

Appendix A

RF Test Data for BT(BLE) (Conducted Measurement)

Product Name: NucBox2

Trade Mark: GMK

Test Model: KB2

FCC ID: 2AXUD-KB2

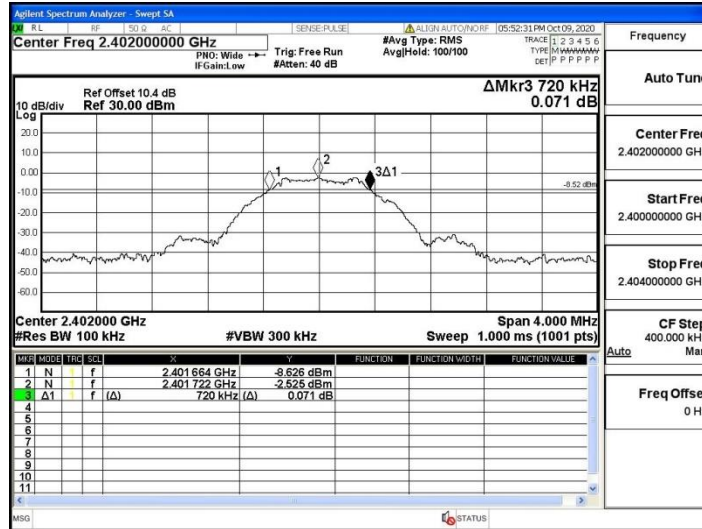
Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 22.8° C |
| Relative Humidity: | 50% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Anna Hu |
| Supervised by: | Hugo Chen |
| NOTE | N/A |

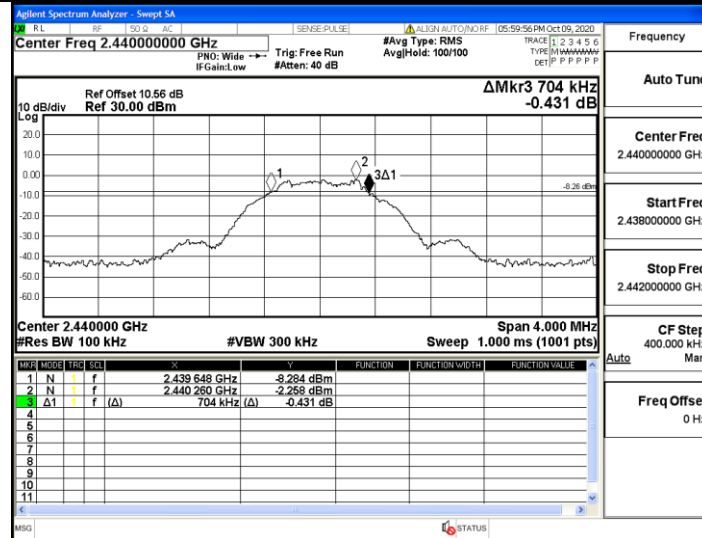
A.1. 6dB Bandwidth

| TestMode | Antenna | Channel | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|----------|---------|---------|--------------|----------|----------|------------|---------|
| BLE_1M | Ant1 | 2402 | 0.720 | 2401.636 | 2402.356 | 0.5 | PASS |
| | | 2440 | 0.716 | 2439.652 | 2440.368 | 0.5 | PASS |
| | | 2480 | 0.692 | 2479.632 | 2480.324 | 0.5 | PASS |

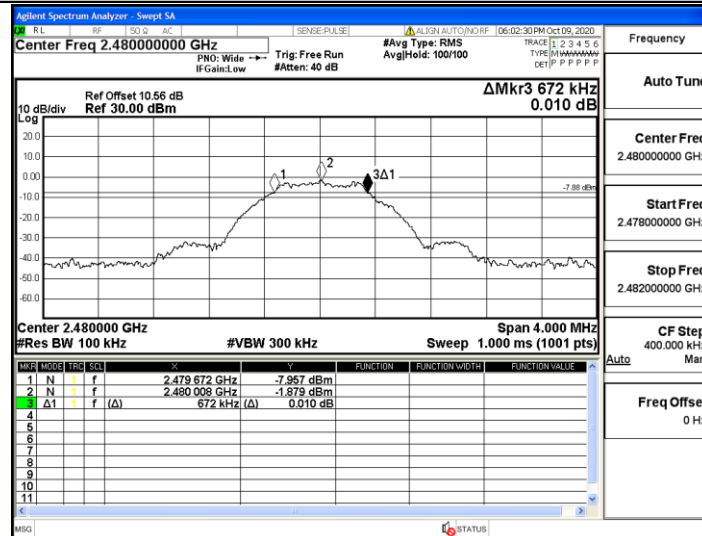
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



