

ANT



## Appendix Test Data

Report No.:	18220WC20183601	Test Sample No.:	1-2-2
Start Test Date:	2022.8.11	Finish Test Date:	2022.9.2
Test Engineer:	<i>Zongy. He</i>	Auditor:	<i>Edward. Pan</i>
Temperature:	26.3°C	Relative Humidity:	47 %
Pressure:	1012 hPa		

## Appendix A: DTS Bandwidth

## Test Result

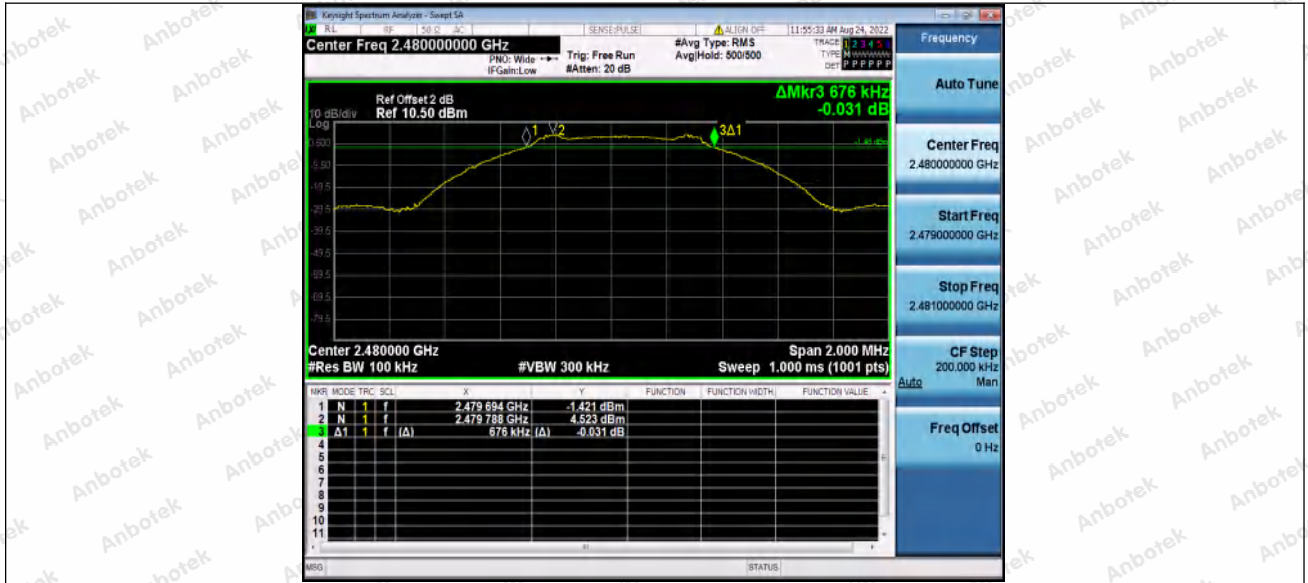
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.662	2401.698	2402.360	≥0.5	PASS
		2440	0.676	2439.694	2440.370	≥0.5	PASS
		2480	0.676	2479.694	2480.370	≥0.5	PASS
BLE_2M	Ant1	2402	1.445	2401.275	2402.720	≥0.5	PASS
		2440	1.405	2439.360	2440.765	≥0.5	PASS
		2480	1.450	2479.290	2480.740	≥0.5	PASS



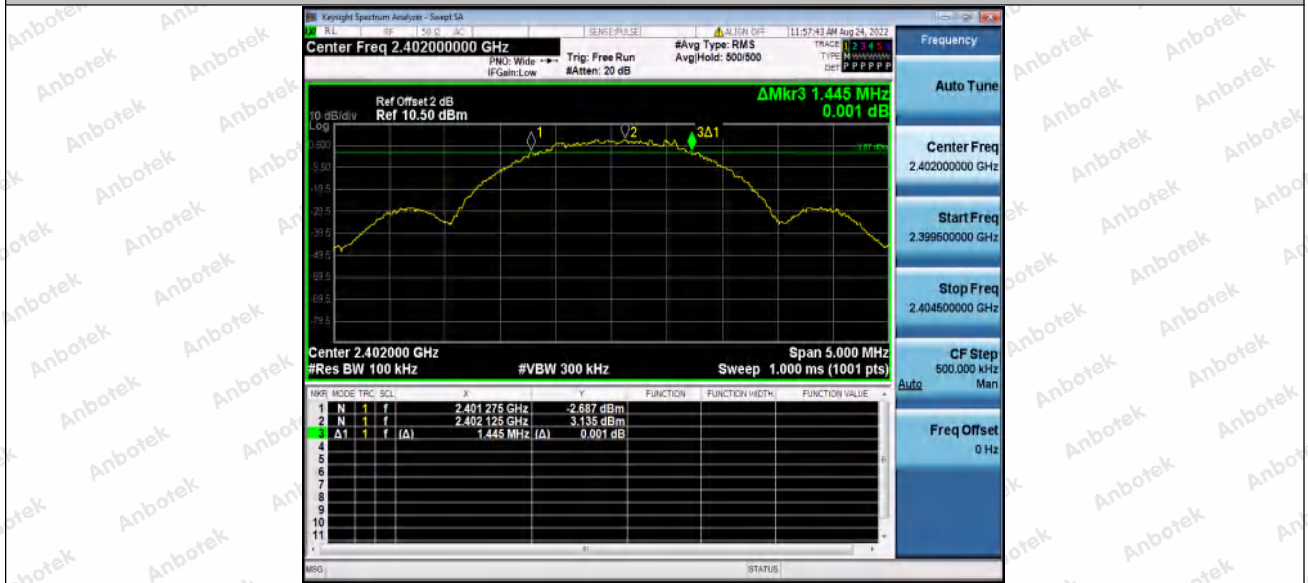


## Test Graphs



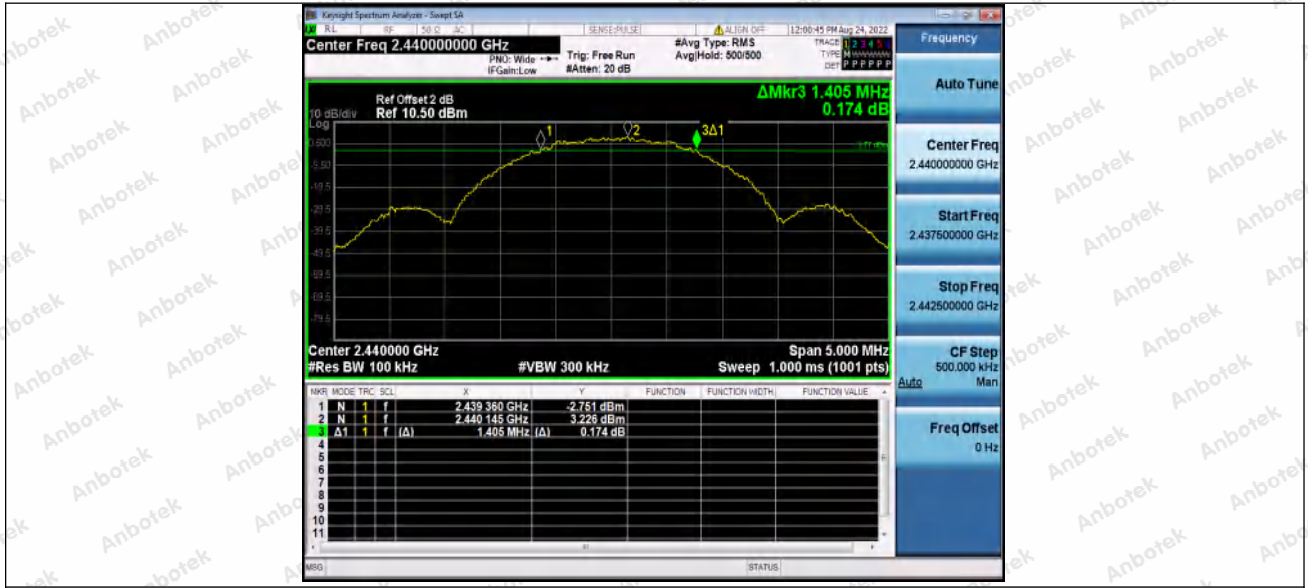


BLE\_2M\_Ant1\_2402

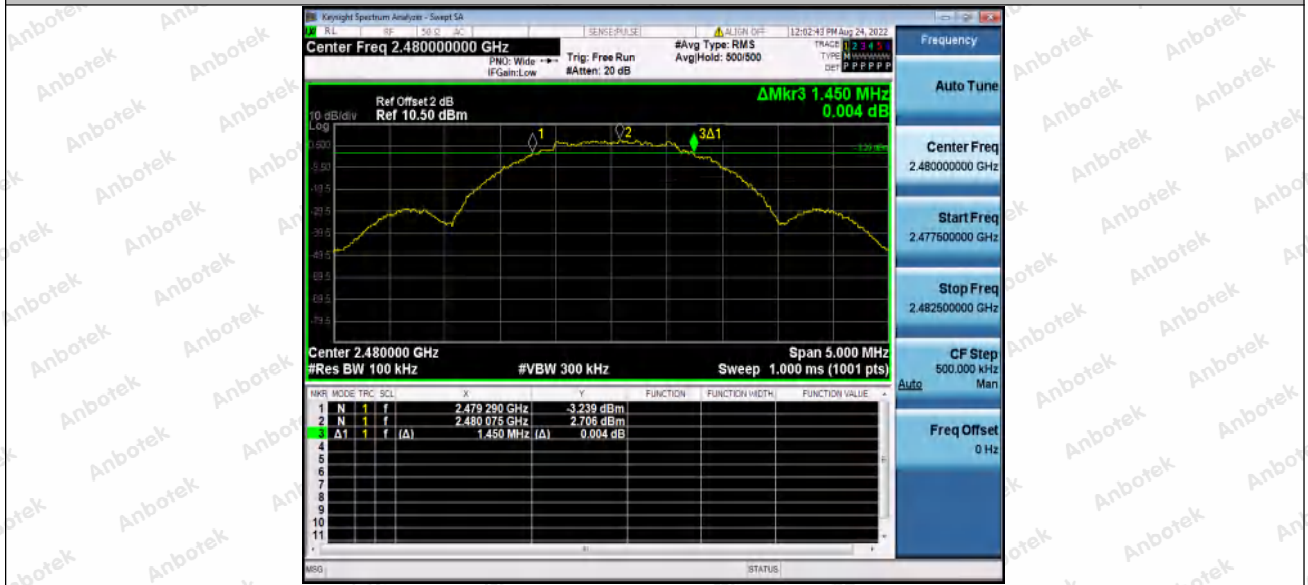


BLE\_2M\_Ant1\_2440





BLE\_2M\_Ant1\_2480





## Appendix B: Occupied Channel Bandwidth

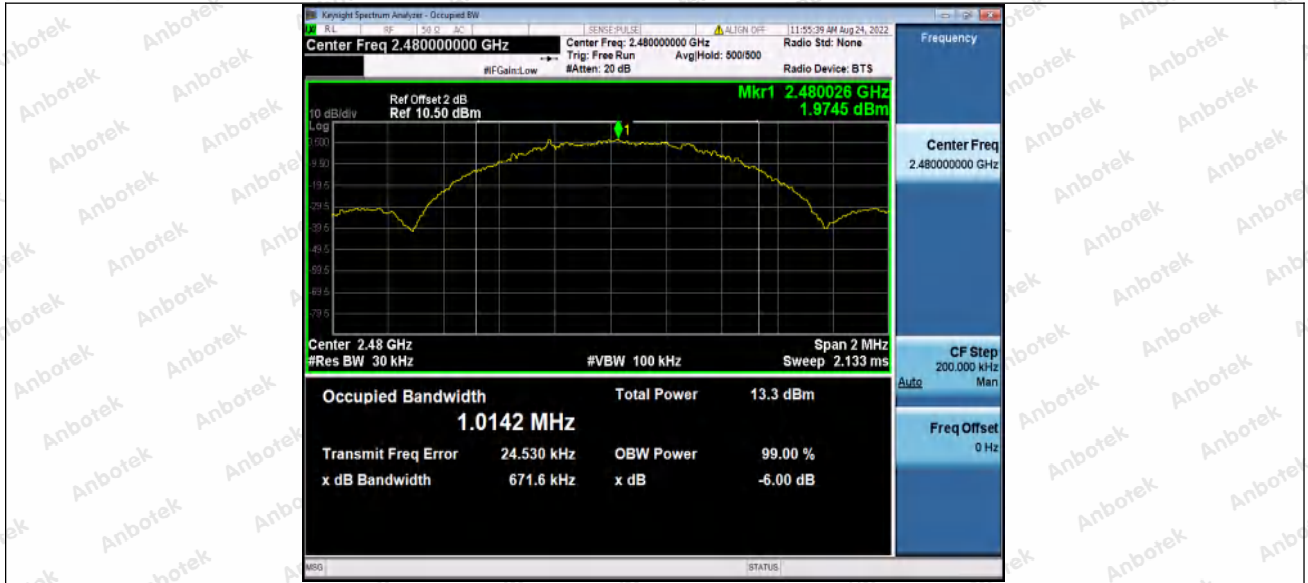
### Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0136	2401.5208	2402.5344	---	PASS
		2440	1.0225	2439.5211	2440.5436	---	PASS
		2480	1.0142	2479.5174	2480.5316	---	PASS
BLE_2M	Ant1	2402	2.0526	2401.0014	2403.0540	---	PASS
		2440	2.0427	2439.0101	2441.0528	---	PASS
		2480	2.0595	2479.0072	2481.0667	---	PASS

