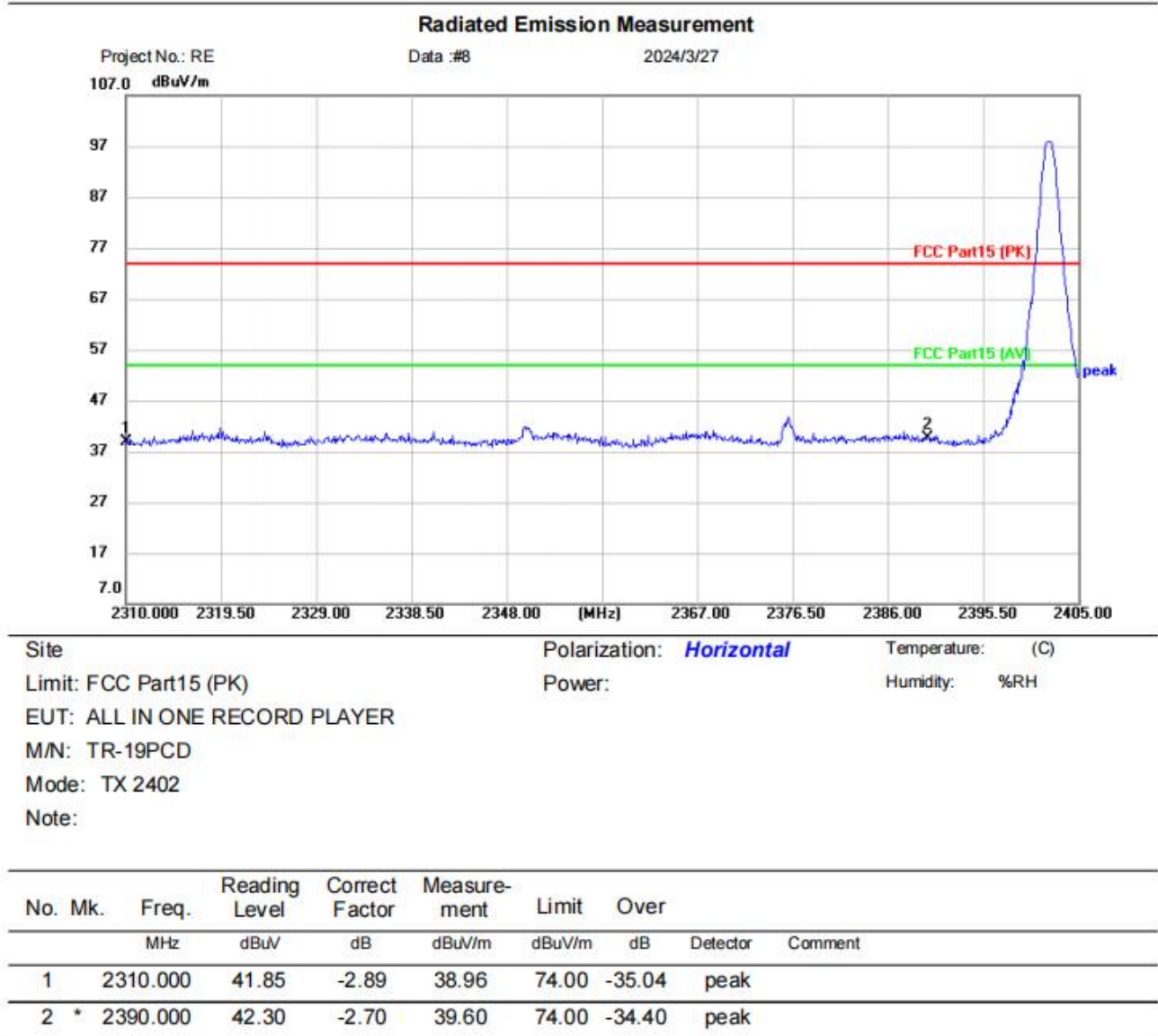


18.4 TEST DATA

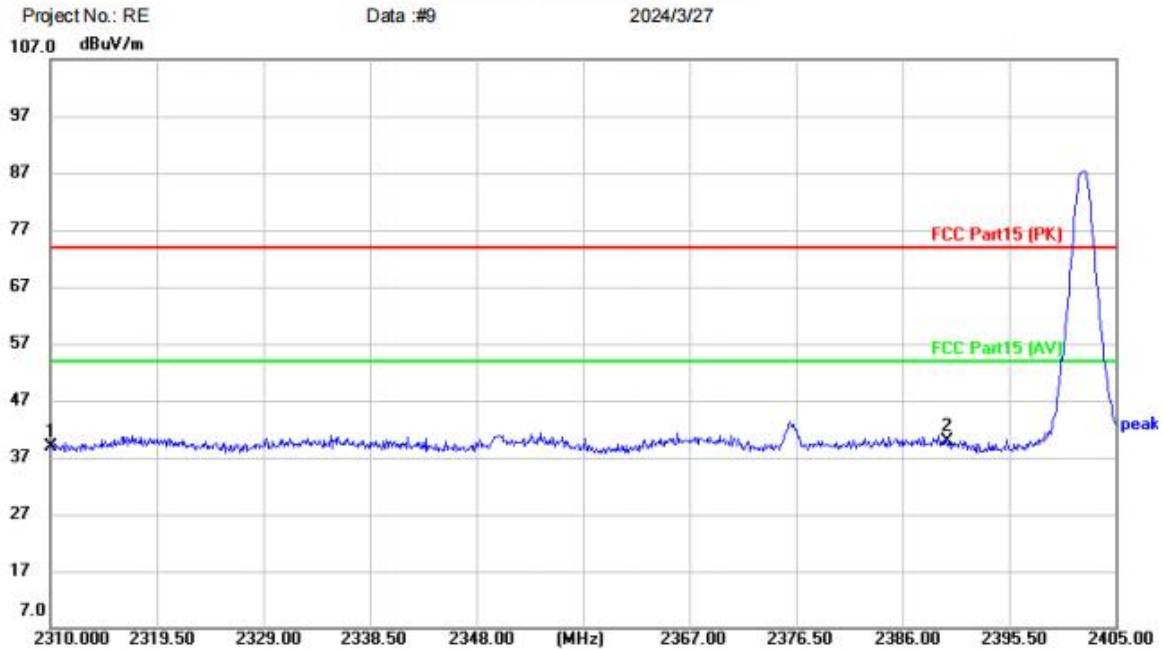
[TestMode: TX lowest channel]; [Polarity: Horizontal]



Test Result: Pass

[TestMode: TX lowest channel]; [Polarity: Vertical]

Radiated Emission Measurement

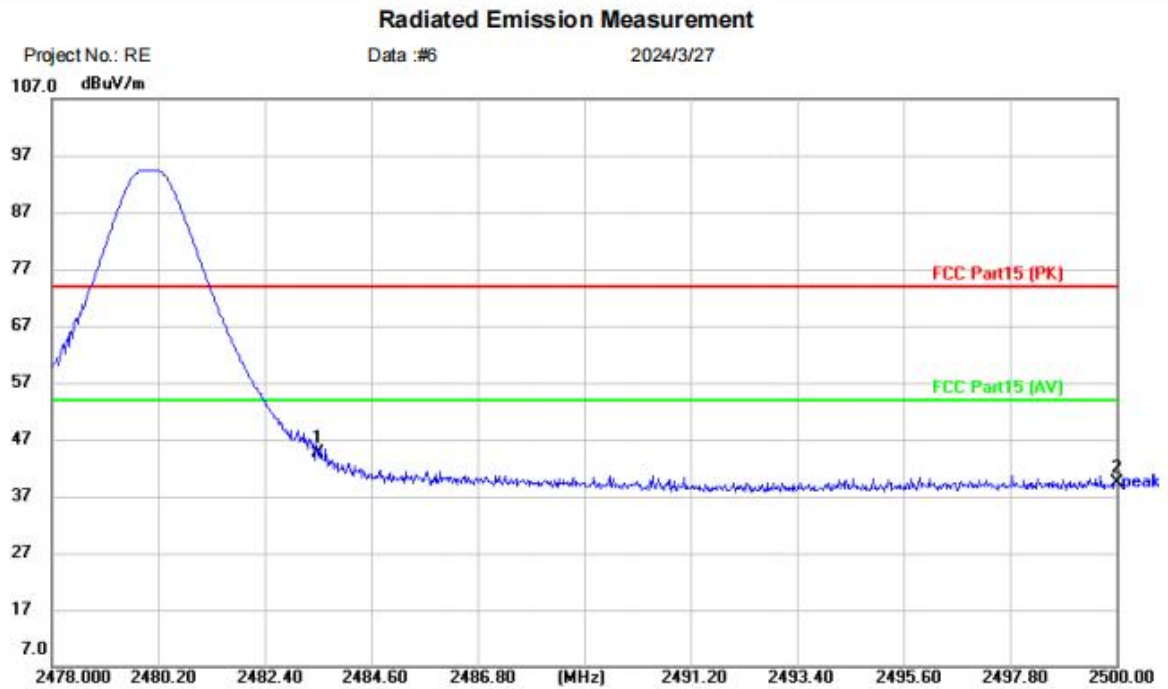


Site Polarization: **Vertical** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: ALL IN ONE RECORD PLAYER
M/N: TR-19PCD
Mode: TX 2402
Note:

