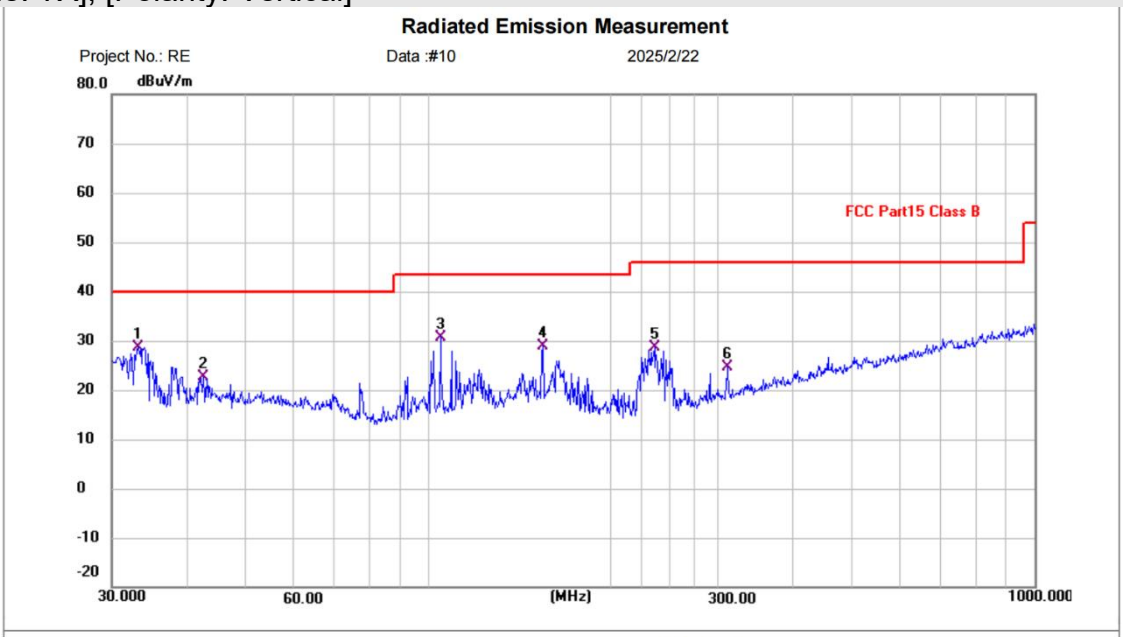
[Test mode: TX]; [Polarity: Vertical]




Site
Limit: FCC Part15 Class B
EUT: Soundbar
M/N: SL5100
Mode: BT TX
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F | Remark |
|---|---|---|---|---|---|---|---|---|---|
| 1 * | 33.2112 | 9.97 | 18.71 | 28.68 | 40.00 | -11.32 | QP | P | |
| 2 | 42.4508 | 3.00 | 19.71 | 22.71 | 40.00 | -17.29 | QP | P | |
| 3 | 104.5361 | 14.26 | 16.43 | 30.69 | 43.50 | -12.81 | QP | P | |
| 4 | 154.2786 | 8.24 | 20.65 | 28.89 | 43.50 | -14.61 | QP | P | |
| 5 | 235.8164 | 11.12 | 17.50 | 28.62 | 46.00 | -17.38 | QP | P | |
| 6 | 311.0866 | 4.21 | 20.36 | 24.57 | 46.00 | -21.43 | QP | P | |

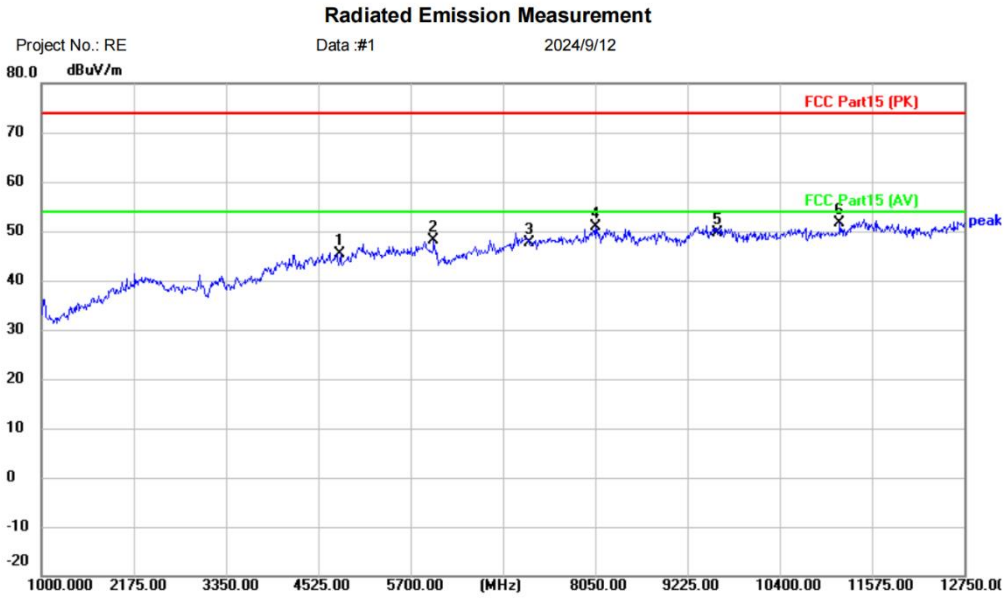
*:Maximum data x:Over limit l:over margin

**Test Result: Pass**

Above 1GHz:

*Remark: During the test, pre-scan the GFSK, pi/4DQPSK, 8DPSK mode, and found the GFSK mode which it is worse case.*

[Test mode: TX low channel]; [Polarity: Horizontal]




Site
Limit: FCC Part15 (PK)
EUT: Soundbar
M/N: SL5100
Mode: BT TX 2402
Note:

Polarization: *Horizontal*
Power:

Temperature: (C)
Humidity: %RH

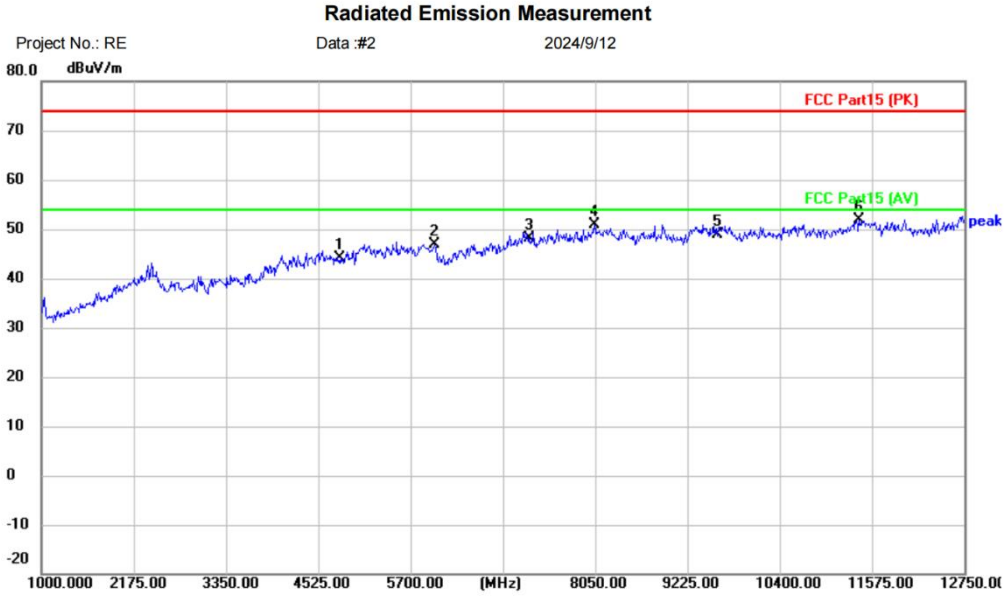
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 4804.000 | 38.95 | 6.31 | 45.26 | 74.00 | -28.74 | peak | |
| 2 | | 5993.750 | 39.27 | 8.96 | 48.23 | 74.00 | -25.77 | peak | |
| 3 | | 7206.000 | 37.29 | 10.39 | 47.68 | 74.00 | -26.32 | peak | |
| 4 | | 8050.000 | 39.27 | 11.70 | 50.97 | 74.00 | -23.03 | peak | |
| 5 | | 9608.000 | 36.57 | 13.01 | 49.58 | 74.00 | -24.42 | peak | |
| 6 | * | 11163.75 | 37.74 | 13.95 | 51.69 | 74.00 | -22.31 | peak | |

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

**Test Result: Pass**

[Test mode: TX low channel]; [Polarity: Vertical]




Site
Limit: FCC Part15 (PK)
EUT: Soundbar
M/N: SL5100
Mode: BT TX 2402
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

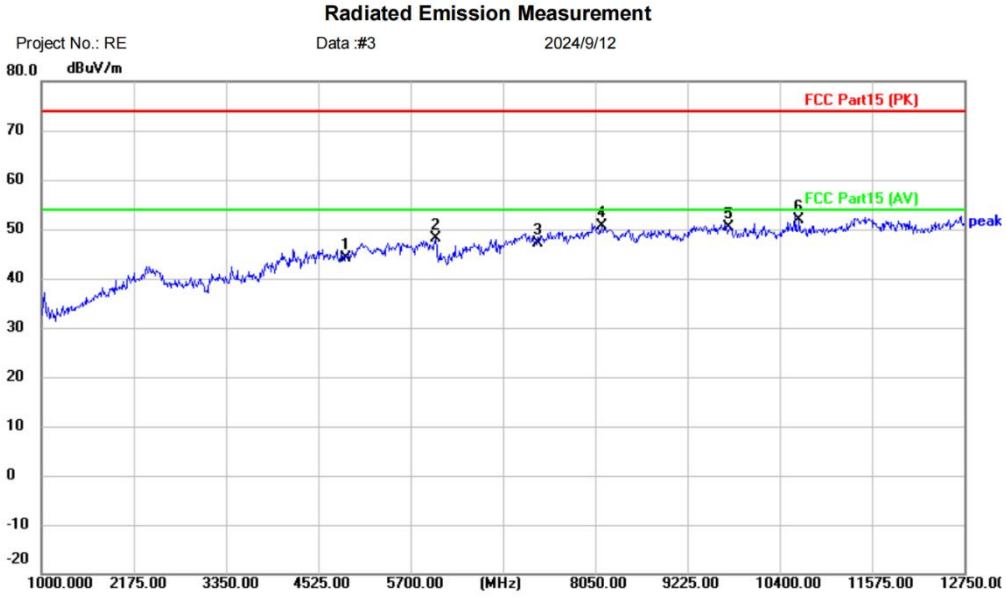
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 4804.000 | 37.85 | 6.31 | 44.16 | 74.00 | -29.84 | peak | |
| 2 | | 6005.500 | 41.08 | 5.84 | 46.92 | 74.00 | -27.08 | peak | |
| 3 | | 7206.000 | 37.67 | 10.39 | 48.06 | 74.00 | -25.94 | peak | |
| 4 | | 8038.250 | 39.17 | 11.68 | 50.85 | 74.00 | -23.15 | peak | |
| 5 | | 9608.000 | 35.88 | 13.01 | 48.89 | 74.00 | -25.11 | peak | |
| 6 | * | 11410.50 | 37.09 | 14.88 | 51.97 | 74.00 | -22.03 | peak | |

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

**Test Result: Pass**

[Test mode: TX middle channel]; [Polarity: Horizontal]




Site
Limit: FCC Part15 (PK)
EUT: Soundbar
M/N: SL5100
Mode: BT TX 2441
Note:

Polarization: *Horizontal*
Power:

Temperature: (C)
Humidity: %RH

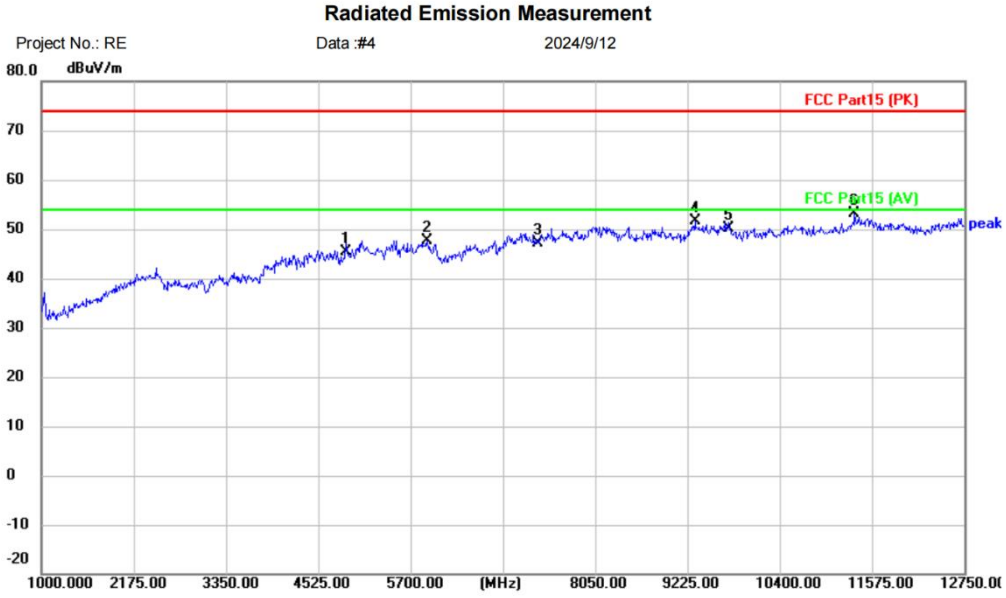
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 4882.000 | 37.58 | 6.43 | 44.01 | 74.00 | -29.99 | peak | |
| 2 | | 6017.250 | 42.05 | 5.96 | 48.01 | 74.00 | -25.99 | peak | |
| 3 | | 7323.000 | 37.06 | 10.17 | 47.23 | 74.00 | -26.77 | peak | |
| 4 | | 8132.250 | 38.96 | 11.61 | 50.57 | 74.00 | -23.43 | peak | |
| 5 | | 9764.000 | 36.60 | 13.76 | 50.36 | 74.00 | -23.64 | peak | |
| 6 | * | 10646.75 | 38.03 | 13.73 | 51.76 | 74.00 | -22.24 | peak | |

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

**Test Result: Pass**

[Test mode: TX middle channel]; [Polarity: Vertical]




Site
Limit: FCC Part15 (PK)
EUT: Soundbar
M/N: SL5100
Mode: BT TX 2441
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

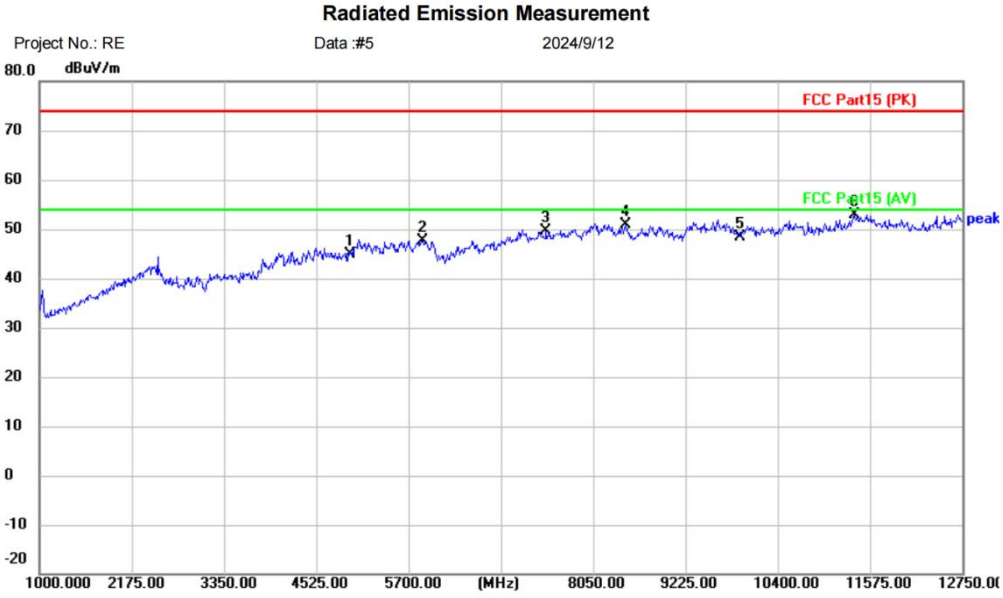
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 4882.000 | 38.91 | 6.43 | 45.34 | 74.00 | -28.66 | peak | |
| 2 | | 5911.500 | 38.52 | 9.08 | 47.60 | 74.00 | -26.40 | peak | |
| 3 | | 7323.000 | 36.94 | 10.17 | 47.11 | 74.00 | -26.89 | peak | |
| 4 | | 9319.000 | 38.30 | 13.21 | 51.51 | 74.00 | -22.49 | peak | |
| 5 | | 9764.000 | 36.29 | 13.76 | 50.05 | 74.00 | -23.95 | peak | |
| 6 | * | 11351.75 | 38.90 | 14.32 | 53.22 | 74.00 | -20.78 | peak | |

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

**Test Result: Pass**

[Test mode: TX High channel]; [Polarity: Horizontal]




Site
Limit: FCC Part15 (PK)
EUT: Soundbar
M/N: SL5100
Mode: BT TX 2480
Note:

Polarization: *Horizontal*
Power:

Temperature: (C)
Humidity: %RH

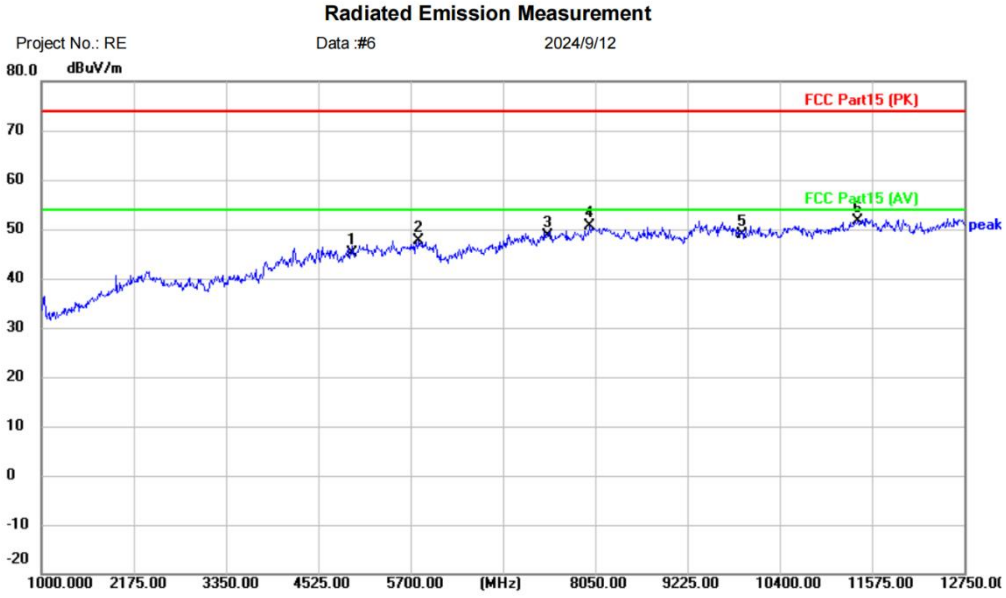
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 4960.000 | 37.41 | 7.41 | 44.82 | 74.00 | -29.18 | peak | |
| 2 | | 5876.250 | 38.57 | 8.99 | 47.56 | 74.00 | -26.44 | peak | |
| 3 | | 7440.000 | 38.63 | 11.03 | 49.66 | 74.00 | -24.34 | peak | |
| 4 | | 8461.250 | 39.44 | 11.47 | 50.91 | 74.00 | -23.09 | peak | |
| 5 | | 9920.000 | 35.15 | 13.16 | 48.31 | 74.00 | -25.69 | peak | |
| 6 | * | 11375.25 | 38.31 | 14.56 | 52.87 | 74.00 | -21.13 | peak | |

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

**Test Result: Pass**

[Test mode: TX High channel]; [Polarity: Vertical]




Site
Limit: FCC Part15 (PK)
EUT: Soundbar
M/N: SL5100
Mode: BT TX 2480
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 4960.000 | 37.74 | 7.41 | 45.15 | 74.00 | -28.85 | peak | |
| 2 | | 5805.750 | 38.54 | 9.00 | 47.54 | 74.00 | -26.46 | peak | |
| 3 | | 7440.000 | 37.56 | 11.03 | 48.59 | 74.00 | -25.41 | peak | |
| 4 | | 7979.500 | 39.27 | 11.47 | 50.74 | 74.00 | -23.26 | peak | |
| 5 | | 9920.000 | 35.67 | 13.16 | 48.83 | 74.00 | -25.17 | peak | |
| 6 | * | 11398.75 | 36.86 | 14.81 | 51.67 | 74.00 | -22.33 | peak | |

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

**Test Result: Pass**

## 6.11 Radiated emissions which fall in the restricted bands

| | |
|---|---|
| **Test Standard** | 47 CFR Part 15, Subpart C 15.247(d)<br>47 CFR Part 15, Subpart C 15.205 |
| **Test Method** | ANSI C63.10 (2013) Section 6.10.5 |
| **Test Mode (Pre-Scan)** | TX |
| **Test Mode (Final Test)** | TX |

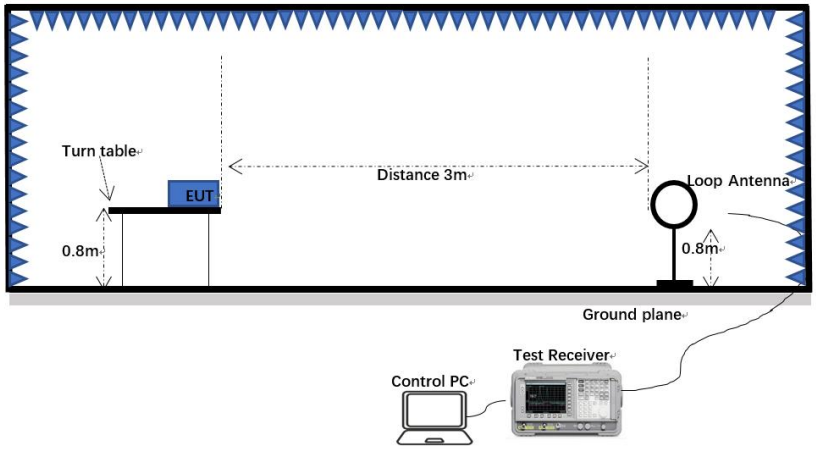
### 6.11.1 Limit

| Frequency(MHz) | Field strength(microvolts/meter) | Measurement distance(meters) |
|---|---|---|
| 0.009-0.490 | 2400/F(kHz) | 300 |
| 0.490-1.705 | 24000/F(kHz) | 30 |
| 1.705-30.0 | 30 | 30 |
| 30-88 | 100 | 3 |
| 88-216 | 150 | 3 |
| 216-960 | 200 | 3 |
| Above 960 | 500 | 3 |

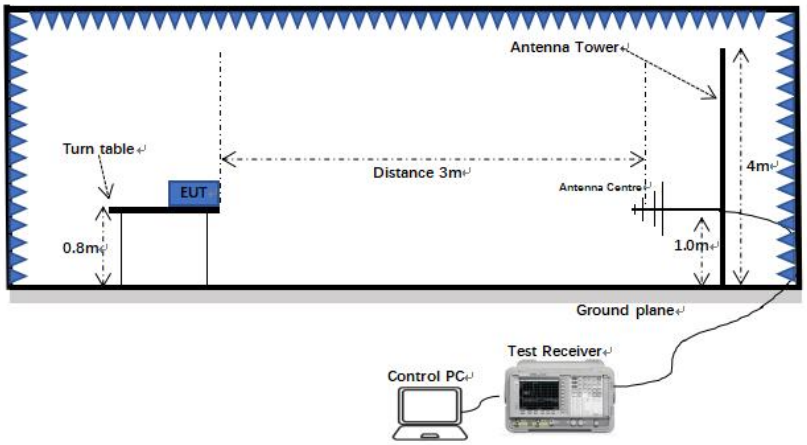
*Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.*

