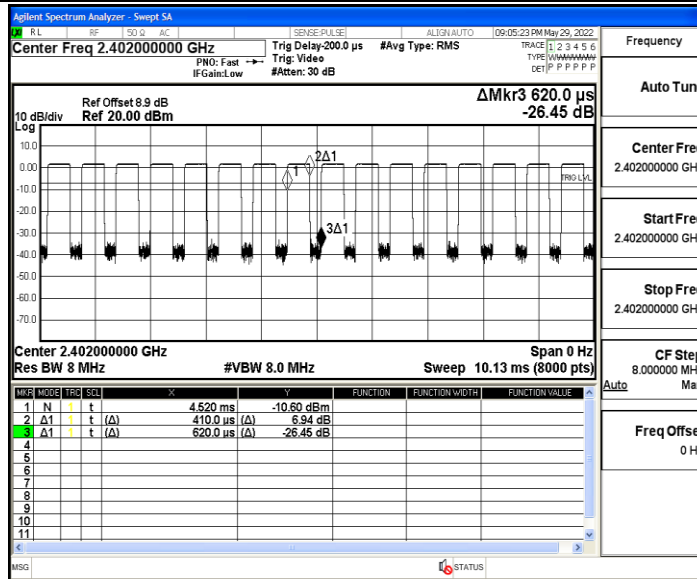
## Appendix G: Duty Cycle

### Test Result

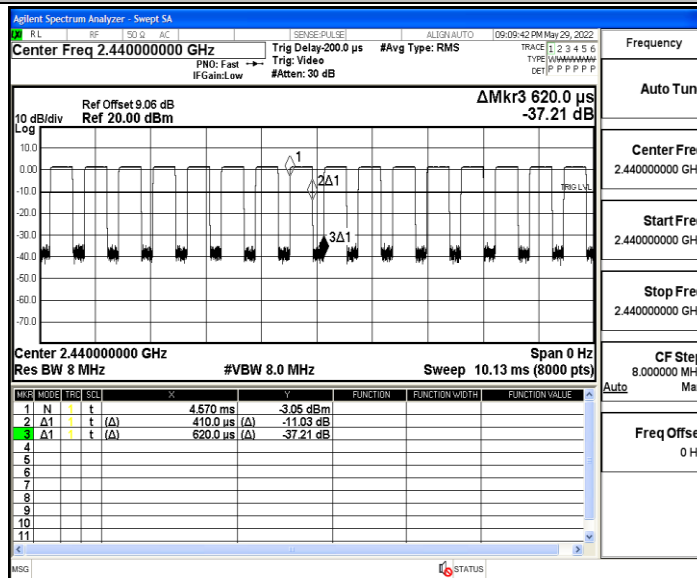
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.41	0.62	66.13	2.44
		2440	0.41	0.62	66.13	2.44
		2480	0.41	0.62	66.13	2.44

