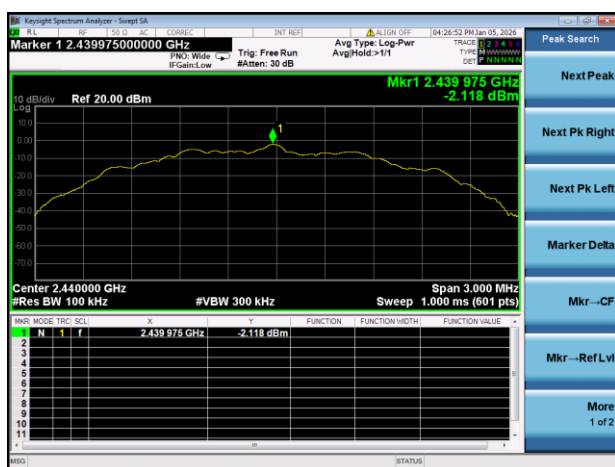
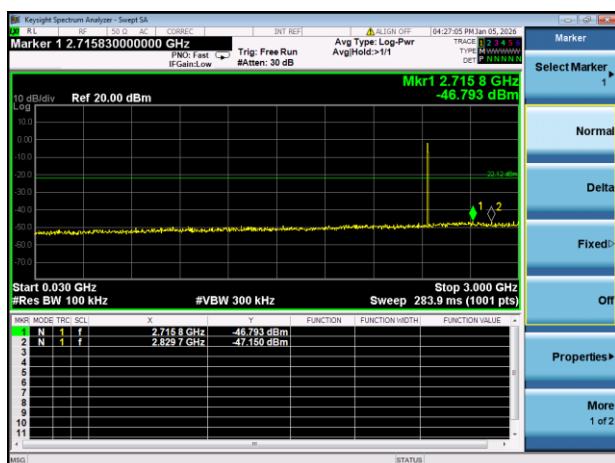


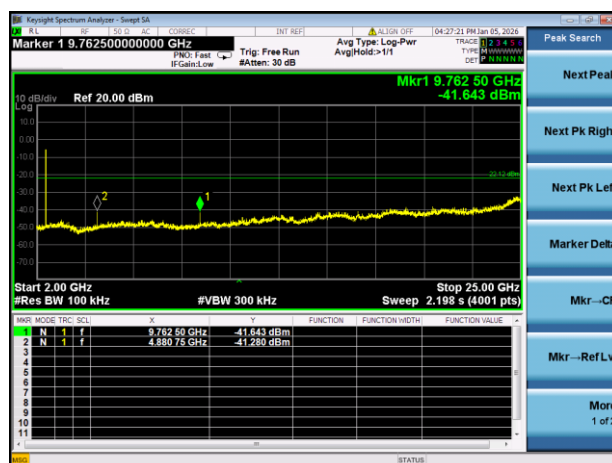
## GFSK (BLE 2Mbps) MIDDLE CHANNEL, CARRIER LEVEL



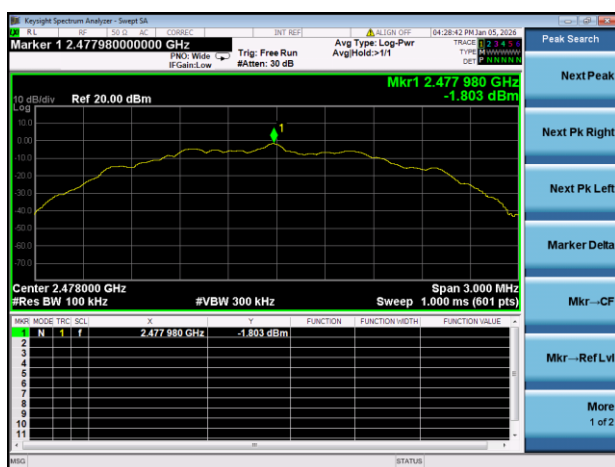
## GFSK (BLE 2Mbps) MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



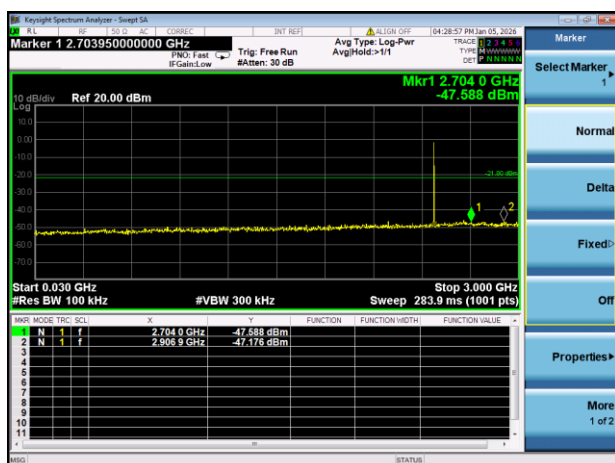
## GFSK (BLE 2Mbps) MIDDLE CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



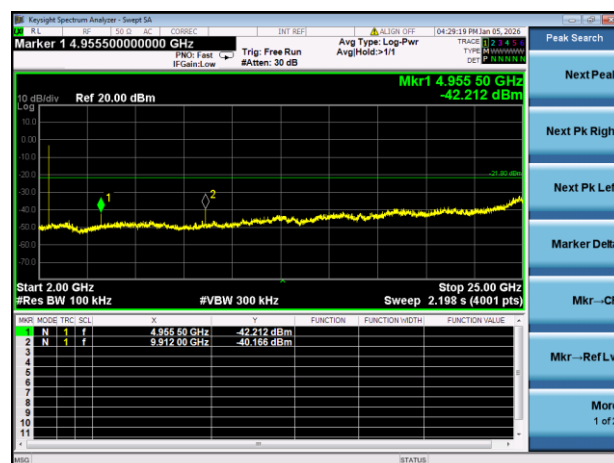
## GFSK (BLE 2Mbps) HIGH CHANNEL, CARRIER LEVEL



