



## Appendix A

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

Product Name: AC EV Charger

Test Model: PCAC-J4-US11.5/240

#### Environmental Conditions

Temperature:	23.1° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng





## A.1 DTS Bandwidth

### Test Result

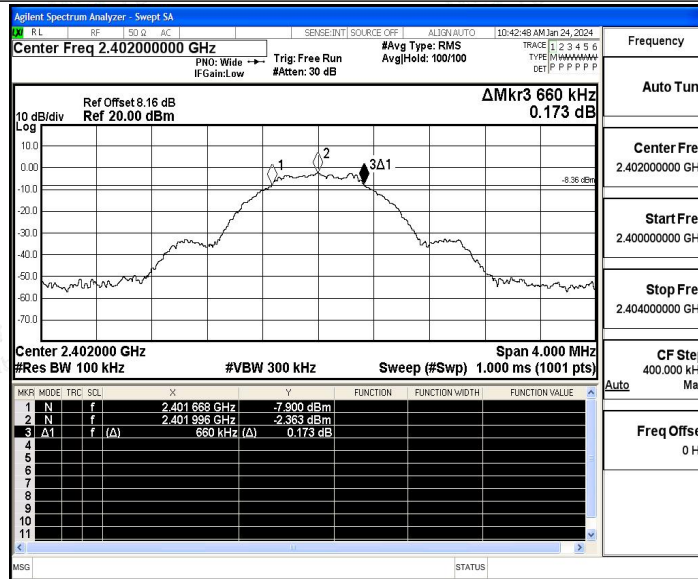
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.660	2401.668	2402.328	0.5	PASS
		2440	0.656	2439.676	2440.332	0.5	PASS
		2480	0.644	2479.672	2480.316	0.5	PASS



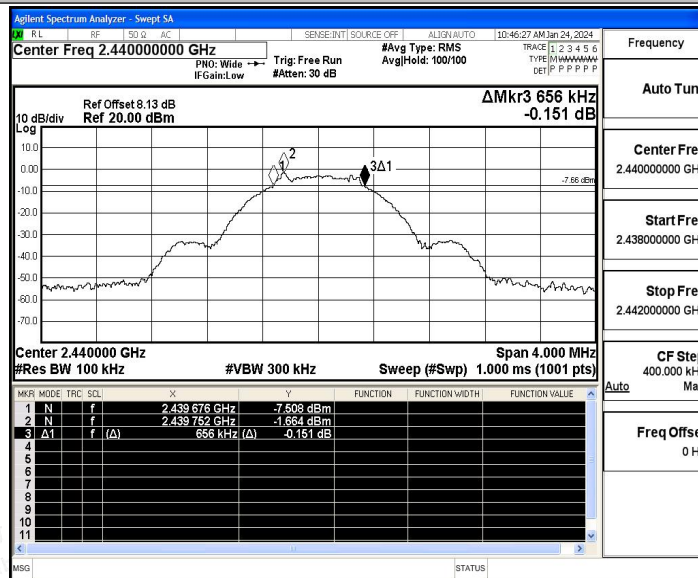


### Test Graphs

BLE\_1M\_Ant1\_2402

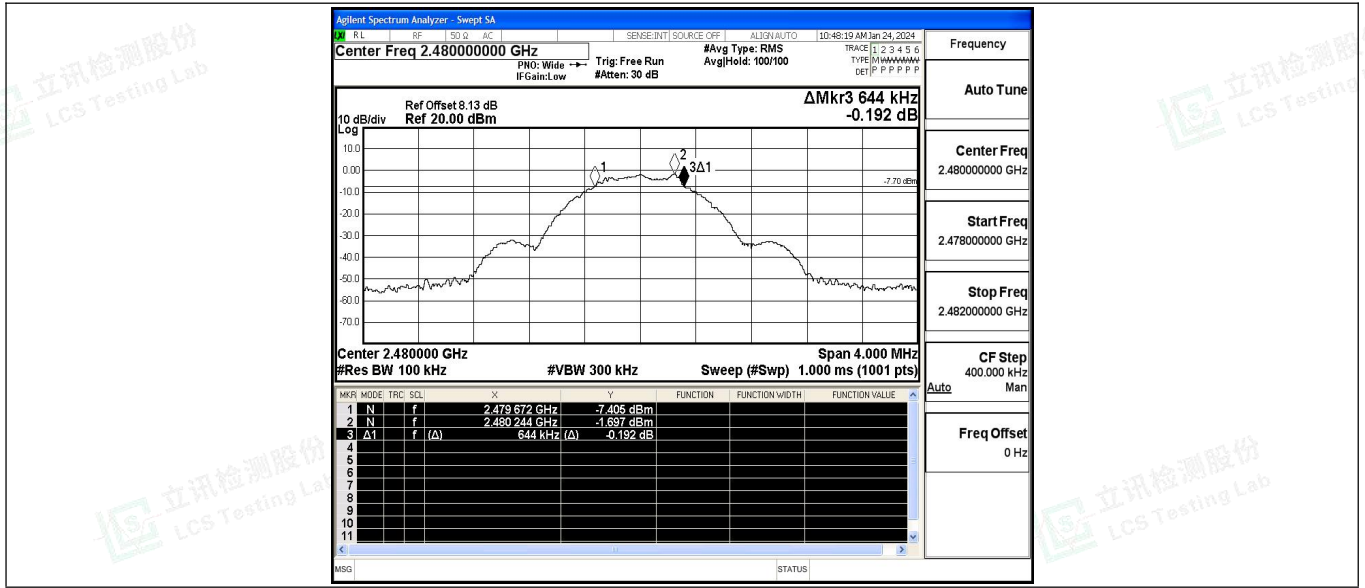


BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480





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## A.2 Maximum conducted output power

