

Appendix for Bluetooth BLE Mode

Product Name: ConnectBridge Gateway
Model No: Access360

Appendix A: DTS Bandwidth

Test Result

| TestMode | Antenna | Freq(MHz) | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|----------|---------|-----------|--------------|----------|----------|------------|---------|
| BLE_1M | Ant2 | 2402 | 0.644 | 2401.776 | 2402.420 | 0.5 | PASS |
| | | 2440 | 0.684 | 2439.740 | 2440.424 | 0.5 | PASS |
| | | 2480 | 0.684 | 2479.740 | 2480.424 | 0.5 | PASS |

| TestMode | Antenna | Freq(MHz) | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|----------|---------|-----------|--------------|----------|----------|------------|---------|
| BLE_S8 | Ant2 | 2402 | 0.608 | 2401.780 | 2402.388 | 0.5 | PASS |
| | | 2440 | 0.620 | 2439.776 | 2440.396 | 0.5 | PASS |
| | | 2480 | 0.620 | 2479.776 | 2480.396 | 0.5 | PASS |

Test Graphs



BLE_S8_Ant2_2402



BLE_S8_Ant2_2440



BLE_S8_Ant2_2480

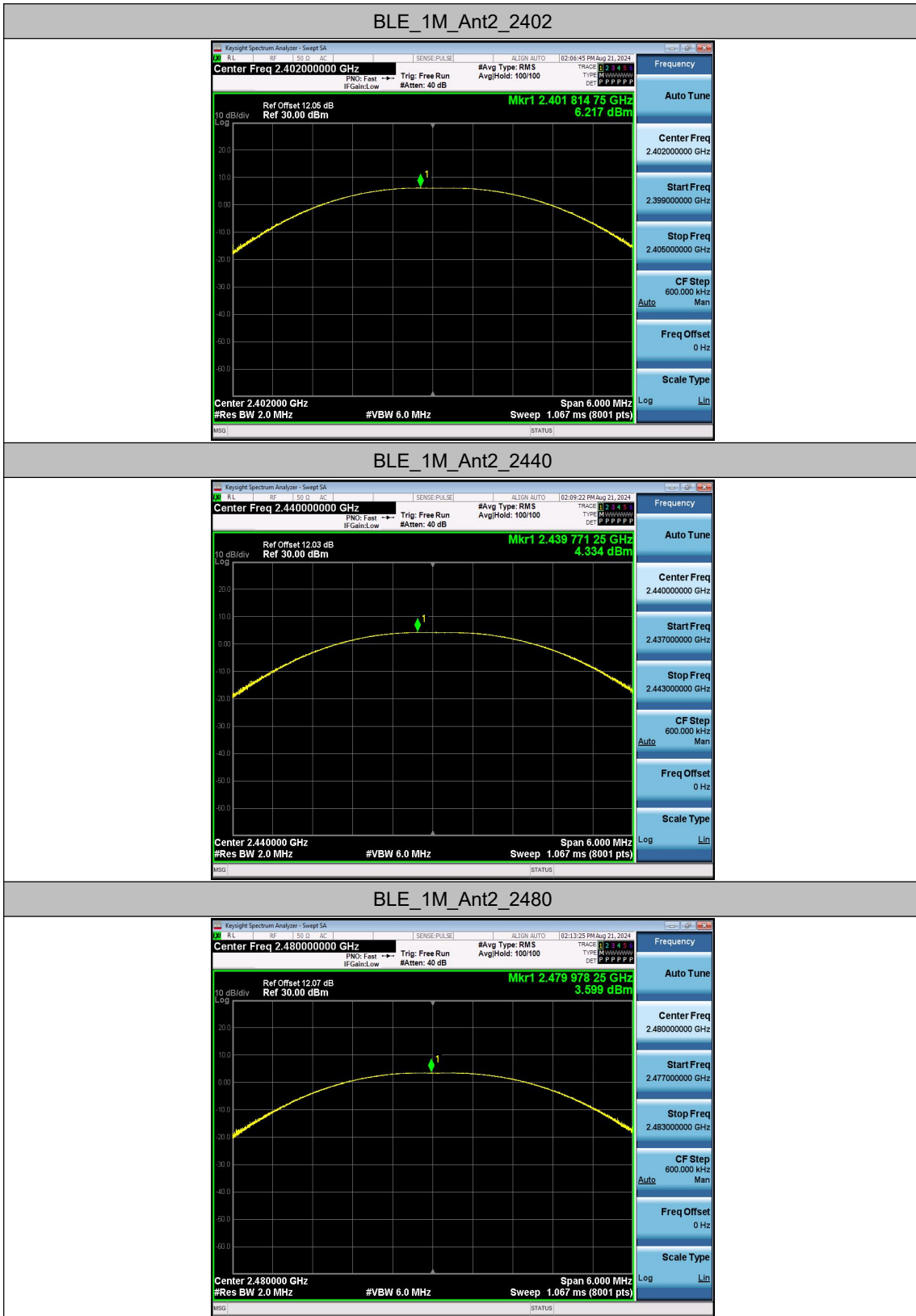


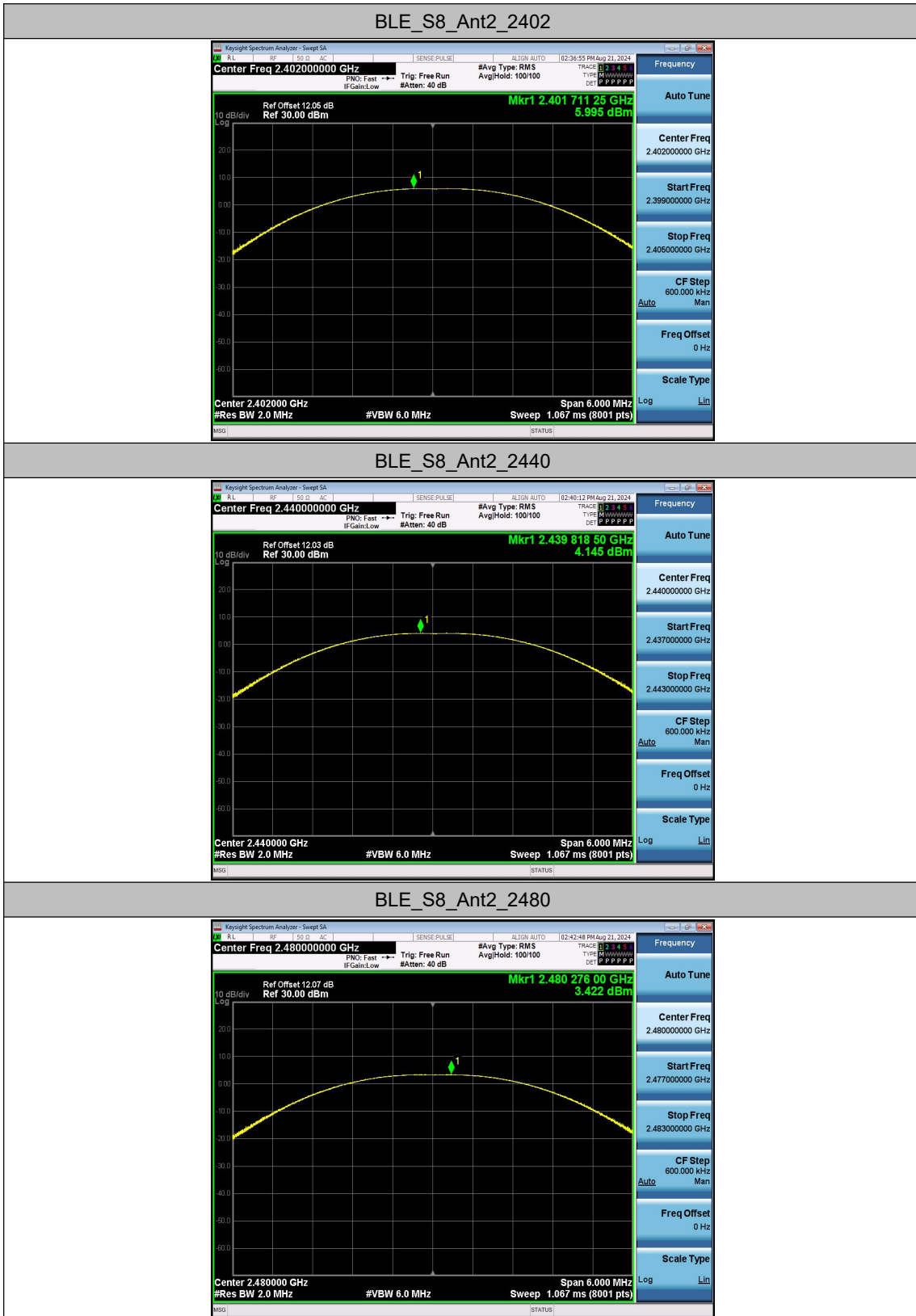
Appendix B: Maximum conducted output power**Test Result Peak**

| TestMode | Antenna | Freq(MHz) | Conducted Peak Power[dBm] | Conducted Limit[dBm] | EIRP[dBm] | EIRP Limit[dBm] | Verdict |
|----------|---------|-----------|---------------------------|----------------------|-----------|-----------------|---------|
| BLE_1M | Ant2 | 2402 | 6.22 | ≤30 | 8.22 | ≤36 | PASS |
| | | 2440 | 4.33 | ≤30 | 6.33 | ≤36 | PASS |
| | | 2480 | 3.60 | ≤30 | 5.60 | ≤36 | PASS |

| TestMode | Antenna | Freq(MHz) | Conducted Peak Power[dBm] | Conducted Limit[dBm] | EIRP[dBm] | EIRP Limit[dBm] | Verdict |
|----------|---------|-----------|---------------------------|----------------------|-----------|-----------------|---------|
| BLE_S8 | Ant2 | 2402 | 6.00 | ≤30 | 8.00 | ≤36 | PASS |
| | | 2440 | 4.15 | ≤30 | 6.15 | ≤36 | PASS |
| | | 2480 | 3.42 | ≤30 | 5.42 | ≤36 | PASS |