## GFSK (BLE 2Mbps) HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz

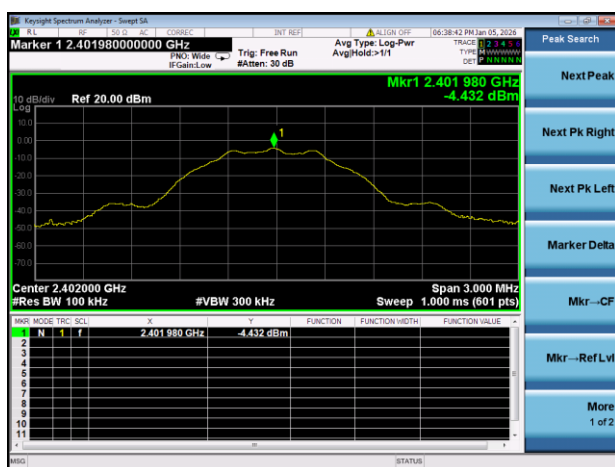


## GFSK (BLE 2Mbps) HIGH CHANNEL, SPURIOUS 2 GHz ~ 25 GHz

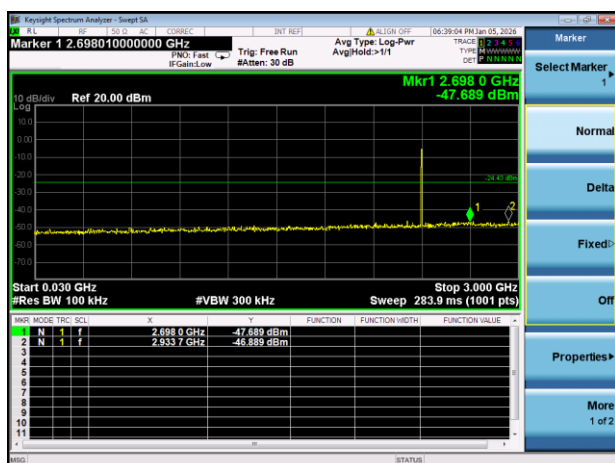


## Right Ear

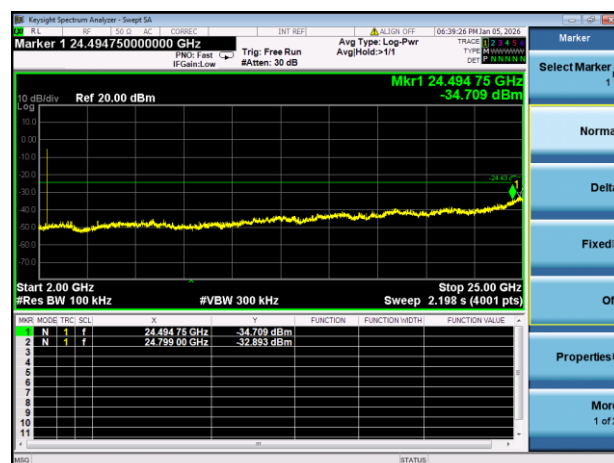
GFSK (BLE 1Mbps) LOW CHANNEL,  
CARRIER LEVEL



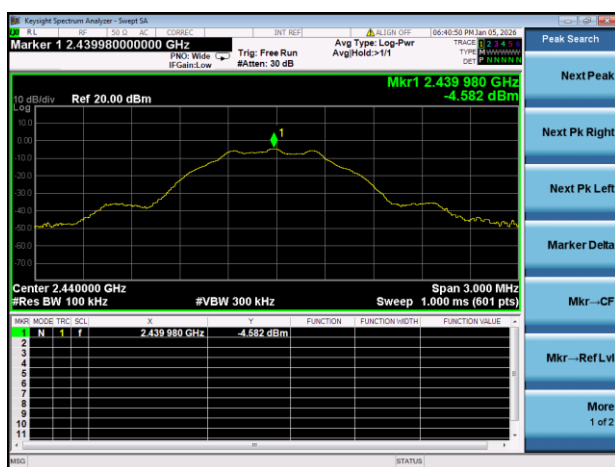
GFSK (BLE 1Mbps) LOW CHANNEL,  
SPURIOUS 30 MHz ~ 3 GHz



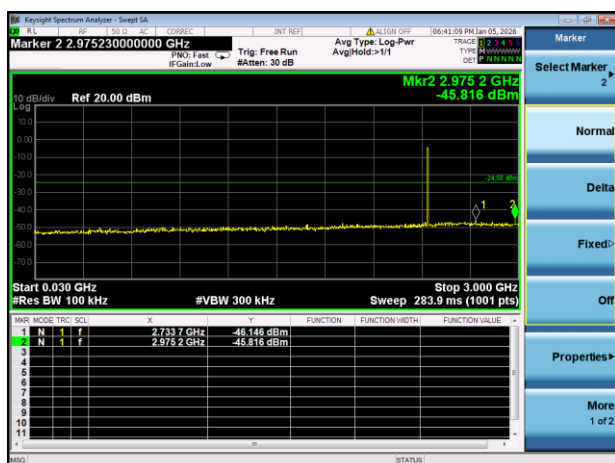
GFSK (BLE 1Mbps) LOW CHANNEL,  
SPURIOUS 2 GHz ~ 25 GHz