6.11.2 Test setup

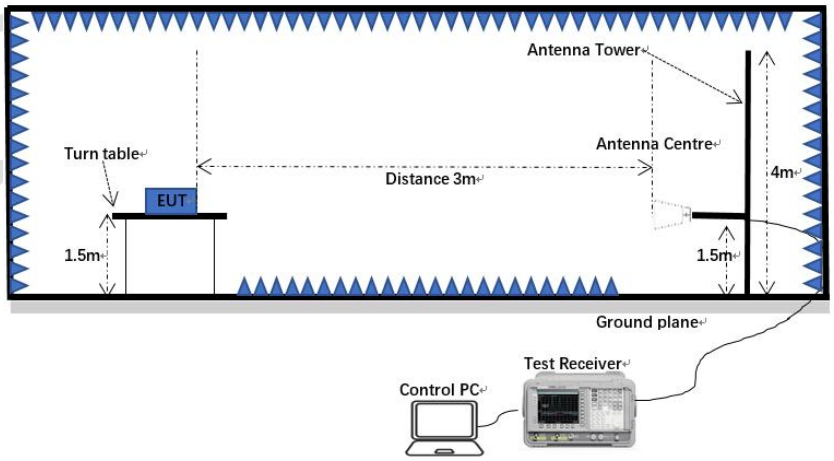
Below 1GHz：




30MHz-1GHz：




Above 1GHz：



6.11.3 Procedure

a) For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b) For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c) The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

d) The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

e) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

f) The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

g) If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

h) Test the EUT in the lowest channel, the middle channel, the highest channel.

i) The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

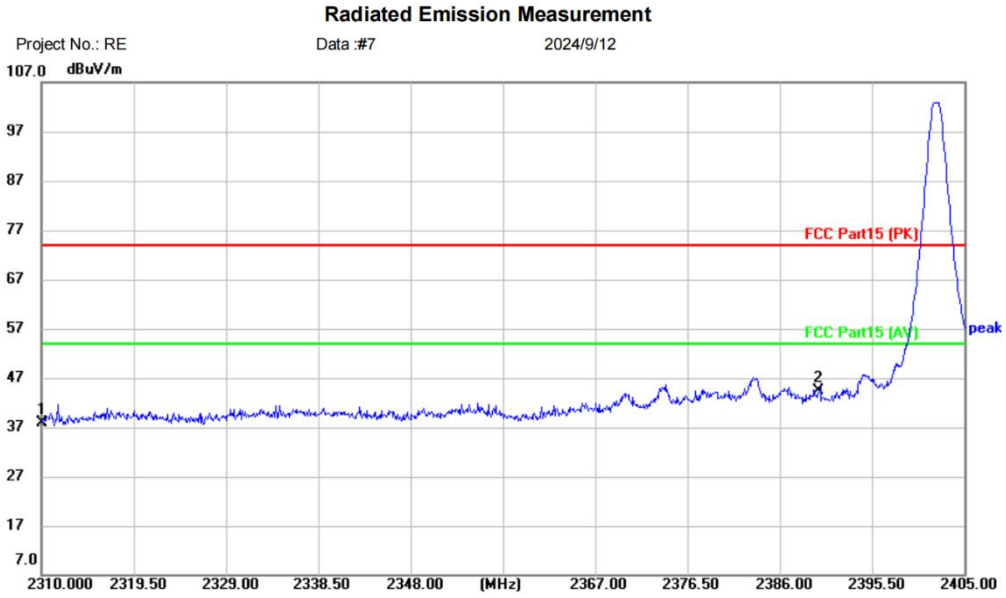
j) Repeat above procedures until all frequencies measured was complete.

*Note 1: Level (dBuV) = Reading (dBuV) + Factor (dB/m)*
*Note 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.*

6.11.4 Test data

*Remark: During the test, pre-scan the GFSK, pi/4DQPSK, 8DPSK mode, and found the GFSK mode which it is worse case.*

[Test mode: TX low channel]; [Polarity: Horizontal]




Site
Limit: FCC Part15 (PK)
EUT: Soundbar
M/N: SL5100
Mode: BT TX 2402
Note:

Polarization: ***Horizontal***
Power:

Temperature: (C)
Humidity: %RH

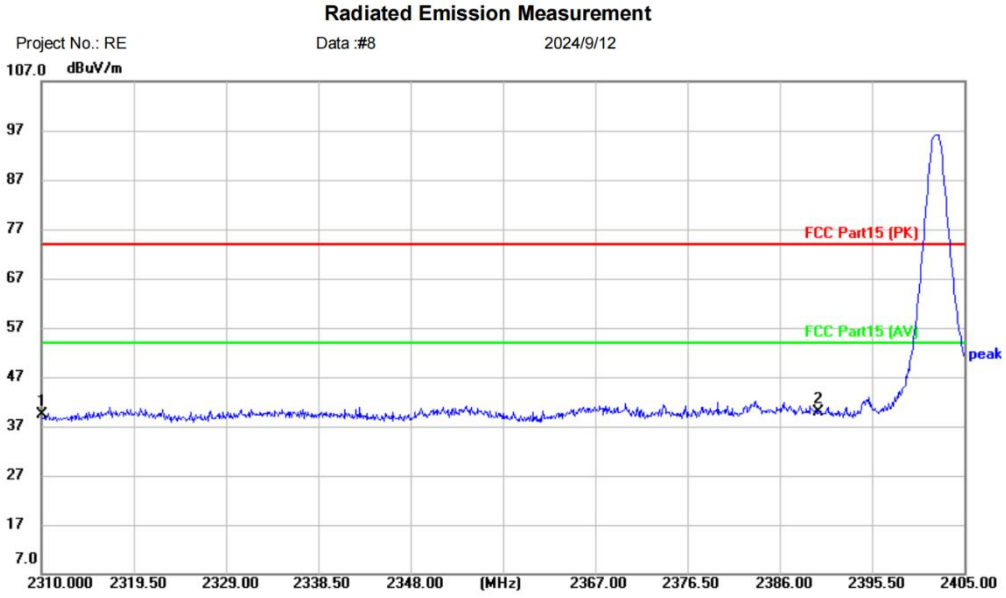
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 2310.000 | 40.76 | -2.87 | 37.89 | 74.00 | -36.11 | peak | |
| 2 | * | 2390.000 | 46.79 | -2.44 | 44.35 | 74.00 | -29.65 | peak | |

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

**Test Result: Pass**

[Test mode:TX low channel]; [Polarity: Vertical]




Site
Limit: FCC Part15 (PK)
EUT: Soundbar
M/N: SL5100
Mode: BT TX 2402
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

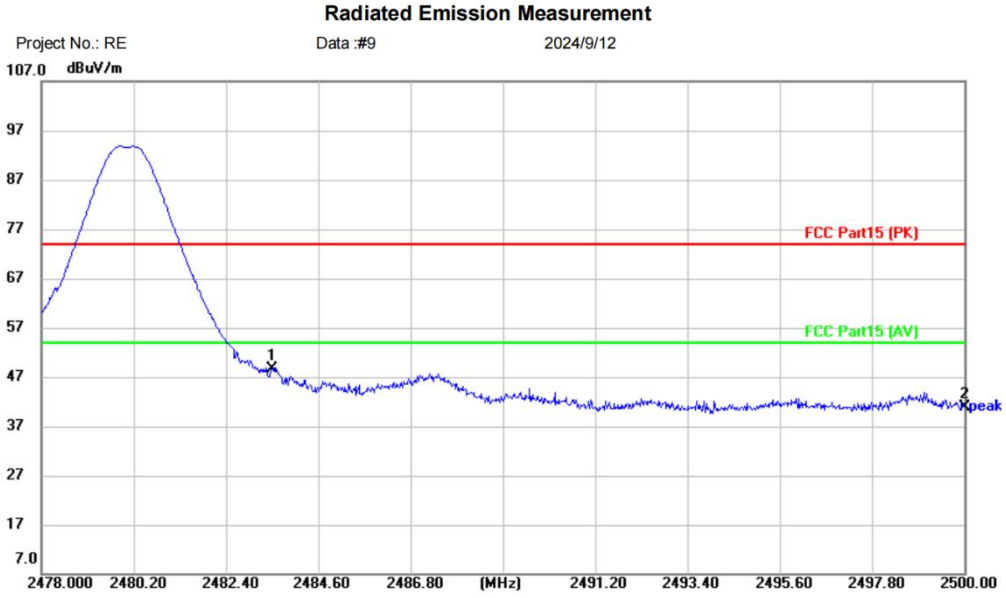
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 2310.000 | 42.32 | -2.87 | 39.45 | 74.00 | -34.55 | peak | |
| 2 | * | 2390.000 | 42.24 | -2.44 | 39.80 | 74.00 | -34.20 | peak | |

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

**Test Result: Pass**

[Test mode: TX High channel]; [Polarity: Horizontal]




Site
Limit: FCC Part15 (PK)
EUT: Soundbar
M/N: SL5100
Mode: BT TX 2480
Note:

Polarization: *Horizontal*
Power:

Temperature: (C)
Humidity: %RH

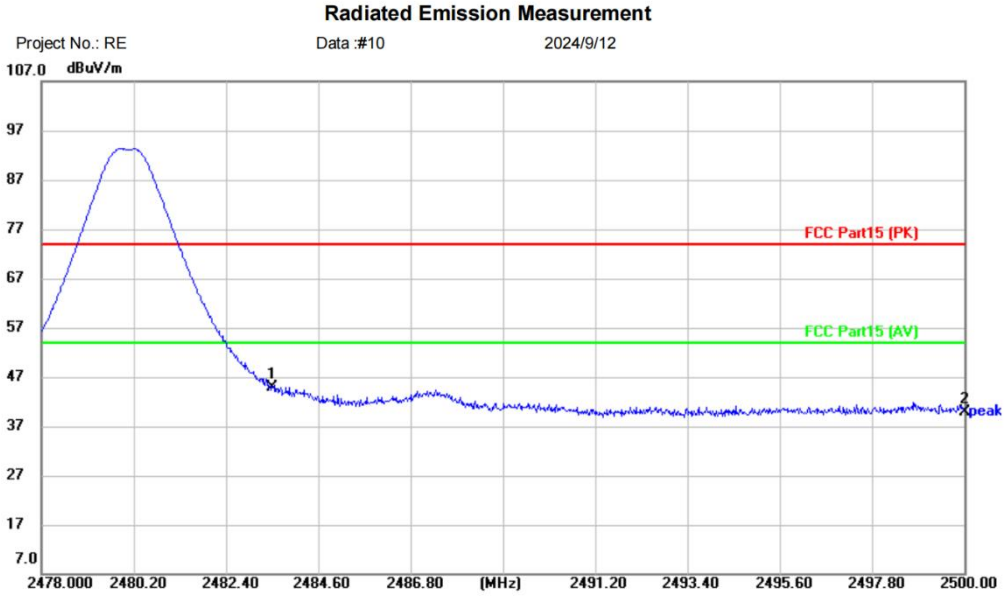
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | * | 2483.500 | 51.57 | -2.91 | 48.66 | 74.00 | -25.34 | peak | |
| 2 | | 2500.000 | 43.87 | -3.00 | 40.87 | 74.00 | -33.13 | peak | |

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

**Test Result: Pass**

[Test mode:TX High channel]; [Polarity: Vertical]




Site
Limit: FCC Part15 (PK)
EUT: Soundbar
M/N: SL5100
Mode: BT TX 2480
Note:

Polarization: *Vertical*
Power:

Temperature: (C)
Humidity: %RH

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | * | 2483.500 | 47.84 | -2.91 | 44.93 | 74.00 | -29.07 | peak | |
| 2 | | 2500.000 | 42.99 | -3.00 | 39.99 | 74.00 | -34.01 | peak | |

*:Maximum data x:Over limit !:over margin 〈Reference Only

Receiver: ESR_1 Spectrum Analyzer: FSP40

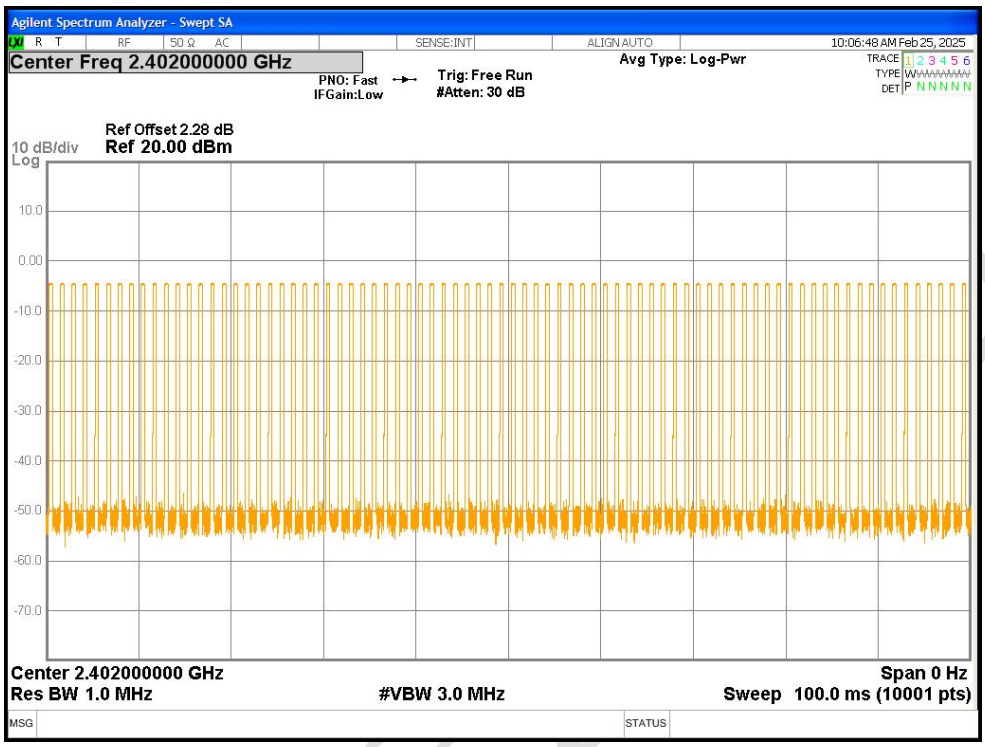
**Test Result: Pass**

# 7 Appendix A

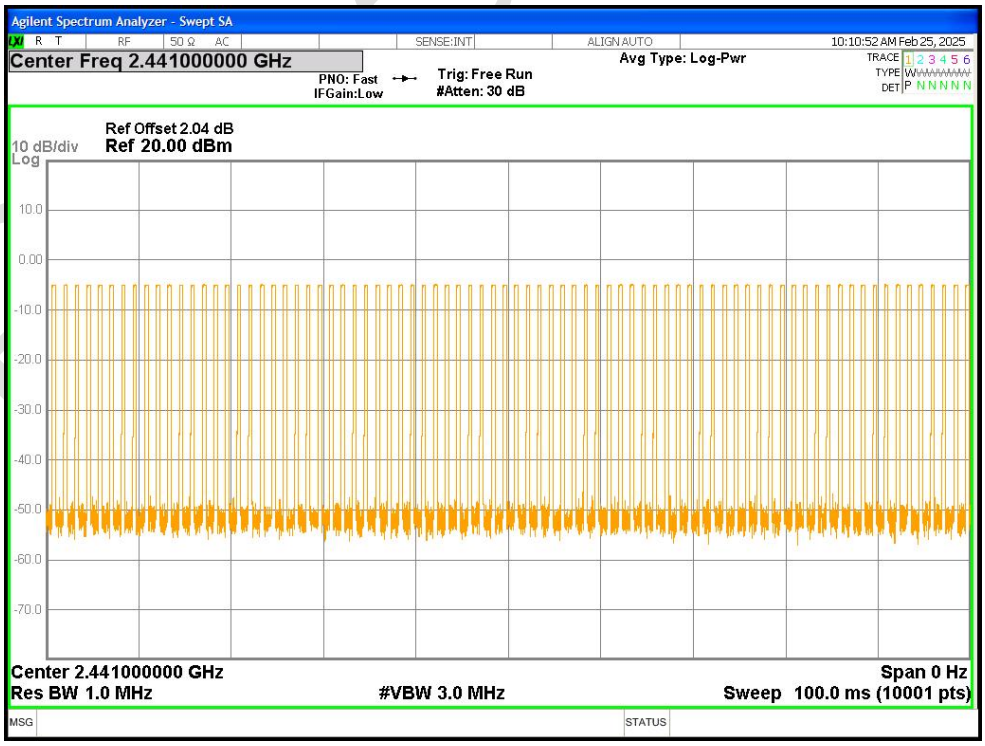
## 7.1 Duty Cycle

| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) |
|---|---|---|---|---|---|
| NVNT | 1-DH1 | 2402 | Ant1 | 32.65 | 4.86 |
| NVNT | 1-DH1 | 2441 | Ant1 | 32.8 | 4.84 |
| NVNT | 1-DH1 | 2480 | Ant1 | 32.81 | 4.84 |
| NVNT | 2-DH1 | 2402 | Ant1 | 33.6 | 4.74 |
| NVNT | 2-DH1 | 2441 | Ant1 | 33.6 | 4.74 |
| NVNT | 2-DH1 | 2480 | Ant1 | 33.6 | 4.74 |
| NVNT | 3-DH1 | 2402 | Ant1 | 33.6 | 4.74 |
| NVNT | 3-DH1 | 2441 | Ant1 | 33.36 | 4.77 |
| NVNT | 3-DH1 | 2480 | Ant1 | 33.6 | 4.74 |