### Test Result

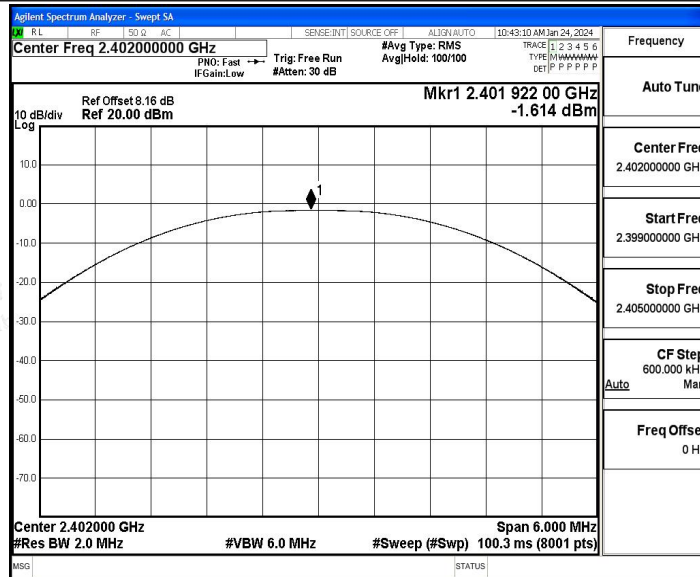
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-1.61	≤30	PASS
		2440	-1.39	≤30	PASS
		2480	-1.13	≤30	PASS



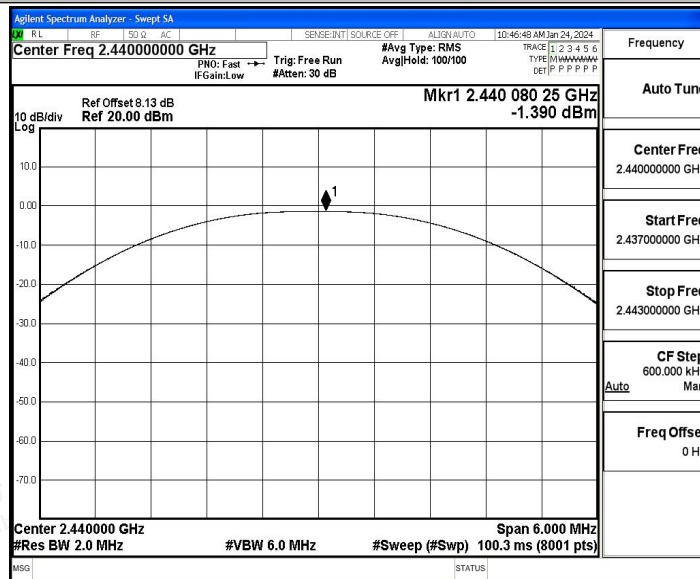


### Test Graphs

BLE\_1M\_Ant1\_2402

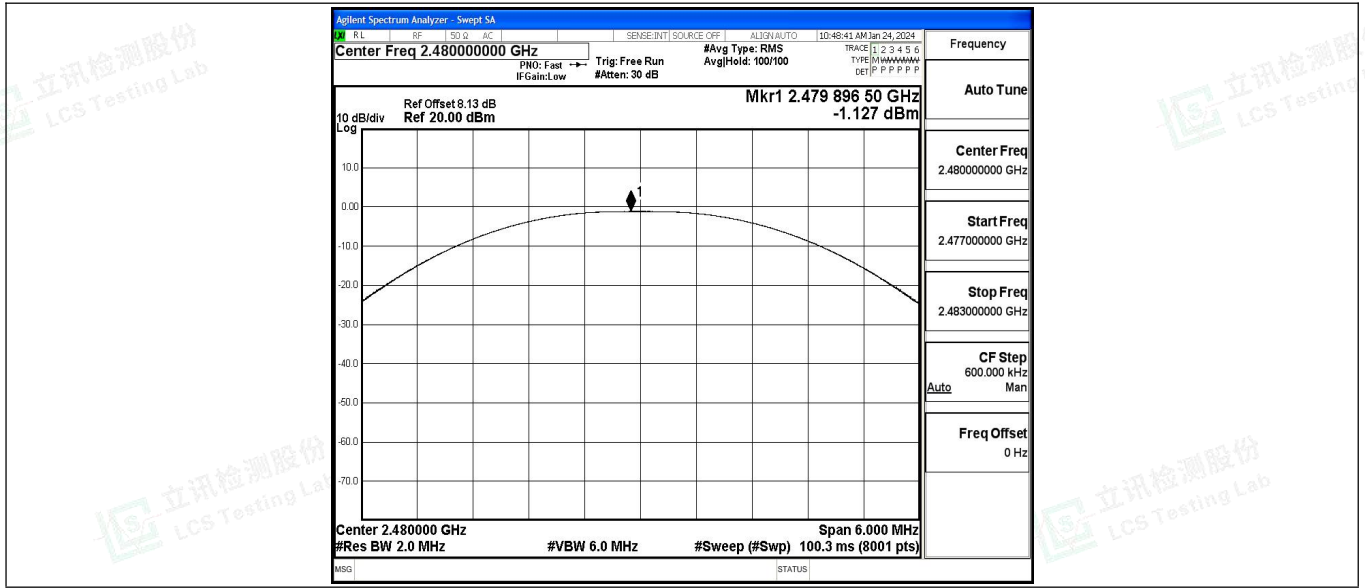


BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480







### A.3 Maximum power spectral density

#### Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-17.80	≤8.00	PASS
		2440	-17.73	≤8.00	PASS
		2480	-17.46	≤8.00	PASS