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | | |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 2310.000 | 41.89 | -2.89 | 39.00 | 74.00 | -35.00 | peak | |
| 2 | * | 2390.000 | 42.51 | -2.70 | 39.81 | 74.00 | -34.19 | peak | |

Test Result: Pass

[TestMode: TX highest channel]; [Polarity: Horizontal]



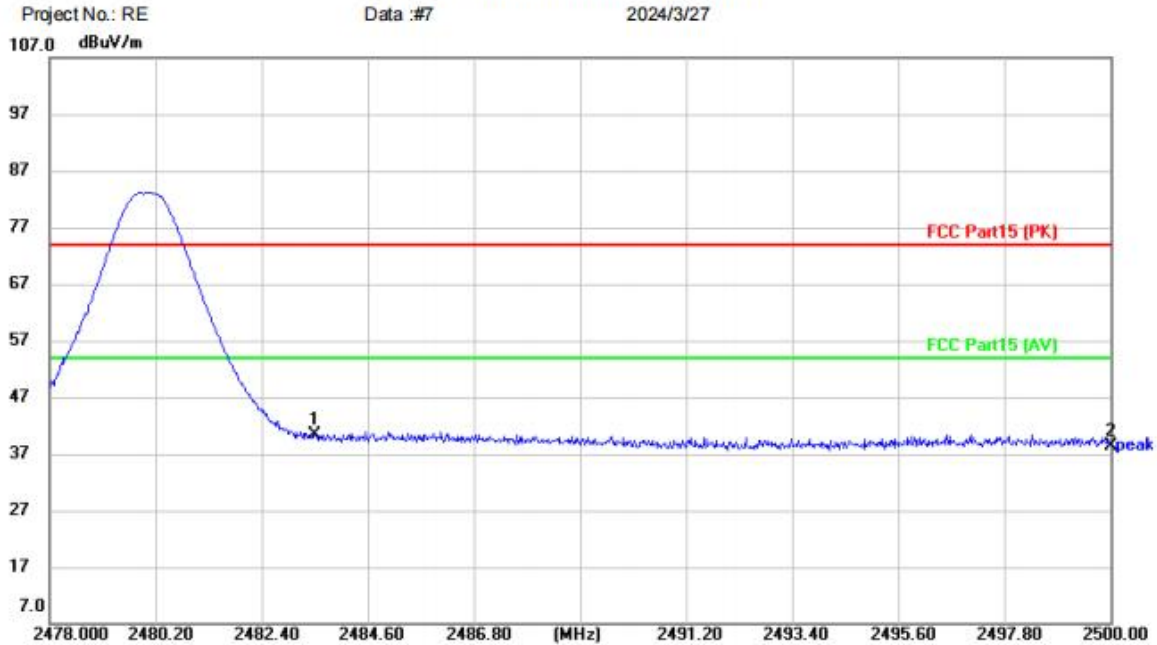
Site: Polarization: **Horizontal** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: ALL IN ONE RECORD PLAYER
M/N: TR-19PCD
Mode: TX 2480
Note:

| No. | Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measure- ment dBuV/m | Limit dBuV/m | Over dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1 | * | 2483.500 | 47.55 | -2.91 | 44.64 | 74.00 | -29.36 | peak | |
| 2 | | 2500.000 | 42.34 | -3.00 | 39.34 | 74.00 | -34.66 | peak | |

Test Result: Pass

[TestMode: TX highest channel]; [Polarity: Vertical]

Radiated Emission Measurement



Site Polarization: **Vertical** Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH
EUT: ALL IN ONE RECORD PLAYER
M/N: TR-19PCD
Mode: TX 2480
Note:

| No. | Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measure- ment dBuV/m | Limit dBuV/m | Over dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1 | * | 2483.500 | 43.36 | -2.91 | 40.45 | 74.00 | -33.55 | peak | |
| 2 | | 2500.000 | 41.42 | -3.00 | 38.42 | 74.00 | -35.58 | peak | |

Test Result: Pass

Remark:

DH1,DH3, DH5 all have been tested, during the test, GFSK, pi/4DQPSK, 8DPSK, modulation were all pre-scanned Only the GFSK of the worst mode would be recorded in this report.

19 ANTENNA REQUIREMENT

| | |
|---------------|----------------------------------|
| Test Standard | 47 CFR Part 15, Subpart C 15.247 |
| Test Method | N/A |

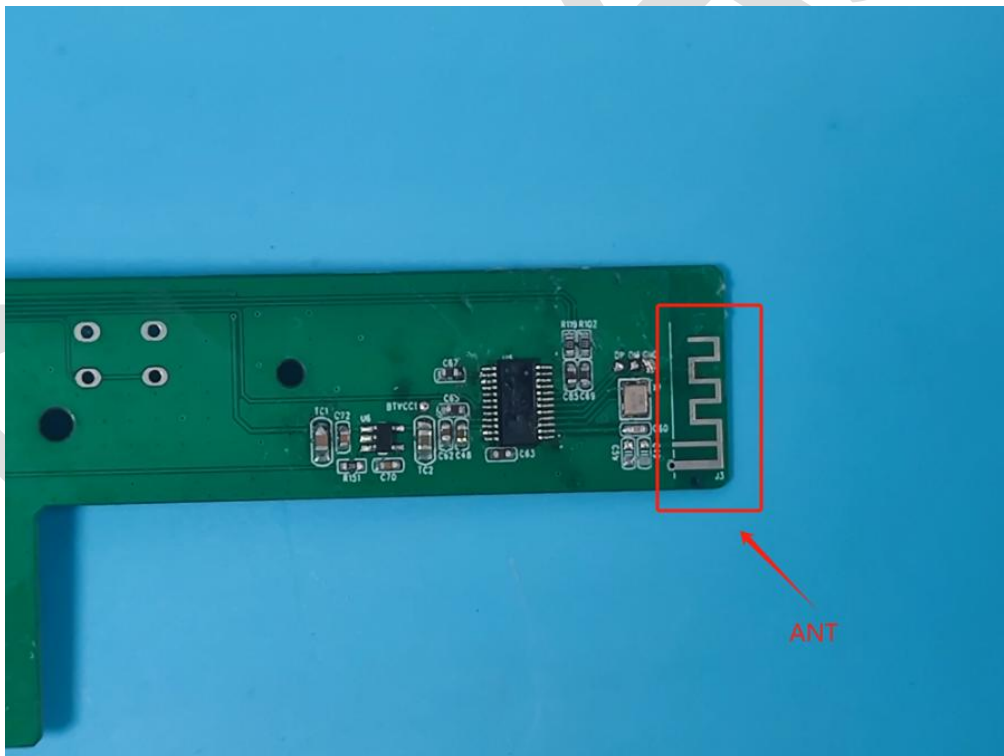
19.1 CONCLUSION

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is -0.58dBi.



