

## Appendix: Bluetooth LE

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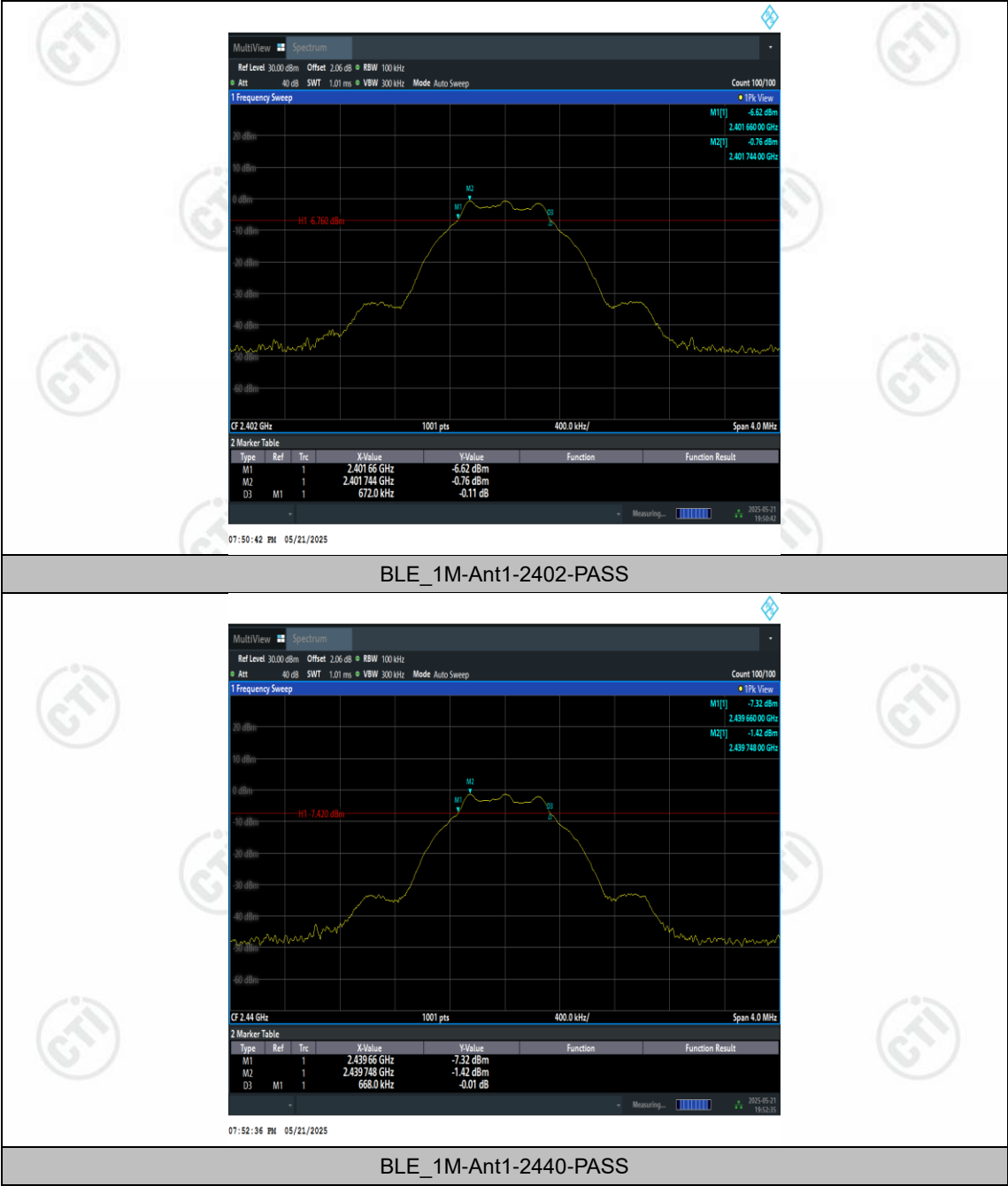
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**Appendix A: DTS Bandwidth****Test Result**

| TestMode | Antenna | Frequency[MHz] | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|----------|---------|----------------|--------------|---------|---------|------------|---------|
| BLE_1M   | Ant1    | 2402           | 0.67         | 2401.66 | 2402.33 | 0.5        | PASS    |
| BLE_1M   | Ant1    | 2440           | 0.67         | 2439.66 | 2440.33 | 0.5        | PASS    |
| BLE_1M   | Ant1    | 2480           | 0.67         | 2479.66 | 2480.33 | 0.5        | PASS    |
| BLE_2M   | Ant1    | 2402           | 1.16         | 2401.42 | 2402.57 | 0.5        | PASS    |
| BLE_2M   | Ant1    | 2440           | 1.16         | 2439.42 | 2440.57 | 0.5        | PASS    |
| BLE_2M   | Ant1    | 2480           | 1.16         | 2479.42 | 2480.57 | 0.5        | PASS    |

Test Graphs







**Appendix B: Occupied Channel Bandwidth****Test Result**

| Test Mode | Antenna | Frequency [MHz] | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|-----------|---------|-----------------|-----------|-----------|-----------|------------|---------|
| BLE_1M    | Ant1    | 2402            | 1.007     | 2401.4996 | 2402.5063 | ---        | ---     |
| BLE_1M    | Ant1    | 2440            | 1.008     | 2439.4997 | 2440.5076 | ---        | ---     |
| BLE_1M    | Ant1    | 2480            | 1.007     | 2479.4998 | 2480.5066 | ---        | ---     |
| BLE_2M    | Ant1    | 2402            | 1.994     | 2401.0172 | 2403.0115 | ---        | ---     |
| BLE_2M    | Ant1    | 2440            | 1.995     | 2439.0171 | 2441.0117 | ---        | ---     |
| BLE_2M    | Ant1    | 2480            | 1.995     | 2479.0160 | 2481.0114 | ---        | ---     |