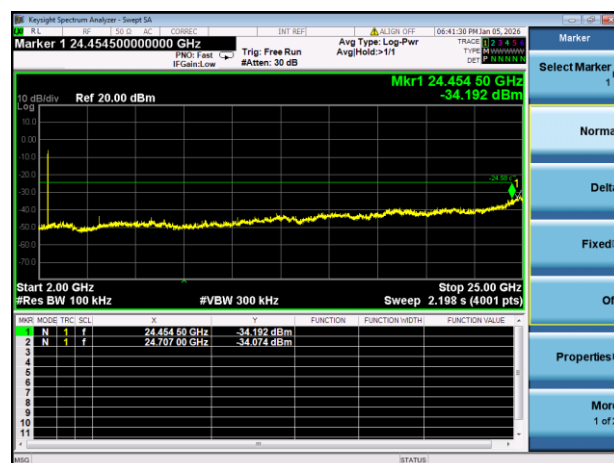
## GFSK (BLE 1Mbps) MIDDLE CHANNEL, CARRIER LEVEL



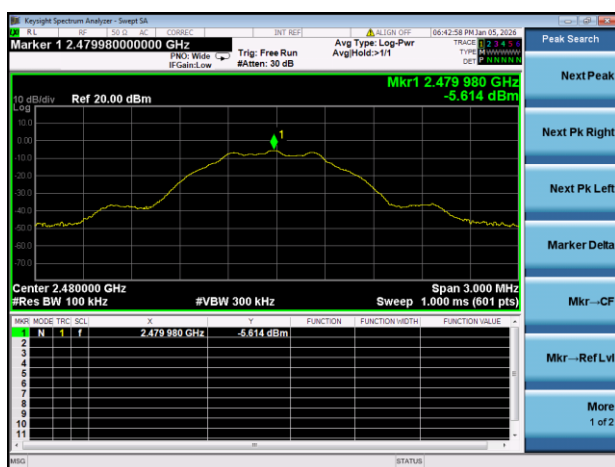
## GFSK (BLE 1Mbps) MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



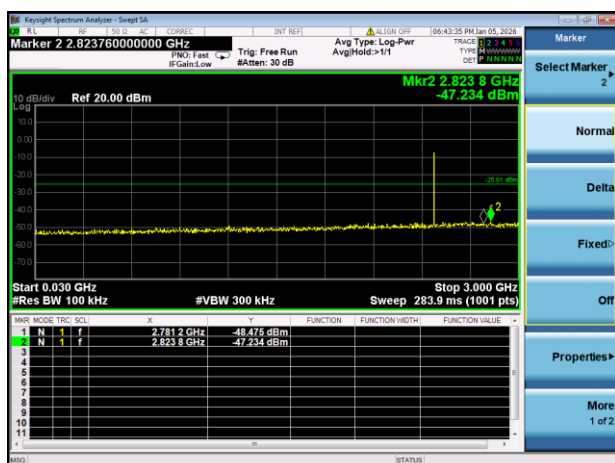
## GFSK (BLE 1Mbps) MIDDLE CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



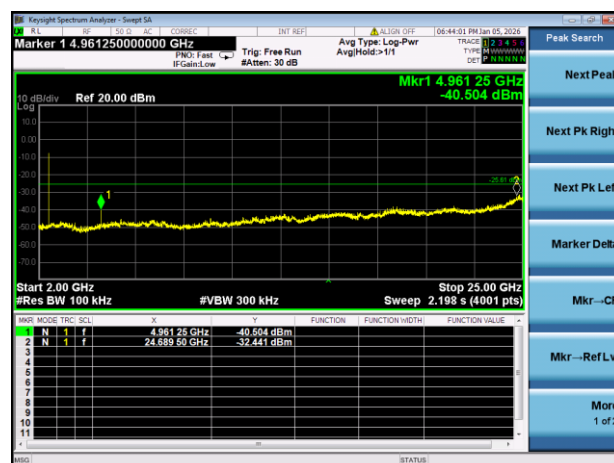
## GFSK (BLE 1Mbps) HIGH CHANNEL, CARRIER LEVEL



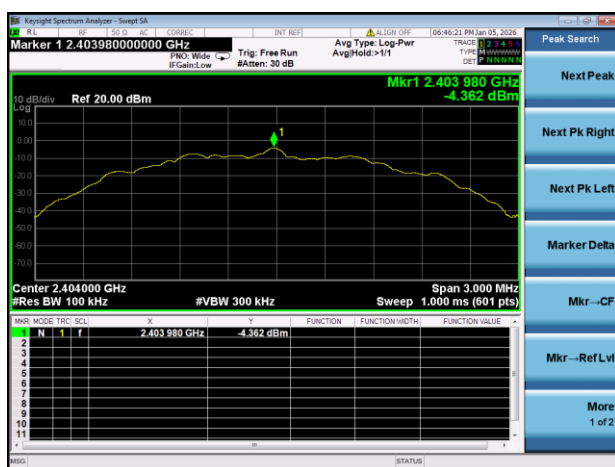
## GFSK (BLE 1Mbps) HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



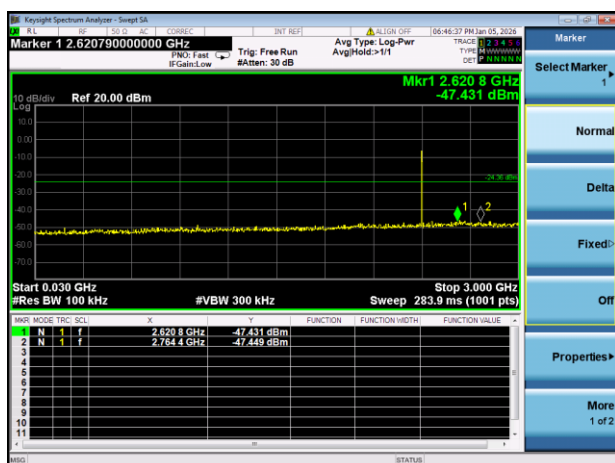
## GFSK (BLE 1Mbps) HIGH CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



