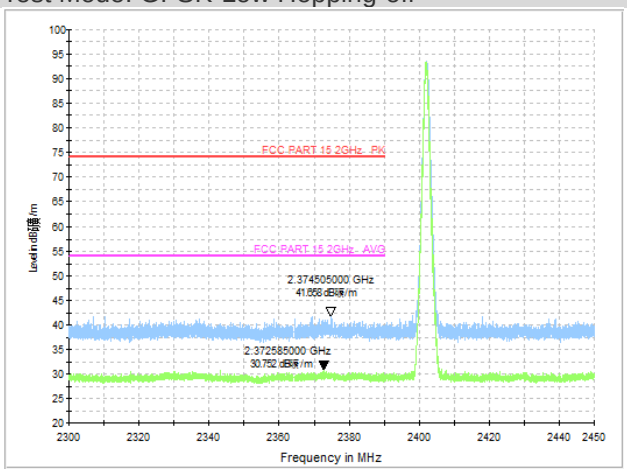
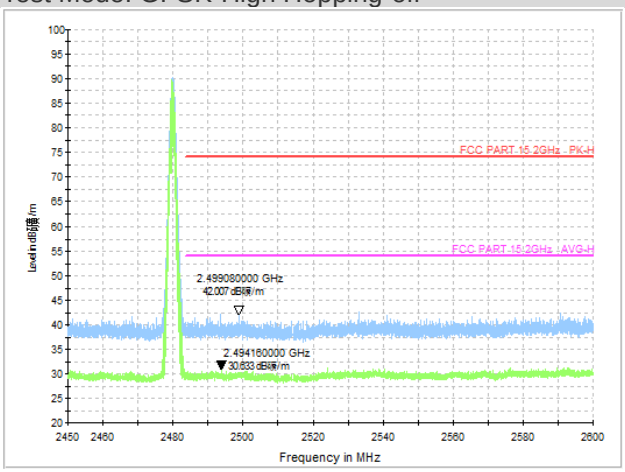
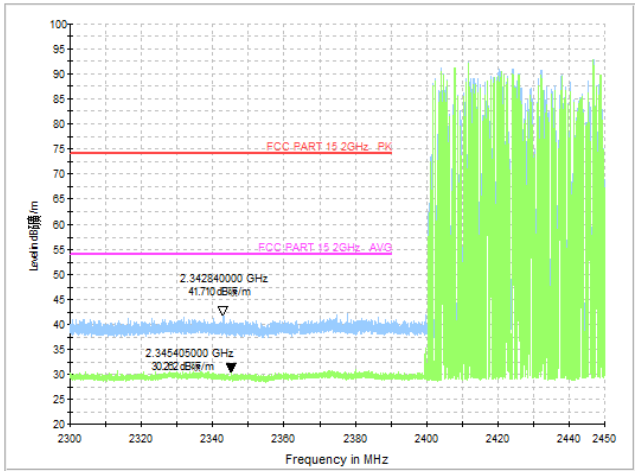
Test Mode: GFSK-Low Hopping-off