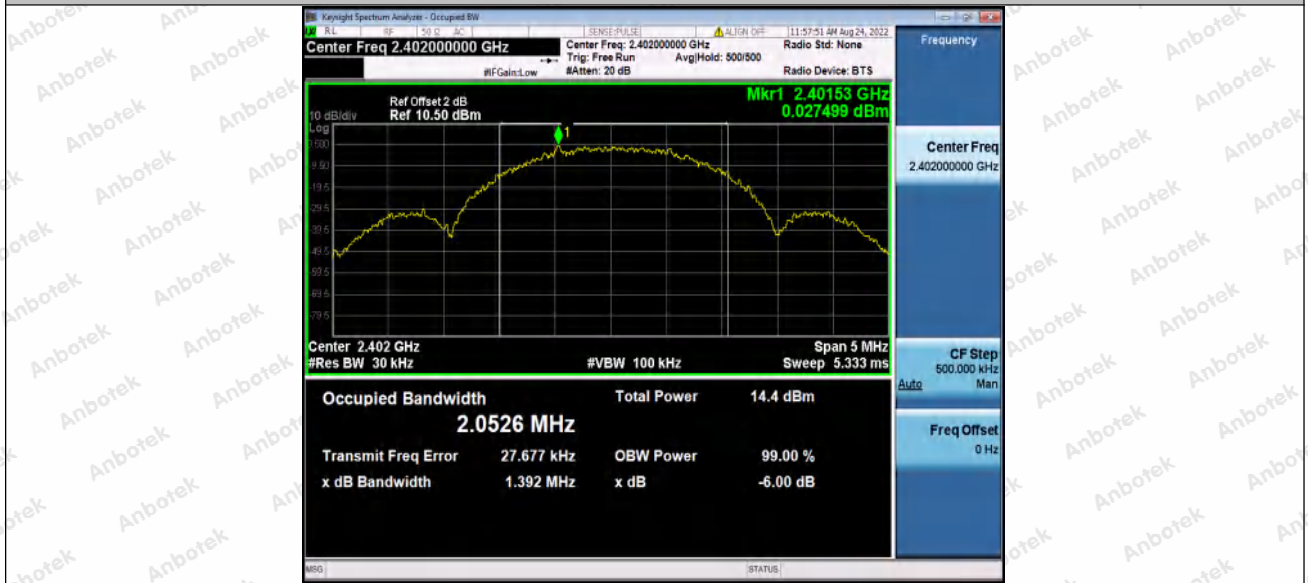


## Test Graphs





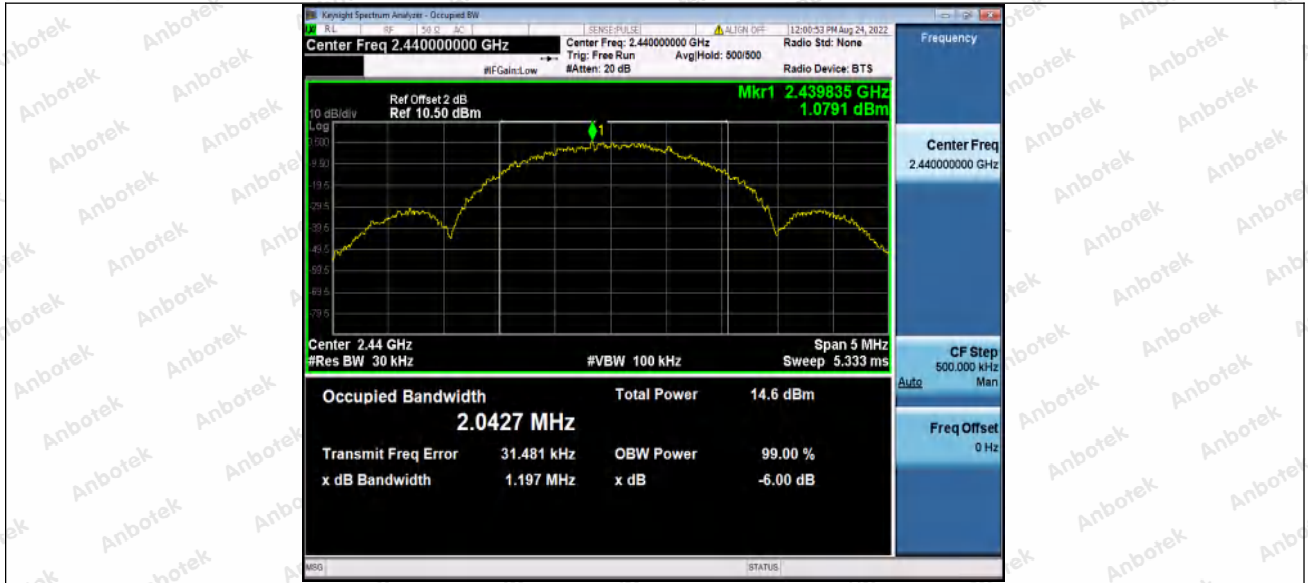
BLE\_2M\_Ant1\_2402



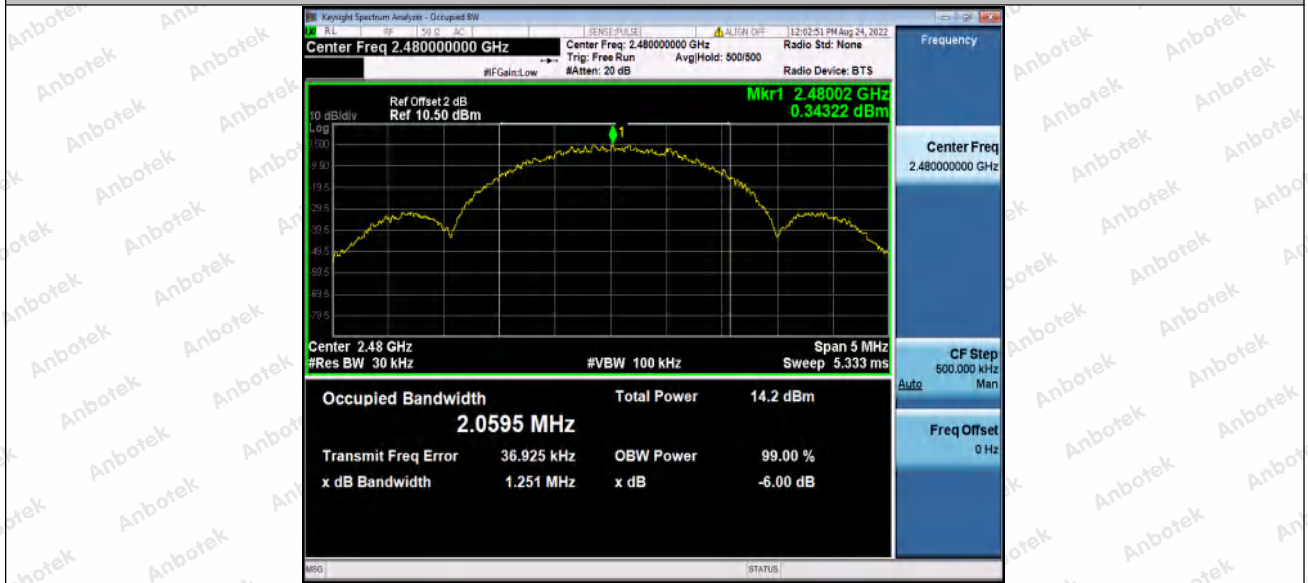
BLE\_2M\_Ant1\_2440







BLE\_2M\_Ant1\_2480

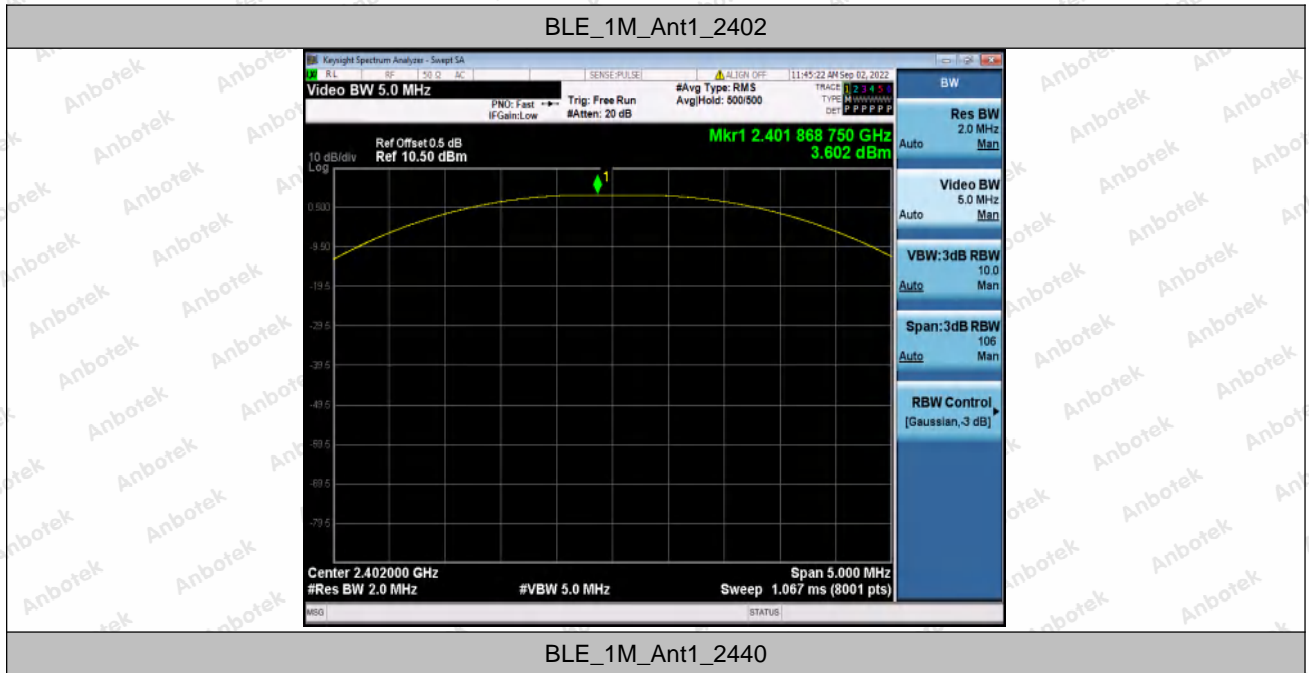


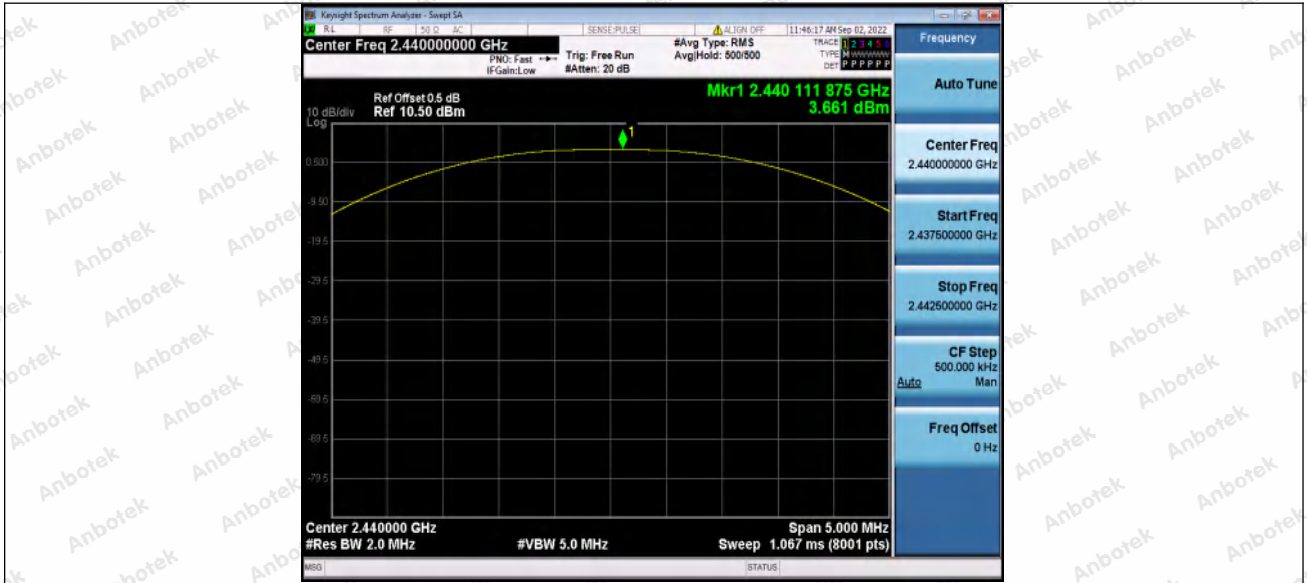
## Appendix C: Maximum conducted output power

