

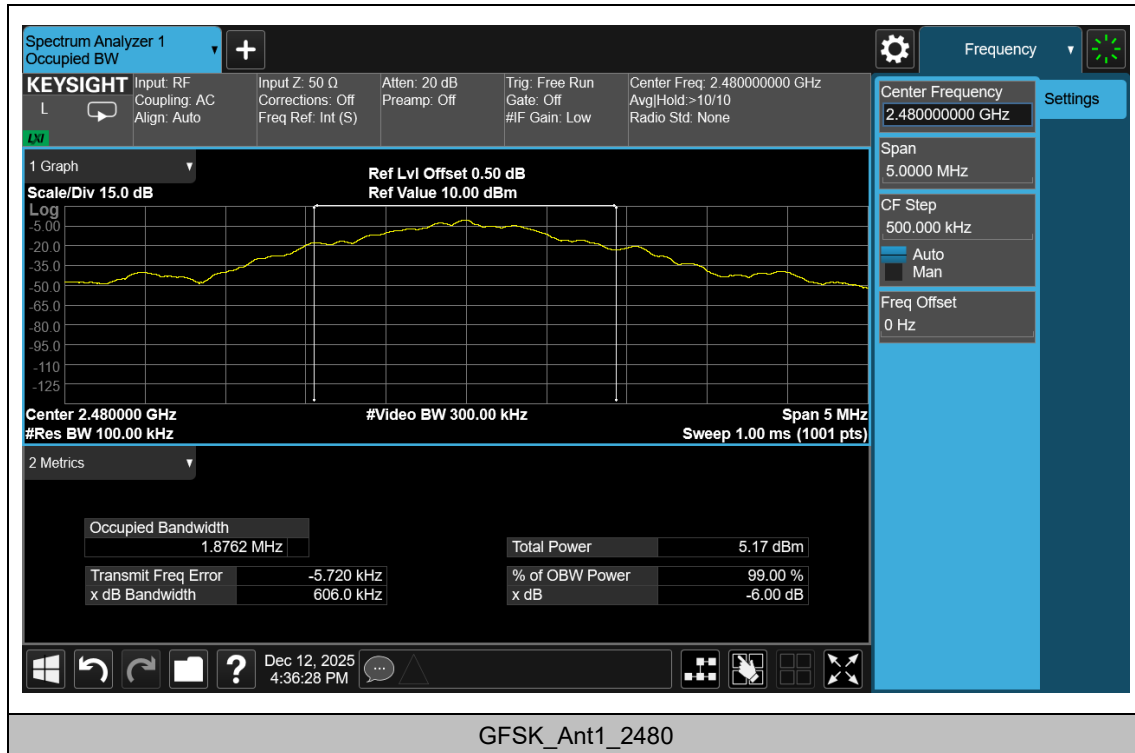
## Appendix A: DTS Bandwidth

### Test Result

| TestMode | Antenna | Frequency[MHz] | DTS BW [MHz] | Limit[MHz] | Verdict |
|----------|---------|----------------|--------------|------------|---------|
| GFSK     | Ant1    | 2403           | 0.6054       | 0.5        | PASS    |
|          |         | 2442           | 0.6058       | 0.5        | PASS    |
|          |         | 2480           | 0.6060       | 0.5        | PASS    |

## Test Graphs





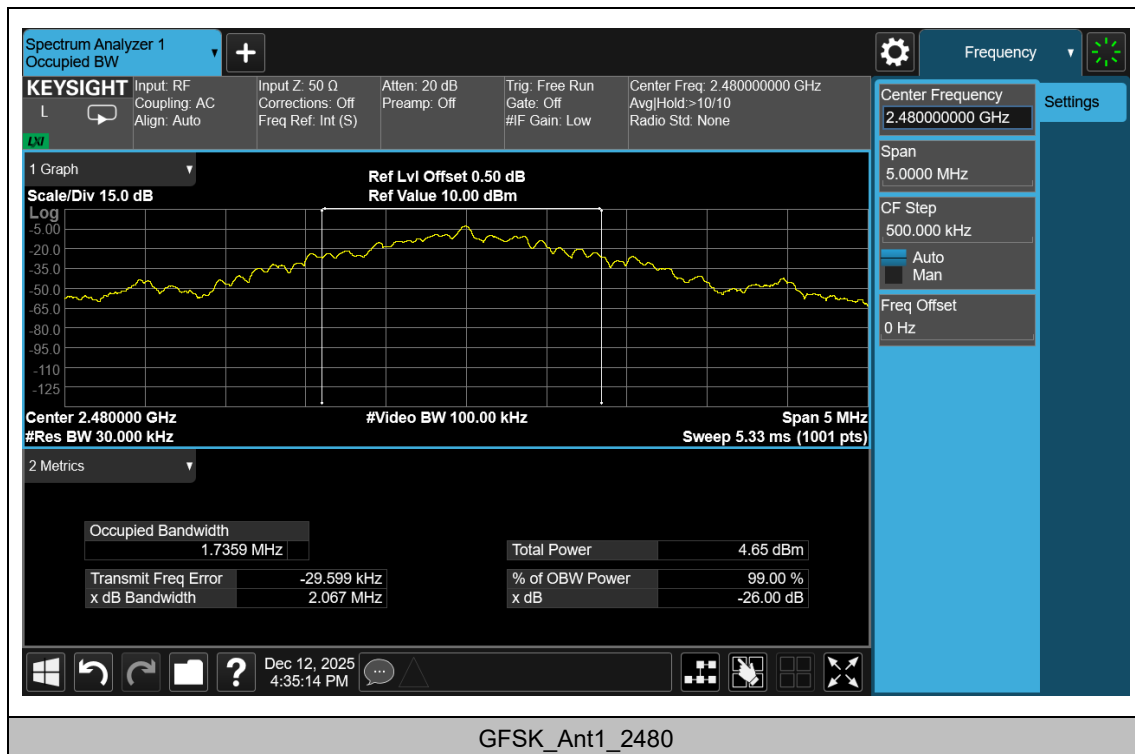
## Appendix B: Occupied Channel Bandwidth

### Test Result

| TestMode | Antenna | Frequency[MHz] | OCB [MHz] | Limit[MHz] | Verdict |
|----------|---------|----------------|-----------|------------|---------|
| GFSK     | Ant1    | 2403           | 2.066     | ---        | ---     |
|          |         | 2442           | 2.066     | ---        | ---     |
|          |         | 2480           | 2.067     | ---        | ---     |