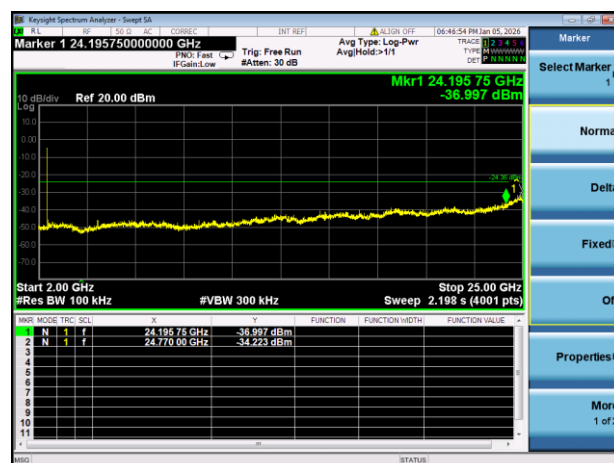
## GFSK (BLE 2Mbps) LOW CHANNEL, CARRIER LEVEL



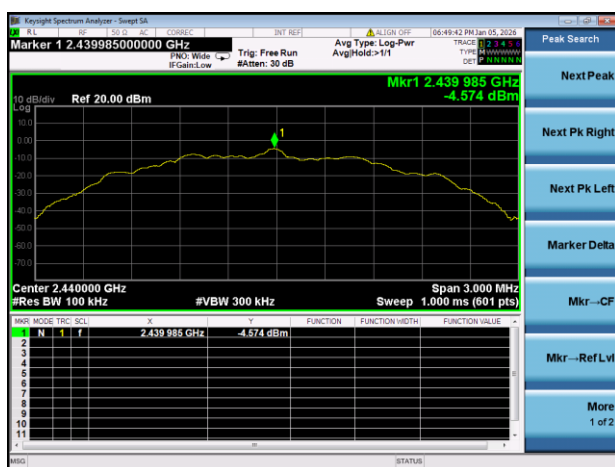
## GFSK (BLE 2Mbps) LOW CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



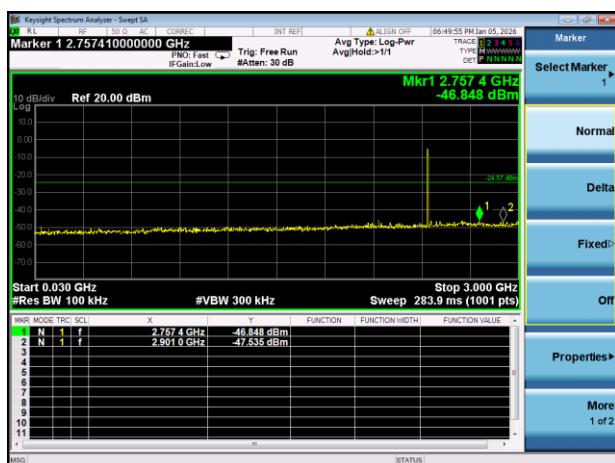
## GFSK (BLE 2Mbps) LOW CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



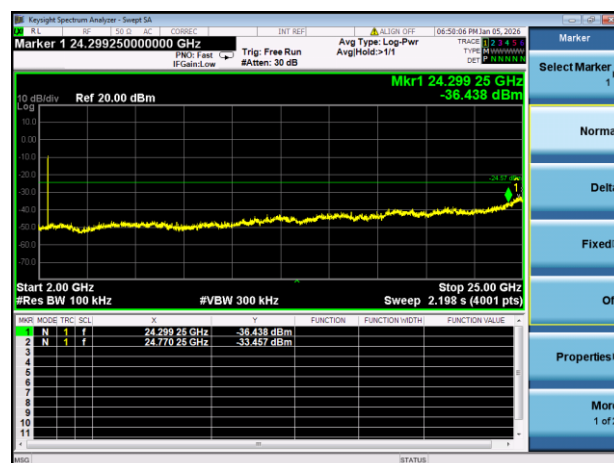
## GFSK (BLE 2Mbps) MIDDLE CHANNEL, CARRIER LEVEL



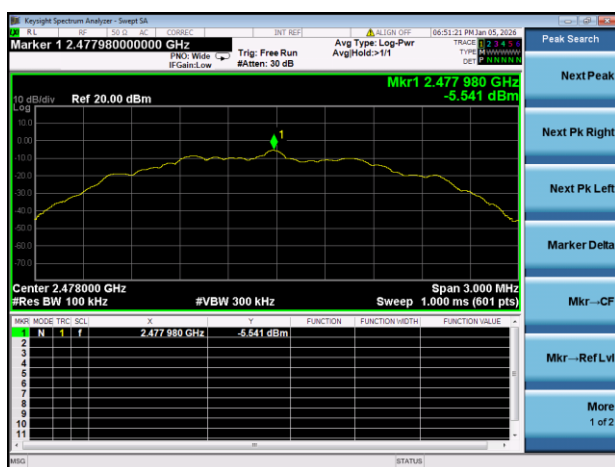
## GFSK (BLE 2Mbps) MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



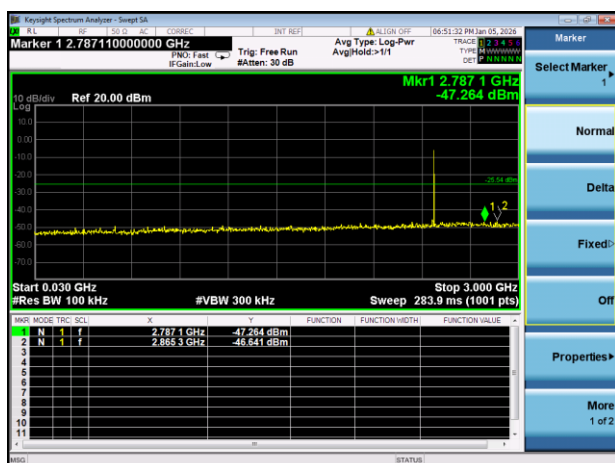
## GFSK (BLE 2Mbps) MIDDLE CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