### Test Result Peak

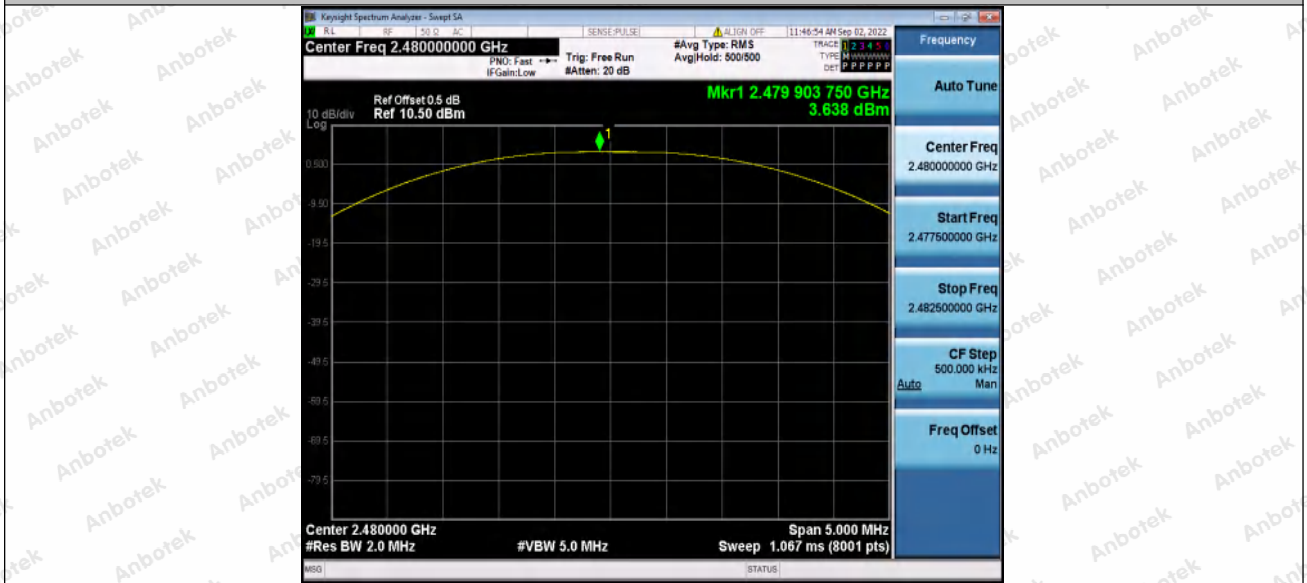
TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	3.60	≤30	PASS
		2440	3.66	≤30	PASS
		2480	3.64	≤30	PASS
BLE_2M	Ant1	2402	3.64	≤30	PASS
		2440	3.70	≤30	PASS
		2480	3.68	≤30	PASS