Test Graphs







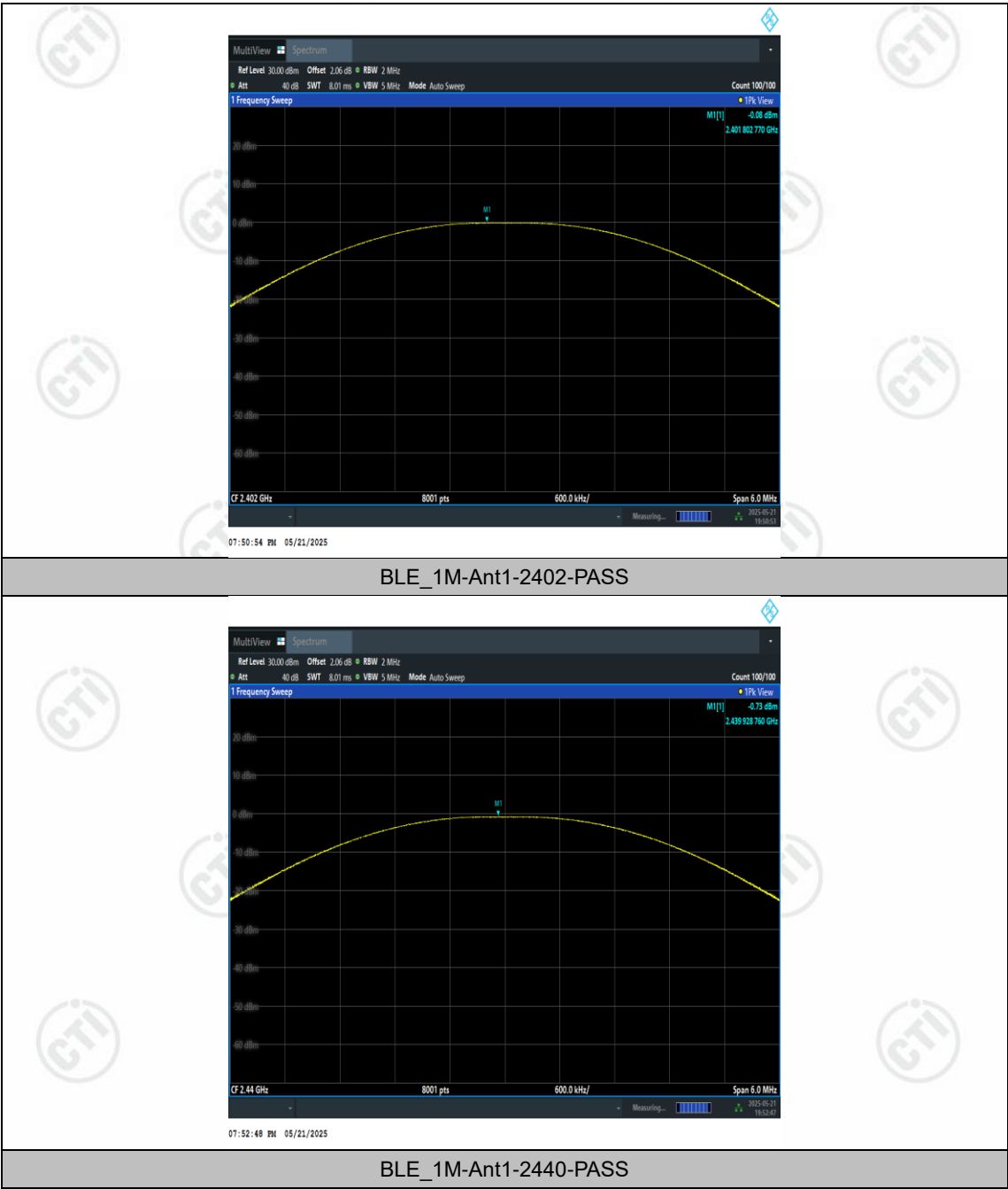


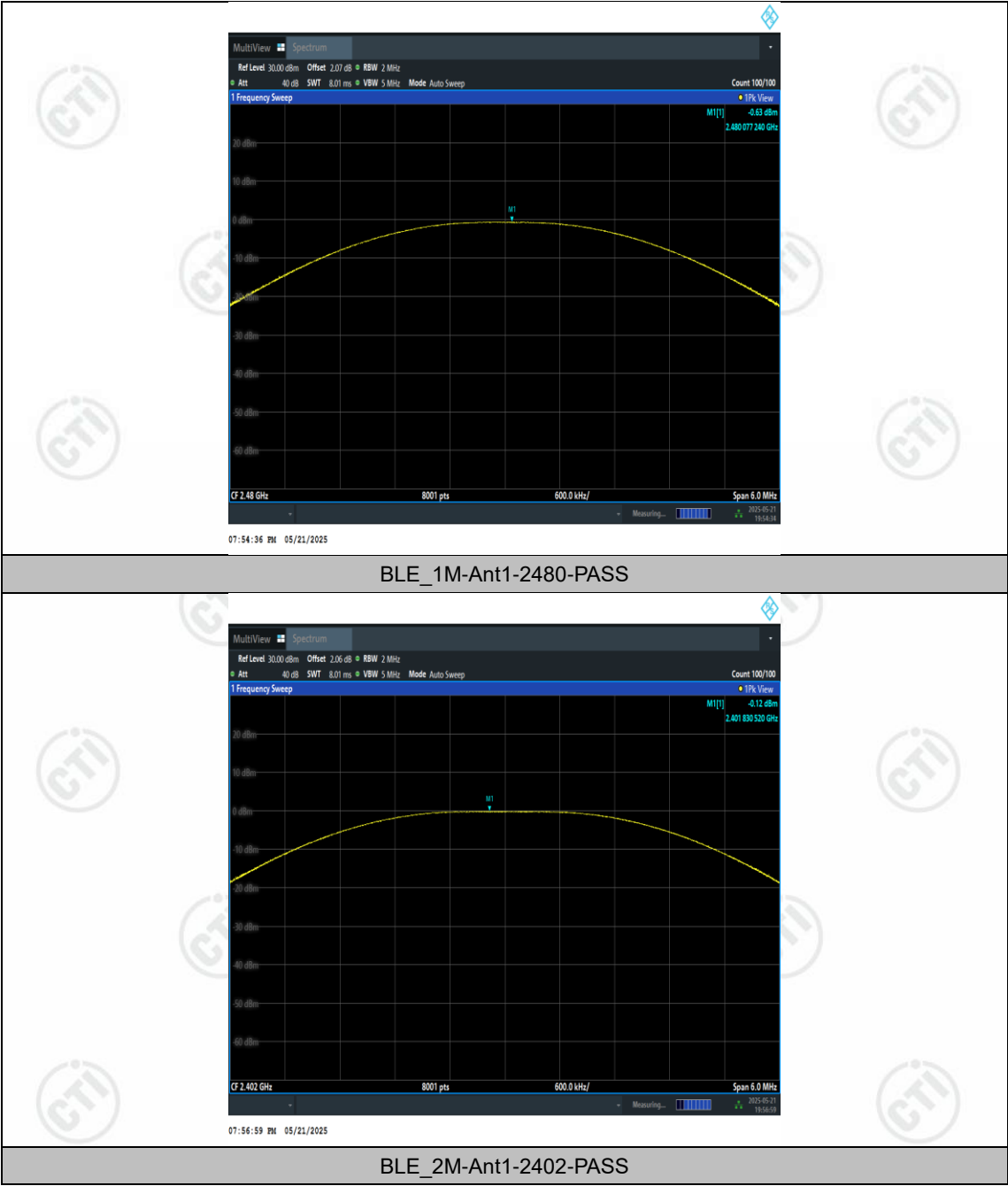
## Appendix C: Maximum conducted output power

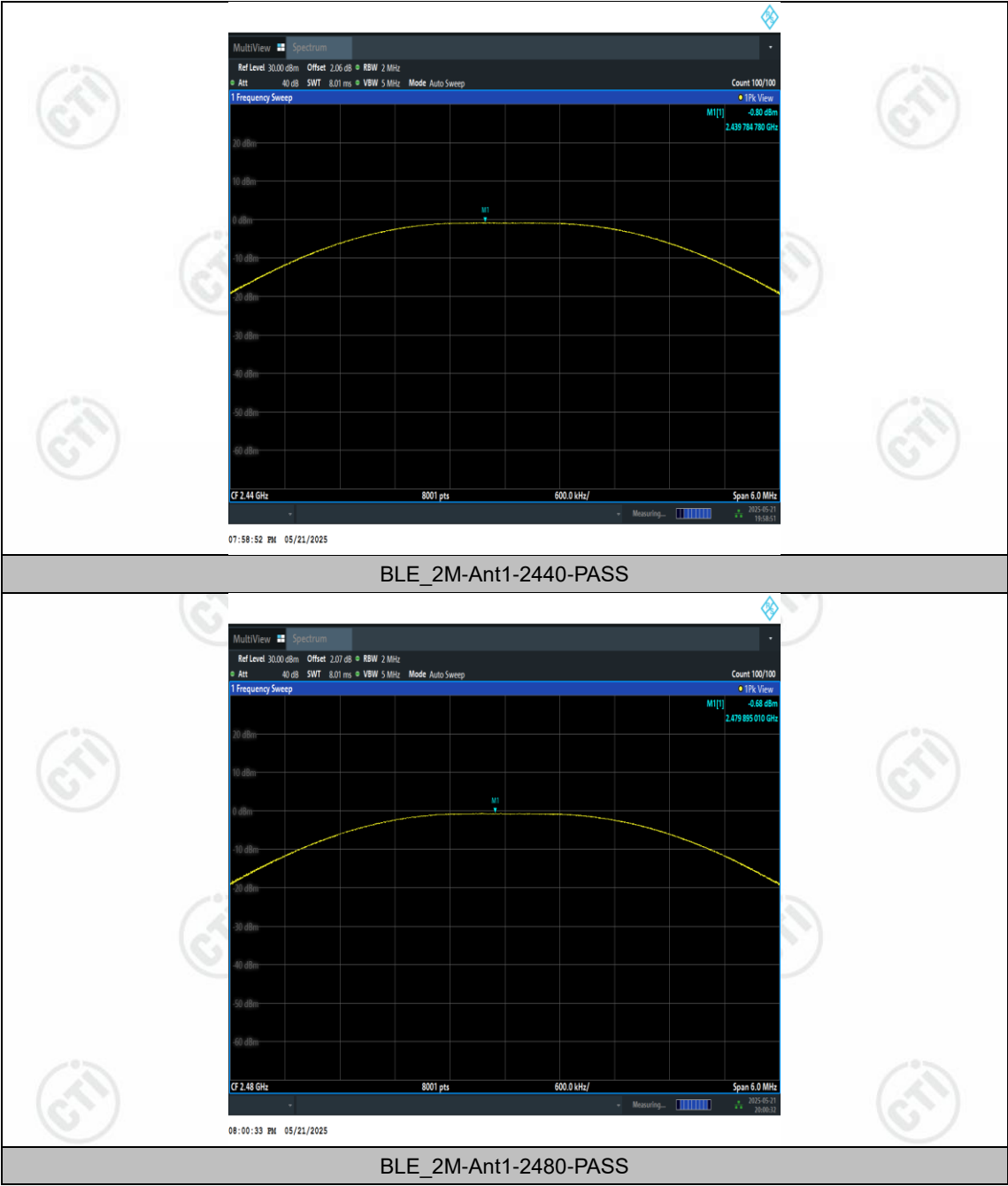
### Test Result Peak

| TestMode | Antenna | Frequency[MHz] | Conducted Peak Power[dBm] | Conducted Limit[dBm] | Verdict |
|----------|---------|----------------|---------------------------|----------------------|---------|
| BLE_1M   | Ant1    | 2402           | -0.08                     | ≤30                  | PASS    |
| BLE_1M   | Ant1    | 2440           | -0.73                     | ≤30                  | PASS    |
| BLE_1M   | Ant1    | 2480           | -0.63                     | ≤30                  | PASS    |
| BLE_2M   | Ant1    | 2402           | -0.12                     | ≤30                  | PASS    |
| BLE_2M   | Ant1    | 2440           | -0.80                     | ≤30                  | PASS    |
| BLE_2M   | Ant1    | 2480           | -0.68                     | ≤30                  | PASS    |