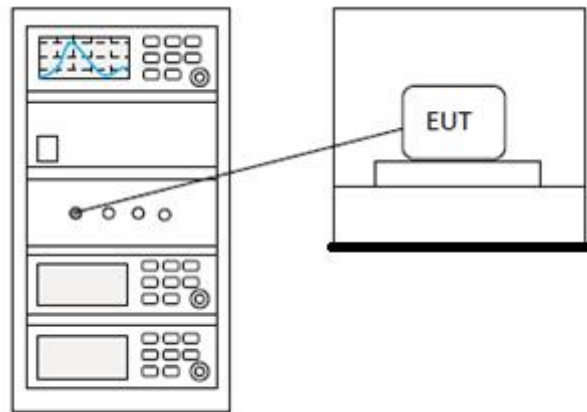
20 CONDUCTED SPURIOUS EMISSIONS

| | |
|-------------------------------|--|
| Test Standard | 47 CFR Part 15, Subpart C 15.247 |
| Test Method | ANSI C63.10 (2013) Section 7.8.6 & Section 11.11 |
| Test Mode (Pre-Scan) | TX |
| Test Mode (Final Test) | TX |
| Tester | Charlie |
| Temperature | 25°C |
| Humidity | 60% |

20.1 LIMITS

| | |
|---------------|---|
| Limit: | <p>In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).</p> |
|---------------|---|

20.2 BLOCK DIAGRAM OF TEST SETUP



20.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

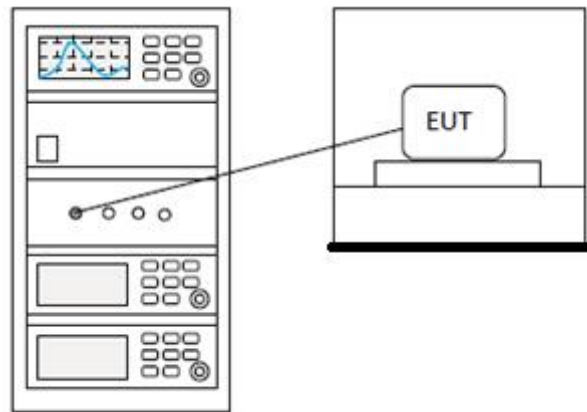
21 CONDUCTED BAND EDGES MEASUREMENT

| | |
|-------------------------------|--|
| Test Standard | 47 CFR Part 15, Subpart C 15.247 |
| Test Method | ANSI C63.10 (2013) Section 7.8.8 & Section 11.13.3.2 |
| Test Mode (Pre-Scan) | TX |
| Test Mode (Final Test) | TX |
| Tester | Charlie |
| Temperature | 25°C |
| Humidity | 60% |

21.1 LIMITS

| | |
|---------------|---|
| Limit: | <p>In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).</p> |
|---------------|---|

21.2 BLOCK DIAGRAM OF TEST SETUP



21.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

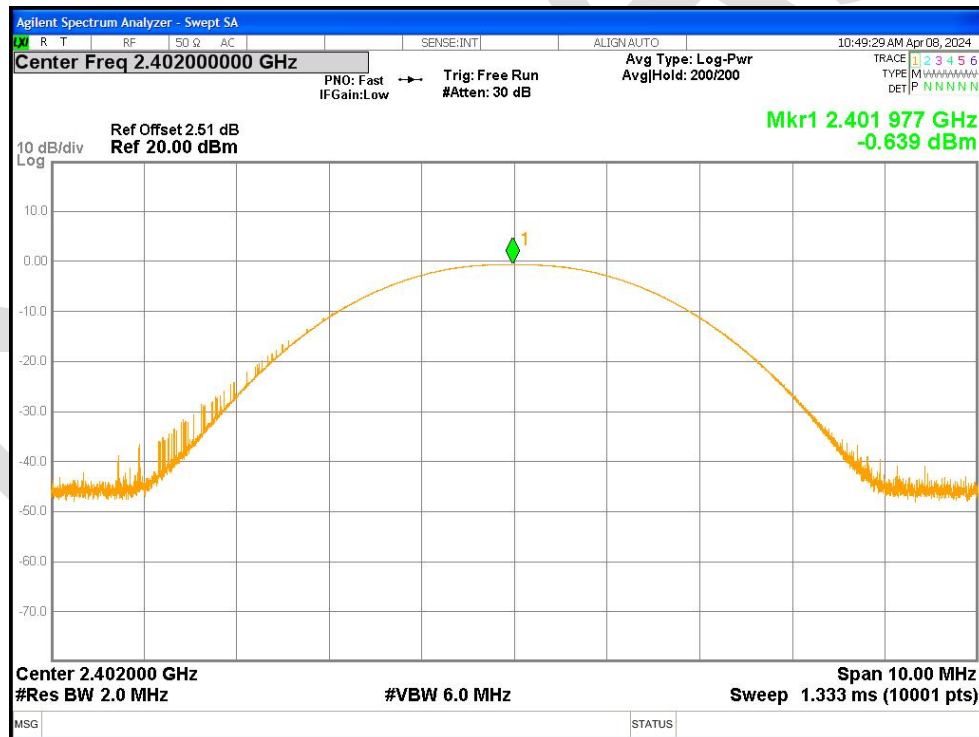
22 APPENDIX

Appendix1

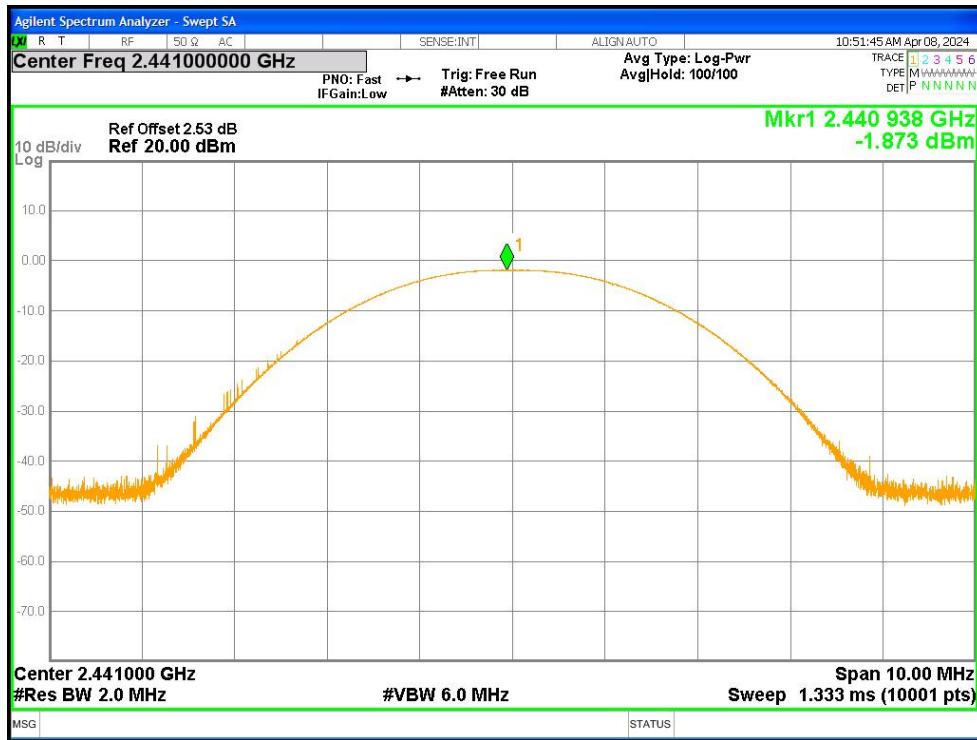
22.1 MAXIMUM CONDUCTED OUTPUT POWER

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|-----------|-------|-----------------|---------|-----------------------|-------------|---------|
| NVNT | 1-DH1 | 2402 | Ant1 | -0.639 | 21 | Pass |
| NVNT | 1-DH1 | 2441 | Ant1 | -1.873 | 21 | Pass |
| NVNT | 1-DH1 | 2480 | Ant1 | -2.939 | 21 | Pass |
| NVNT | 2-DH1 | 2402 | Ant1 | 1.765 | 21 | Pass |
| NVNT | 2-DH1 | 2441 | Ant1 | 0.505 | 21 | Pass |
| NVNT | 2-DH1 | 2480 | Ant1 | -0.679 | 21 | Pass |
| NVNT | 3-DH1 | 2402 | Ant1 | 2.458 | 21 | Pass |
| NVNT | 3-DH1 | 2441 | Ant1 | 1.192 | 21 | Pass |
| NVNT | 3-DH1 | 2480 | Ant1 | 0.063 | 21 | Pass |