### Test Graphs Peak





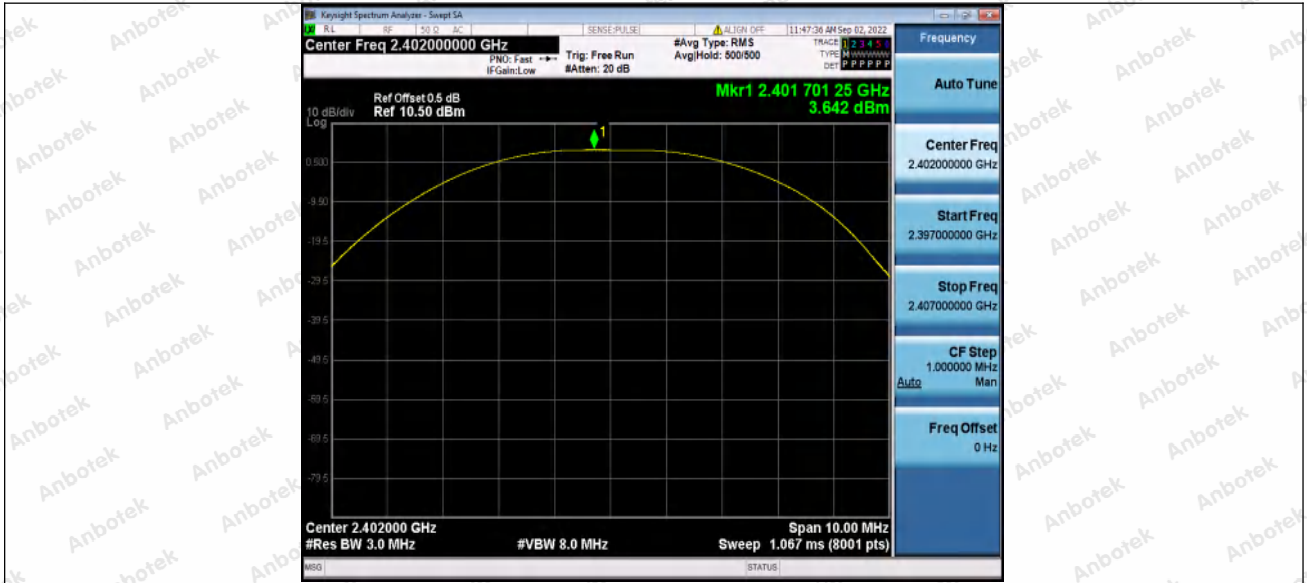
BLE\_1M\_Ant1\_2480



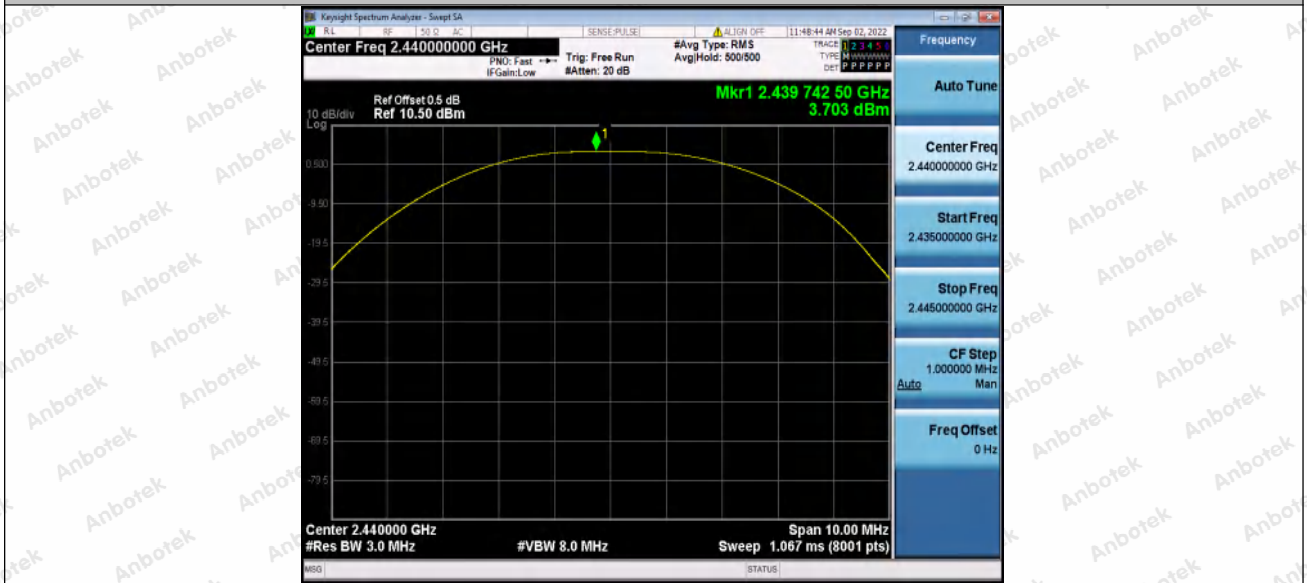
BLE\_2M\_Ant1\_2402





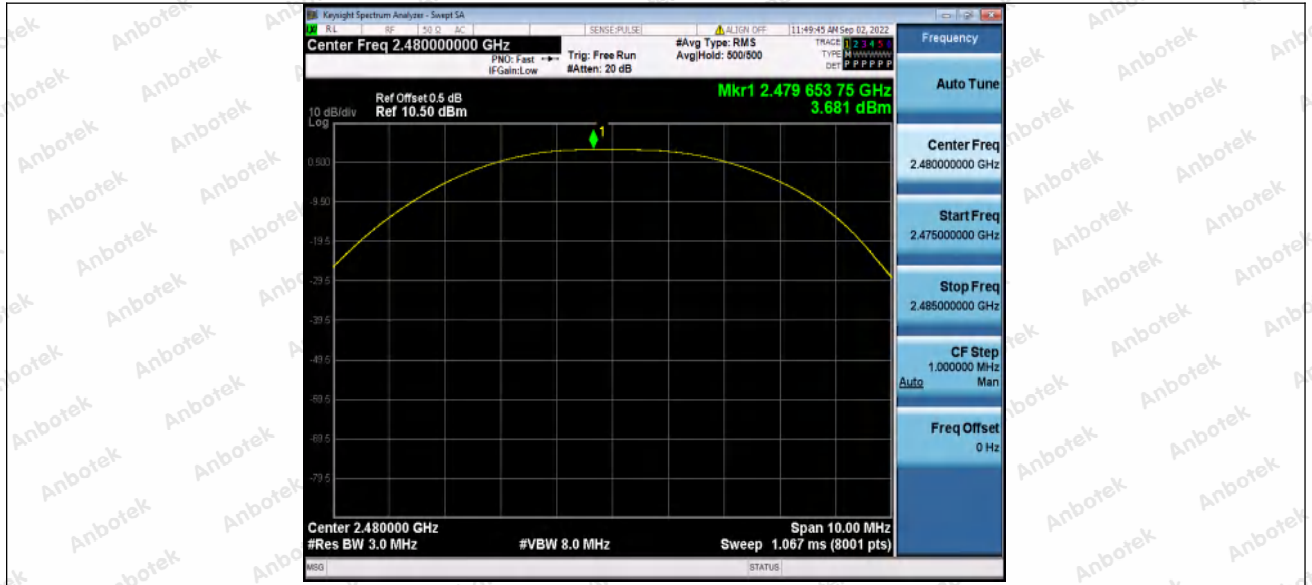


BLE\_2M\_Ant1\_2440



BLE\_2M\_Ant1\_2480





## Appendix D: Maximum power spectral density

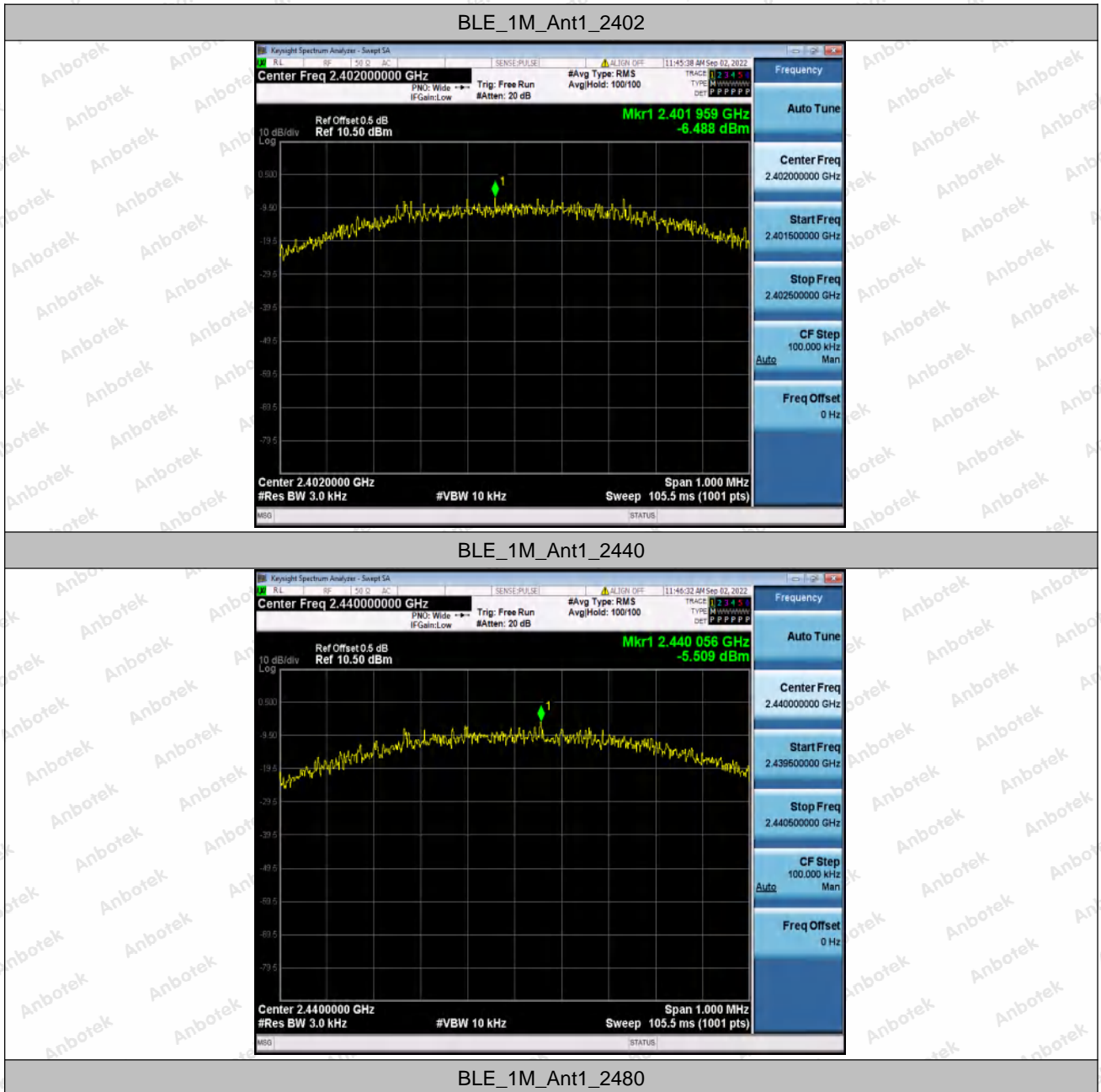
### Test Result

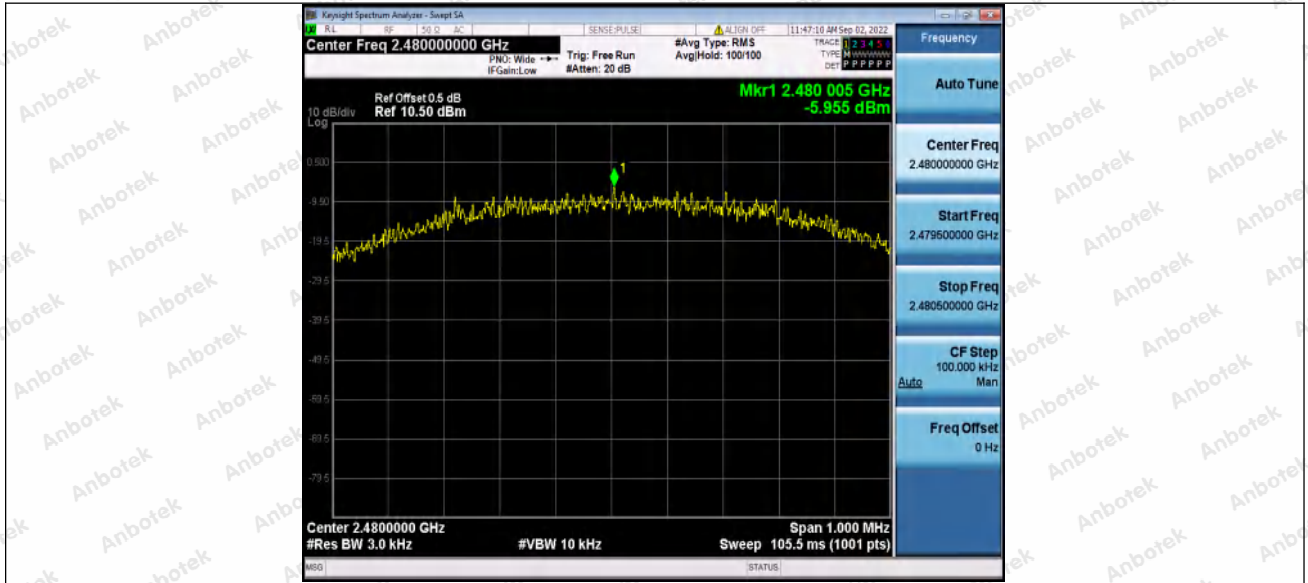
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-6.49	≤8	PASS
		2440	-5.51	≤8	PASS
		2480	-5.96	≤8	PASS
BLE_2M	Ant1	2402	-9.03	≤8	PASS
		2440	-8.67	≤8	PASS
		2480	-9.49	≤8	PASS