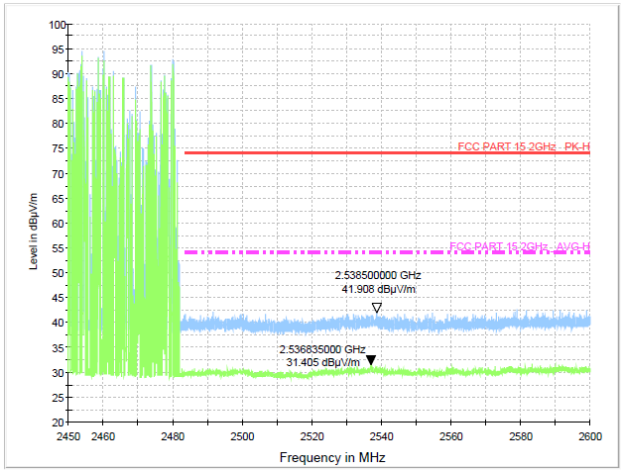

Test Mode: GFSK-High Hopping-off



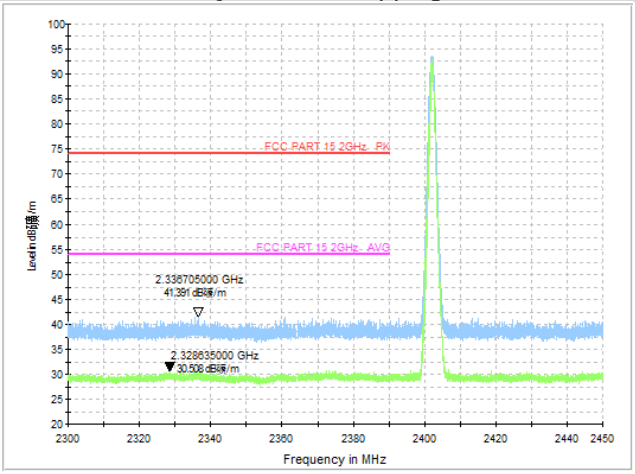

Test Mode: GFSK-Low Hopping-on



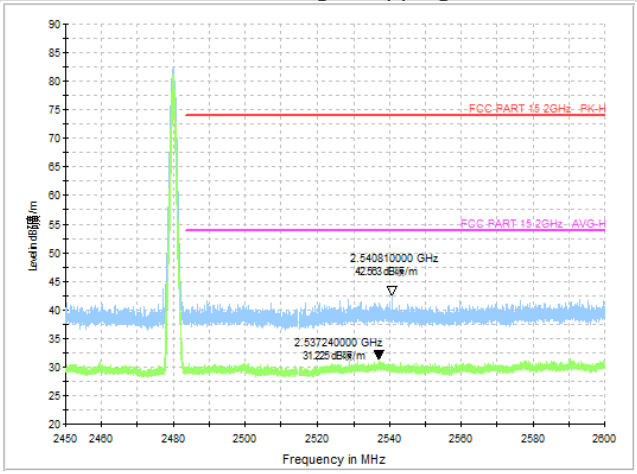

Test Mode: GFSK-High Hopping-on



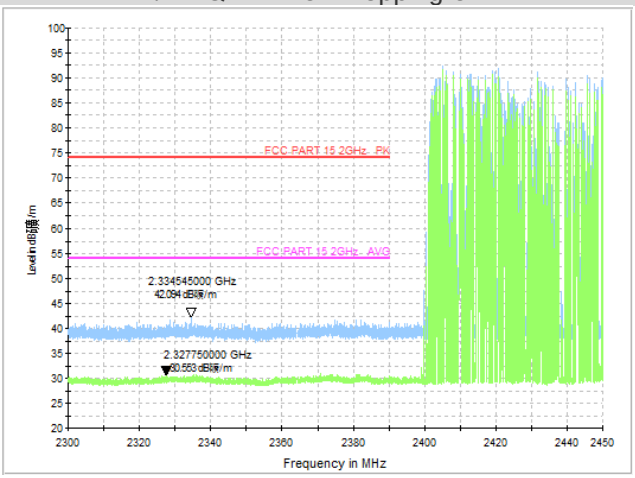
Test Mode: π/4 DQPSK-Low Hopping-off



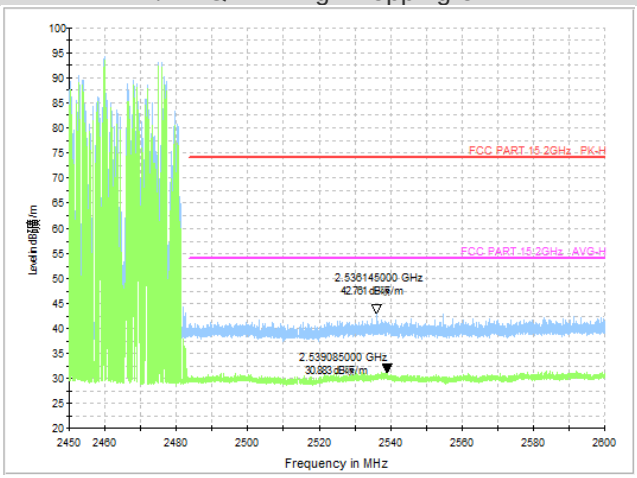

Test Mode: π/4 DQPSK-High Hopping-off



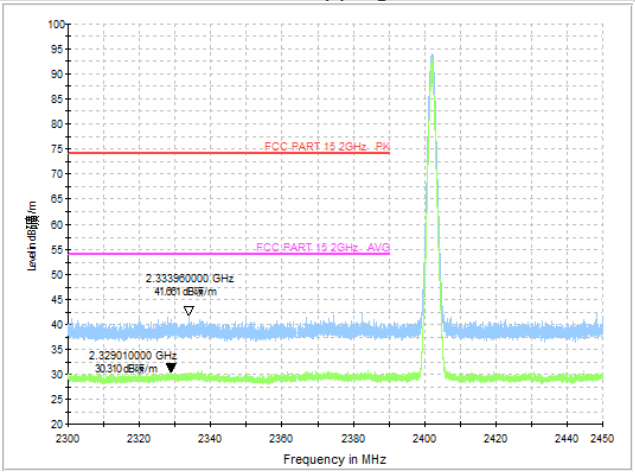

Test Mode: π/4 DQPSK-Low Hopping-on



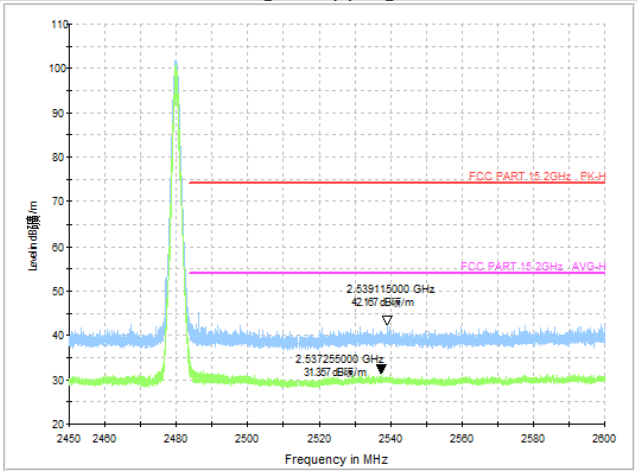

Test Mode: π/4 DQPSK-High Hopping-on



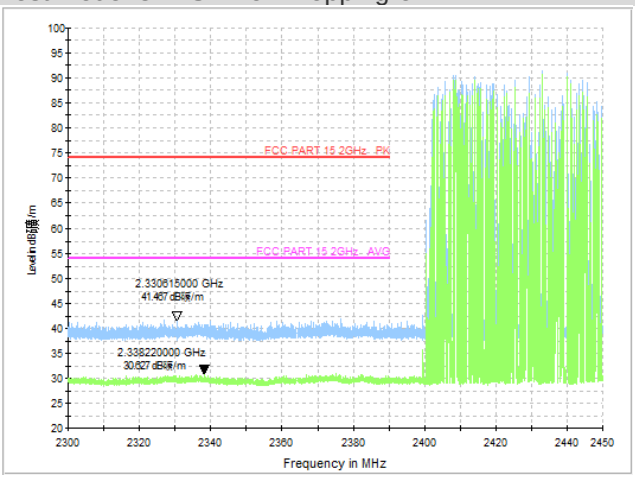
Test Mode: 8DPSK-Low Hopping-off



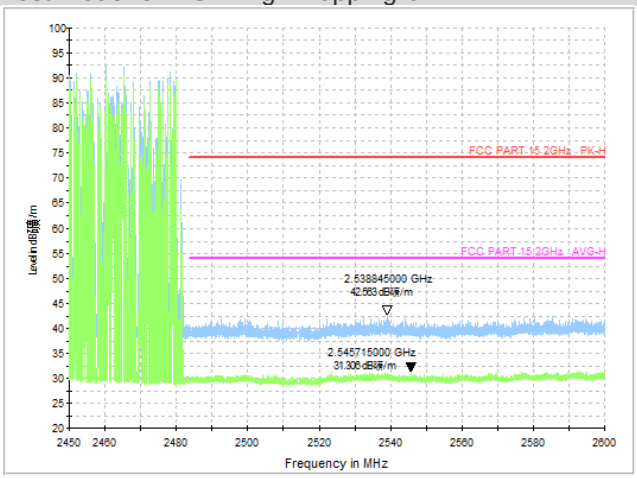

Test Mode: 8DPSK-High Hopping-off




Test Mode: 8DPSK-Low Hopping-on

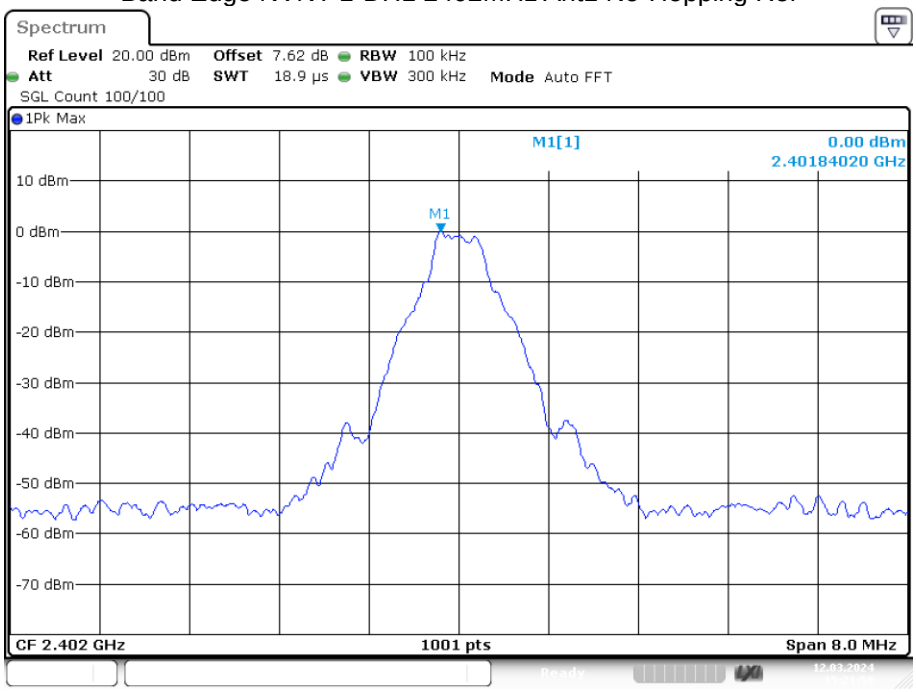



Test Mode: 8DPSK-High Hopping-on



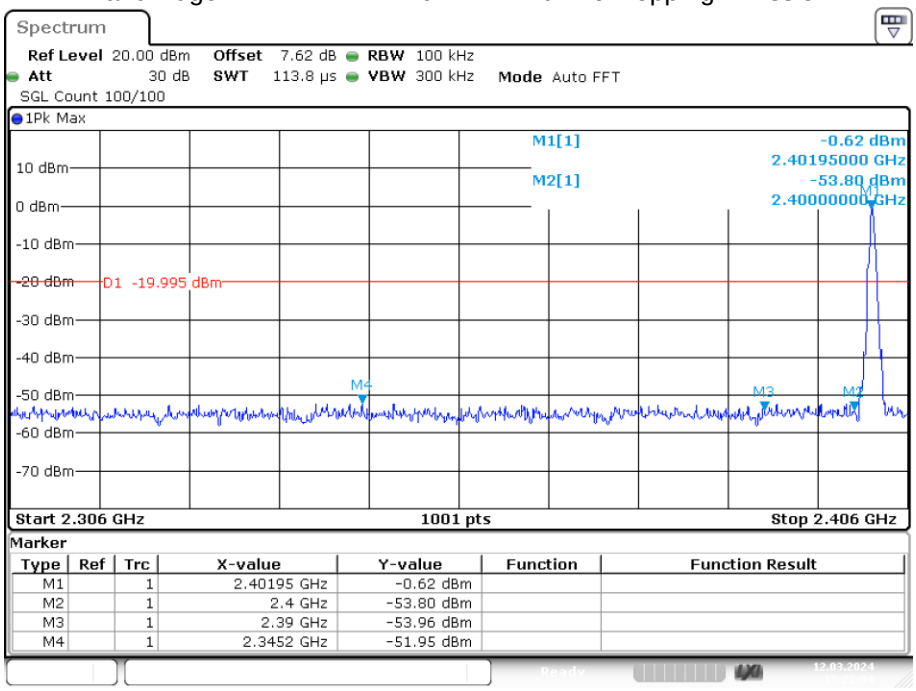
Conducted Method
Band Edge:

Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref




Date: 12.MAR.2024 15:21:58

Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

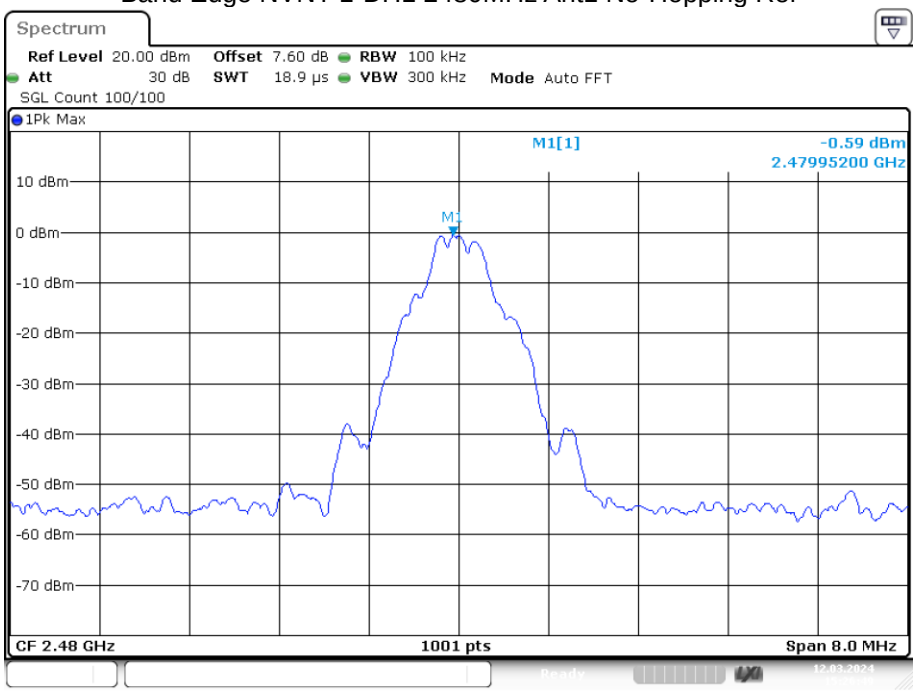



Marker

| Type | Ref | Trc | X-value | Y-value | Function | Function Result |
|---|---|---|---|---|---|---|
| M1 | | 1 | 2.40195 GHz | -0.62 dBm | | |
| M2 | | 1 | 2.4 GHz | -53.80 dBm | | |
| M3 | | 1 | 2.39 GHz | -53.96 dBm | | |
| M4 | | 1 | 2.3452 GHz | -51.95 dBm | | |

