

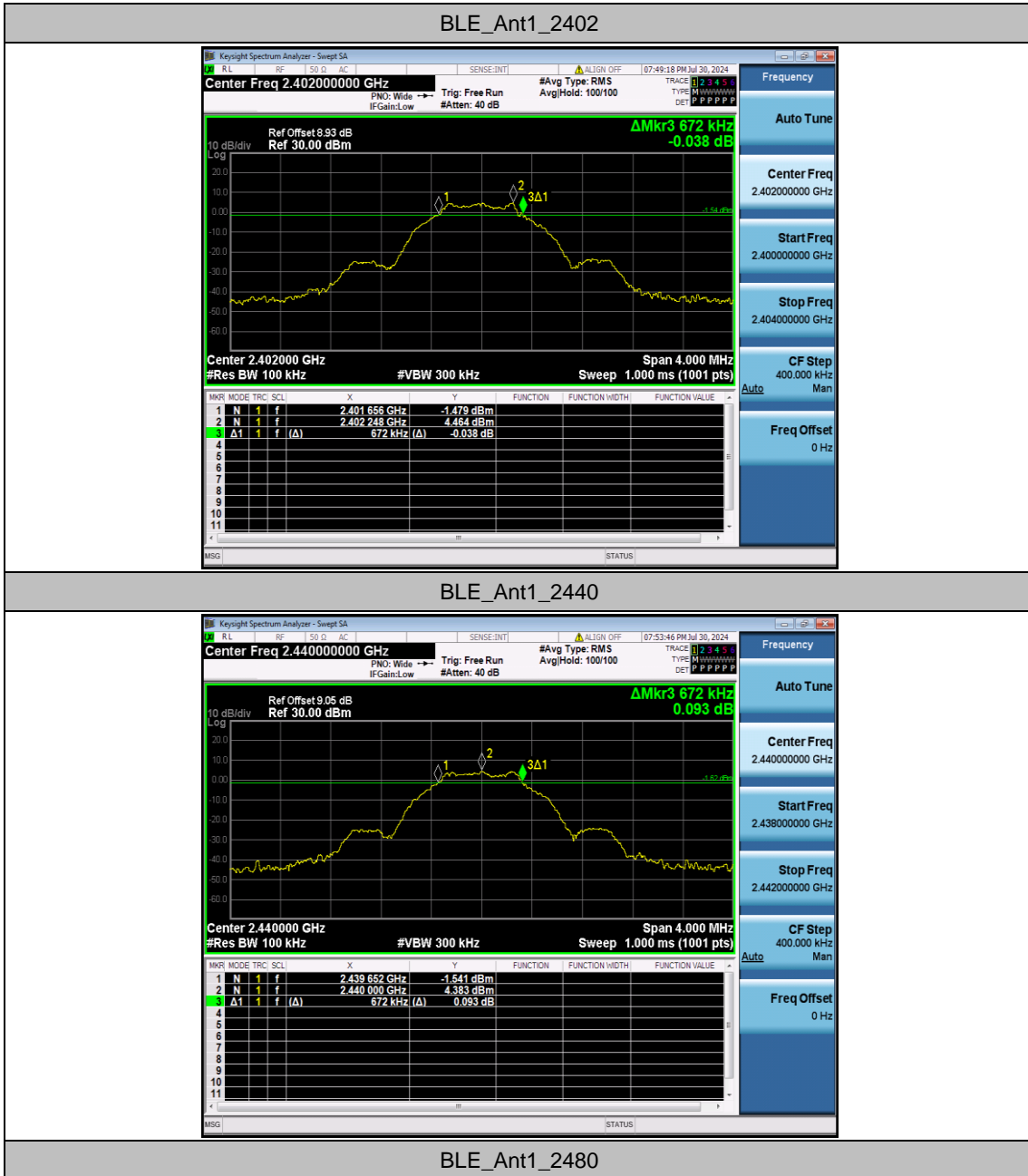
| |
|---|
| Case No. : <u>CTA24071501702</u> |
| Ambient Condition: <u>24 °C, 52 %RH</u> |
| According Standard: <u>■Part15C</u> |
| Test Date: <u>2024.7.29</u> Test Engineer: <u>Lushan Kong</u> |