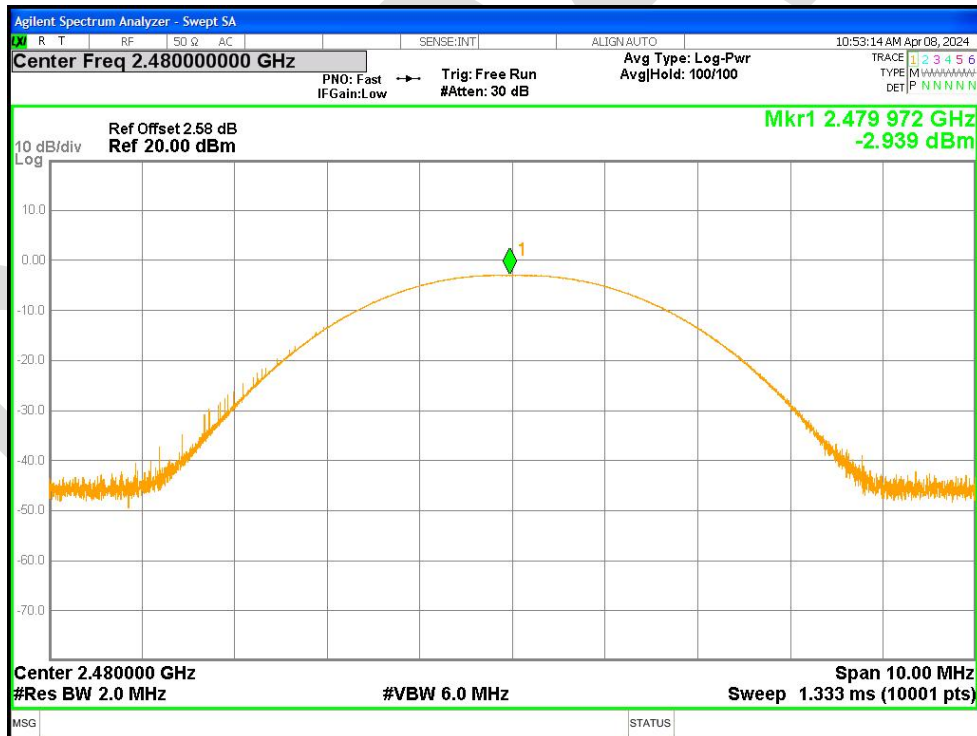
Power NVNT 1-DH1 2402MHz Ant1



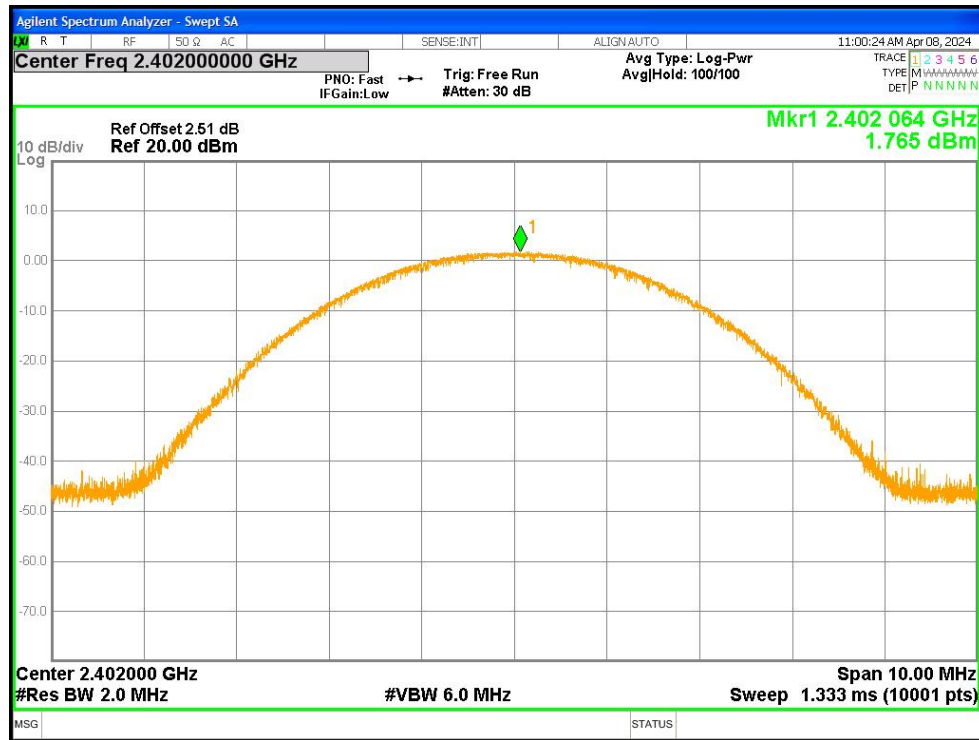
Power NVNT 1-DH1 2441MHz Ant1



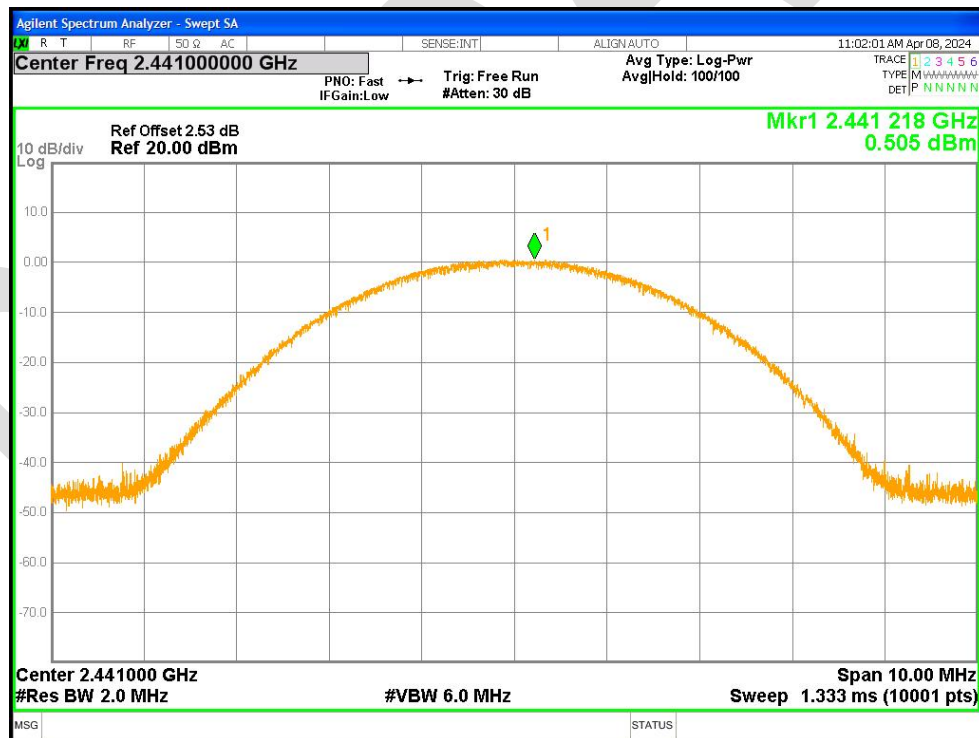
Power NVNT 1-DH1 2480MHz Ant1



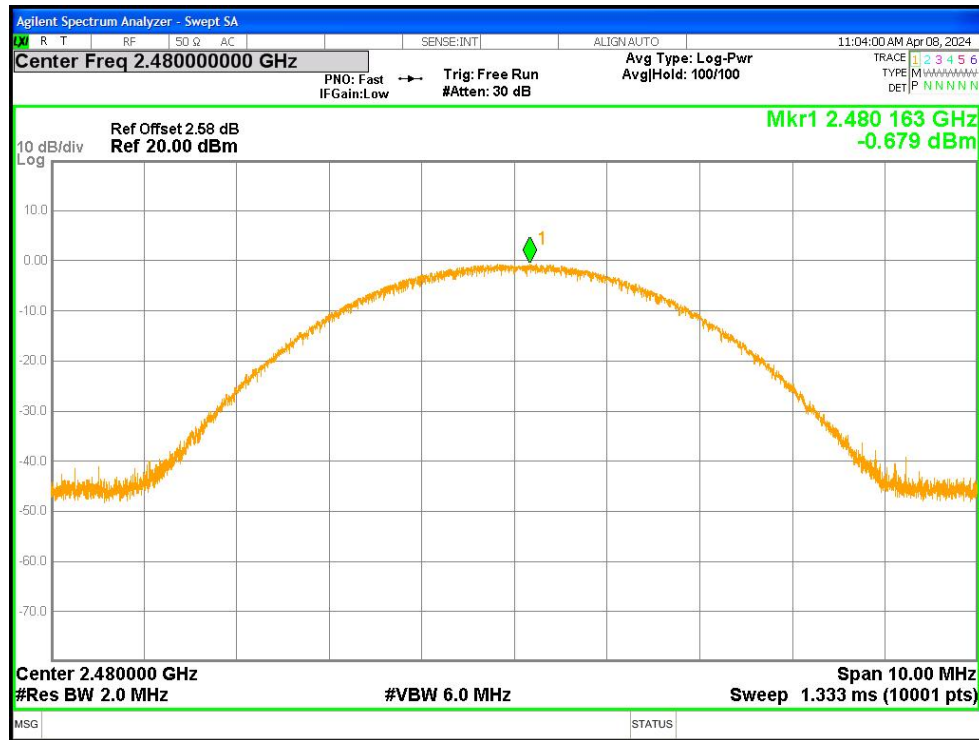