## Test Graphs



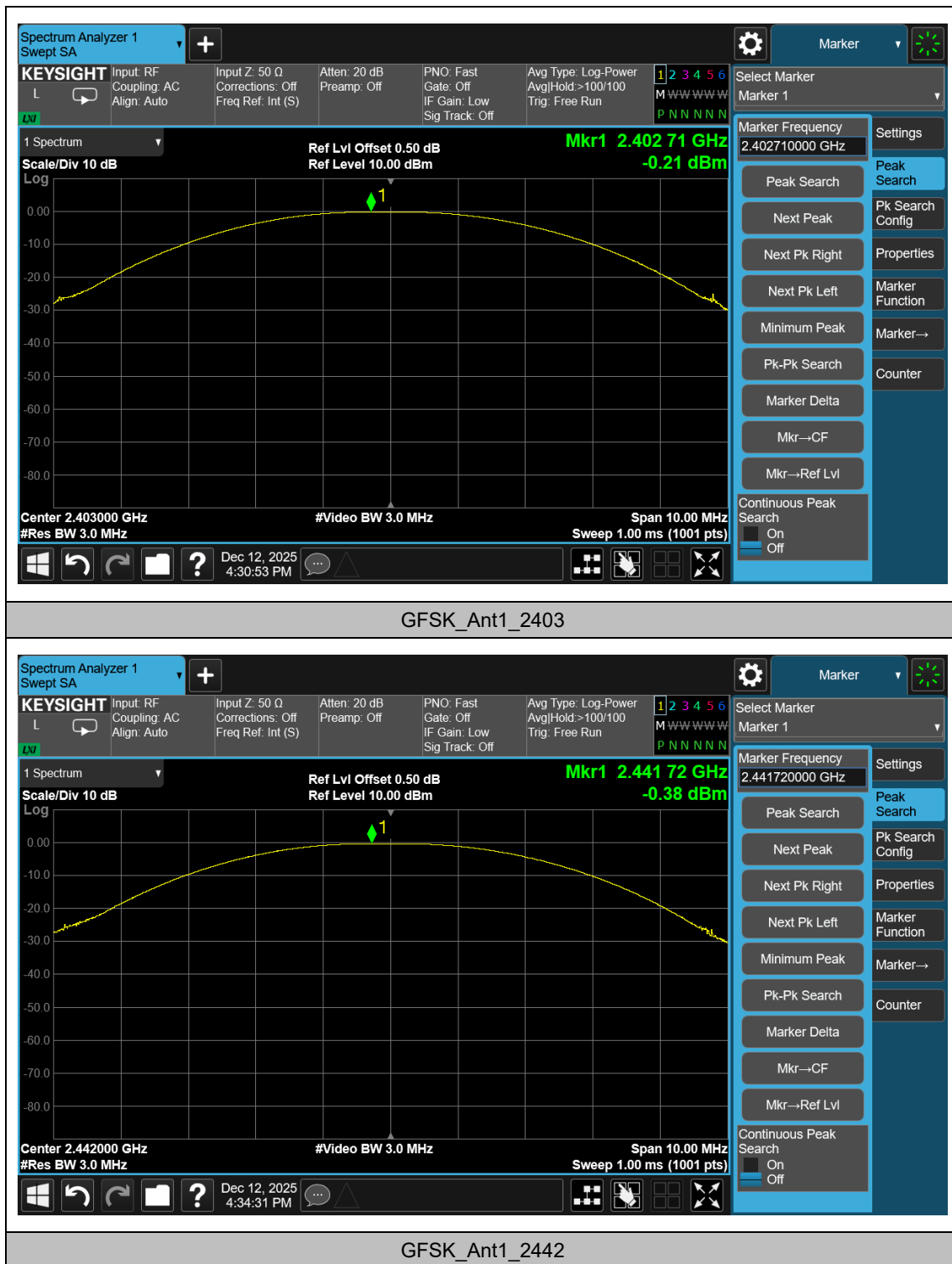


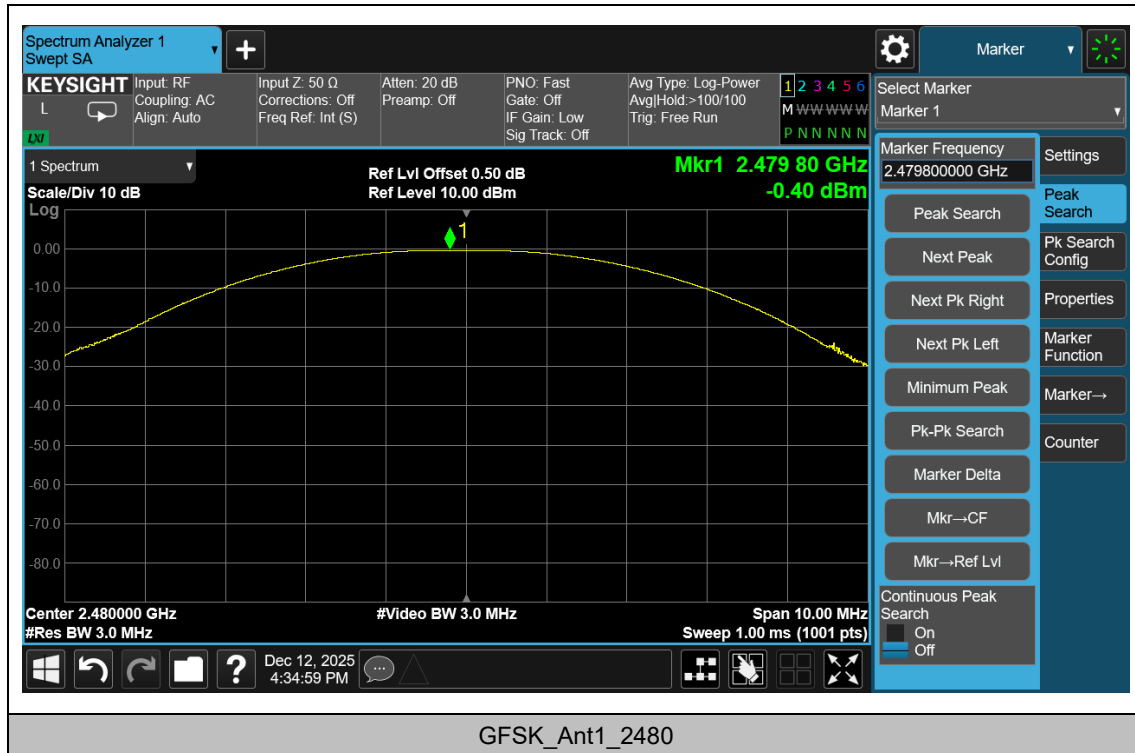
## Appendix C: Maximum conducted output power

### Test Result Peak

| TestMode | Antenna | Frequency[MHz] | Conducted Peak Power[dBm] | Conducted Limit[dBm] | Verdict |
|----------|---------|----------------|---------------------------|----------------------|---------|
| GFSK     | Ant1    | 2403           | -0.21                     | ≤30                  | PASS    |
|          |         | 2442           | -0.38                     | ≤30                  | PASS    |
|          |         | 2480           | -0.40                     | ≤30                  | PASS    |