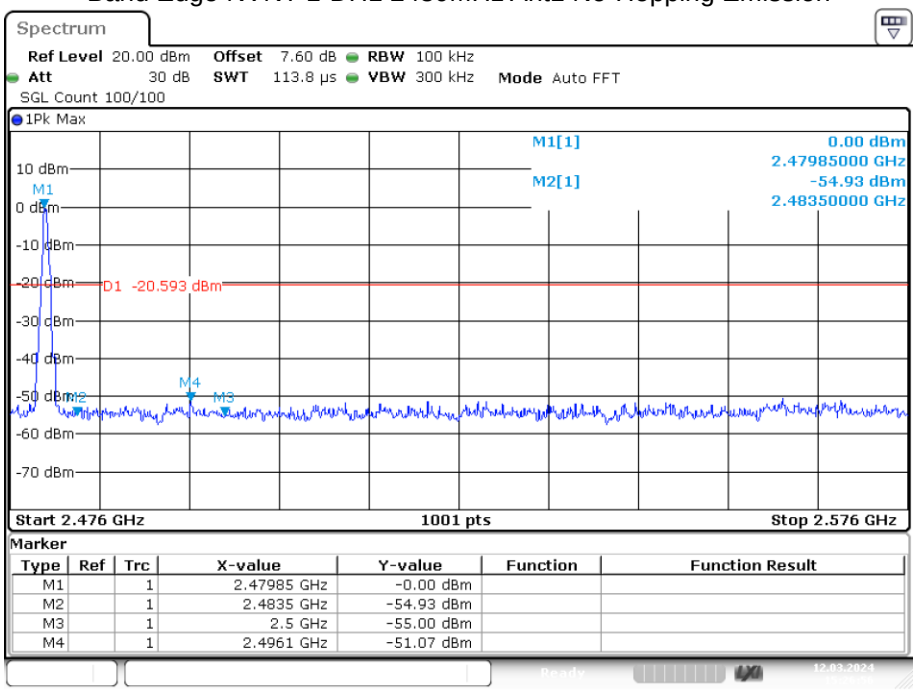
Date: 12.MAR.2024 15:22:04

Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref




Date: 12.MAR.2024 15:26:50

Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission

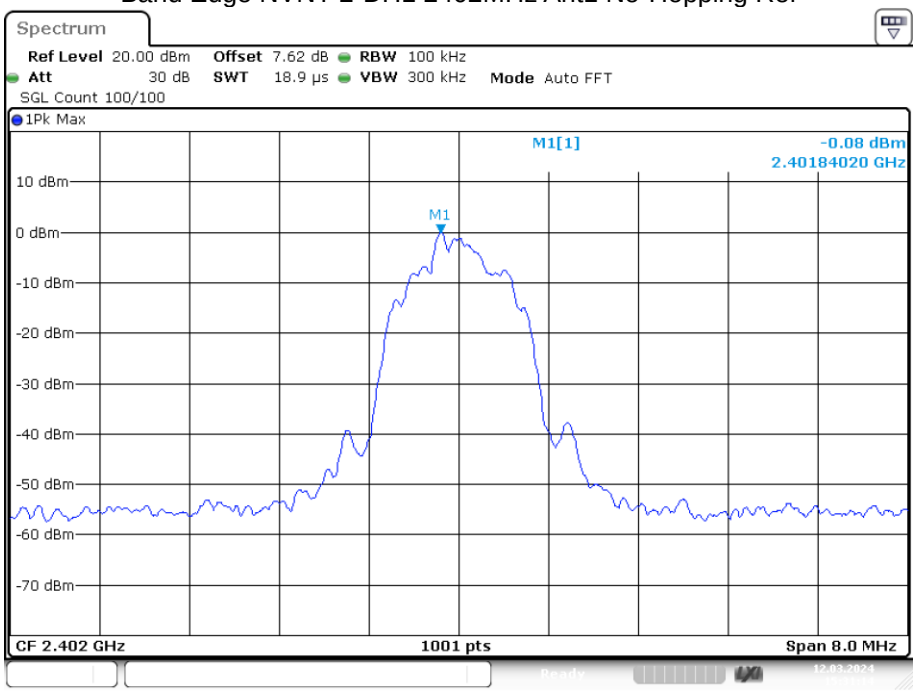



Marker

| Type | Ref | Trc | X-value | Y-value | Function | Function Result |
|---|---|---|---|---|---|---|
| M1 | | 1 | 2.47985 GHz | -0.00 dBm | | |
| M2 | | 1 | 2.4835 GHz | -54.93 dBm | | |
| M3 | | 1 | 2.5 GHz | -55.00 dBm | | |
| M4 | | 1 | 2.4961 GHz | -51.07 dBm | | |

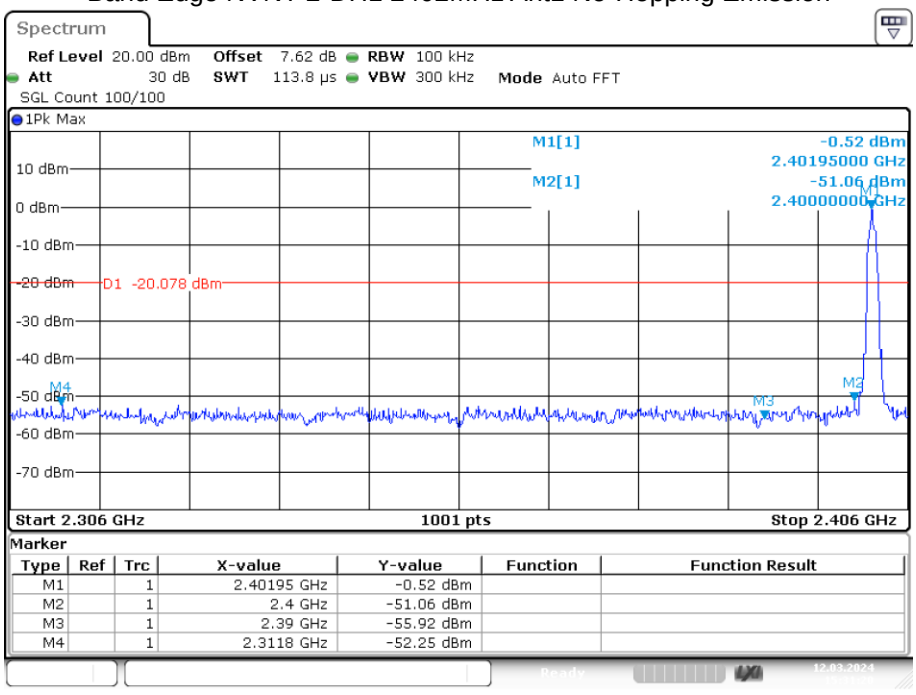
Date: 12.MAR.2024 15:26:56

Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref




Date: 12.MAR.2024 15:31:14

Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission

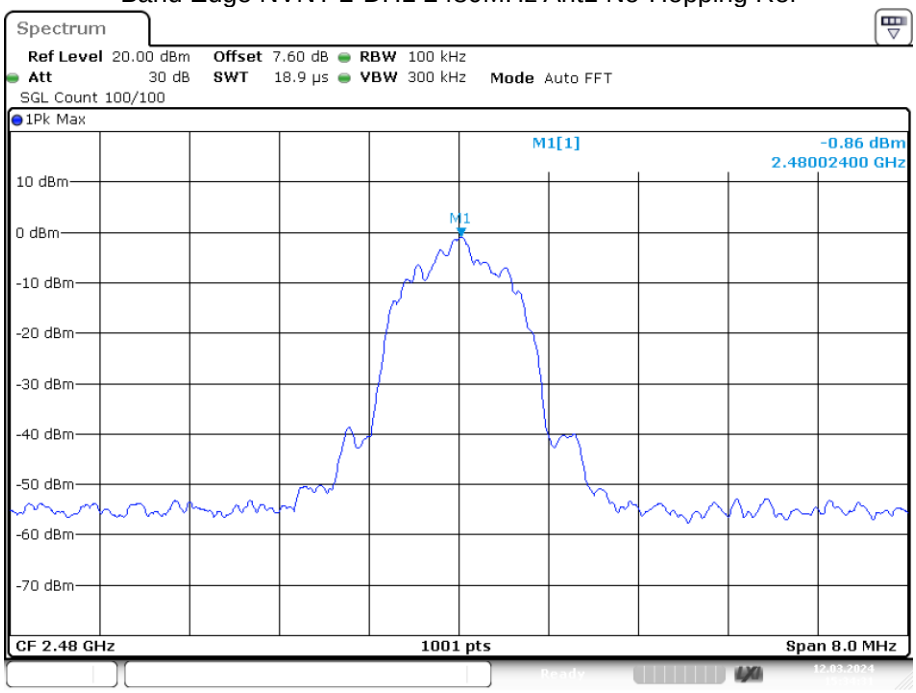



Marker

| Type | Ref | Trc | X-value | Y-value | Function | Function Result |
|---|---|---|---|---|---|---|
| M1 | | 1 | 2.40195 GHz | -0.52 dBm | | |
| M2 | | 1 | 2.4 GHz | -51.06 dBm | | |
| M3 | | 1 | 2.39 GHz | -55.92 dBm | | |
| M4 | | 1 | 2.3118 GHz | -52.25 dBm | | |