Power NVNT 2-DH1 2402MHz Ant1



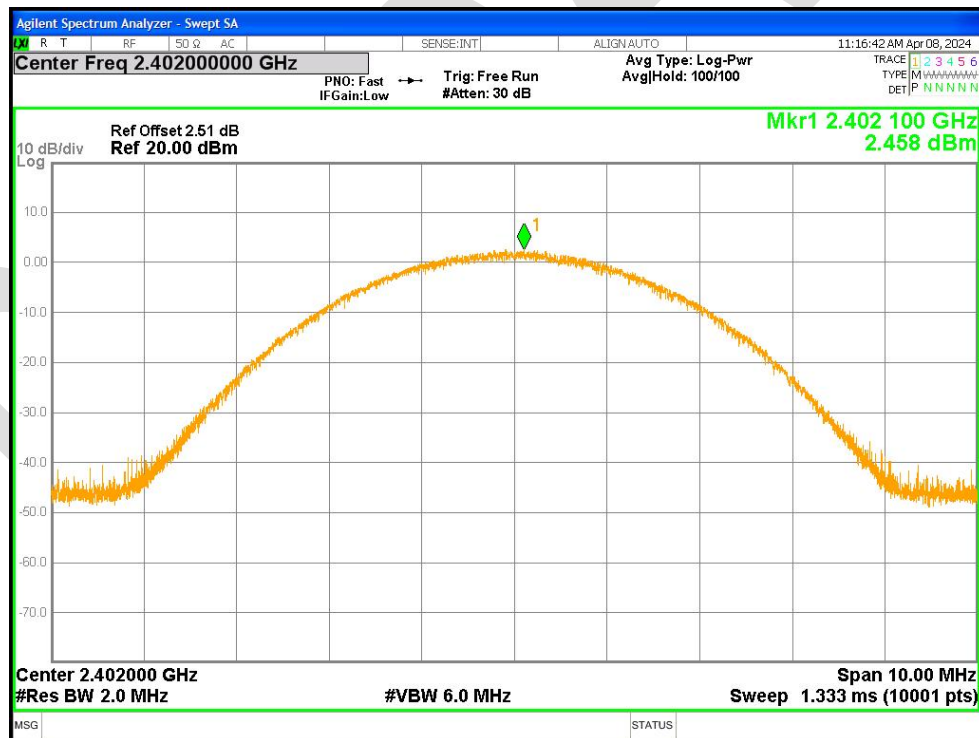
Power NVNT 2-DH1 2441MHz Ant1



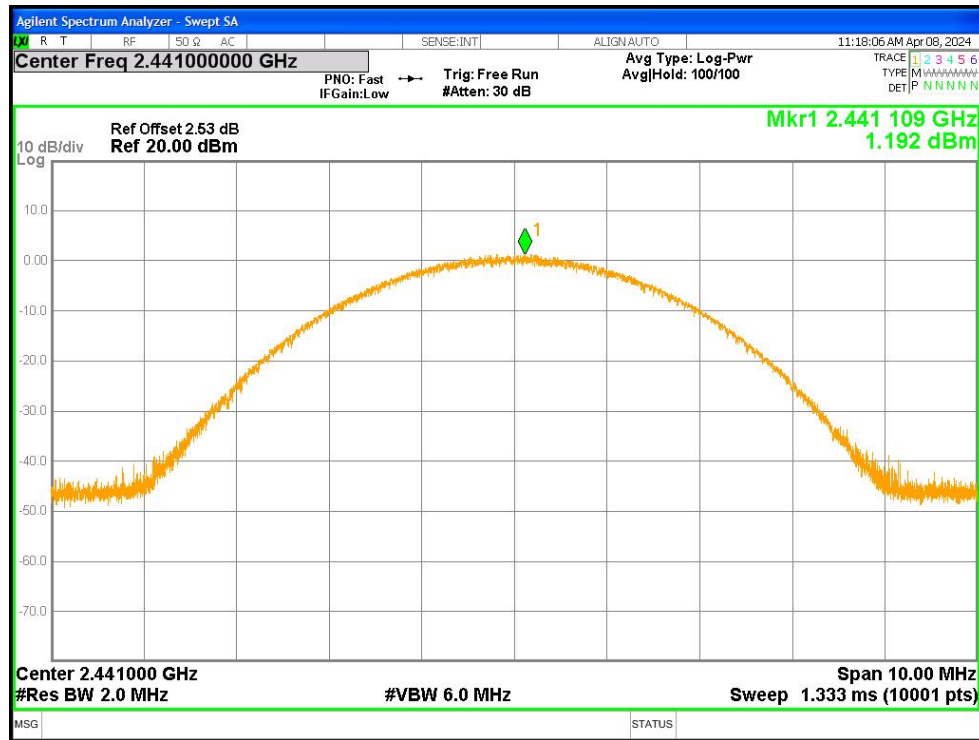
Power NVNT 2-DH1 2480MHz Ant1



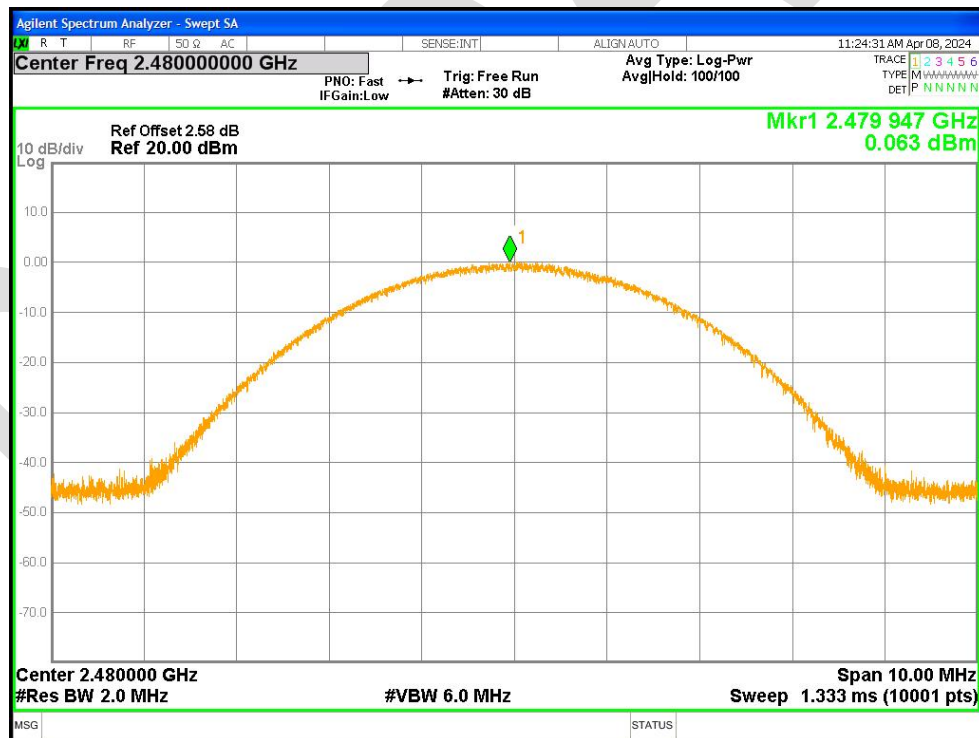
Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



