



## Appendix A: DTS Bandwidth

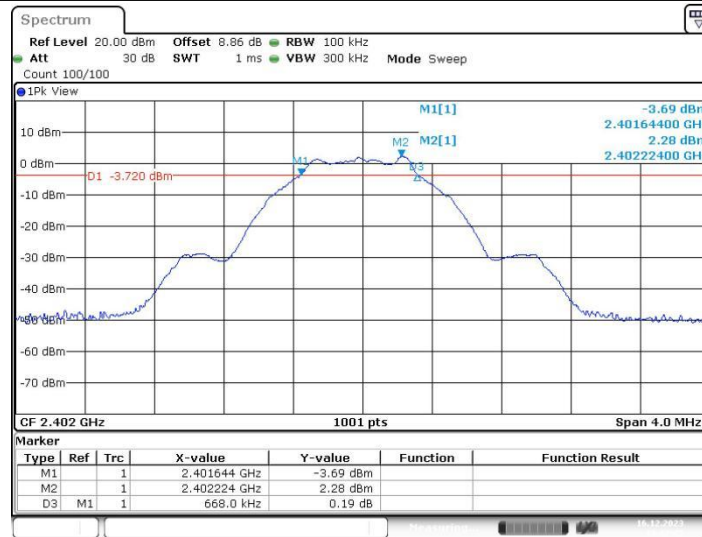
### Test Result

| TestMode | Antenna | Freq(MHz) | DTS BW<br>[MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|----------|---------|-----------|-----------------|---------|---------|------------|---------|
| BLE_1M   | Ant1    | 2402      | 0.67            | 2401.64 | 2402.31 | 0.5        | PASS    |
|          |         | 2440      | 0.67            | 2439.64 | 2440.31 | 0.5        | PASS    |
|          |         | 2480      | 0.67            | 2479.64 | 2480.32 | 0.5        | PASS    |
| BLE_2M   | Ant1    | 2402      | 1.18            | 2401.40 | 2402.57 | 0.5        | PASS    |
|          |         | 2440      | 1.17            | 2439.40 | 2440.57 | 0.5        | PASS    |
|          |         | 2480      | 1.18            | 2479.40 | 2480.57 | 0.5        | PASS    |