Test Graphs Peak







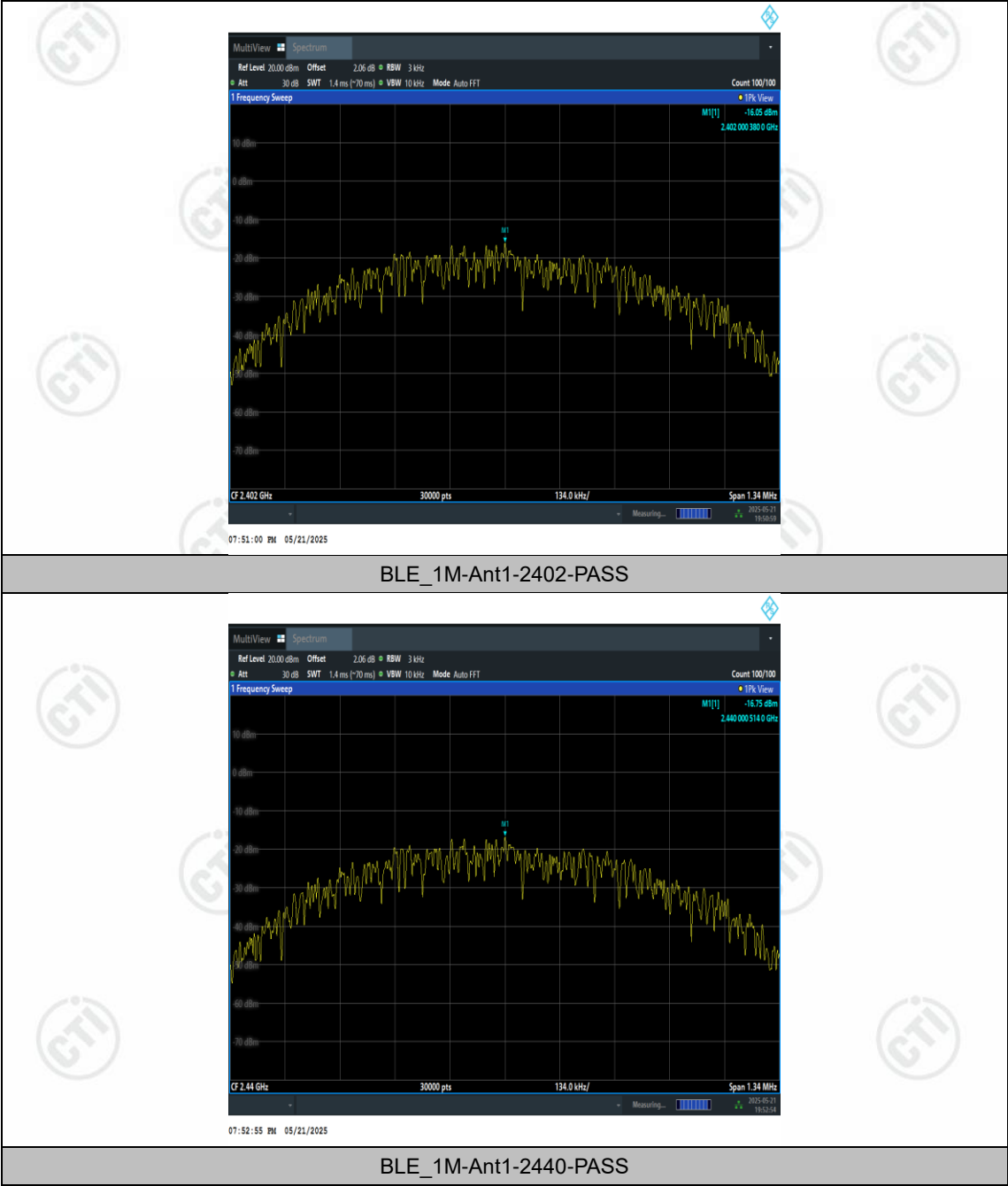
## Appendix D: Maximum power spectral density