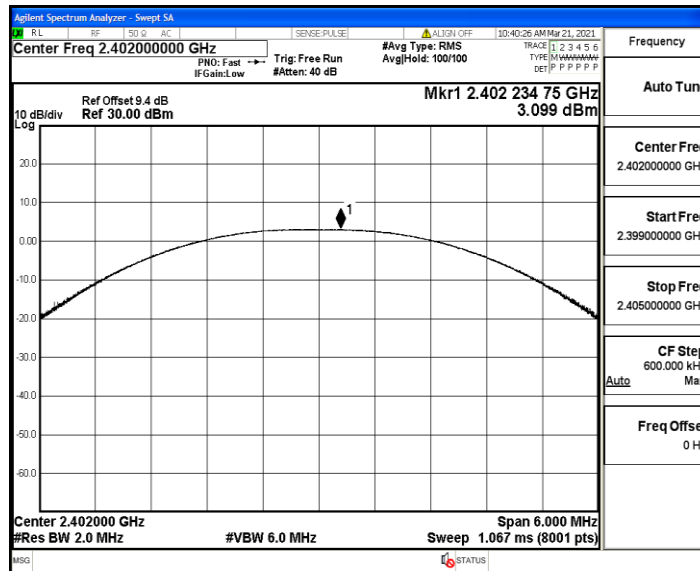
A.2. Occupied Bandwidth

| Test Mode | Test Channel | Ant | OBW[MHz] | Limit[MHz] | Verdict |
|-----------|--------------|-----|----------|------------|---------|
|-----------|--------------|-----|----------|------------|---------|

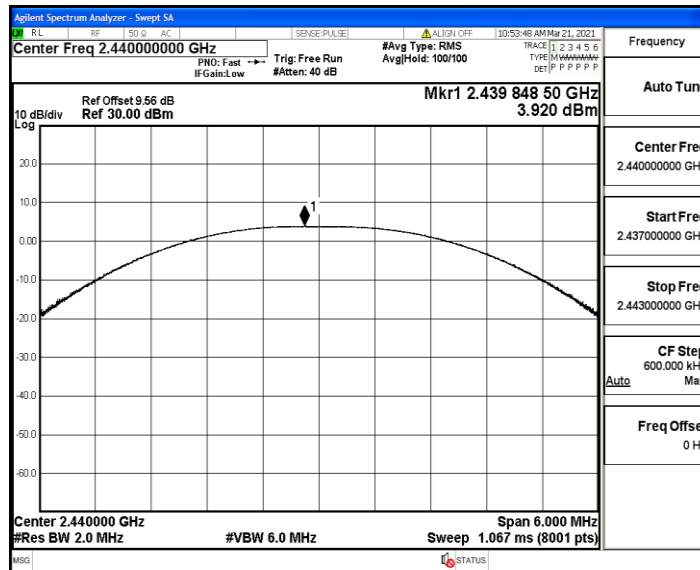
A.3. Maximum peak conducted output power

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| BLE_1M | Ant1 | 2402 | 3.1 | <=30 | PASS |
| | | 2440 | 3.92 | <=30 | PASS |
| | | 2480 | 5.07 | <=30 | PASS |

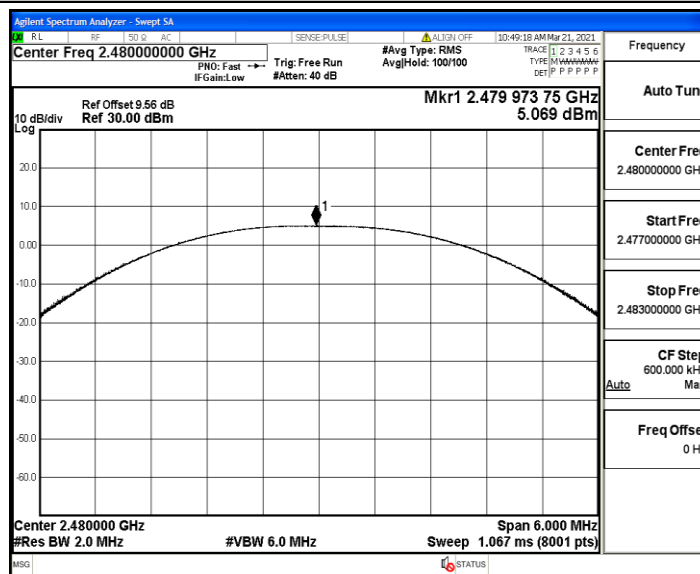
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