Test Graphs Peak





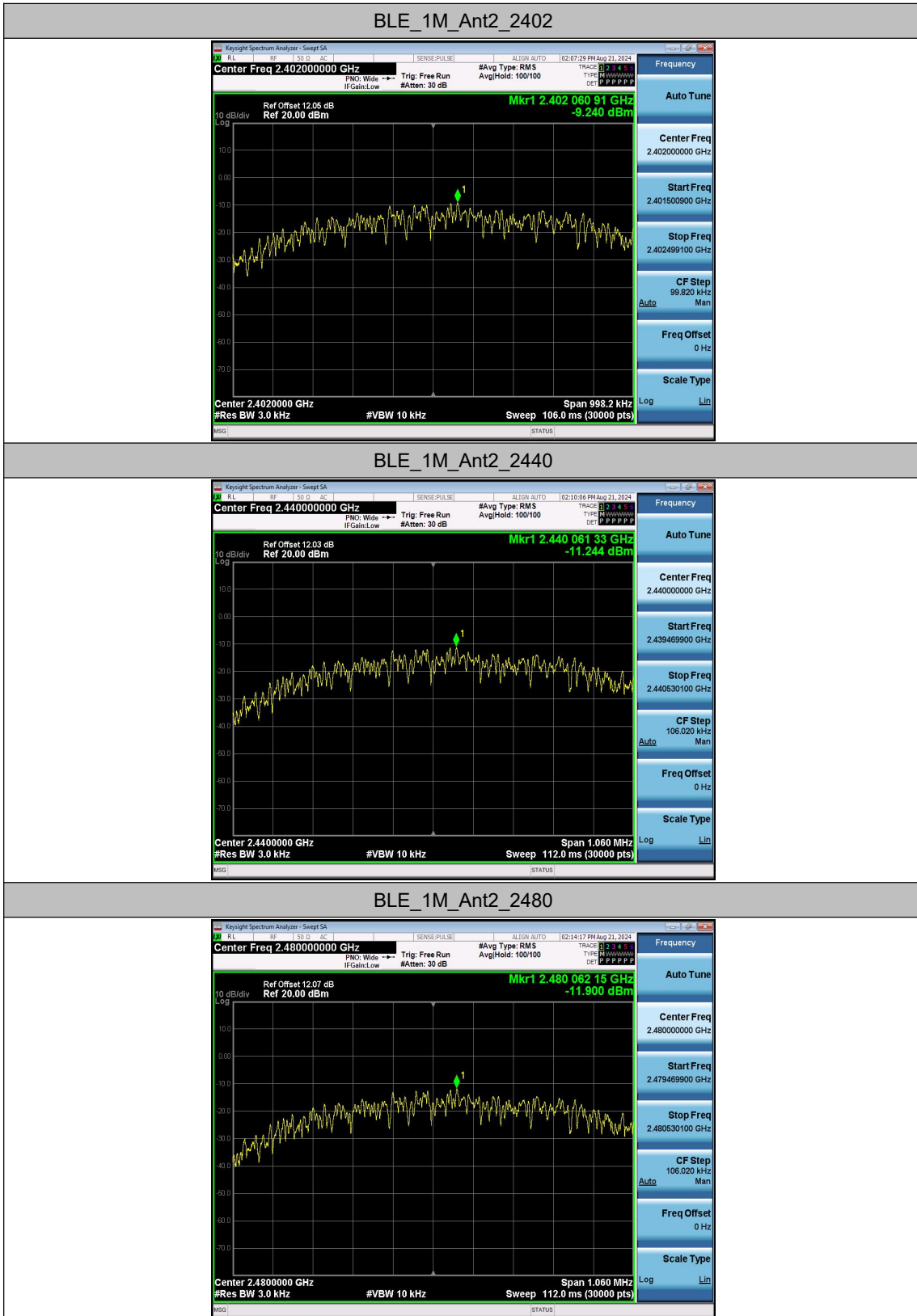
Appendix C: Maximum power spectral density

Test Result

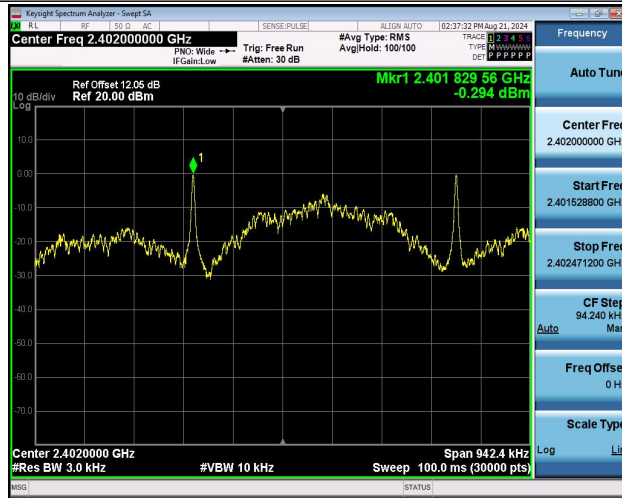
| TestMode | Antenna | Freq(MHz) | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|-----------|------------------|-----------------|---------|
| BLE_1M | Ant2 | 2402 | -9.24 | ≤8.00 | PASS |
| | | 2440 | -11.24 | ≤8.00 | PASS |
| | | 2480 | -11.90 | ≤8.00 | PASS |

