

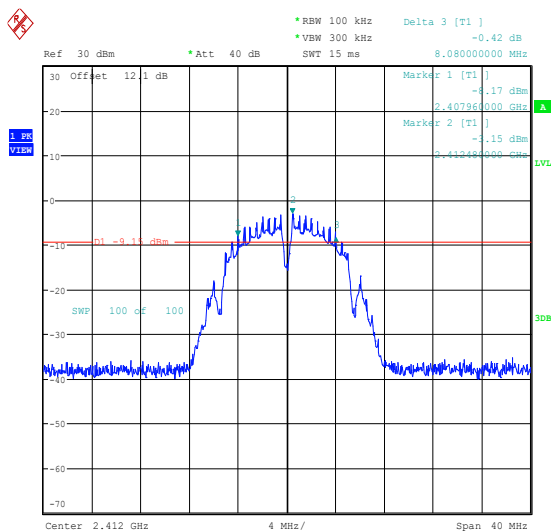
## Annex A WLAN Test Data

## Appendix A: DTS Bandwidth

### Test Result

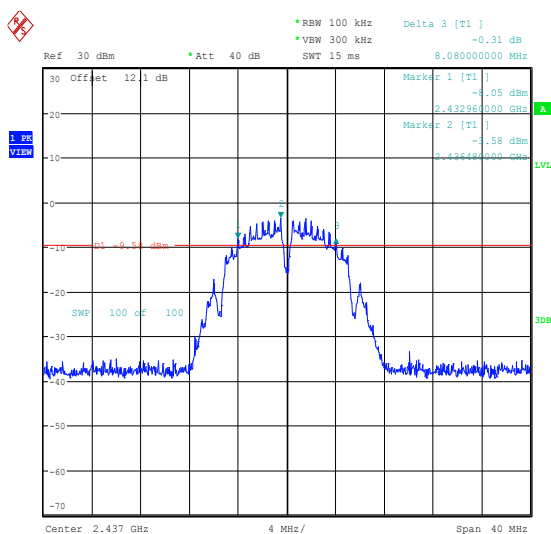
| TestMode  | Antenna | Frequency [MHz] | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit [MHz] | Verdict |
|-----------|---------|-----------------|--------------|---------|---------|-------------|---------|
| 11B       | Ant1    | 2412            | 8.08         | 2407.96 | 2416.04 | 0.5         | PASS    |
| 11B       | Ant1    | 2437            | 8.08         | 2432.96 | 2441.04 | 0.5         | PASS    |
| 11B       | Ant1    | 2462            | 8.08         | 2457.96 | 2466.04 | 0.5         | PASS    |
| 11G       | Ant1    | 2412            | 15.36        | 2404.44 | 2419.80 | 0.5         | PASS    |
| 11G       | Ant1    | 2437            | 15.40        | 2429.12 | 2444.52 | 0.5         | PASS    |
| 11G       | Ant1    | 2462            | 14.80        | 2454.48 | 2469.28 | 0.5         | PASS    |
| 11N20SISO | Ant1    | 2412            | 15.64        | 2404.48 | 2420.12 | 0.5         | PASS    |
| 11N20SISO | Ant1    | 2437            | 15.32        | 2429.24 | 2444.56 | 0.5         | PASS    |
| 11N20SISO | Ant1    | 2462            | 15.08        | 2454.48 | 2469.56 | 0.5         | PASS    |

## Test Graphs



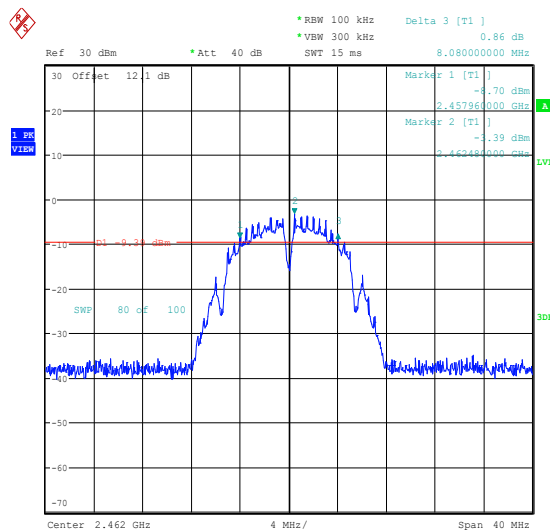
Date: 19.DEC.2024 15:01:08

### 11B-Ant1-2412-PASS



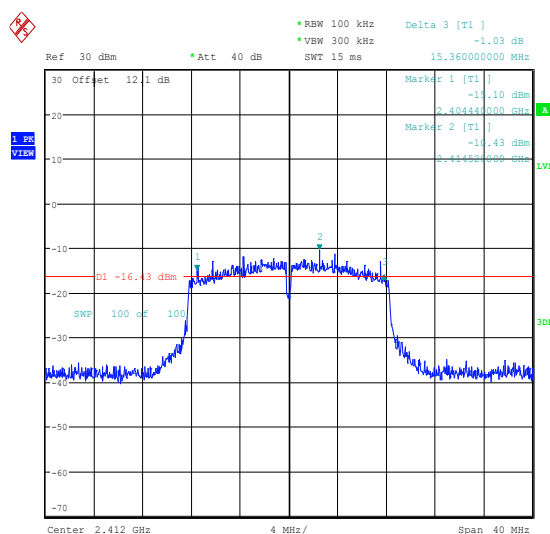
Date: 19.DEC.2024 15:11:49

### 11B-Ant1-2437-PASS



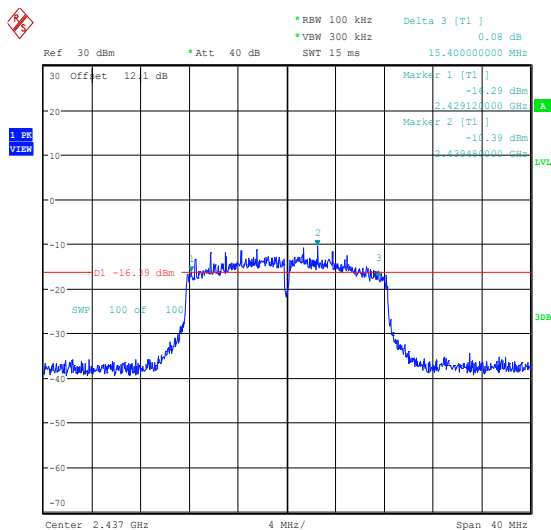
Date: 19.DEC.2024 15:19:24

### 11B-Ant1-2462-PASS



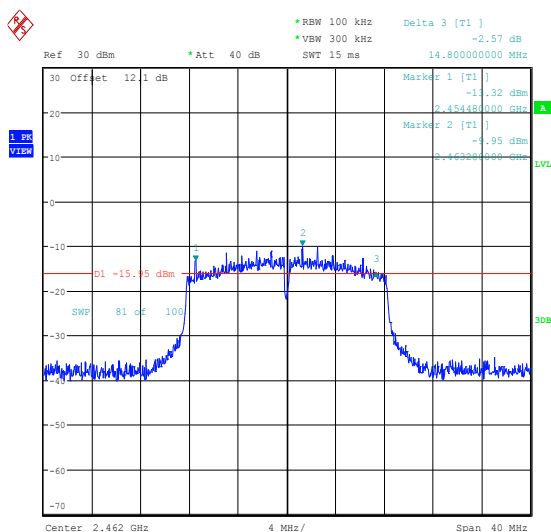
Date: 19.DEC.2024 15:34:29

### 11G-Ant1-2412-PASS



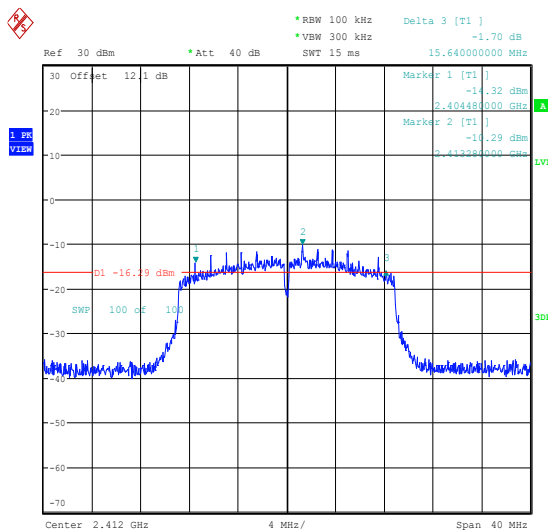
Date: 19.DEC.2024 15:48:44

### 11G-Ant1-2437-PASS



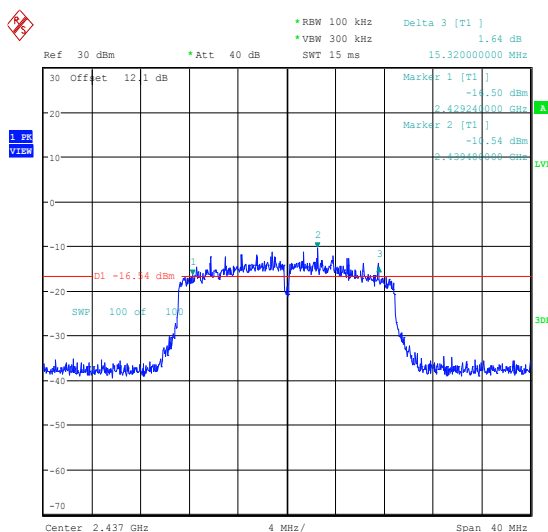
Date: 19.DEC.2024 15:59:33

### 11G-Ant1-2462-PASS



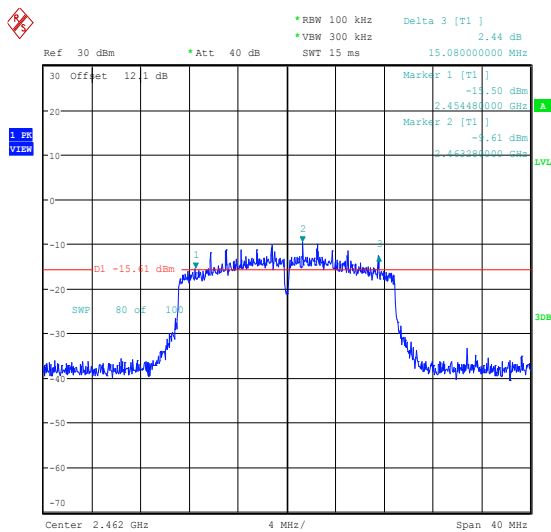
Date: 19.DEC.2024 16:14:28

#### 11N20SISO-Ant1-2412-PASS



Date: 19.DEC.2024 16:29:00

#### 11N20SISO-Ant1-2437-PASS



11N20SISO-Ant1-2462-PASS

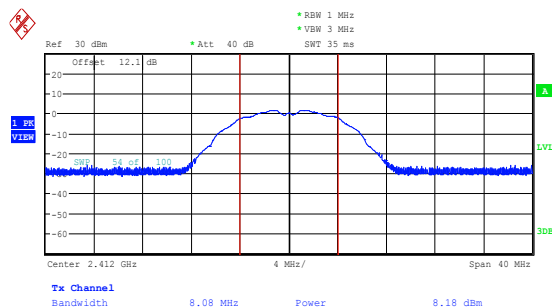
## Appendix C: Maximum conducted output power

### Test Result Peak

| TestMode  | Antenna | Frequency<br>[MHz] | Peak<br>Power[dBm] | Conducted<br>Power<br>Limit[dBm] | EIRP<br>[dBm] | EIRP<br>Limit[dBm] | Verdict |
|-----------|---------|--------------------|--------------------|----------------------------------|---------------|--------------------|---------|
| 11B       | Ant1    | 2412               | 8.18               | ≤30.00                           | 1.26          | ≤36.00             | PASS    |
| 11B       | Ant1    | 2437               | 7.96               | ≤30.00                           | 1.04          | ≤36.00             | PASS    |
| 11B       | Ant1    | 2462               | 8.38               | ≤30.00                           | 1.46          | ≤36.00             | PASS    |
| 11G       | Ant1    | 2412               | 8.79               | ≤30.00                           | 1.87          | ≤36.00             | PASS    |
| 11G       | Ant1    | 2437               | 8.60               | ≤30.00                           | 1.68          | ≤36.00             | PASS    |
| 11G       | Ant1    | 2462               | 8.99               | ≤30.00                           | 2.07          | ≤36.00             | PASS    |
| 11N20SISO | Ant1    | 2412               | 8.46               | ≤30.00                           | 1.54          | ≤36.00             | PASS    |
| 11N20SISO | Ant1    | 2437               | 8.34               | ≤30.00                           | 1.42          | ≤36.00             | PASS    |
| 11N20SISO | Ant1    | 2462               | 8.89               | ≤30.00                           | 1.97          | ≤36.00             | PASS    |

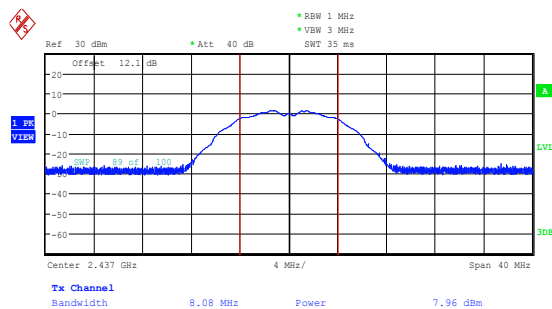
Note: The Duty Cycle Factor is compensated in the graph.