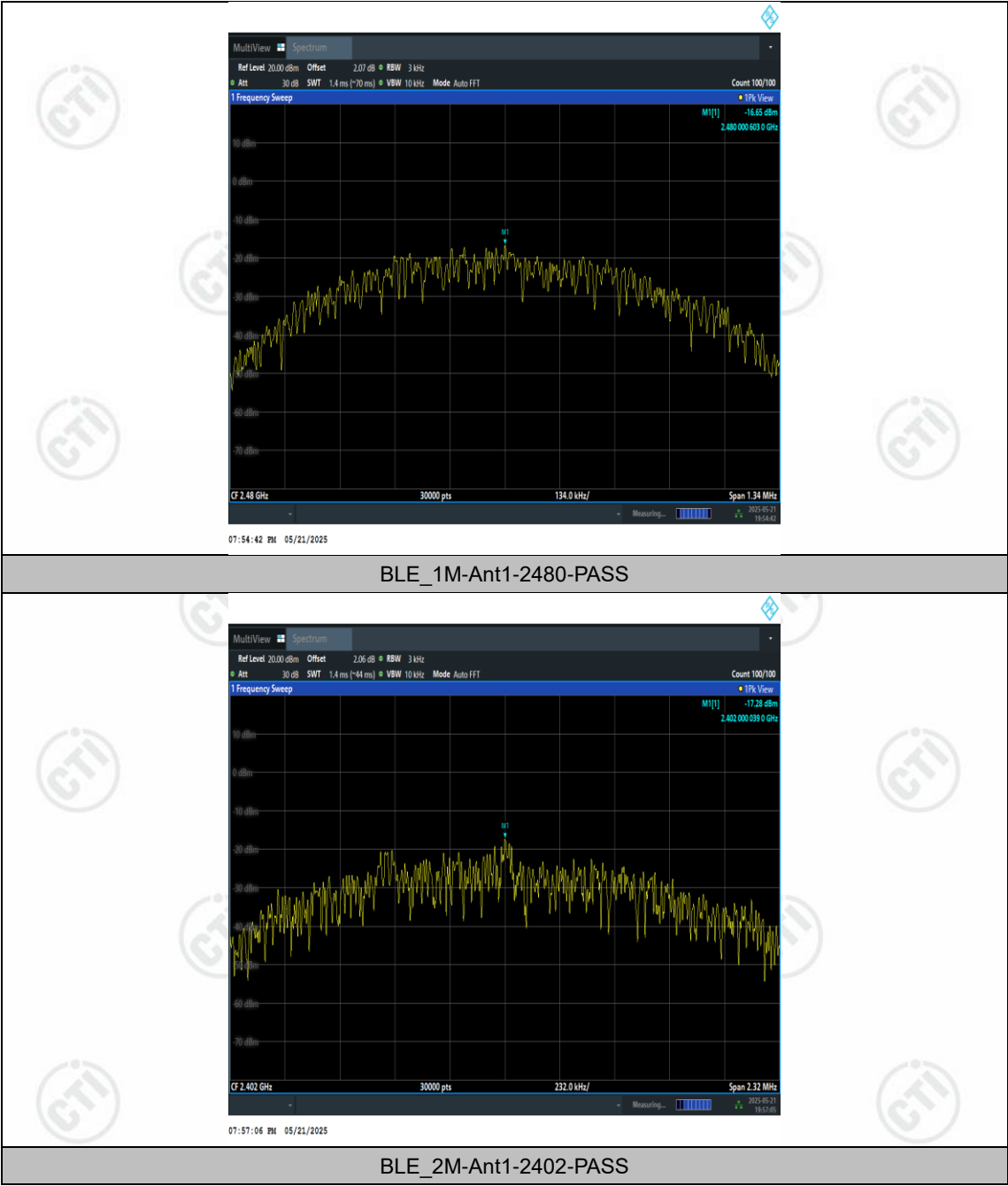
### Test Result

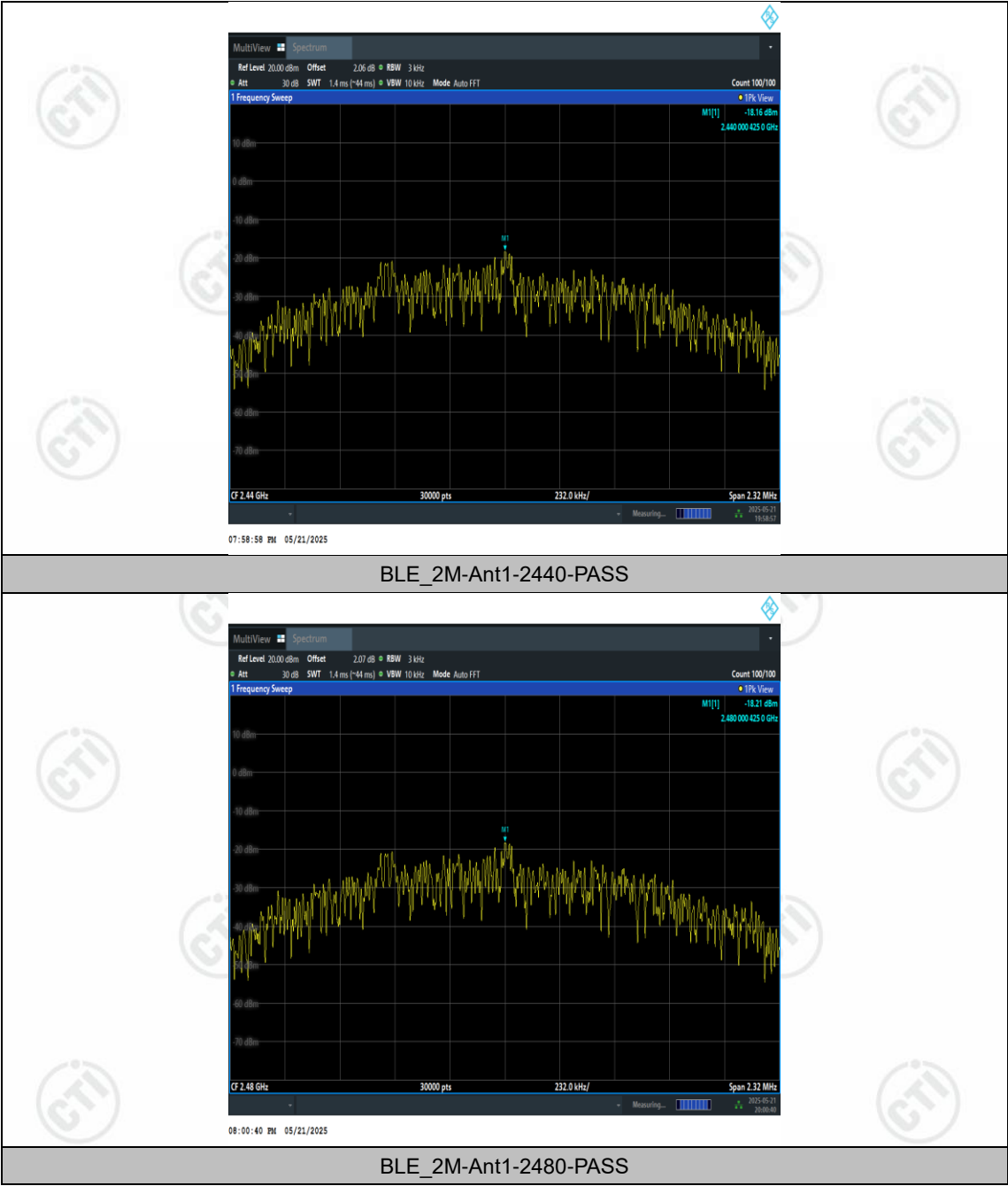
| TestMode | Antenna | Frequency[MHz] | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|----------------|------------------|-----------------|---------|
| BLE_1M   | Ant1    | 2402           | -16.05           | ≤8.00           | PASS    |
| BLE_1M   | Ant1    | 2440           | -16.75           | ≤8.00           | PASS    |
| BLE_1M   | Ant1    | 2480           | -16.65           | ≤8.00           | PASS    |
| BLE_2M   | Ant1    | 2402           | -17.28           | ≤8.00           | PASS    |
| BLE_2M   | Ant1    | 2440           | -18.16           | ≤8.00           | PASS    |
| BLE_2M   | Ant1    | 2480           | -18.21           | ≤8.00           | PASS    |



Test Graphs





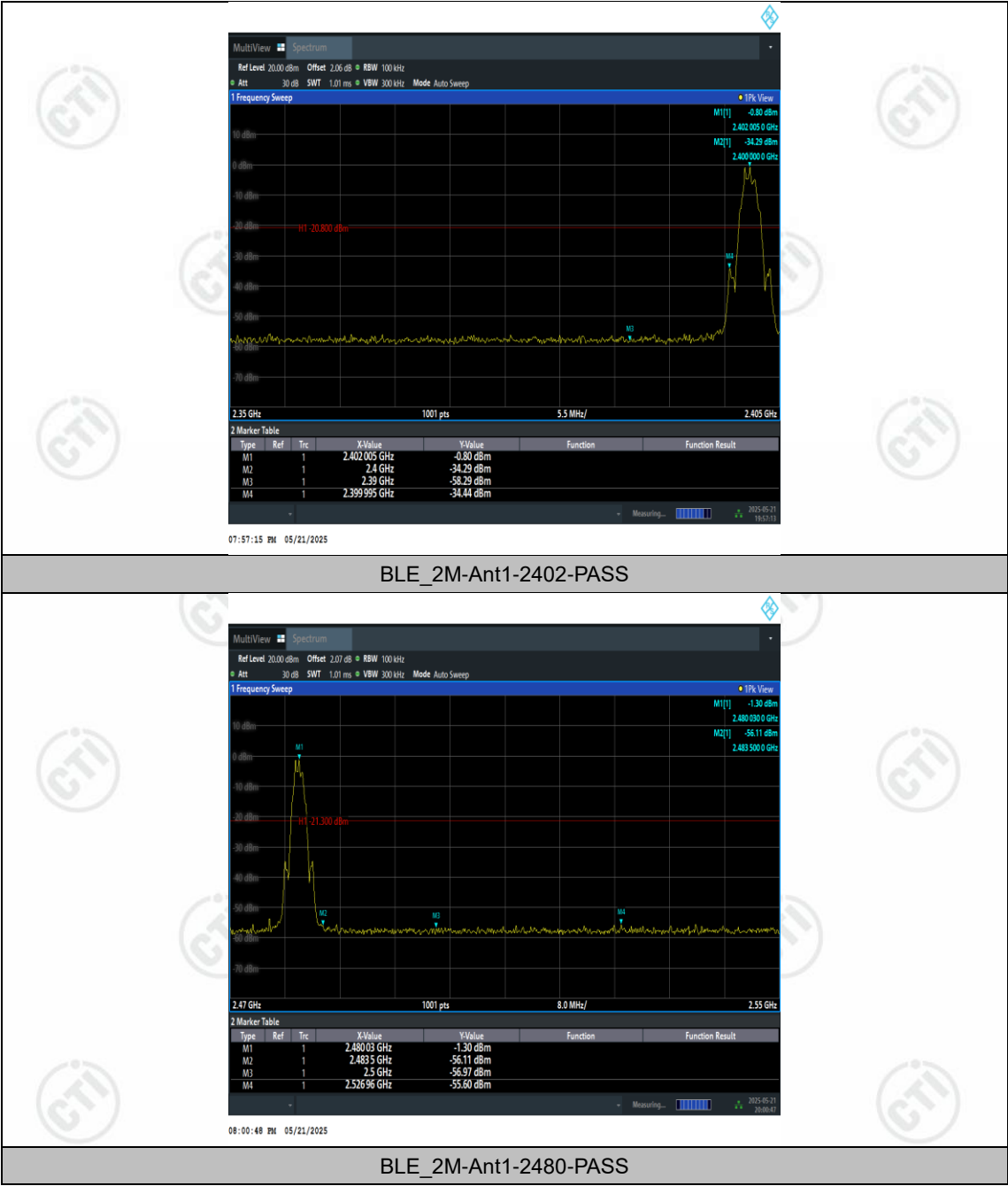


**Appendix E: Band edge measurements****Test Result**

| TestMode | Antenna | ChName | Frequency[MHz] | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|--------|----------------|---------------|-------------|------------|---------|
| BLE_1M   | Ant1    | Low    | 2402           | -0.84         | -50.94      | ≤-20.84    | PASS    |
| BLE_1M   | Ant1    | High   | 2480           | -1.36         | -54.35      | ≤-21.36    | PASS    |
| BLE_2M   | Ant1    | Low    | 2402           | -0.80         | -34.44      | ≤-20.8     | PASS    |
| BLE_2M   | Ant1    | High   | 2480           | -1.30         | -55.6       | ≤-21.3     | PASS    |