| TestMode | Antenna | Freq(MHz) | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|-----------|------------------|-----------------|---------|
| BLE_S8 | Ant2 | 2402 | -0.29 | ≤8.00 | PASS |
| | | 2440 | -2.14 | ≤8.00 | PASS |
| | | 2480 | -2.89 | ≤8.00 | PASS |

Test Graphs



BLE_S8_Ant2_2402



BLE_S8_Ant2_2440



BLE_S8_Ant2_2480



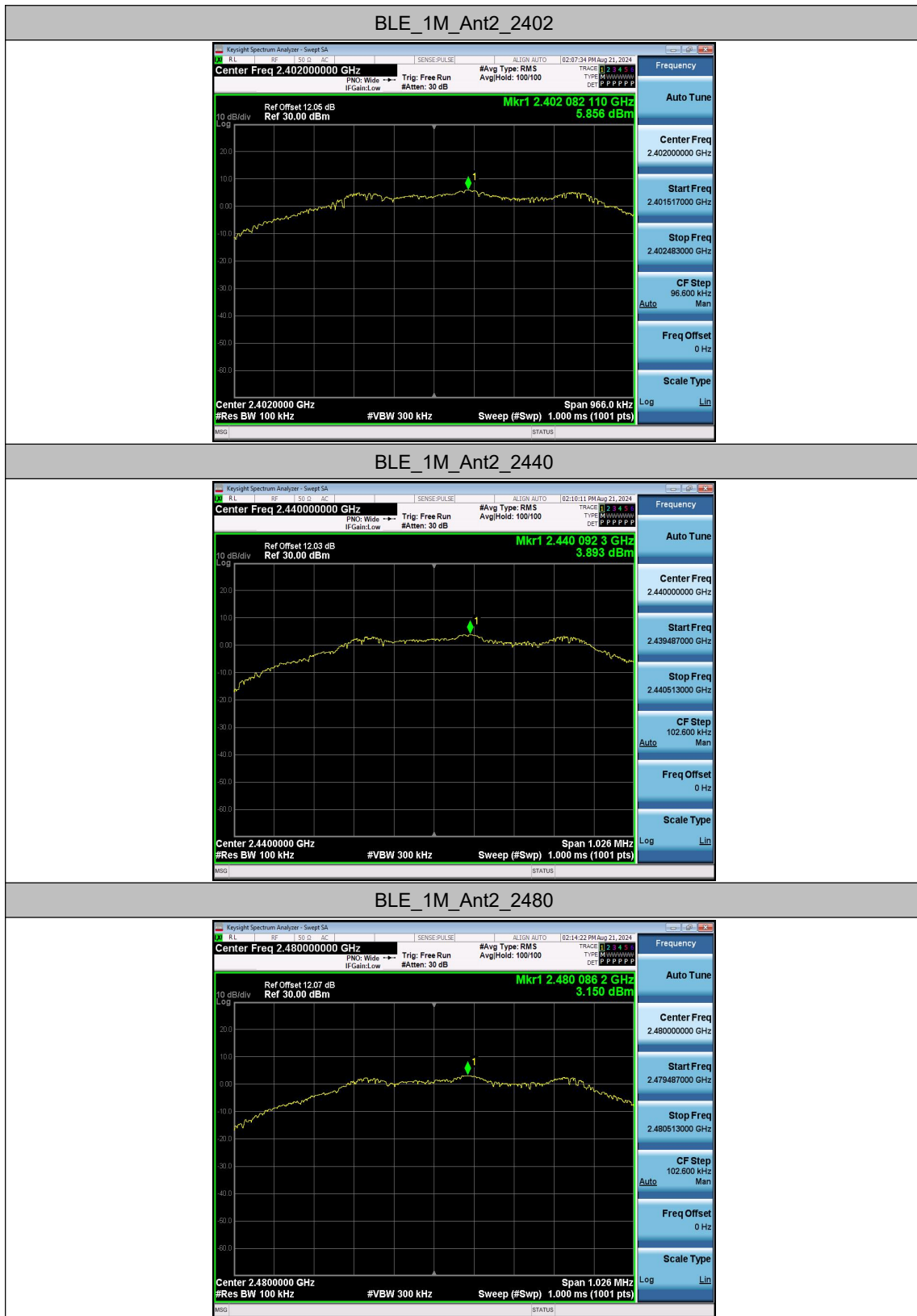
Appendix D: Band edge measurements

Reference level measurement

Test Result

| TestMode | Antenna | Freq(MHz) | Max.Point[MHz] | Result[dBm] |
|----------|---------|-----------|----------------|-------------|
| BLE_1M | Ant2 | 2402 | 2402.08 | 5.86 |
| | | 2440 | 2440.09 | 3.89 |
| | | 2480 | 2480.09 | 3.15 |

| TestMode | Antenna | Freq(MHz) | Max.Point[MHz] | Result[dBm] |
|----------|---------|-----------|----------------|-------------|
| BLE_S8 | Ant2 | 2402 | 2402.05 | 4.56 |
| | | 2440 | 2440.07 | 3.55 |
| | | 2480 | 2480.05 | 2.07 |