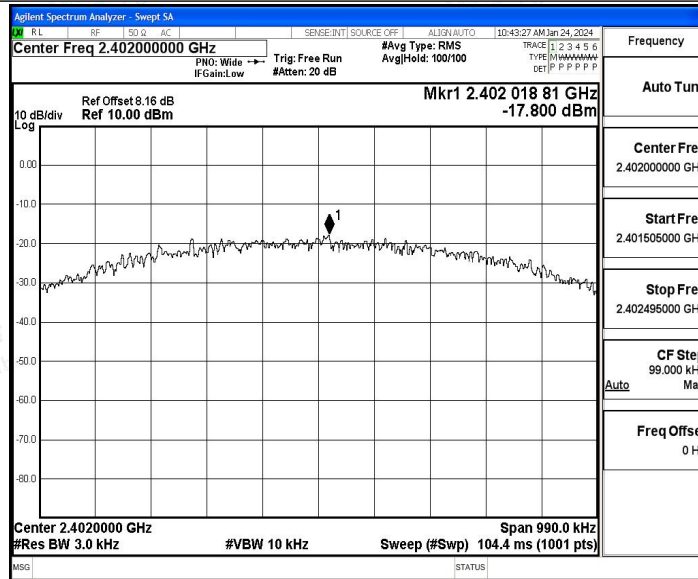




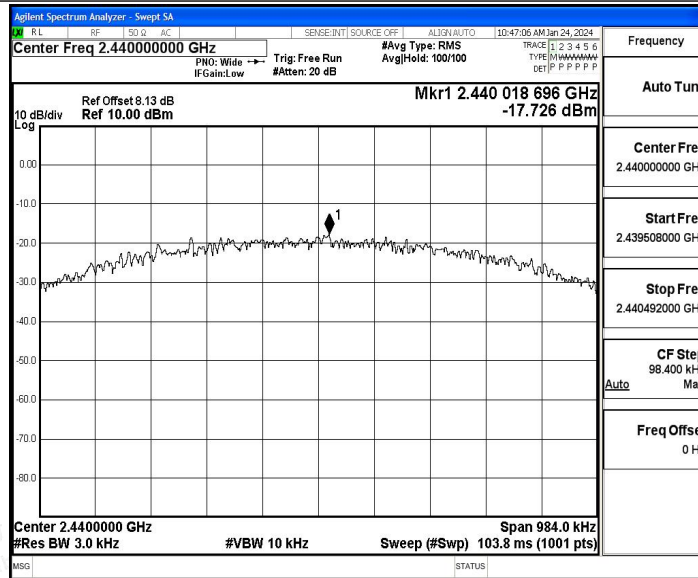


### Test Graphs

BLE\_1M\_Ant1\_2402

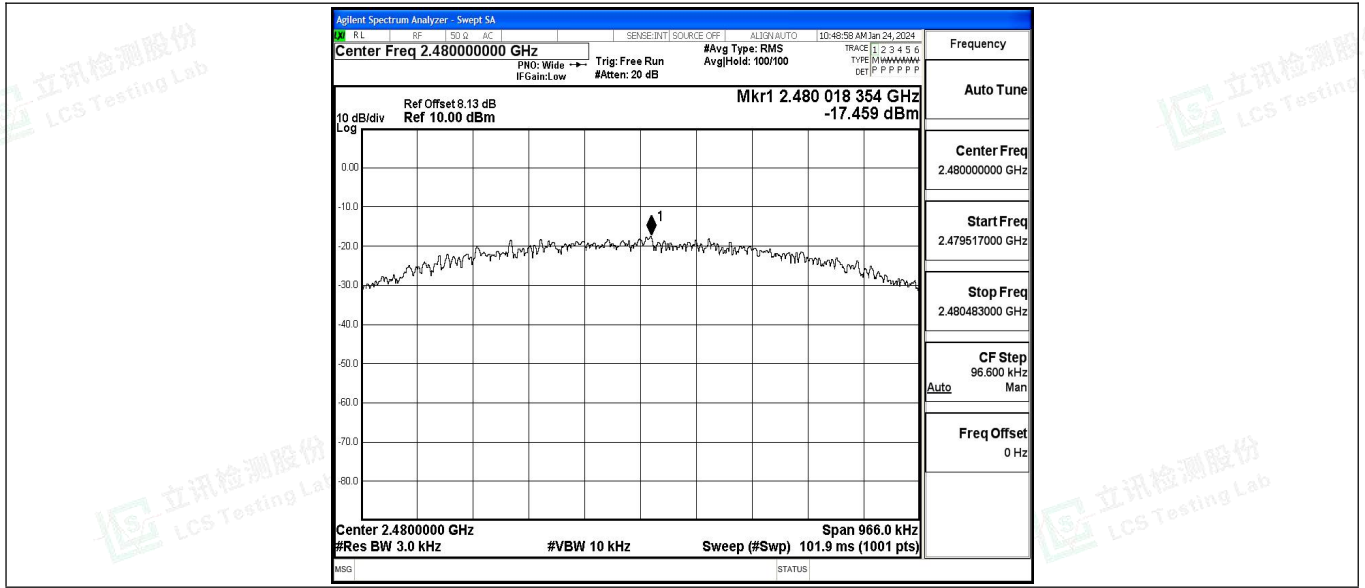


BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480







## A.4 Band edge measurements

### Test Result

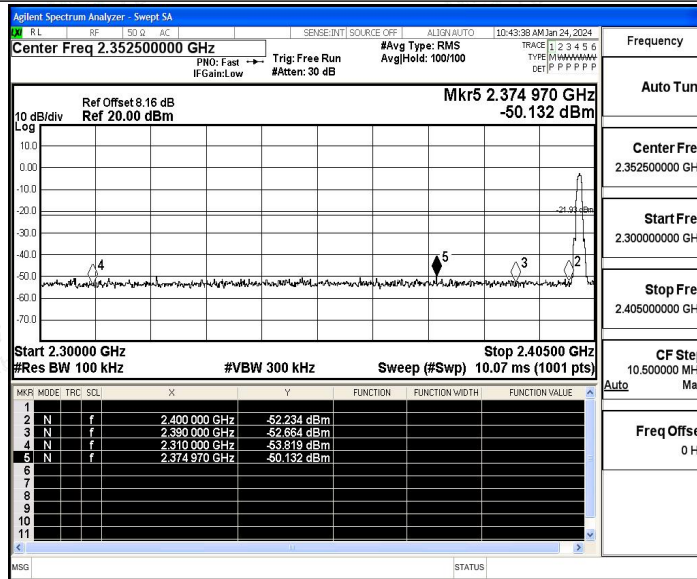
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-1.93	-50.13	≤-21.93	PASS
		High	2480	-1.47	-49.78	≤-21.47	PASS