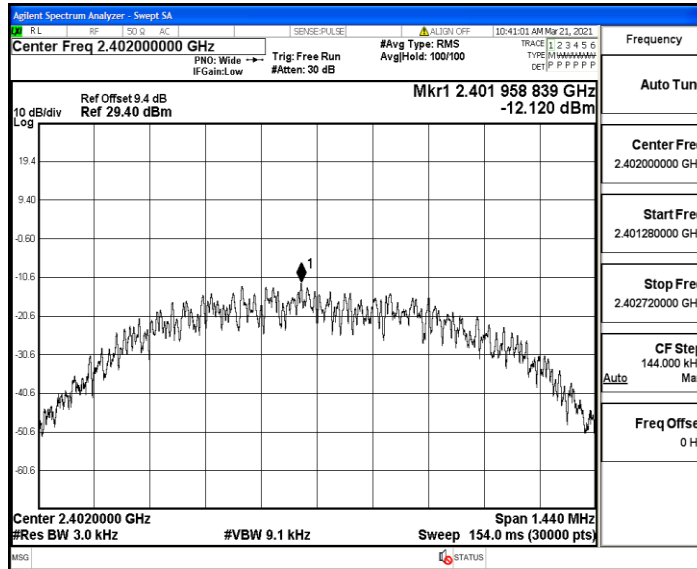
BLE_1M_Ant1_2480



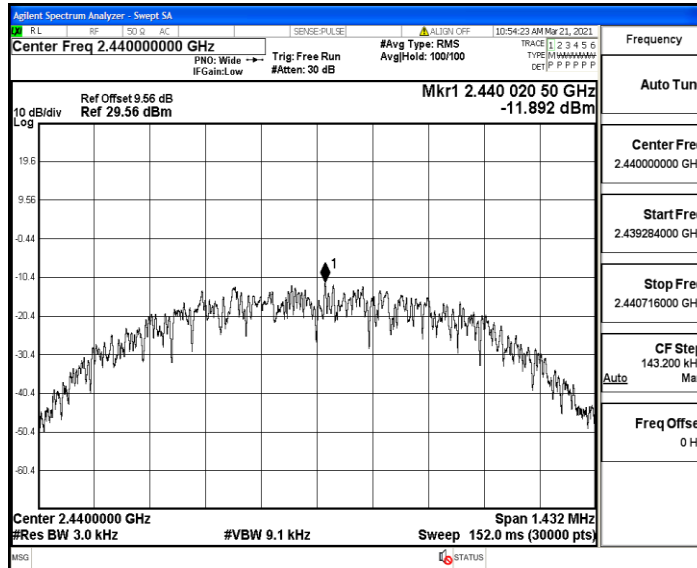
A.4. Maximum Peak power spectral density

| TestMode | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|---------|----------------------|-----------------|---------|
| BLE_1M | Ant1 | 2402 | -12.12 | <=8 | PASS |
| | | 2440 | -11.89 | <=8 | PASS |
| | | 2480 | -10.62 | <=8 | PASS |

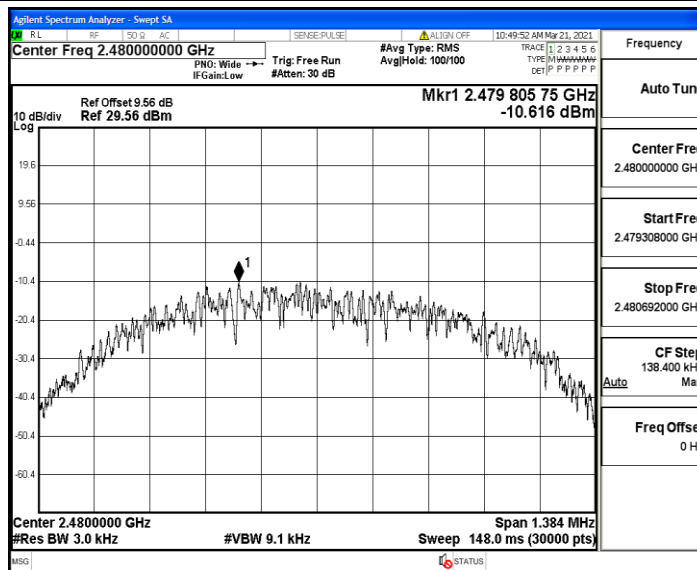
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