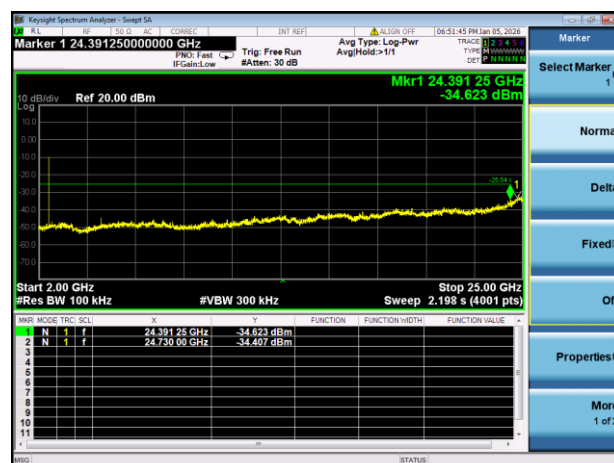
## GFSK (BLE 2Mbps) HIGH CHANNEL, CARRIER LEVEL



## GFSK (BLE 2Mbps) HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



## GFSK (BLE 2Mbps) HIGH CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



## A.4 Band Edge (Authorized-band band-edge)

Note: The lowest and highest channels are tested to verify the band edge emissions. Please refer to the following the plots for emissions values.

### Test Data

#### Left Ear

| GFSK (BLE 1Mbps) |                                              |               |                            |         |
|------------------|----------------------------------------------|---------------|----------------------------|---------|
| Channel          | Measured Max.<br>Band Edge<br>Emission (dBm) | Limit (dBm)   |                            | Verdict |
|                  |                                              | Carrier Level | Calculated<br>20 dBc Limit |         |
| Low Channel      | -48.79                                       | -2.68         | -22.68                     | Pass    |
| High Channel     | -47.16                                       | -1.88         | -21.88                     | Pass    |

| GFSK (BLE 2Mbps) |                                              |               |                            |         |
|------------------|----------------------------------------------|---------------|----------------------------|---------|
| Channel          | Measured Max.<br>Band Edge<br>Emission (dBm) | Limit (dBm)   |                            | Verdict |
|                  |                                              | Carrier Level | Calculated<br>20 dBc Limit |         |
| Low Channel      | -48.12                                       | -2.56         | -22.56                     | Pass    |
| High Channel     | -48.25                                       | -1.80         | -21.80                     | Pass    |

#### Right Ear

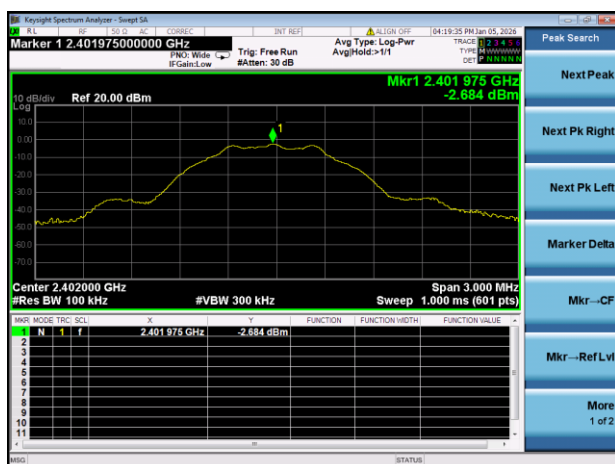
| GFSK (BLE 1Mbps) |                                              |               |                            |         |
|------------------|----------------------------------------------|---------------|----------------------------|---------|
| Channel          | Measured Max.<br>Band Edge<br>Emission (dBm) | Limit (dBm)   |                            | Verdict |
|                  |                                              | Carrier Level | Calculated<br>20 dBc Limit |         |
| Low Channel      | -47.87                                       | -4.43         | -24.43                     | Pass    |
| High Channel     | -46.74                                       | 5.61          | -14.39                     | Pass    |

| GFSK (BLE 2Mbps) |                                              |               |                            |         |
|------------------|----------------------------------------------|---------------|----------------------------|---------|
| Channel          | Measured Max.<br>Band Edge<br>Emission (dBm) | Limit (dBm)   |                            | Verdict |
|                  |                                              | Carrier Level | Calculated<br>20 dBc Limit |         |
| Low Channel      | -48.25                                       | -4.36         | -24.36                     | Pass    |
| High Channel     | -49.39                                       | -5.54         | -25.54                     | Pass    |

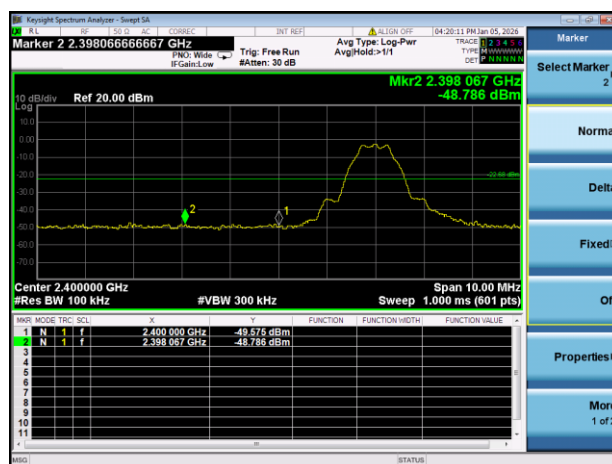
## Test Plots

### Left Ear

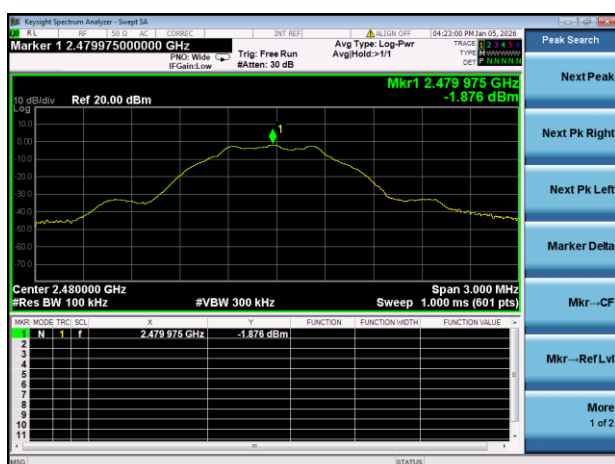
#### GFSK (BLE 1Mbps) LOW CHANNEL, CARRIER LEVEL