## Test Graphs Peak



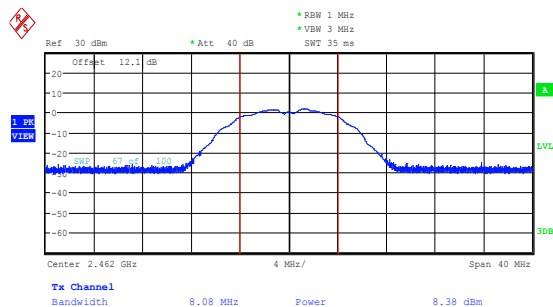
Date: 19.DEC.2024 15:01:33

11B-Ant1-2412-PASS



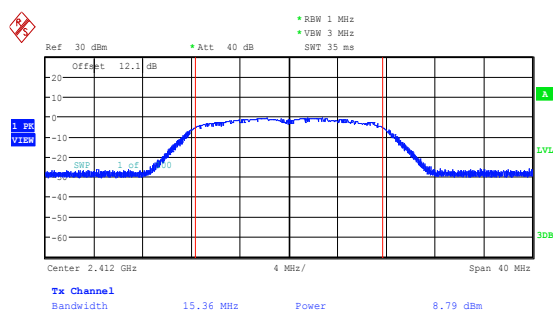
Date: 19.DEC.2024 15:12:12

11B-Ant1-2437-PASS



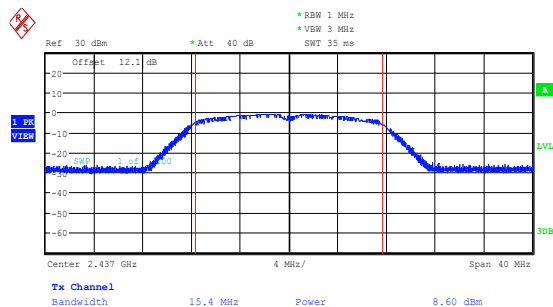
Date: 19.DEC.2024 15:19:44

### 11B-Ant1-2462-PASS



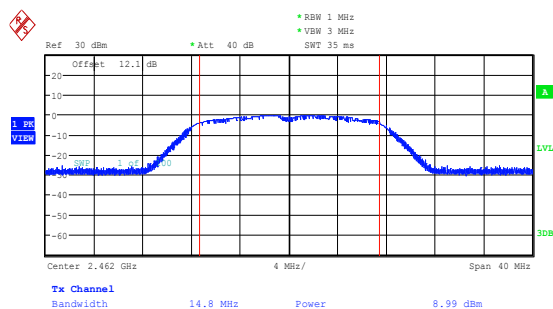
Date: 19.DEC.2024 15:35:08

### 11G-Ant1-2412-PASS



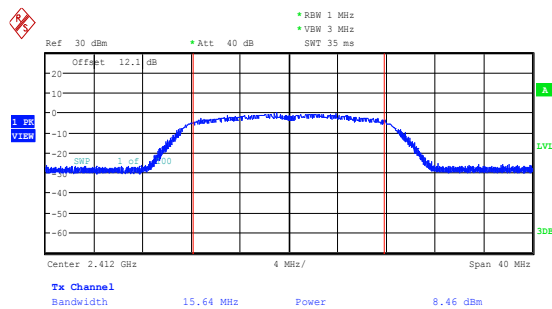
Date: 19.DEC.2024 15:49:15

#### 11G-Ant1-2437-PASS



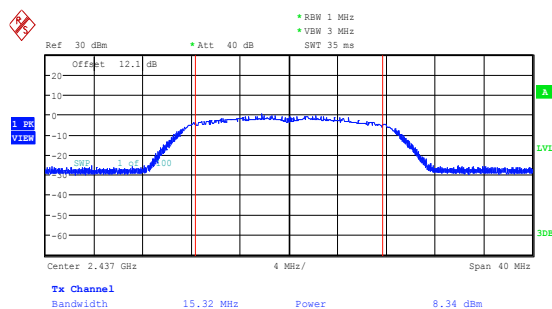
Date: 19.DEC.2024 16:00:06

#### 11G-Ant1-2462-PASS



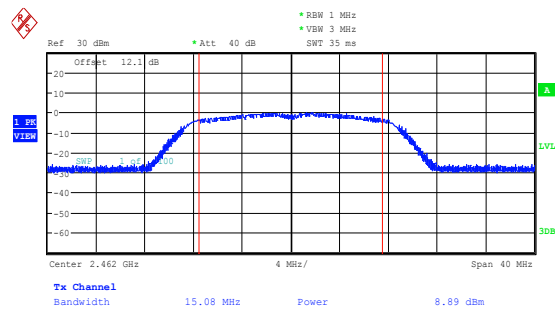
Date: 19.DEC.2024 16:15:06

#### 11N20SISO-Ant1-2412-PASS



Date: 19.DEC.2024 16:29:51

#### 11N20SISO-Ant1-2437-PASS



Date: 19.DEC.2024 16:42:30

11N20SISO-Ant1-2462-PASS

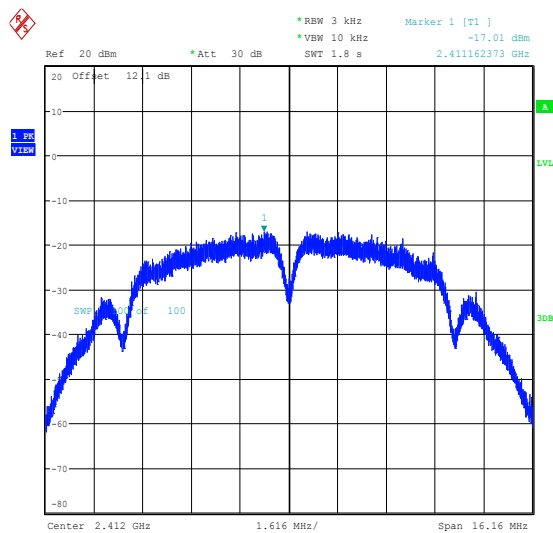
## Appendix D: Maximum power spectral density

### Test Result

| TestMode  | Antenna | Frequency [MHz] | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|-----------------|----------------------|-----------------|---------|
| 11B       | Ant1    | 2412            | -17.01               | ≤8.00           | PASS    |
| 11B       | Ant1    | 2437            | -15.50               | ≤8.00           | PASS    |
| 11B       | Ant1    | 2462            | -16.65               | ≤8.00           | PASS    |
| 11G       | Ant1    | 2412            | -23.03               | ≤8.00           | PASS    |
| 11G       | Ant1    | 2437            | -23.13               | ≤8.00           | PASS    |
| 11G       | Ant1    | 2462            | -22.62               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2412            | -23.32               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2437            | -22.51               | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2462            | -22.58               | ≤8.00           | PASS    |

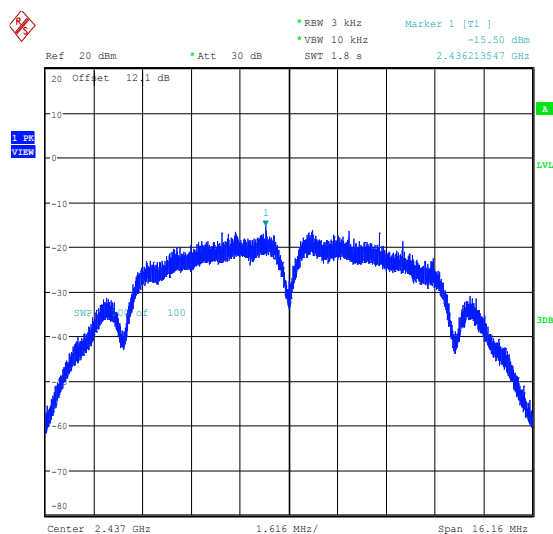
Note: The Duty Cycle Factor is compensated in the graph.