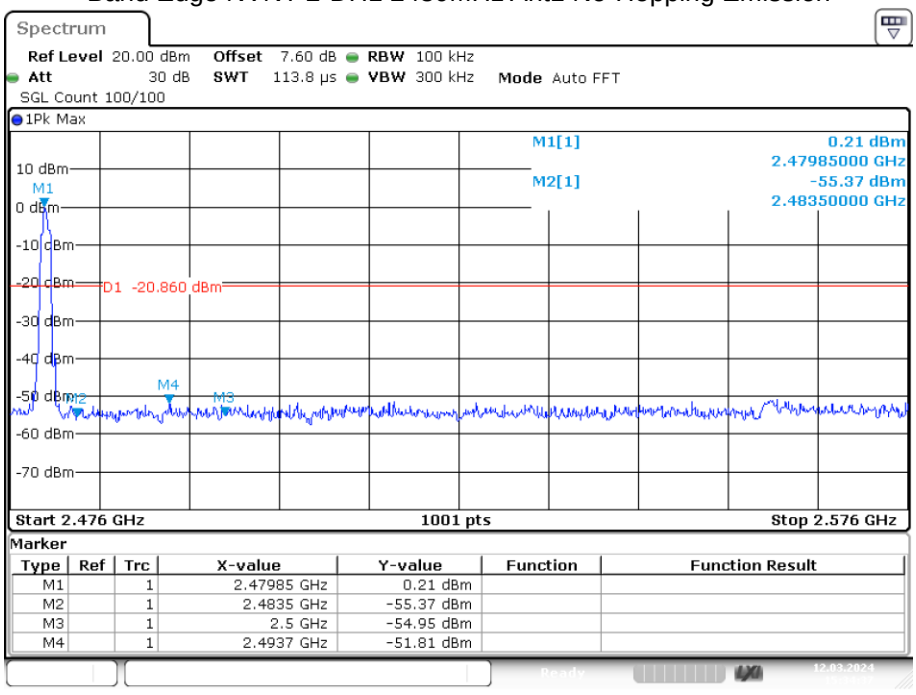
Date: 12.MAR.2024 15:31:20

Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref




Date: 12.MAR.2024 15:34:30

Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission

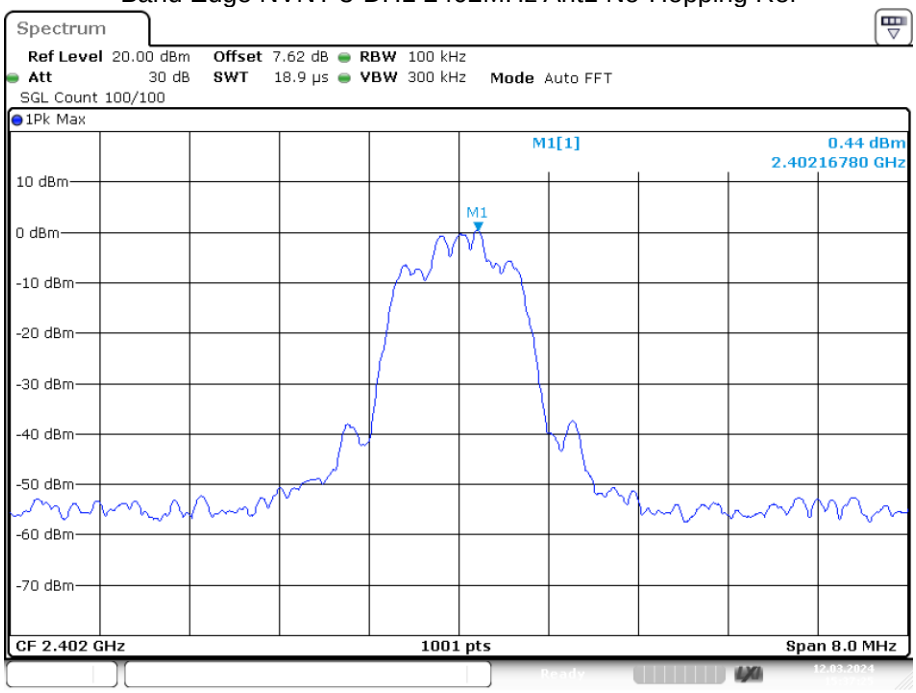



Marker

| Type | Ref | Trc | X-value | Y-value | Function | Function Result |
|---|---|---|---|---|---|---|
| M1 | | 1 | 2.47985 GHz | 0.21 dBm | | |
| M2 | | 1 | 2.4835 GHz | -55.37 dBm | | |
| M3 | | 1 | 2.5 GHz | -54.95 dBm | | |
| M4 | | 1 | 2.4937 GHz | -51.81 dBm | | |

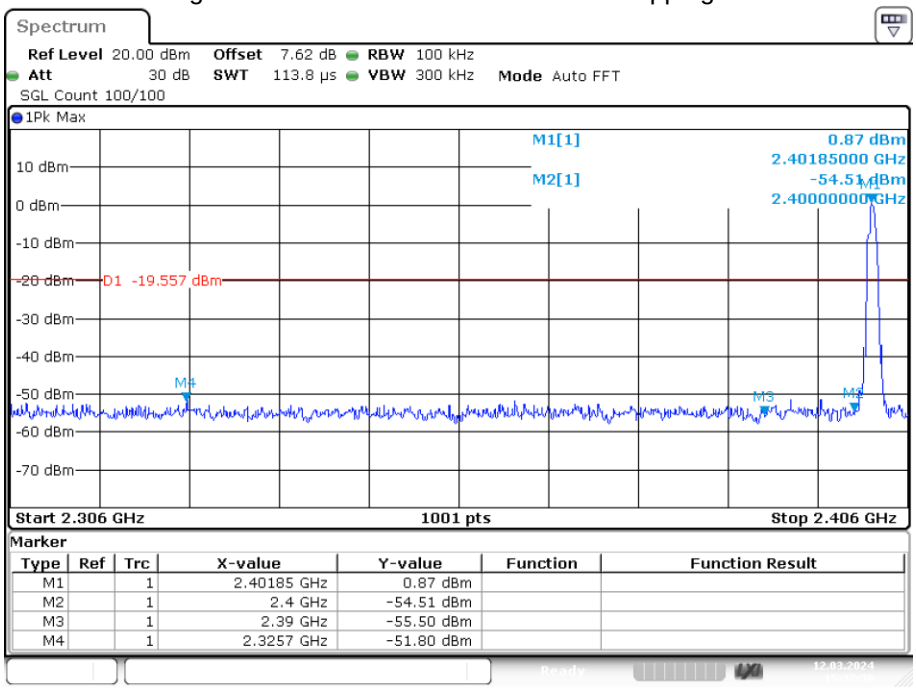
Date: 12.MAR.2024 15:34:36

Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref




Date: 12.MAR.2024 15:37:24

Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission

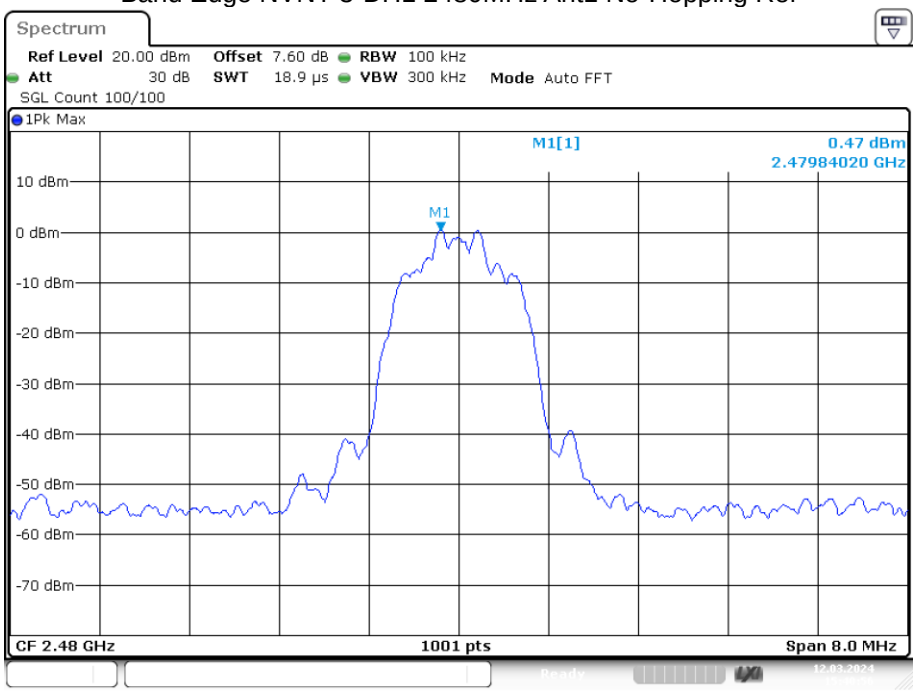



Marker

| Type | Ref | Trc | X-value | Y-value | Function | Function Result |
|---|---|---|---|---|---|---|
| M1 | | 1 | 2.40185 GHz | 0.87 dBm | | |
| M2 | | 1 | 2.4 GHz | -54.51 dBm | | |
| M3 | | 1 | 2.39 GHz | -55.50 dBm | | |
| M4 | | 1 | 2.3257 GHz | -51.80 dBm | | |