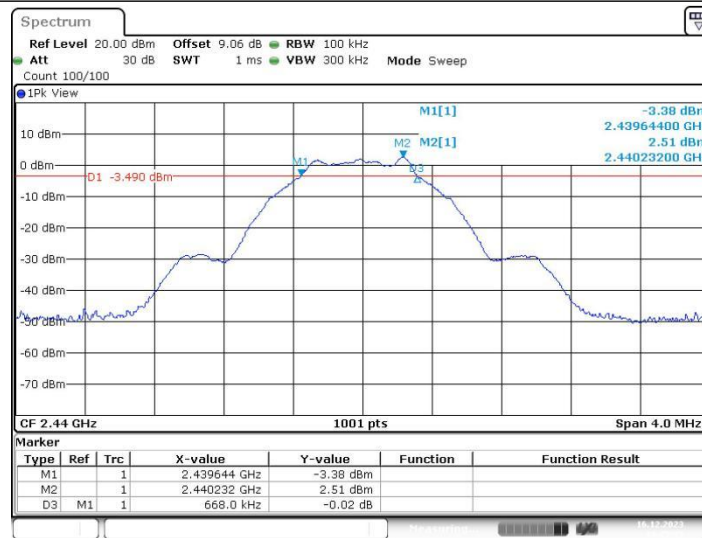


## Test Graphs

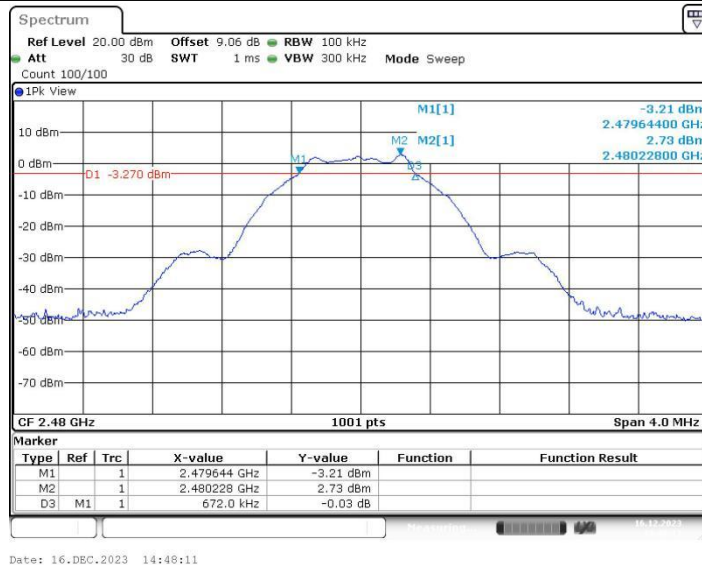
BLE\_1M\_Ant1\_2402



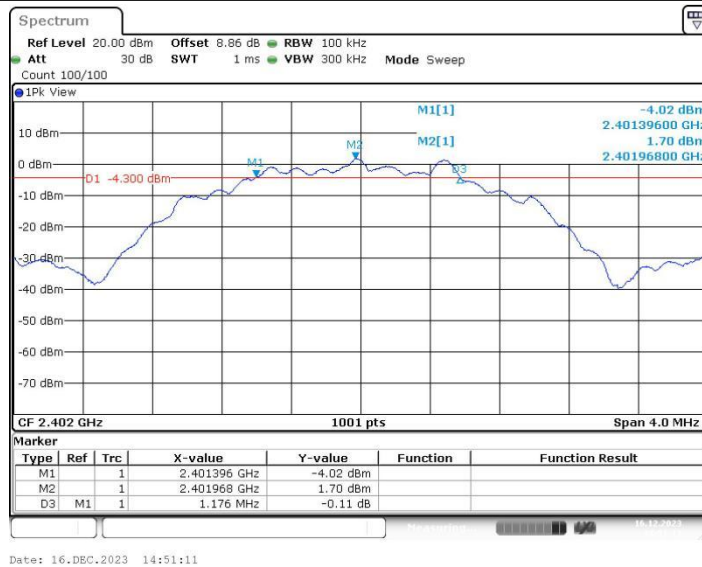
BLE\_1M\_Ant1\_2440



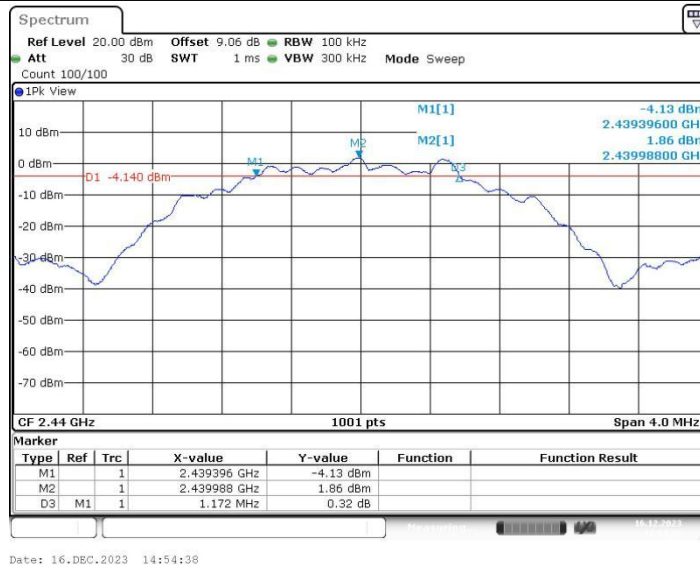
BLE\_1M\_Ant1\_2480



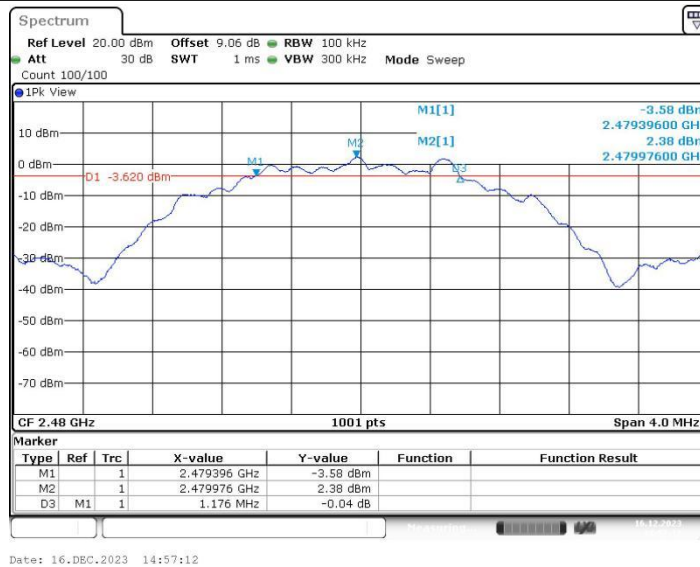
## BLE\_2M\_Ant1\_2402



## BLE\_2M\_Ant1\_2440



## BLE\_2M\_Ant1\_2480





## Appendix B: Occupied Channel Bandwidth

### Test Result

| TestMode | Antenna | Freq(MHz) | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|----------|---------|-----------|-----------|-----------|-----------|------------|---------|
| BLE_1M   | Ant1    | 2402      | 1.031     | 2401.4685 | 2402.4995 | ---        | ---     |
|          |         | 2440      | 1.035     | 2439.4645 | 2440.4995 | ---        | ---     |
|          |         | 2480      | 1.035     | 2479.4645 | 2480.4995 | ---        | ---     |
| BLE_2M   | Ant1    | 2402      | 2.058     | 2400.9610 | 2403.0190 | ---        | ---     |
|          |         | 2440      | 2.058     | 2438.9610 | 2441.0190 | ---        | ---     |
|          |         | 2480      | 2.058     | 2478.9610 | 2481.0190 | ---        | ---     |



## Test Graphs

BLE\_1M\_Ant1\_2402



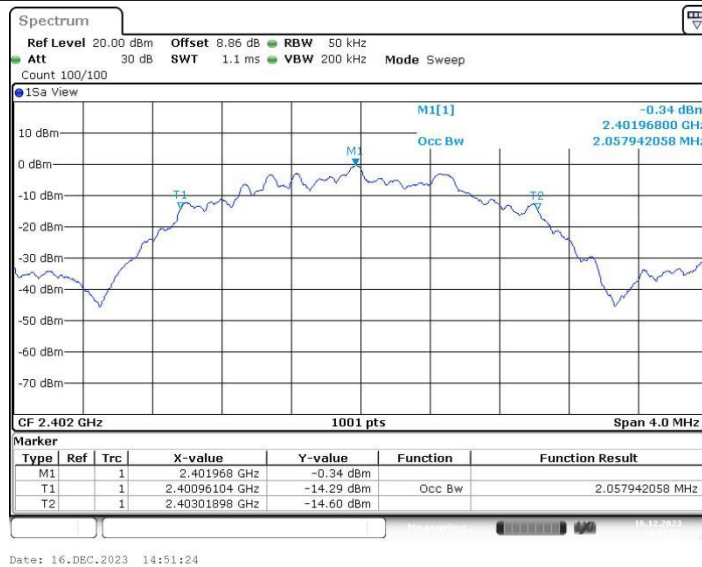
BLE\_1M\_Ant1\_2440



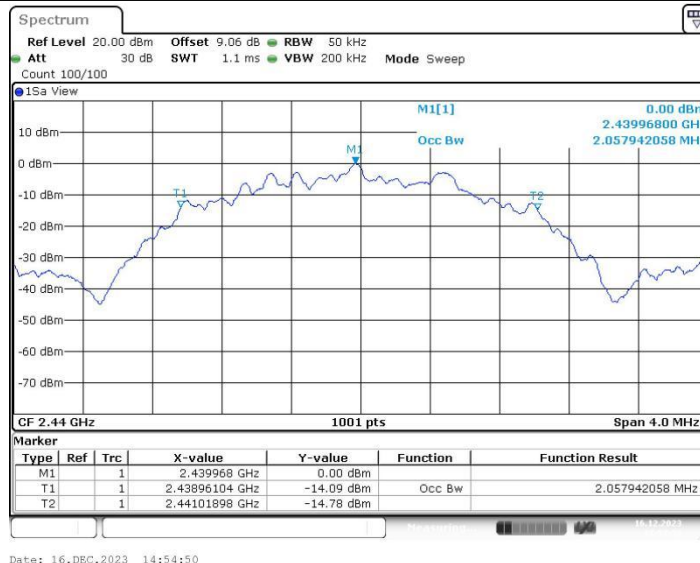
BLE\_1M\_Ant1\_2480



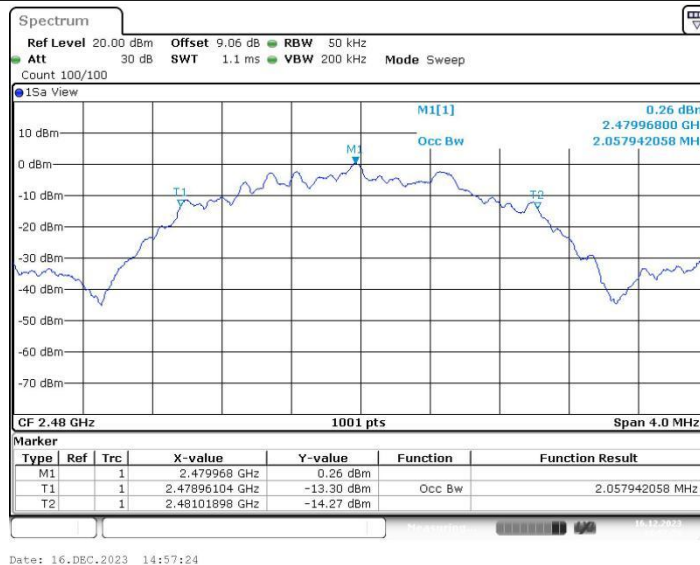
BLE\_2M\_Ant1\_2402



BLE\_2M\_Ant1\_2440



## BLE\_2M\_Ant1\_2480







## Appendix C: 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   | Ant1    | 2402      | 2.6                       | ≤30                  | 1.33      | ≤36             | PASS    |
|          |         | 2440      | 2.69                      | ≤30                  | 1.42      | ≤36             | PASS    |
|          |         | 2480      | 3.11                      | ≤30                  | 1.84      | ≤36             | PASS    |
| BLE_2M   | Ant1    | 2402      | 2.59                      | ≤30                  | 1.32      | ≤36             | PASS    |
|          |         | 2440      | 2.95                      | ≤30                  | 1.68      | ≤36             | PASS    |
|          |         | 2480      | 3.17                      | ≤30                  | 1.9       | ≤36             | PASS    |

### Test Result Average

| Test Mode | Antenna | Freq (MHz) | Conducted Sensor power[dBm] | Duty Cycle [%] | DC Factor [dBm] | Result [dBm] | Limit [dBm] | Gain [dBi] | EIRP [dBm] | EIRP Limit [dBm] | Verdict |
|-----------|---------|------------|-----------------------------|----------------|-----------------|--------------|-------------|------------|------------|------------------|---------|
| BLE_1M    | Ant1    | 2402       | 0.69                        | 85.20          | 0.70            | 1.39         | ≤30.00      | -1.27      | 0.12       | ≤36.00           | PASS    |
|           |         | 2440       | 0.65                        | 85.20          | 0.70            | 1.35         | ≤30.00      | -1.27      | 0.08       | ≤36.00           | PASS    |
|           |         | 2480       | 0.68                        | 85.20          | 0.70            | 1.38         | ≤30.00      | -1.27      | 0.11       | ≤36.00           | PASS    |
| BLE_2M    | Ant1    | 2402       | -0.99                       | 57.45          | 2.41            | 1.42         | ≤30.00      | -1.27      | 0.15       | ≤36.00           | PASS    |
|           |         | 2440       | -0.95                       | 57.45          | 2.41            | 1.46         | ≤30.00      | -1.27      | 0.19       | ≤36.00           | PASS    |
|           |         | 2480       | -0.91                       | 57.45          | 2.41            | 1.50         | ≤30.00      | -1.27      | 0.23       | ≤36.00           | PASS    |