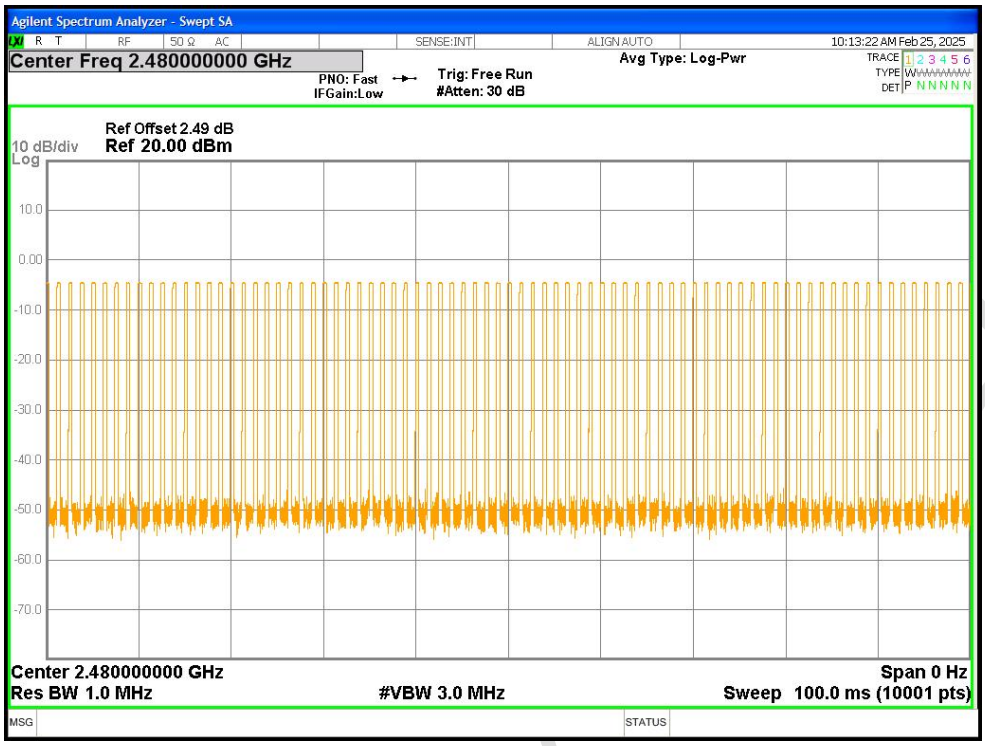
Duty Cycle NVNT 1-DH1 2402MHz Ant1



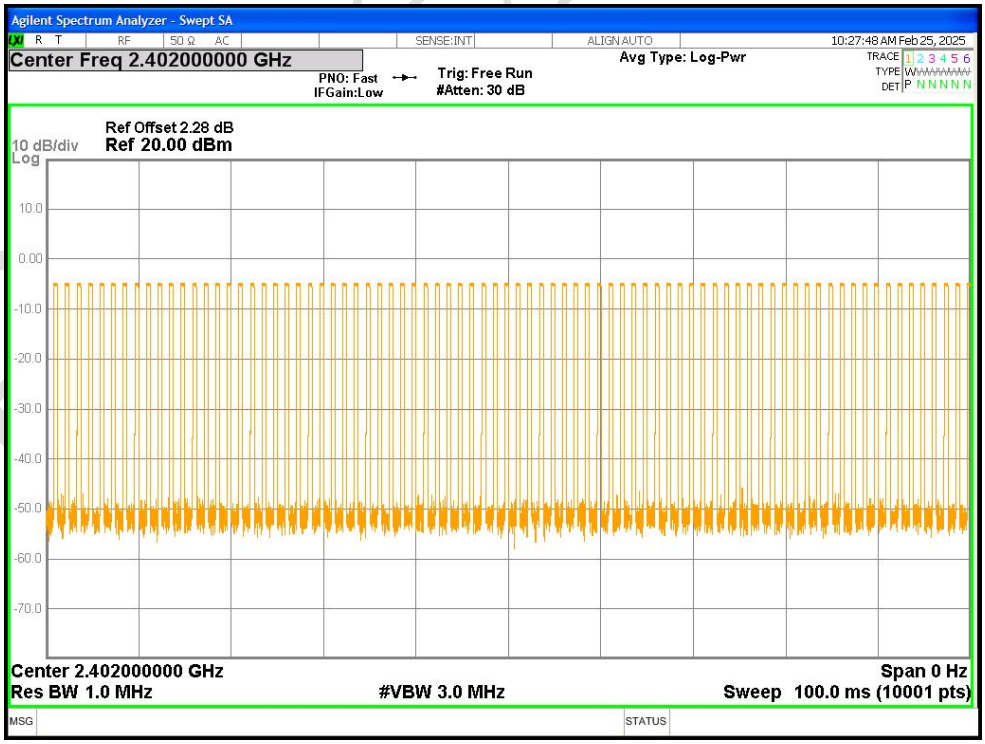

Duty Cycle NVNT 1-DH1 2441MHz Ant1



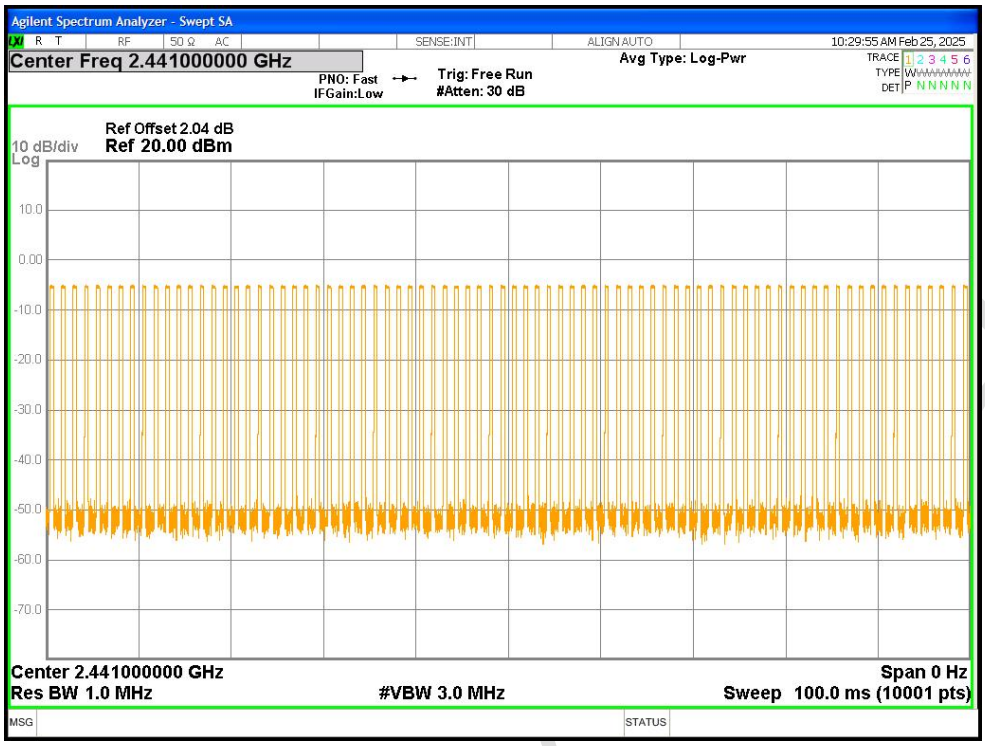
Duty Cycle NVNT 1-DH1 2480MHz Ant1



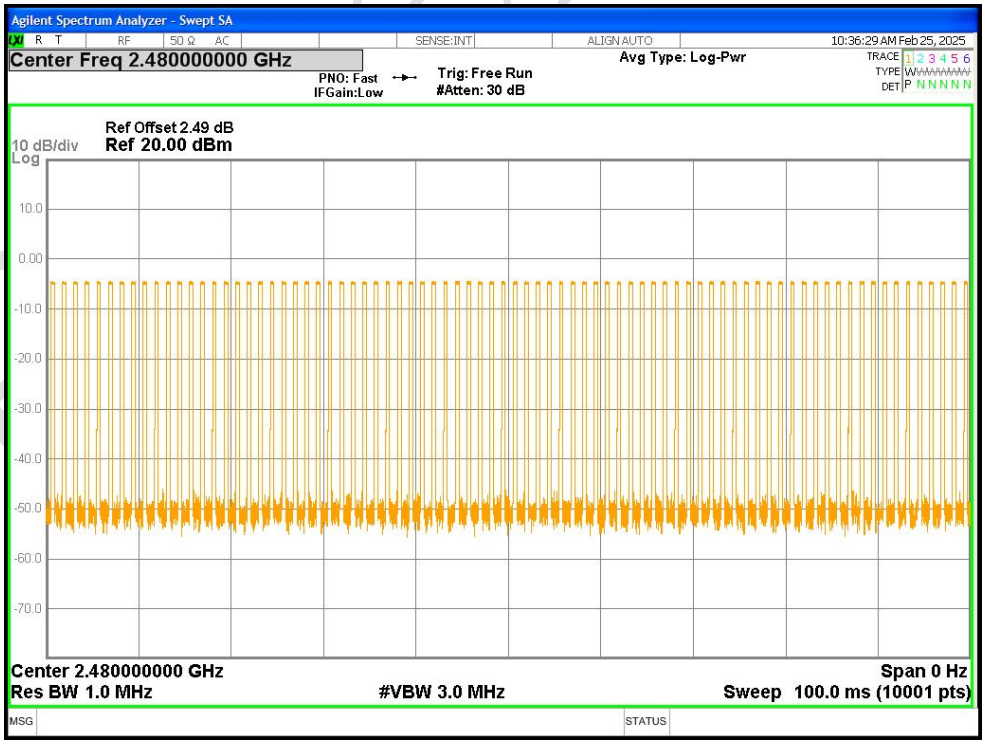

Duty Cycle NVNT 2-DH1 2402MHz Ant1



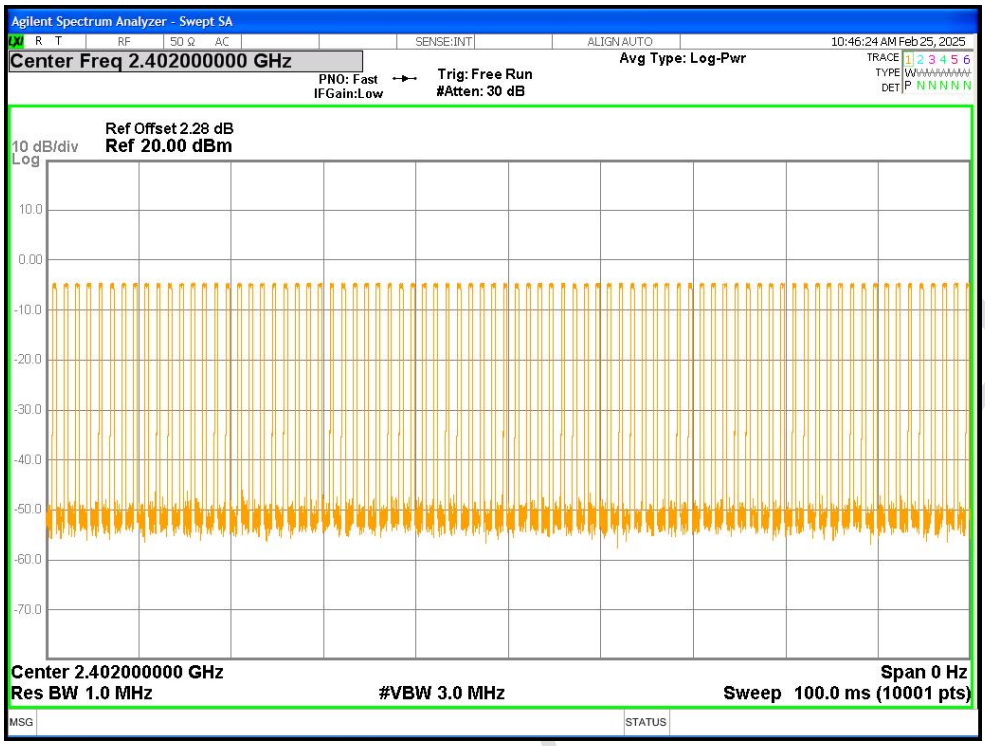
Duty Cycle NVNT 2-DH1 2441MHz Ant1



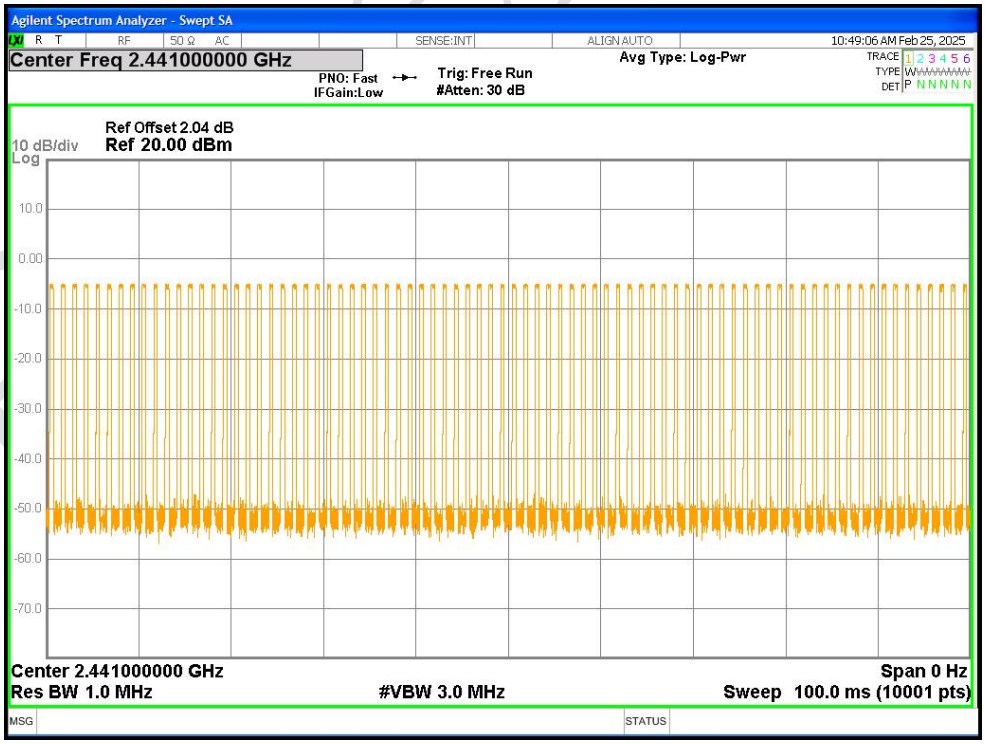

Duty Cycle NVNT 2-DH1 2480MHz Ant1



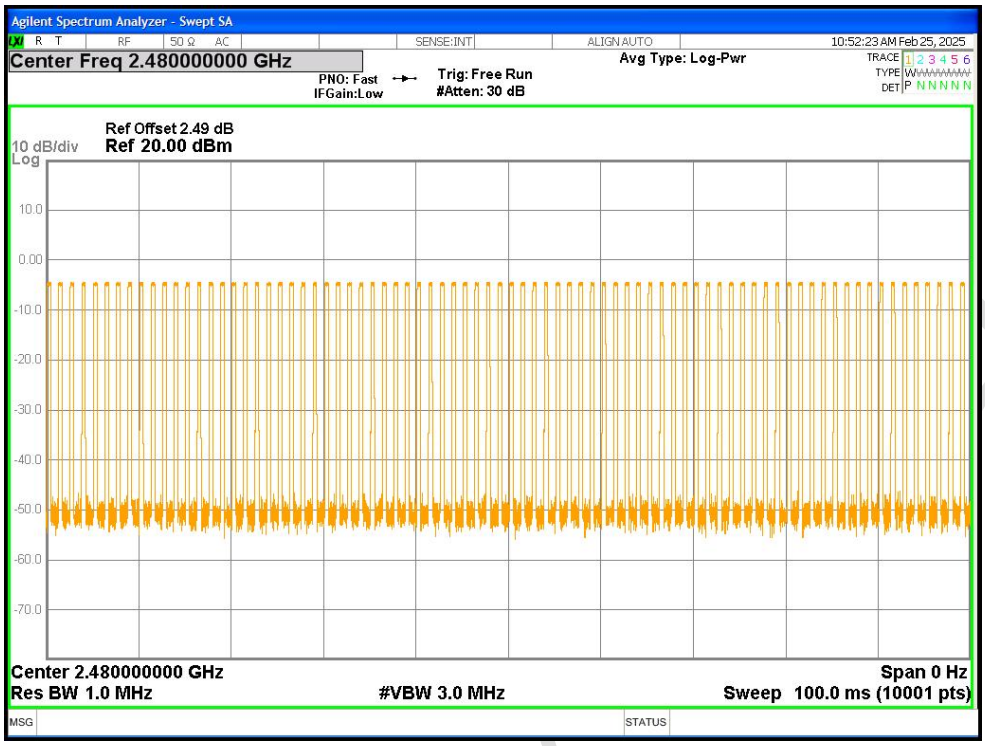
Duty Cycle NVNT 3-DH1 2402MHz Ant1




Duty Cycle NVNT 3-DH1 2441MHz Ant1



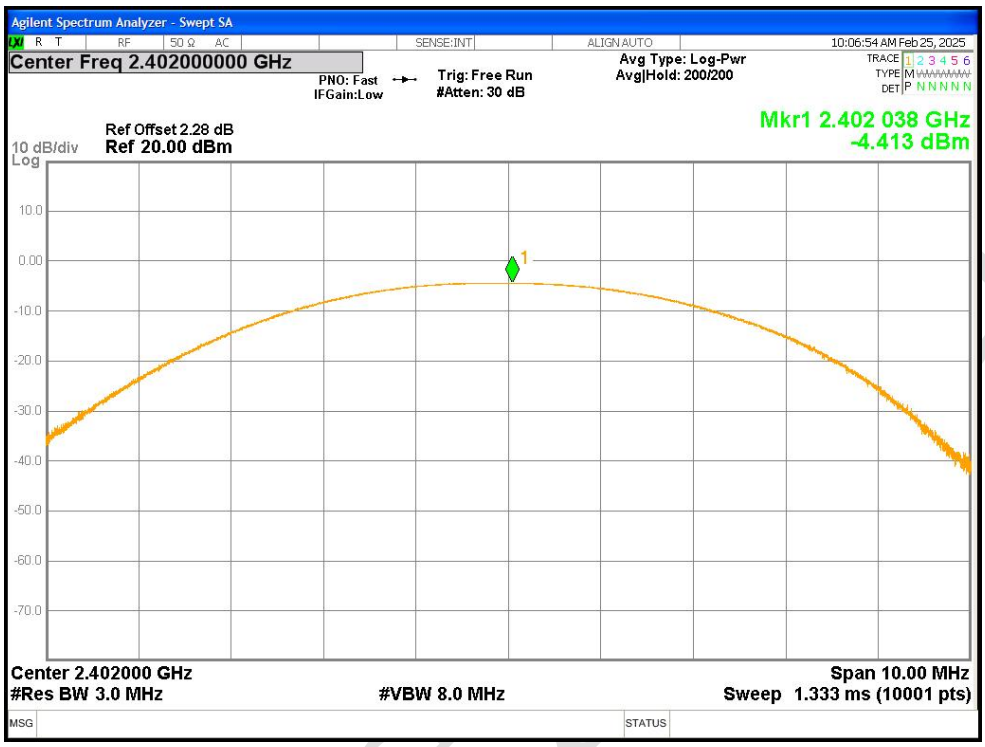