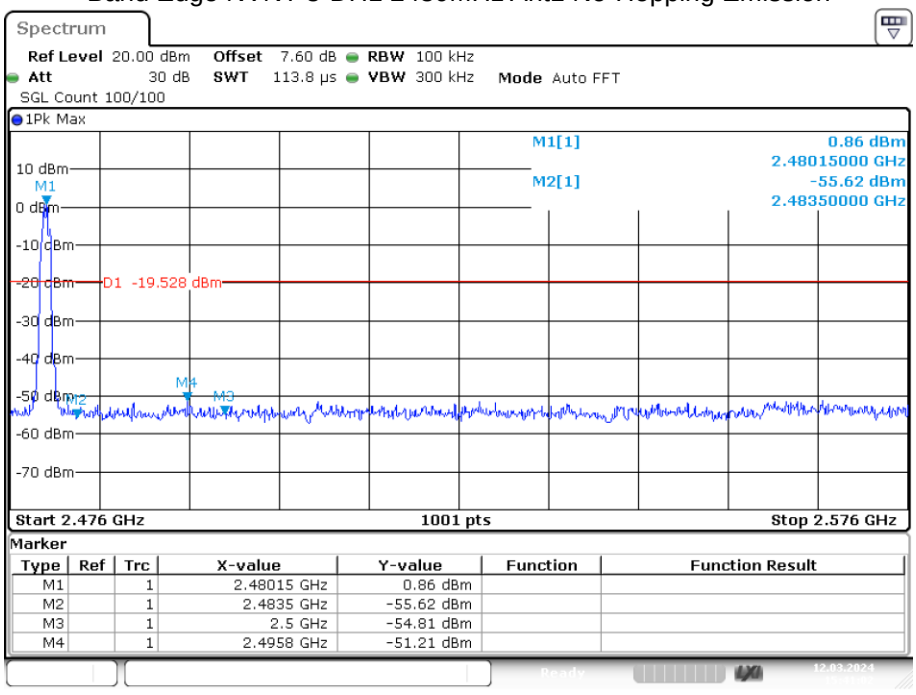
Date: 12.MAR.2024 15:37:30

Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref




Date: 12.MAR.2024 15:40:56

Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Emission




Marker

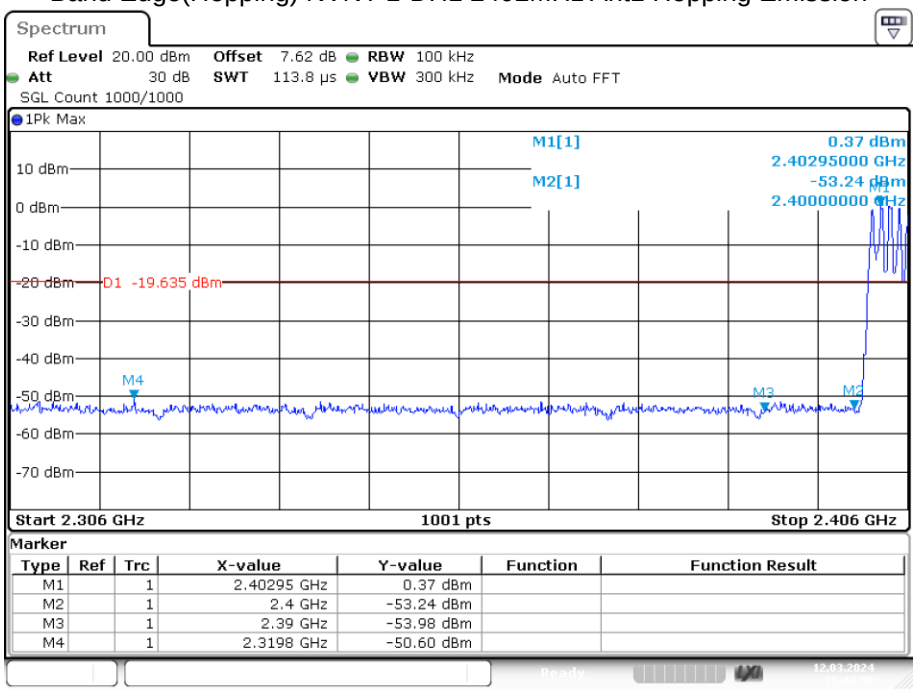
| Type | Ref | Trc | X-value | Y-value | Function | Function Result |
|---|---|---|---|---|---|---|
| M1 | | 1 | 2.48015 GHz | 0.86 dBm | | |
| M2 | | 1 | 2.4835 GHz | -55.62 dBm | | |
| M3 | | 1 | 2.5 GHz | -54.81 dBm | | |
| M4 | | 1 | 2.4958 GHz | -51.21 dBm | | |