## Appendix D: Maximum power spectral density

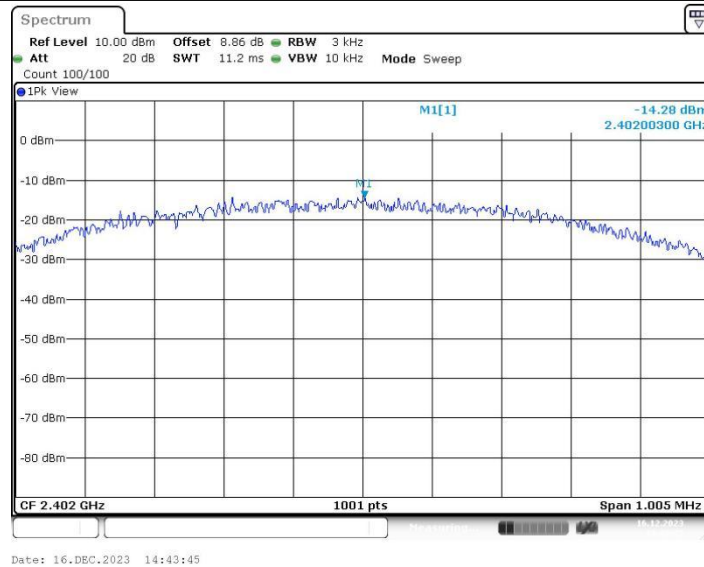
### Test Result

| TestMode | Antenna | Freq(MHz) | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|-----------|------------------|-----------------|---------|
| BLE_1M   | Ant1    | 2402      | -14.28           | ≤8.00           | PASS    |
|          |         | 2440      | -14.08           | ≤8.00           | PASS    |
|          |         | 2480      | -13.6            | ≤8.00           | PASS    |
| BLE_2M   | Ant1    | 2402      | -16.24           | ≤8.00           | PASS    |
|          |         | 2440      | -16.02           | ≤8.00           | PASS    |
|          |         | 2480      | -15.73           | ≤8.00           | PASS    |