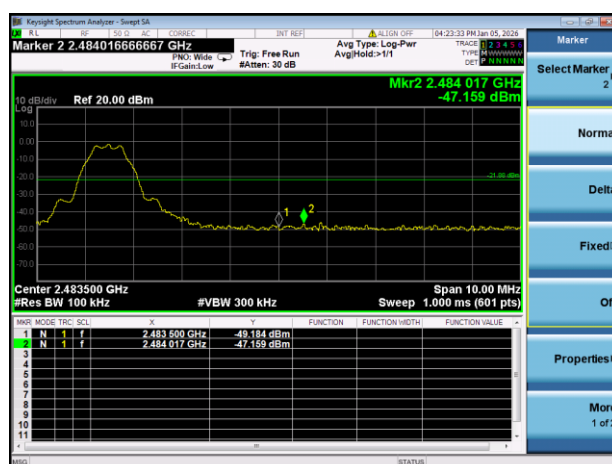
#### GFSK (BLE 1Mbps) LOW CHANNEL, BAND EDGE



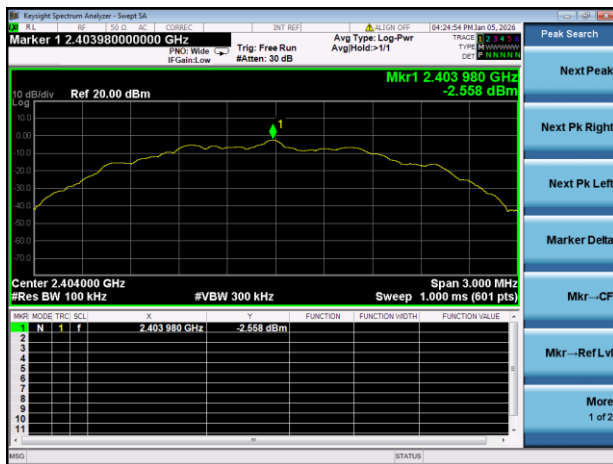
#### GFSK (BLE 1Mbps) HIGH CHANNEL, CARRIER LEVEL



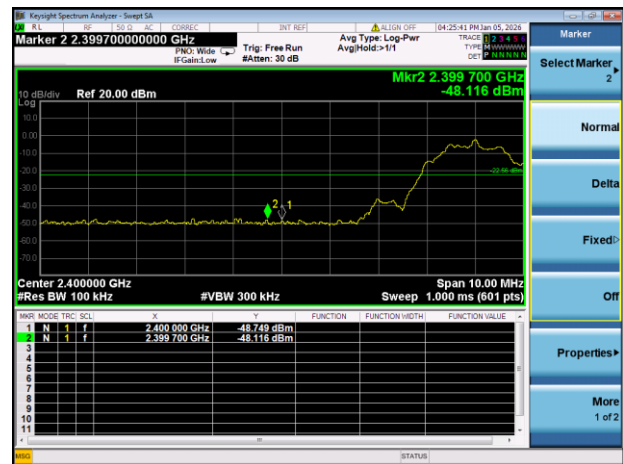
#### GFSK (BLE 1Mbps) HIGH CHANNEL, BAND EDGE



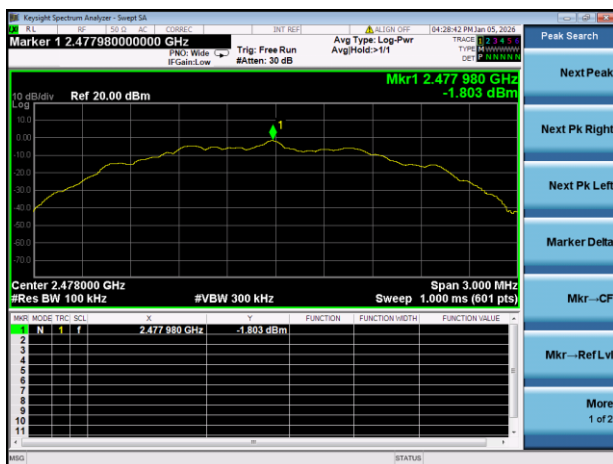
### GFSK (BLE 2Mbps) LOW CHANNEL, CARRIER LEVEL



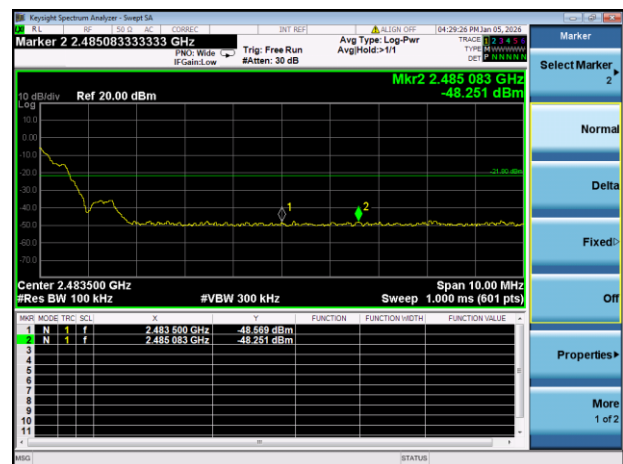
### GFSK (BLE 2Mbps) LOW CHANNEL, BAND EDGE