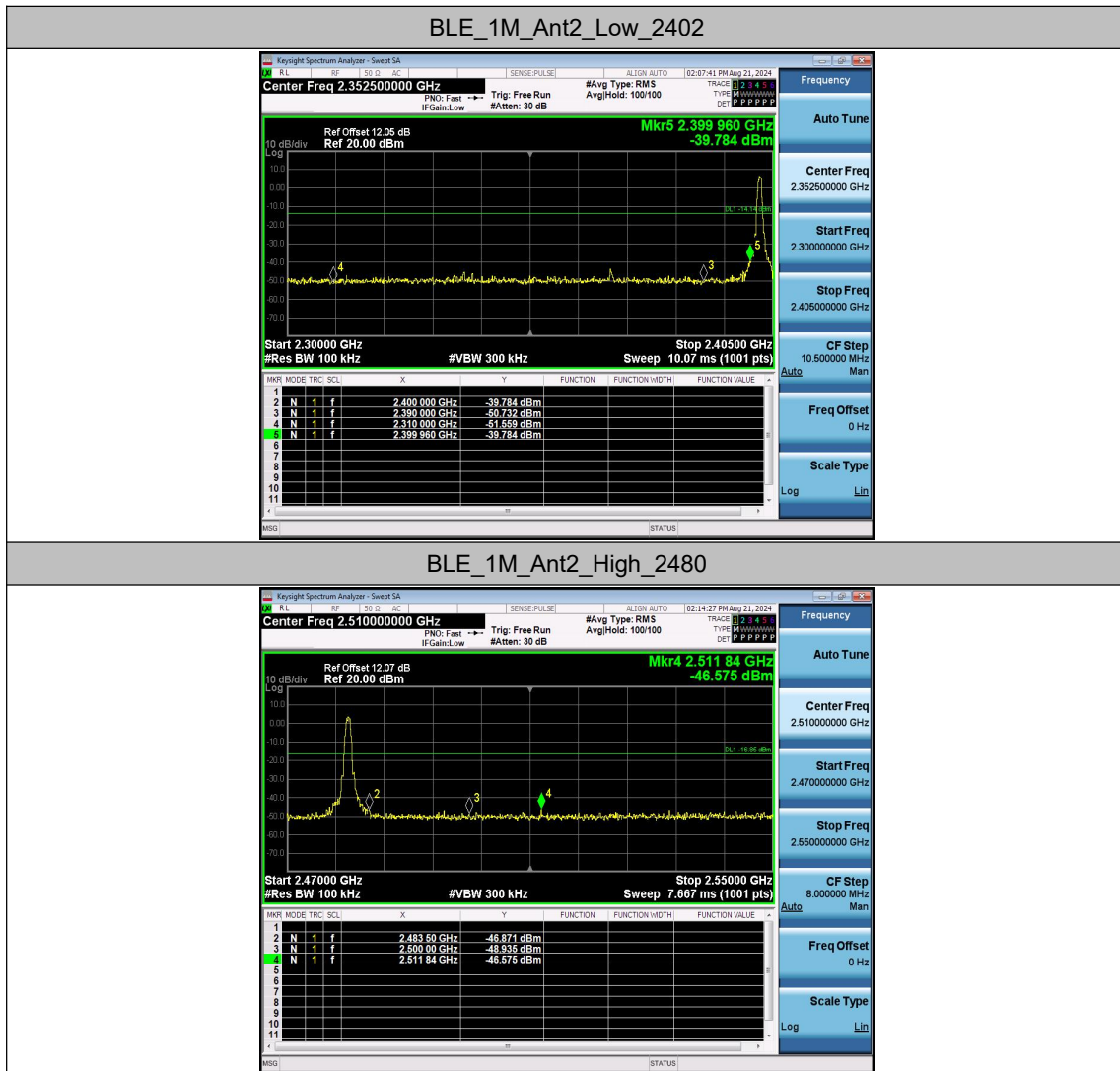


Band edge measurements

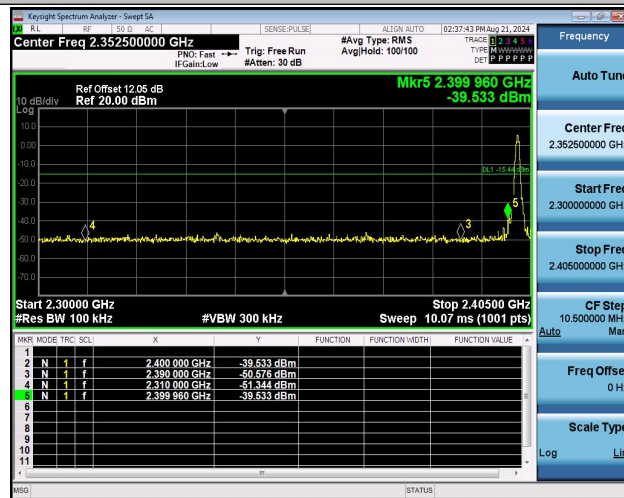
| TestMode | Antenna | ChName | Freq(MHz) | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|--------|-----------|---------------|-------------|------------|---------|
| BLE_1M | Ant2 | Low | 2402 | 5.86 | -39.78 | ≤-14.14 | PASS |
| | | High | 2480 | 3.15 | -46.58 | ≤-16.85 | PASS |

| TestMode | Antenna | ChName | Freq(MHz) | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|--------|-----------|---------------|-------------|------------|---------|
| BLE_S8 | Ant2 | Low | 2402 | 4.56 | -39.53 | ≤-15.44 | PASS |
| | | High | 2480 | 2.07 | -47.3 | ≤-17.93 | PASS |

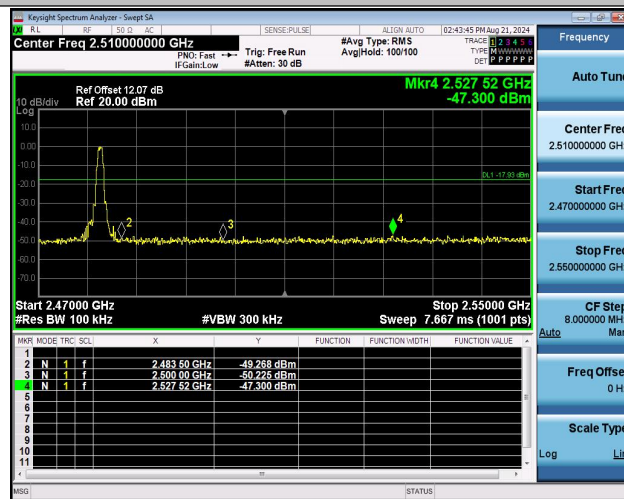