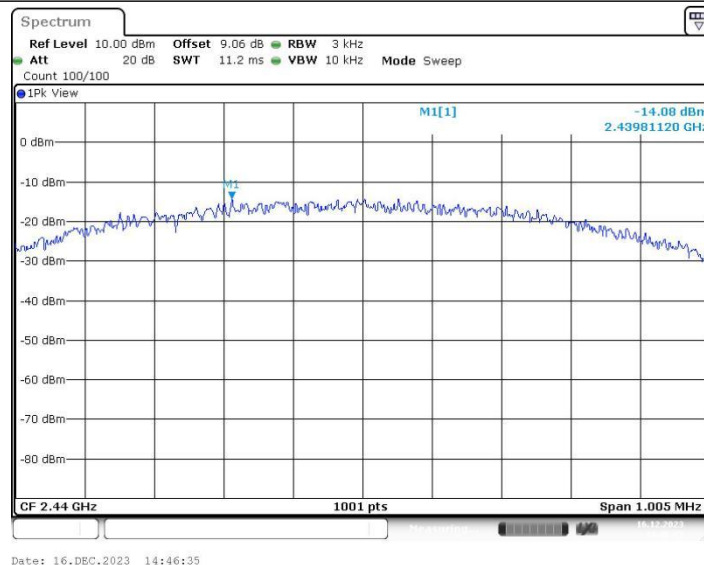


## Test Graphs

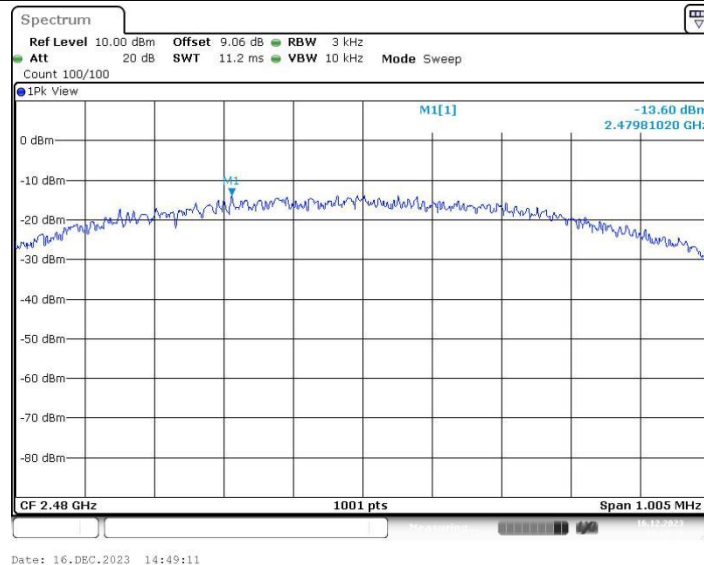
BLE\_1M\_Ant1\_2402



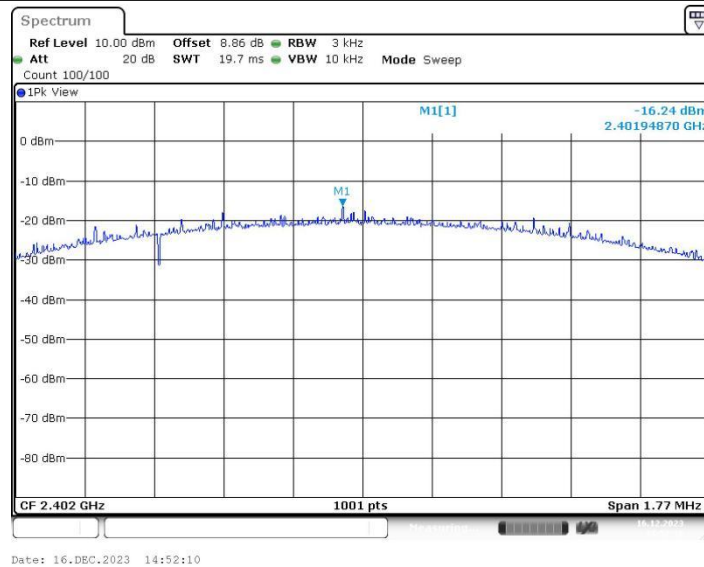
BLE\_1M\_Ant1\_2440



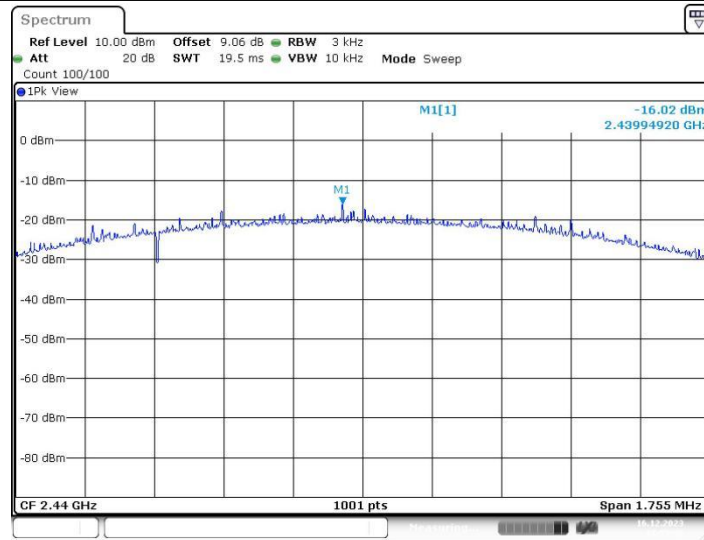
BLE\_1M\_Ant1\_2480



BLE\_2M\_Ant1\_2402

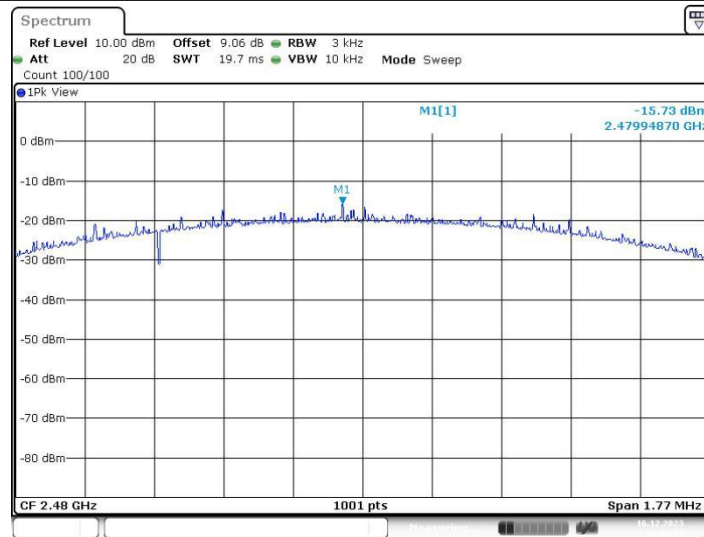


BLE\_2M\_Ant1\_2440



Date: 16.DEC.2023 14:55:37

## BLE\_2M\_Ant1\_2480



Date: 16.DEC.2023 14:58:11



## ppendix E: Reference level measurement

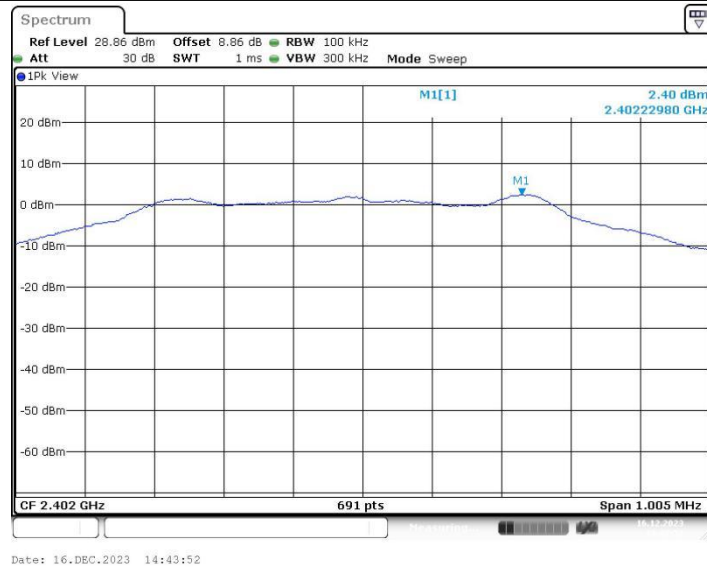
### Test Result

| TestMode | Antenna | Freq(MHz) | Max.Point[MHz] | Result[dBm] |
|----------|---------|-----------|----------------|-------------|
| BLE_1M   | Ant1    | 2402      | 2402.23        | 2.40        |
|          |         | 2440      | 2440.23        | 2.51        |
|          |         | 2480      | 2480.22        | 2.84        |
| BLE_2M   | Ant1    | 2402      | 2401.99        | 1.77        |
|          |         | 2440      | 2439.98        | 1.95        |
|          |         | 2480      | 2479.98        | 2.40        |