## Test Graphs Peak



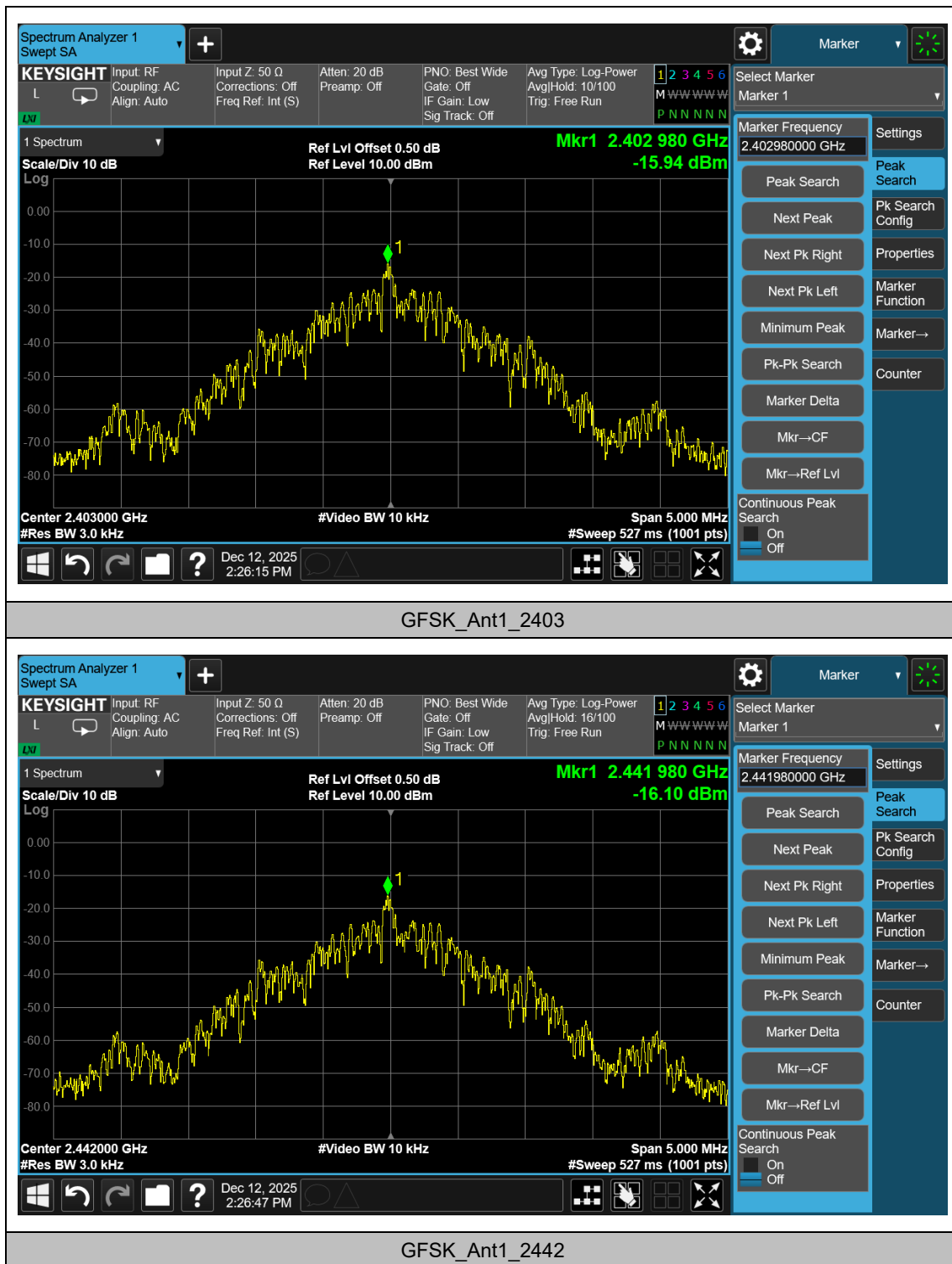


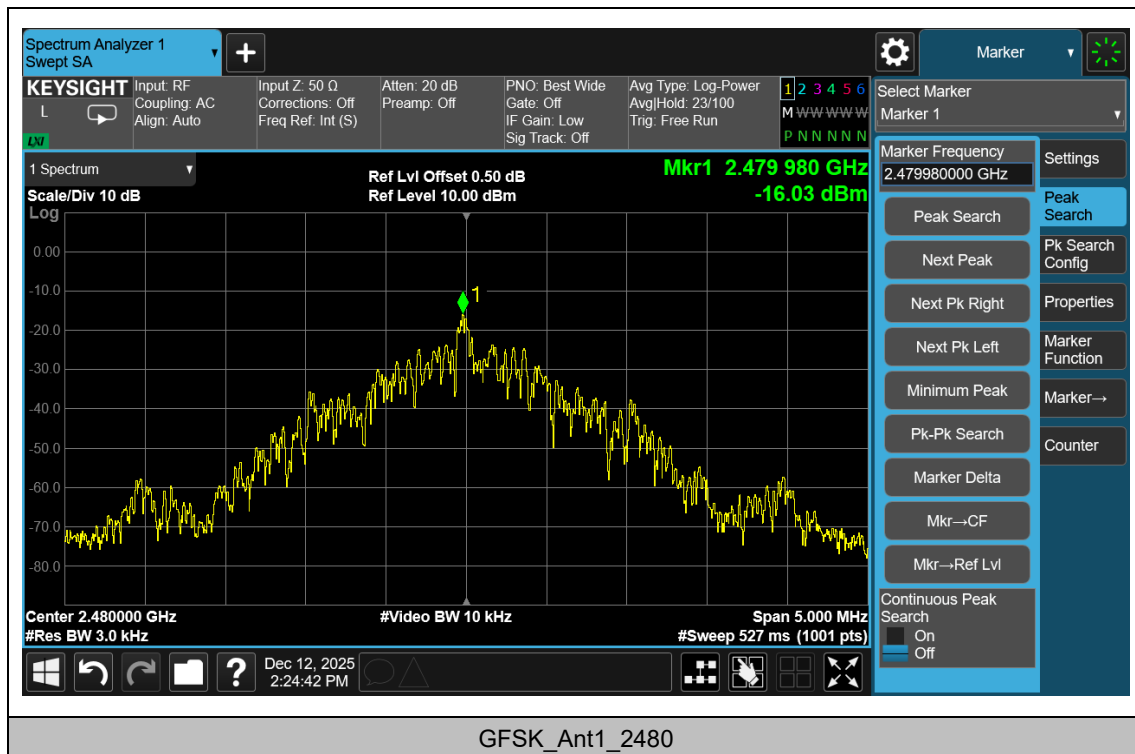
## Appendix D: Maximum power spectral density

### Test Result

| TestMode | Antenna | Frequency[MHz] | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|----------|---------|----------------|------------------|-----------------|---------|
| GFSK     | Ant1    | 2403           | -15.94           | ≤8.00           | PASS    |
|          |         | 2442           | -16.10           | ≤8.00           | PASS    |
|          |         | 2480           | -16.03           | ≤8.00           | PASS    |