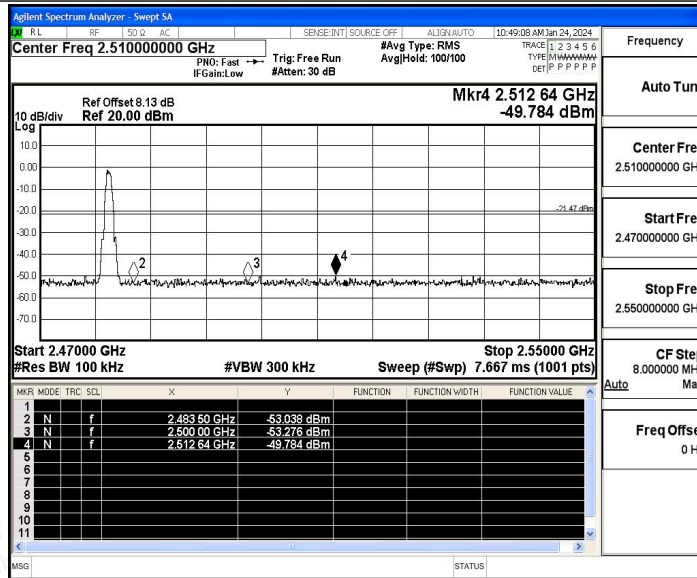


### Test Graphs

#### BLE\_1M\_Ant1\_Low\_2402



#### BLE\_1M\_Ant1\_High\_2480





### A.5 Conducted Spurious Emission

#### Test Result

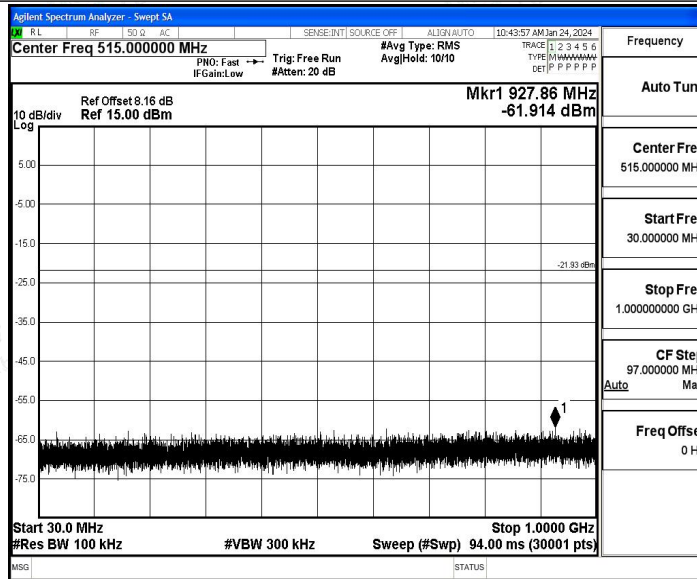
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	30~1000	-1.93	-61.91	≤-21.93	PASS
			1000~26500	-1.93	-48.79	≤-21.93	PASS
		2440	30~1000	-1.99	-62.07	≤-21.99	PASS
			1000~26500	-1.99	-49.07	≤-21.99	PASS
		2480	30~1000	-1.47	-62.1	≤-21.47	PASS
			1000~26500	-1.47	-48.83	≤-21.47	PASS