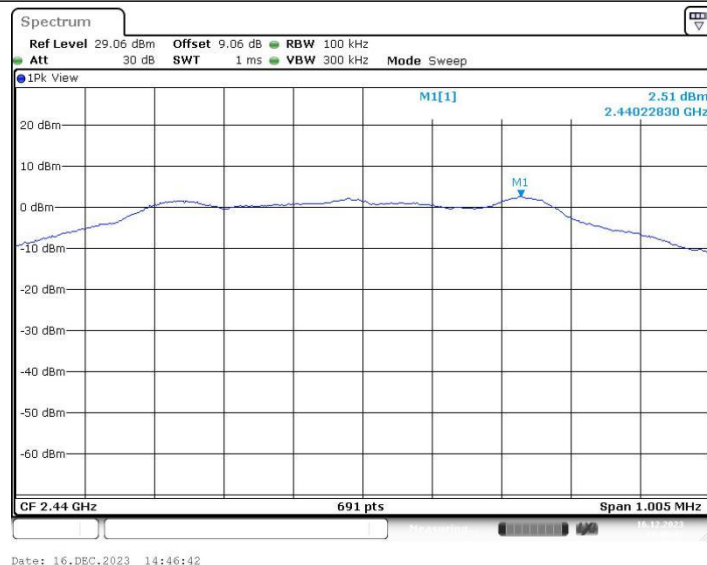


## Test Graphs

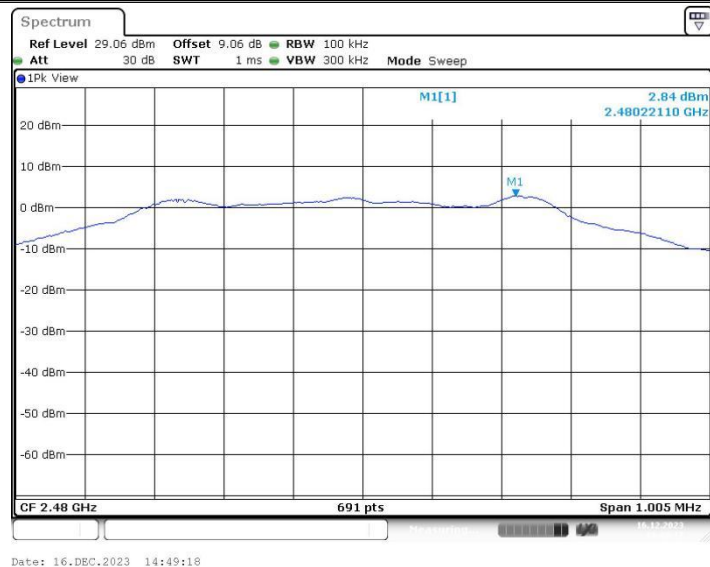
BLE\_1M\_Ant1\_2402



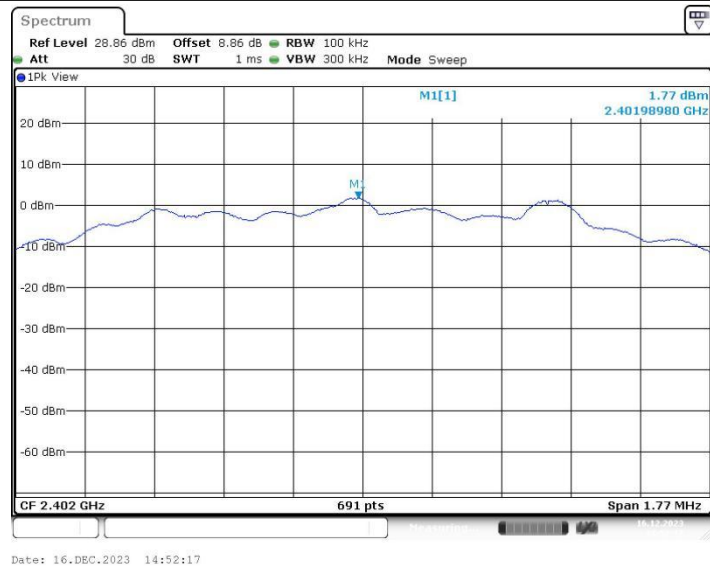
BLE\_1M\_Ant1\_2440



BLE\_1M\_Ant1\_2480

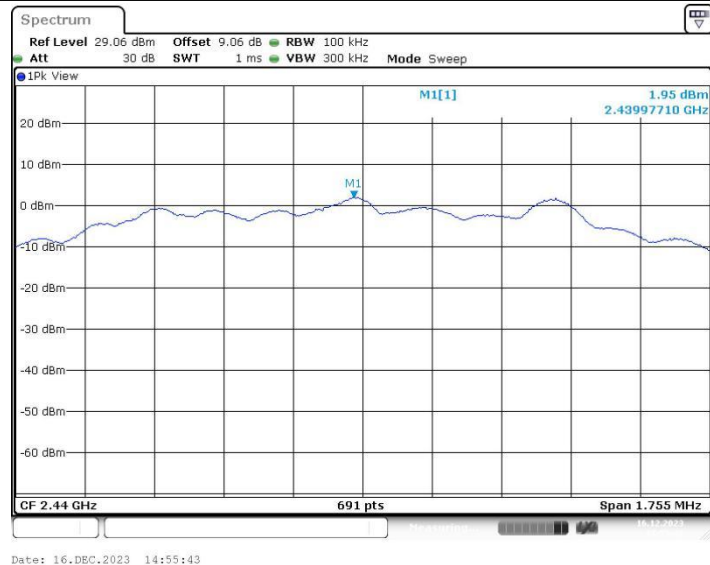


BLE\_2M\_Ant1\_2402

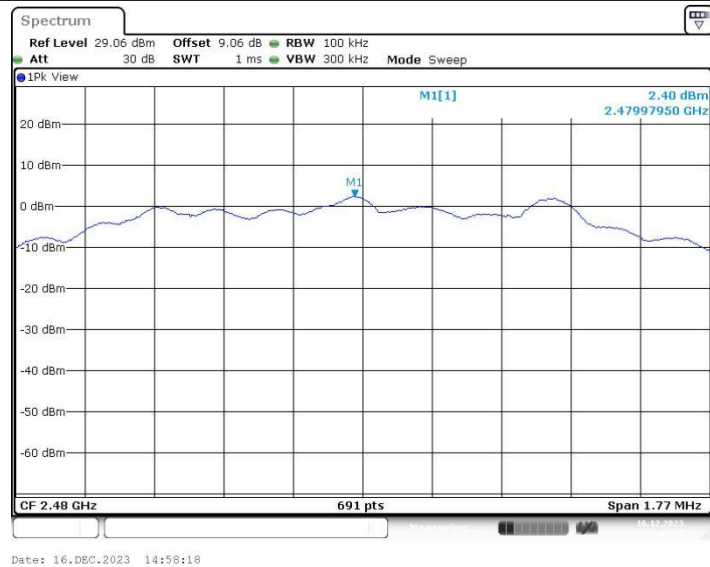


BLE\_2M\_Ant1\_2440





BLE\_2M\_Ant1\_2480





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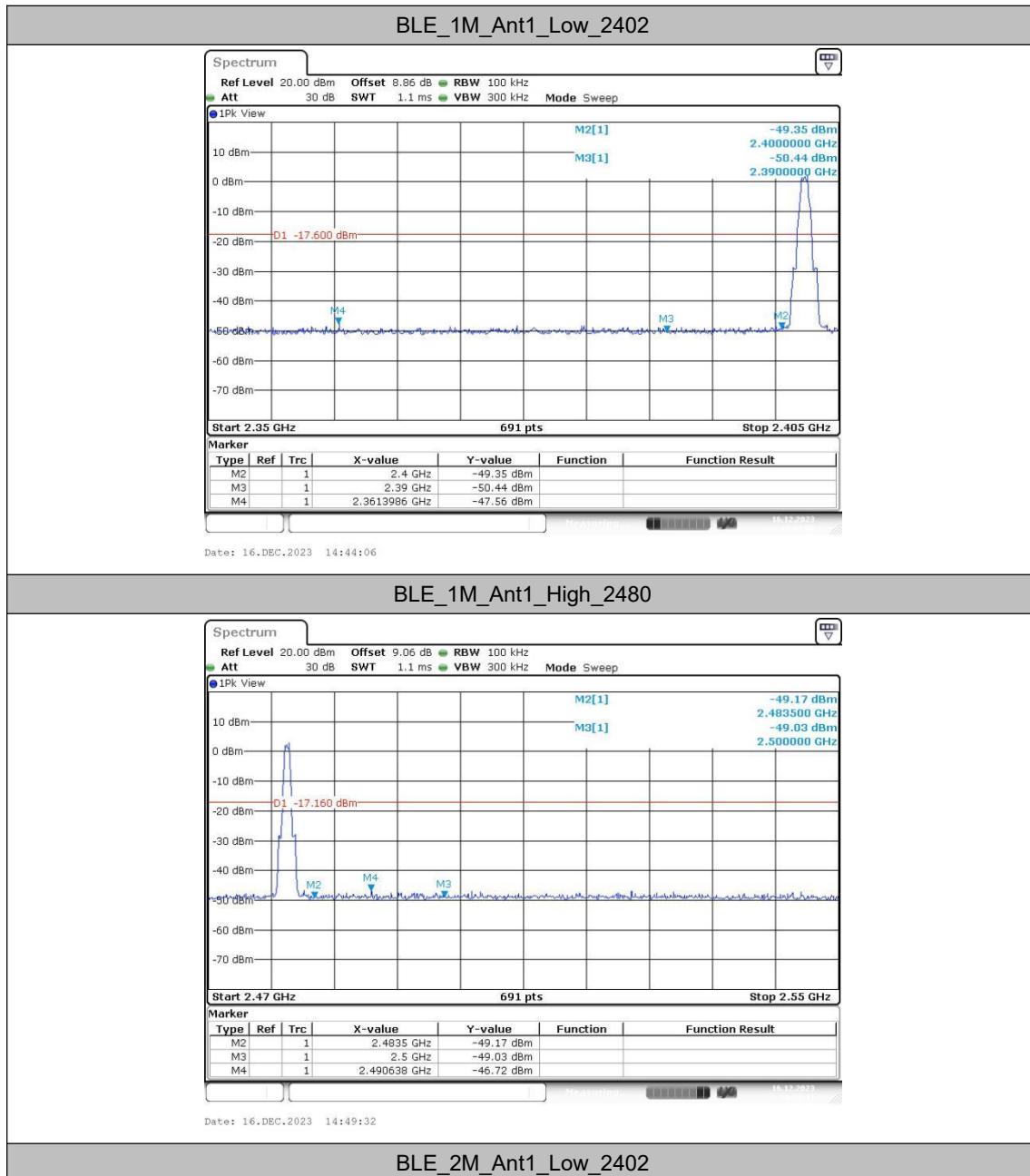
## Appendix F: Band edge measurements

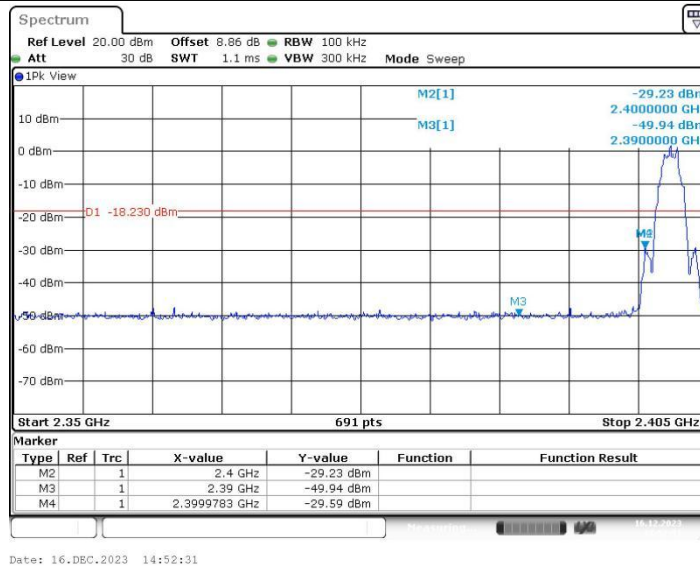
### Test Result

| TestMode | Antenna | ChName | Freq(MHz) | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|--------|-----------|---------------|-------------|------------|---------|
| BLE_1M   | Ant1    | Low    | 2402      | 2.40          | -47.56      | ≤-17.6     | PASS    |
|          |         | High   | 2480      | 2.84          | -46.72      | ≤-17.16    | PASS    |
| BLE_2M   | Ant1    | Low    | 2402      | 1.77          | -29.59      | ≤-18.23    | PASS    |
|          |         | High   | 2480      | 2.40          | -46.53      | ≤-17.6     | PASS    |