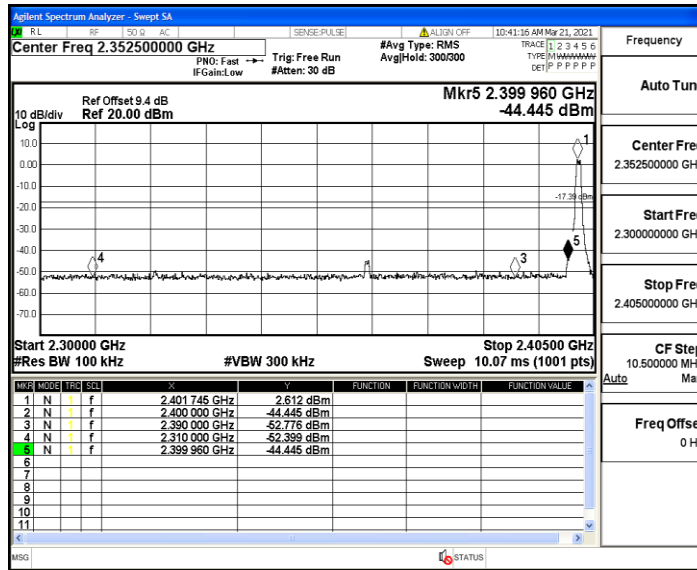


A.5. Band-edge for RF Conducted Emissions

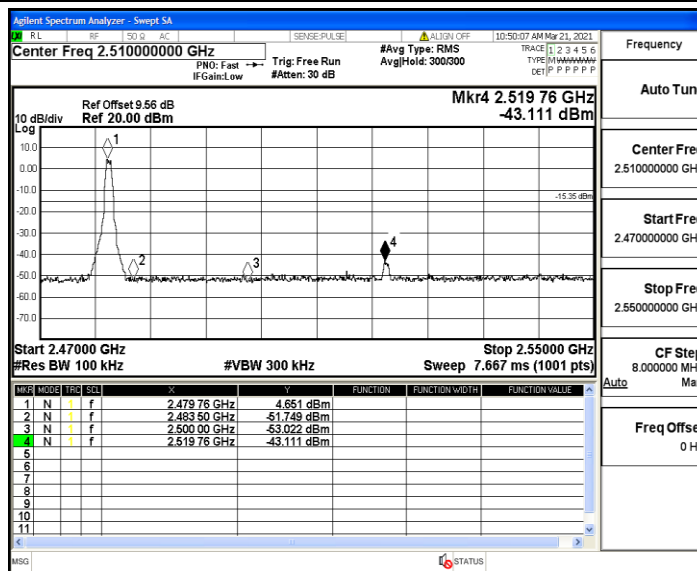
| TestMode | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|--------|---------|---------------|-------------|------------|---------|
| BLE_1M | Ant1 | Low | 2402 | 2.61 | -44.45 | <=-17.39 | PASS |
| | | High | 2480 | 4.65 | -43.11 | <=-15.35 | PASS |