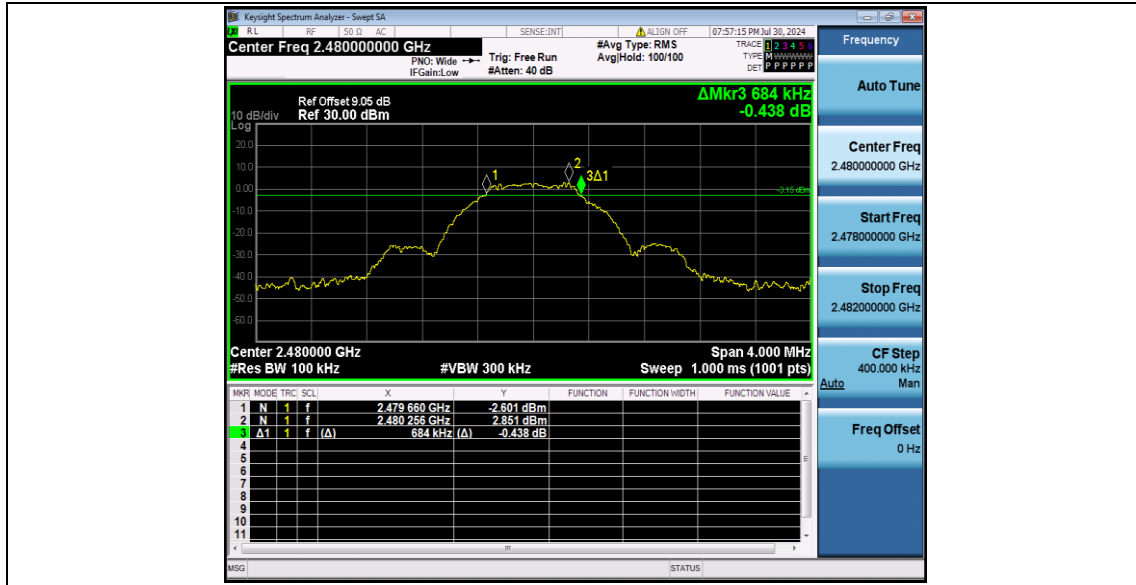
Appendix B.1: DTS Bandwidth

Test Result

| TestMode | Antenna | Freq(MHz) | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|----------|---------|-----------|--------------|----------|----------|------------|---------|
| BLE | Ant1 | 2402 | 0.672 | 2401.656 | 2402.328 | 0.5 | PASS |
| | | 2440 | 0.672 | 2439.652 | 2440.324 | 0.5 | PASS |
| | | 2480 | 0.684 | 2479.660 | 2480.344 | 0.5 | PASS |

Test Graphs



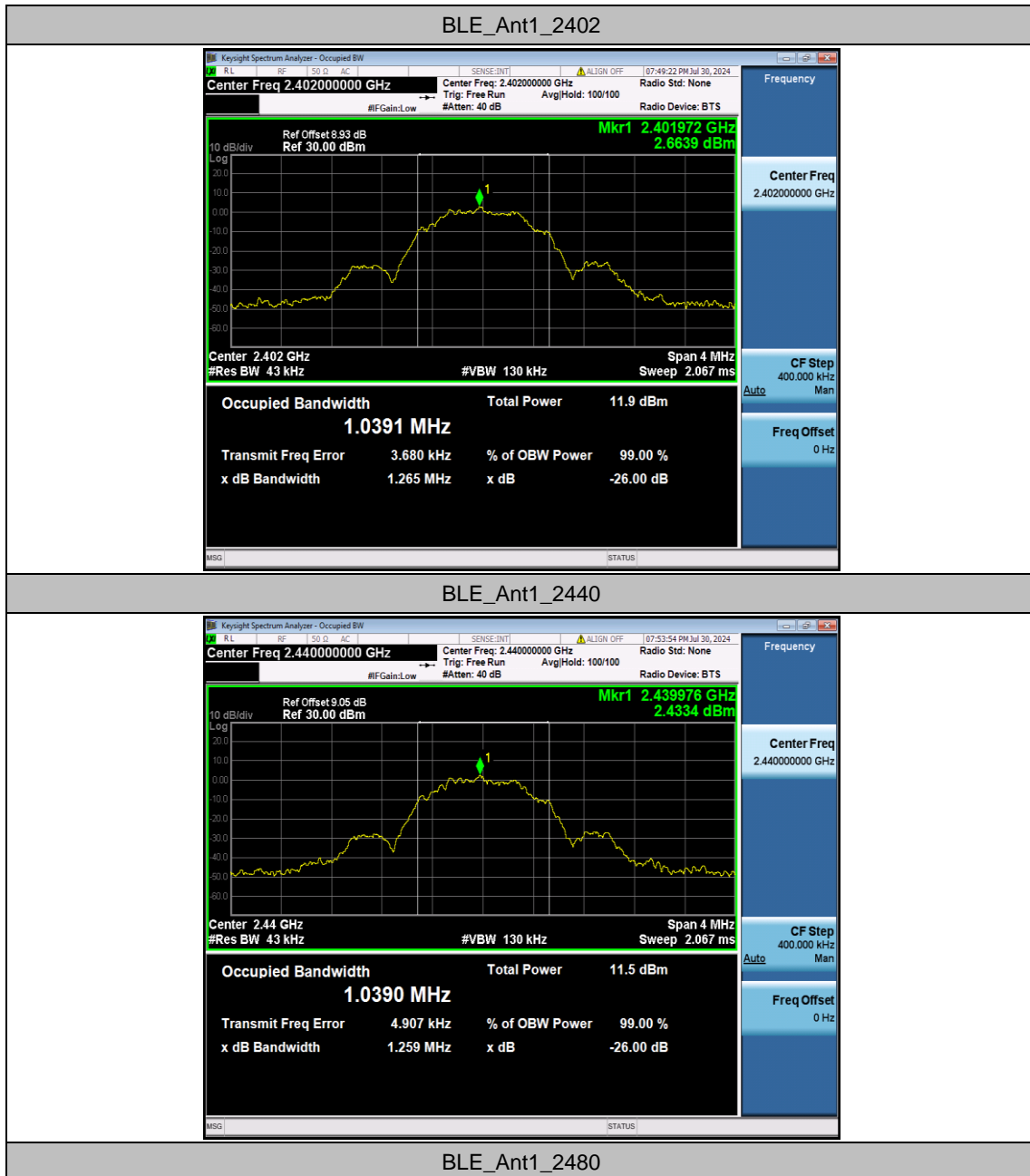


Appendix B.2: Occupied Channel Bandwidth

Test Result

| TestMode | Antenna | Freq(MHz) | OCB [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|----------|---------|-----------|-----------|-----------|-----------|------------|---------|
| BLE | Ant1 | 2402 | 1.0391 | 2401.4841 | 2402.5232 | --- | --- |
| | | 2440 | 1.0390 | 2439.4854 | 2440.5244 | --- | --- |
| | | 2480 | 1.0327 | 2479.4872 | 2480.5199 | --- | --- |