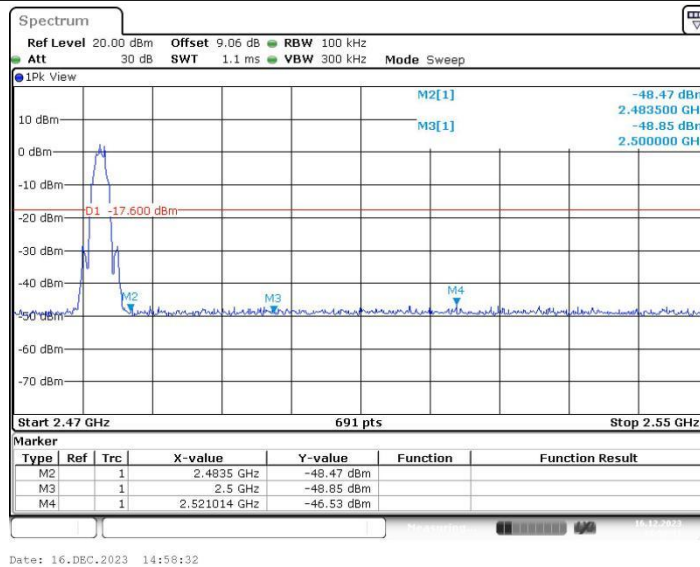


## Test Graphs





## BLE\_2M\_Ant1\_High\_2480





## Appendix G: Conducted Spurious Emission

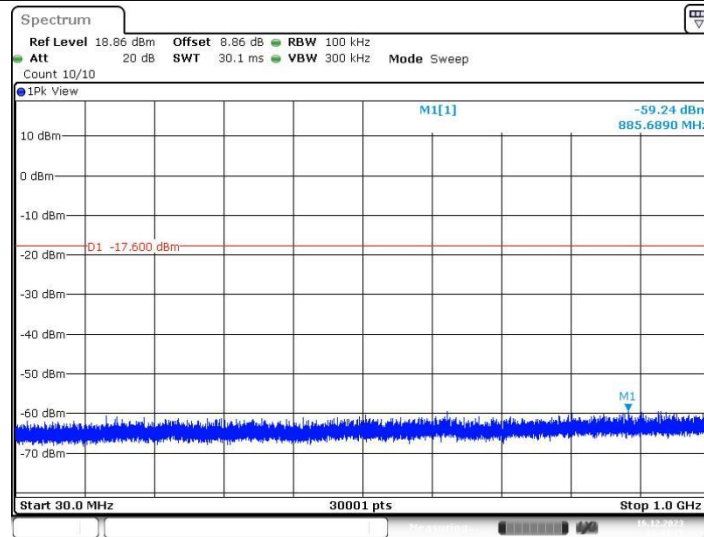
### Test Result

| TestMode | Antenna | Freq(MHz) | FreqRange<br>[MHz] | RefLevel<br>[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|-----------|--------------------|-------------------|-------------|------------|---------|
| BLE_1M   | Ant1    | 2402      | 30~1000            | 2.40              | -59.24      | ≤-17.6     | PASS    |
|          |         |           | 1000~26500         | 2.40              | -48.28      | ≤-17.6     | PASS    |
|          |         | 2440      | 30~1000            | 2.51              | -58.28      | ≤-17.49    | PASS    |
|          |         |           | 1000~26500         | 2.51              | -46.69      | ≤-17.49    | PASS    |
|          |         | 2480      | 30~1000            | 2.84              | -59.12      | ≤-17.16    | PASS    |
|          |         |           | 1000~26500         | 2.84              | -47.16      | ≤-17.16    | PASS    |
| BLE_2M   | Ant1    | 2402      | 30~1000            | 1.77              | -59.24      | ≤-18.23    | PASS    |
|          |         |           | 1000~26500         | 1.77              | -47.25      | ≤-18.23    | PASS    |
|          |         | 2440      | 30~1000            | 1.95              | -58.34      | ≤-18.05    | PASS    |
|          |         |           | 1000~26500         | 1.95              | -46.72      | ≤-18.05    | PASS    |
|          |         | 2480      | 30~1000            | 2.40              | -58.79      | ≤-17.6     | PASS    |
|          |         |           | 1000~26500         | 2.40              | -47.29      | ≤-17.6     | PASS    |