Test Graphs



BLE_S8_Ant2_Low_2402



BLE_S8_Ant2_High_2480



Appendix E: Conducted Spurious Emission

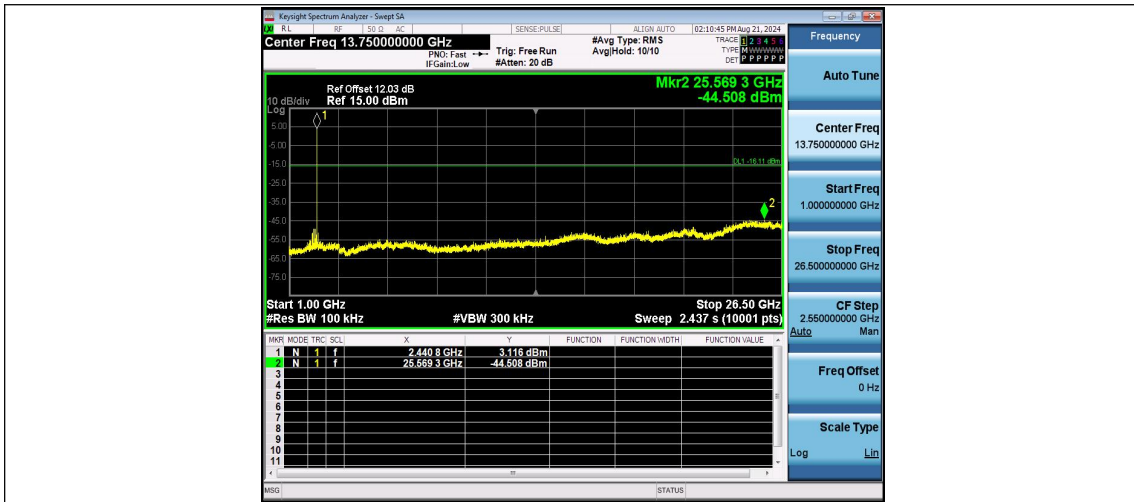
Test Result

| TestMode | Antenna | Freq(MHz) | FreqRange [MHz] | RefLevel [dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|-----------|-----------------|----------------|-------------|------------|---------|
| BLE_1M | Ant2 | 2402 | 30~1000 | 5.86 | -56.38 | ≤-14.14 | PASS |
| | | | 1000~26500 | 5.86 | -43.92 | ≤-14.14 | PASS |
| | | 2440 | 30~1000 | 3.89 | -54.65 | ≤-16.11 | PASS |
| | | | 1000~26500 | 3.89 | -44.51 | ≤-16.11 | PASS |
| | | 2480 | 30~1000 | 3.15 | -57.45 | ≤-16.85 | PASS |
| | | | 1000~26500 | 3.15 | -44.19 | ≤-16.85 | PASS |