Test Graphs





Appendix B.3: Maximum conducted output power**Test Result Peak**

| TestMode | Antenna | Freq(MHz) | Conducted Peak Power[dBm] | Conducted Limit[dBm] | Verdict |
|----------|---------|-----------|---------------------------|----------------------|---------|
| BLE | Ant1 | 2402 | 5.51 | ≤30 | PASS |
| | | 2440 | 5.11 | ≤30 | PASS |
| | | 2480 | 4.04 | ≤30 | PASS |

Appendix B.4: Maximum power spectral density

Test Result

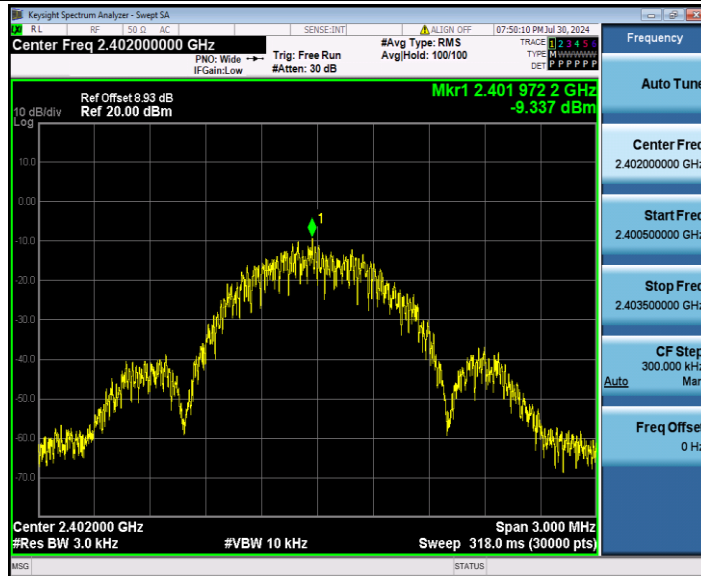
| TestMode | Antenna | Freq(MHz) | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|-----------|------------------|-----------------|---------|
| BLE | Ant1 | 2402 | -9.34 | ≤8.00 | PASS |
| | | 2440 | -9.66 | ≤8.00 | PASS |
| | | 2480 | -10.76 | ≤8.00 | PASS |

Note:

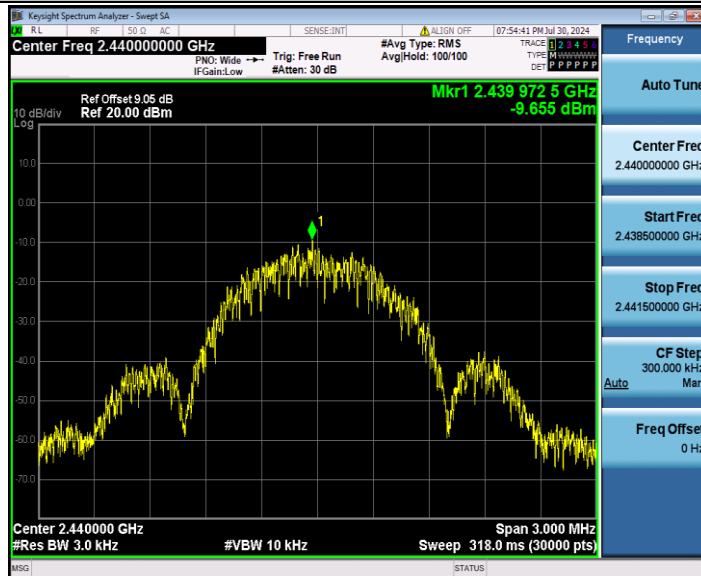
1. The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