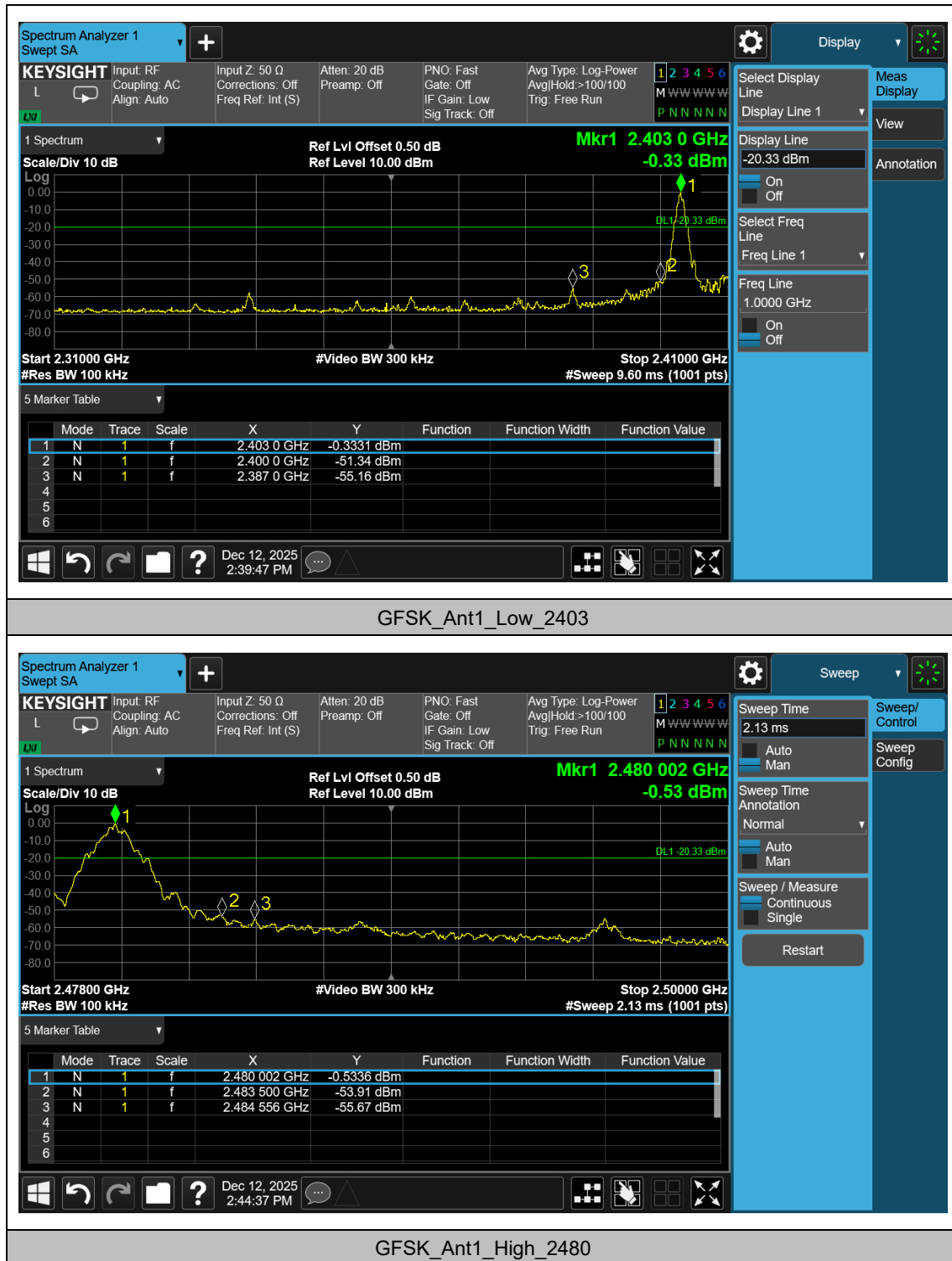
## Test Graphs





## Appendix E: Band edge measurements

### Test Result



## Appendix F: Conducted Spurious Emission

### Test Result





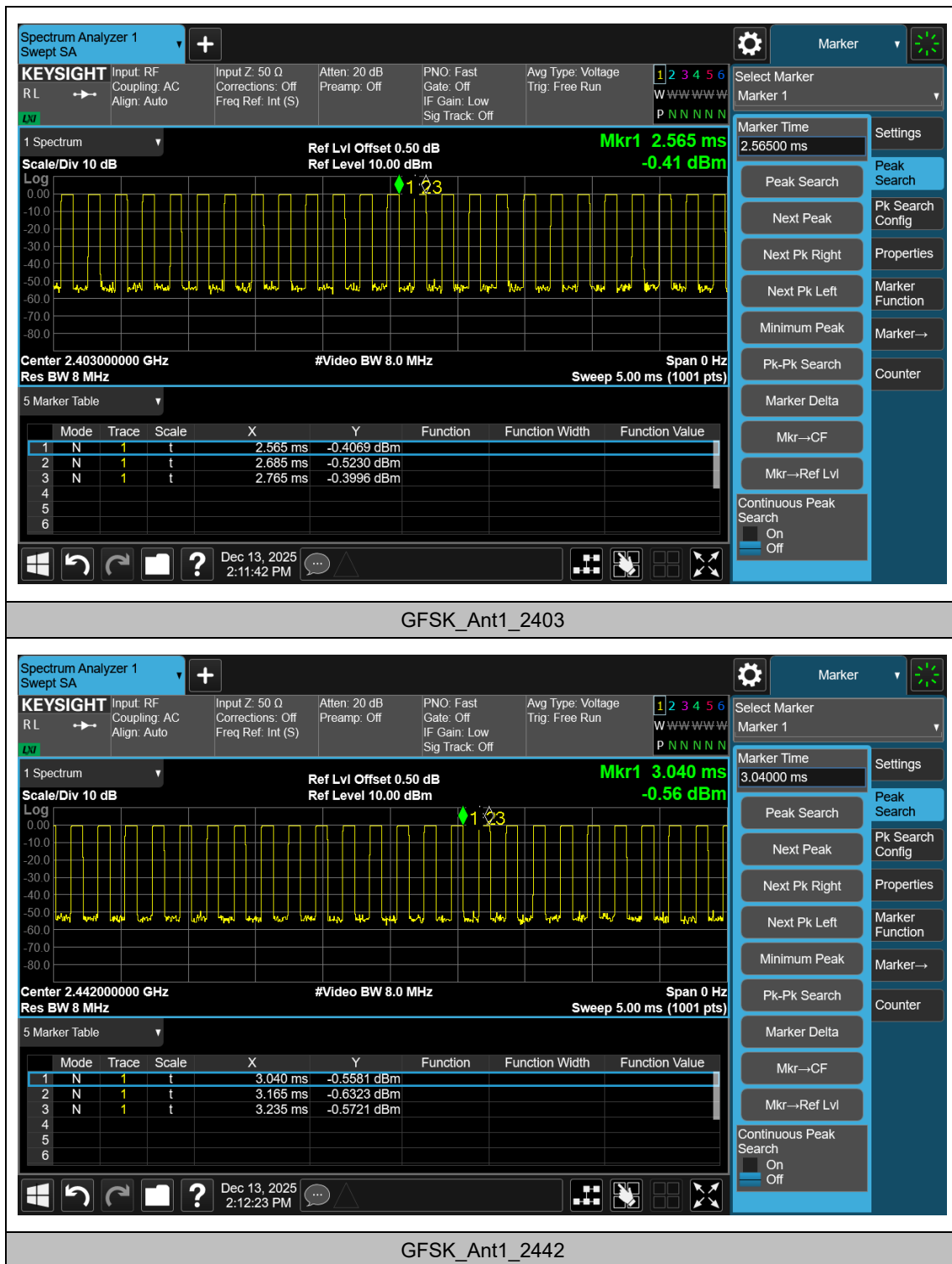


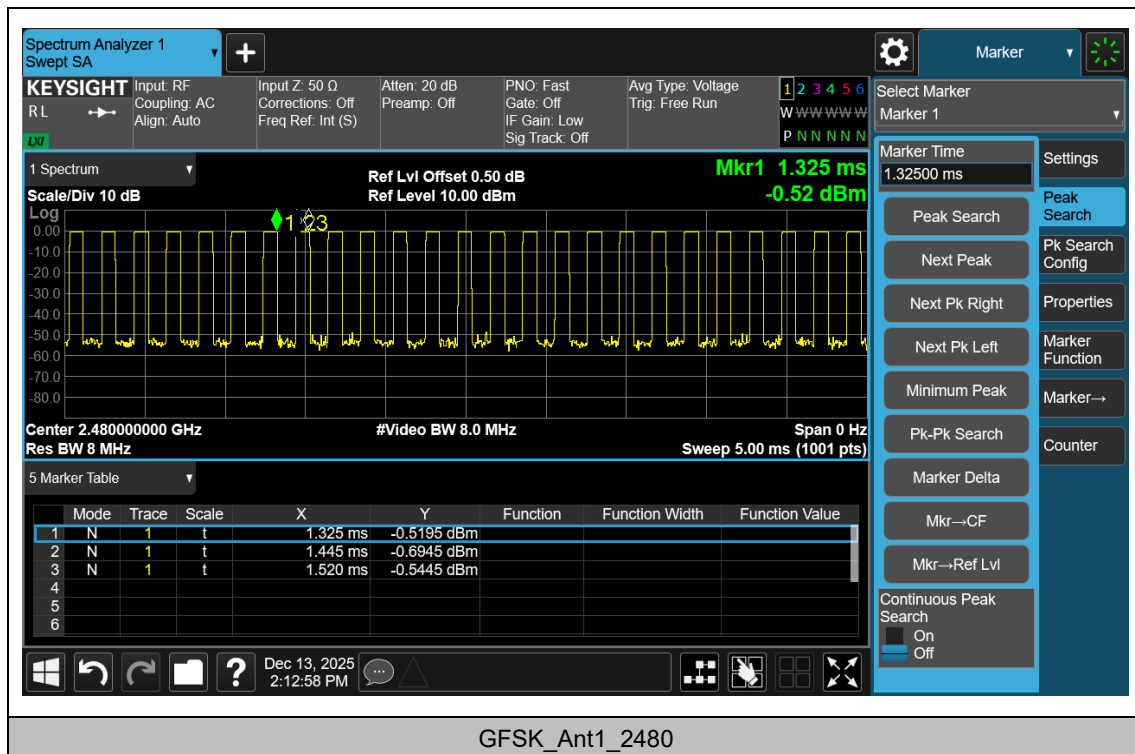
## Appendix G: Duty Cycle

### Test Result

| TestMode | Antenna | Frequency[MHz] | ON Time<br>[ms] | Period<br>[ms] | Duty Cycle<br>[%] |
|----------|---------|----------------|-----------------|----------------|-------------------|
| GFSK     | Ant1    | 2403           | 0.08            | 0.2            | 40                |
|          |         | 2442           | 0.07            | 0.195          | 35.9              |
|          |         | 2480           | 0.075           | 0.195          | 38.46             |

## Test Graphs





## Appendix H: Emissions in Restricted Bands

### Test Result

|       |           |
|-------|-----------|
| Mode: | GFSK-2403 |
|-------|-----------|

| NO. | Frequency [MHz] | Reading [dBμV/m] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Det | Polarity   | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------------|-------------|-------------|-----------|-----|------------|---------|
| 1   | 2310            | 27.22            | 30.34          | 3.12        | 74.00          | 43.66       | 150         | 249       | PK  | Horizontal | PASS    |
| 2   | 2320.48         | 27.29            | 30.63          | 3.34        | 74.00          | 43.37       | 150         | 95        | PK  | Horizontal | PASS    |
| 3   | 2334.48         | 27.35            | 30.62          | 3.27        | 74.00          | 43.38       | 150         | 29        | PK  | Horizontal | PASS    |
| 4   | 2344.8          | 27.37            | 30.86          | 3.49        | 74.00          | 43.14       | 150         | 280       | PK  | Horizontal | PASS    |
| 5   | 2363.04         | 27.39            | 30.99          | 3.60        | 74.00          | 43.01       | 150         | 135       | PK  | Horizontal | PASS    |
| 6   | 2390            | 27.44            | 31.82          | 4.38        | 74.00          | 42.18       | 150         | 241       | PK  | Horizontal | PASS    |

| NO. | Frequency [MHz] | Reading [dBμV/m] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Det | Polarity | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------------|-------------|-------------|-----------|-----|----------|---------|
| 1   | 2310            | 27.21            | 30.33          | 3.12        | 74.00          | 43.67       | 150         | 272       | PK  | Vertical | PASS    |
| 2   | 2320.4          | 27.29            | 30.63          | 3.34        | 74.00          | 43.37       | 150         | 264       | PK  | Vertical | PASS    |
| 3   | 2342.8          | 27.33            | 30.71          | 3.38        | 74.00          | 43.29       | 150         | 324       | PK  | Vertical | PASS    |