A.6. RF Conducted Spurious Emissions

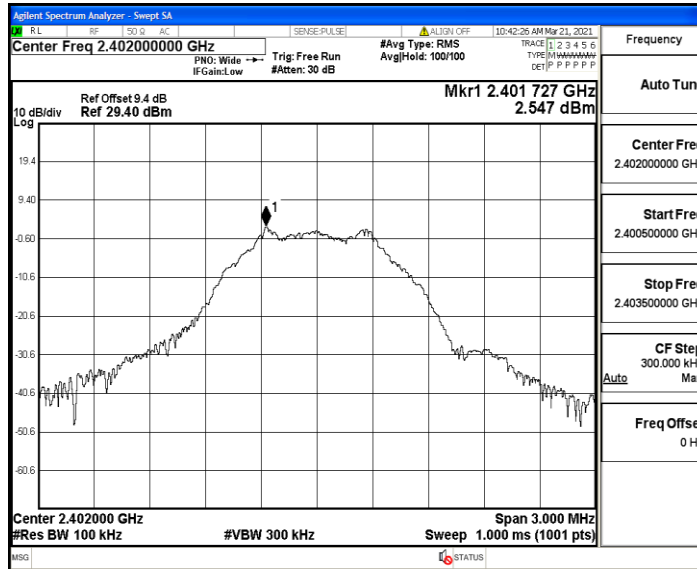
BLE_1M_Ant1_Low_2402



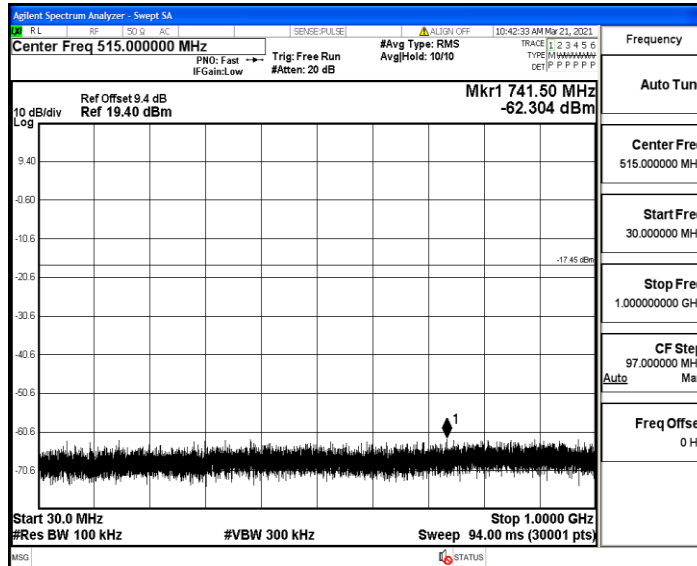
BLE_1M_Ant1_High_2480



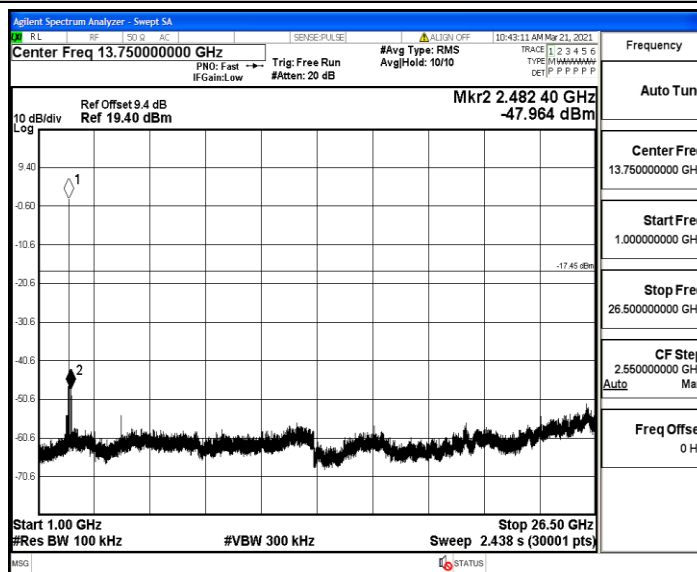
BLE_1M_Ant1_2402_0~Reference



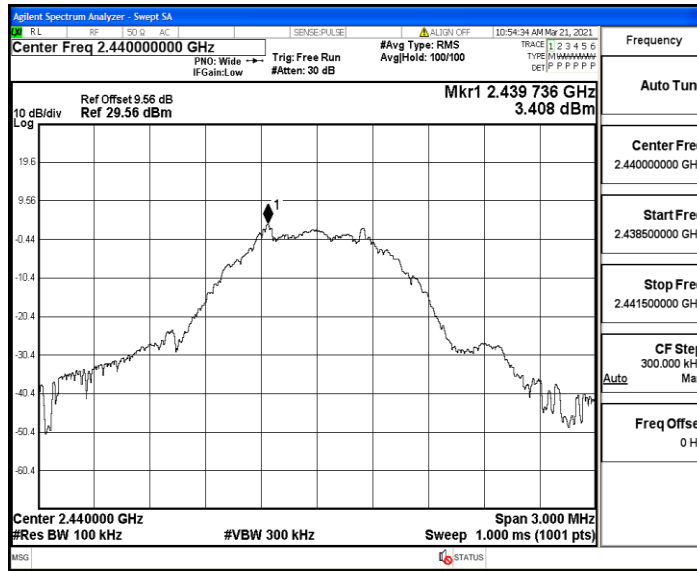
BLE_1M_Ant1_2402_30~1000



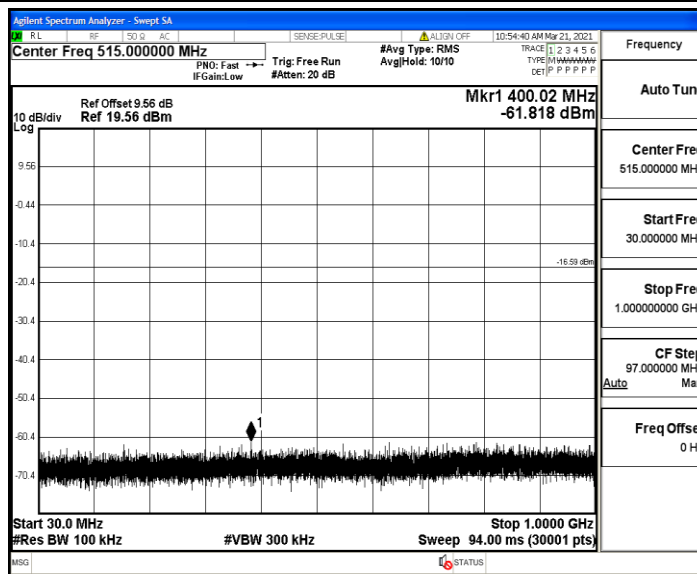