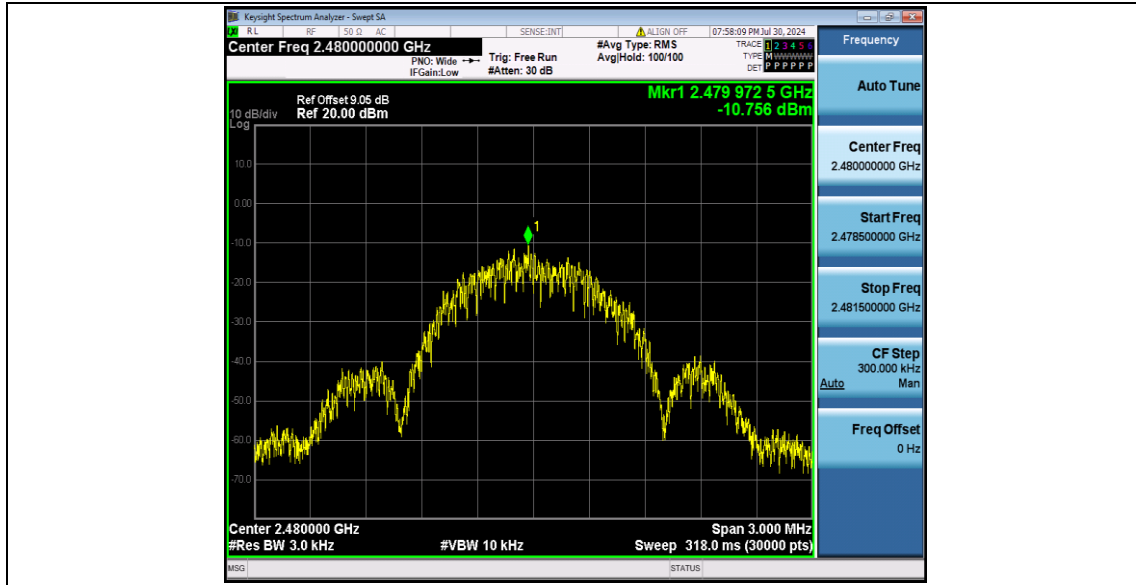
BLE_Ant1_2402



BLE_Ant1_2440



BLE_Ant1_2480

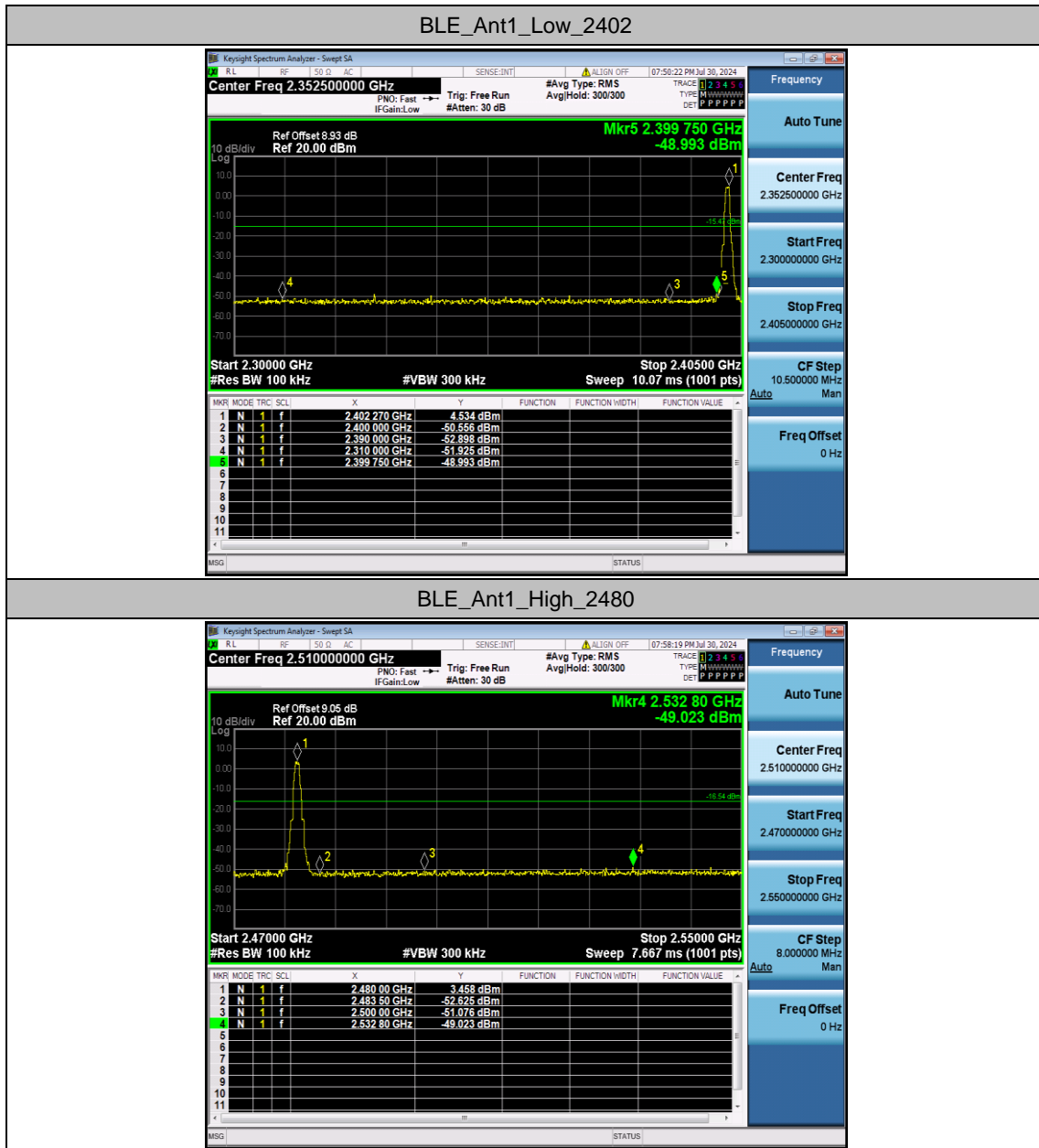


Appendix B.5: Band edge measurements

Test Result

| TestMode | Antenna | ChName | Freq(MHz) | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|--------|-----------|---------------|-------------|------------|---------|
| BLE | Ant1 | Low | 2402 | 4.53 | -48.99 | ≤-15.47 | PASS |
| | | High | 2480 | 3.46 | -49.02 | ≤-16.54 | PASS |