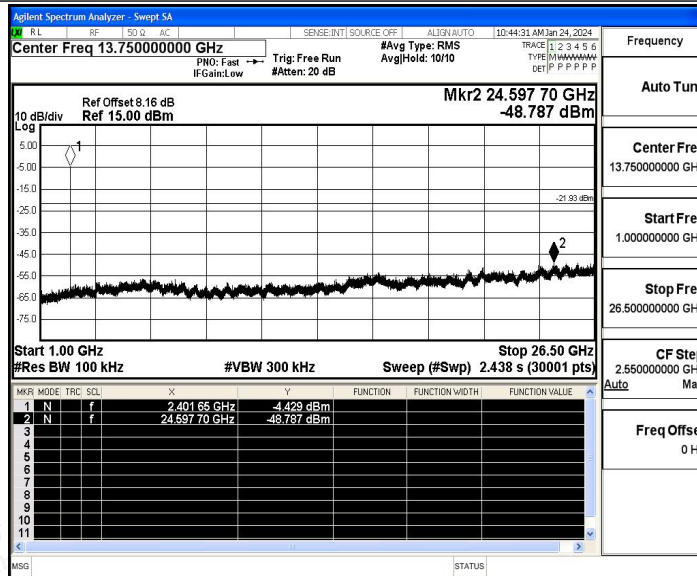


### Test Graphs

BLE\_1M\_Ant1\_2402\_30~1000

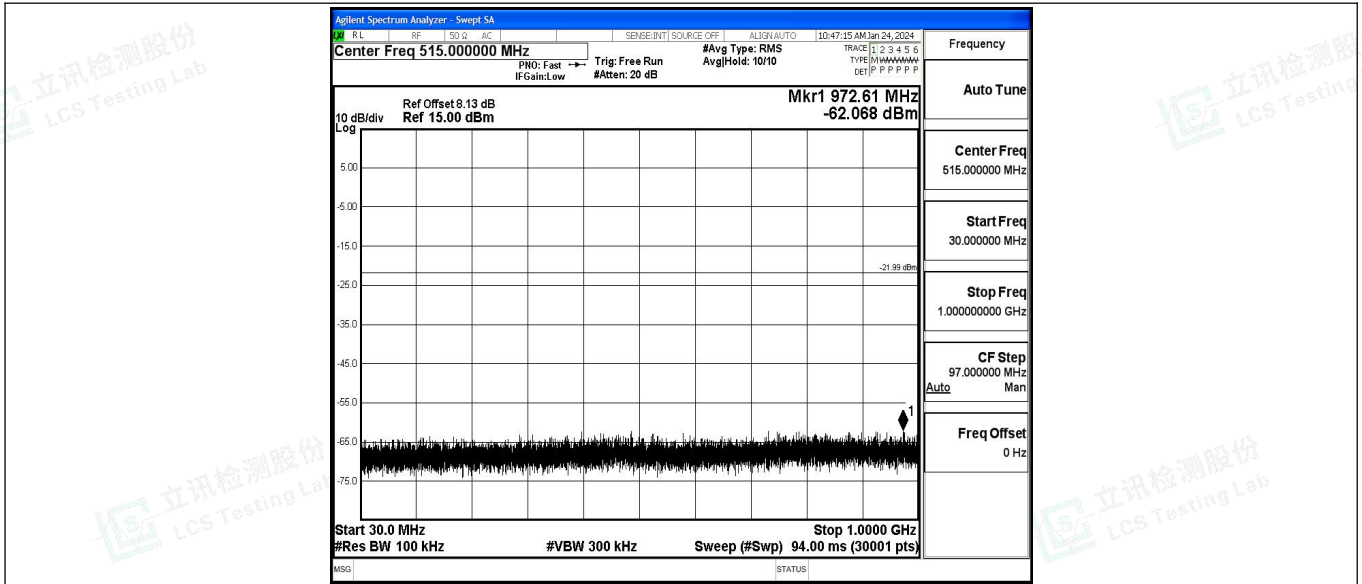


BLE\_1M\_Ant1\_2402\_1000~26500

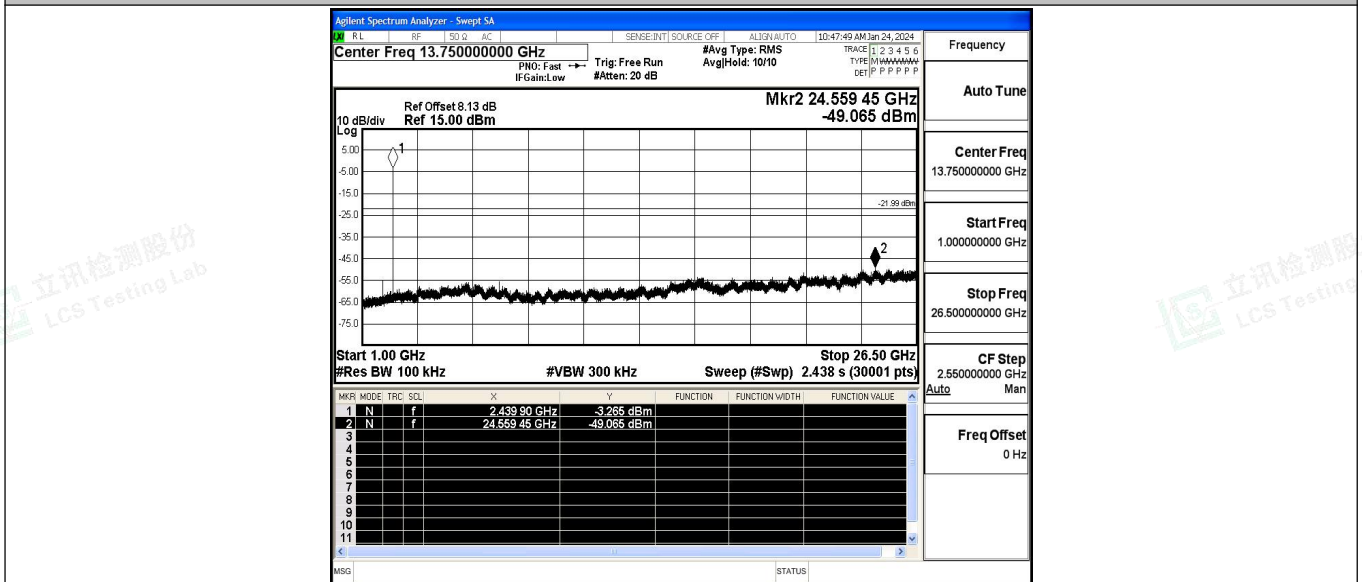


BLE\_1M\_Ant1\_2440\_30~1000



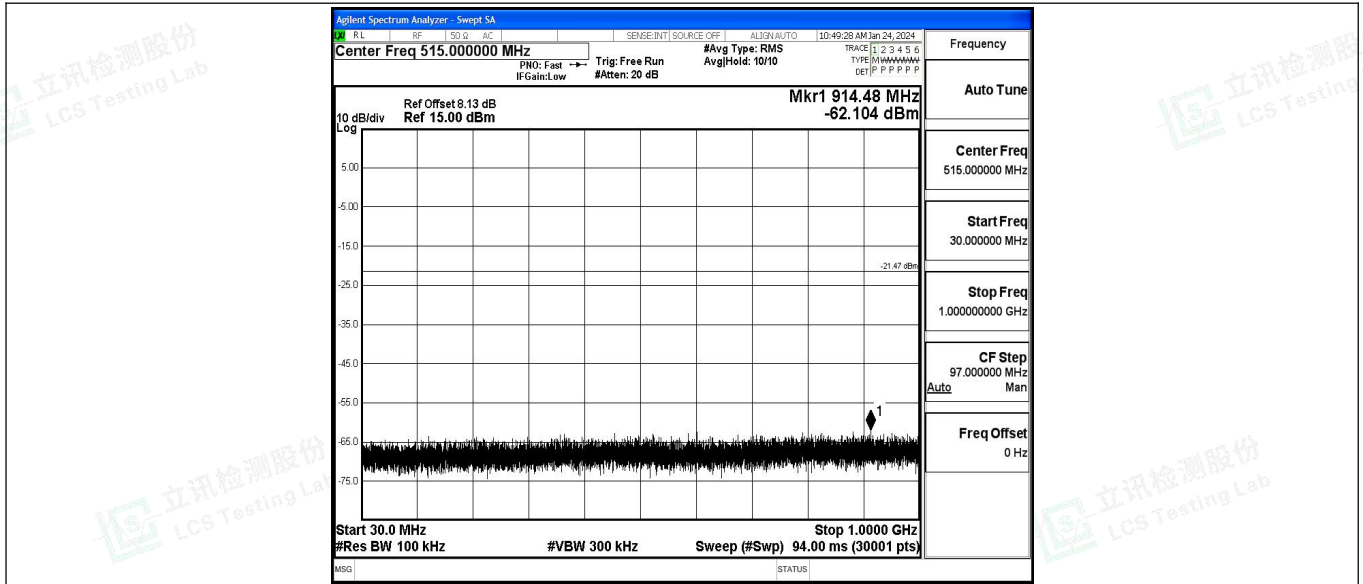


BLE\_1M\_Ant1\_2440\_1000~26500