Test Graphs





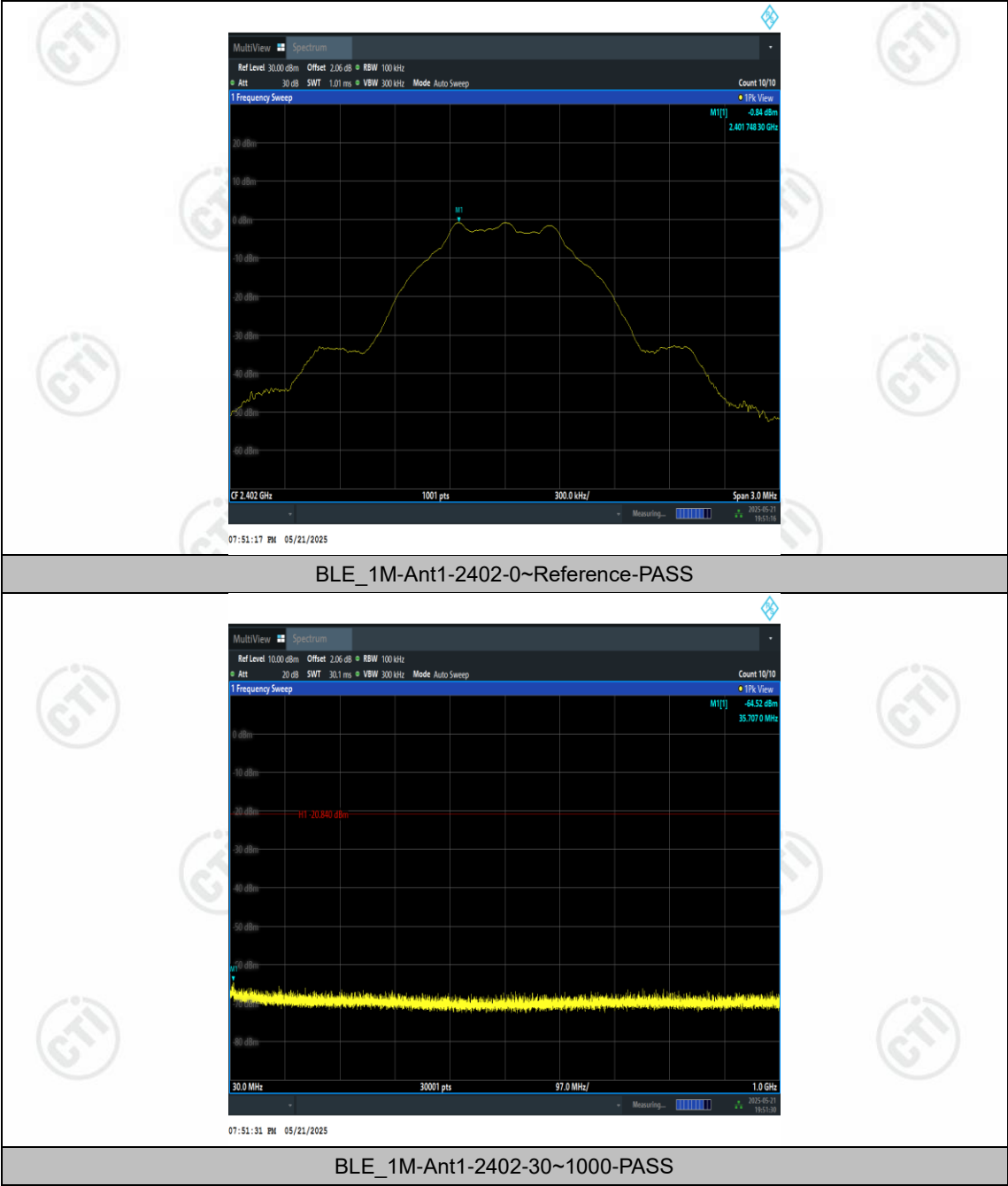
## Appendix F: Conducted Spurious Emission