## Test Graphs



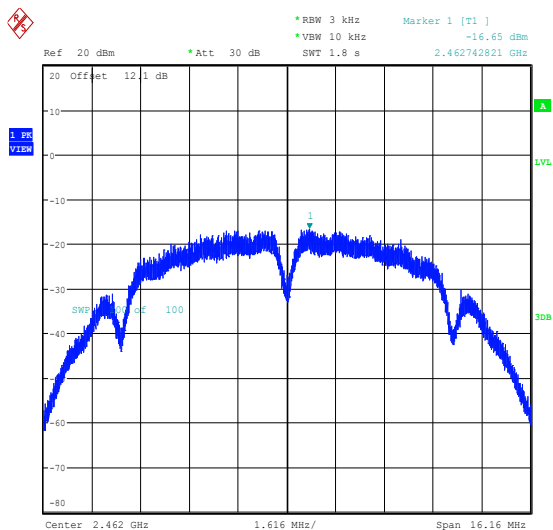
Date: 19.DEC.2024 15:05:33

11B-Ant1-2412-PASS



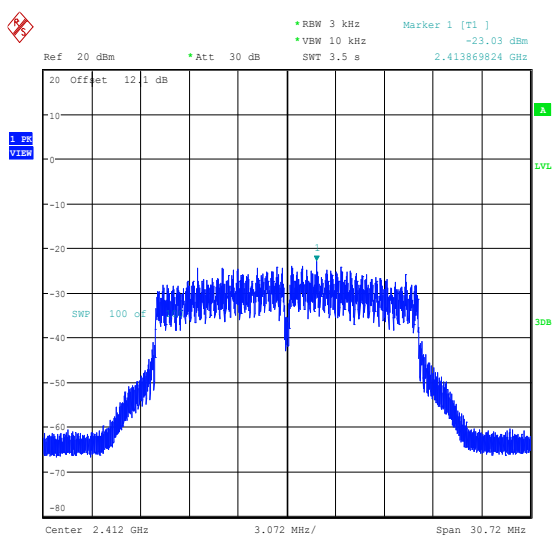
Date: 19.DEC.2024 15:16:12

11B-Ant1-2437-PASS



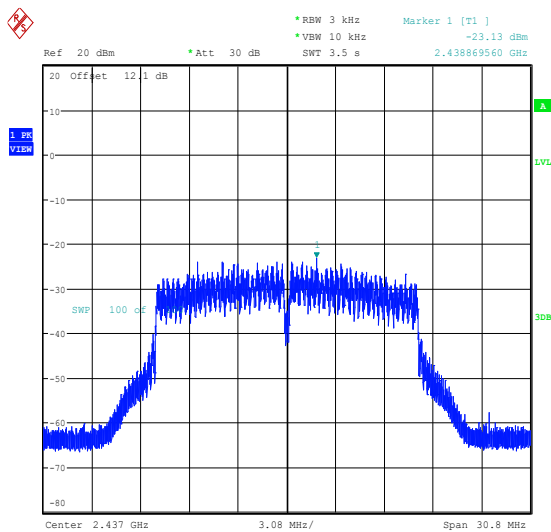
Date: 19.DEC.2024 15:23:44

#### 11B-Ant1-2462-PASS



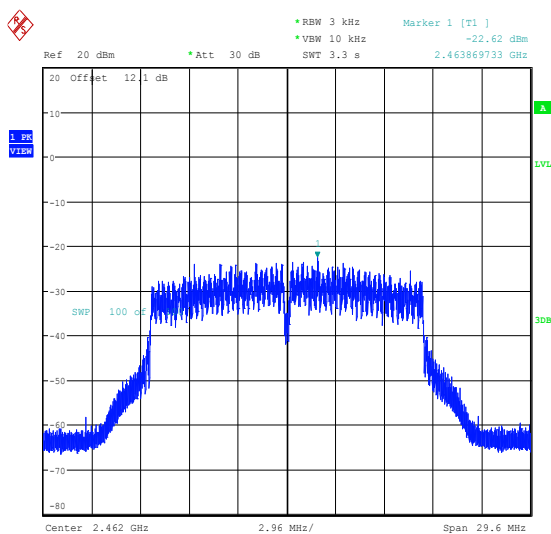
Date: 19.DEC.2024 15:42:48

#### 11G-Ant1-2412-PASS



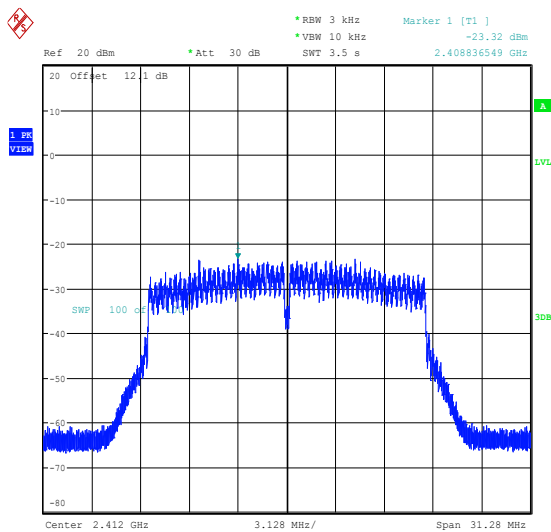
Date: 19.DEC.2024 15:56:56

#### 11G-Ant1-2437-PASS



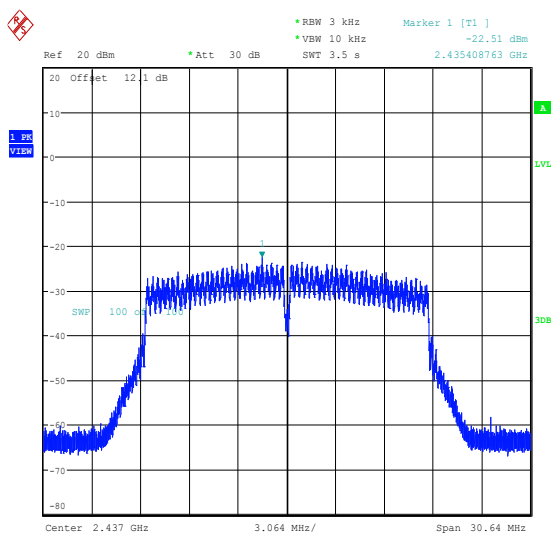
Date: 19.DEC.2024 16:07:20

#### 11G-Ant1-2462-PASS



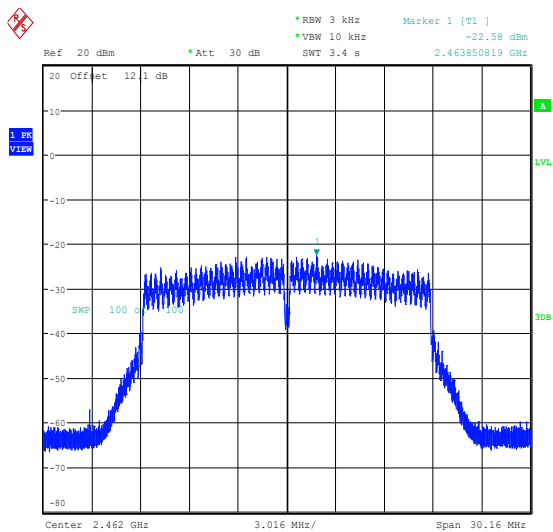
Date: 19.DEC.2024 16:22:47

#### 11N20SISO-Ant1-2412-PASS



Date: 19.DEC.2024 16:37:32

#### 11N20SISO-Ant1-2437-PASS



Date: 19.DEC.2024 16:49:58

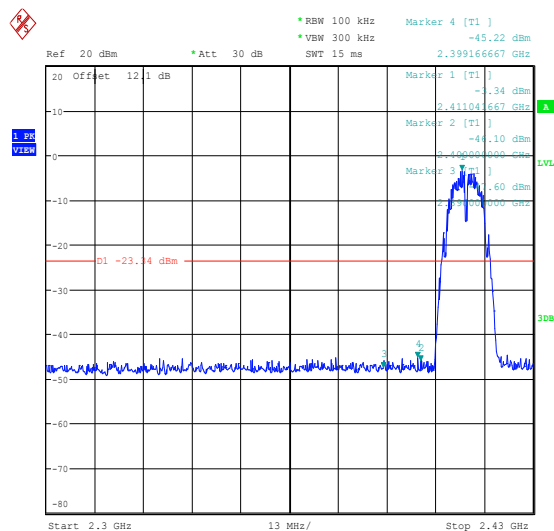
11N20SISO-Ant1-2462-PASS

## Appendix D: Band edge measurements

### Test Result

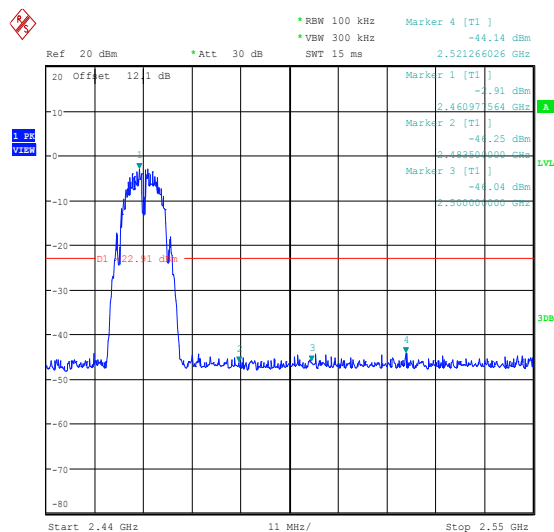
| TestMode  | Antenna | ChName | Frequency[MHz] | RefLevel[dBm] | Result[dBm] | Limit[dBm]    | Verdict |
|-----------|---------|--------|----------------|---------------|-------------|---------------|---------|
| 11B       | Ant1    | Low    | 2412           | -3.34         | -45.22      | $\leq -23.34$ | PASS    |
| 11B       | Ant1    | High   | 2462           | -2.91         | -44.14      | $\leq -22.91$ | PASS    |
| 11G       | Ant1    | Low    | 2412           | -11.26        | -45.25      | $\leq -31.26$ | PASS    |
| 11G       | Ant1    | High   | 2462           | -9.61         | -44.16      | $\leq -29.61$ | PASS    |
| 11N20SISO | Ant1    | Low    | 2412           | -11.48        | -45.34      | $\leq -31.48$ | PASS    |
| 11N20SISO | Ant1    | High   | 2462           | -9.52         | -44.04      | $\leq -29.52$ | PASS    |