### GFSK (BLE 2Mbps) HIGH CHANNEL, CARRIER LEVEL

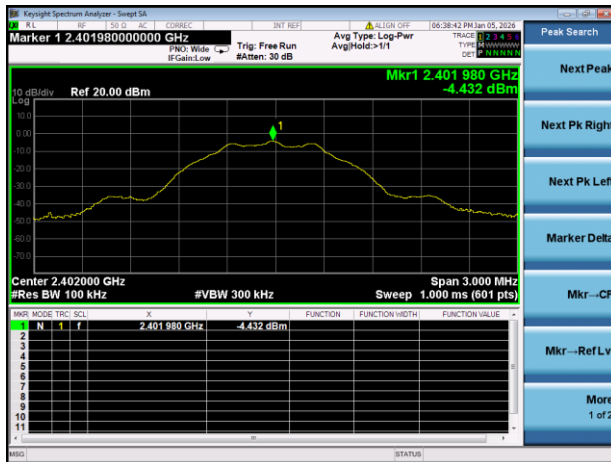


### GFSK (BLE 2Mbps) HIGH CHANNEL, BAND EDGE

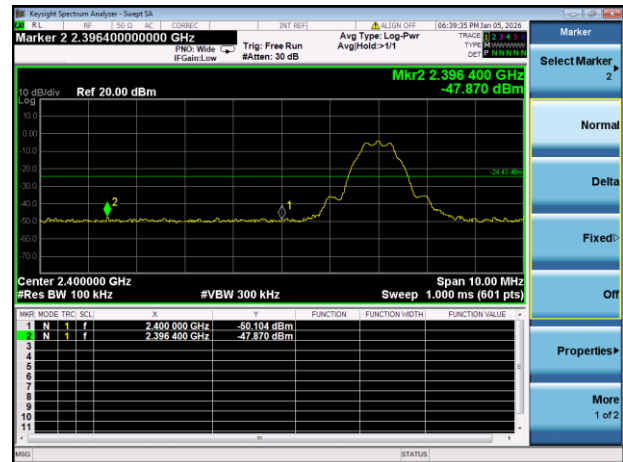


## Right Ear

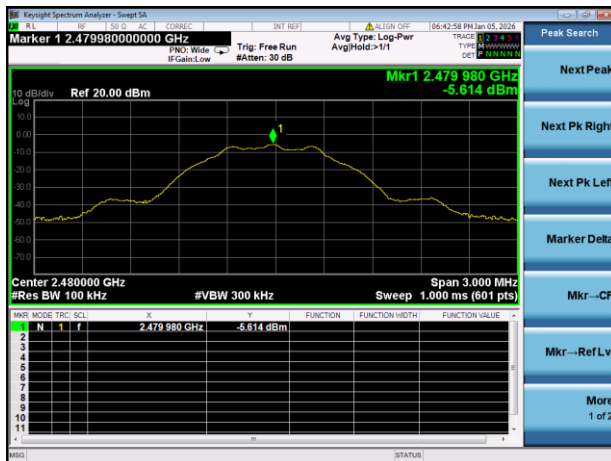
GFSK (BLE 1Mbps) LOW CHANNEL, CARRIER  
LEVEL



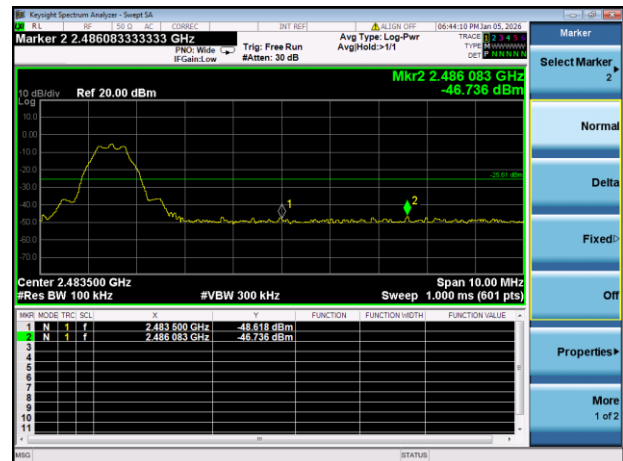
GFSK (BLE 1Mbps) LOW CHANNEL, BAND EDGE



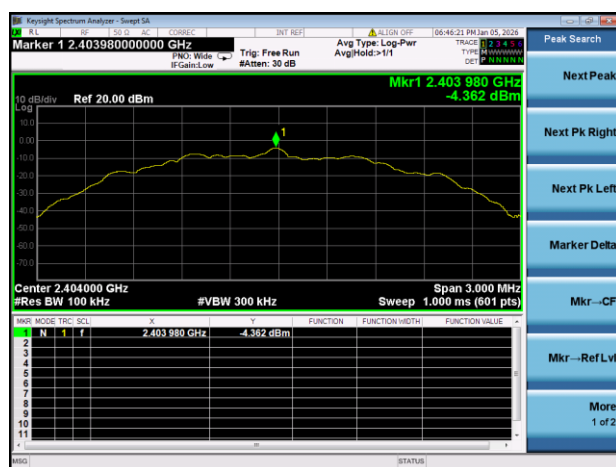
GFSK (BLE 1Mbps) HIGH CHANNEL, CARRIER  
LEVEL