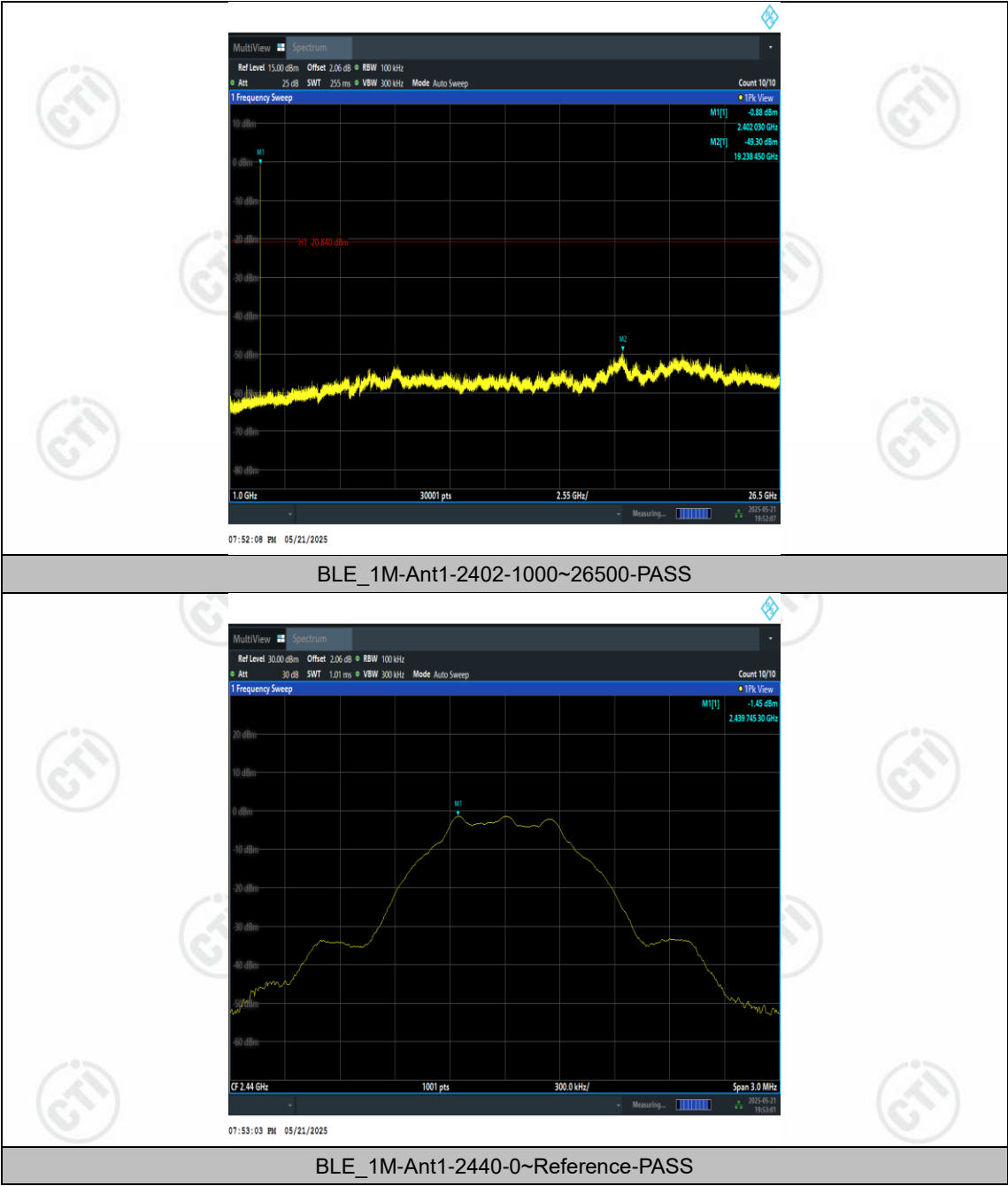
### Test Result

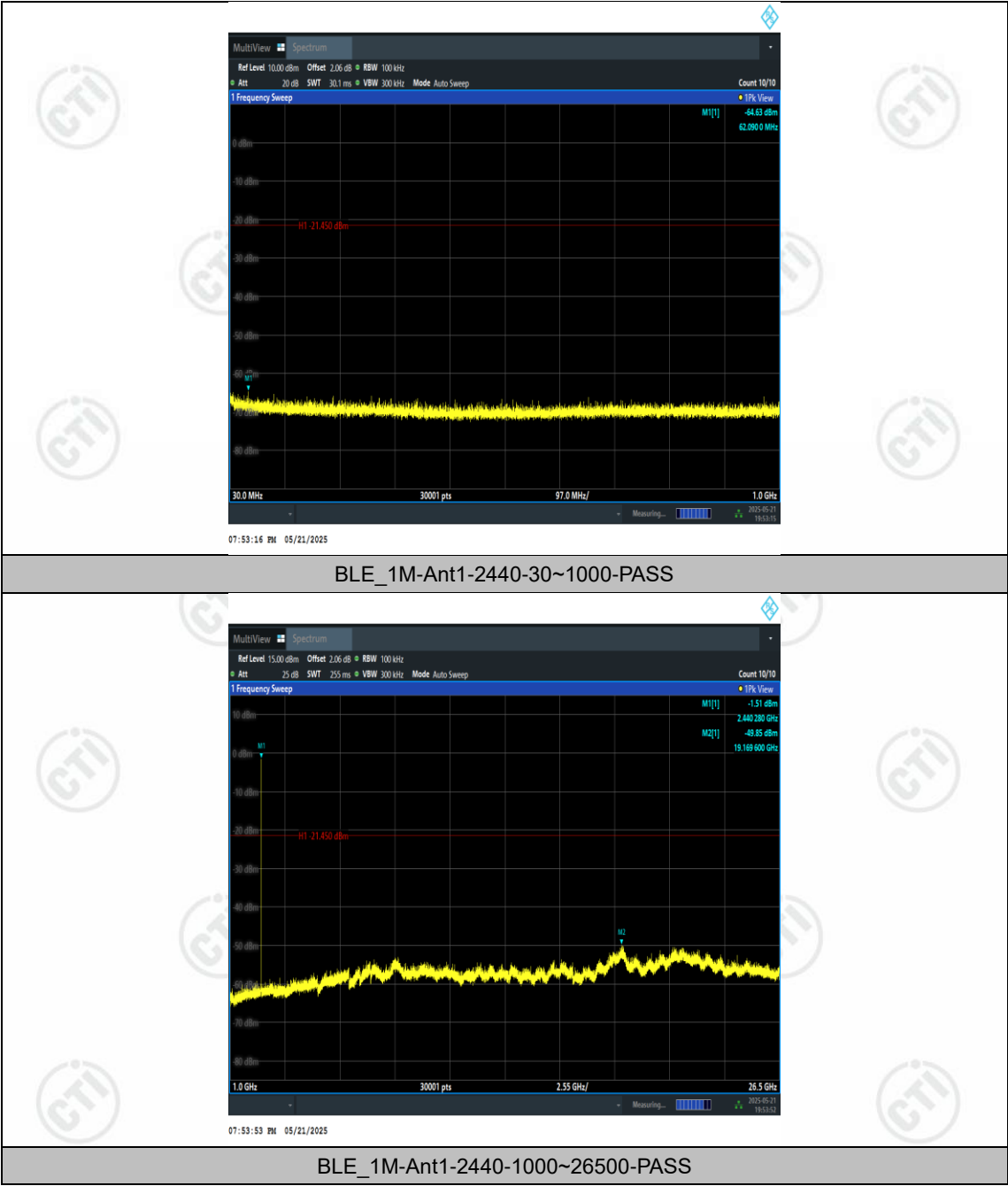
| TestMode | Antenna | Frequency [MHz] | FreqRange [MHz] | RefLevel [dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|-----------------|-----------------|----------------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402            | 0~Reference     | -0.84          | -0.84       | ---        | PASS    |
| BLE_1M   | Ant1    | 2402            | 30~1000         | -0.84          | -64.52      | ≤-20.84    | PASS    |
| BLE_1M   | Ant1    | 2402            | 1000~26500      | -0.84          | -49.3       | ≤-20.84    | PASS    |
| BLE_1M   | Ant1    | 2440            | 0~Reference     | -1.45          | -1.45       | ---        | PASS    |
| BLE_1M   | Ant1    | 2440            | 30~1000         | -1.45          | -64.63      | ≤-21.45    | PASS    |
| BLE_1M   | Ant1    | 2440            | 1000~26500      | -1.45          | -49.85      | ≤-21.45    | PASS    |
| BLE_1M   | Ant1    | 2480            | 0~Reference     | -1.32          | -1.32       | ---        | PASS    |
| BLE_1M   | Ant1    | 2480            | 30~1000         | -1.32          | -64.5       | ≤-21.32    | PASS    |
| BLE_1M   | Ant1    | 2480            | 1000~26500      | -1.32          | -49.8       | ≤-21.32    | PASS    |
| BLE_2M   | Ant1    | 2402            | 0~Reference     | -0.79          | -0.79       | ---        | PASS    |
| BLE_2M   | Ant1    | 2402            | 30~1000         | -0.79          | -63.35      | ≤-20.79    | PASS    |
| BLE_2M   | Ant1    | 2402            | 1000~26500      | -0.79          | -50.09      | ≤-20.79    | PASS    |
| BLE_2M   | Ant1    | 2440            | 0~Reference     | -1.41          | -1.41       | ---        | PASS    |
| BLE_2M   | Ant1    | 2440            | 30~1000         | -1.41          | -64.64      | ≤-21.41    | PASS    |
| BLE_2M   | Ant1    | 2440            | 1000~26500      | -1.41          | -50.26      | ≤-21.41    | PASS    |
| BLE_2M   | Ant1    | 2480            | 0~Reference     | -1.26          | -1.26       | ---        | PASS    |
| BLE_2M   | Ant1    | 2480            | 30~1000         | -1.26          | -65.55      | ≤-21.26    | PASS    |
| BLE_2M   | Ant1    | 2480            | 1000~26500      | -1.26          | -49.83      | ≤-21.26    | PASS    |