## Test Graphs



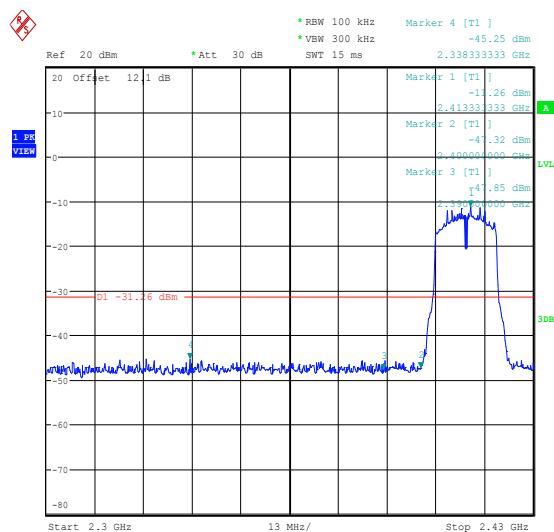
Date: 19.DEC.2024 15:05:45

### 11B-Ant1-2412-PASS



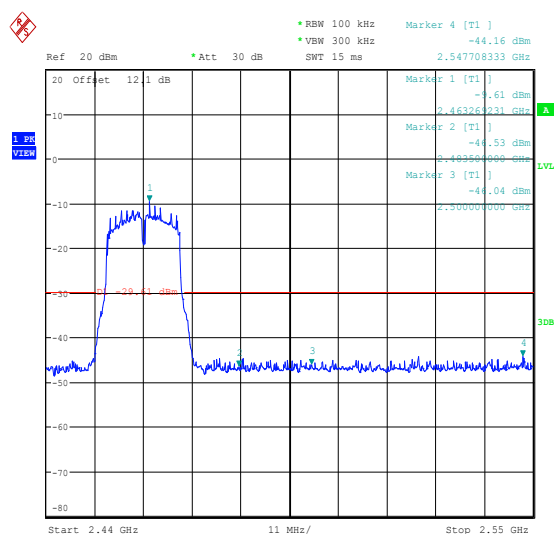
Date: 19.DEC.2024 15:23:54

### 11B-Ant1-2462-PASS



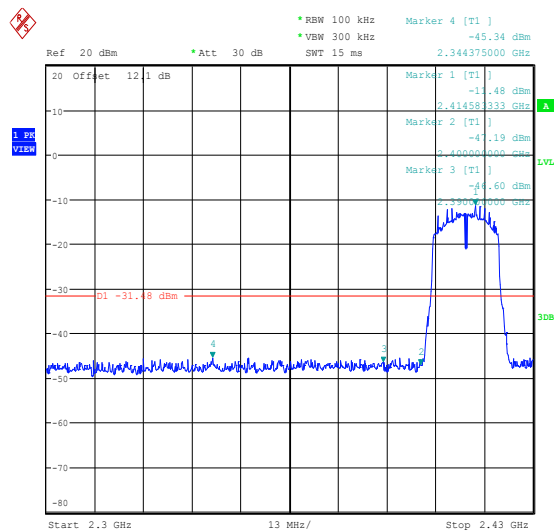
Date: 19.DEC.2024 15:42:59

### 11G-Ant1-2412-PASS



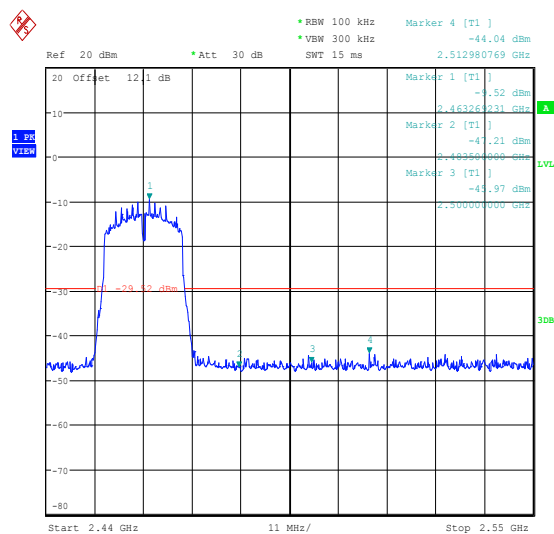
Date: 19.DEC.2024 16:07:31

### 11G-Ant1-2462-PASS



Date: 19.DEC.2024 16:22:57

### 11N20SISO-Ant1-2412-PASS



Date: 19.DEC.2024 16:50:09

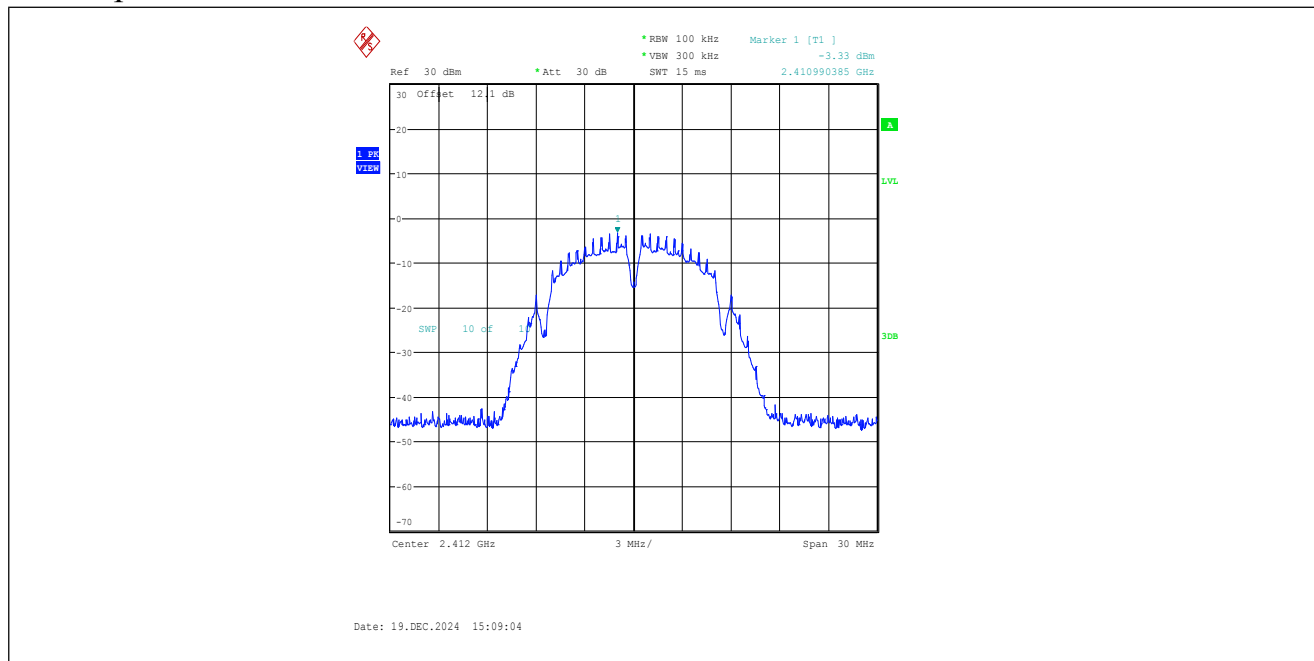
### 11N20SISO-Ant1-2462-PASS

## Appendix E: Conducted Spurious Emission

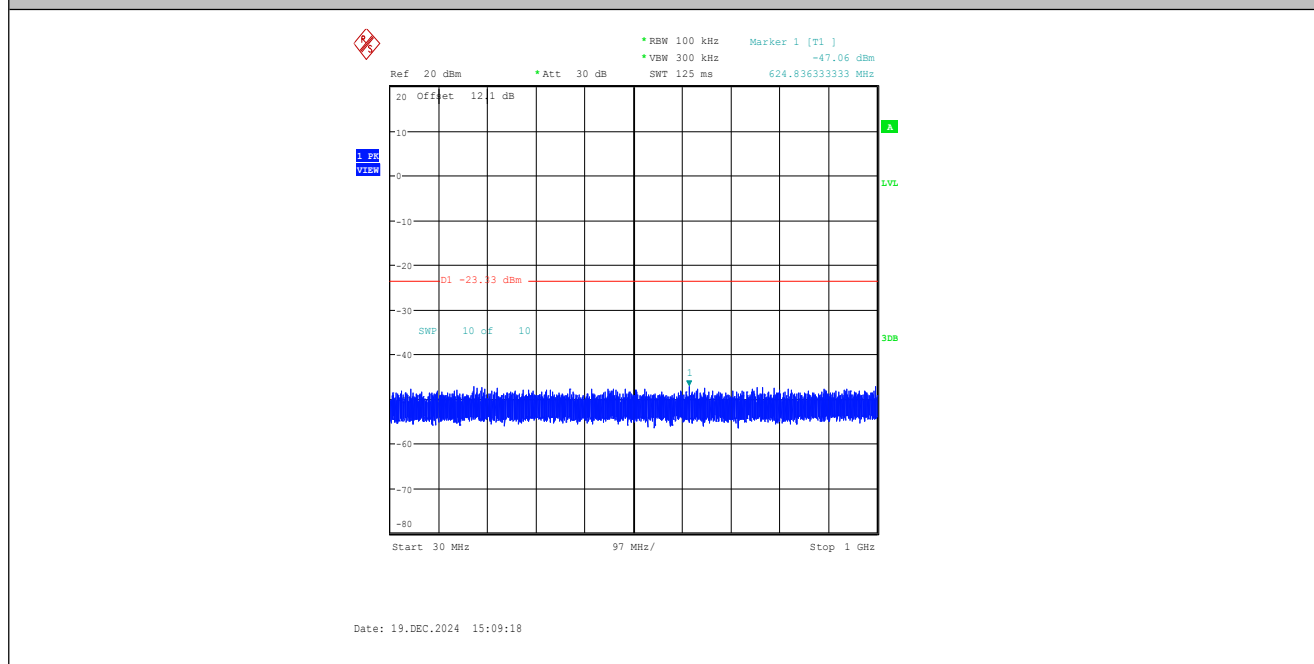
### Test Result

| TestMode  | Antenna | Frequency [MHz] | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|-----------|---------|-----------------|-----------------|----------------|--------------|-------------|---------|
| 11B       | Ant1    | 2412            | 0~Reference     | -3.33          | -3.33        | ---         | PASS    |
| 11B       | Ant1    | 2412            | 30~1000         | -3.33          | -47.06       | ≤-23.33     | PASS    |
| 11B       | Ant1    | 2412            | 1000~26500      | -3.33          | -42          | ≤-23.33     | PASS    |
| 11B       | Ant1    | 2437            | 0~Reference     | -3.33          | -3.33        | ---         | PASS    |
| 11B       | Ant1    | 2437            | 30~1000         | -3.33          | -46.5        | ≤-23.33     | PASS    |
| 11B       | Ant1    | 2437            | 1000~26500      | -3.33          | -43.21       | ≤-23.33     | PASS    |
| 11B       | Ant1    | 2462            | 0~Reference     | -2.90          | -2.90        | ---         | PASS    |
| 11B       | Ant1    | 2462            | 30~1000         | -2.90          | -45.38       | ≤-22.9      | PASS    |
| 11B       | Ant1    | 2462            | 1000~26500      | -2.90          | -43.18       | ≤-22.9      | PASS    |
| 11G       | Ant1    | 2412            | 0~Reference     | -10.90         | -10.90       | ---         | PASS    |
| 11G       | Ant1    | 2412            | 30~1000         | -10.90         | -46.82       | ≤-30.9      | PASS    |
| 11G       | Ant1    | 2412            | 1000~26500      | -10.90         | -43.2        | ≤-30.9      | PASS    |
| 11G       | Ant1    | 2437            | 0~Reference     | -10.46         | -10.46       | ---         | PASS    |
| 11G       | Ant1    | 2437            | 30~1000         | -10.46         | -46.29       | ≤-30.46     | PASS    |
| 11G       | Ant1    | 2437            | 1000~26500      | -10.46         | -43.82       | ≤-30.46     | PASS    |
| 11G       | Ant1    | 2462            | 0~Reference     | -9.92          | -9.92        | ---         | PASS    |
| 11G       | Ant1    | 2462            | 30~1000         | -9.92          | -47.11       | ≤-29.92     | PASS    |
| 11G       | Ant1    | 2462            | 1000~26500      | -9.92          | -43.69       | ≤-29.92     | PASS    |
| 11N20SISO | Ant1    | 2412            | 0~Reference     | -10.68         | -10.68       | ---         | PASS    |
| 11N20SISO | Ant1    | 2412            | 30~1000         | -10.68         | -46.91       | ≤-30.68     | PASS    |
| 11N20SISO | Ant1    | 2412            | 1000~26500      | -10.68         | -43.65       | ≤-30.68     | PASS    |
| 11N20SISO | Ant1    | 2437            | 0~Reference     | -10.64         | -10.64       | ---         | PASS    |
| 11N20SISO | Ant1    | 2437            | 30~1000         | -10.64         | -47.04       | ≤-30.64     | PASS    |
| 11N20SISO | Ant1    | 2437            | 1000~26500      | -10.64         | -42.63       | ≤-30.64     | PASS    |
| 11N20SISO | Ant1    | 2462            | 0~Reference     | -9.94          | -9.94        | ---         | PASS    |
| 11N20SISO | Ant1    | 2462            | 30~1000         | -9.94          | -44.58       | ≤-29.94     | PASS    |
| 11N20SISO | Ant1    | 2462            | 1000~26500      | -9.94          | -43.09       | ≤-29.94     | PASS    |