Duty Cycle NVNT 3-DH1 2480MHz Ant1



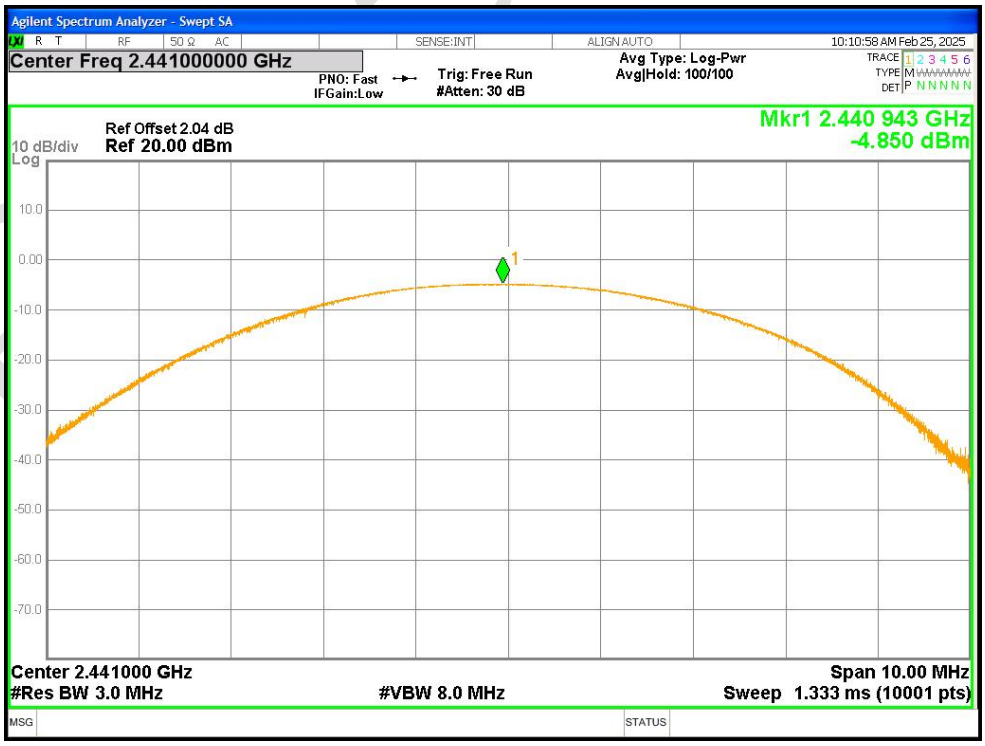
## 7.2 Maximum Conducted Output Power

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | 1-DH1 | 2402 | Ant1 | -4.413 | 21 | Pass |
| NVNT | 1-DH1 | 2441 | Ant1 | -4.85 | 21 | Pass |
| NVNT | 1-DH1 | 2480 | Ant1 | -4.403 | 21 | Pass |
| NVNT | 2-DH1 | 2402 | Ant1 | -4.478 | 21 | Pass |
| NVNT | 2-DH1 | 2441 | Ant1 | -4.803 | 21 | Pass |
| NVNT | 2-DH1 | 2480 | Ant1 | -4.223 | 21 | Pass |
| NVNT | 3-DH1 | 2402 | Ant1 | -4.427 | 21 | Pass |
| NVNT | 3-DH1 | 2441 | Ant1 | -4.74 | 21 | Pass |
| NVNT | 3-DH1 | 2480 | Ant1 | -4.114 | 21 | Pass |