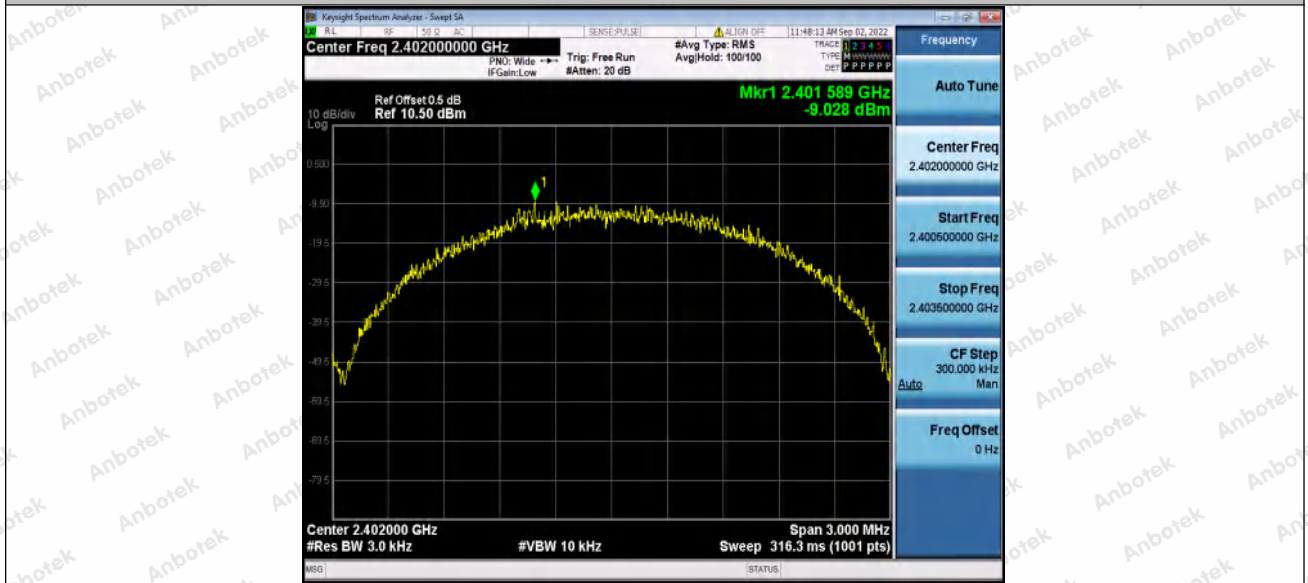


## Test Graphs



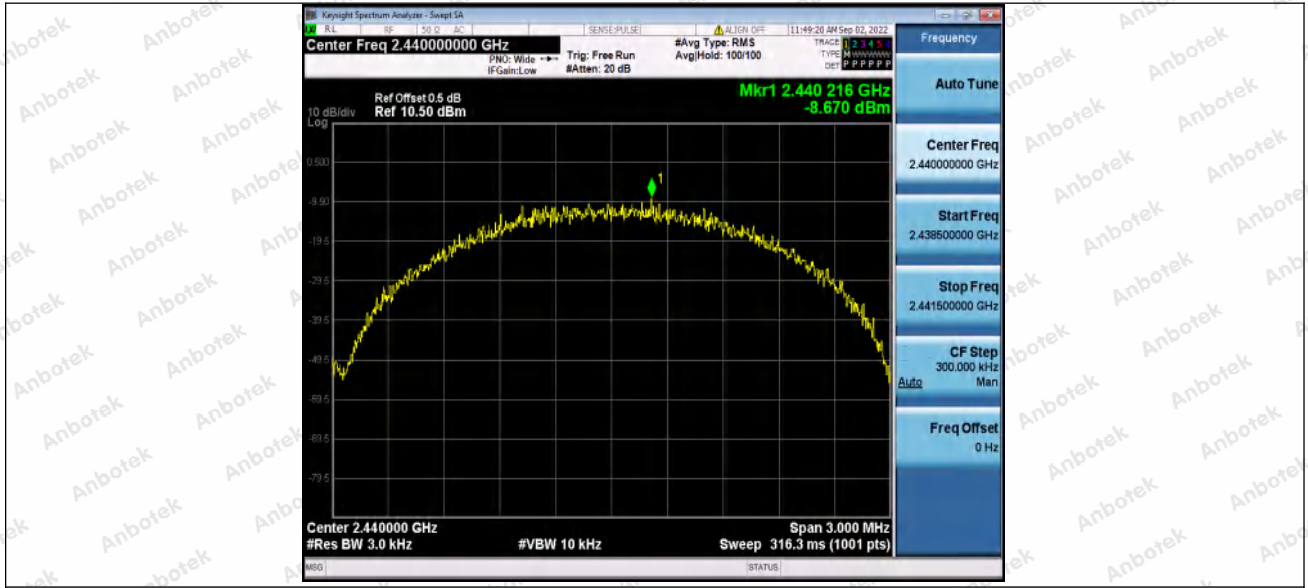


BLE\_2M\_Ant1\_2402

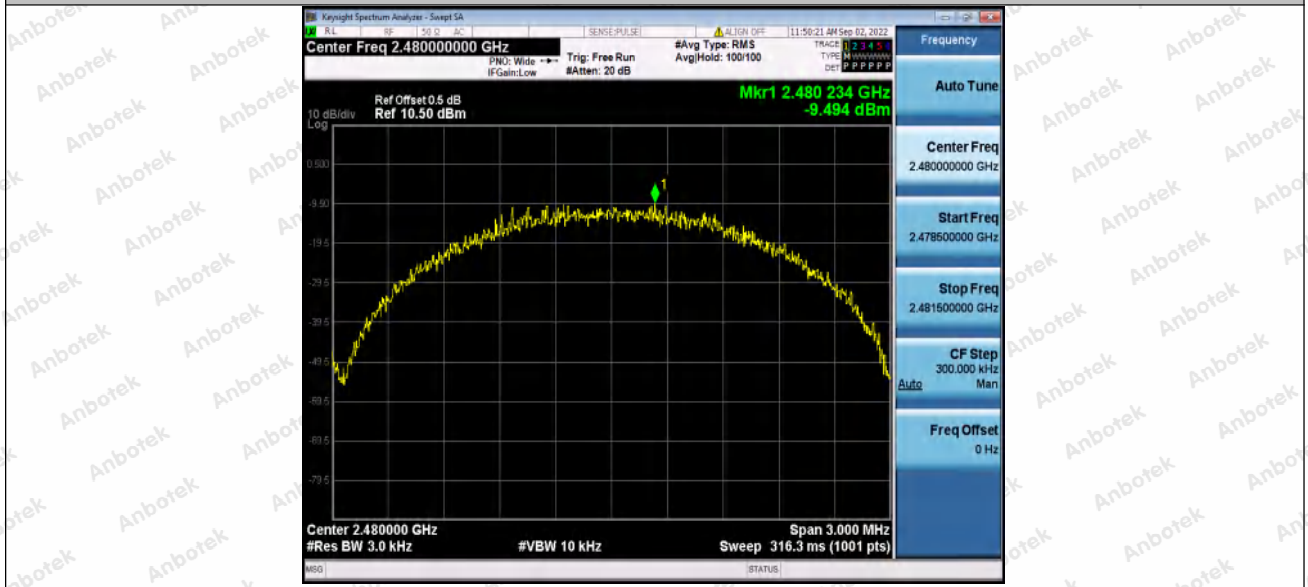


BLE\_2M\_Ant1\_2440





BLE\_2M\_Ant1\_2480





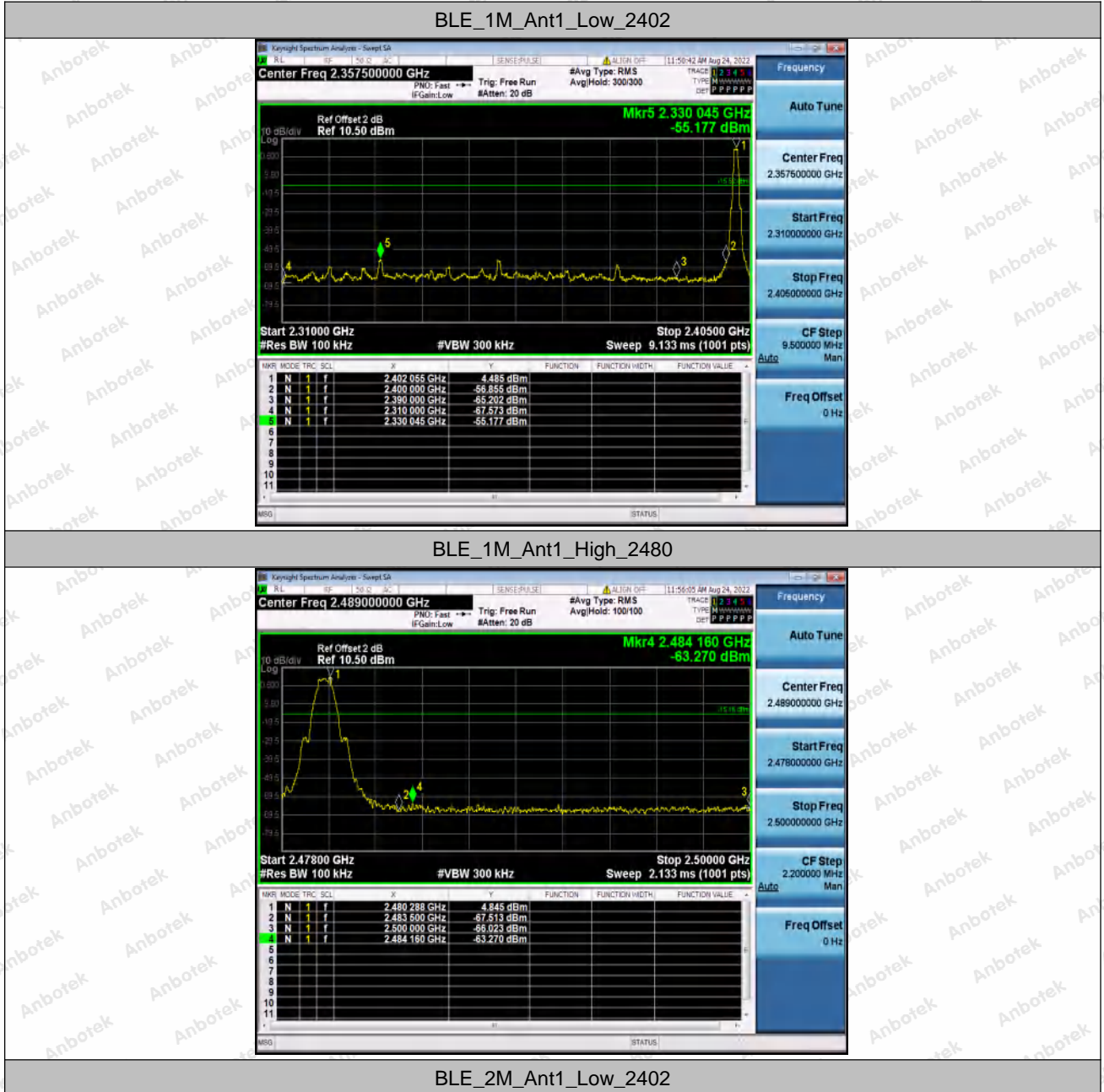
## Appendix E: Band edge measurements

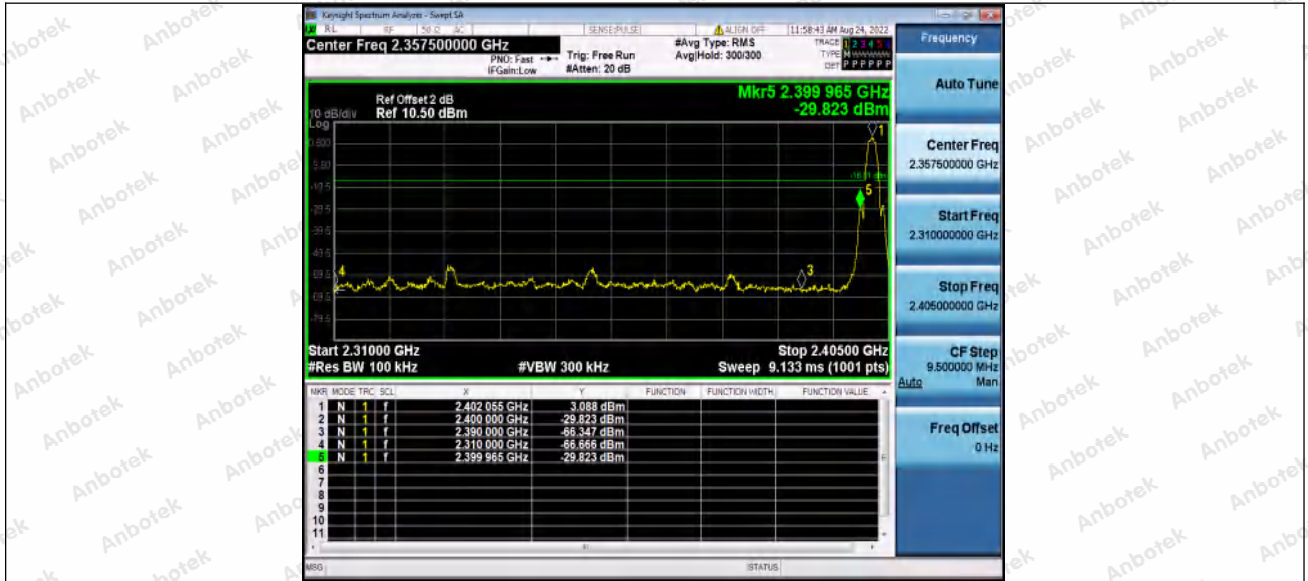
### Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	4.49	-55.18	≤-15.52	PASS
		High	2480	4.85	-63.27	≤-15.16	PASS
BLE_2M	Ant1	Low	2402	3.09	-29.82	≤-16.91	PASS
		High	2480	2.55	-61.58	≤-17.45	PASS

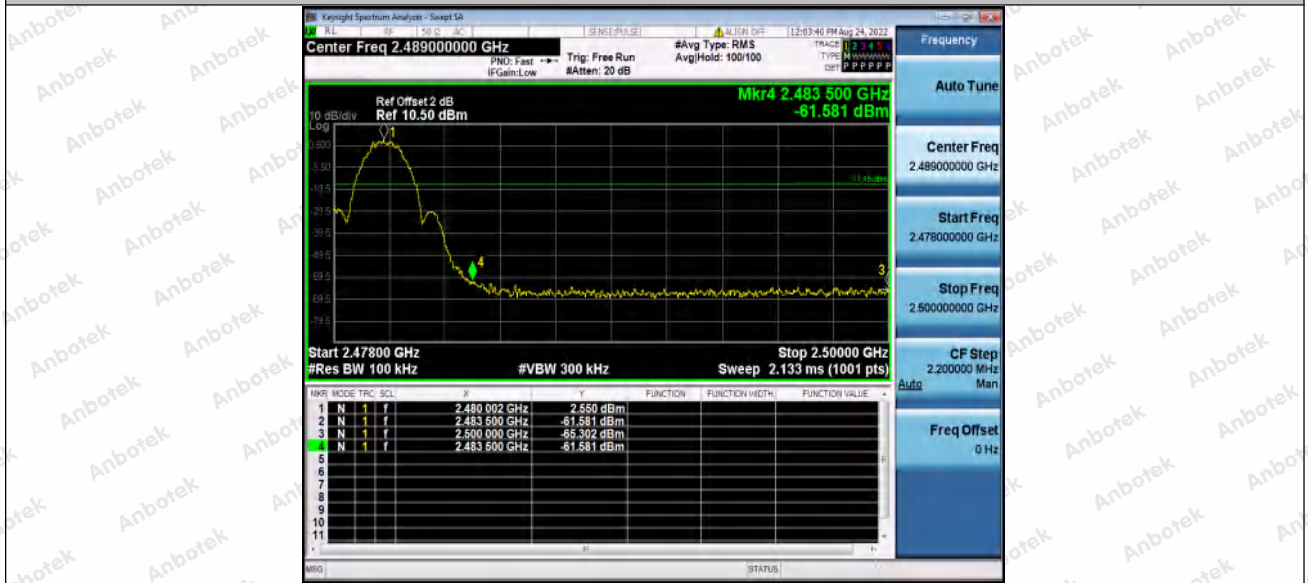


## Test Graphs





BLE\_2M\_Ant1\_High\_2480





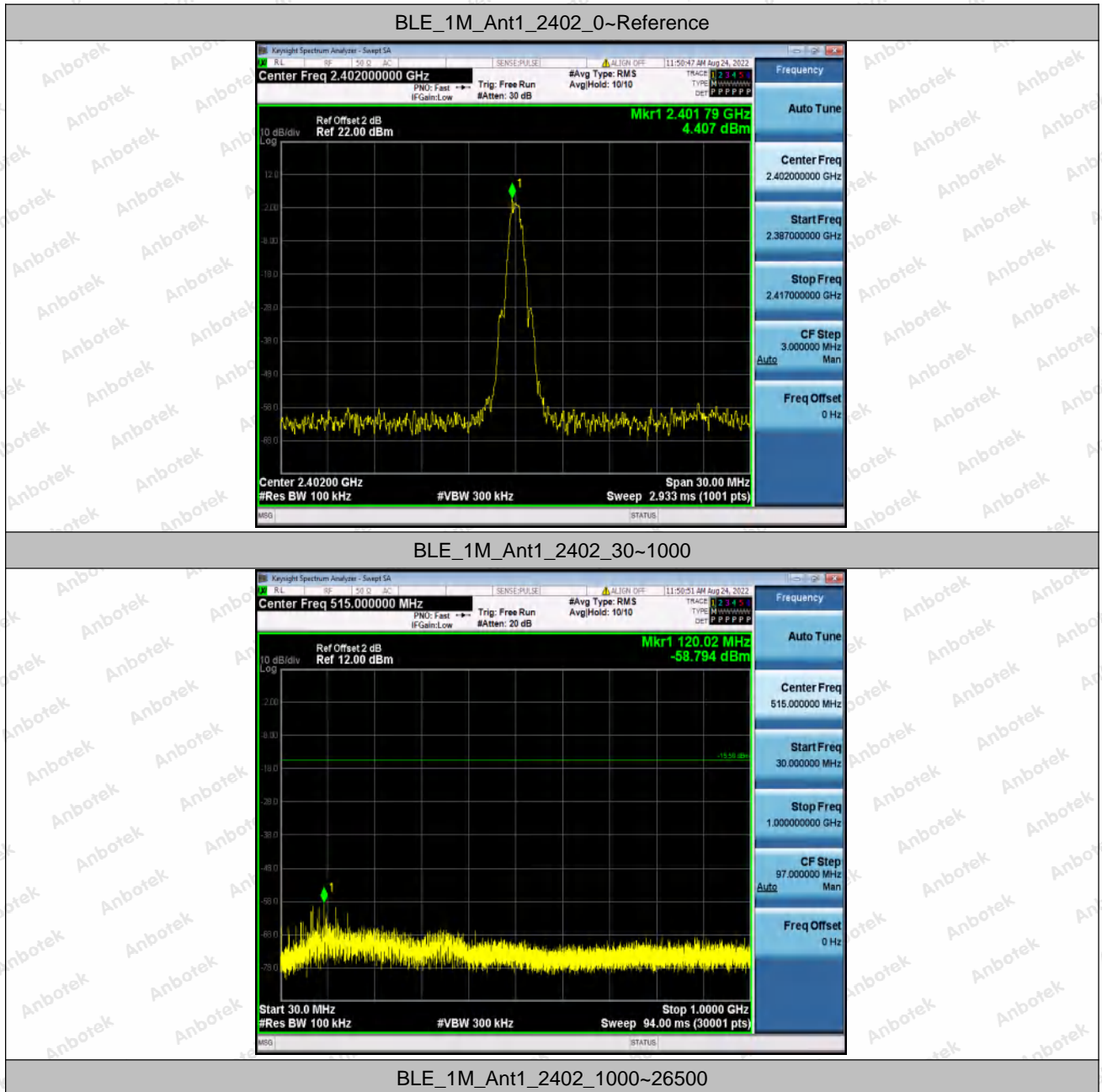
## Appendix F: Conducted Spurious Emission

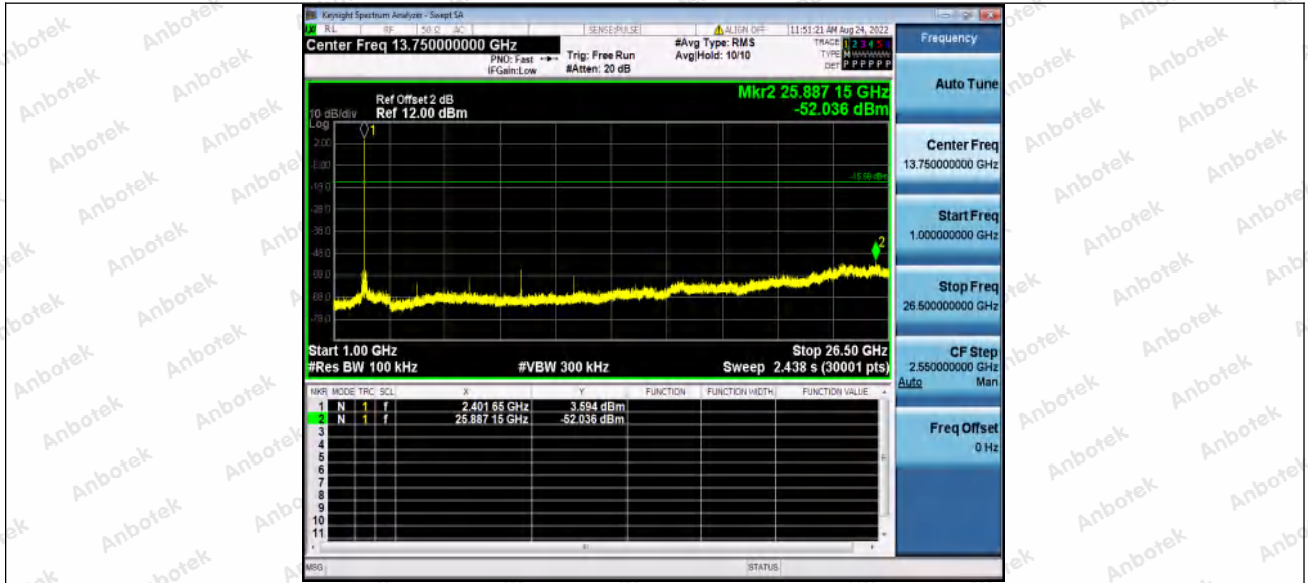
### Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	4.41	4.41	---	PASS
			30~1000	4.41	-58.79	≤-15.59	PASS
			1000~26500	4.41	-52.04	≤-15.59	PASS
		2440	Reference	2.57	2.57	---	PASS
			30~1000	2.57	-58.78	≤-17.43	PASS
			1000~26500	2.57	-52.42	≤-17.43	PASS
		2480	Reference	3.87	3.87	---	PASS
			30~1000	3.87	-58.28	≤-16.13	PASS
			1000~26500	3.87	-50.49	≤-16.13	PASS
BLE_2M	Ant1	2402	Reference	1.88	1.88	---	PASS
			30~1000	1.88	-58.37	≤-18.12	PASS
			1000~26500	1.88	-52.43	≤-18.12	PASS
		2440	Reference	1.95	1.95	---	PASS
			30~1000	1.95	-58.7	≤-18.05	PASS
			1000~26500	1.95	-52.26	≤-18.05	PASS
		2480	Reference	1.66	1.66	---	PASS
			30~1000	1.66	-57.97	≤-18.34	PASS
			1000~26500	1.66	-50.72	≤-18.34	PASS