| 4   | 2355.44         | 27.33            | 30.85          | 3.52        | 74.00          | 43.15       | 150         | 312       | PK  | Vertical | PASS    |
| 5   | 2365.76         | 27.10            | 30.76          | 3.66        | 74.00          | 43.24       | 150         | 141       | PK  | Vertical | PASS    |
| 6   | 2390            | 27.41            | 31.79          | 4.38        | 74.00          | 42.21       | 150         | 281       | PK  | Vertical | PASS    |

|       |           |
|-------|-----------|
| Mode: | GFSK-2480 |
|-------|-----------|

| NO. | Frequency [MHz] | Reading [dBμV/m] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Det | Polarity   | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------------|-------------|-------------|-----------|-----|------------|---------|
| 1   | 2483.5          | 34.92            | 38.38          | 3.46        | 74.00          | 35.62       | 150         | 289       | PK  | Horizontal | PASS    |
| 2   | 2484.9685       | 34.81            | 38.35          | 3.54        | 74.00          | 35.65       | 150         | 271       | PK  | Horizontal | PASS    |
| 3   | 2487.9055       | 34.85            | 38.32          | 3.47        | 74.00          | 35.68       | 150         | 273       | PK  | Horizontal | PASS    |
| 4   | 2490.562        | 34.74            | 38.30          | 3.56        | 74.00          | 35.70       | 150         | 169       | PK  | Horizontal | PASS    |
| 5   | 2494.3075       | 34.70            | 38.28          | 3.58        | 74.00          | 35.72       | 150         | 280       | PK  | Horizontal | PASS    |
| 6   | 2500            | 34.66            | 38.16          | 3.50        | 74.00          | 35.84       | 150         | 301       | PK  | Horizontal | PASS    |

| NO. | Frequency [MHz] | Reading [dBμV/m] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Det | Polarity | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------------|-------------|-------------|-----------|-----|----------|---------|
| 1   | 2483.5          | 34.77            | 38.23          | 3.46        | 74.00          | 35.77       | 150         | 302       | PK  | Vertical | PASS    |
| 2   | 2485.513        | 34.72            | 38.22          | 3.50        | 74.00          | 35.78       | 150         | 318       | PK  | Vertical | PASS    |
| 3   | 2489.9845       | 34.72            | 38.29          | 3.57        | 74.00          | 35.71       | 150         | 244       | PK  | Vertical | PASS    |
| 4   | 2492.6905       | 34.70            | 38.27          | 3.57        | 74.00          | 35.73       | 150         | 349       | PK  | Vertical | PASS    |
| 5   | 2495.0335       | 34.68            | 38.24          | 3.56        | 74.00          | 35.76       | 150         | 277       | PK  | Vertical | PASS    |
| 6   | 2500            | 34.66            | 38.16          | 3.50        | 74.00          | 35.84       | 150         | 254       | PK  | Vertical | PASS    |