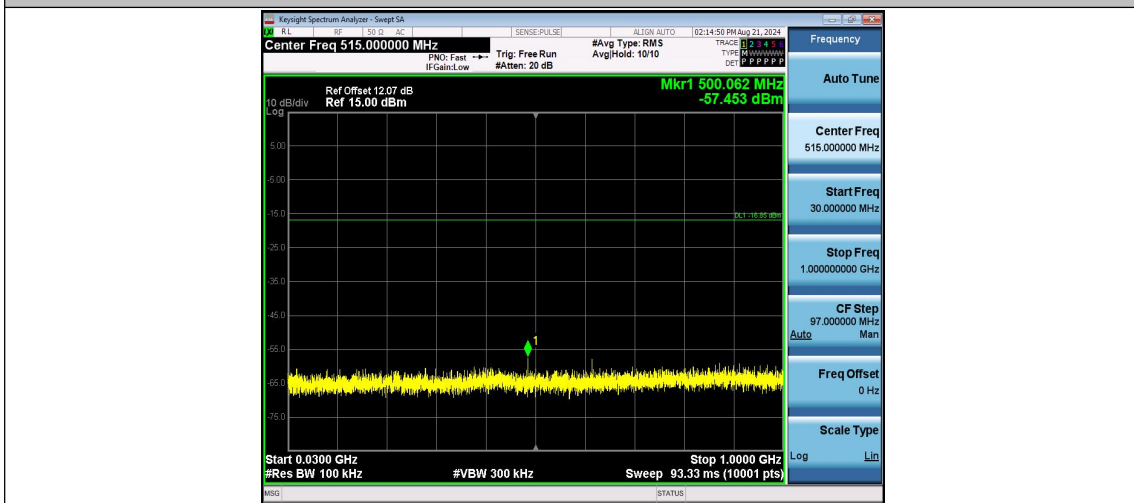
| TestMode | Antenna | Freq(MHz) | FreqRange [MHz] | RefLevel [dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|-----------|-----------------|----------------|-------------|------------|---------|
| BLE_S8 | Ant2 | 2402 | 30~1000 | 4.56 | -56.17 | ≤-15.44 | PASS |
| | | | 1000~26500 | 4.56 | -44 | ≤-15.44 | PASS |
| | | 2440 | 30~1000 | 3.55 | -57.03 | ≤-16.45 | PASS |
| | | | 1000~26500 | 3.55 | -43.82 | ≤-16.45 | PASS |
| | | 2480 | 30~1000 | 2.07 | -55.46 | ≤-17.93 | PASS |
| | | | 1000~26500 | 2.07 | -44.33 | ≤-17.93 | PASS |