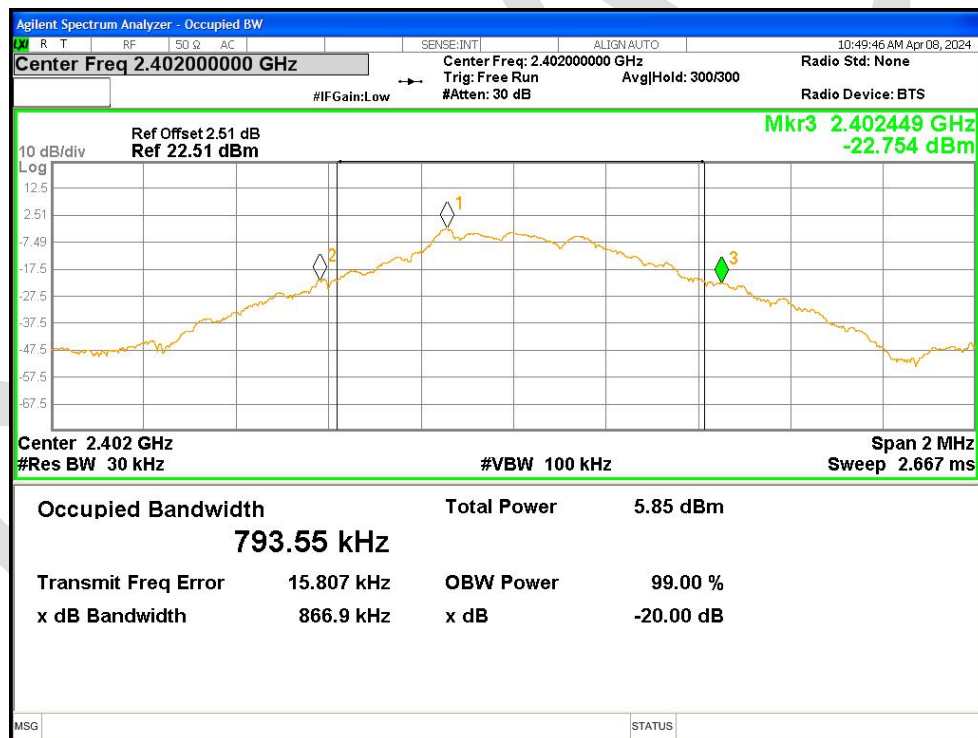
Power NVNT 3-DH1 2480MHz Ant1



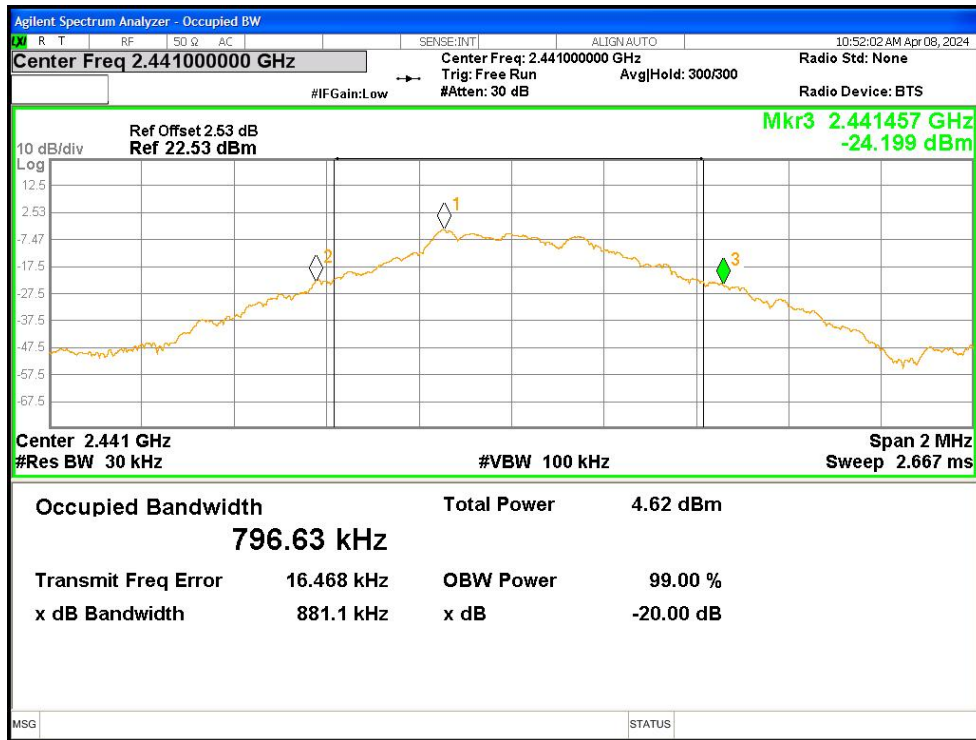
22.2 -20DB BANDWIDTH

| Condition | Mode | Frequency (MHz) | Antenna | -20 dB Bandwidth (MHz) | Limit -20 dB Bandwidth (MHz) | Verdict |
|-----------|-------|-----------------|---------|------------------------|------------------------------|---------|
| NVNT | 1-DH1 | 2402 | Ant1 | 0.867 | N/A | Pass |
| NVNT | 1-DH1 | 2441 | Ant1 | 0.881 | N/A | Pass |
| NVNT | 1-DH1 | 2480 | Ant1 | 0.878 | N/A | Pass |
| NVNT | 2-DH1 | 2402 | Ant1 | 1.289 | N/A | Pass |
| NVNT | 2-DH1 | 2441 | Ant1 | 1.265 | N/A | Pass |
| NVNT | 2-DH1 | 2480 | Ant1 | 1.294 | N/A | Pass |
| NVNT | 3-DH1 | 2402 | Ant1 | 1.213 | N/A | Pass |
| NVNT | 3-DH1 | 2441 | Ant1 | 1.212 | N/A | Pass |
| NVNT | 3-DH1 | 2480 | Ant1 | 1.215 | N/A | Pass |

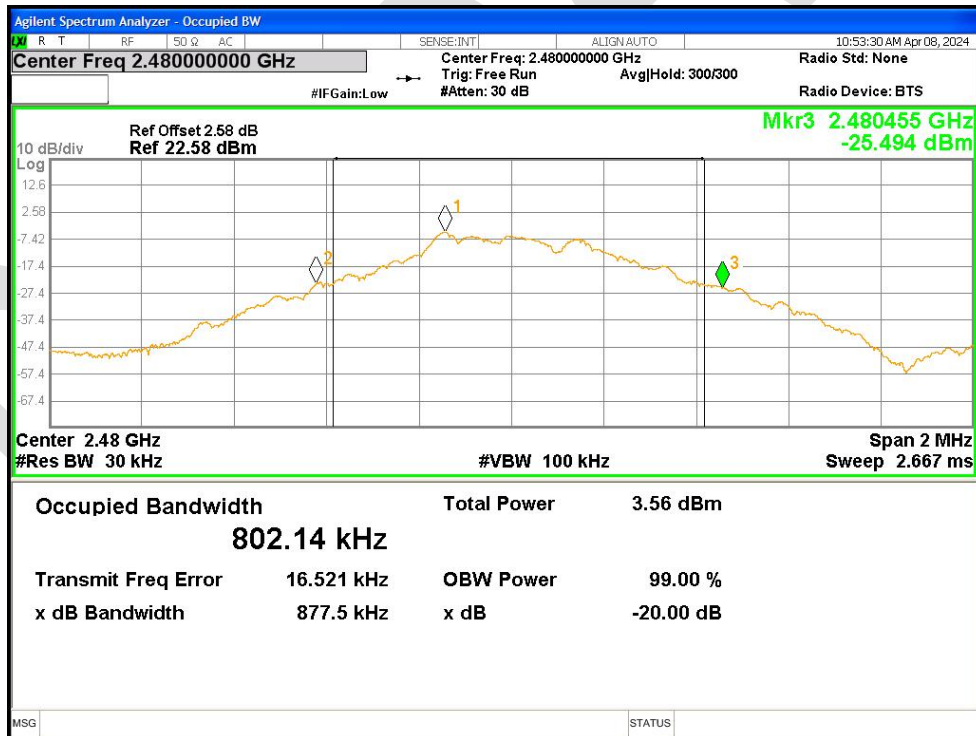
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