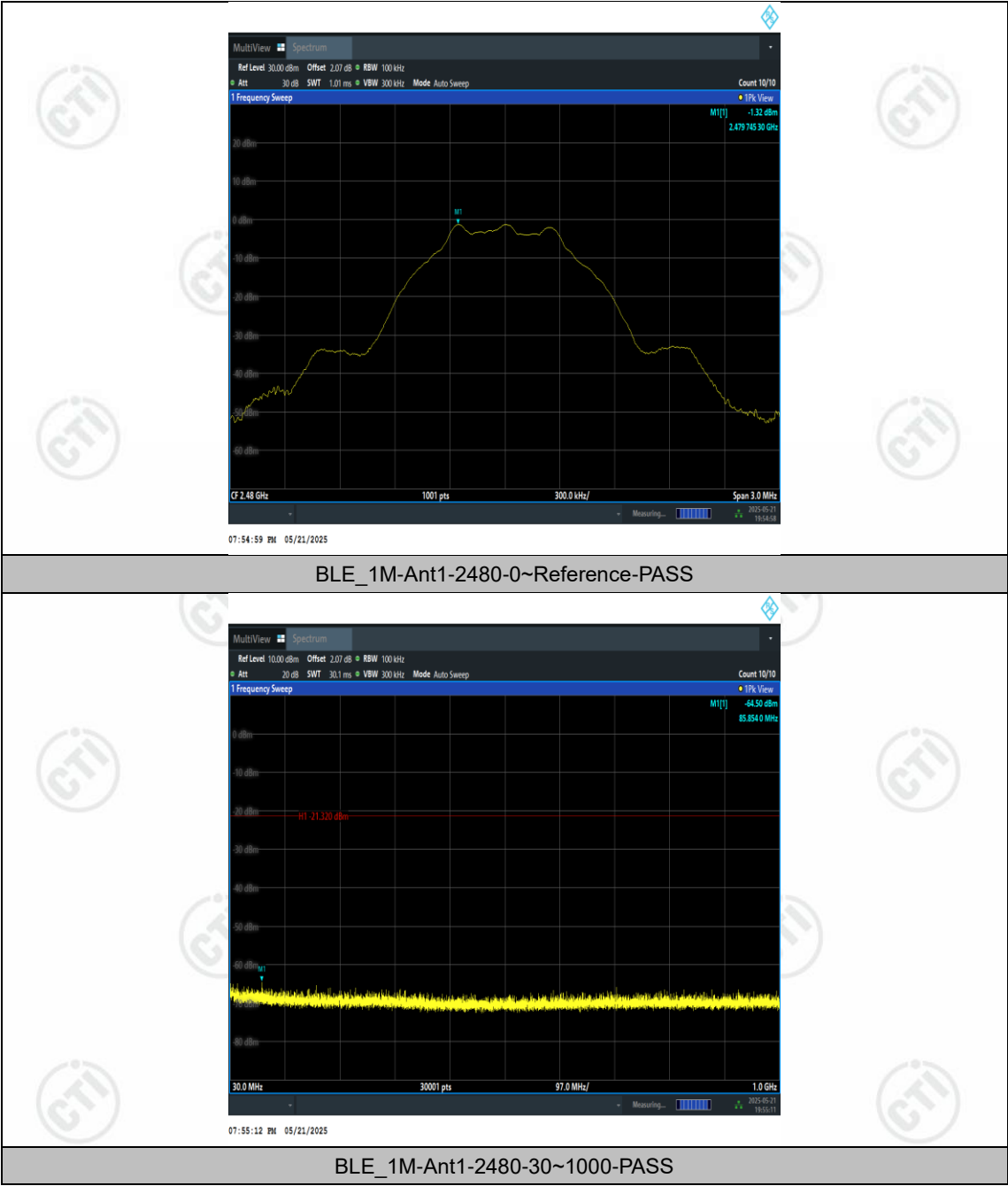


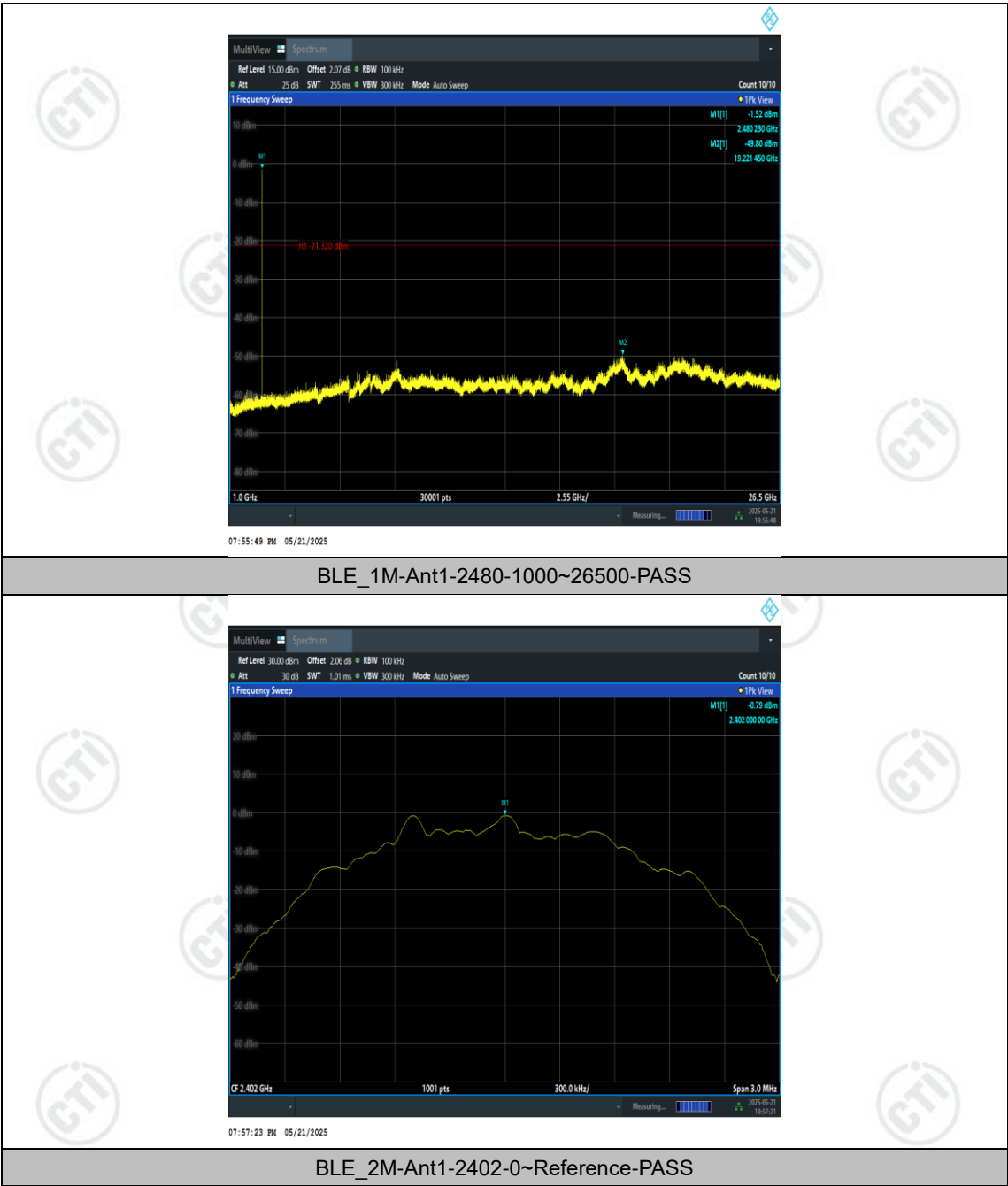
Test Graphs

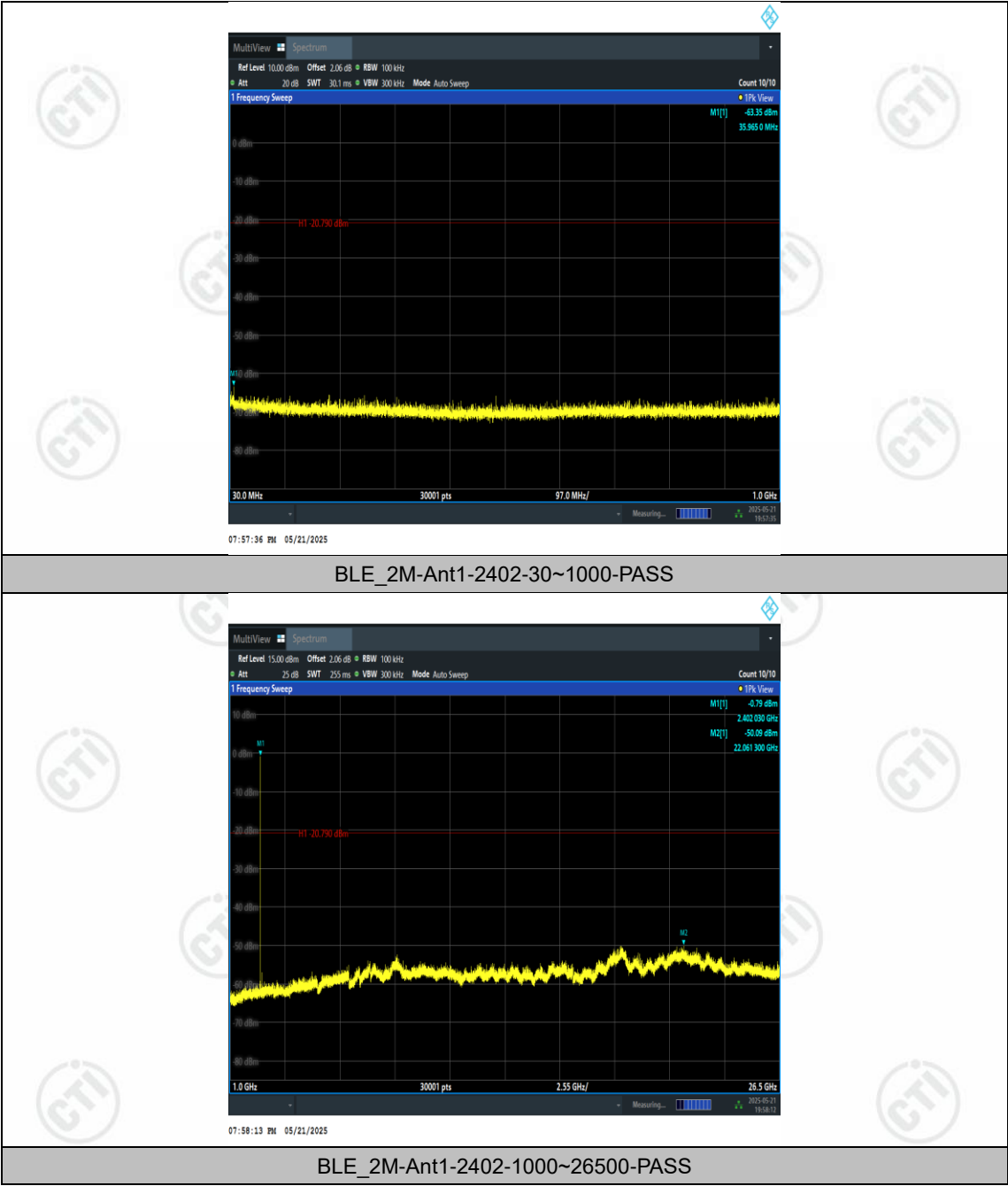


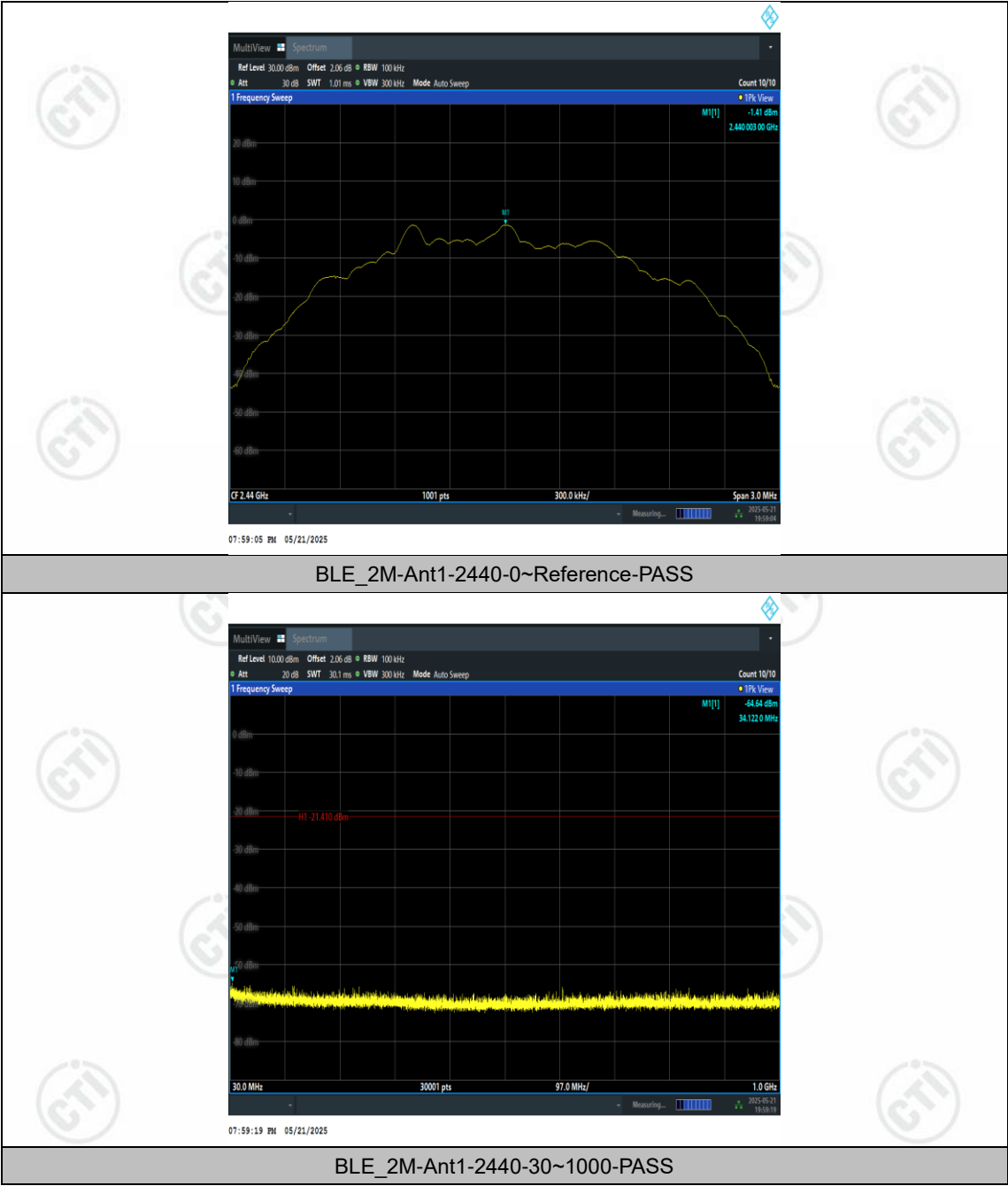




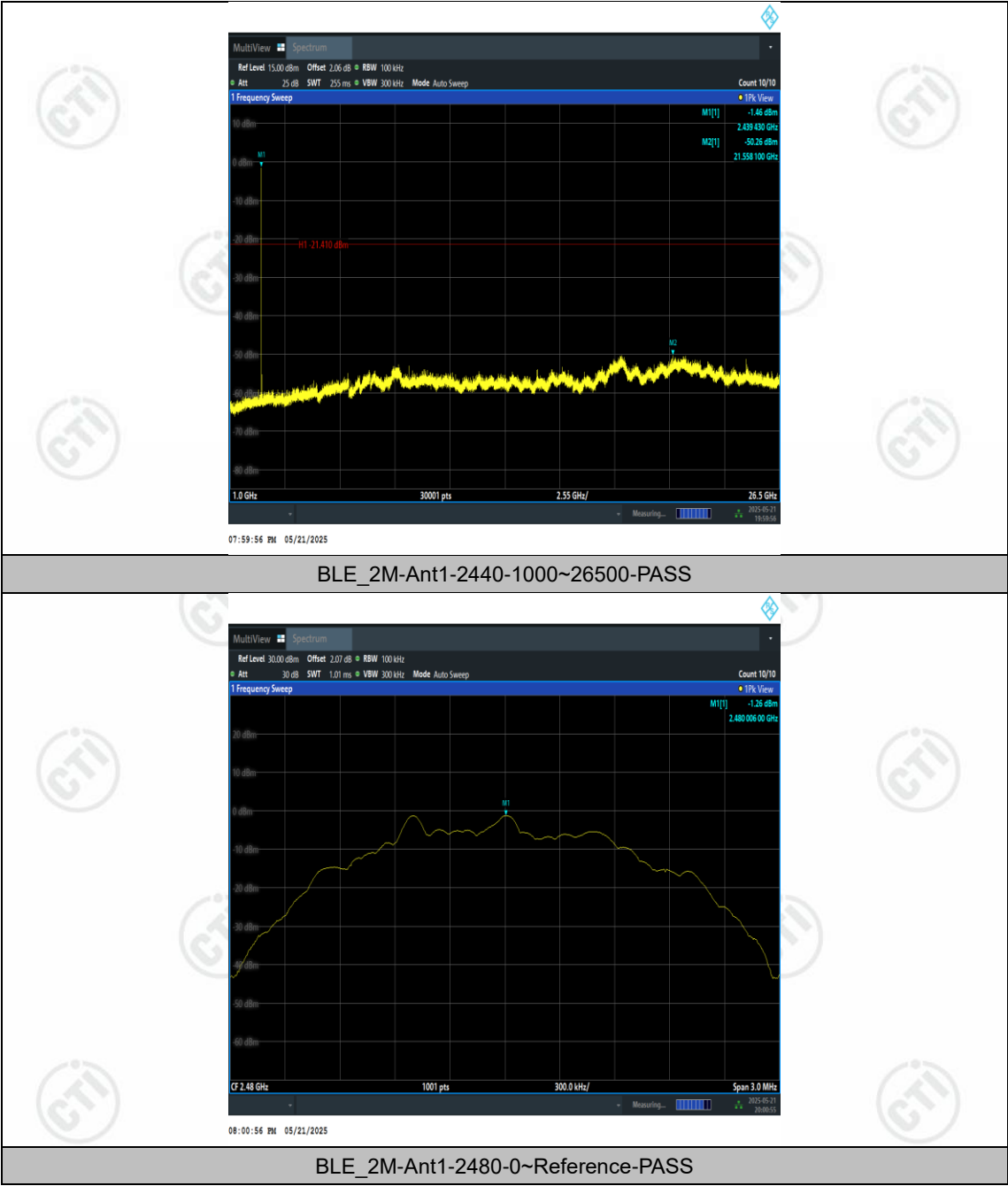


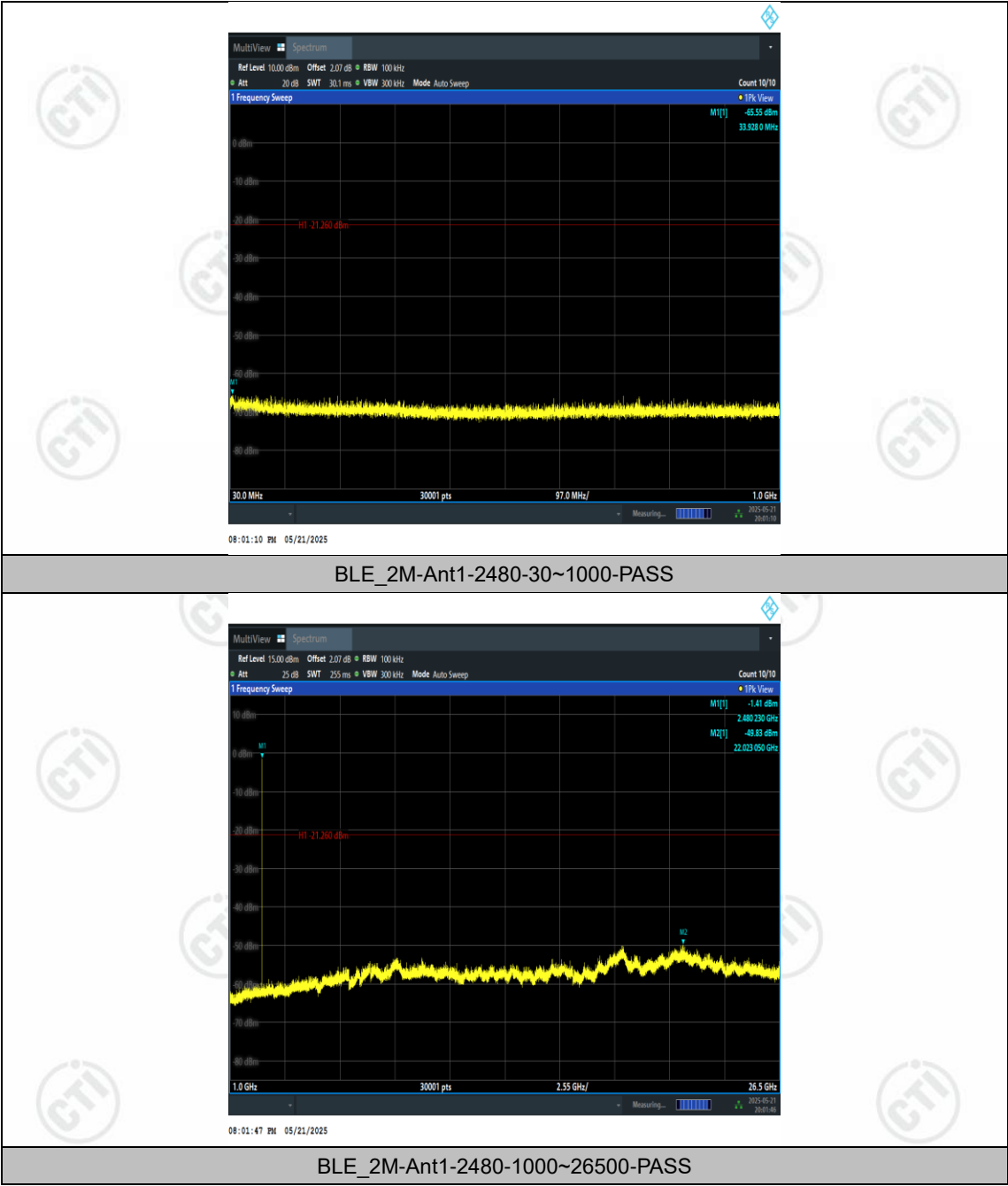












## Appendix G: Duty Cycle

### Test Result

| Test Mode | Antenna | Frequency[MHz] | ON Time [ms] | Period [ms] | Duty Cycle [%] | Duty Cycle Factor[dB] |
|-----------|---------|----------------|--------------|-------------|----------------|-----------------------|
| BLE_1M    | Ant1    | 2402           | 0.41         | 0.63        | 65.08          | 1.87                  |
| BLE_1M    | Ant1    | 2440           | 0.41         | 0.63        | 65.08          | 1.87                  |
| BLE_1M    | Ant1    | 2480           | 0.41         | 0.63        | 65.08          | 1.87                  |
| BLE_2M    | Ant1    | 2402           | 0.22         | 0.62        | 35.48          | 4.50                  |
| BLE_2M    | Ant1    | 2440           | 0.23         | 0.63        | 36.51          | 4.38                  |
| BLE_2M    | Ant1    | 2480           | 0.22         | 0.62        | 35.48          | 4.50                  |

Test Graphs







\*\*\* End of Report \*\*\*