Test Graphs





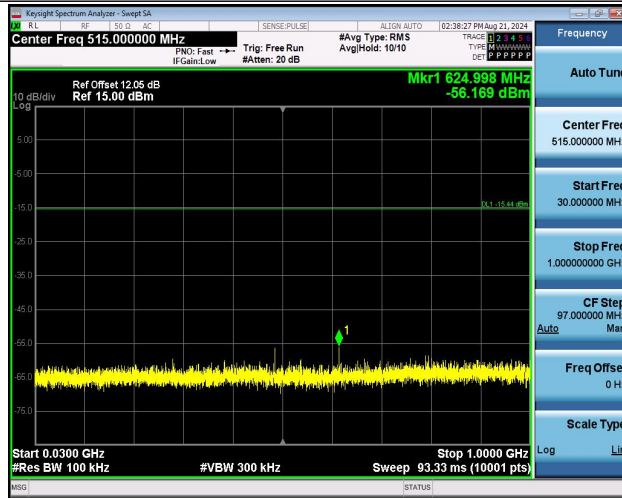
BLE_1M_Ant2_2480_30~1000



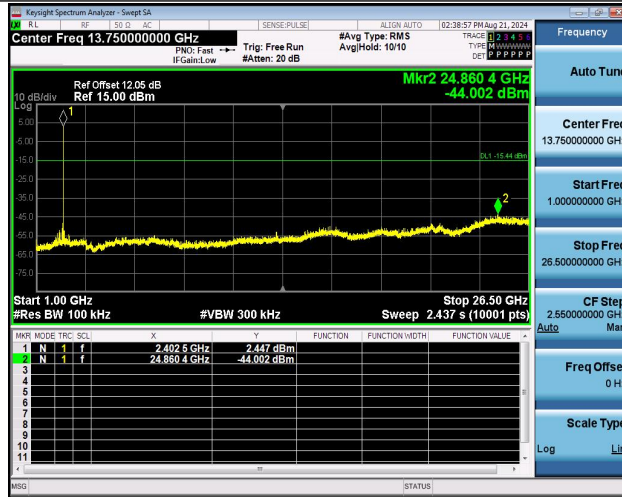
BLE_1M_Ant2_2480_1000~26500



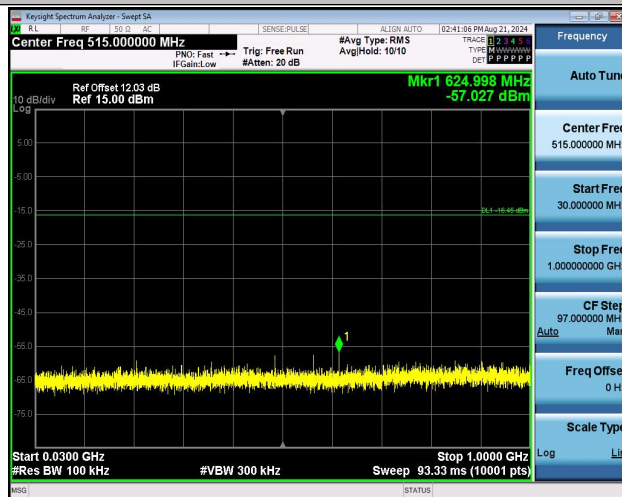
BLE_S8_Ant2_2402_30~1000



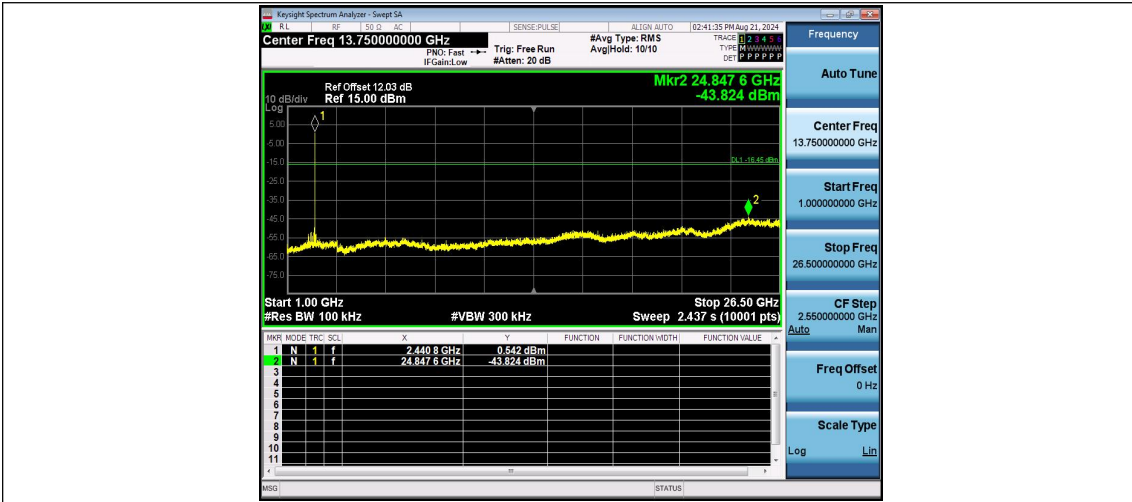
BLE_S8_Ant2_2402_1000~26500



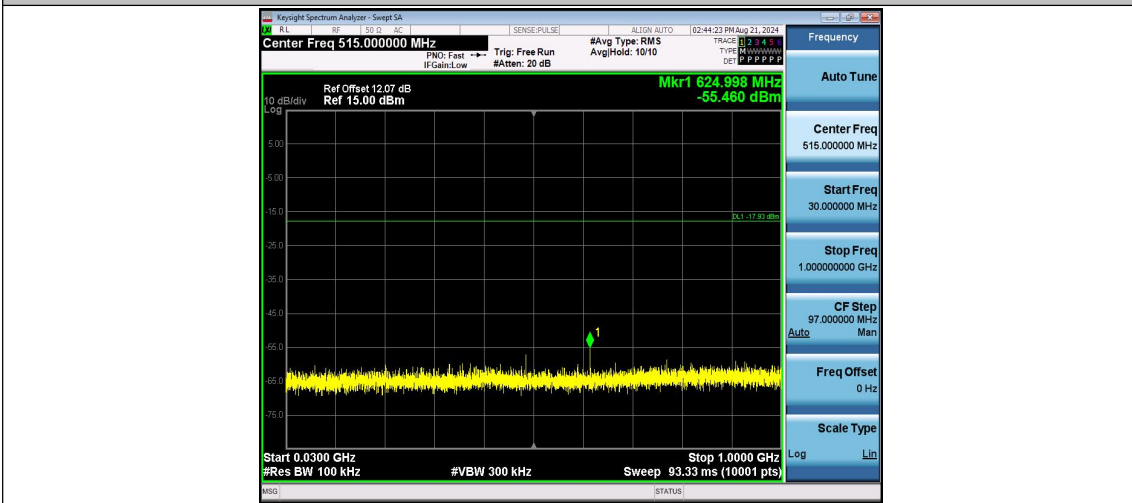
BLE_S8_Ant2_2440_30~1000



BLE_S8_Ant2_2440_1000~26500



BLE_S8_Ant2_2480_30~1000



BLE_S8_Ant2_2480_1000~26500