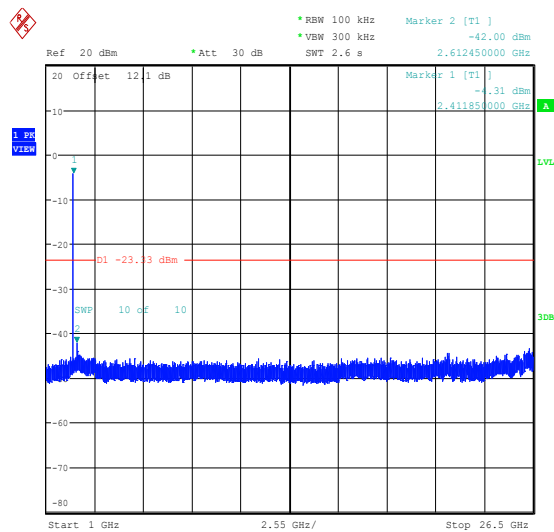
## Test Graphs



11B-Ant1-2412-0~Reference-PASS

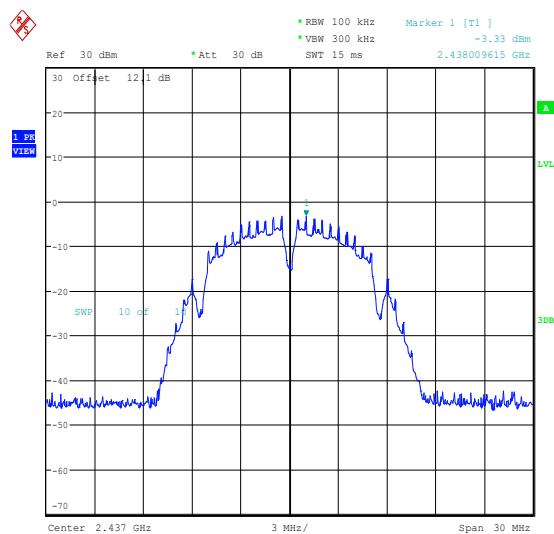


11B-Ant1-2412-30~1000-PASS



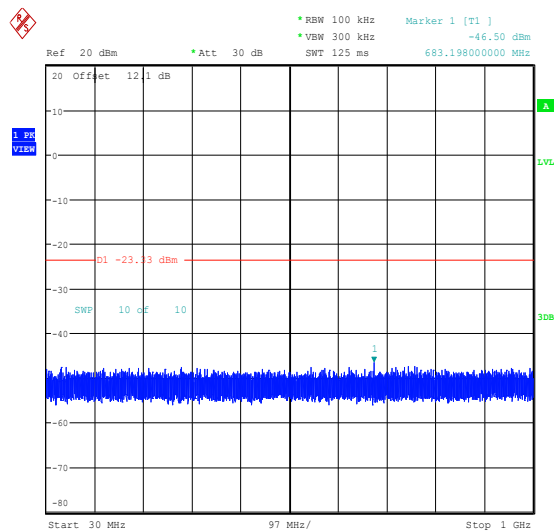
Date: 19.DEC.2024 15:11:02

### 11B-Ant1-2412-1000~26500-PASS



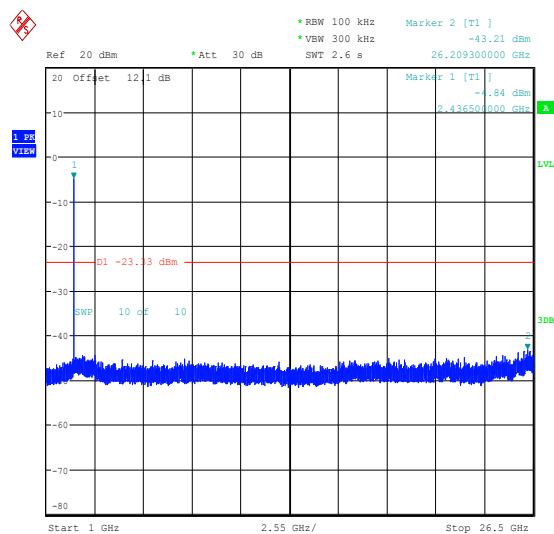
Date: 19.DEC.2024 15:16:21

### 11B-Ant1-2437-0~Reference-PASS



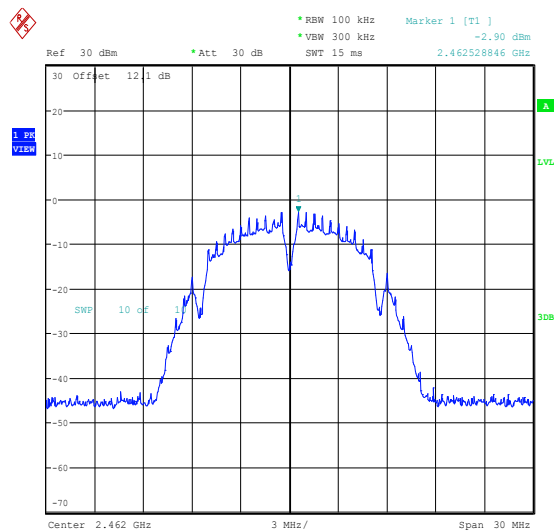
Date: 19.DEC.2024 15:16:35

### 11B-Ant1-2437-30~1000-PASS



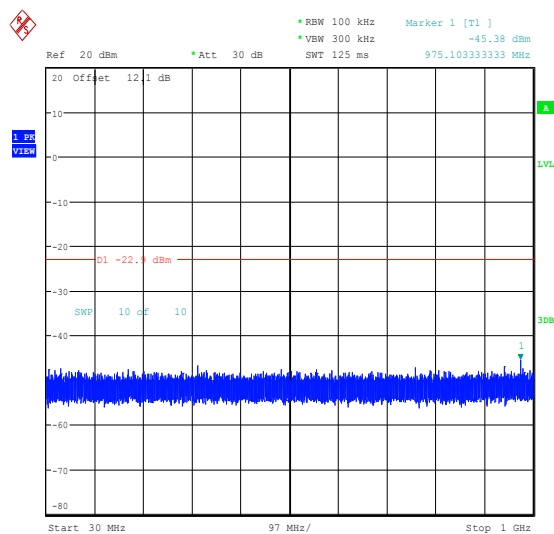
Date: 19.DEC.2024 15:18:18

### 11B-Ant1-2437-1000~26500-PASS



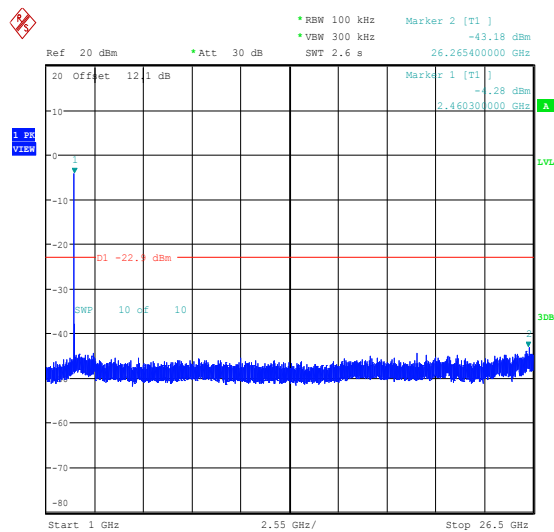
Date: 19.DEC.2024 15:26:50

### 11B-Ant1-2462-0~Reference-PASS



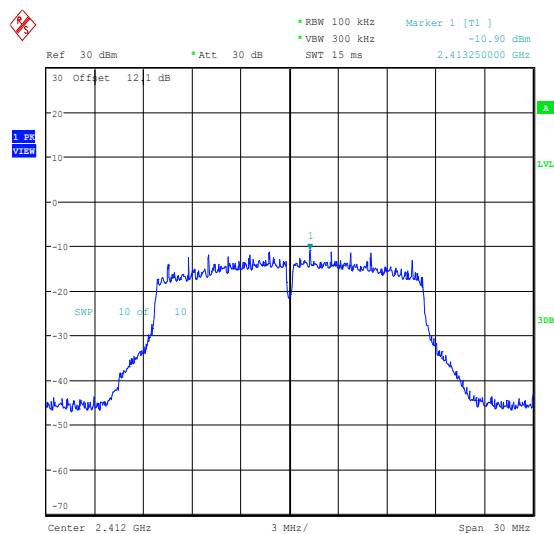
Date: 19.DEC.2024 15:27:04

### 11B-Ant1-2462-30~1000-PASS



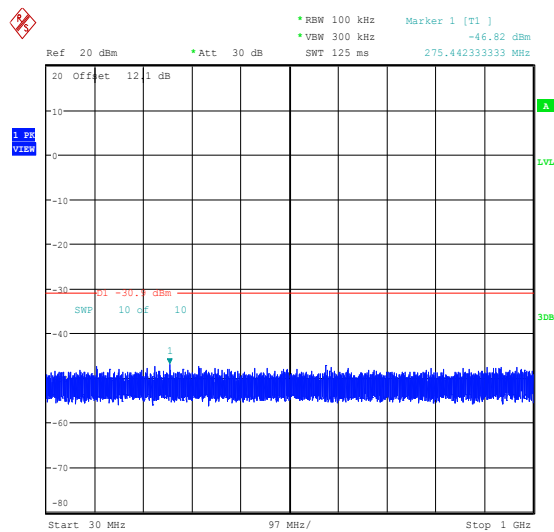
Date: 19.DEC.2024 15:28:47

11B-Ant1-2462-1000~26500-PASS



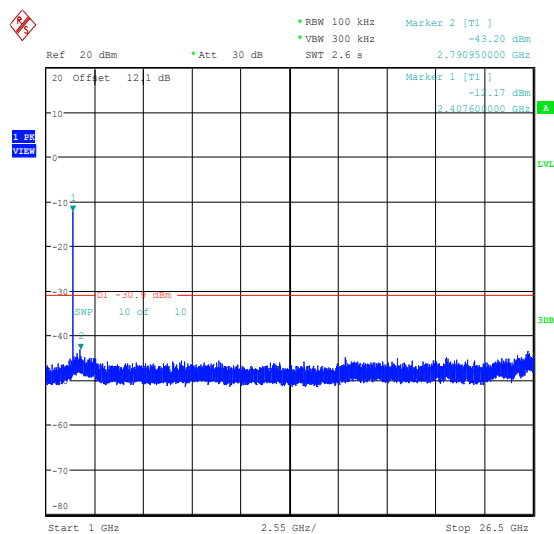
Date: 19.DEC.2024 15:46:17

## 11G-Ant1-2412-0~Reference-PASS



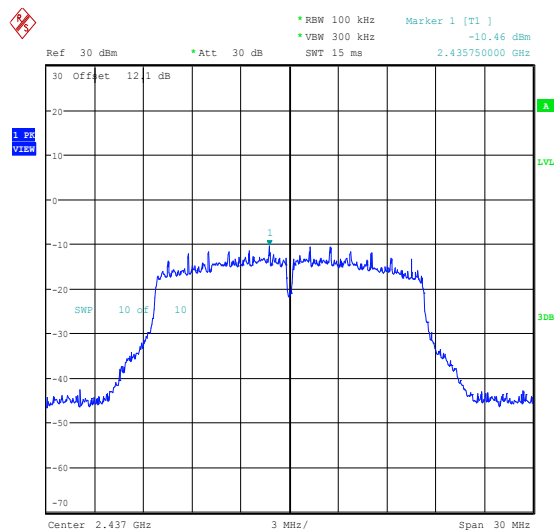
Date: 19.DEC.2024 15:46:31

### 11G-Ant1-2412-30~1000-PASS



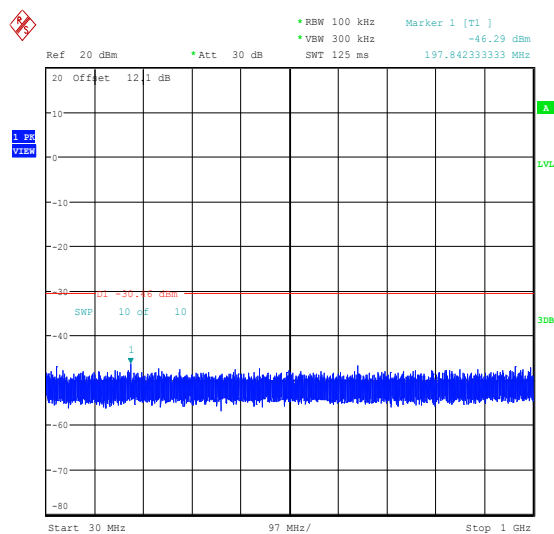
Date: 19.DEC.2024 15:48:14

### 11G-Ant1-2412-1000~26500-PASS



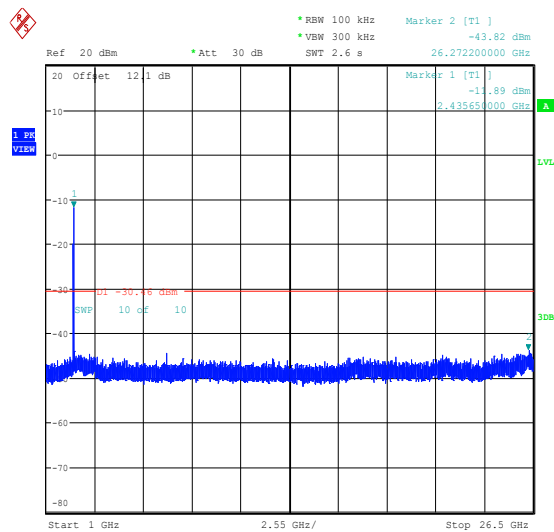
Date: 19.DEC.2024 15:57:05

#### 11G-Ant1-2437-0~Reference-PASS



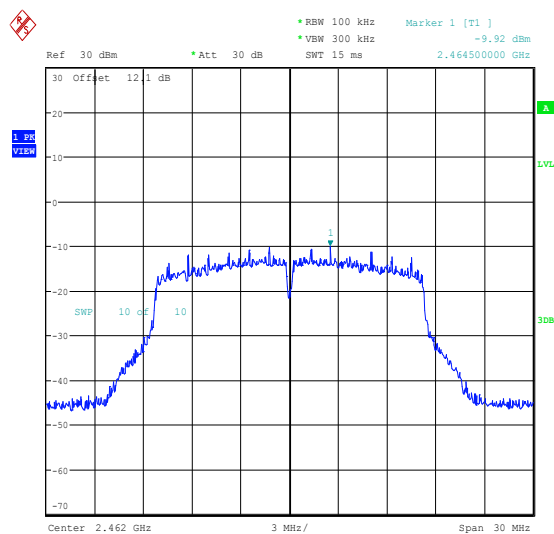
Date: 19.DEC.2024 15:57:19

#### 11G-Ant1-2437-30~1000-PASS



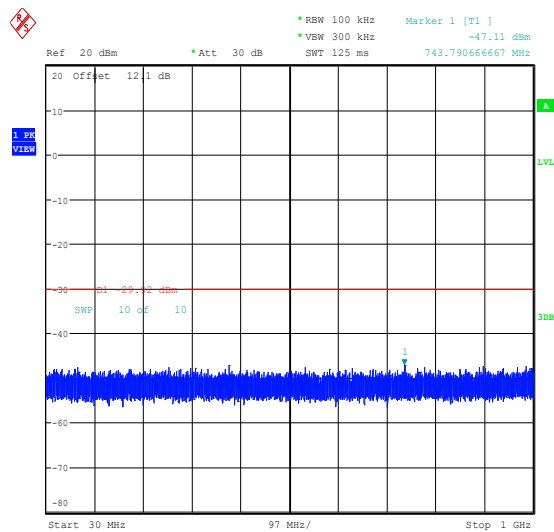
Date: 19.DEC.2024 15:59:02

### 11G-Ant1-2437-1000~26500-PASS



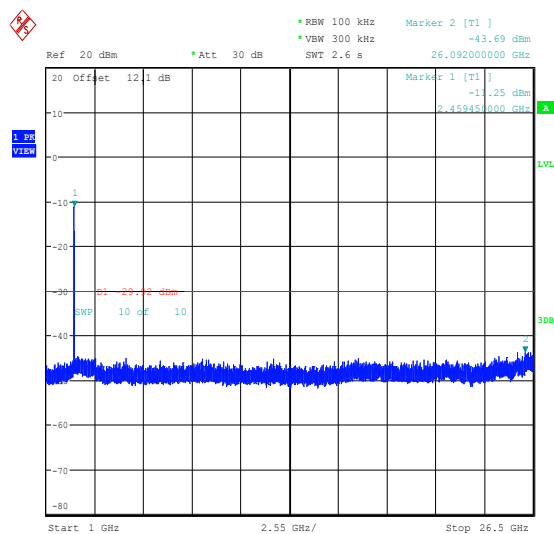
Date: 19.DEC.2024 16:10:27

### 11G-Ant1-2462-0~Reference-PASS



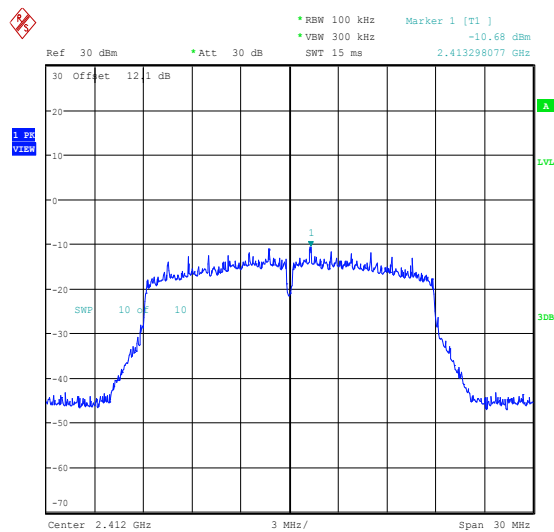
Date: 19.DEC.2024 16:10:41

### 11G-Ant1-2462-30~1000-PASS



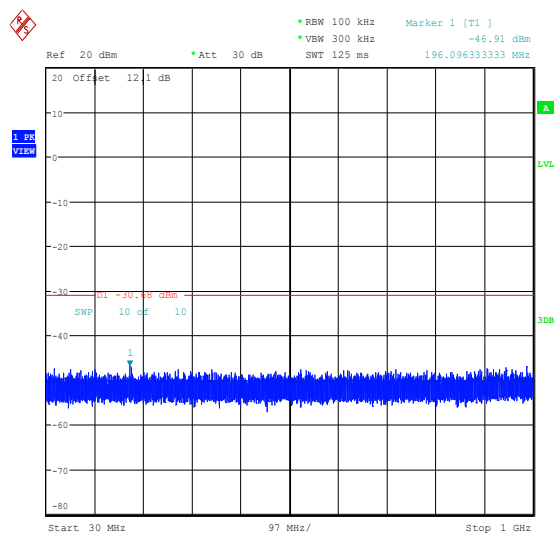
Date: 19.DEC.2024 16:12:24

### 11G-Ant1-2462-1000~26500-PASS



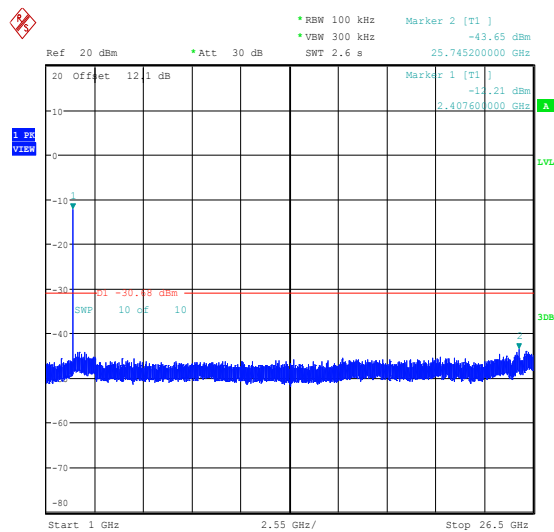
Date: 19.DEC.2024 16:24:09

### 11N20SISO-Ant1-2412-0~Reference-PASS



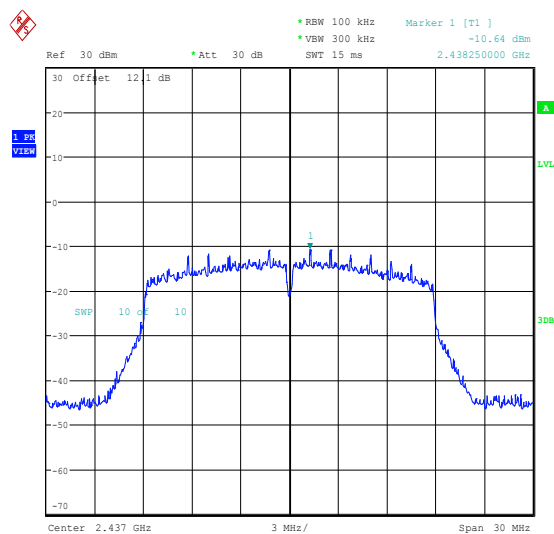
Date: 19.DEC.2024 16:24:23

### 11N20SISO-Ant1-2412-30~1000-PASS



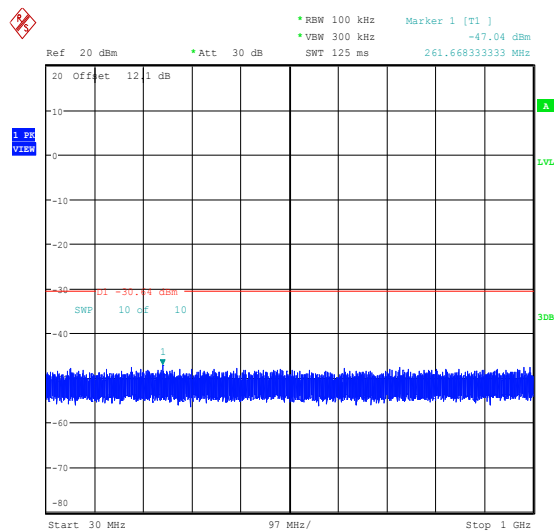
Date: 19.DEC.2024 16:26:06

11N20SISO-Ant1-2412-1000~26500-PASS



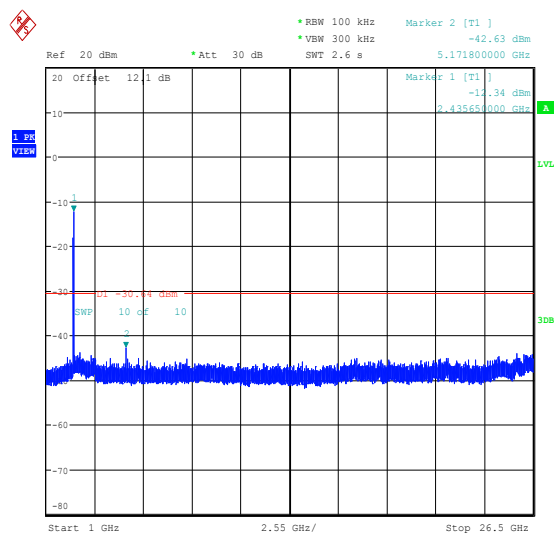
Date: 19.DEC.2024 16:37:41

11N20SISO-Ant1-2437-0~Reference-PASS



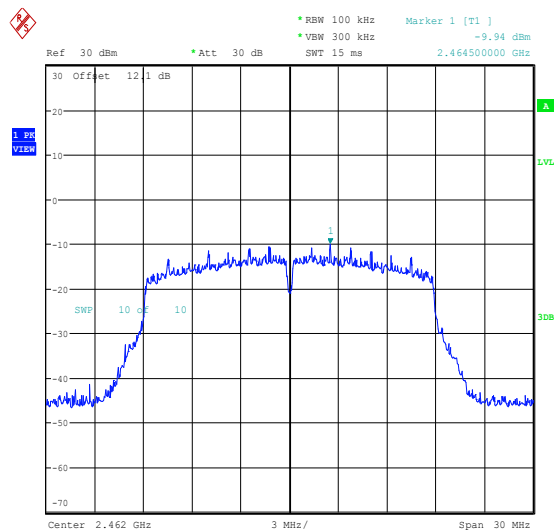
Date: 19.DEC.2024 16:37:55

### 11N20SISO-Ant1-2437-30~1000-PASS



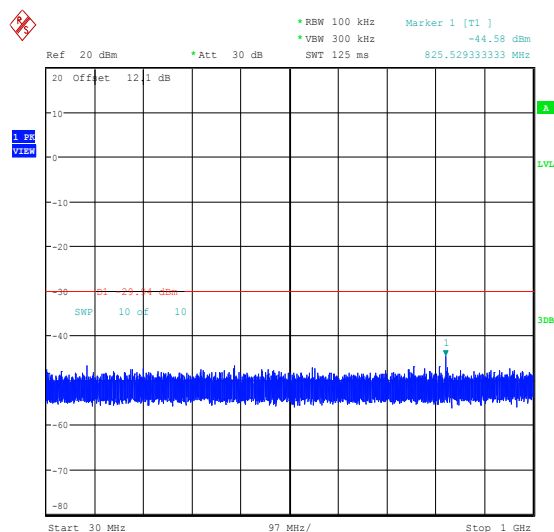
Date: 19.DEC.2024 16:39:38