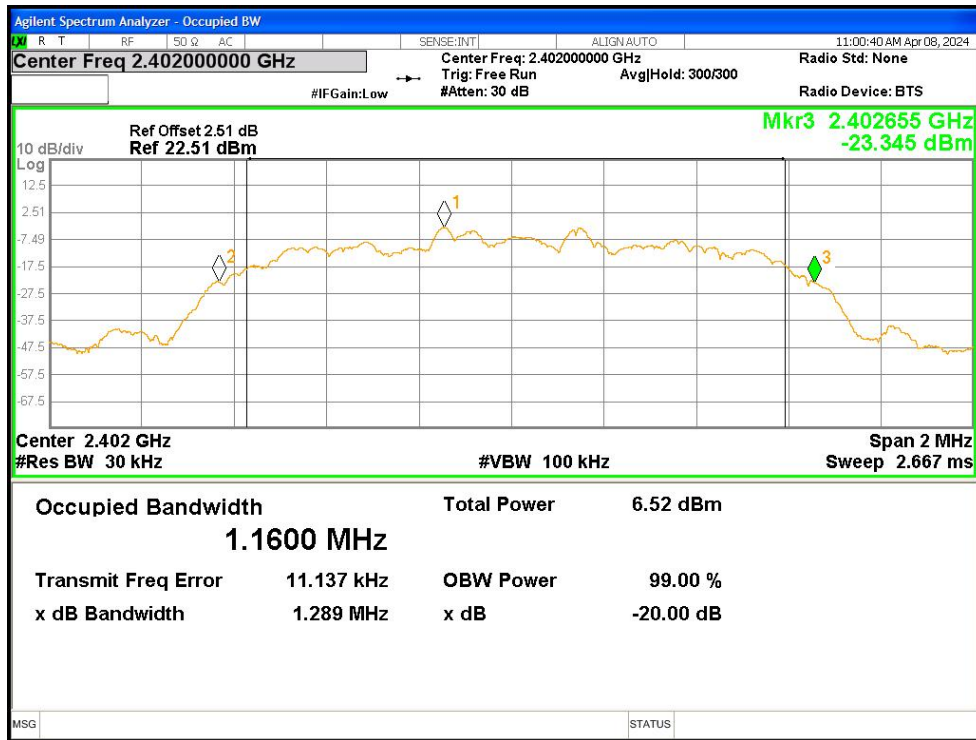
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



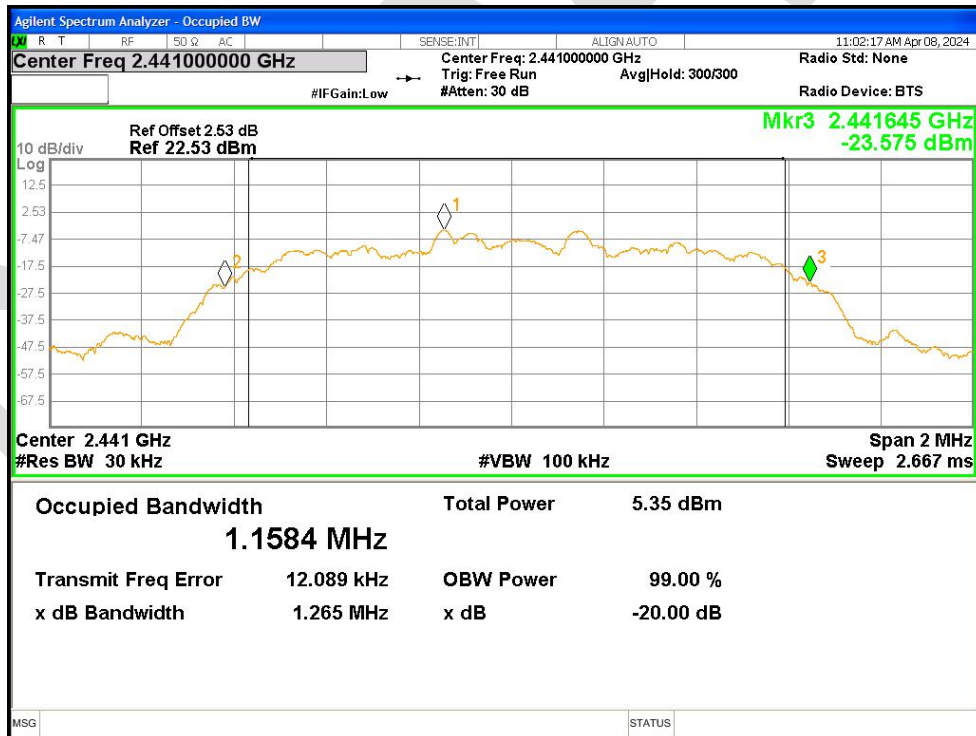
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



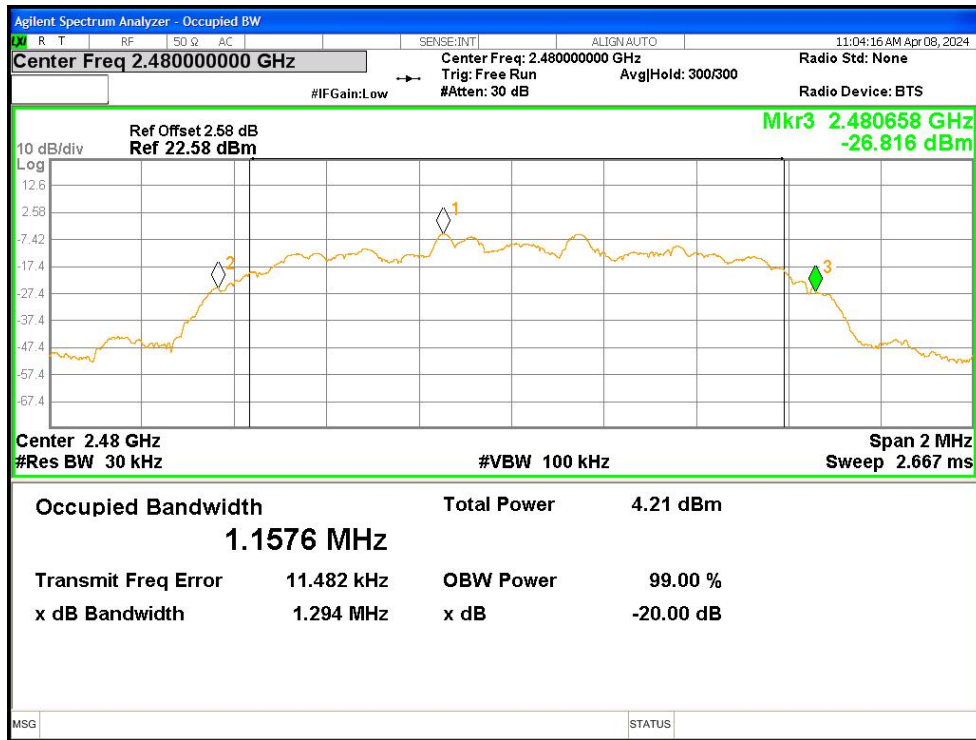
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



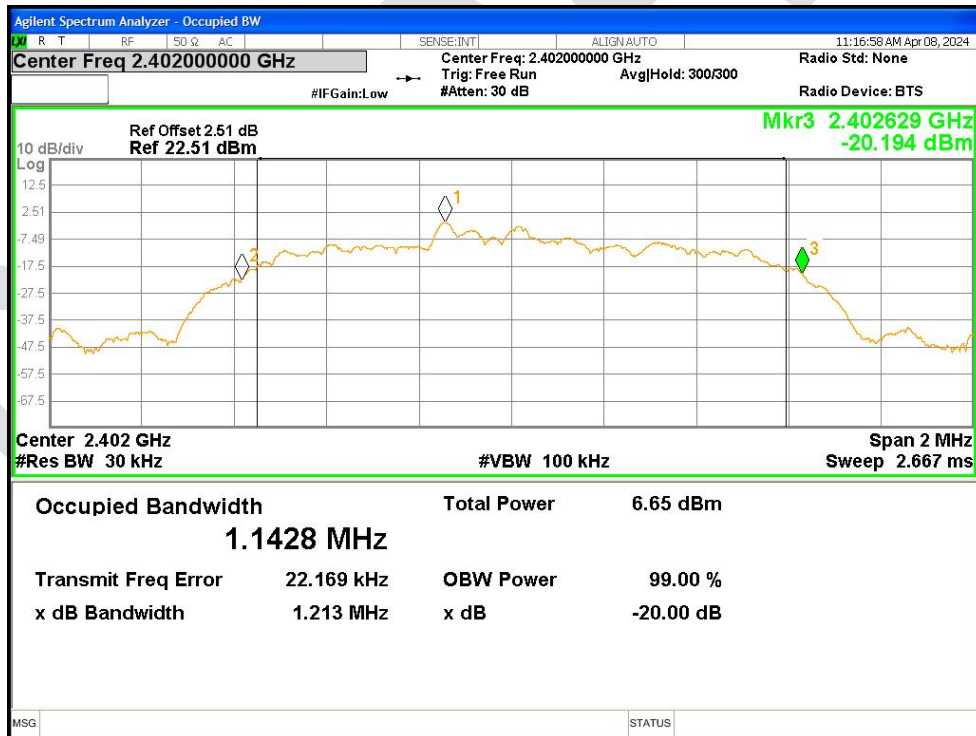
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