BLE_1M_Ant1_2402_1000~26500



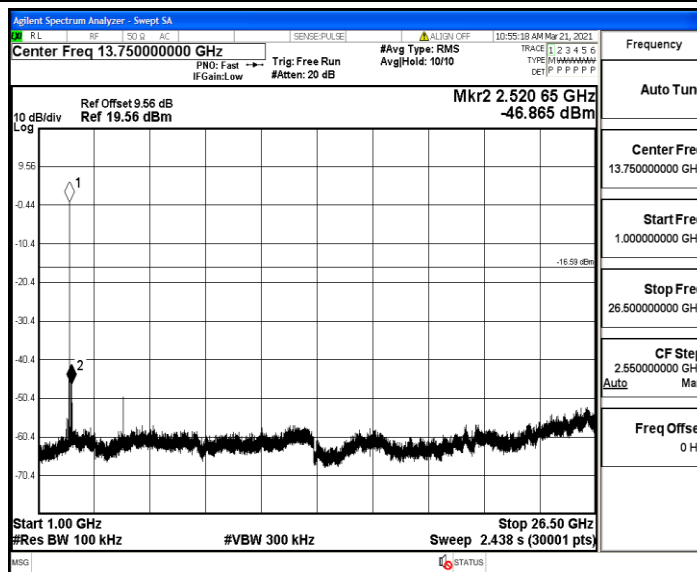
BLE_1M_Ant1_2440_0~Reference



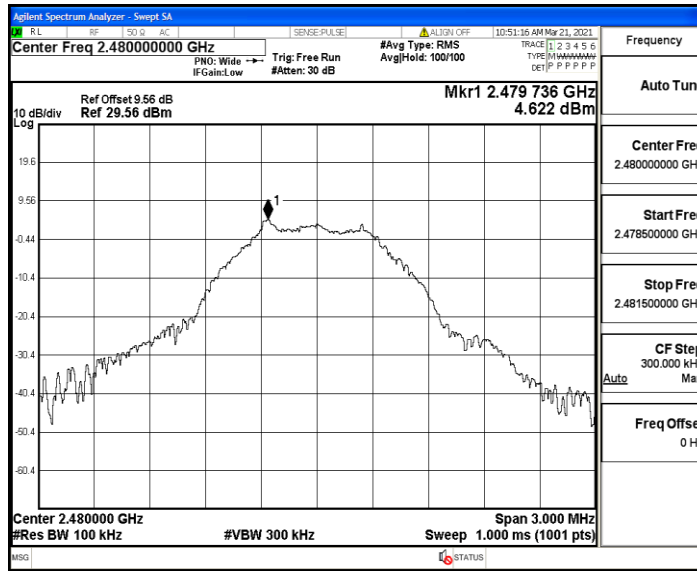
BLE_1M_Ant1_2440_30~1000



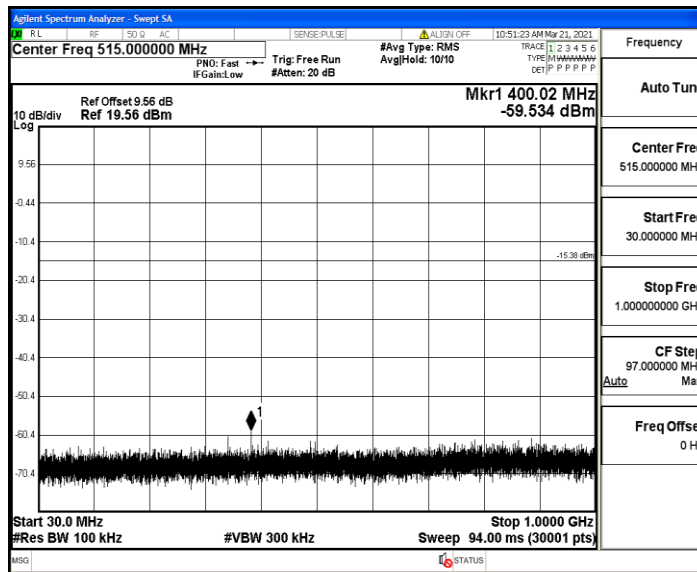
BLE_1M_Ant1_2440_1000~26500



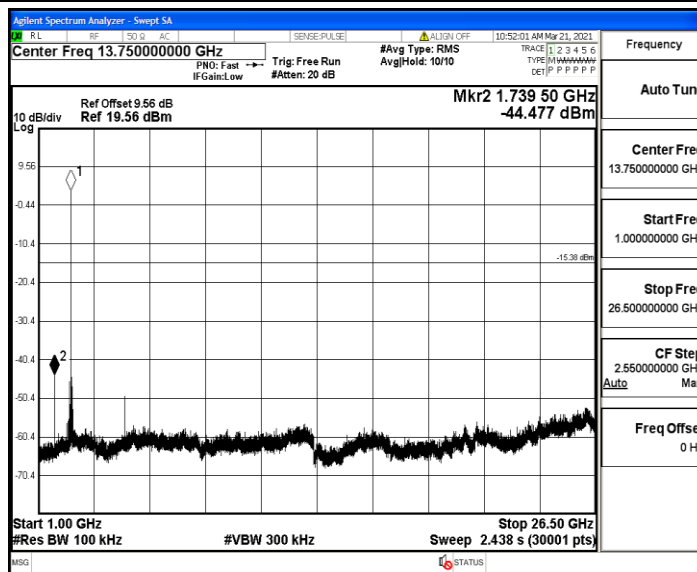
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