## Appendix I: Spurious emissions

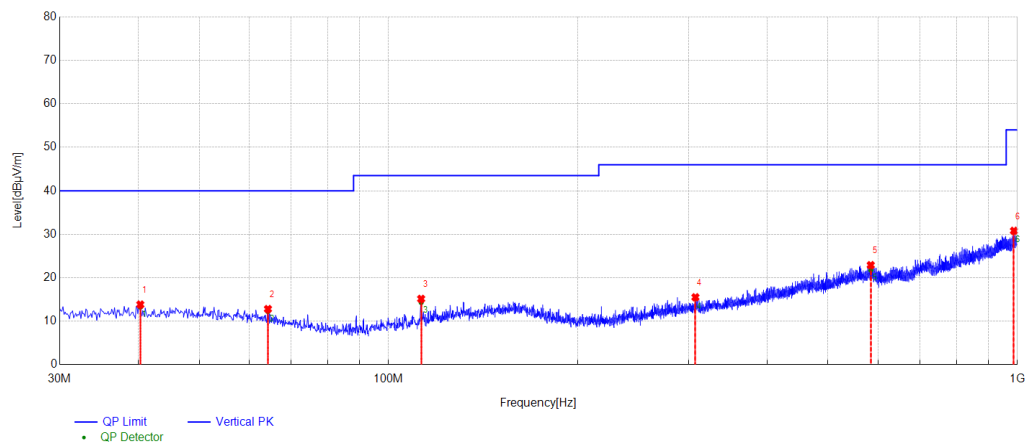
### Test Result

Note:

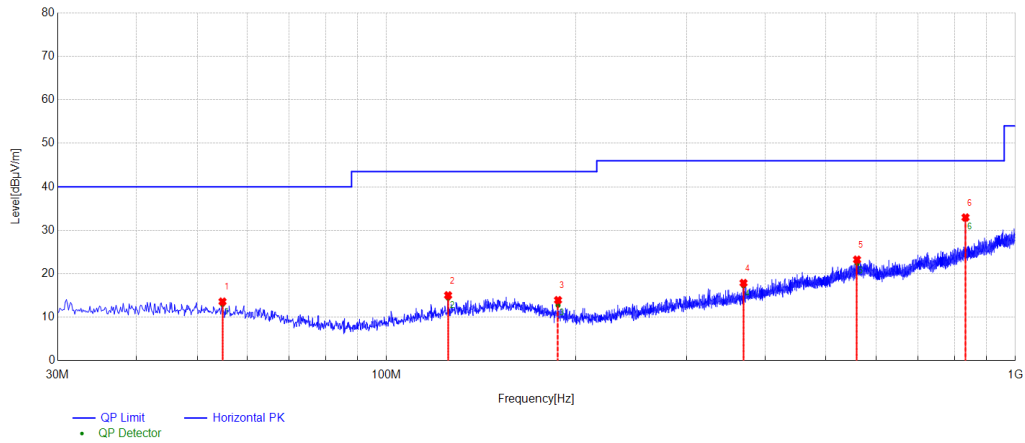
The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is not reported.

During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes with all channels. The test data of the worst-case (2442MHz) condition was recorded in this report.

The measurement results above 18GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz are reported.



| QP Final Data List |             |               |                   |                   |                |             |           |          |         |
|--------------------|-------------|---------------|-------------------|-------------------|----------------|-------------|-----------|----------|---------|
| NO.                | Freq. [MHz] | Factor [dB/m] | QP Value [dBμV/m] | QP Limit [dBμV/m] | QP Margin [dB] | Height [cm] | Angle [°] | Polarity | Verdict |
| 1                  | 40.3062     | -15.87        | 13.24             | 40.00             | 26.76          | 100         | 231       | Vertical | PASS    |
| 2                  | 64.3138     | -17.30        | 12.21             | 40.00             | 27.79          | 200         | 46        | Vertical | PASS    |
| 3                  | 112.6925    | -18.43        | 14.31             | 43.50             | 29.19          | 100         | 332       | Vertical | PASS    |
| 4                  | 307.6625    | -15.42        | 15.21             | 46.00             | 30.79          | 100         | 273       | Vertical | PASS    |
| 5                  | 584.5975    | -9.04         | 21.76             | 46.00             | 24.24          | 200         | 71        | Vertical | PASS    |
| 6                  | 987.5112    | -1.39         | 30.49             | 54.00             | 23.51          | 100         | 350       | Vertical | PASS    |



### QP Final Data List

| NO. | Freq. [MHz] | Factor [dB/m] | QP Value [dBμV/m] | QP Limit [dBμV/m] | QP Margin [dB] | Height [cm] | Angle [°] | Polarity   | Verdict |
|-----|-------------|---------------|-------------------|-------------------|----------------|-------------|-----------|------------|---------|
| 1   | 54.8562     | -16.46        | 12.95             | 40.00             | 27.05          | 200         | 117       | Horizontal | PASS    |
| 2   | 125.3025    | -17.20        | 14.39             | 43.50             | 29.11          | 200         | 299       | Horizontal | PASS    |
| 3   | 187.3825    | -18.28        | 12.75             | 43.50             | 30.75          | 200         | 295       | Horizontal | PASS    |
| 4   | 369.6212    | -14.38        | 17.23             | 46.00             | 28.77          | 100         | 19        | Horizontal | PASS    |
| 5   | 560.1050    | -9.75         | 22.35             | 46.00             | 23.65          | 100         | 86        | Horizontal | PASS    |
| 6   | 833.1600    | -4.44         | 32.59             | 46.00             | 13.41          | 200         | 156       | Horizontal | PASS    |

|       |           |
|-------|-----------|
| Mode: | GFSK-2403 |
|-------|-----------|

| Final Data List |                 |             |                     |                   |                   |                |                   |             |           |            |         |
|-----------------|-----------------|-------------|---------------------|-------------------|-------------------|----------------|-------------------|-------------|-----------|------------|---------|
| NO.             | Frequency [MHz] | Factor [dB] | PK Reading [dBμV/m] | PK Value [dBμV/m] | PK Limit [dBμV/m] | PK Margin [dB] | AV Limit [dBμV/m] | Height [cm] | Angle [°] | Polarity   | Verdict |
| 1               | 3735.75         | -16.57      | 59.11               | 42.54             | 74.00             | 31.46          | 54.00             | 150         | 281       | Horizontal | PASS    |
| 2               | 4917            | -13.12      | 57.21               | 44.09             | 74.00             | 29.91          | 54.00             | 150         | 291       | Horizontal | PASS    |
| 3               | 6345.75         | -10.60      | 55.24               | 44.64             | 74.00             | 29.36          | 54.00             | 150         | 132       | Horizontal | PASS    |
| 4               | 7863            | -10.15      | 56.56               | 46.41             | 74.00             | 27.59          | 54.00             | 150         | 196       | Horizontal | PASS    |
| 5               | 9259.5          | -6.64       | 53.8                | 47.16             | 74.00             | 26.84          | 54.00             | 150         | 284       | Horizontal | PASS    |
| 6               | 11775.75        | -2.72       | 51.76               | 49.04             | 74.00             | 24.96          | 54.00             | 150         | 170       | Horizontal | PASS    |