### 11N20SISO-Ant1-2437-1000~26500-PASS



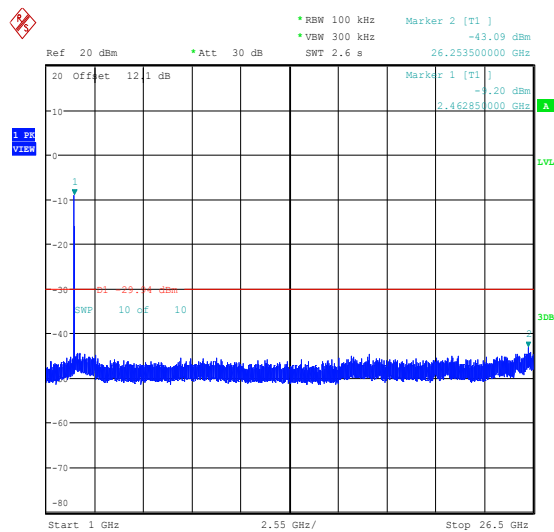
Date: 19.DEC.2024 16:51:20

### 11N20SISO-Ant1-2462-0~Reference-PASS



Date: 19.DEC.2024 16:51:33

### 11N20SISO-Ant1-2462-30~1000-PASS



Date: 19.DEC.2024 16:53:17

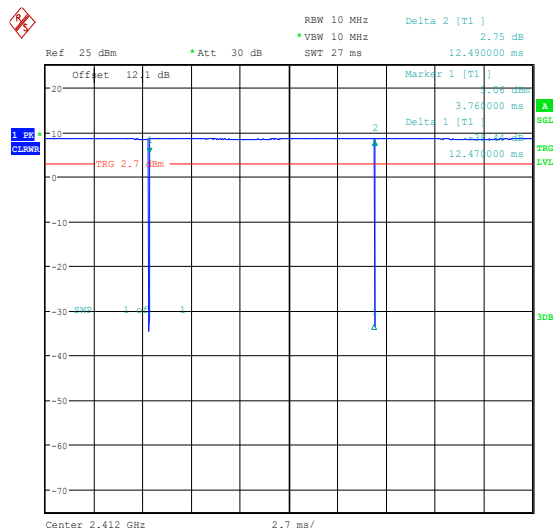
11N20SISO-Ant1-2462-1000~26500-PASS

## Appendix F: Duty Cycle

### Test Result

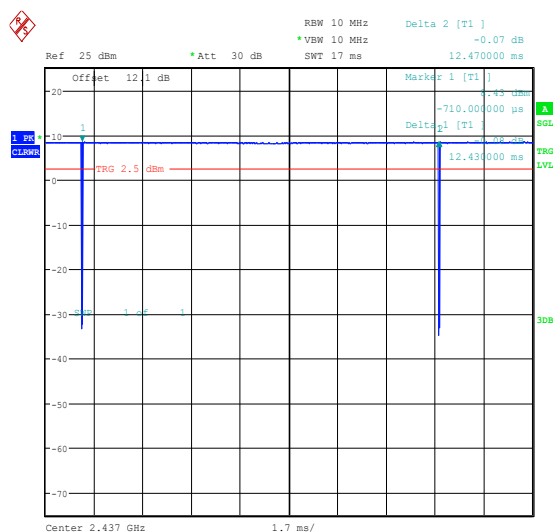
| TestMode  | Antenna | Frequency[MHz] | Transmission<br>Duration [ms] | Transmission<br>Period [ms] | Duty Cycle<br>[%] | Factor |
|-----------|---------|----------------|-------------------------------|-----------------------------|-------------------|--------|
| 11B       | Ant1    | 2412           | 12.47                         | 12.49                       | 99.84             | 0.01   |
| 11B       | Ant1    | 2437           | 12.43                         | 12.47                       | 99.68             | 0.01   |
| 11B       | Ant1    | 2462           | 12.45                         | 12.48                       | 99.76             | 0.01   |
| 11G       | Ant1    | 2412           | 2.06                          | 2.10                        | 98.10             | 0.08   |
| 11G       | Ant1    | 2437           | 2.06                          | 2.10                        | 98.10             | 0.08   |
| 11G       | Ant1    | 2462           | 2.07                          | 2.11                        | 98.10             | 0.08   |
| 11N20SISO | Ant1    | 2412           | 1.92                          | 1.96                        | 97.96             | 0.09   |
| 11N20SISO | Ant1    | 2437           | 1.92                          | 1.96                        | 97.96             | 0.09   |
| 11N20SISO | Ant1    | 2462           | 1.92                          | 1.96                        | 97.96             | 0.09   |

## Test Graphs



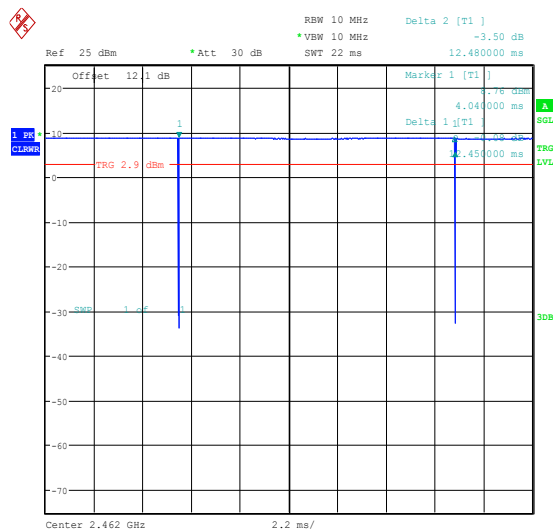
Date: 19.DEC.2024 15:00:58

NTNV-11B-Ant1-2412



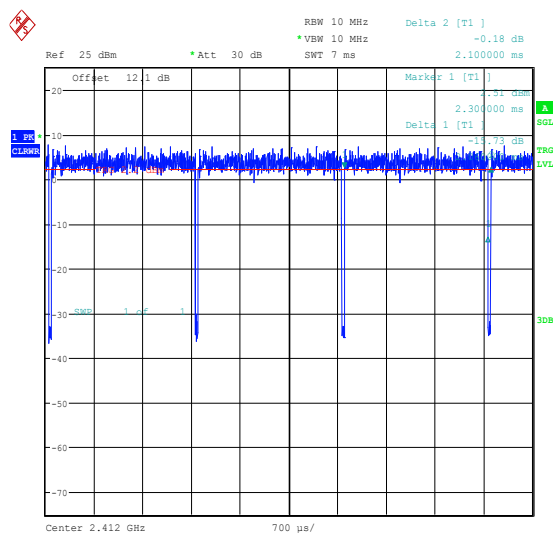
Date: 19.DEC.2024 15:11:38

NTNV-11B-Ant1-2437



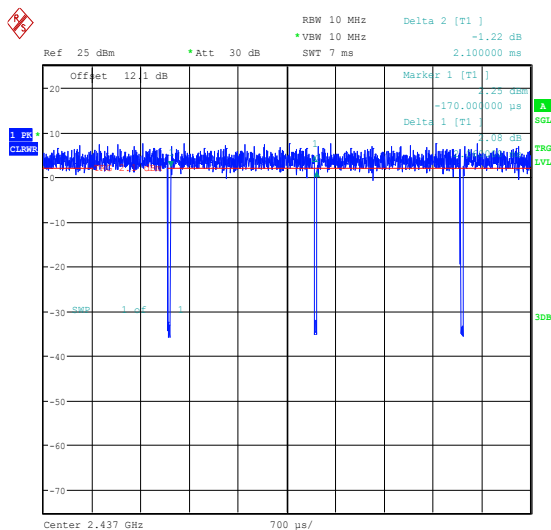
Date: 19.DEC.2024 15:19:13

#### NTNV-11B-Ant1-2462

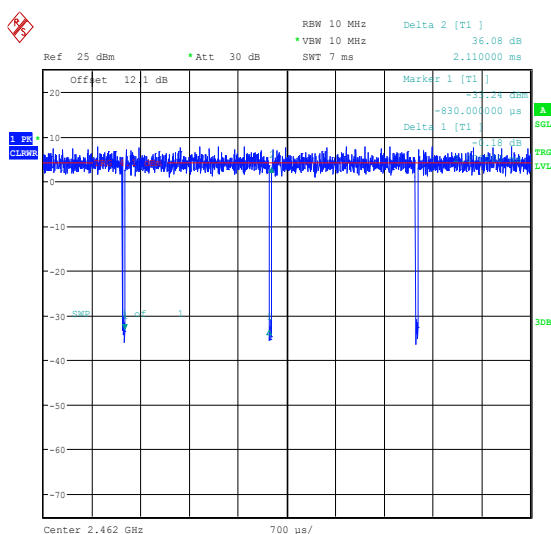


Date: 19.DEC.2024 15:34:18

#### NTNV-11G-Ant1-2412

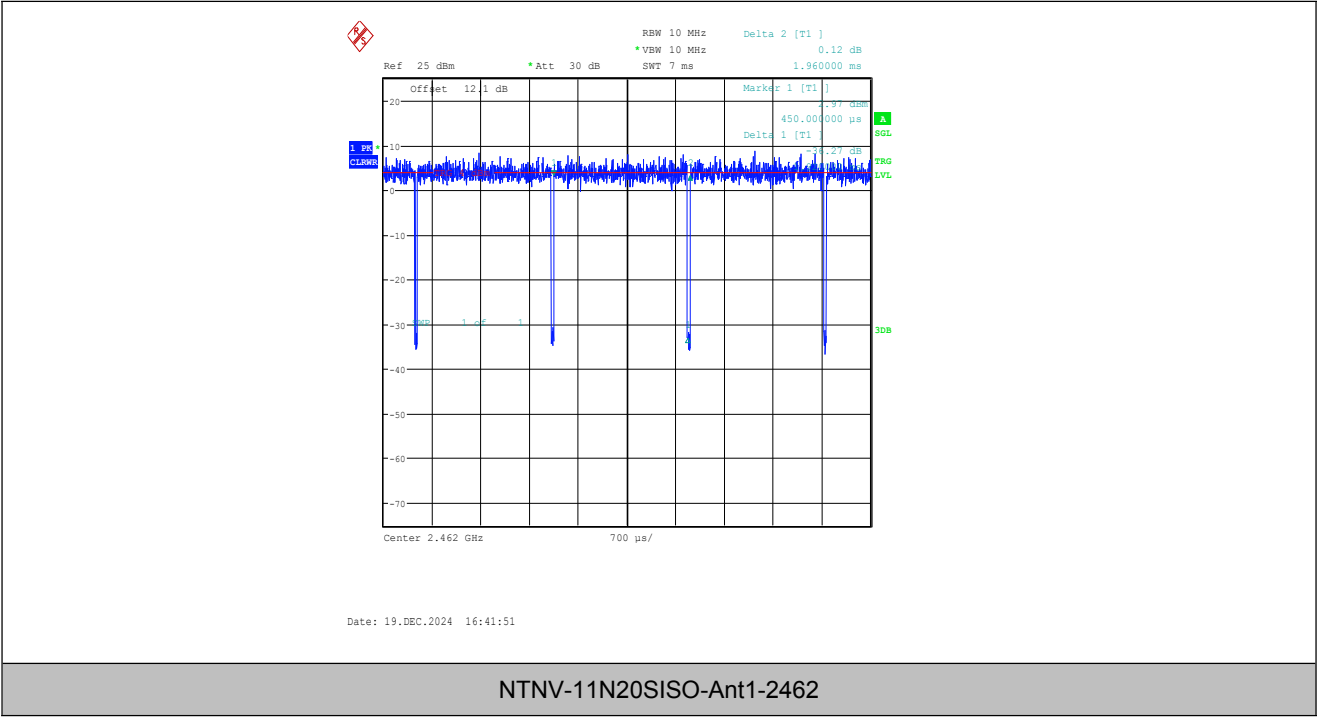


NTNV-11G-Ant1-2437



NTNV-11G-Ant1-2462





## Appendix G: Radiated Bandedge and Spurious

### 9 kHz-30MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was

20dB lower than the limit line per 15.31(o) was not reported.