Date: 12.MAR.2024 15:41:02

Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref


Date: 12.MAR.2024 15:44:20

Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

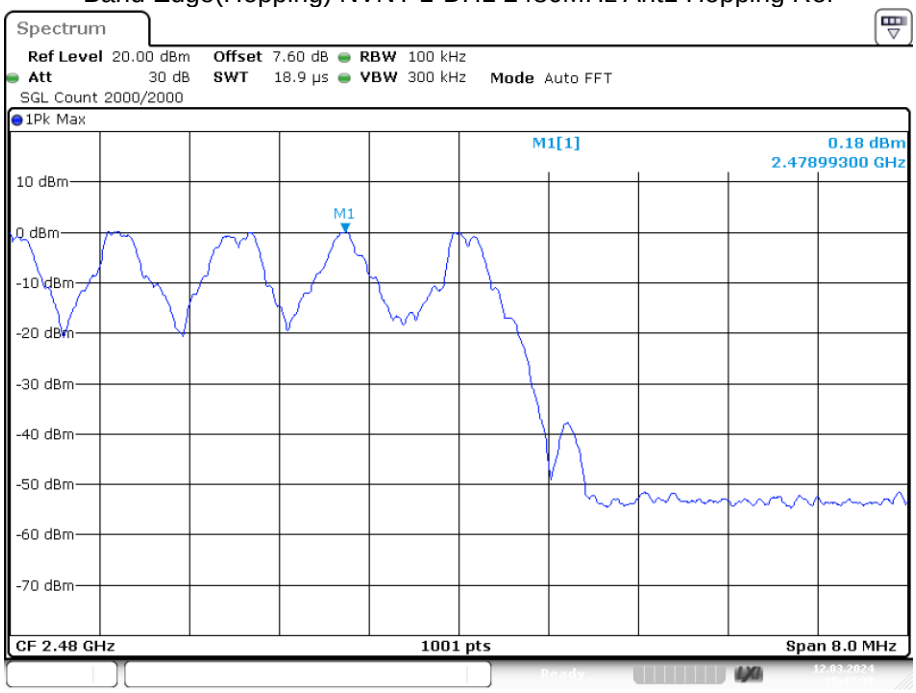



Marker

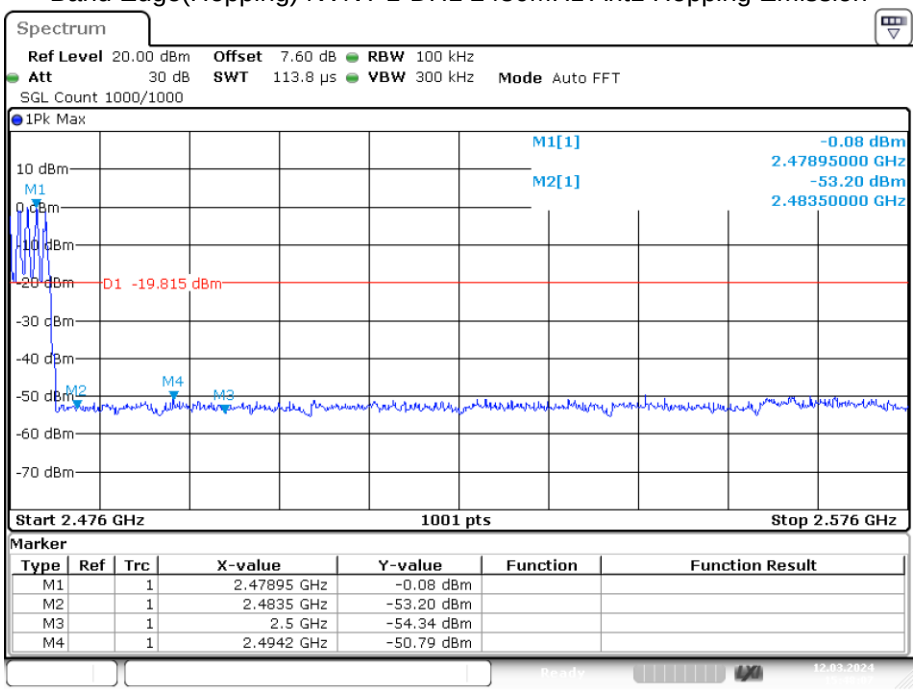
| Type | Ref | Trc | X-value | Y-value | Function | Function Result |
|---|---|---|---|---|---|---|
| M1 | | 1 | 2.40295 GHz | 0.37 dBm | | |
| M2 | | 1 | 2.4 GHz | -53.24 dBm | | |
| M3 | | 1 | 2.39 GHz | -53.98 dBm | | |
| M4 | | 1 | 2.3198 GHz | -50.60 dBm | | |

Date: 12.MAR.2024 15:44:51

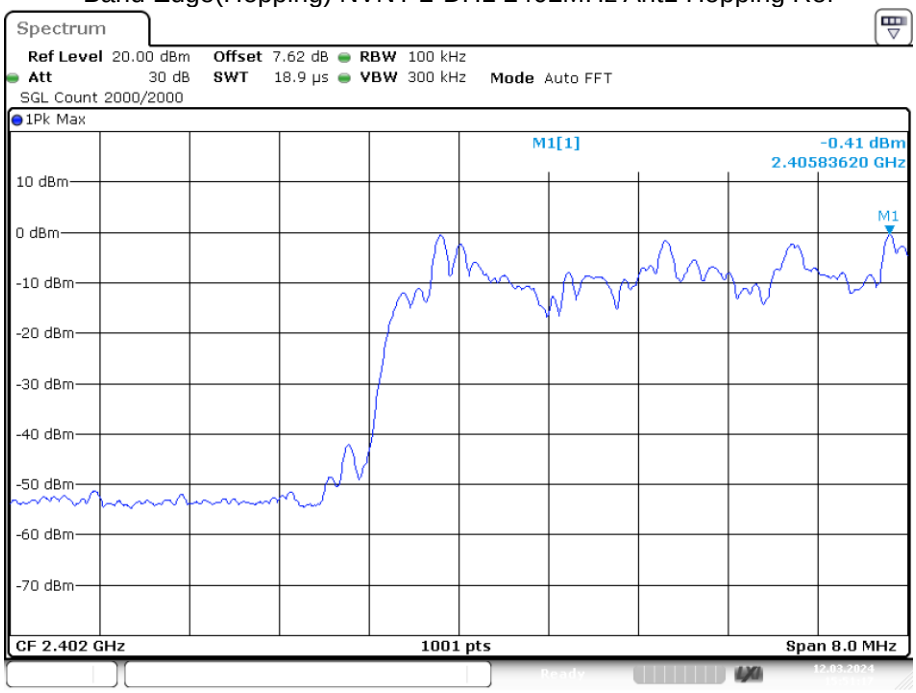
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref




Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref




Date: 12.MAR.2024 15:51:16

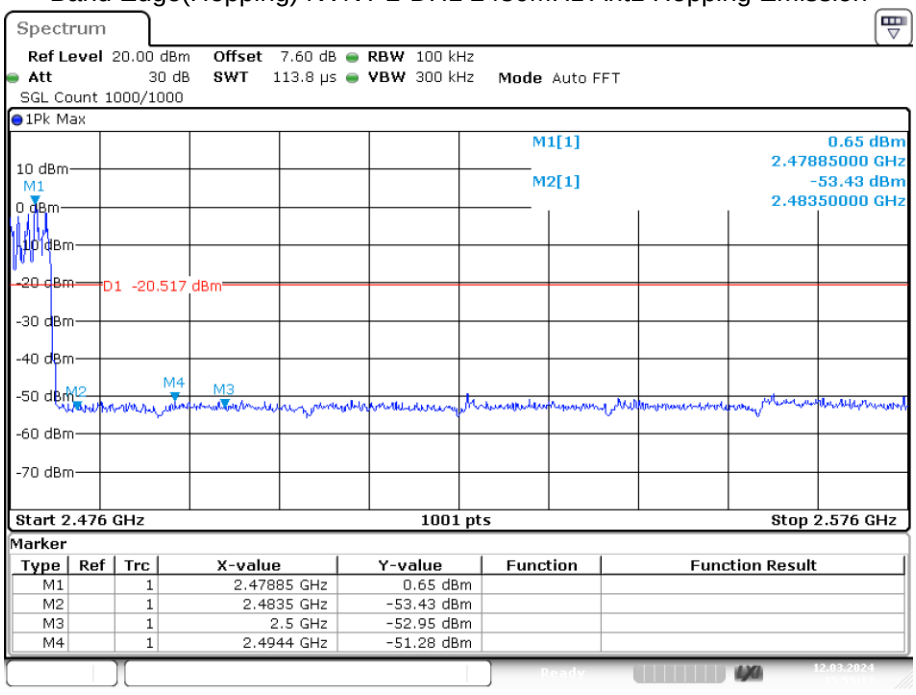
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission


Date: 12.MAR.2024 15:51:16

Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref


Date: 12.MAR.2024 15:54:44

Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission




Marker

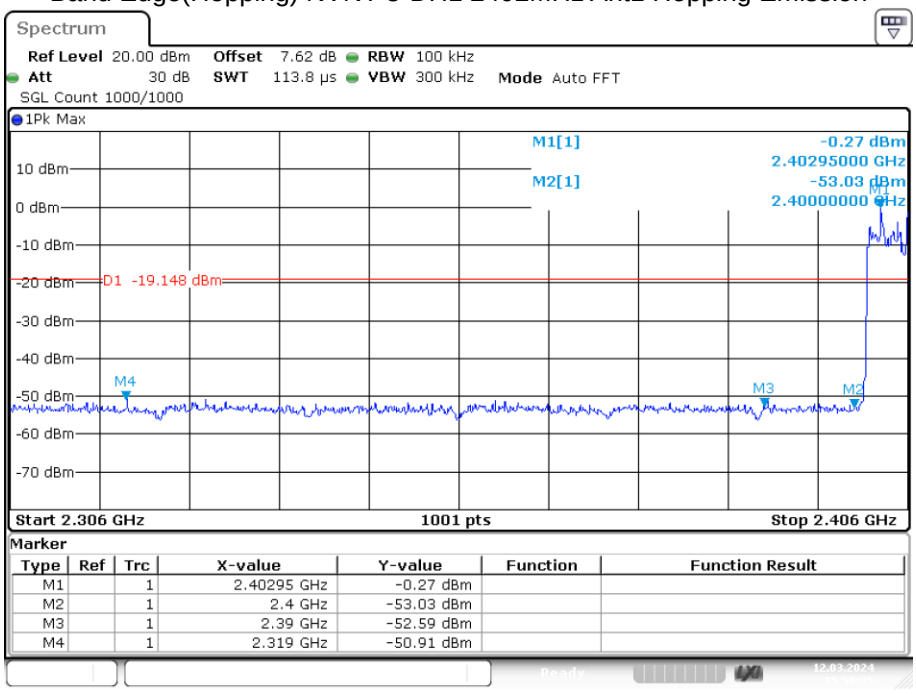
| Type | Ref | Trc | X-value | Y-value | Function | Function Result |
|---|---|---|---|---|---|---|
| M1 | | 1 | 2.47885 GHz | 0.65 dBm | | |
| M2 | | 1 | 2.4835 GHz | -53.43 dBm | | |
| M3 | | 1 | 2.5 GHz | -52.95 dBm | | |
| M4 | | 1 | 2.4944 GHz | -51.28 dBm | | |