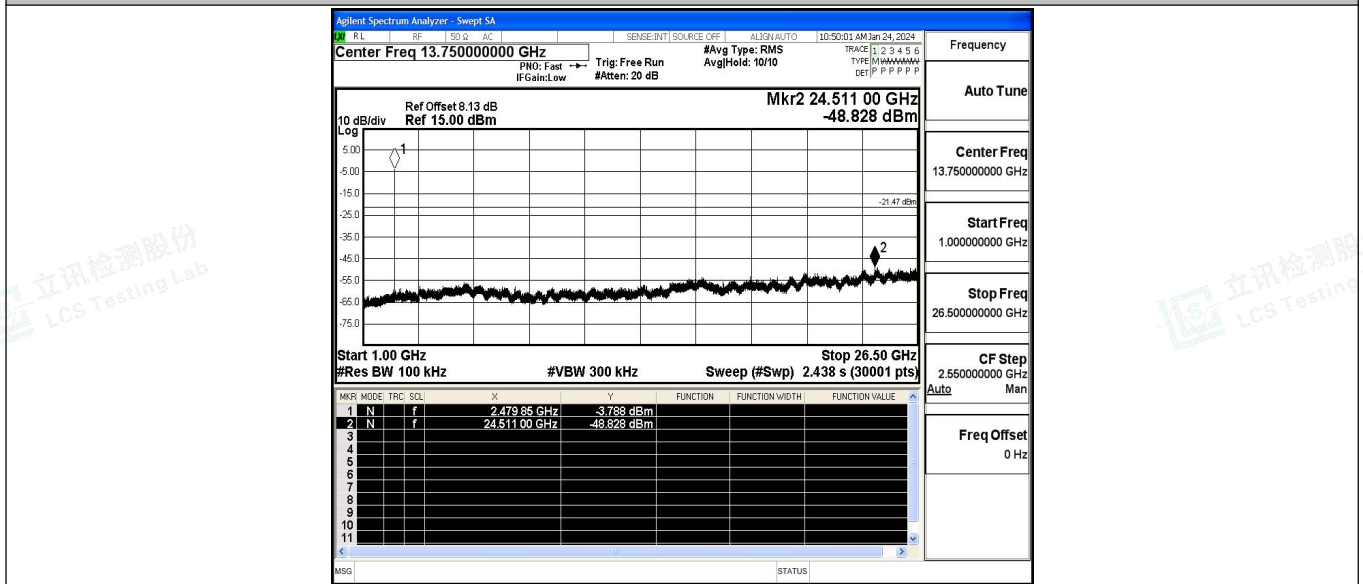


BLE\_1M\_Ant1\_2480\_30~1000





BLE\_1M\_Ant1\_2480\_1000~26500







## Reference level measurement

### Test Result

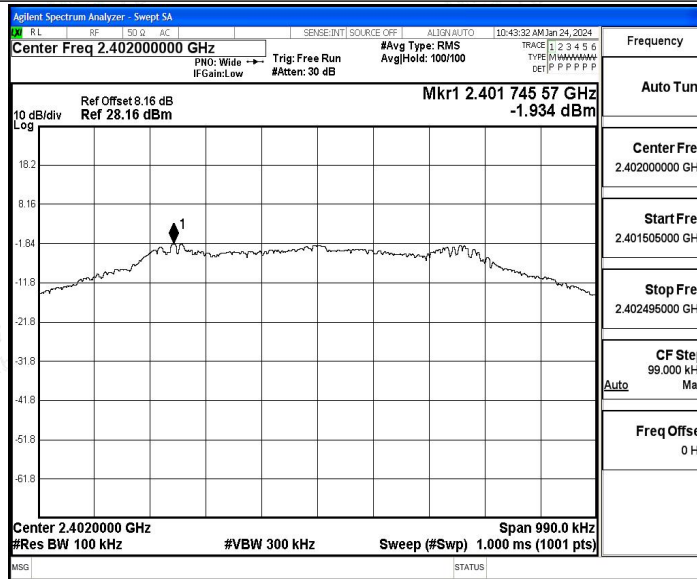
TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
BLE_1M	Ant1	2402	2401.75	-1.93
		2440	2440.25	-1.99
		2480	2479.75	-1.47