#### Radiated Emission Test Data 9k Hz-30MHz

| Frequency (MHz) | Cable Loss +preamp (dB) | Antenna Factor (dB) | Reading (dBμV/m) | Level (dBμV/m) | Polarity (H/V) | Limit (dBμV/m) | Margin (dB) | Note |
|-----------------|-------------------------|---------------------|------------------|----------------|----------------|----------------|-------------|------|
| --              | --                      | --                  | --               | --             | --             | --             | --          | --   |
| --              | --                      | --                  | --               | --             | --             | --             | --          | --   |
| --              | --                      | --                  | --               | --             | --             | --             | --          | --   |
| --              | --                      | --                  | --               | --             | --             | --             | --          | --   |
| --              | --                      | --                  | --               | --             | --             | --             | --          | --   |
| --              | --                      | --                  | --               | --             | --             | --             | --          | --   |
| --              | --                      | --                  | --               | --             | --             | --             | --          | --   |
| --              | --                      | --                  | --               | --             | --             | --             | --          | --   |
| --              | --                      | --                  | --               | --             | --             | --             | --          | --   |

### 30MHz-1GHz

Worst case is shown below for 30MHz-1GHz only.

The emissions don't show in following result tables are more than 20dB below the limits.

#### Radiated Emission Test Data 30MHz-1GHz

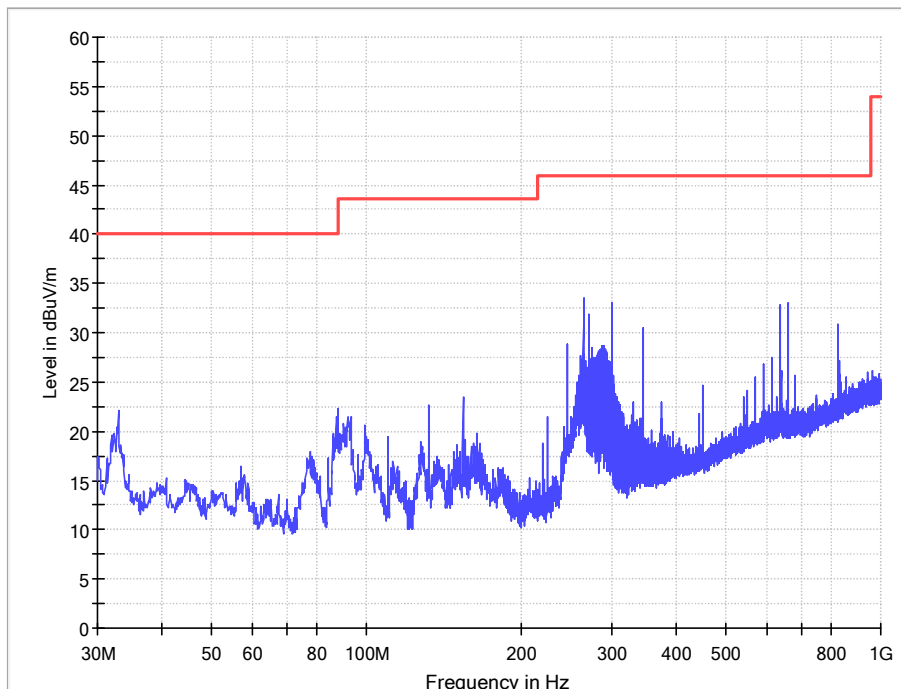
| Frequency (MHz) | Cable Loss +preamp (dB) | Antenna Factor (dB) | Reading (dBμV/m) | Level (dBμV/m) | Polarity (Horizontal/Vertical) | Limit (dBμV/m) | Margin (dB) | Note |
|-----------------|-------------------------|---------------------|------------------|----------------|--------------------------------|----------------|-------------|------|
| 33.017          | 0.7                     | 12.3                | 17.7             | 30.7           | Vertical                       | 40.0           | 9.3         | QP   |
| 87.23           | 1.1                     | 10.3                | 15.2             | 26.6           | Vertical                       | 40.0           | 13.4        | QP   |
| 131.957         | 1.3                     | 8.9                 | 20.1             | 30.3           | Vertical                       | 43.5           | 13.2        | QP   |
| 153.944         | 1.4                     | 8.3                 | 18.1             | 27.8           | Vertical                       | 43.5           | 15.7        | QP   |
| 175.931         | 1.5                     | 9.0                 | 11.9             | 22.4           | Vertical                       | 43.5           | 21.1        | QP   |

|         |     |      |      |      |            |      |      |    |
|---------|-----|------|------|------|------------|------|------|----|
| 299.983 | 2.1 | 12.7 | 18.8 | 33.6 | Vertical   | 46.0 | 12.4 | QP |
| 131.951 | 1.3 | 8.9  | 11.5 | 21.7 | Horizontal | 43.5 | 21.8 | QP |
| 53.944  | 0.8 | 13.3 | 8.4  | 22.5 | Horizontal | 40   | 17.5 | QP |
| 263.985 | 1.9 | 12.1 | 16.8 | 30.8 | Horizontal | 46   | 15.2 | QP |
| 299.983 | 2.1 | 12.7 | 15.4 | 30.2 | Horizontal | 46   | 15.8 | QP |
| 638.082 | 3.1 | 18.5 | 8.1  | 29.7 | Horizontal | 46   | 16.3 | QP |
| 660.068 | 0.7 | 12.3 | 17.7 | 30.7 | Horizontal | 46   | 15.9 | QP |

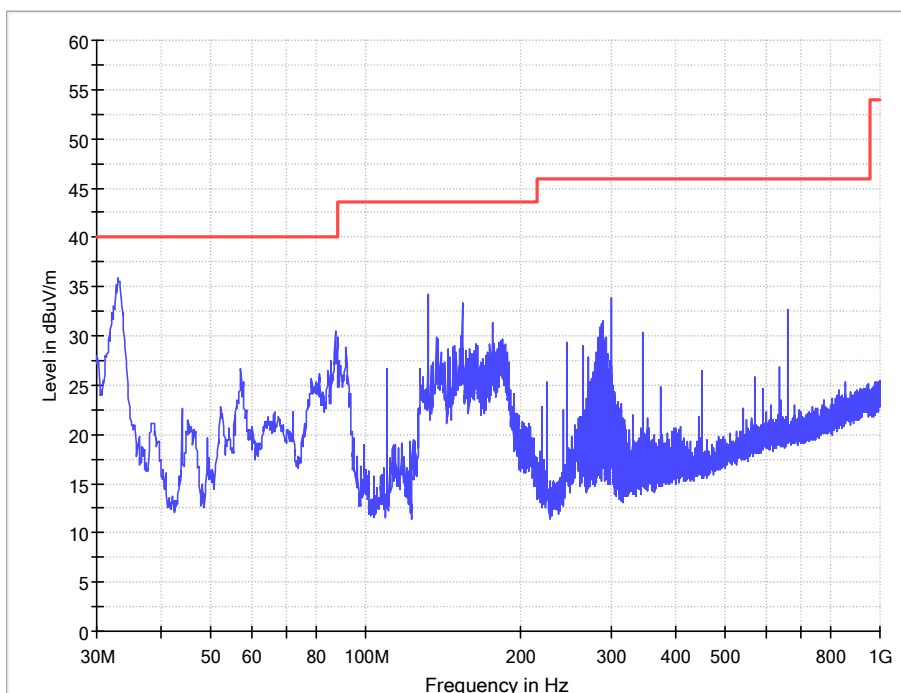
Remark: Emission level (dBuV)=Read Value(dBuV/m) + Antenna Factor(dB)+ Cable Loss +preamp(dB)