Test Graphs

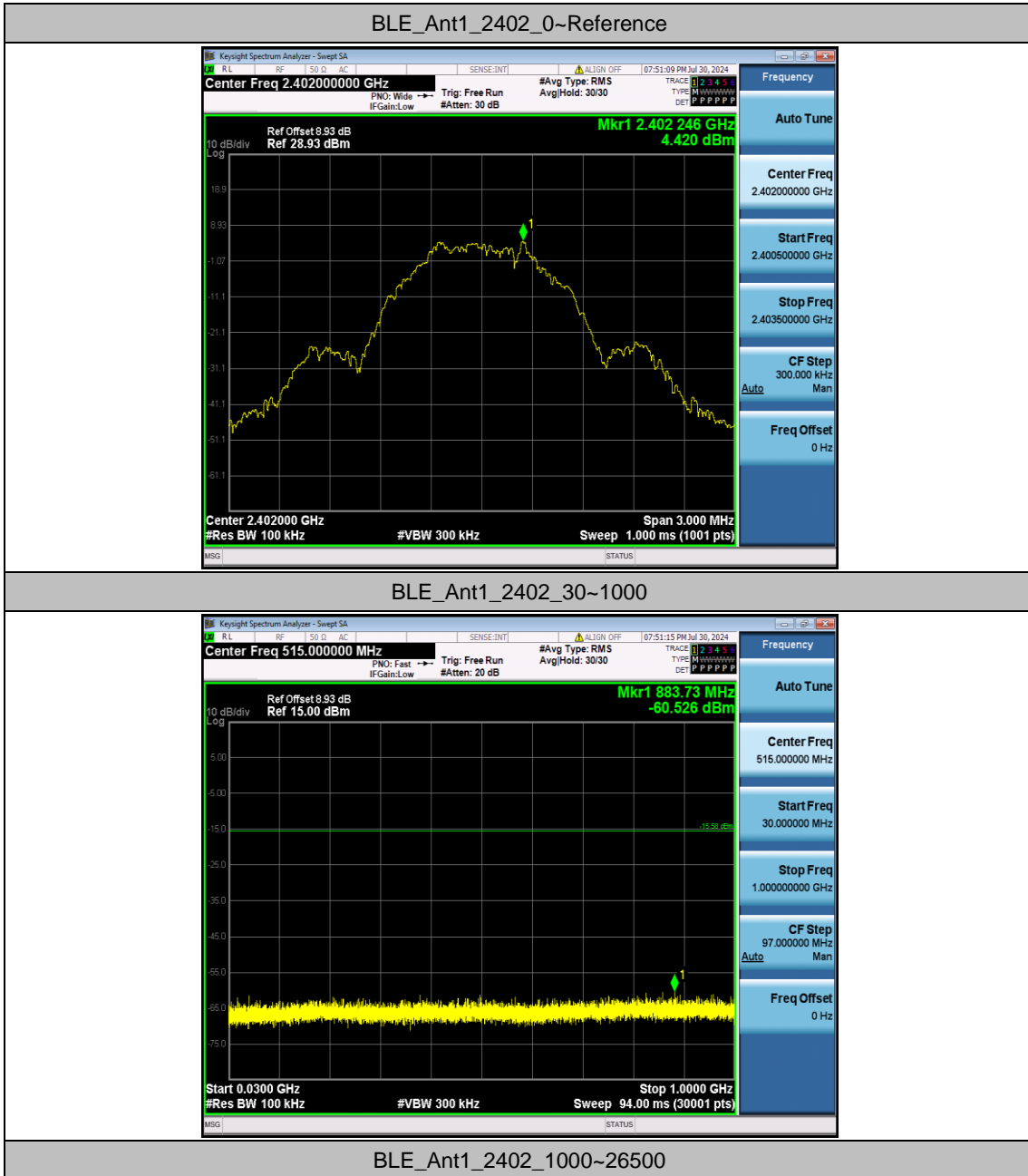


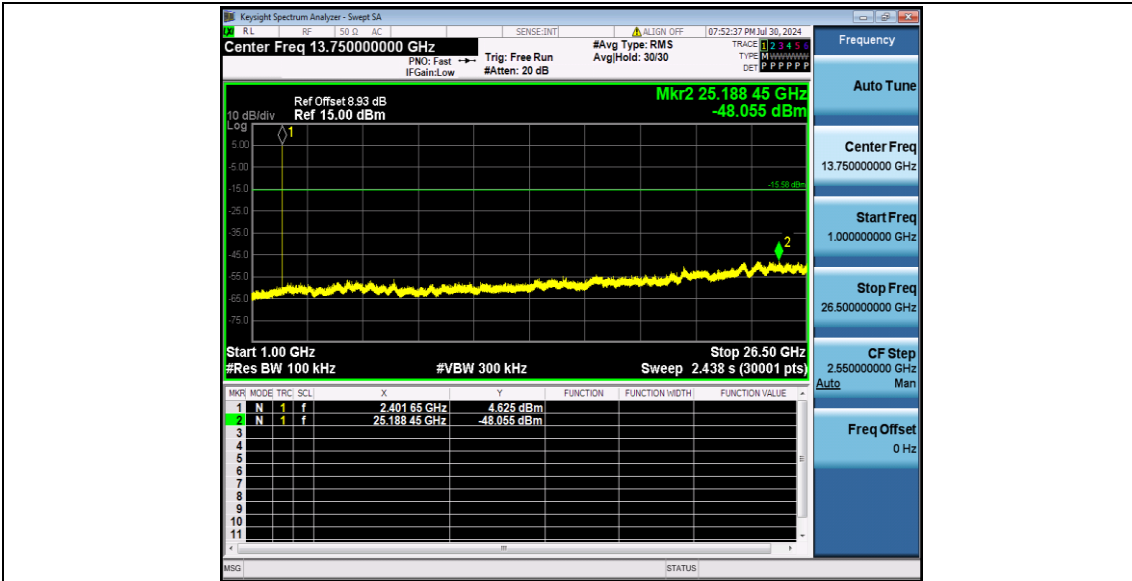
Appendix B.6: Conducted Spurious Emission