Date: 12.MAR.2024 15:55:13

Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref


Date: 12.MAR.2024 15:59:06

Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission




Marker

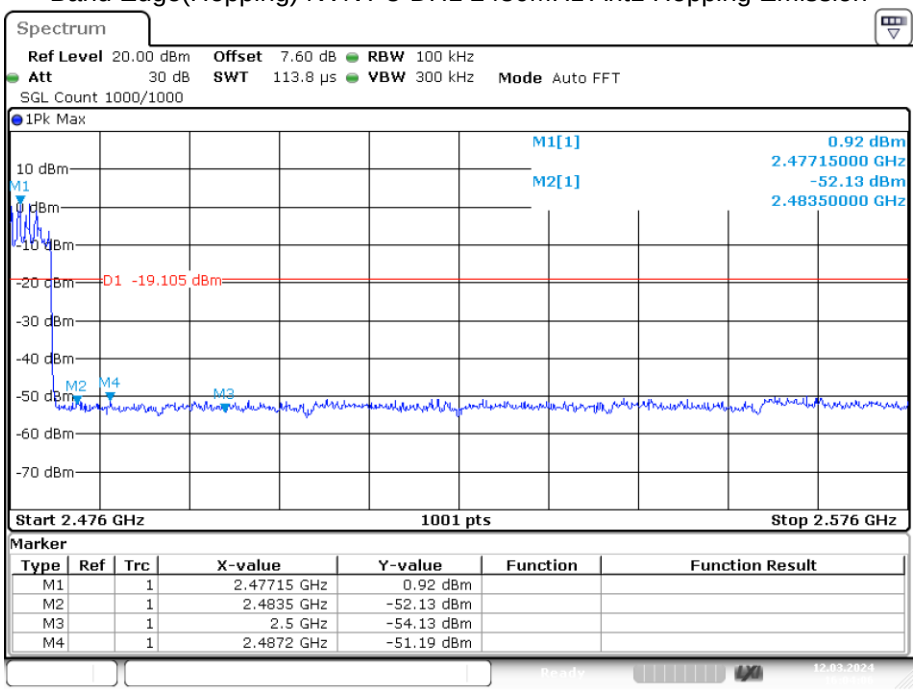
| Type | Ref | Trc | X-value | Y-value | Function | Function Result |
|---|---|---|---|---|---|---|
| M1 | | 1 | 2.40295 GHz | -0.27 dBm | | |
| M2 | | 1 | 2.4 GHz | -53.03 dBm | | |
| M3 | | 1 | 2.39 GHz | -52.59 dBm | | |
| M4 | | 1 | 2.319 GHz | -50.91 dBm | | |

Date: 12.MAR.2024 15:59:35

Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Ref


Date: 12.MAR.2024 16:03:37

Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Emission



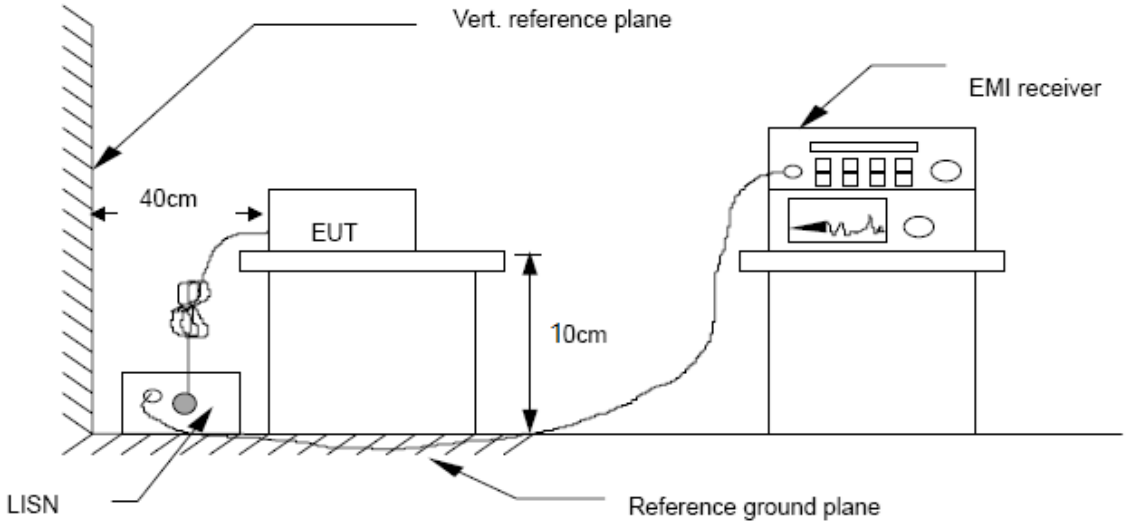

Marker

| Type | Ref | Trc | X-value | Y-value | Function | Function Result |
|---|---|---|---|---|---|---|
| M1 | | 1 | 2.47715 GHz | 0.92 dBm | | |
| M2 | | 1 | 2.4835 GHz | -52.13 dBm | | |
| M3 | | 1 | 2.5 GHz | -54.13 dBm | | |
| M4 | | 1 | 2.4872 GHz | -51.19 dBm | | |

Date: 12.MAR.2024 16:04:06

# 10. POWER LINE CONDUCTED EMISSIONS

## 10.1.Block Diagram of Test Setup




## 10.2.Limit

| Frequency | Maximum RF Line Voltage | |
|---|---|---|
| | Quasi-Peak Level dB(μV) | Average Level dB(μV) |
| 150kHz ~ 500kHz | 66 ~ 56* | 56 ~ 46* |
| 500kHz ~ 5MHz | 56 | 46 |
| 5MHz ~ 30MHz | 60 | 50 |

Notes: 1. * Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

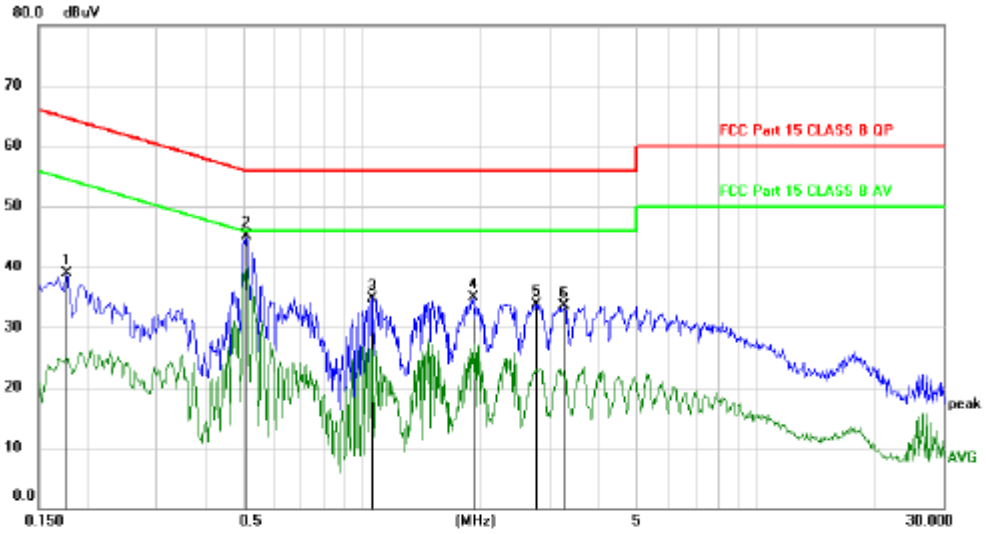
## 10.3.Test Procedure

(1) The EUT was placed on a non-metallic table, 10cm above the ground plane.
(2) Setup the EUT and simulator as shown in 10.1
(3) The EUT Power connected to the power mains through a power adapter and a line impedance stabilization network (L.I.S.N1). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N2), this provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 :2013on conducted Emission test.
(4) The bandwidth of test receiver is set at 10KHz.
(5) The frequency range from 150 KHz to 30MHz is checked.

## 10.4.Test Result

PASS. (See below detailed test data)
Note: If peak Result comply with AV limit, QP and AV Result is deemed to comply with AV limit

**Line:**

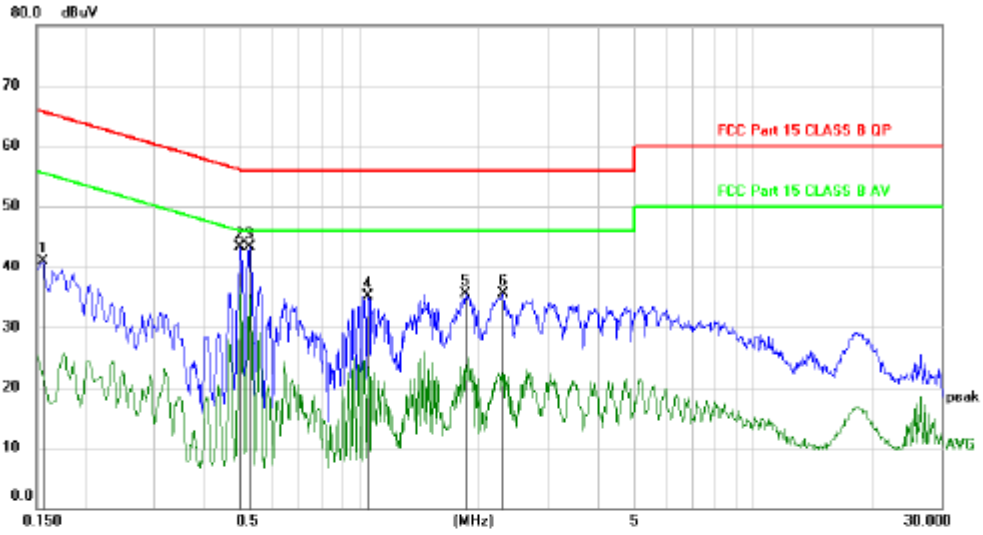



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | | 0.1770 | 28.93 | 9.93 | 38.86 | 64.63 | -25.77 | peak | |
| 2 | * | 0.5100 | 35.19 | 9.96 | 45.15 | 56.00 | -10.85 | peak | |
| 3 | | 1.0590 | 24.89 | 9.91 | 34.80 | 56.00 | -21.20 | peak | |
| 4 | | 1.9110 | 24.93 | 9.88 | 34.81 | 56.00 | -21.19 | peak | |
| 5 | | 2.7780 | 23.80 | 9.94 | 33.74 | 56.00 | -22.26 | peak | |
| 6 | | 3.2430 | 23.52 | 9.96 | 33.48 | 56.00 | -22.52 | peak | |