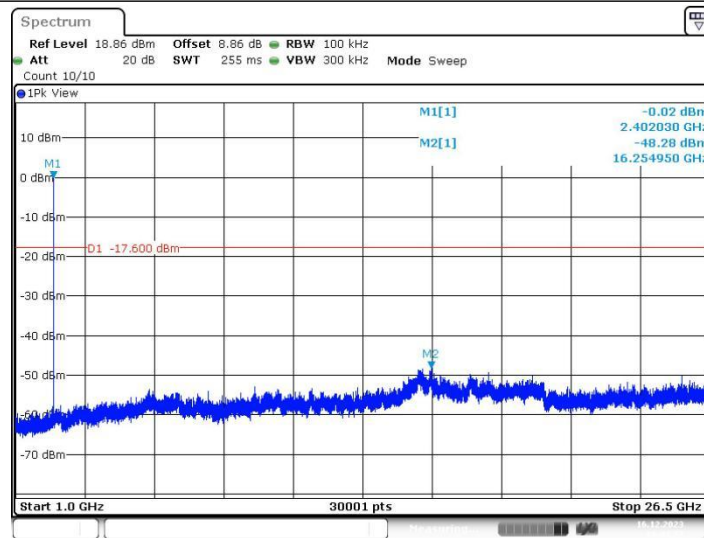
## Test Graphs

BLE\_1M\_Ant1\_2402\_30~1000



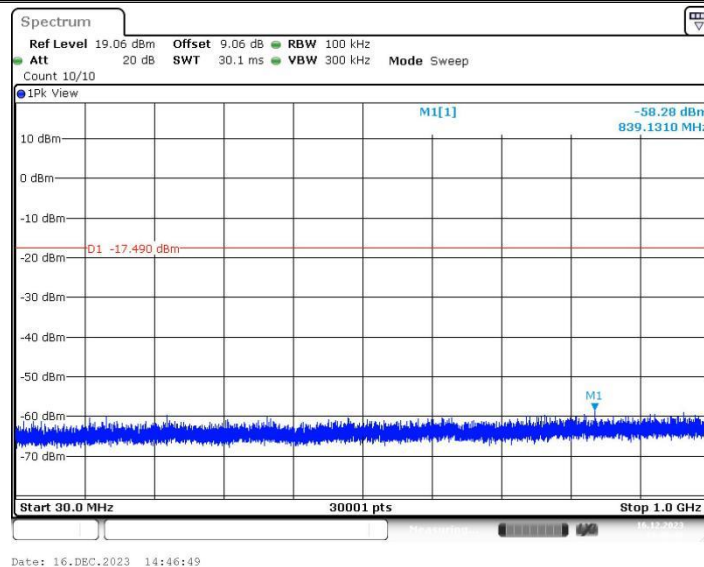
Date: 16.DEC.2023 14:44:16

BLE\_1M\_Ant1\_2402\_1000~26500

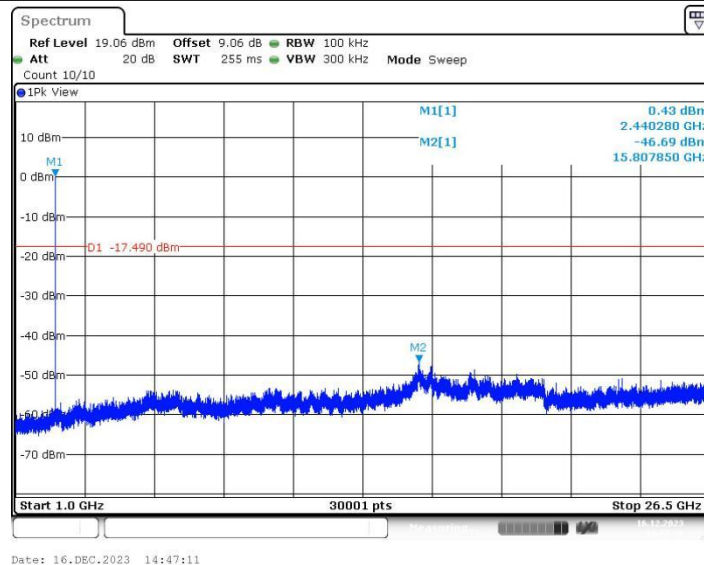


Date: 16.DEC.2023 14:44:38

BLE\_1M\_Ant1\_2440\_30~1000

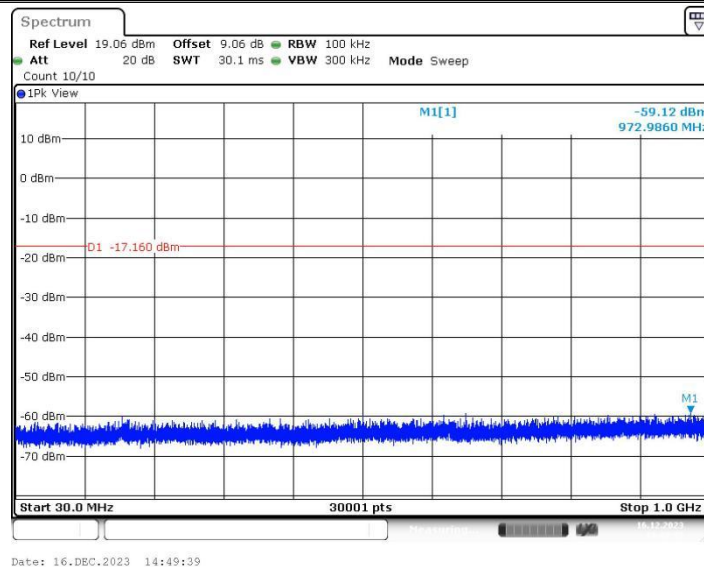


BLE\_1M\_Ant1\_2440\_1000~26500

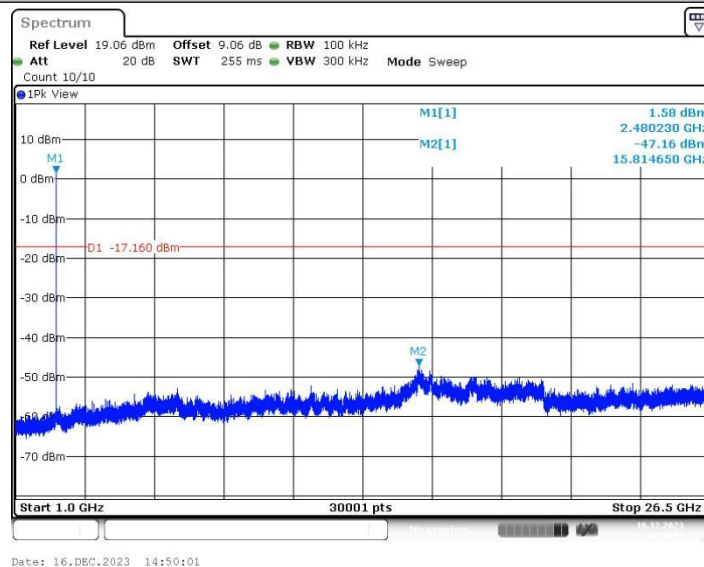


BLE\_1M\_Ant1\_2480\_30~1000

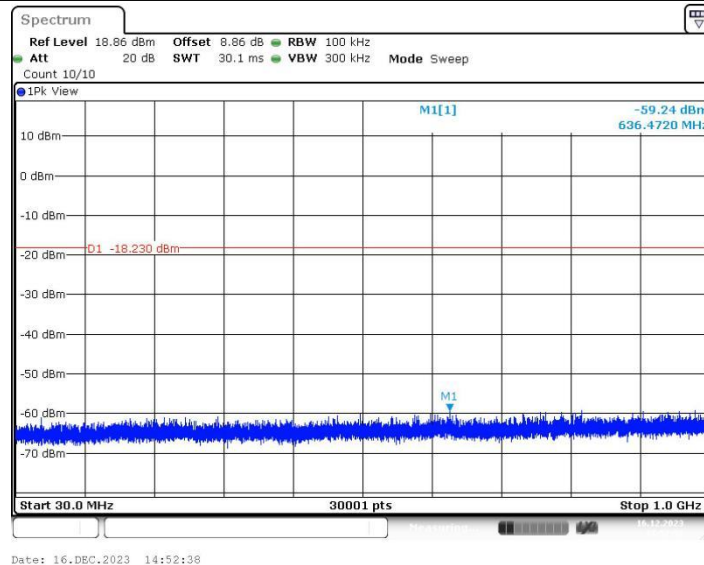




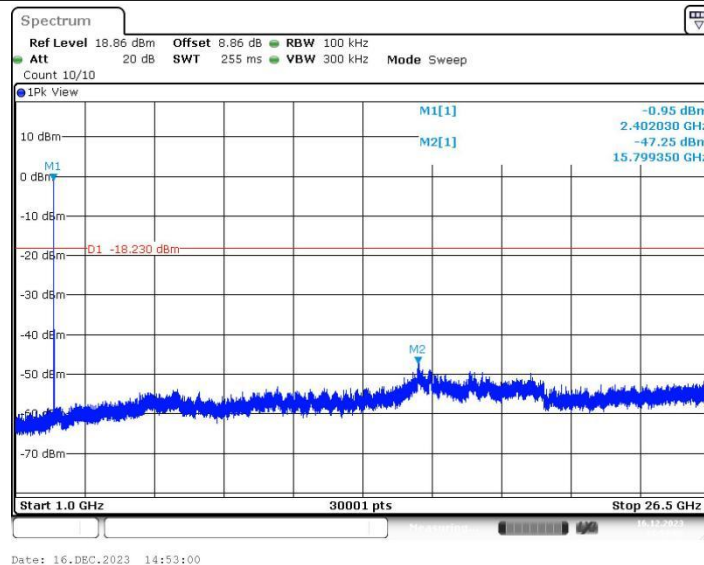
BLE\_1M\_Ant1\_2480\_1000~26500



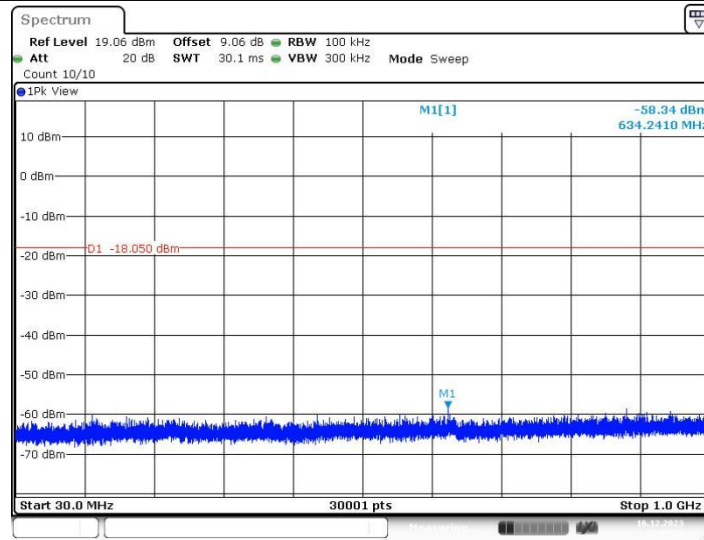
BLE\_2M\_Ant1\_2402\_30~1000



BLE\_2M\_Ant1\_2402\_1000~26500

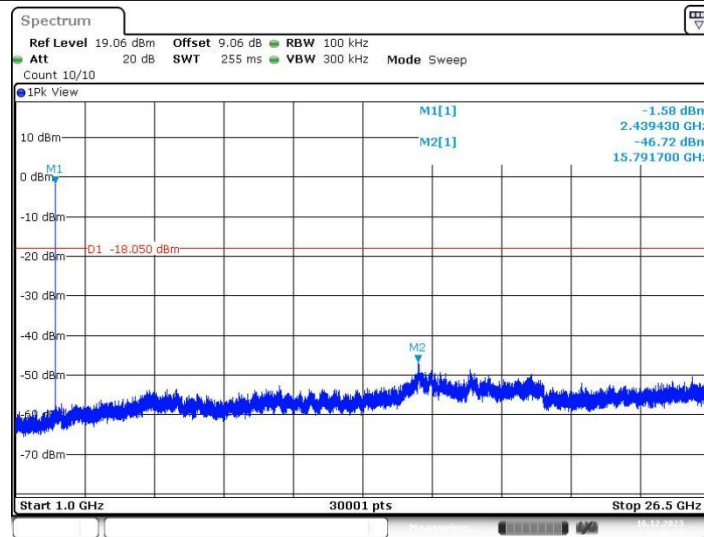


BLE\_2M\_Ant1\_2440\_30~1000



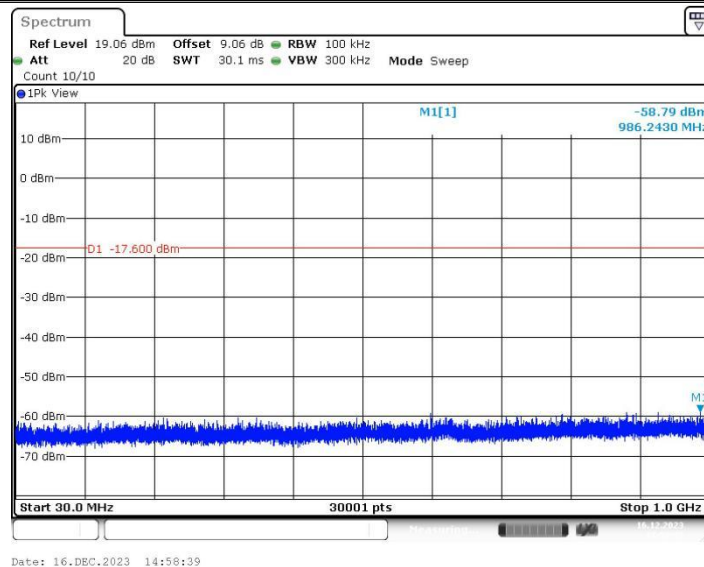
Date: 16.DEC.2023 14:55:50

BLE\_2M\_Ant1\_2440\_1000~26500

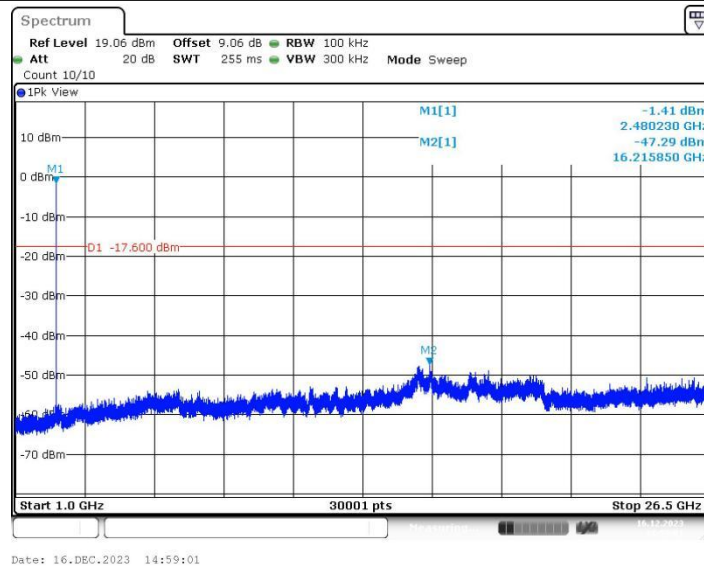


Date: 16.DEC.2023 14:56:12

BLE\_2M\_Ant1\_2480\_30~1000



BLE\_2M\_Ant1\_2480\_1000~26500





## Appendix H: Duty Cycle

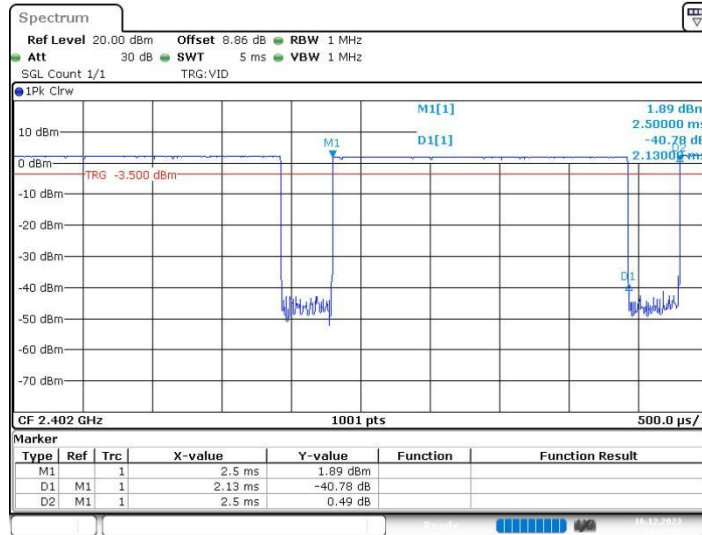
### Test Result

| TestMode | Antenna | Freq(MHz) | ON Time<br>[ms] | Period<br>[ms] | X      | DC<br>[%] | xFactor | Limit | Verdict |