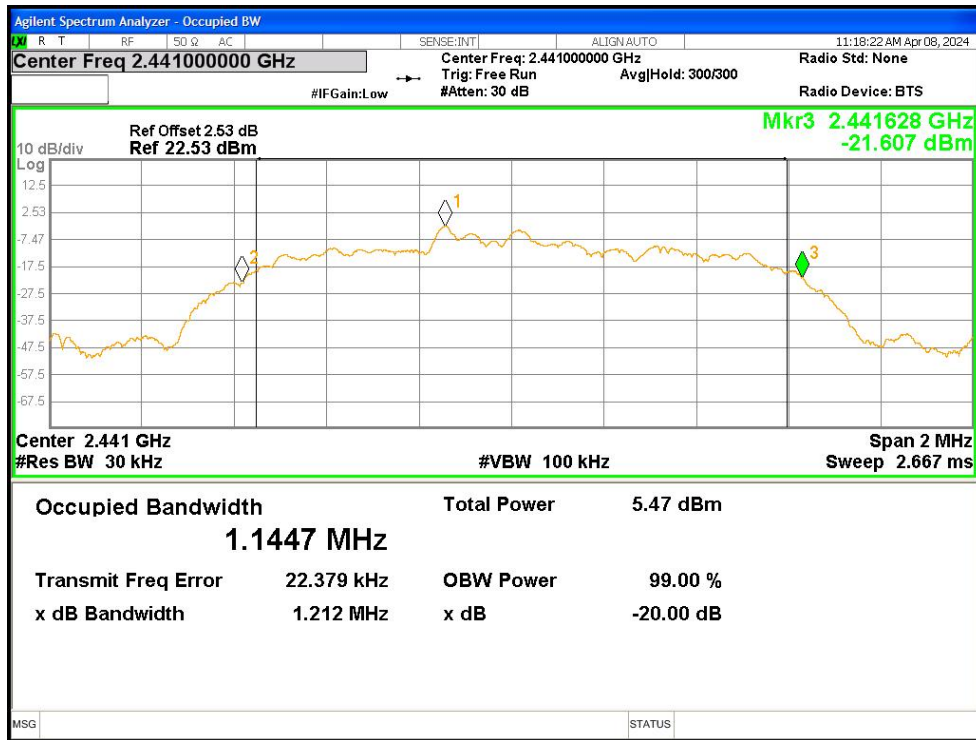
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1



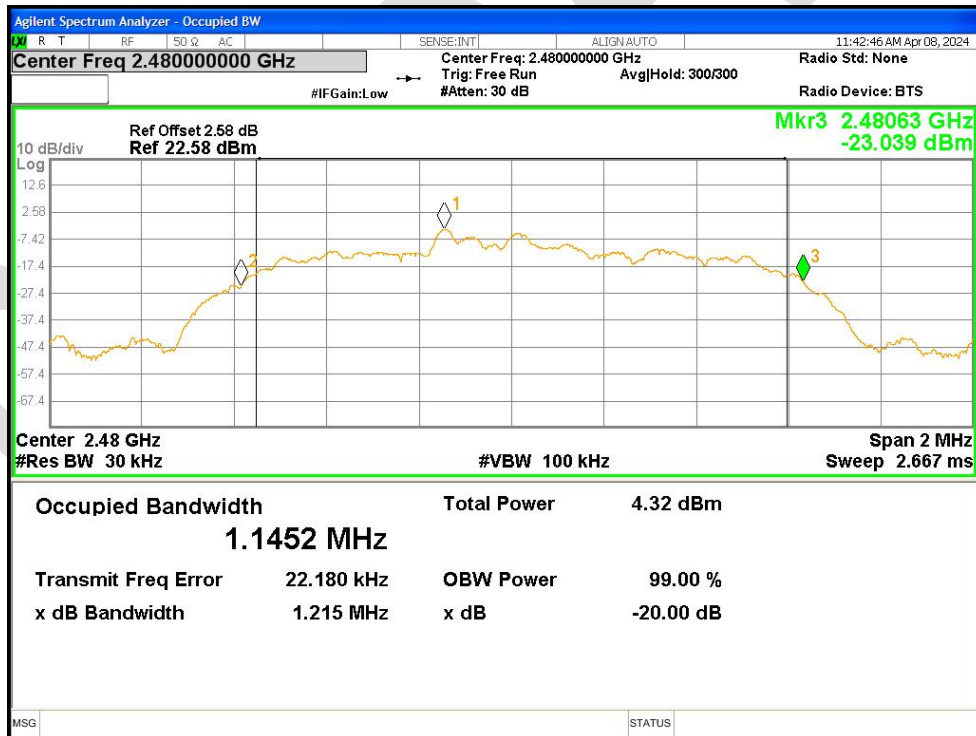
-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



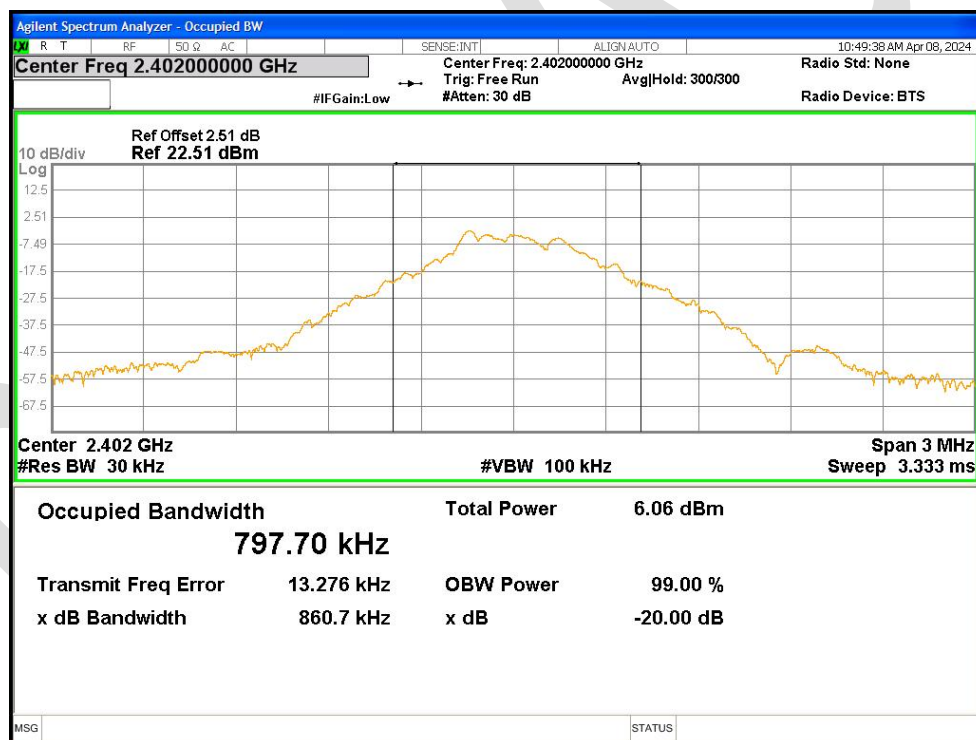
-20dB Bandwidth NVNT 3-DH1 2480MHz Ant1



22.3 OCCUPIED CHANNEL BANDWIDTH

| Condition | Mode | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|-----------|-------|-----------------|---------|---------------|
| NVNT | 1-DH1 | 2402 | Ant1 | 0.79770 |
| NVNT | 1-DH1 | 2441 | Ant1 | 0.80401 |
| NVNT | 1-DH1 | 2480 | Ant1 | 0.80477 |
| NVNT | 2-DH1 | 2402 | Ant1 | 1.1587 |
| NVNT | 2-DH1 | 2441 | Ant1 | 1.1597 |
| NVNT | 2-DH1 | 2480 | Ant1 | 1.1632 |
| NVNT | 3-DH1 | 2402 | Ant1 | 1.1445 |
| NVNT | 3-DH1 | 2441 | Ant1 | 1.1439 |
| NVNT | 3-DH1 | 2480 | Ant1 | 1.1443 |

OBW NVNT 1-DH1 2402MHz Ant1



OBW NVNT 1-DH1 2441MHz Ant1