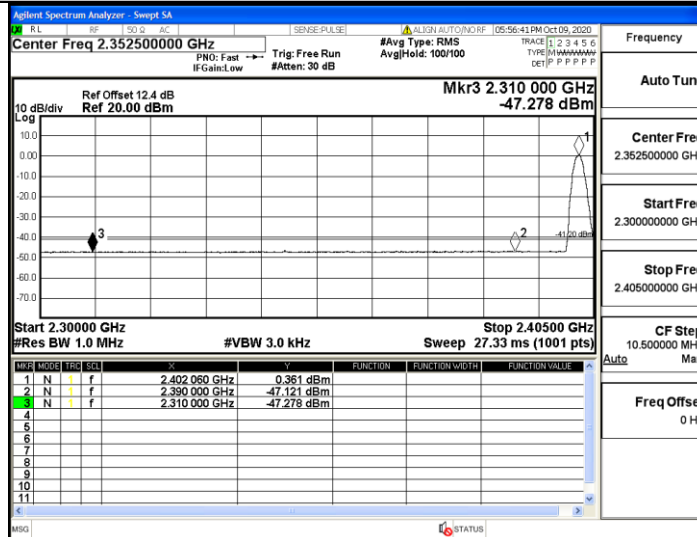
BLE_1M_Ant1_2480_1000~26500



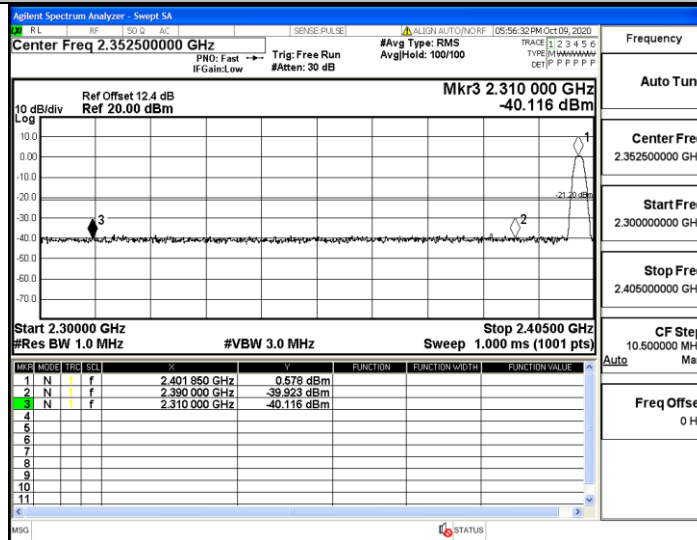
A.7. Restrict-band band-edge measurements

| TestMode | Antenna | ChName | Channel | Detector | Freq. [MHz] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|--------|---------|----------|----------------|-----------------|----------------|---------|
| BLE_1M | Ant1 | Low | 2402 | AV | 2310.000 | -47.91 | <=-41.20 | PASS |
| | | | | AV | 2362.055 | -41.98 | <=-41.20 | PASS |
| | | | | Peak | 2390.000 | -47.62 | <=-21.20 | PASS |
| | | | | Peak | 2310.000 | -41.56 | <=-21.20 | PASS |
| | | High | 2480 | AV | 2361.530 | -36.86 | <=-41.20 | PASS |
| | | | | AV | 2390.000 | -41.47 | <=-41.20 | PASS |
| | | | | Peak | 2483.500 | -45.34 | <=-21.20 | PASS |
| | | | | Peak | 2500.000 | -46.76 | <=-21.20 | PASS |