|----------|---------|-----------|-----------------|----------------|--------|-----------|---------|-------|---------|
| BLE_1M   | Ant1    | 2402      | 2.13            | 2.50           | 0.8520 | 85.20     | 0.70    | ---   | ---     |
|          |         | 2440      | 2.13            | 2.50           | 0.8520 | 85.20     | 0.70    | ---   | ---     |
|          |         | 2480      | 2.13            | 2.50           | 0.8520 | 85.20     | 0.70    | ---   | ---     |
| BLE_2M   | Ant1    | 2402      | 1.08            | 1.88           | 0.5745 | 57.45     | 2.41    | ---   | ---     |
|          |         | 2440      | 1.08            | 1.88           | 0.5745 | 57.45     | 2.41    | ---   | ---     |
|          |         | 2480      | 1.08            | 1.88           | 0.5745 | 57.45     | 2.41    | ---   | ---     |

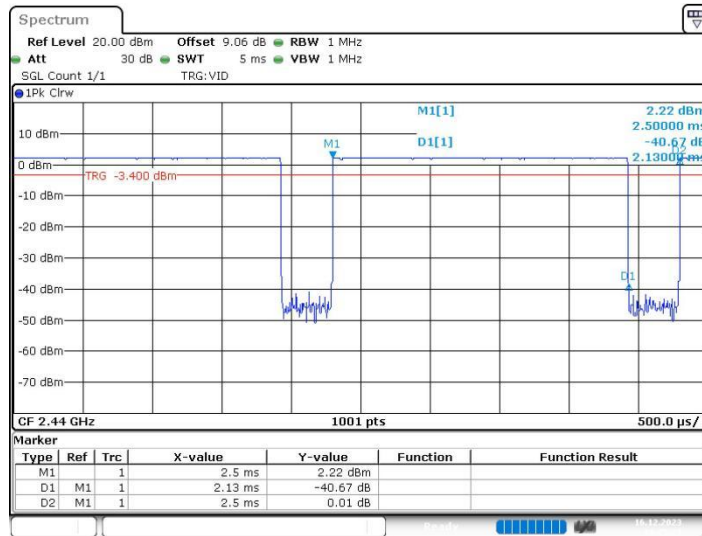


## Test Graphs

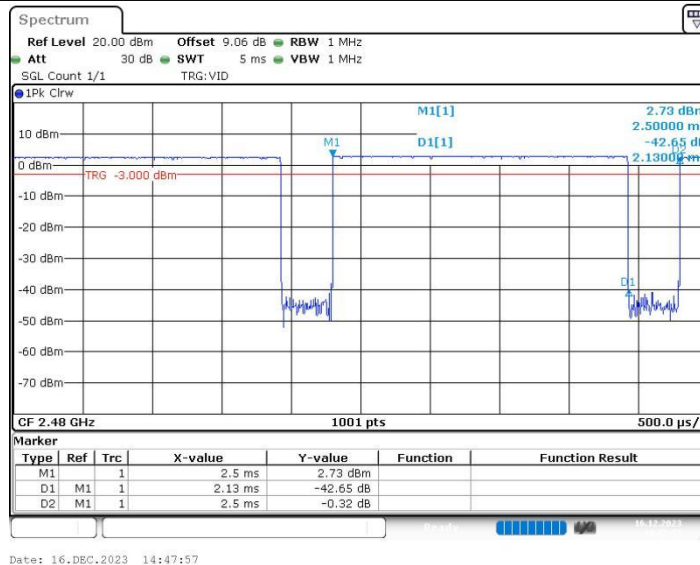
BLE\_1M\_Ant1\_2402



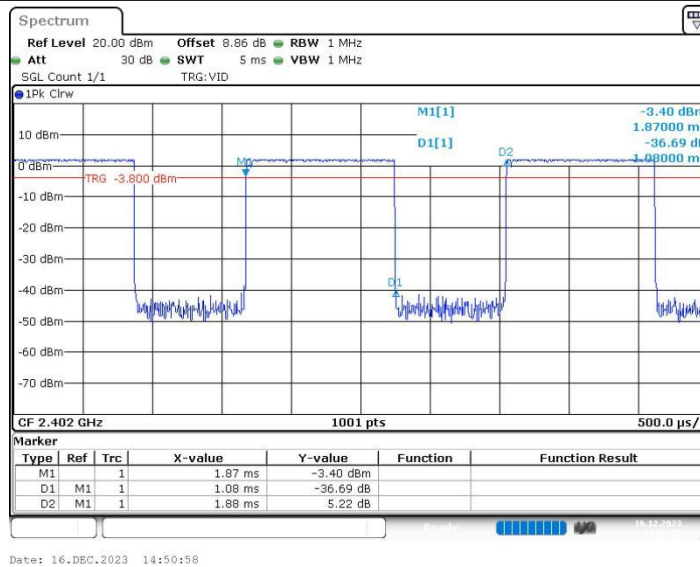
BLE\_1M\_Ant1\_2440



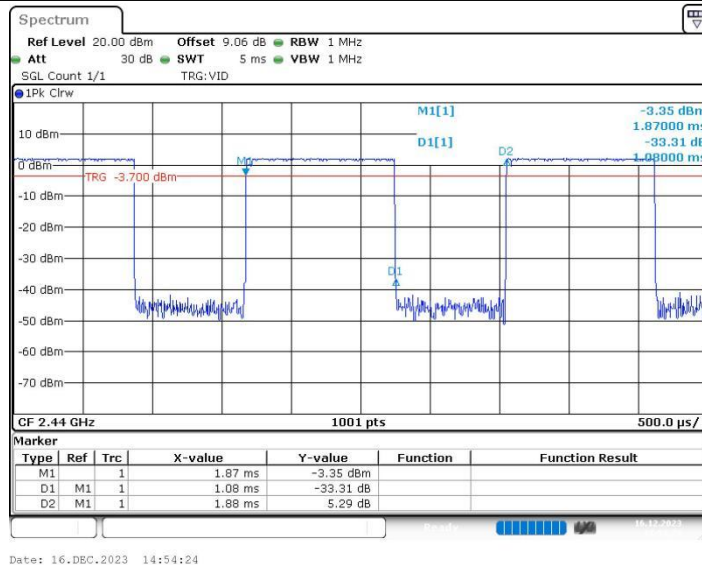
BLE\_1M\_Ant1\_2480



## BLE\_2M\_Ant1\_2402



## BLE\_2M\_Ant1\_2440



## BLE\_2M\_Ant1\_2480