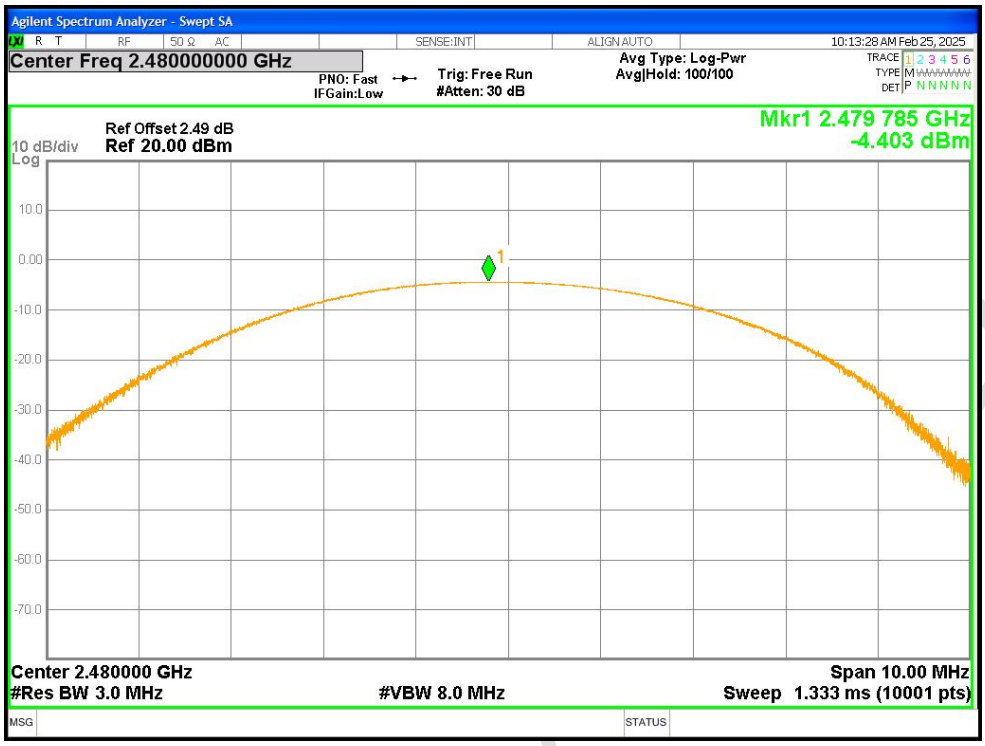
Power NVNT 1-DH1 2402MHz Ant1



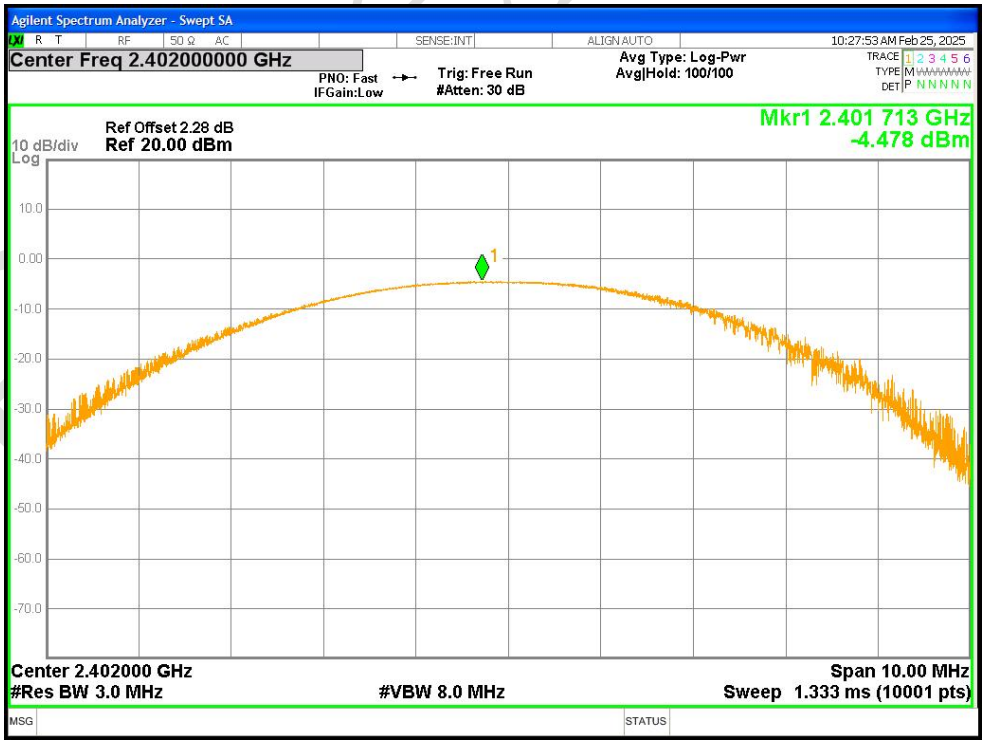

Power NVNT 1-DH1 2441MHz Ant1



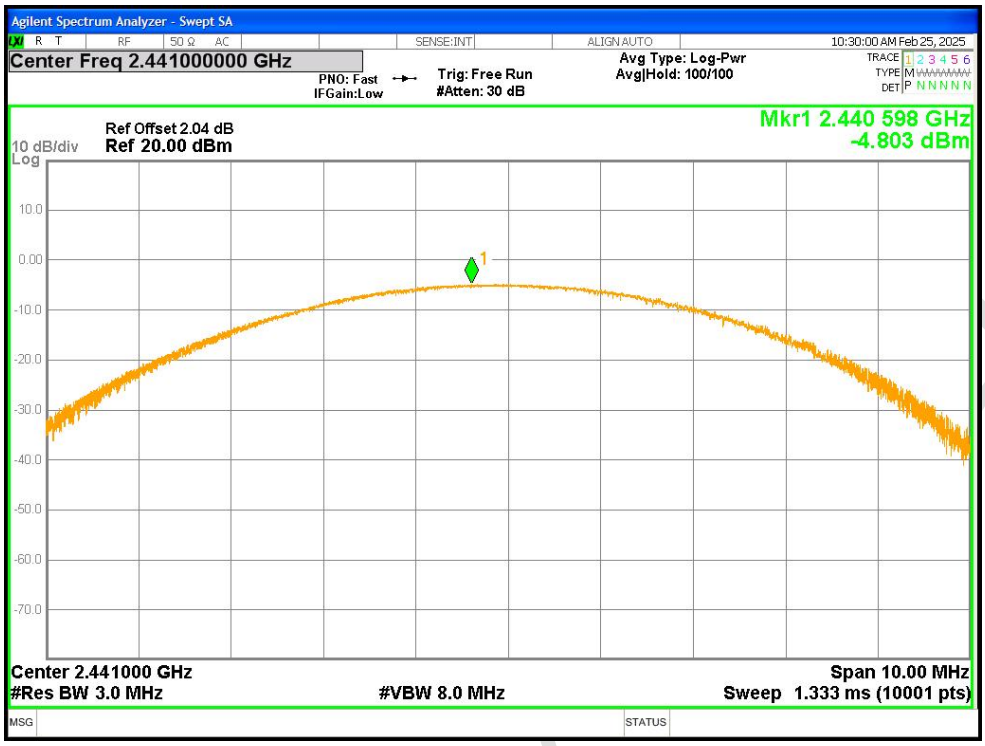
Power NVNT 1-DH1 2480MHz Ant1



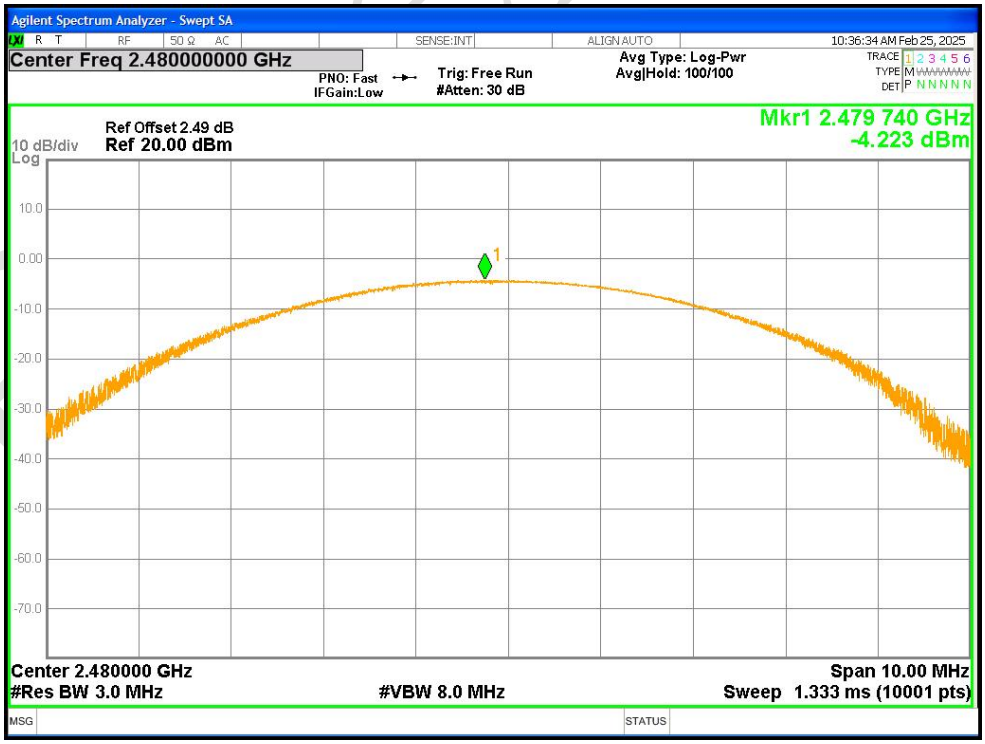

Power NVNT 2-DH1 2402MHz Ant1



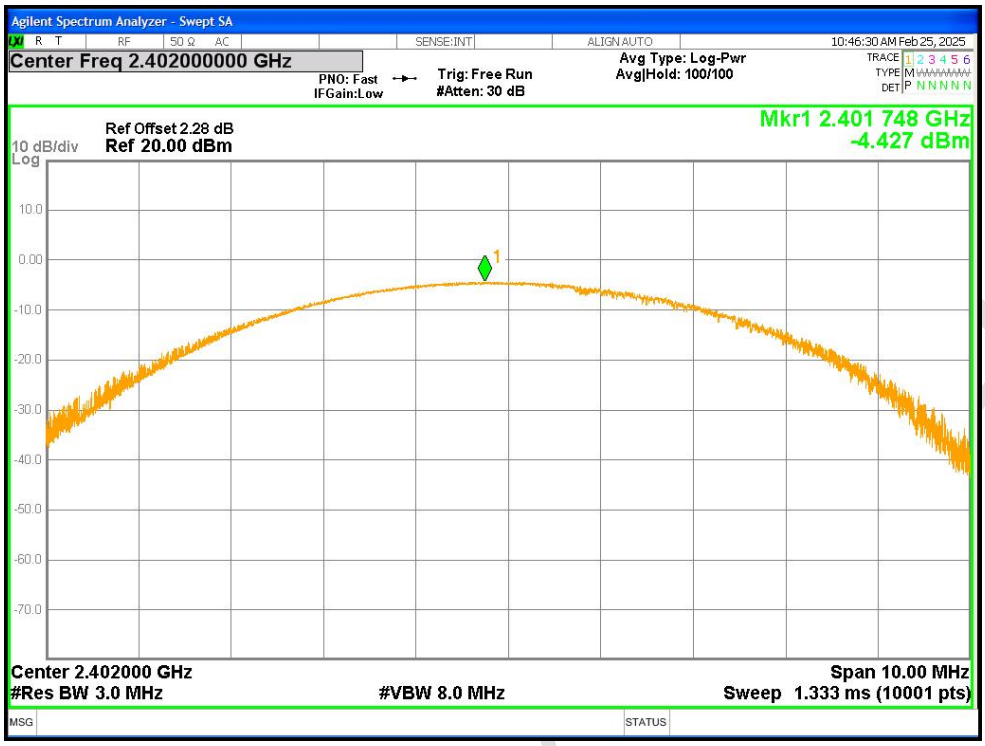
Power NVNT 2-DH1 2441MHz Ant1



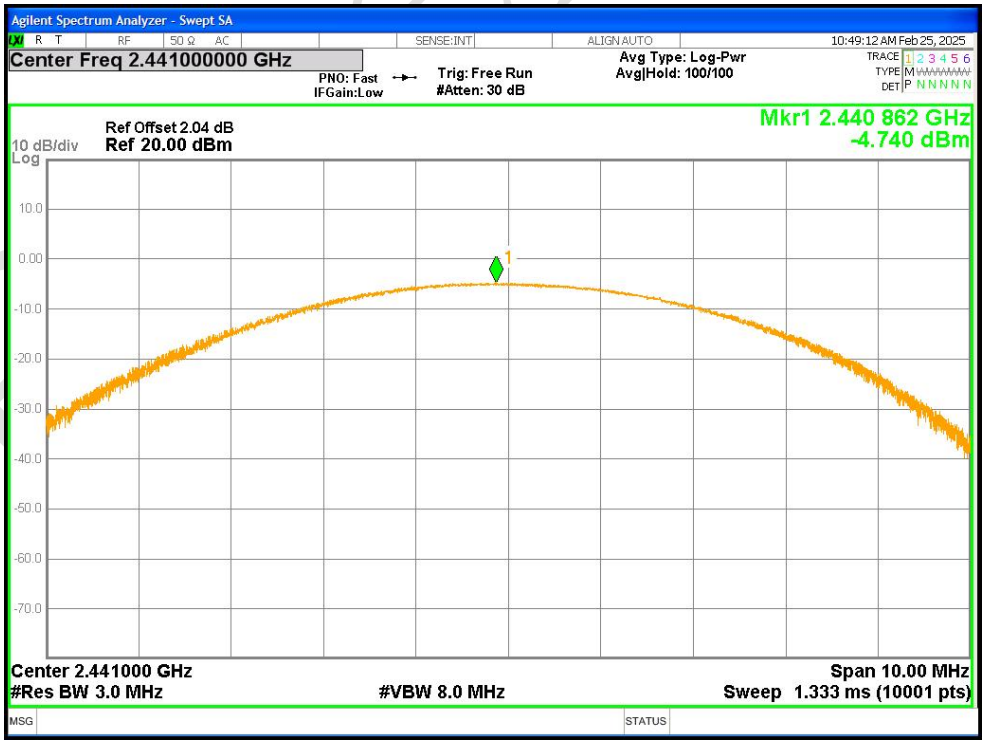

Power NVNT 2-DH1 2480MHz Ant1



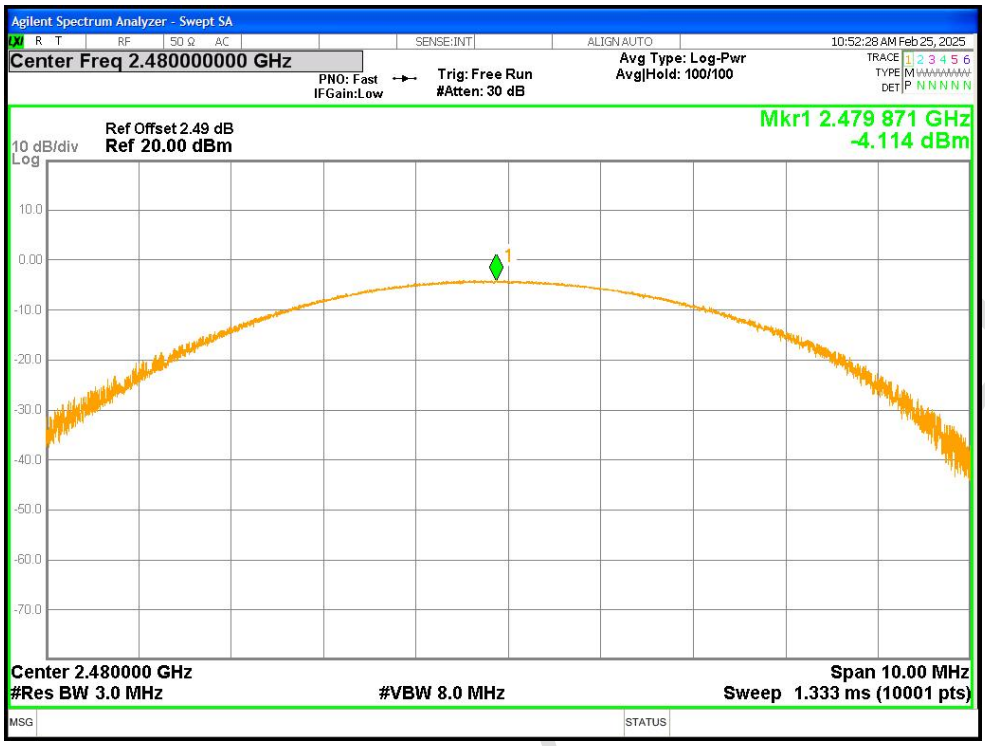
Power NVNT 3-DH1 2402MHz Ant1




Power NVNT 3-DH1 2441MHz Ant1



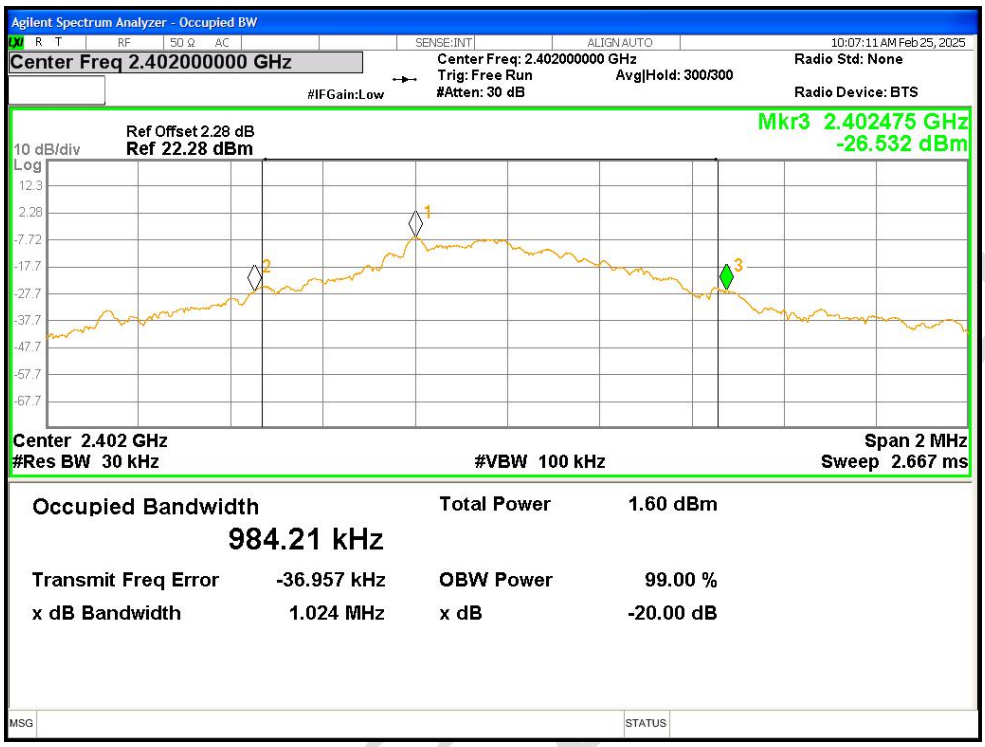
Power NVNT 3-DH1 2480MHz Ant1



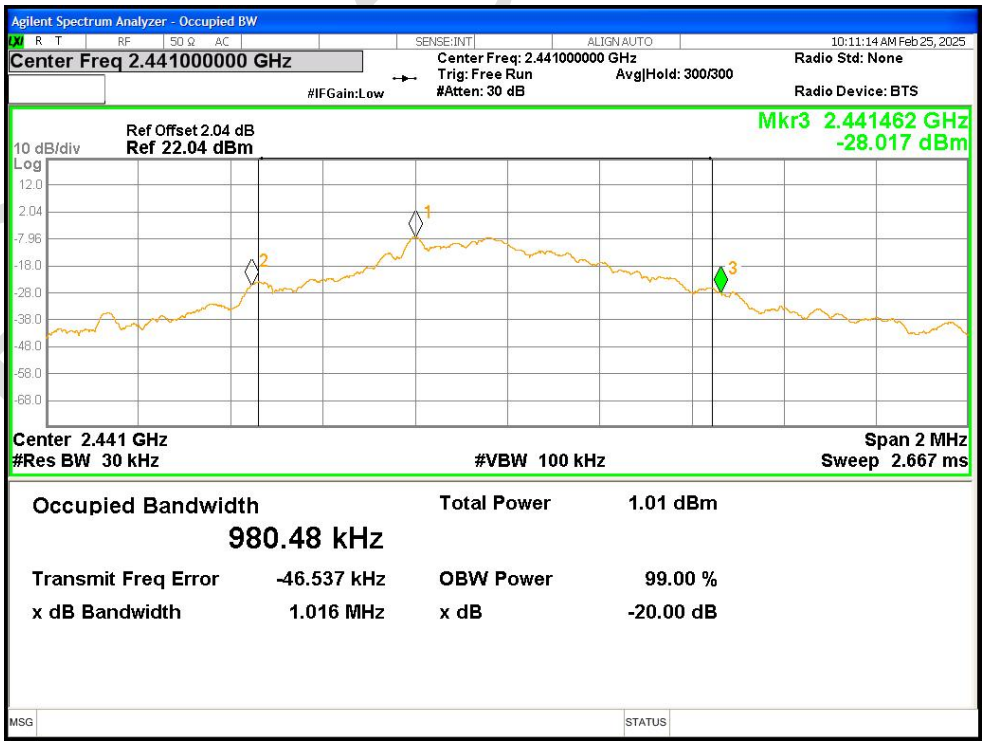
## 7.3 -20dB Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | -20 dB Bandwidth (MHz) | Limit -20 dB Bandwidth (MHz) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | 1-DH1 | 2402 | Ant1 | 1.024 | N/A | Pass |
| NVNT | 1-DH1 | 2441 | Ant1 | 1.016 | N/A | Pass |