30MHz-1GHz

Horizontal



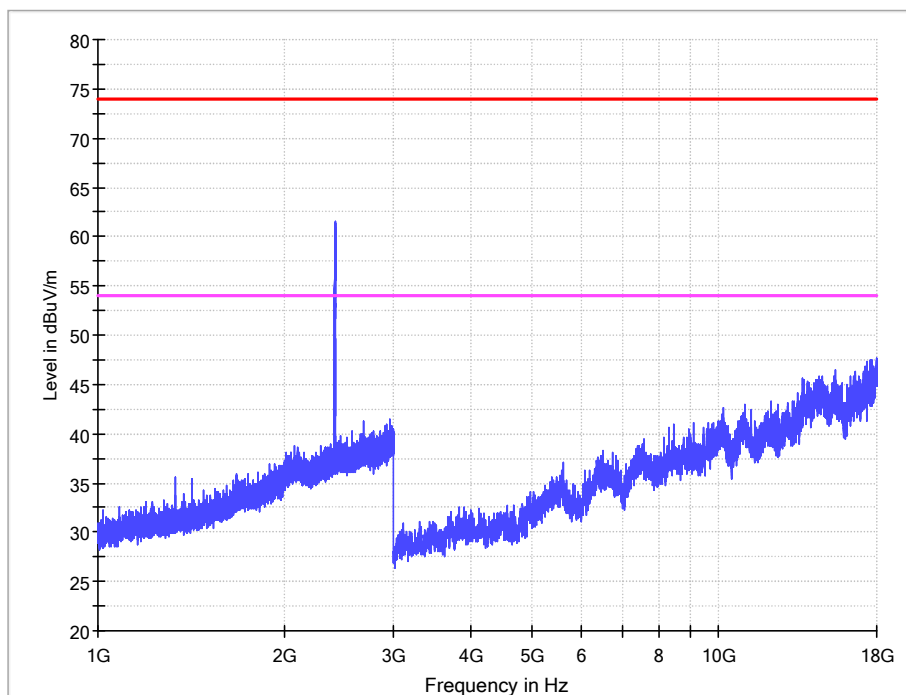
Vertical



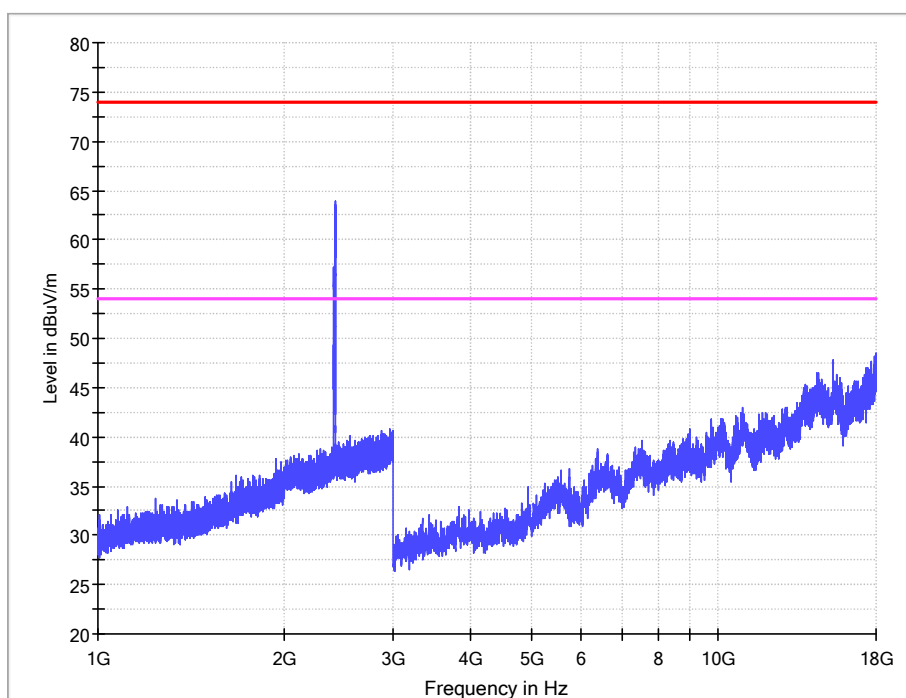
1-18G

802.11b CH1

Horizontal



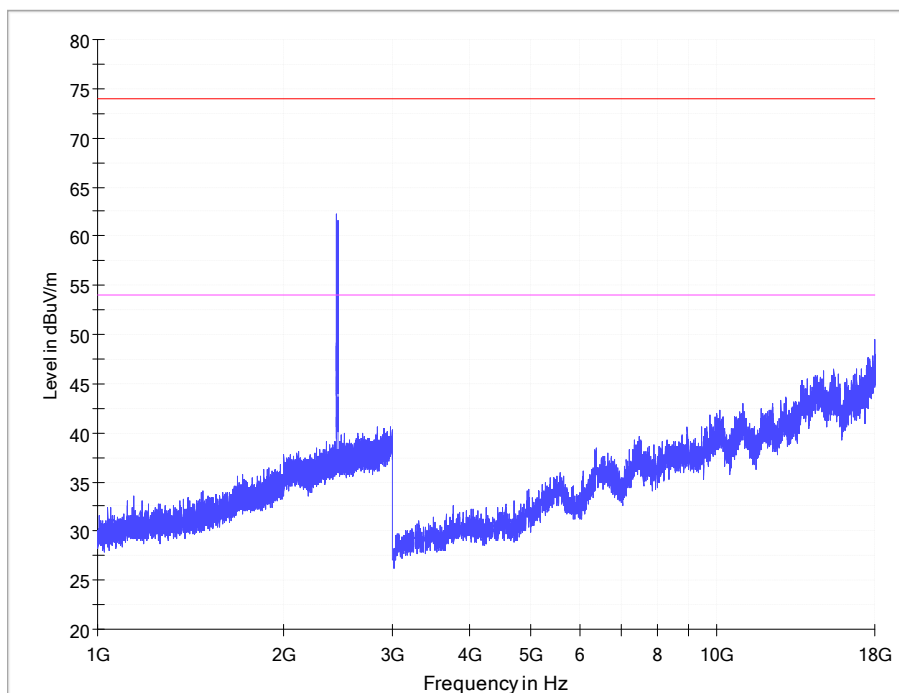
Vertical



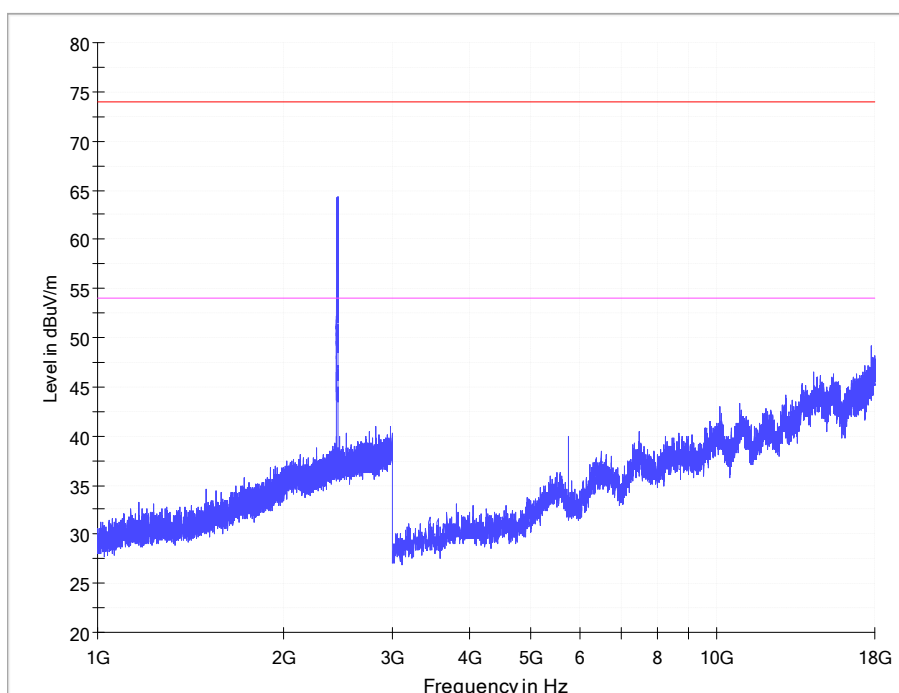
1-18G

802.11b CH6

Horizontal



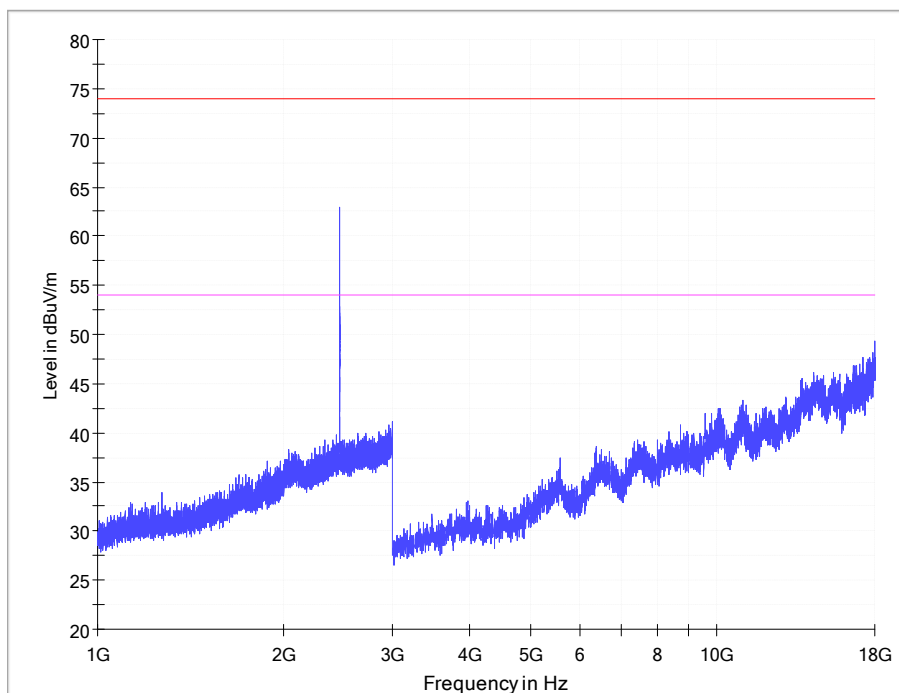
Vertical



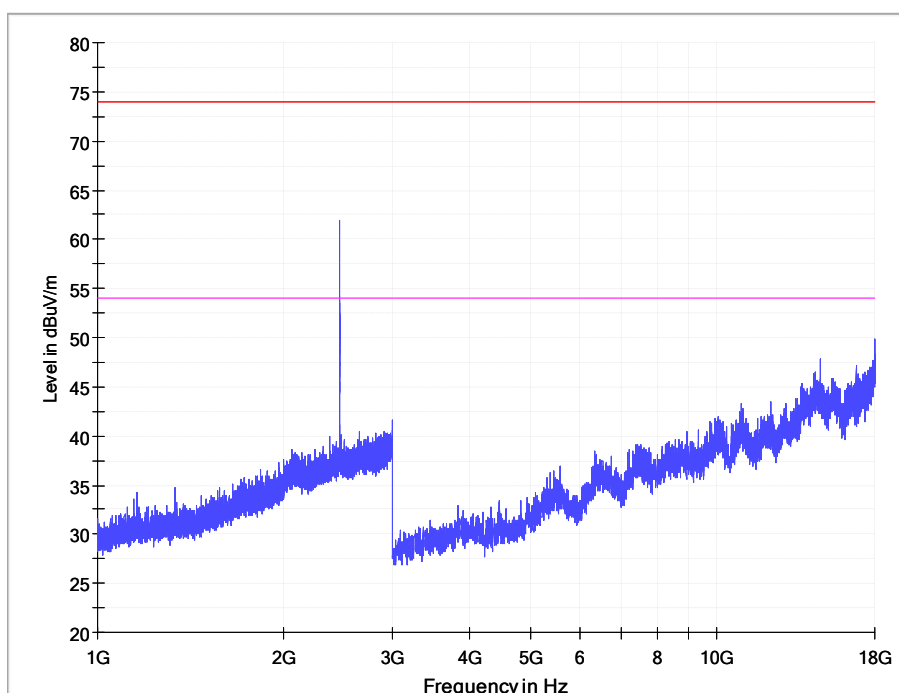
1-18G

802.11b CH11

Horizontal



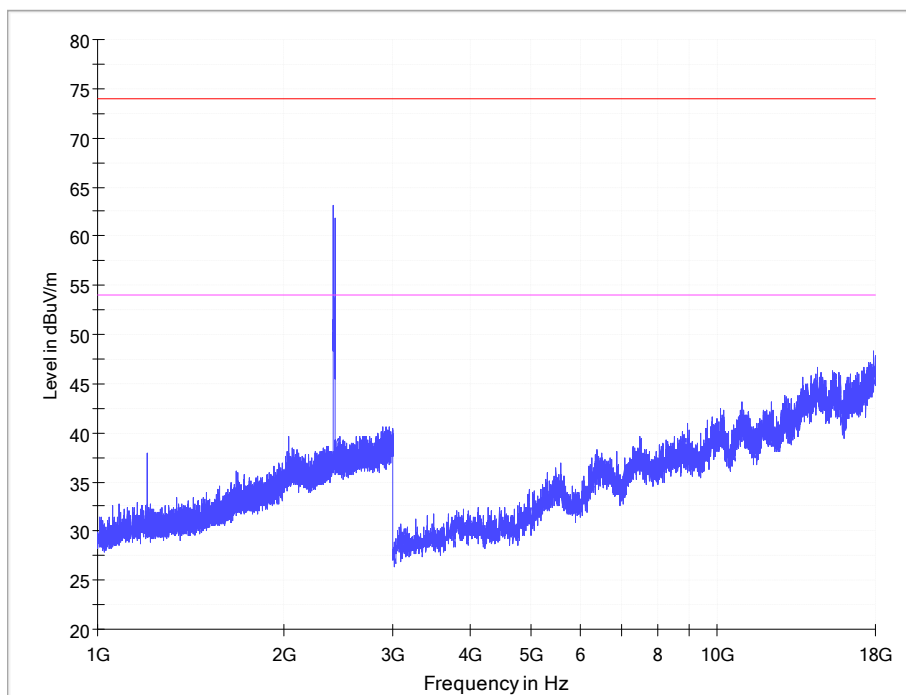
Vertical



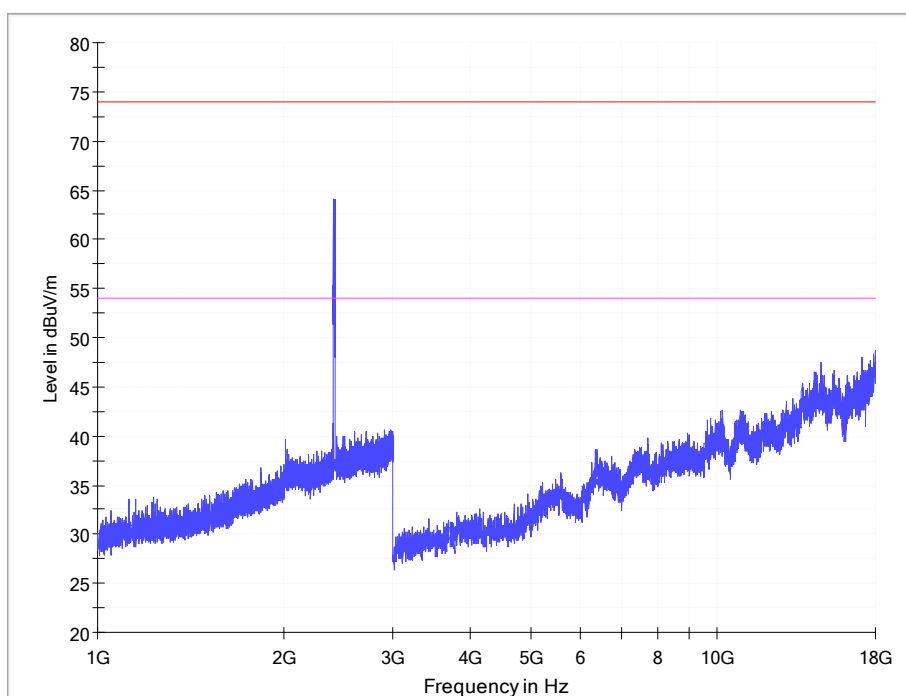
1-18G

802.11g CH1

Horizontal



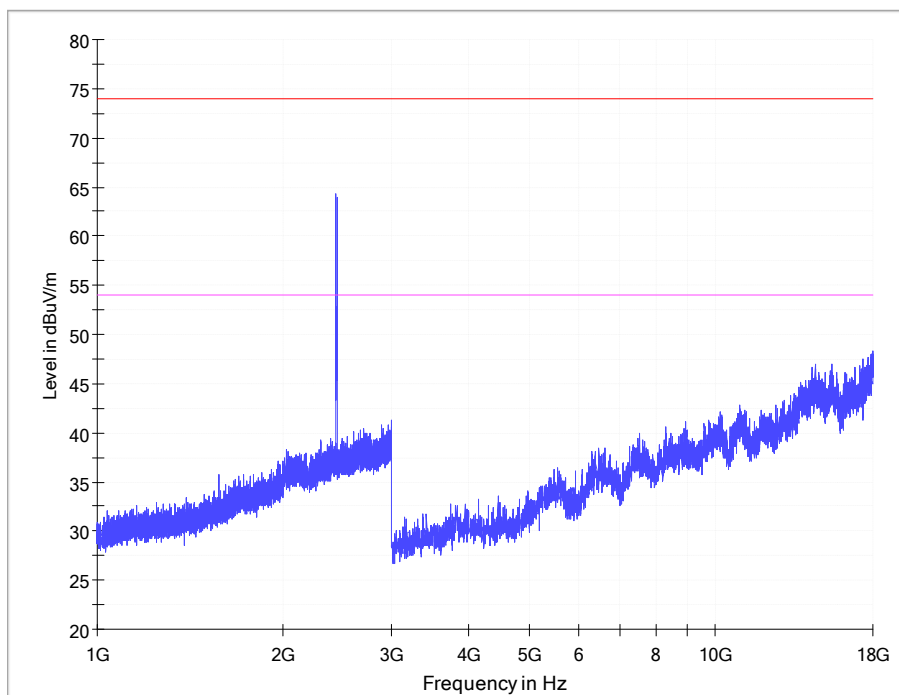
Vertical



1-18G

802.11g CH6

Horizontal



Vertical