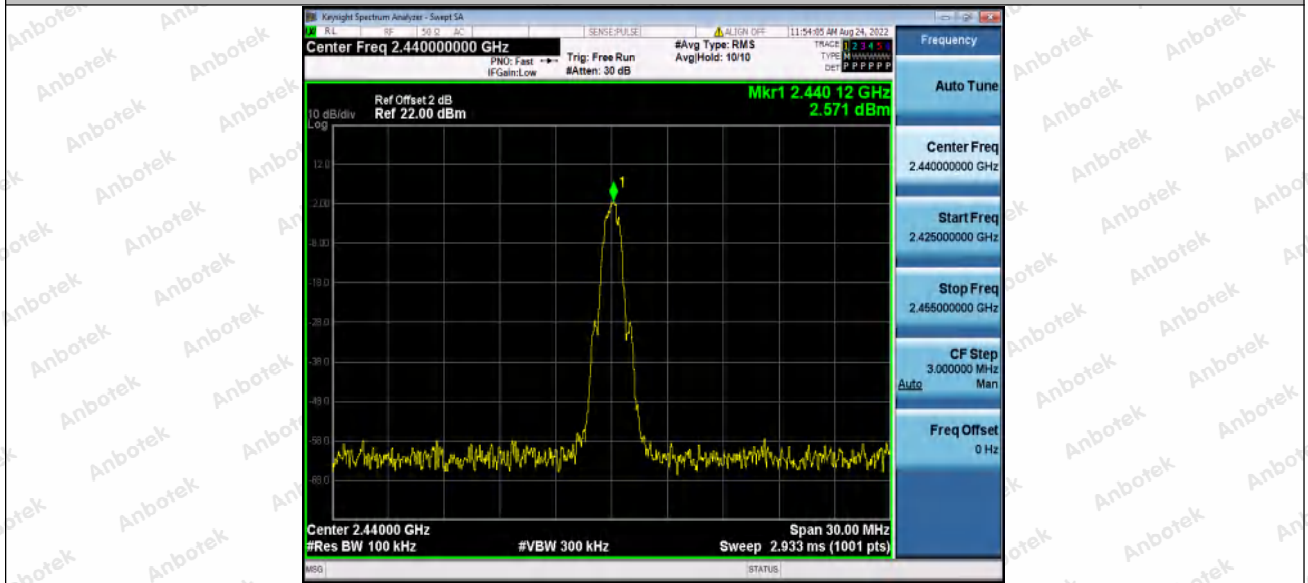


## Test Graphs





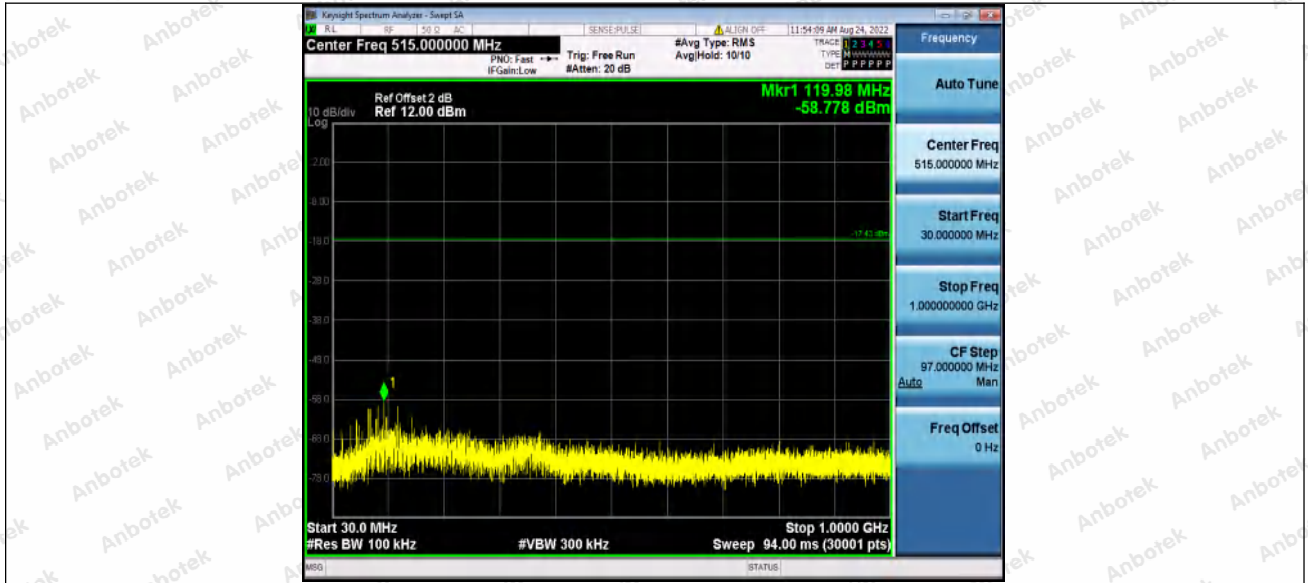
BLE\_1M\_Ant1\_2440\_0~Reference



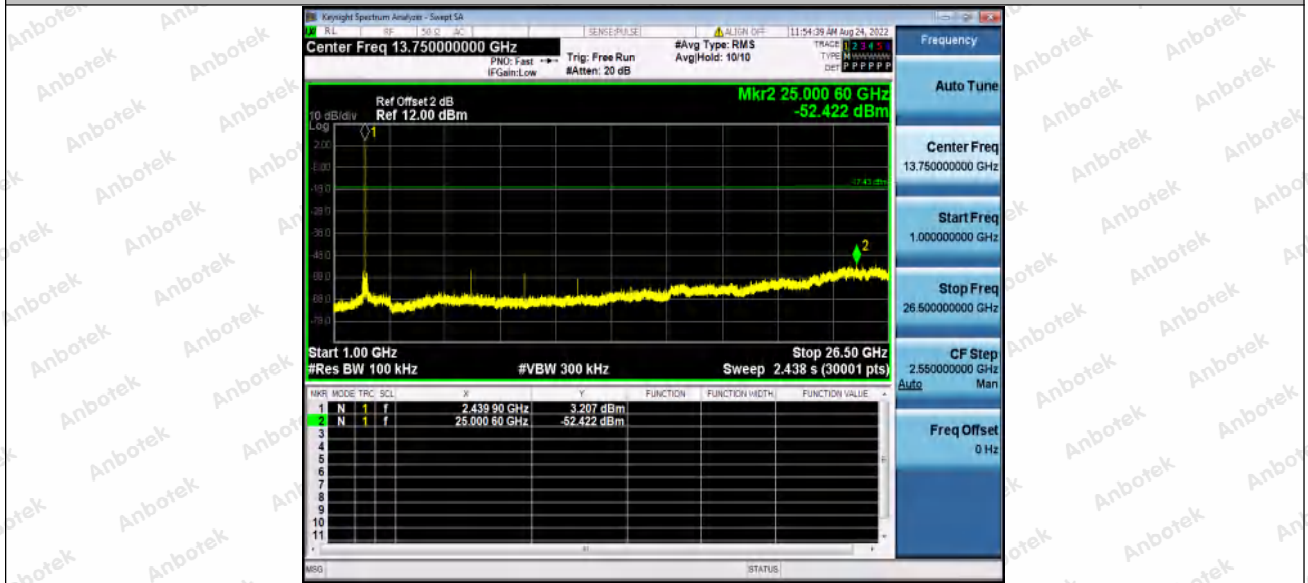
BLE\_1M\_Ant1\_2440\_30~1000





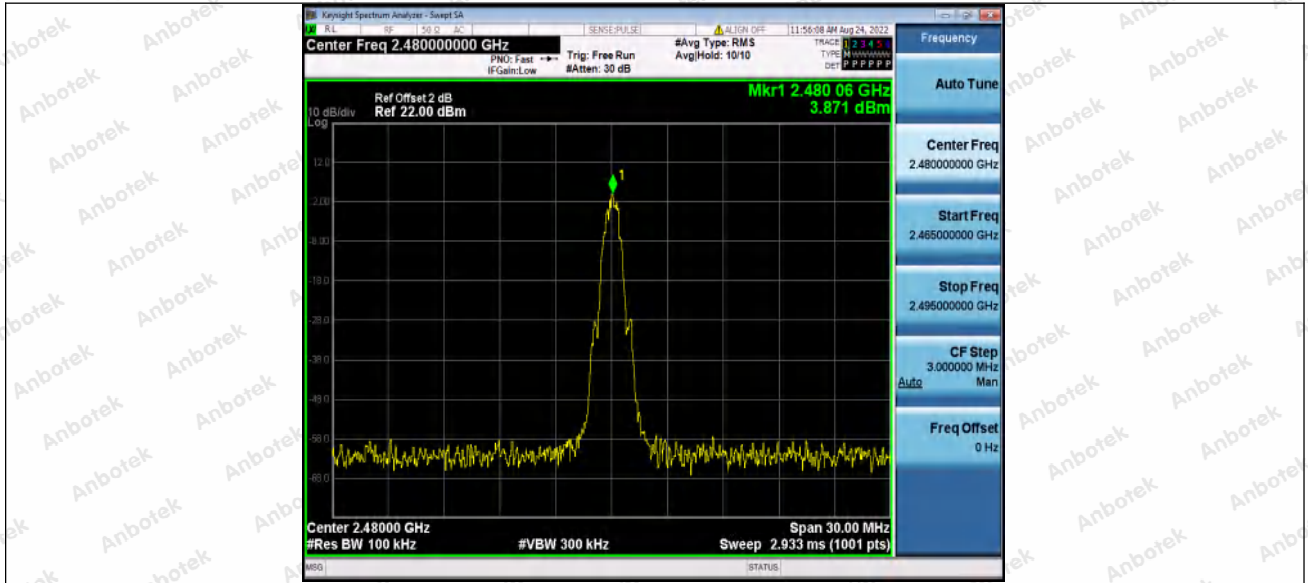


BLE\_1M\_Ant1\_2440\_1000~26500

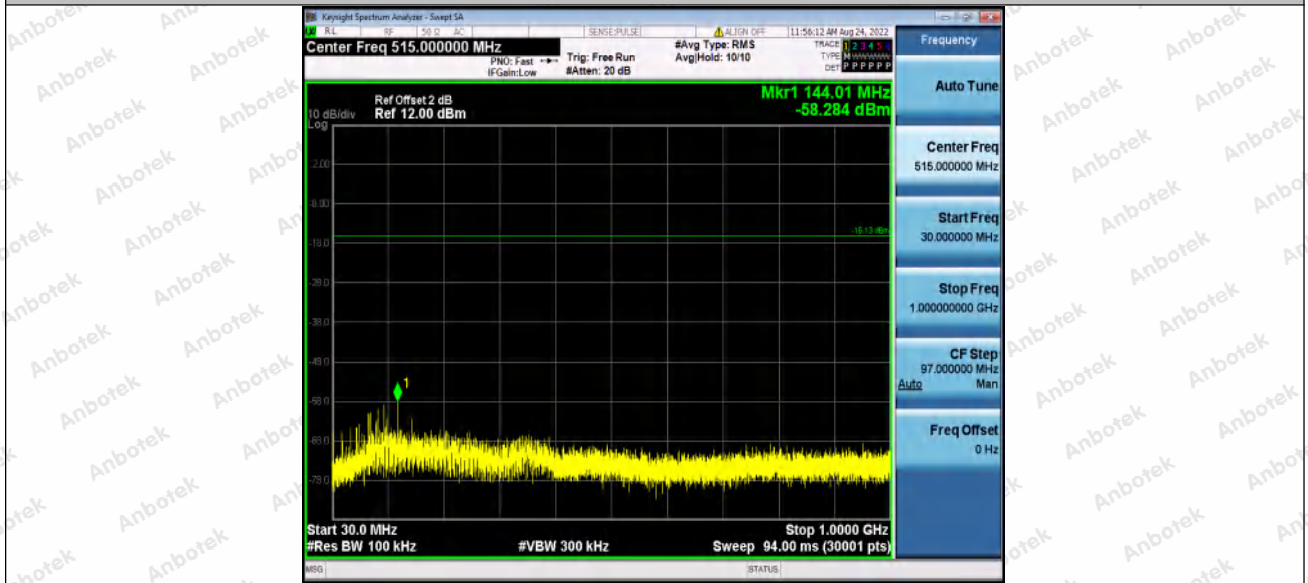


BLE\_1M\_Ant1\_2480\_0~Reference



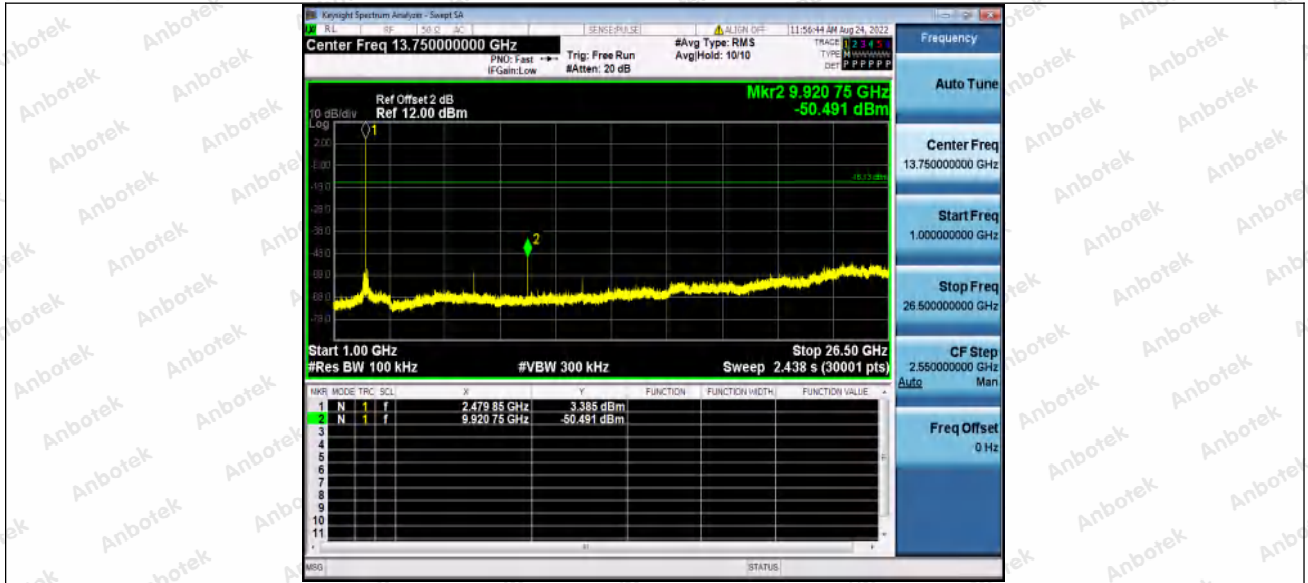


BLE\_1M\_Ant1\_2480\_30~1000