Test Result

| TestMode | Antenna | Freq(MHz) | FreqRange [MHz] | RefLevel [dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|-----------|-----------------|----------------|-------------|------------|---------|
| BLE | Ant1 | 2402 | Reference | 4.42 | 4.42 | --- | PASS |
| | | | 30~1000 | 4.42 | -60.53 | ≤-15.58 | PASS |
| | | | 1000~26500 | 4.42 | -48.06 | ≤-15.58 | PASS |
| | | 2440 | Reference | 3.93 | 3.93 | --- | PASS |
| | | | 30~1000 | 3.93 | -45.09 | ≤-16.07 | PASS |
| | | | 1000~26500 | 3.93 | -47.43 | ≤-16.07 | PASS |
| | | 2480 | Reference | 3.37 | 3.37 | --- | PASS |
| | | | 30~1000 | 3.37 | -60.12 | ≤-16.63 | PASS |
| | | | 1000~26500 | 3.37 | -47.54 | ≤-16.63 | PASS |

Test Graphs

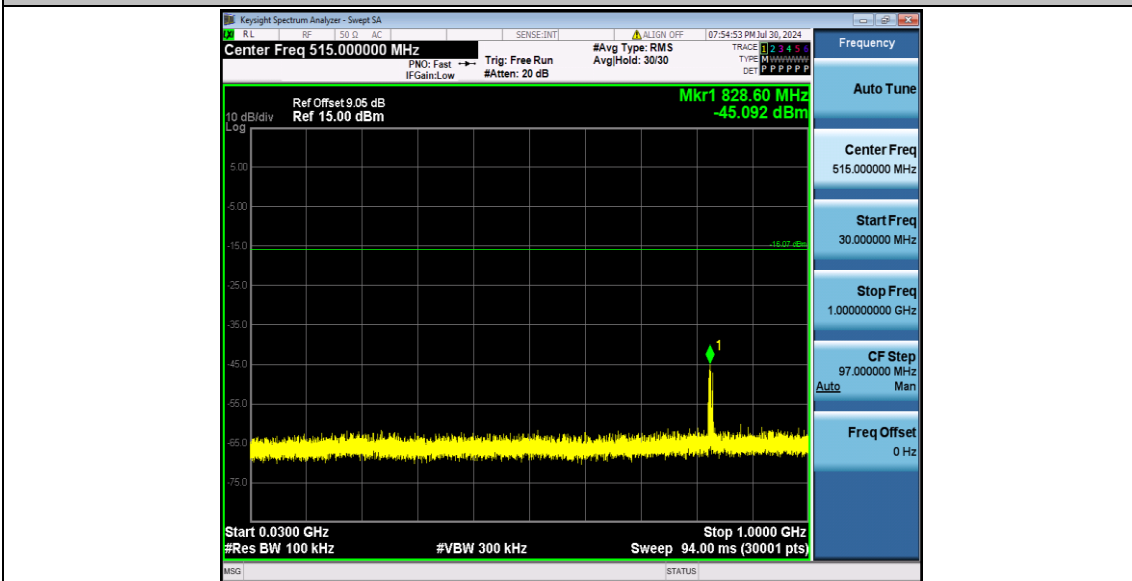




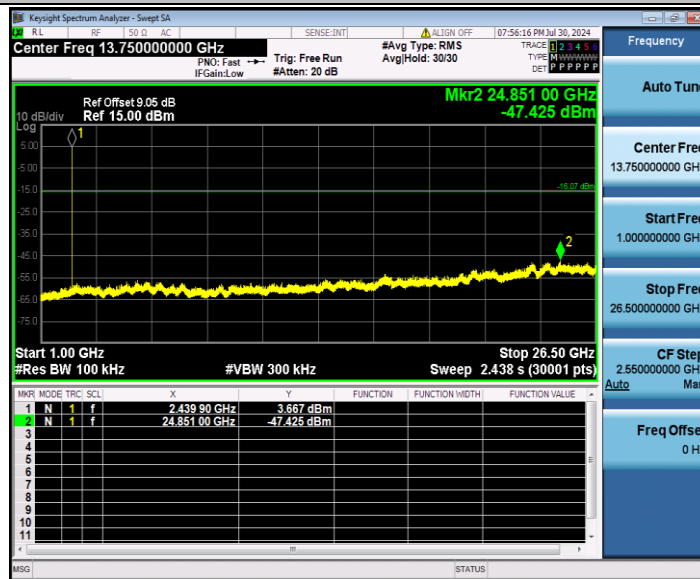
BLE_Ant1_2440_0-Reference