| NVNT | 1-DH1 | 2480 | Ant1 | 1.014 | N/A | Pass |
| NVNT | 2-DH1 | 2402 | Ant1 | 1.285 | N/A | Pass |
| NVNT | 2-DH1 | 2441 | Ant1 | 1.287 | N/A | Pass |
| NVNT | 2-DH1 | 2480 | Ant1 | 1.322 | N/A | Pass |
| NVNT | 3-DH1 | 2402 | Ant1 | 1.244 | N/A | Pass |
| NVNT | 3-DH1 | 2441 | Ant1 | 1.25 | N/A | Pass |
| NVNT | 3-DH1 | 2480 | Ant1 | 1.249 | N/A | Pass |

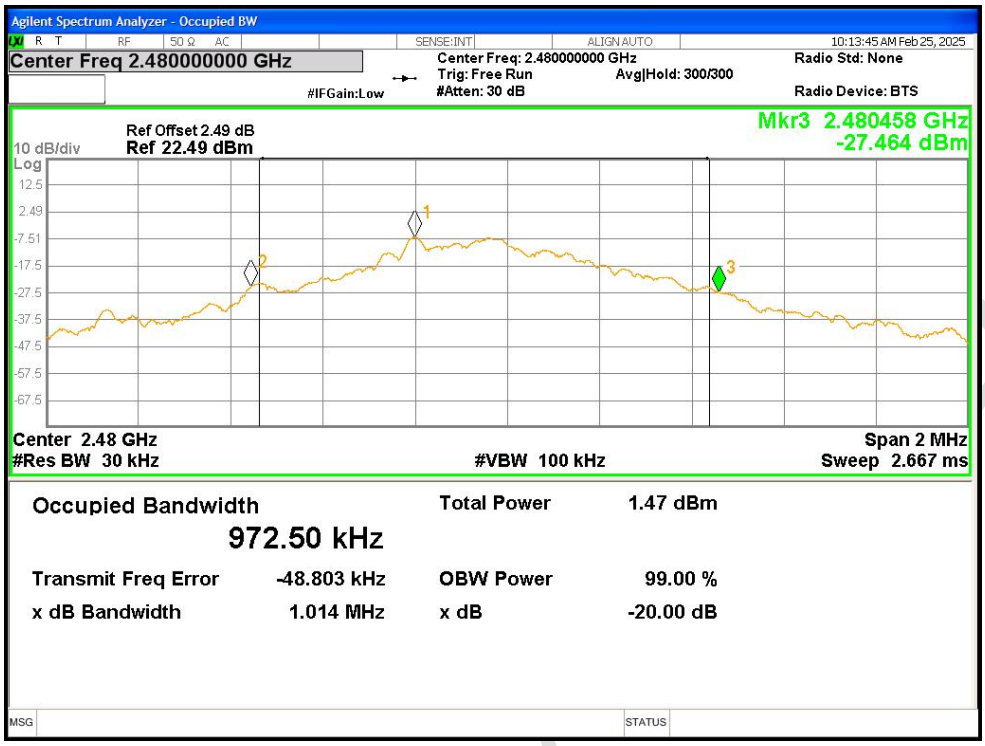
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



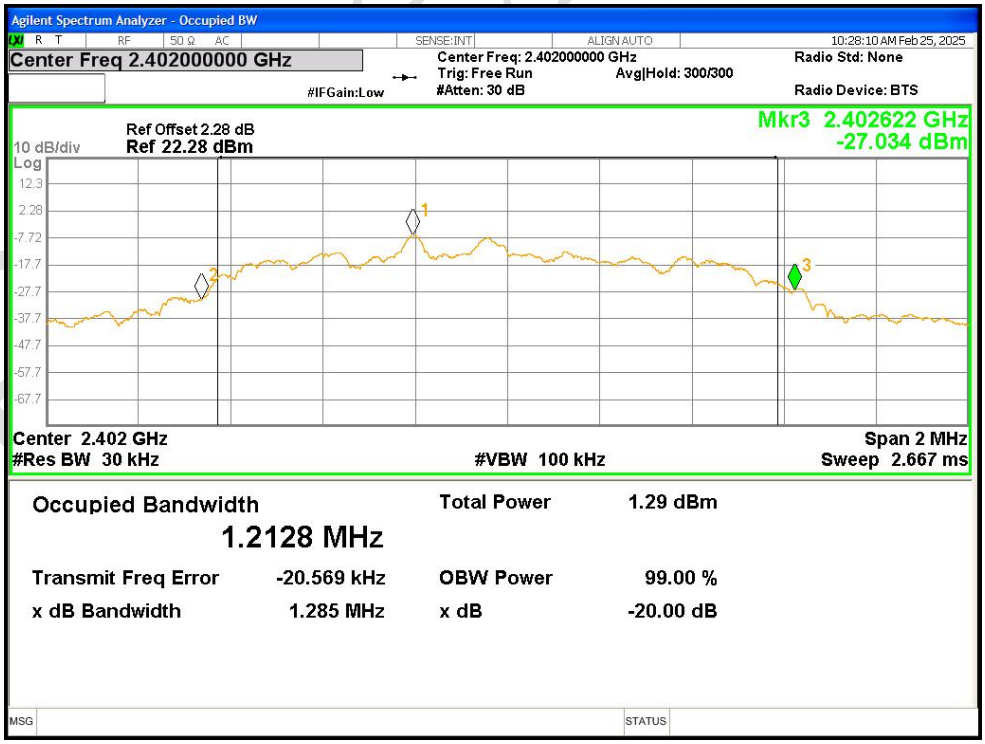

-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



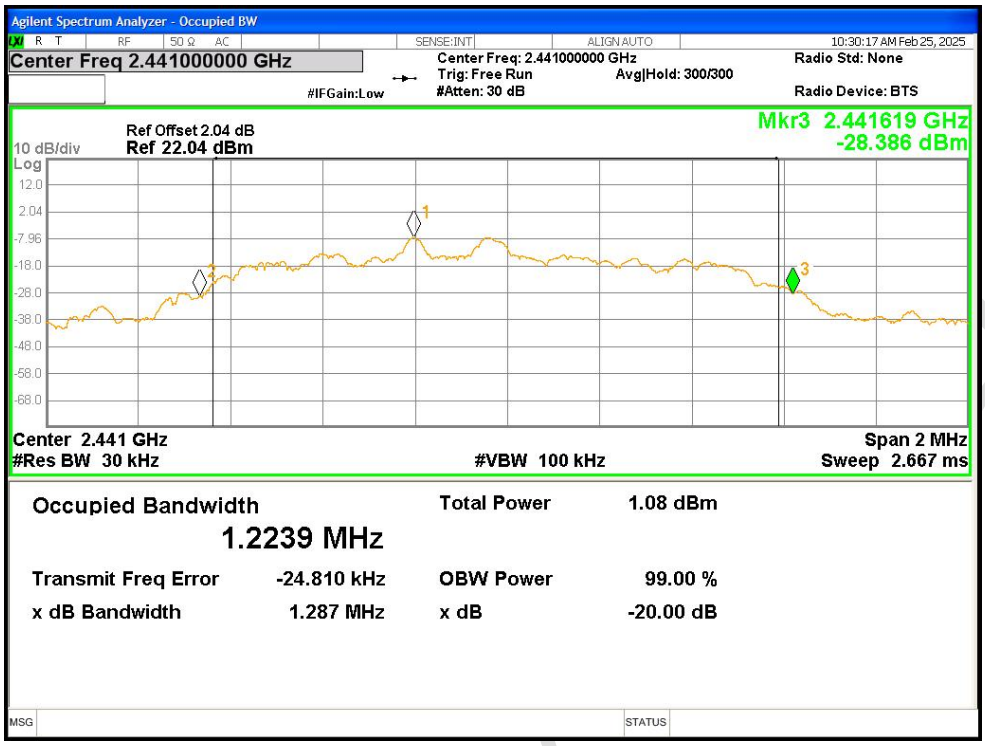
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1




-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1




-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1