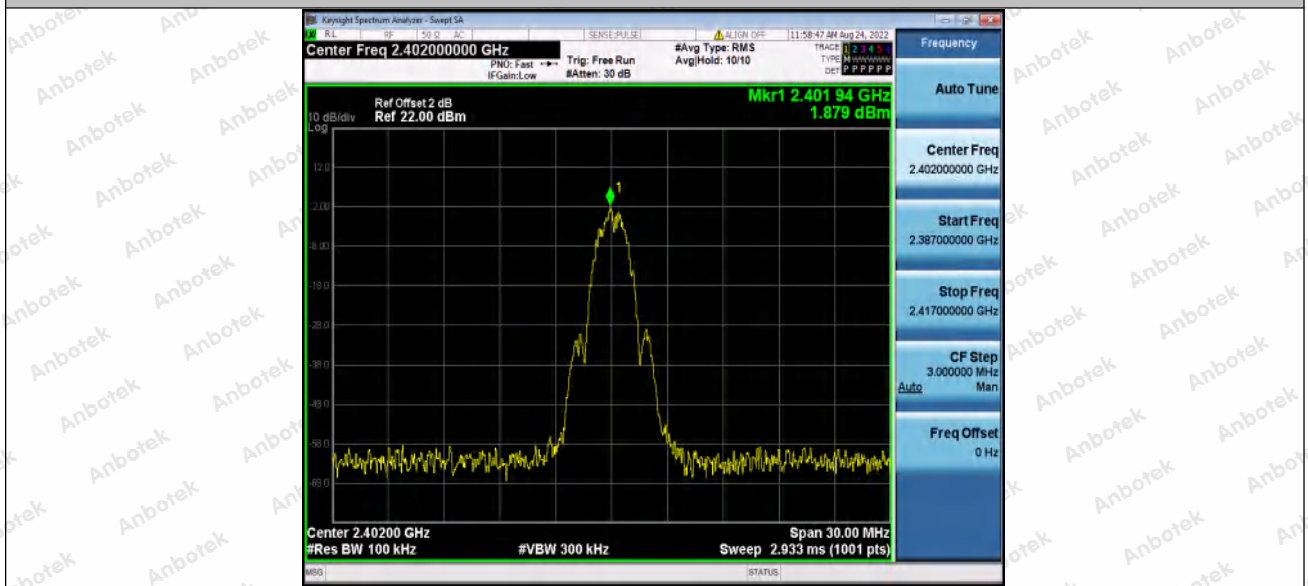


BLE\_1M\_Ant1\_2480\_1000~26500





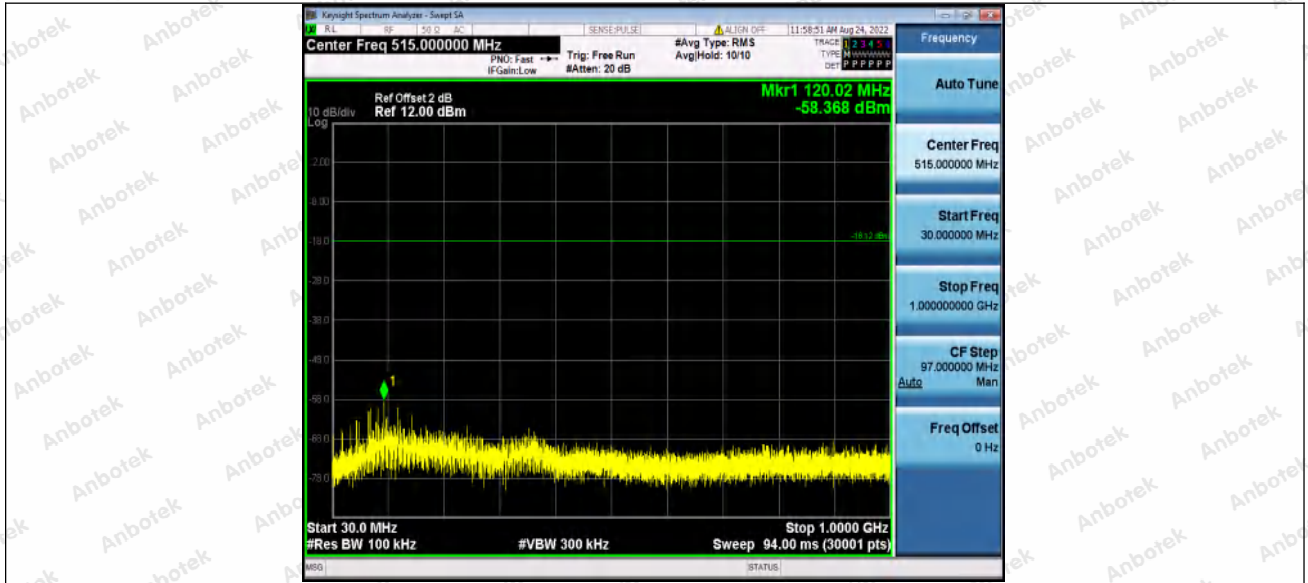
BLE\_2M\_Ant1\_2402\_0~Reference



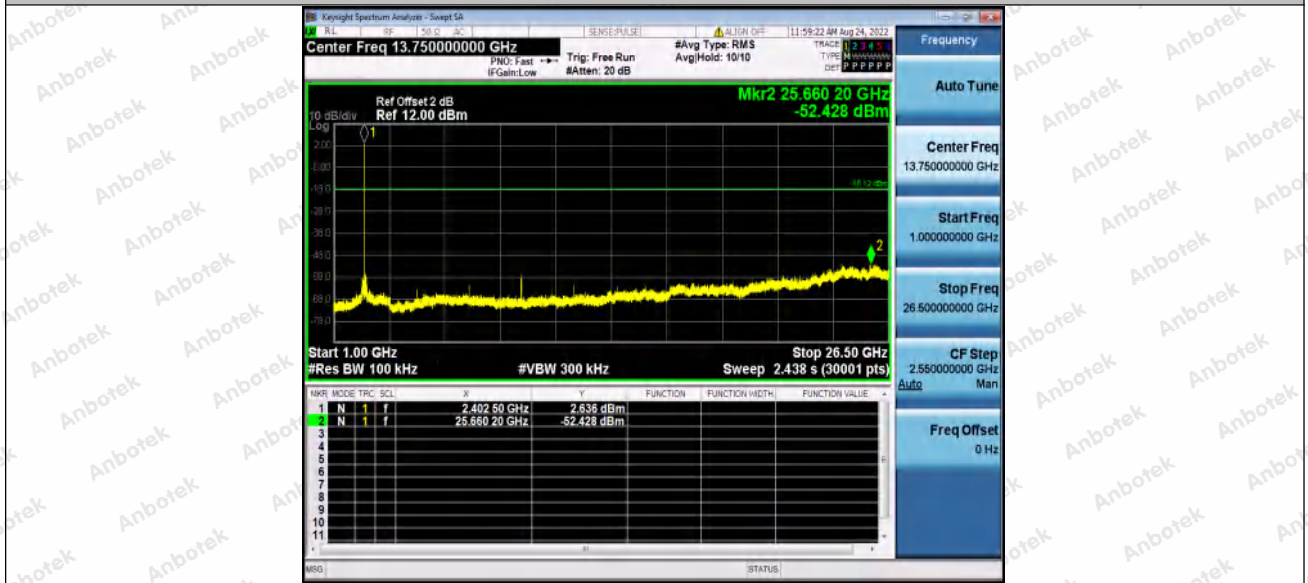
BLE\_2M\_Ant1\_2402\_30~1000





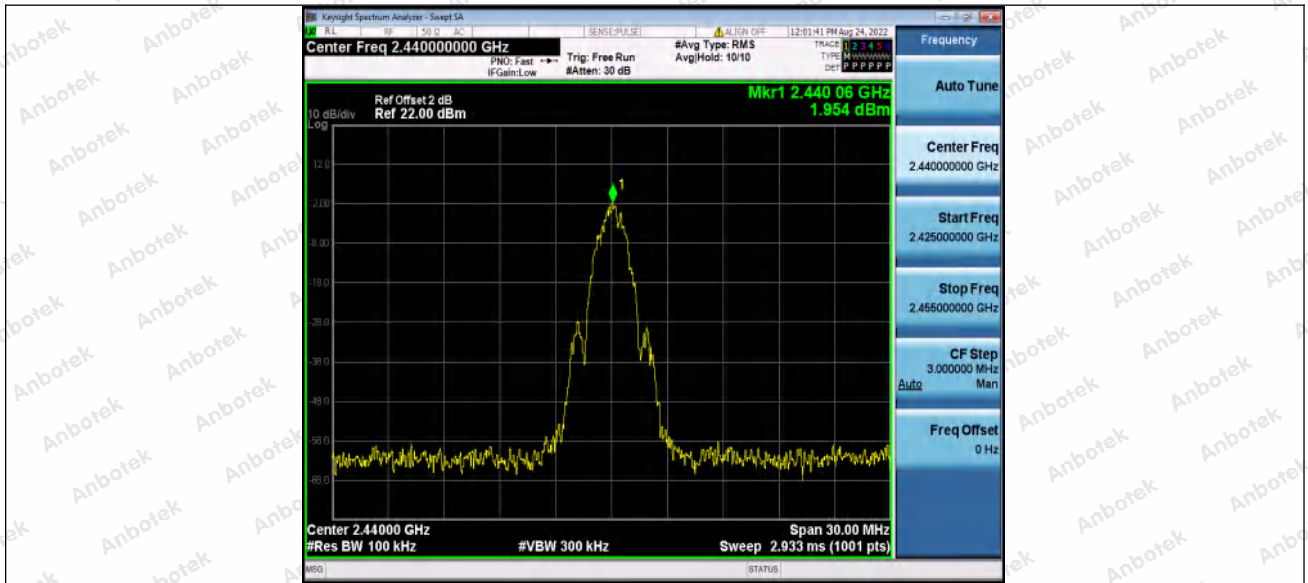


BLE\_2M\_Ant1\_2402\_1000~26500

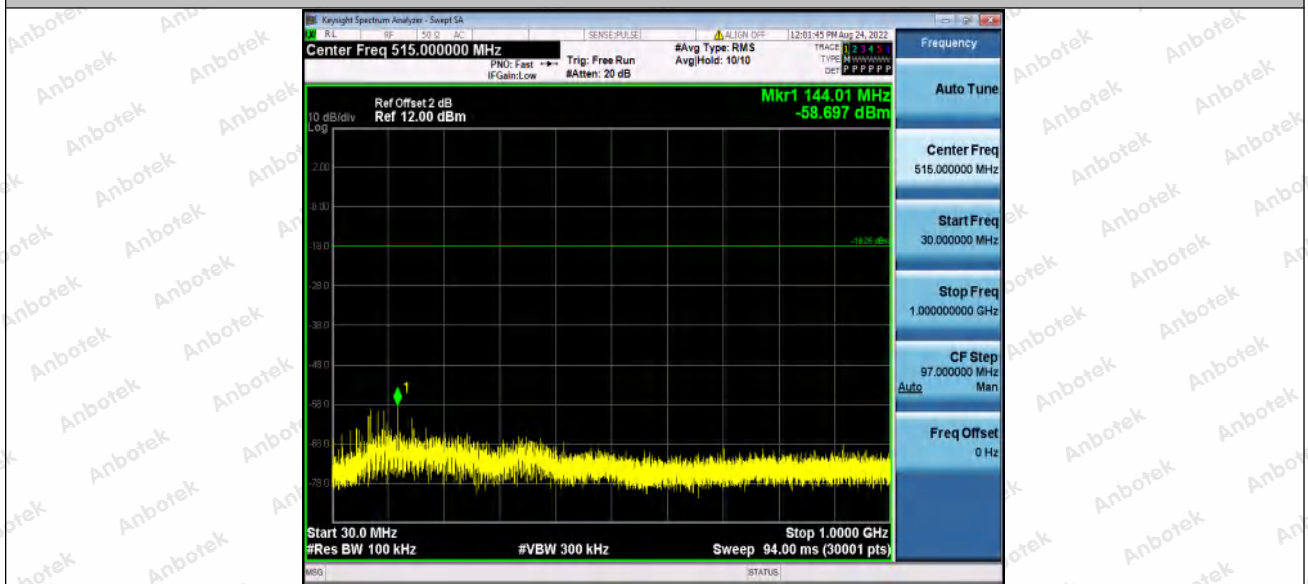


BLE\_2M\_Ant1\_2440\_0~Reference



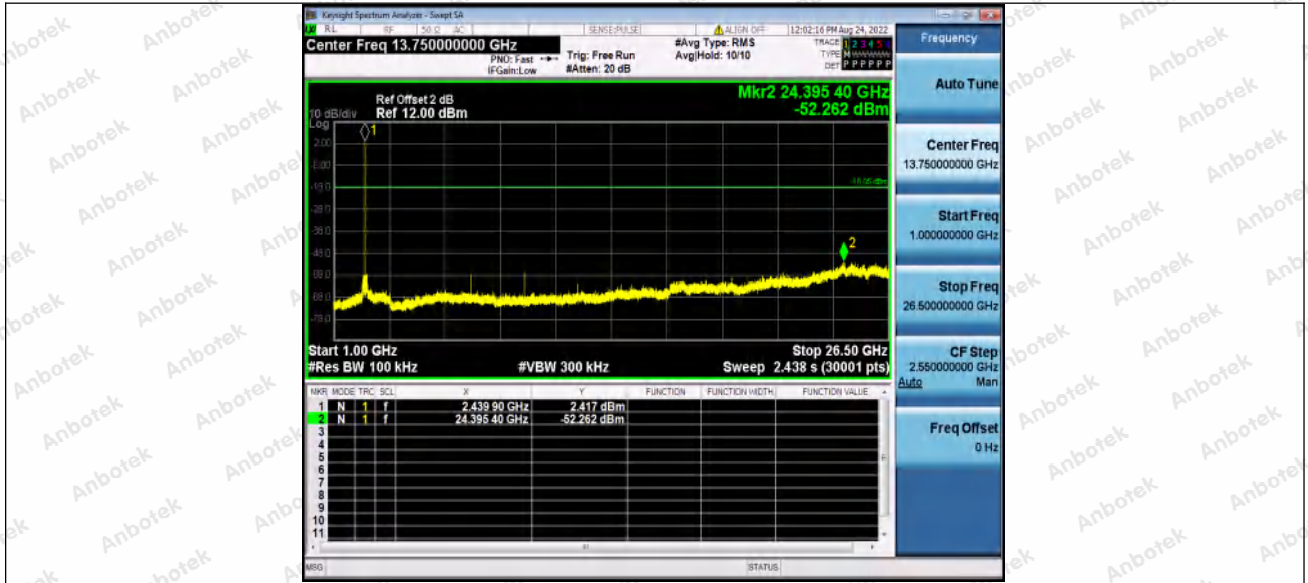


BLE\_2M\_Ant1\_2440\_30~1000