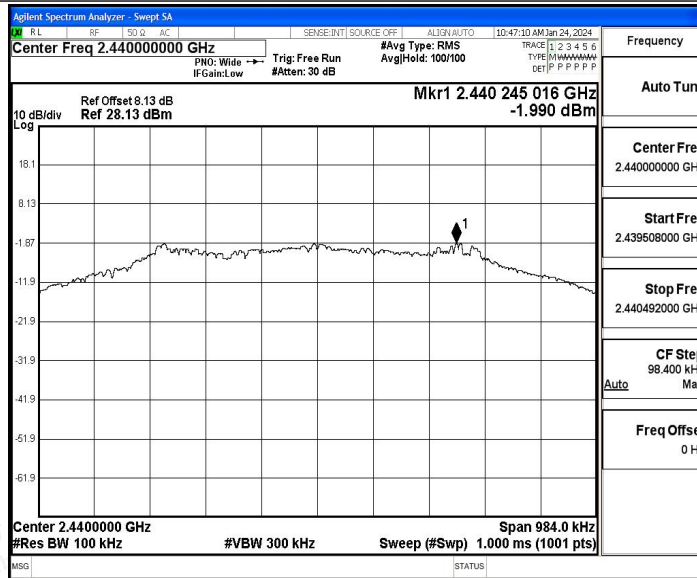


### Test Graphs

BLE\_1M\_Ant1\_2402

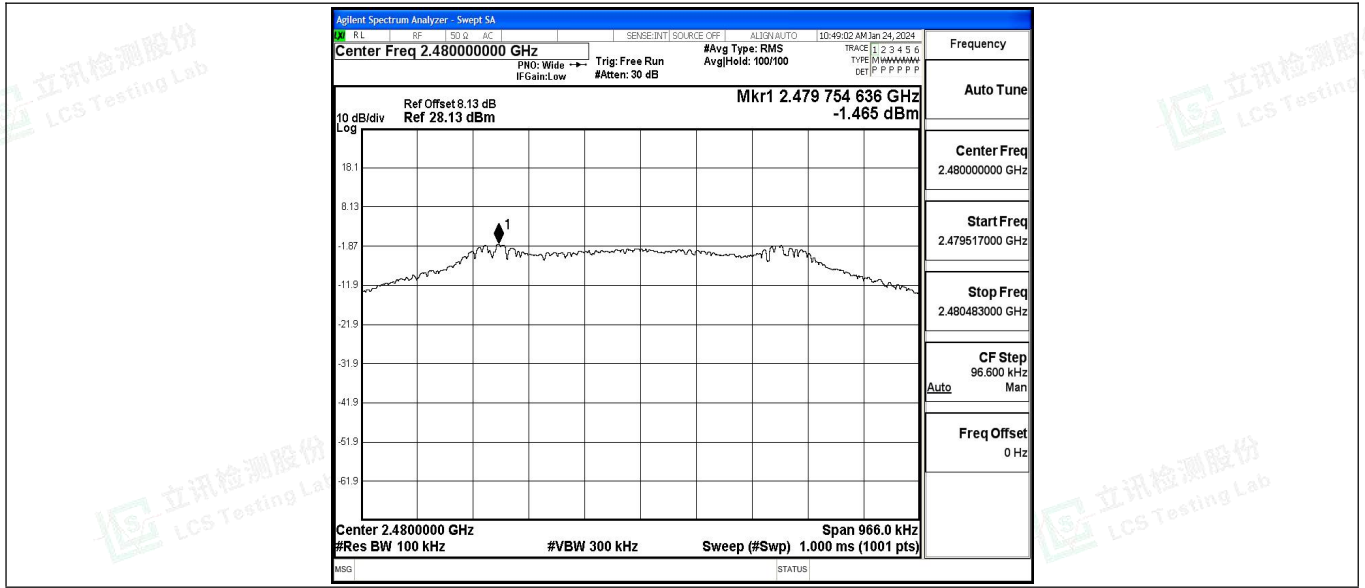


BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480







## A.6 Duty Cycle

### Test Result

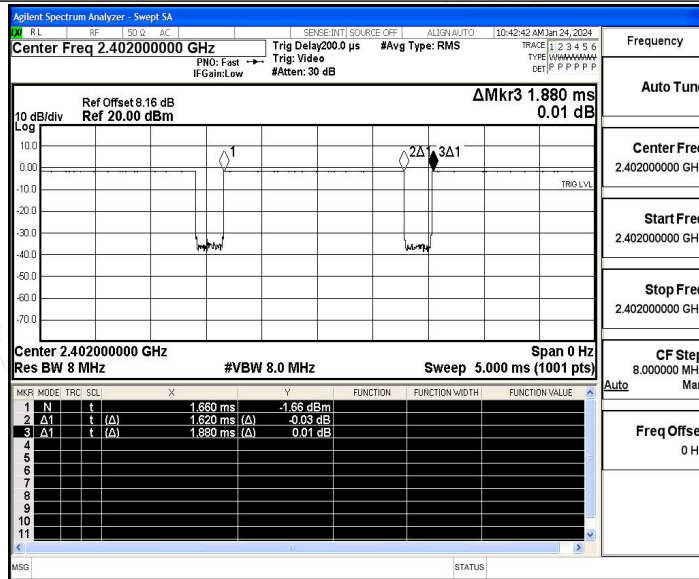
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]	1/T Factor[dB]
BLE_1M	Ant1	2402	1.62	1.88	86.17	0.65	0.62
		2440	1.62	1.88	86.17	0.65	0.62
		2480	1.62	1.88	86.17	0.65	0.62



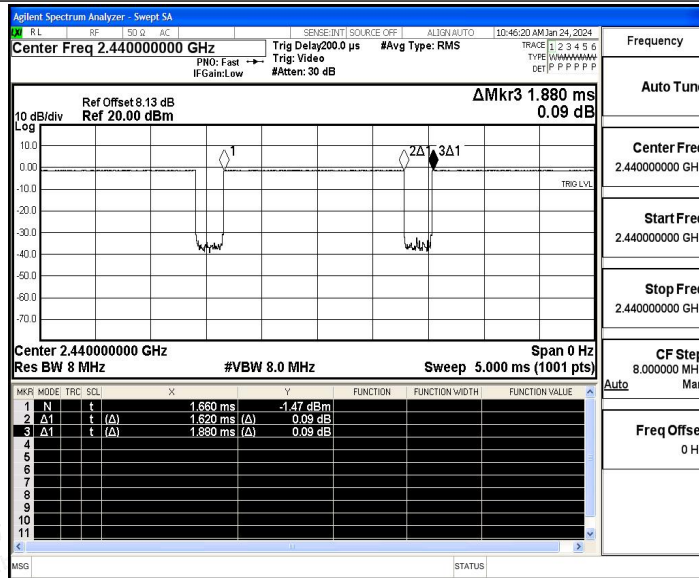


### Test Graphs

#### BLE\_1M\_Ant1\_2402



#### BLE\_1M\_Ant1\_2440



#### BLE\_1M\_Ant1\_2480

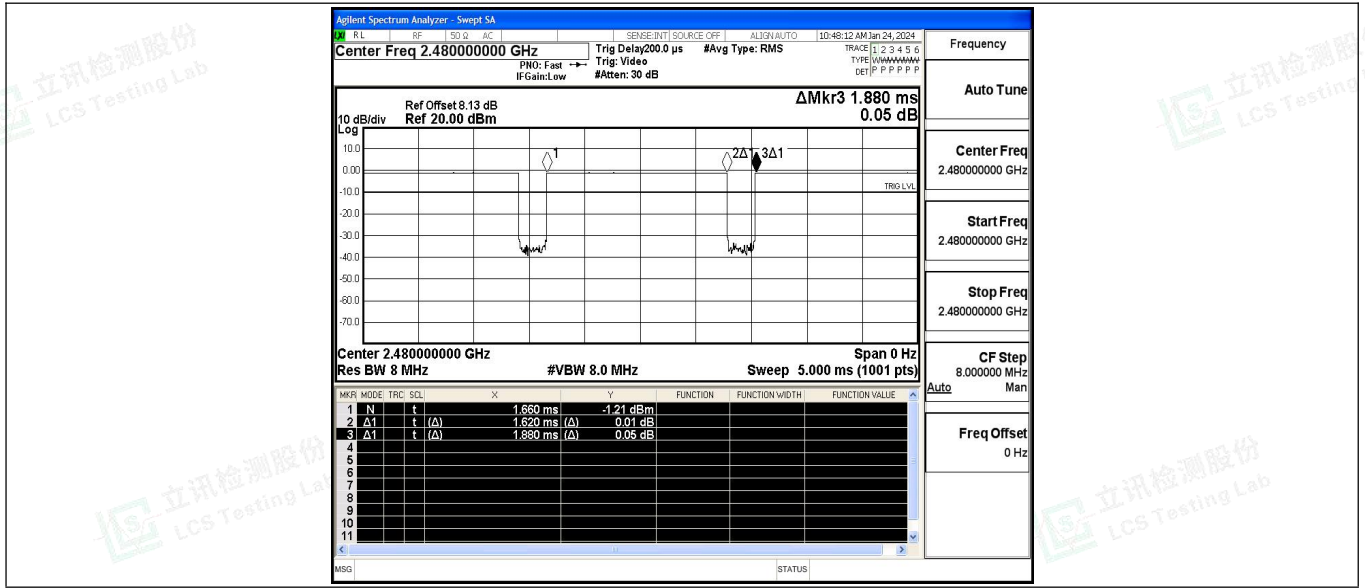


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### A.7 Emissions in Restricted Bands