| Final Data List |                 |             |                     |                   |                   |                |                   |             |           |          |         |
|-----------------|-----------------|-------------|---------------------|-------------------|-------------------|----------------|-------------------|-------------|-----------|----------|---------|
| NO.             | Frequency [MHz] | Factor [dB] | PK Reading [dBμV/m] | PK Value [dBμV/m] | PK Limit [dBμV/m] | PK Margin [dB] | AV Limit [dBμV/m] | Height [cm] | Angle [°] | Polarity | Verdict |
| 1               | 3302.25         | -17.69      | 60.41               | 42.72             | 74.00             | 31.28          | 54.00             | 150         | 241       | Vertical | PASS    |
| 2               | 4287            | -14.78      | 57.59               | 42.81             | 74.00             | 31.19          | 54.00             | 150         | 95        | Vertical | PASS    |
| 3               | 5952            | -11.57      | 56.34               | 44.77             | 74.00             | 29.23          | 54.00             | 150         | 244       | Vertical | PASS    |
| 4               | 7208.25         | -10.31      | 60.24               | 49.93             | 74.00             | 24.07          | 54.00             | 150         | 292       | Vertical | PASS    |
| 5               | 9705.75         | -6.69       | 53.82               | 47.13             | 74.00             | 26.87          | 54.00             | 150         | 278       | Vertical | PASS    |
| 6               | 11769.75        | -2.67       | 51.92               | 49.25             | 74.00             | 24.75          | 54.00             | 150         | 207       | Vertical | PASS    |

Mode:

GFSK-2442

**Final Data List**

| NO. | Frequency [MHz] | Factor [dB] | PK Reading [dBμV/m] | PK Value [dBμV/m] | PK Limit [dBμV/m] | PK Margin [dB] | AV Limit [dBμV/m] | Height [cm] | Angle [°] | Polarity   | Verdict |
|-----|-----------------|-------------|---------------------|-------------------|-------------------|----------------|-------------------|-------------|-----------|------------|---------|
| 1   | 4629            | -14.55      | 58.64               | 44.09             | 74.00             | 29.91          | 54.00             | 150         | 282       | Horizontal | PASS    |
| 2   | 5209.5          | -12.80      | 57.2                | 44.40             | 74.00             | 29.60          | 54.00             | 150         | 11        | Horizontal | PASS    |
| 3   | 6588.75         | -10.90      | 55.29               | 44.39             | 74.00             | 29.61          | 54.00             | 150         | 18        | Horizontal | PASS    |
| 4   | 7325.25         | -10.19      | 59.26               | 49.07             | 74.00             | 24.93          | 54.00             | 150         | 360       | Horizontal | PASS    |
| 5   | 9278.25         | -7.76       | 55.09               | 47.33             | 74.00             | 26.67          | 54.00             | 150         | 106       | Horizontal | PASS    |
| 6   | 11985           | -2.95       | 52.02               | 49.07             | 74.00             | 24.93          | 54.00             | 150         | 360       | Horizontal | PASS    |

**Final Data List**

| NO. | Frequency [MHz] | Factor [dB] | PK Reading [dBμV/m] | PK Value [dBμV/m] | PK Limit [dBμV/m] | PK Margin [dB] | AV Reading [dBμV/m] | AV Value [dBμV/m] | AV Limit [dBμV/m] | AV Margin [dB] | Height [cm] | Angle [°] | Polarity | Verdict |
|-----|-----------------|-------------|---------------------|-------------------|-------------------|----------------|---------------------|-------------------|-------------------|----------------|-------------|-----------|----------|---------|
| 1   | 3355.5          | -17.24      | 59.45               | 42.21             | 74.00             | 31.79          |                     |                   | 54.00             |                | 150         | 98        | Vertical | PASS    |
| 2   | 4264.5          | -15.59      | 58.99               | 43.40             | 74.00             | 30.60          |                     |                   | 54.00             |                | 150         | 325       | Vertical | PASS    |
| 3   | 5083.5          | -12.89      | 57.38               | 44.49             | 74.00             | 29.51          |                     |                   | 54.00             |                | 150         | 203       | Vertical | PASS    |
| 4   | 7326.9504       | -10.21      | 64.21               | 54.00             | 74.00             | 20.00          | 63.45               | 53.24             | 54.00             | 0.76           | 143.6       | 345.5     | Vertical | PASS    |
| 5   | 9894            | -6.47       | 53.23               | 46.76             | 74.00             | 27.24          |                     |                   | 54.00             |                | 150         | 288       | Vertical | PASS    |
| 6   | 11458.5         | -3.35       | 52.23               | 48.88             | 74.00             | 25.12          |                     |                   | 54.00             |                | 150         | 152       | Vertical | PASS    |

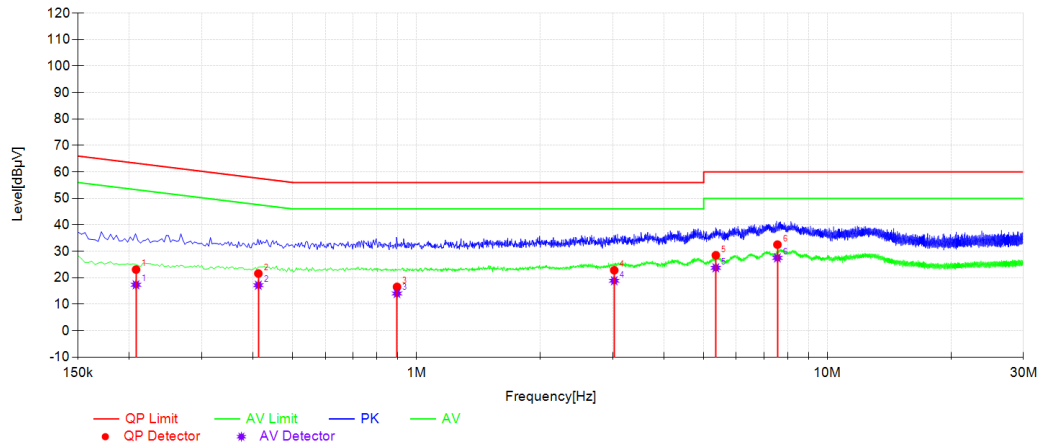
|       |           |
|-------|-----------|
| Mode: | GFSK-2480 |
|-------|-----------|

| Final Data List |                 |             |                     |                   |                   |                |                   |             |           |            |         |
|-----------------|-----------------|-------------|---------------------|-------------------|-------------------|----------------|-------------------|-------------|-----------|------------|---------|
| NO.             | Frequency [MHz] | Factor [dB] | PK Reading [dBμV/m] | PK Value [dBμV/m] | PK Limit [dBμV/m] | PK Margin [dB] | AV Limit [dBμV/m] | Height [cm] | Angle [°] | Polarity   | Verdict |
| 1               | 3455.25         | -17.45      | 59.33               | 41.88             | 74.00             | 32.12          | 54.00             | 150         | 176       | Horizontal | PASS    |
| 2               | 4450.5          | -15.06      | 57.77               | 42.71             | 74.00             | 31.29          | 54.00             | 150         | 159       | Horizontal | PASS    |
| 3               | 5425.5          | -12.77      | 56.88               | 44.11             | 74.00             | 29.89          | 54.00             | 150         | 159       | Horizontal | PASS    |
| 4               | 7439.25         | -10.07      | 59.21               | 49.14             | 74.00             | 24.86          | 54.00             | 150         | 14        | Horizontal | PASS    |
| 5               | 9403.5          | -7.53       | 54.14               | 46.61             | 74.00             | 27.39          | 54.00             | 150         | 298       | Horizontal | PASS    |
| 6               | 11927.25        | -2.58       | 51.79               | 49.21             | 74.00             | 24.79          | 54.00             | 150         | 210       | Horizontal | PASS    |