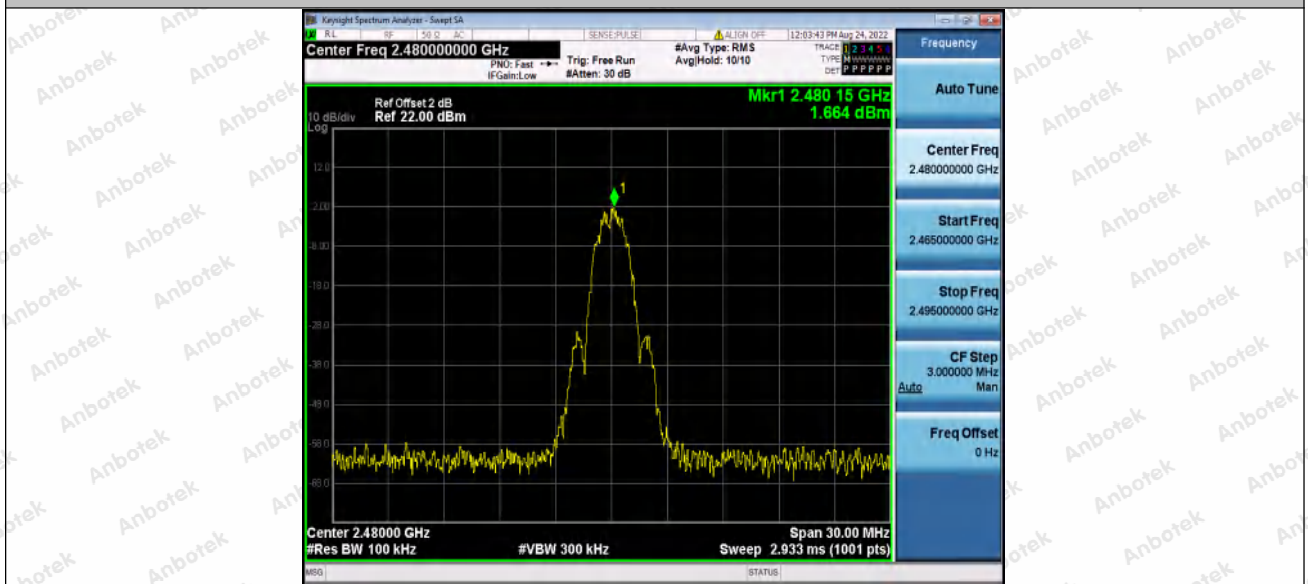


BLE\_2M\_Ant1\_2440\_1000~26500





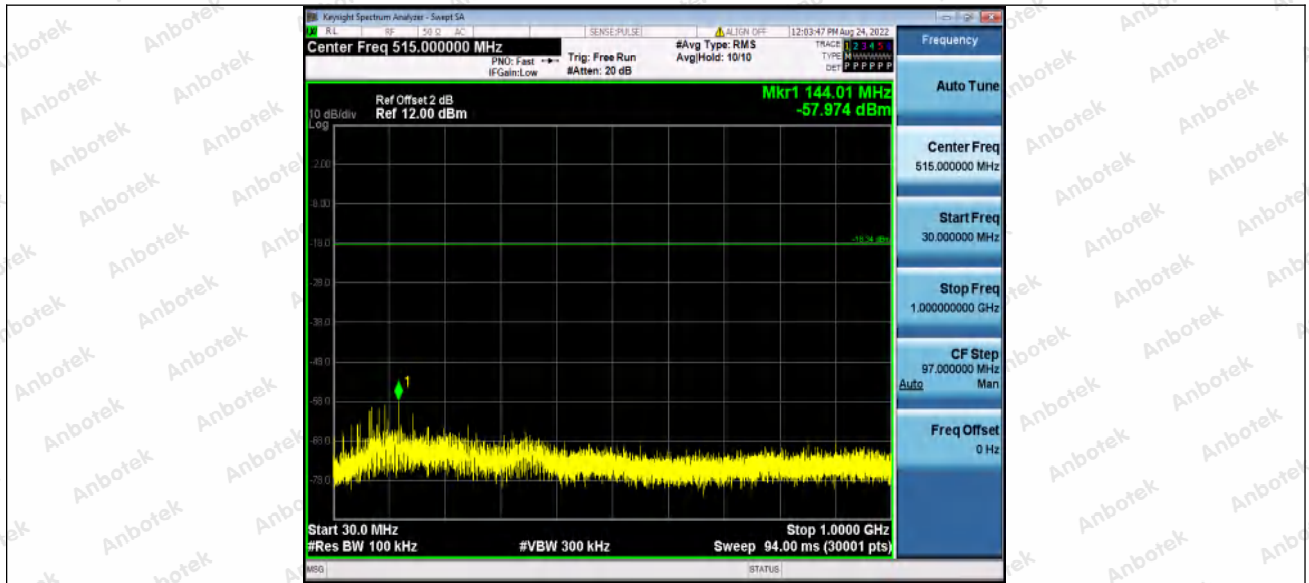
BLE\_2M\_Ant1\_2480\_0~Reference



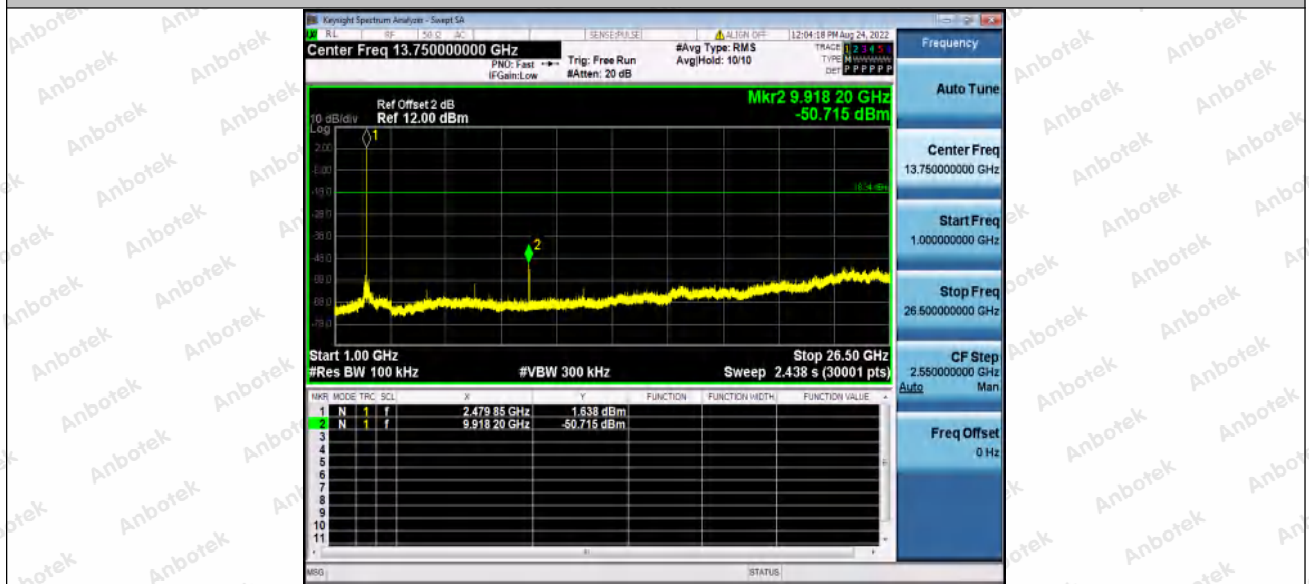
BLE\_2M\_Ant1\_2480\_30~1000







BLE\_2M\_Ant1\_2480\_1000~26500



## Appendix G: Duty Cycle

### Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2440	10.13	10.13	100	0
BLE_2M	Ant1	2440	10.13	10.13	100	0



## Test Graphs



----- End of Report -----