#### Test Result

TestMode	Antenna	ChName	Frequenc y[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBu V/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-49.71	≤-41.20	45.49	≤54	PASS
				AV	2349.245	-48.37	≤-41.20	46.83	≤54	PASS
				AV	2390.000	-49.28	≤-41.20	45.92	≤54	PASS
				Peak	2310.000	-43.21	≤-21.20	51.99	≤74	PASS
				Peak	2348.720	-38.78	≤-21.20	56.42	≤74	PASS
				Peak	2390.000	-42.5	≤-21.20	52.70	≤74	PASS
		High	2480	AV	2483.500	-49.08	≤-41.20	46.12	≤54	PASS
				AV	2490.560	-48.24	≤-41.20	46.96	≤54	PASS
				AV	2500.000	-48.84	≤-41.20	46.36	≤54	PASS
				Peak	2483.500	-41.23	≤-21.20	53.97	≤74	PASS
				Peak	2496.400	-39.27	≤-21.20	55.93	≤74	PASS
				Peak	2500.000	-42.67	≤-21.20	52.53	≤74	PASS

Note:

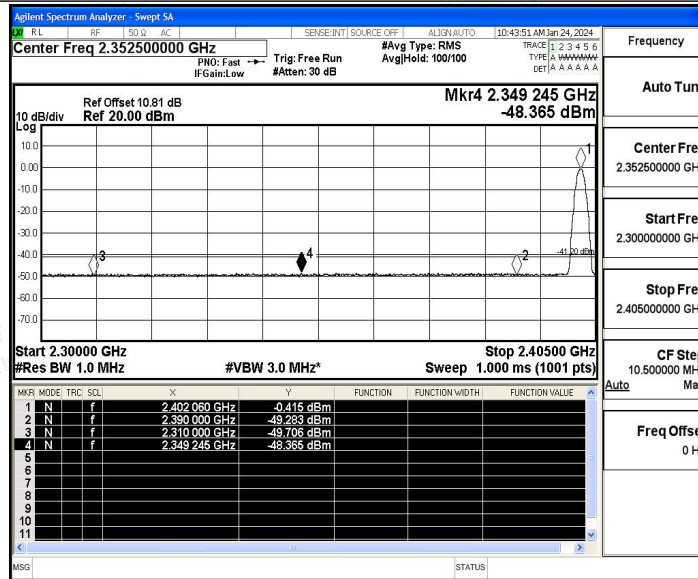
1. The Antenna Gain is compensated in the graph. The Correction Factor is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



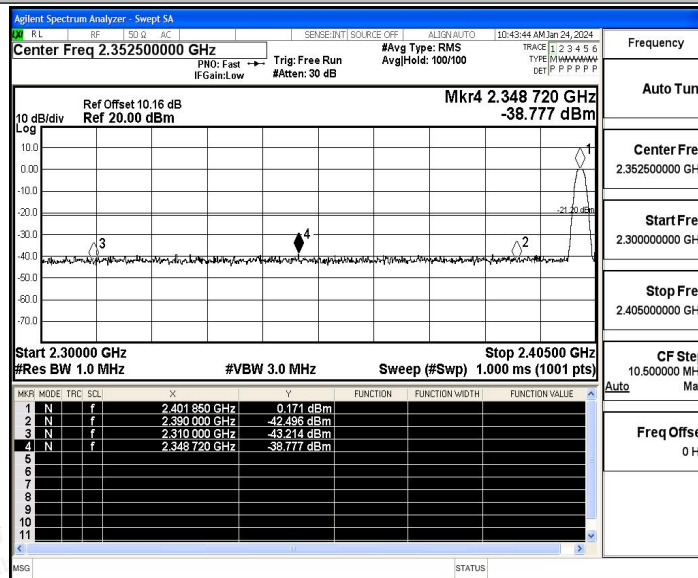


### Test Graphs

#### BLE\_1M\_Ant1\_Low\_2402\_AV



#### BLE\_1M\_Ant1\_Low\_2402\_Peak



#### BLE\_1M\_Ant1\_High\_2480\_AV



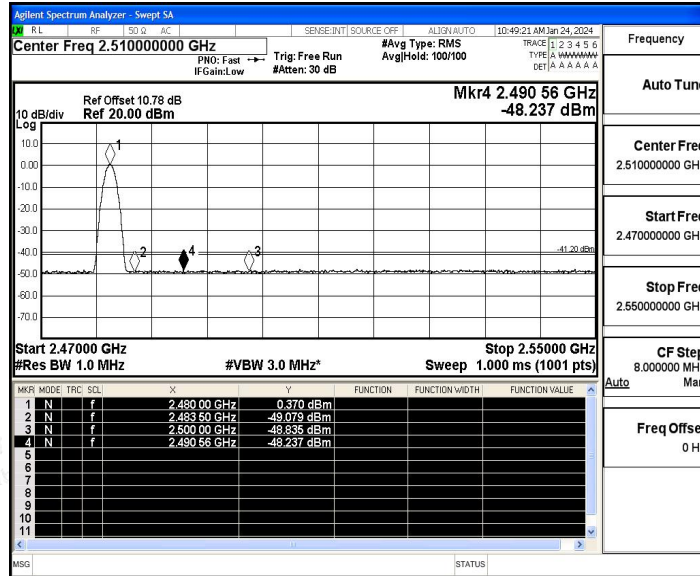
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BLE\_1M\_Ant1\_High\_2480\_Peak