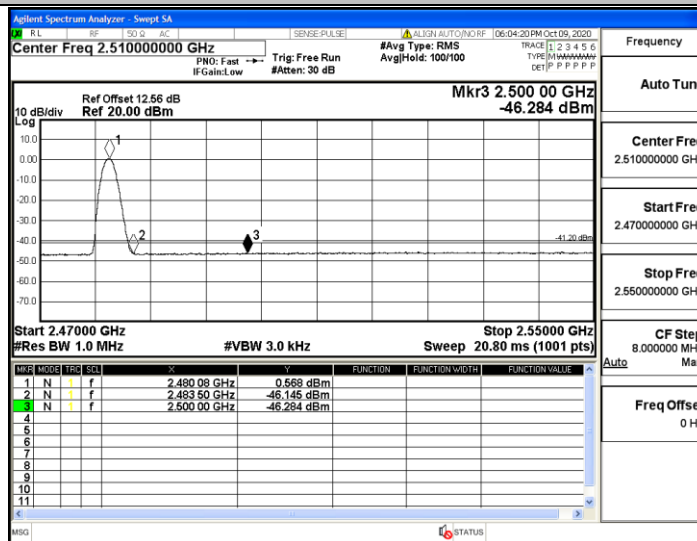
BLE_1M_Ant1_Low_2402_AV



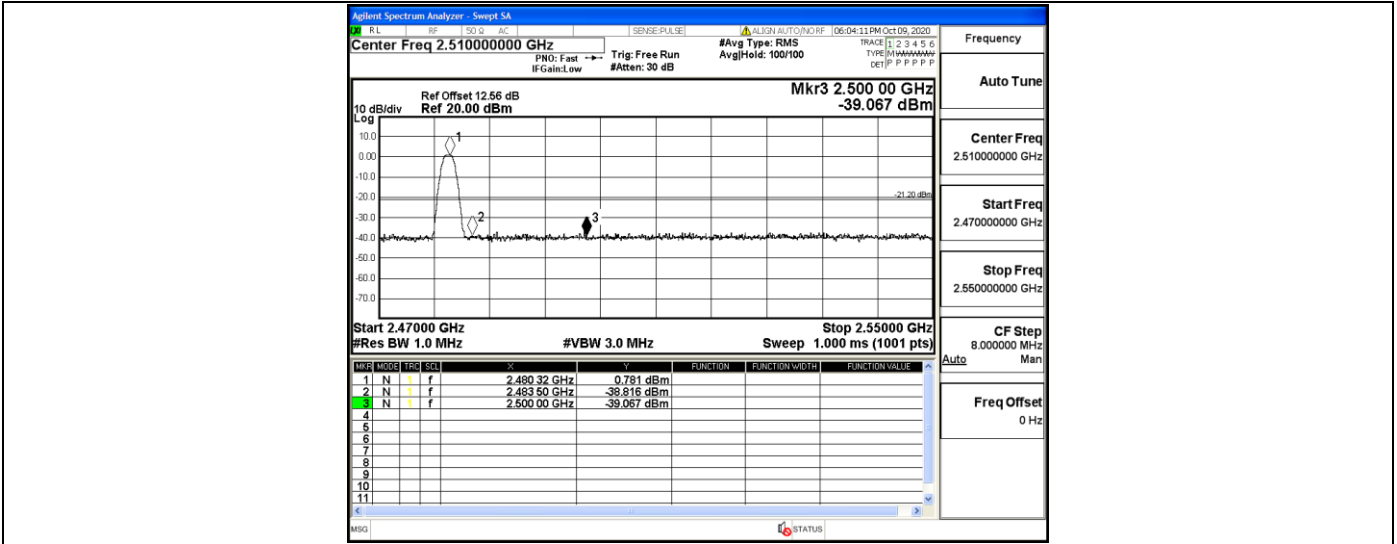
BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



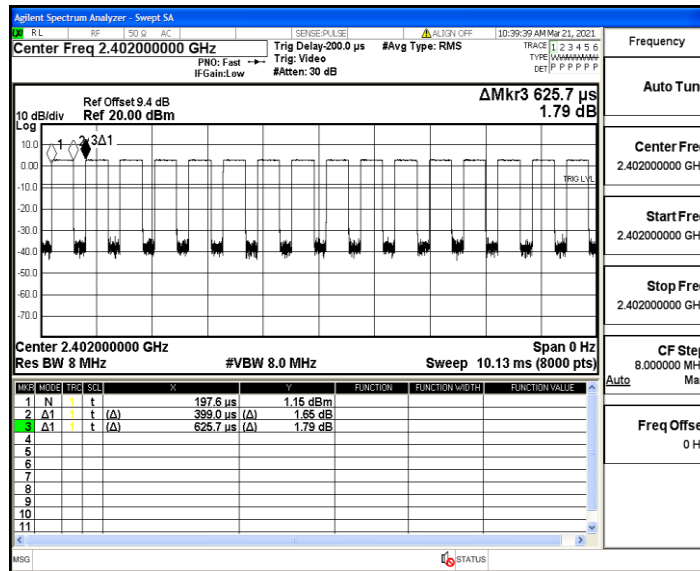
BLE_1M_Ant1_High_2480_Peak



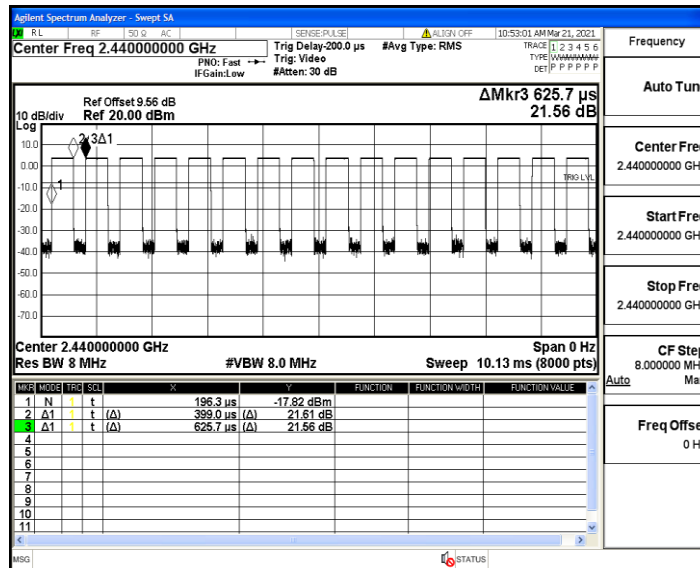
A.8. Duty Cycle

| TestMode | Antenna | Channel | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | 1/B Minimum VBW (KHz) |
|----------|---------|---------|----------------------------|--------------------------|----------------|-----------------------|
| BLE_1M | Ant1 | 2402 | 0.40 | 0.63 | 63.49 | 2.50 |
| | | 2440 | 0.40 | 0.63 | 63.49 | 2.50 |
| | | 2480 | 0.40 | 0.63 | 63.49 | 2.50 |

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