BLE_Ant1_2440_30-1000



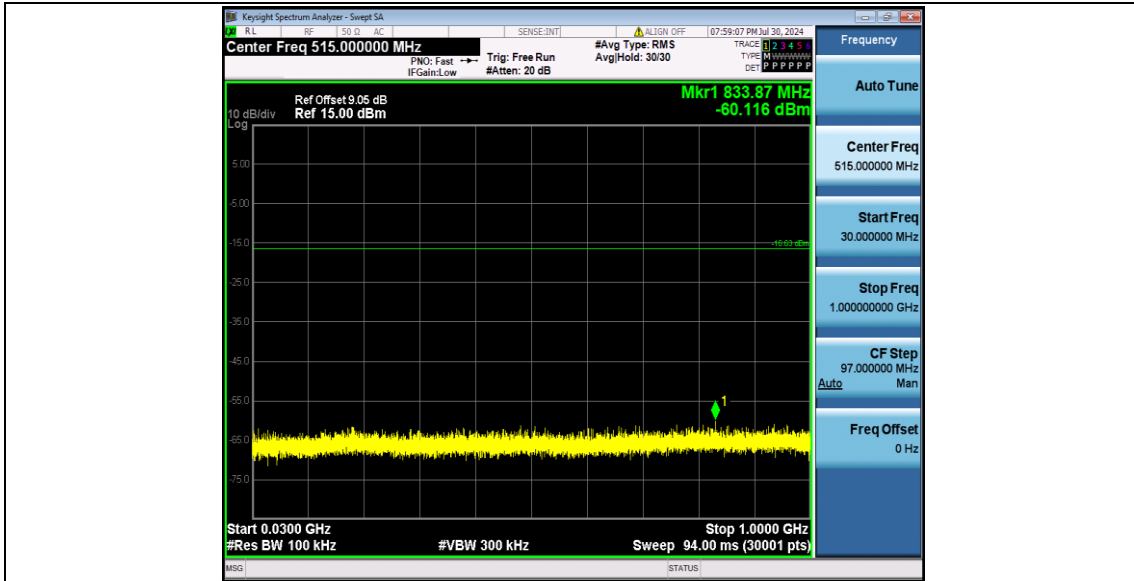
BLE_Ant1_2440_1000~26500



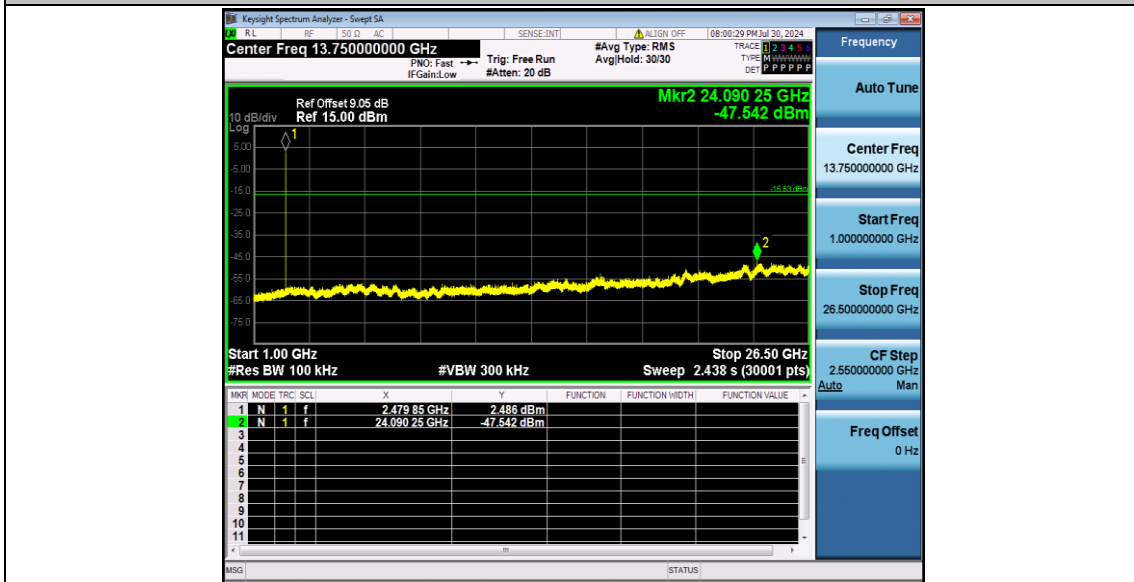
BLE_Ant1_2480_0~Reference



BLE_Ant1_2480_30~1000



BLE_Ant1_2480_1000~26500



Appendix B.7: Emissions in Restricted Bands

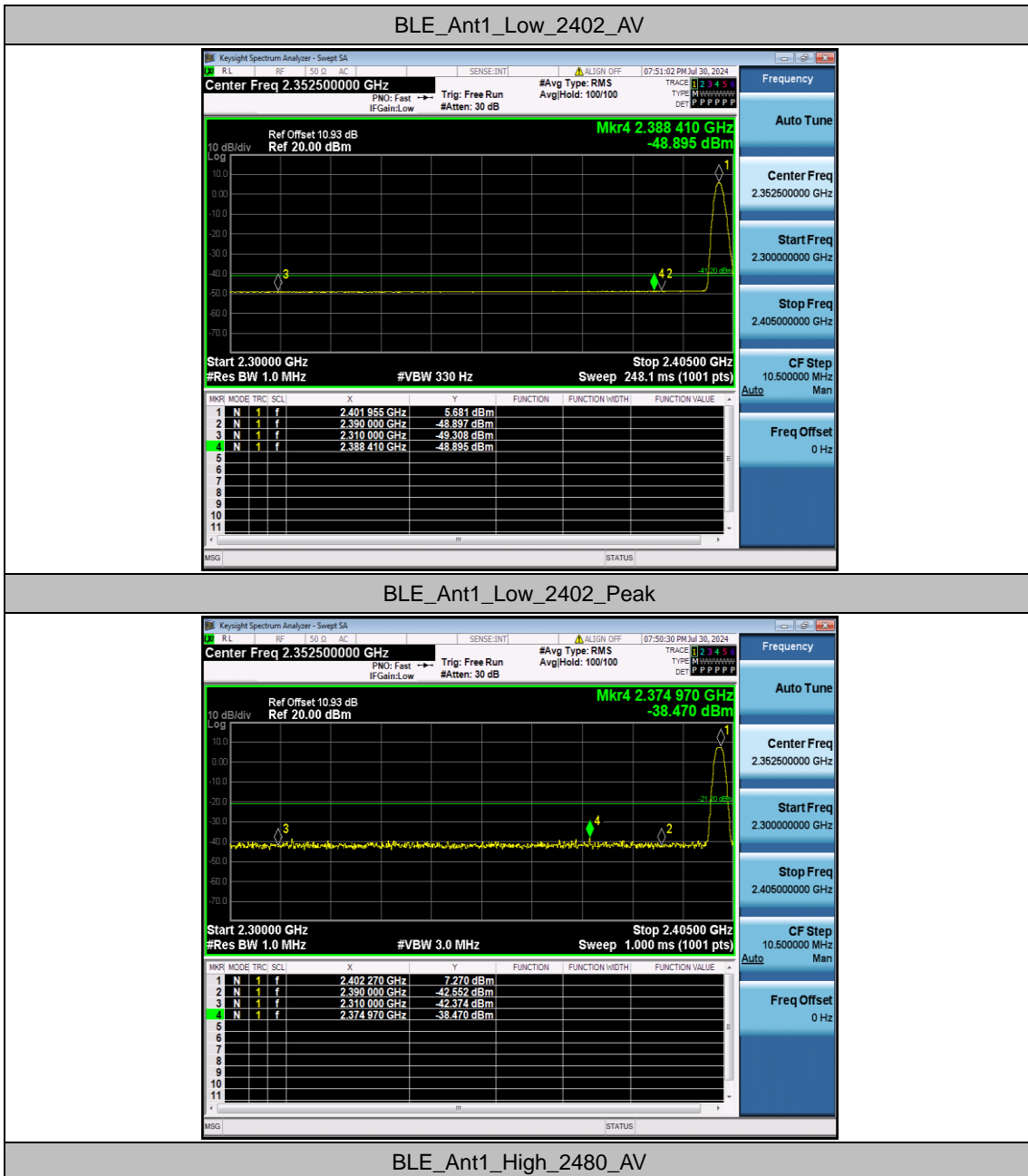
Test Result

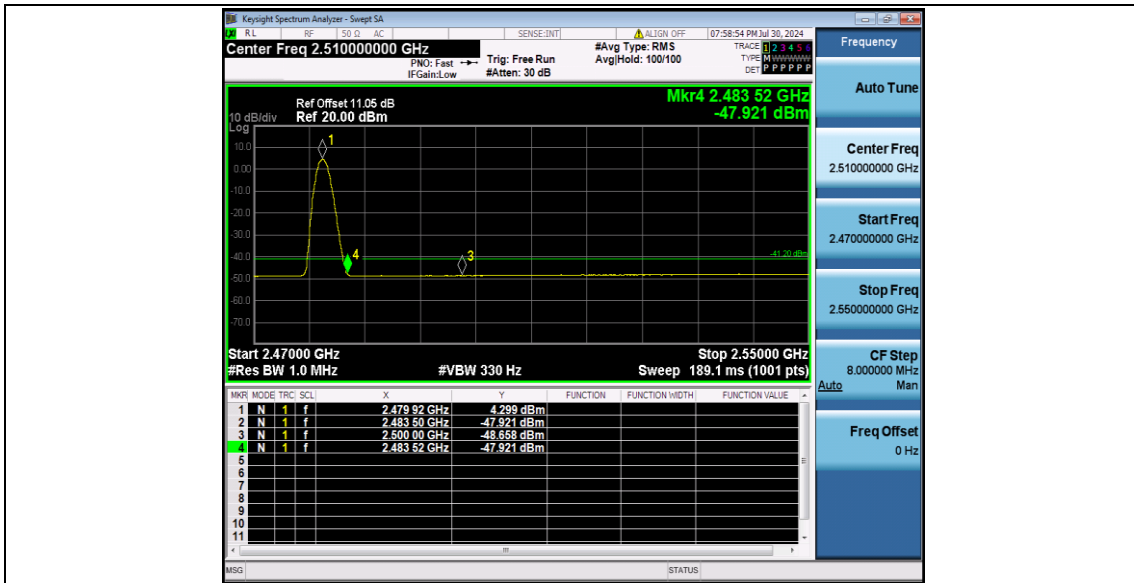
| TestMode | Antenna | ChName | Freq(MHz) | Detector | Freq [MHz] | Result [dBm] | Limit [dBm] | Result [dBuV/m] | Limit [dBuV/m] | Verdict |
|----------|---------|--------|------------|----------|------------|--------------|-------------|-----------------|----------------|---------|
| BLE | Ant1 | Low | 2402 | AV | 2310.000 | -49.31 | ≤-41.20 | 45.89 | ≤54 | PASS |
| | | | | AV | 2388.410 | -48.9 | ≤-41.20 | 46.30 | ≤54 | PASS |
| | | | | AV | 2390.000 | -48.9 | ≤-41.20 | 46.30 | ≤54 | PASS |
| | | | | Peak | 2310.000 | -42.37 | ≤-21.20 | 52.83 | ≤74 | PASS |
| | | | | Peak | 2374.970 | -38.47 | ≤-21.20 | 56.73 | ≤74 | PASS |
| | | | | Peak | 2390.000 | -42.55 | ≤-21.20 | 52.65 | ≤74 | PASS |
| | | High | 2480 | AV | 2483.500 | -47.92 | ≤-41.20 | 47.28 | ≤54 | PASS |
| | | | | AV | 2483.520 | -47.92 | ≤-41.20 | 47.28 | ≤54 | PASS |
| | | | | AV | 2500.000 | -48.66 | ≤-41.20 | 46.54 | ≤54 | PASS |
| | | | | Peak | 2483.500 | -41.13 | ≤-21.20 | 54.07 | ≤74 | PASS |
| | | | | Peak | 2495.840 | -38.59 | ≤-21.20 | 56.61 | ≤74 | PASS |
| | | | | Peak | 2500.000 | -42.55 | ≤-21.20 | 52.65 | ≤74 | PASS |

Note:

1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. 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_Ant1_High_2480_Peak