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

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

**Neutral:**




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | | 0.1560 | 30.92 | 9.94 | 40.86 | 65.67 | -24.81 | peak | |
| 2 | | 0.4950 | 33.32 | 9.96 | 43.28 | 56.08 | -12.80 | peak | |
| 3 | * | 0.5220 | 33.40 | 9.95 | 43.35 | 56.00 | -12.65 | peak | |
| 4 | | 1.0470 | 25.27 | 9.92 | 35.19 | 56.00 | -20.81 | peak | |
| 5 | | 1.8570 | 25.67 | 9.88 | 35.55 | 56.00 | -20.45 | peak | |
| 6 | | 2.2980 | 25.51 | 9.90 | 35.41 | 56.00 | -20.59 | peak | |

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

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

Note: 1. All modes and channels have been tested and only the GFSK 2402MHz mode with the worst data is listed.

# 11. ANTENNA REQUIREMENTS

## 11.1.Limit

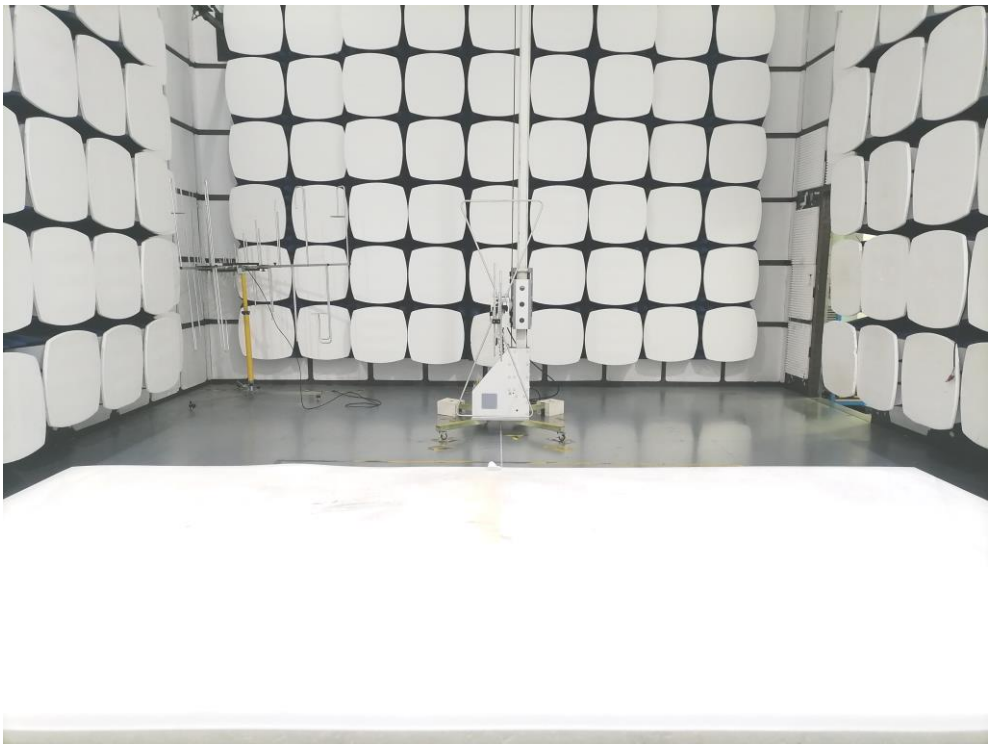
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

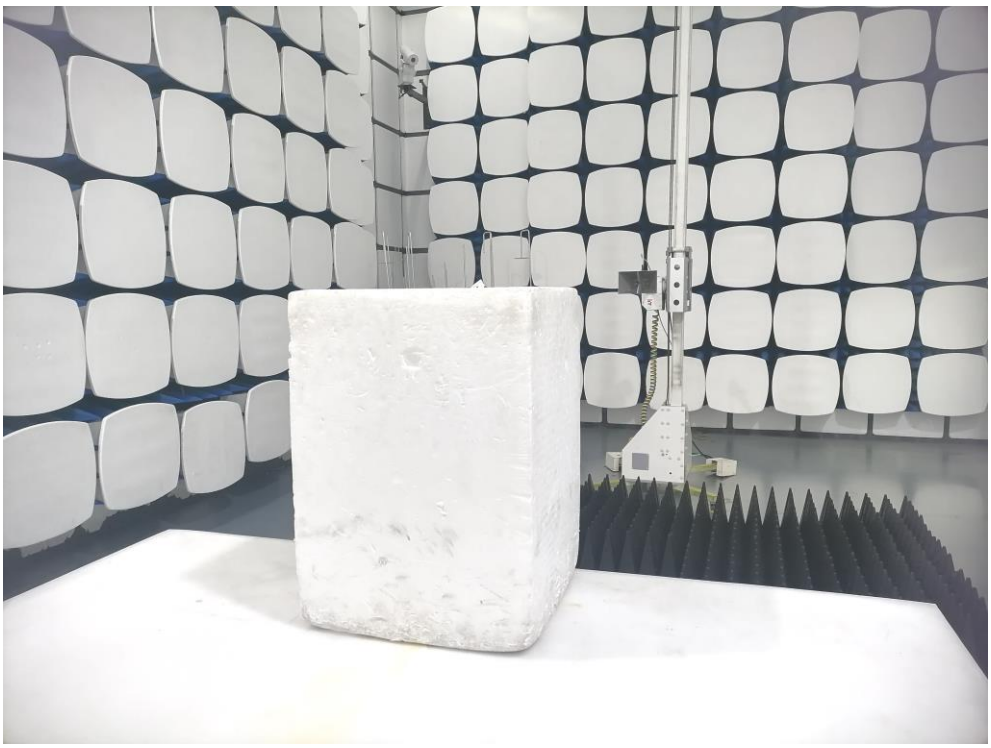
## 11.2.Result

The use of an antenna that is uniquely coupled to the intended radiator shall be considered sufficient to comply with the provisions of this section.

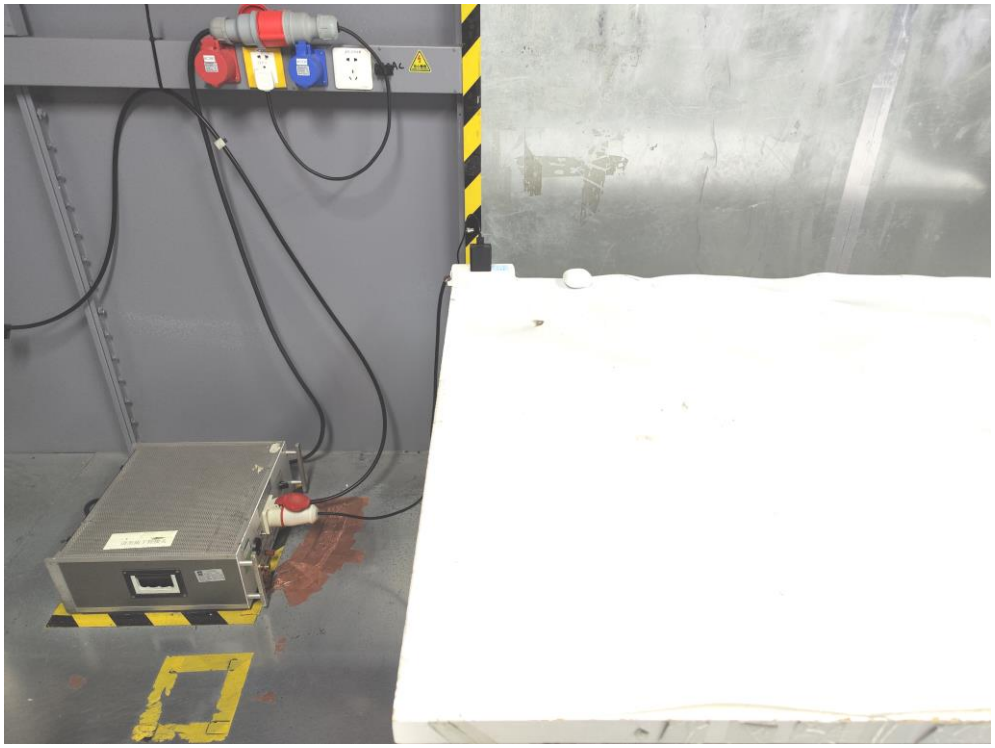
# 12. TEST SETUP PHOTO

12.1.Photo of Radiated Emission test





12.2.Photo of Conducted Emission test



**-------END OF REPORT-------**