Test Graphs

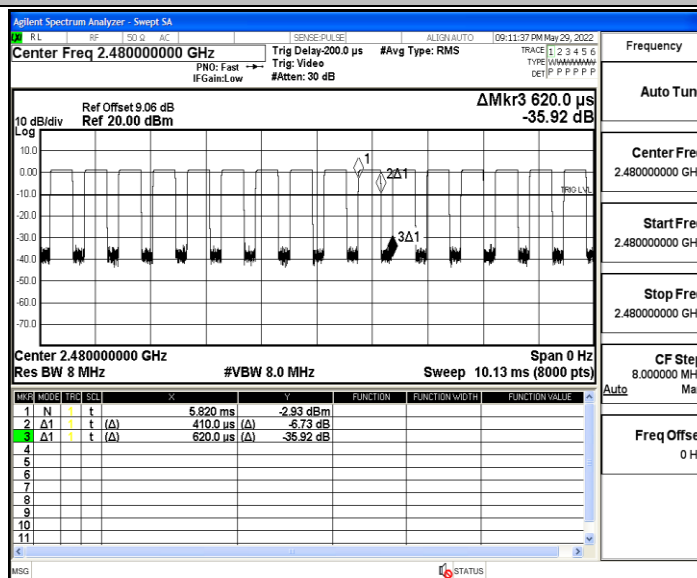
BLE\_1M\_Ant1\_2402



BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480



## Appendix H: Emissions in Restricted Bands

### Test Result

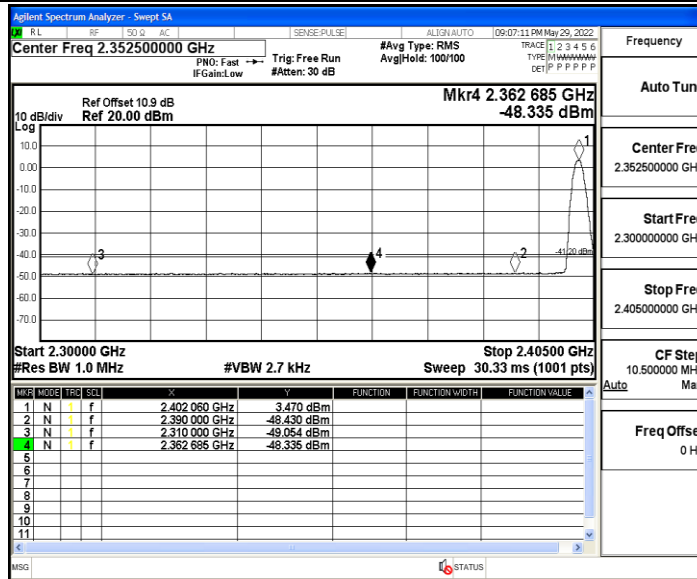
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-49.05	≤-41.20	PASS
				AV	2362.685	-48.34	≤-41.20	PASS
				AV	2390.000	-48.43	≤-41.20	PASS
				Peak	2310.000	-42.02	≤-21.20	PASS
				Peak	2383.685	-38.12	≤-21.20	PASS
				Peak	2390.000	-43.05	≤-21.20	PASS
		High	2480	AV	2483.500	-47.54	≤-41.20	PASS
				AV	2483.520	-47.54	≤-41.20	PASS
				AV	2500.000	-48.03	≤-41.20	PASS
				Peak	2483.500	-41.85	≤-21.20	PASS
				Peak	2496.160	-39.34	≤-21.20	PASS
				Peak	2500.000	-41.52	≤-21.20	PASS

#### Note:

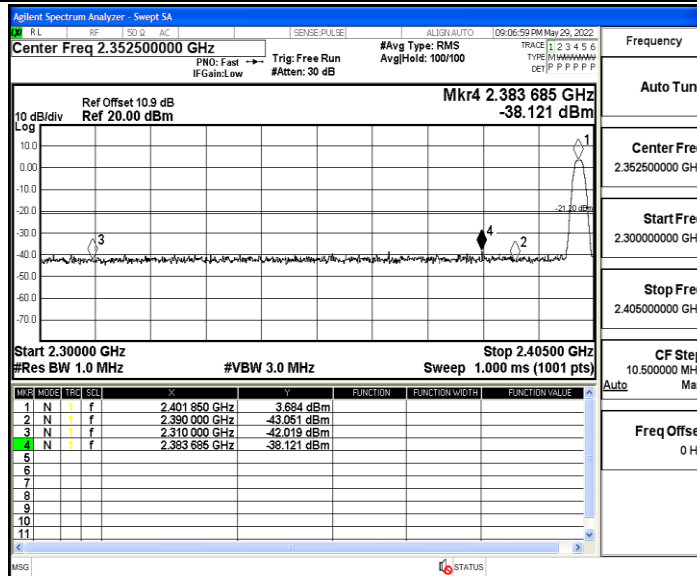
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

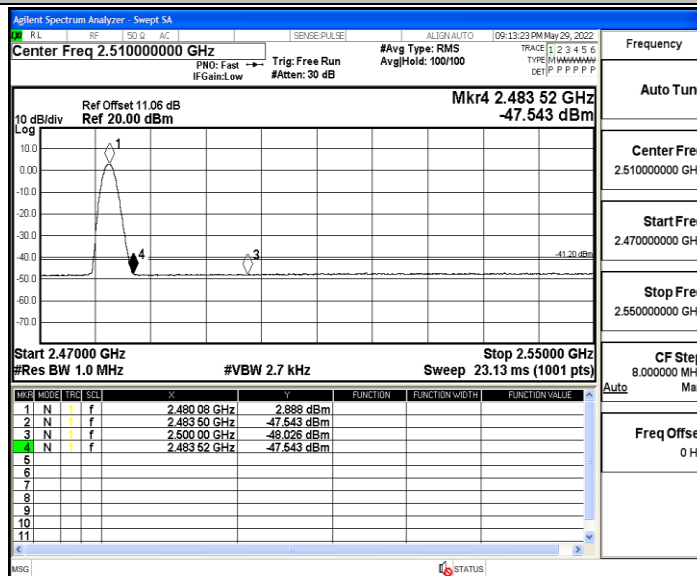
BLE\_1M\_Ant1\_Low\_2402\_AV



BLE\_1M\_Ant1\_Low\_2402\_Peak



BLE\_1M\_Ant1\_High\_2480\_AV



BLE\_1M\_Ant1\_High\_2480\_Peak