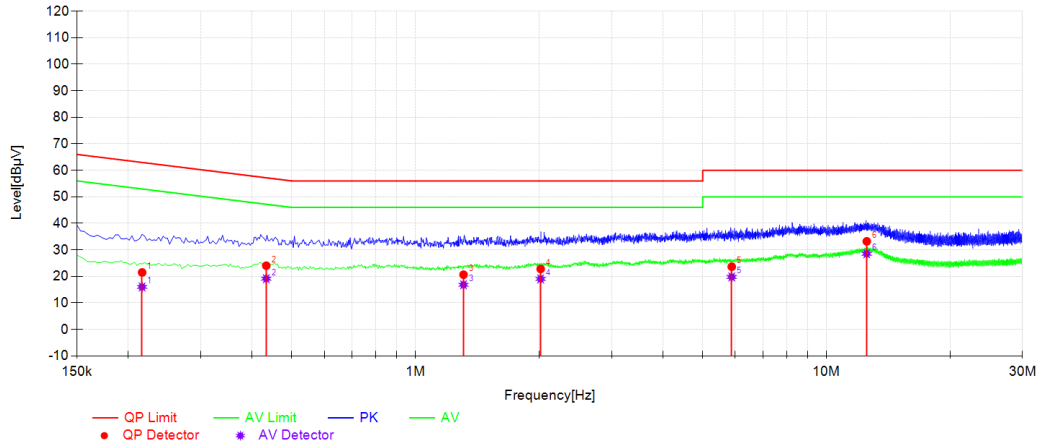
| Final Data List |                 |             |                     |                   |                   |                |                     |                   |                   |                |             |           |          |         |
|-----------------|-----------------|-------------|---------------------|-------------------|-------------------|----------------|---------------------|-------------------|-------------------|----------------|-------------|-----------|----------|---------|
| NO.             | Frequency [MHz] | Factor [dB] | PK Reading [dBμV/m] | PK Value [dBμV/m] | PK Limit [dBμV/m] | PK Margin [dB] | AV Reading [dBμV/m] | AV Value [dBμV/m] | AV Limit [dBμV/m] | AV Margin [dB] | Height [cm] | Angle [°] | Polarity | Verdict |
| 1               | 3290.25         | -17.39      | 59.39               | 42.00             | 74.00             | 32.00          |                     |                   | 54.00             |                | 150         | 214       | Vertical | PASS    |
| 2               | 4397.25         | -14.95      | 58.62               | 43.67             | 74.00             | 30.33          |                     |                   | 54.00             |                | 150         | 156       | Vertical | PASS    |
| 3               | 5609.25         | -12.83      | 57.13               | 44.30             | 74.00             | 29.70          |                     |                   | 54.00             |                | 150         | 348       | Vertical | PASS    |
| 4               | 7441.0402       | -10.04      | 63.65               | 53.61             | 74.00             | 20.39          | 62.61               | 52.57             | 54.00             | 1.43           | 100         | 348.4     | Vertical | PASS    |
| 5               | 9639.75         | -6.78       | 53.94               | 47.16             | 74.00             | 26.84          |                     |                   | 54.00             |                | 150         | 360       | Vertical | PASS    |
| 6               | 12277.5         | -2.47       | 51.48               | 49.01             | 74.00             | 24.99          |                     |                   | 54.00             |                | 150         | 240       | Vertical | PASS    |

## Appendix J: Conducted emission

### Test Result



| Final Data List |             |             |                 |                 |                |                 |                 |                |      |         |
|-----------------|-------------|-------------|-----------------|-----------------|----------------|-----------------|-----------------|----------------|------|---------|
| NO.             | Freq. [MHz] | Factor [dB] | QP Value [dBμV] | QP Limit [dBμV] | QP Margin [dB] | AV Value [dBμV] | AV Limit [dBμV] | AV Margin [dB] | Type | Verdict |
| 1               | 0.2076      | 10.35       | 23.10           | 63.30           | 40.20          | 17.36           | 53.30           | 35.94          | L1   | PASS    |
| 2               | 0.4121      | 10.28       | 21.60           | 57.61           | 36.01          | 17.19           | 47.61           | 30.42          | L1   | PASS    |
| 3               | 0.8964      | 10.33       | 16.56           | 56.00           | 39.44          | 14.07           | 46.00           | 31.93          | L1   | PASS    |
| 4               | 3.0279      | 10.29       | 22.83           | 56.00           | 33.17          | 18.89           | 46.00           | 27.11          | L1   | PASS    |
| 5               | 5.3514      | 10.36       | 28.51           | 60.00           | 31.49          | 23.76           | 50.00           | 26.24          | L1   | PASS    |
| 6               | 7.5573      | 10.42       | 32.54           | 60.00           | 27.46          | 27.52           | 50.00           | 22.48          | L1   | PASS    |



| Final Data List |             |             |                 |                 |                |                 |                 |                |      |         |
|-----------------|-------------|-------------|-----------------|-----------------|----------------|-----------------|-----------------|----------------|------|---------|
| NO.             | Freq. [MHz] | Factor [dB] | QP Value [dBμV] | QP Limit [dBμV] | QP Margin [dB] | AV Value [dBμV] | AV Limit [dBμV] | AV Margin [dB] | Type | Verdict |
| 1               | 0.2160      | 10.34       | 21.50           | 62.97           | 41.47          | 16.03           | 52.97           | 36.94          | N    | PASS    |
| 2               | 0.4332      | 10.27       | 24.04           | 57.19           | 33.15          | 19.15           | 47.19           | 28.04          | N    | PASS    |
| 3               | 1.3086      | 10.30       | 20.66           | 56.00           | 35.34          | 16.85           | 46.00           | 29.15          | N    | PASS    |
| 4               | 2.0159      | 10.38       | 22.82           | 56.00           | 33.18          | 19.05           | 46.00           | 26.95          | N    | PASS    |
| 5               | 5.8827      | 10.41       | 23.67           | 60.00           | 36.33          | 19.80           | 50.00           | 30.20          | N    | PASS    |
| 6               | 12.5367     | 10.55       | 33.23           | 60.00           | 26.77          | 28.54           | 50.00           | 21.46          | N    | PASS    |