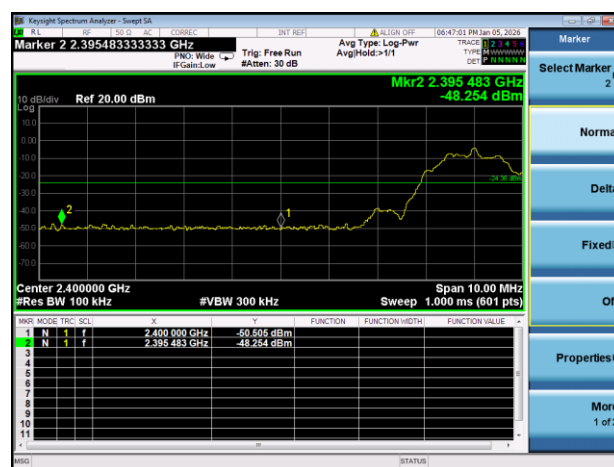
GFSK (BLE 1Mbps) HIGH CHANNEL, BAND  
EDGE



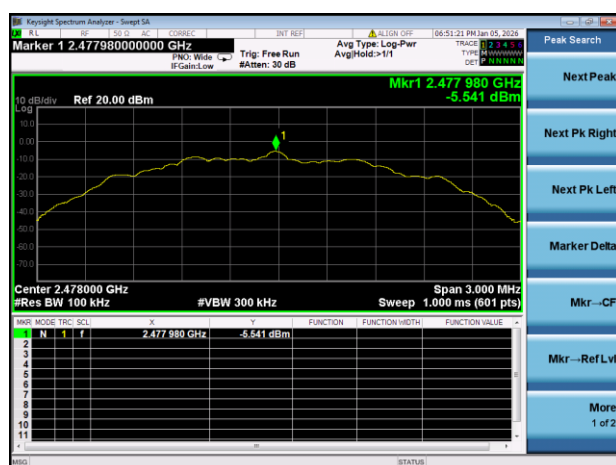
### GFSK (BLE 2Mbps) LOW CHANNEL, CARRIER LEVEL



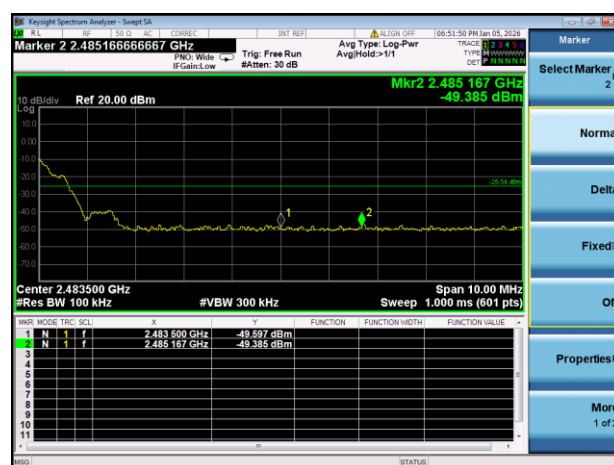
### GFSK (BLE 2Mbps) LOW CHANNEL, BAND EDGE



### GFSK (BLE 2Mbps) HIGH CHANNEL, CARRIER LEVEL



### GFSK (BLE 2Mbps) HIGH CHANNEL, BAND EDGE



## A.5 Conducted Emissions

Note<sup>1</sup>: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

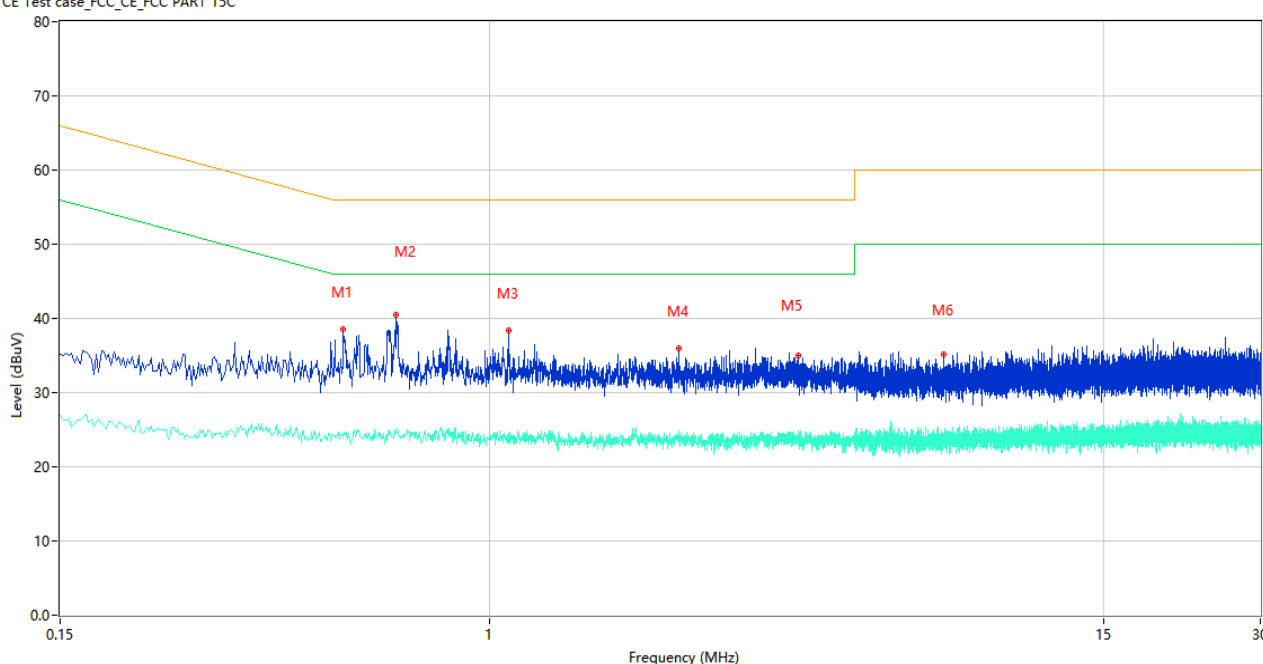
Note<sup>2</sup>: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

Note<sup>3</sup>: Results (dBuV) = Original reading level of Spectrum Analyzer (dBuV) + Factor (dB)

### Test Data and Plots

#### PHASE L

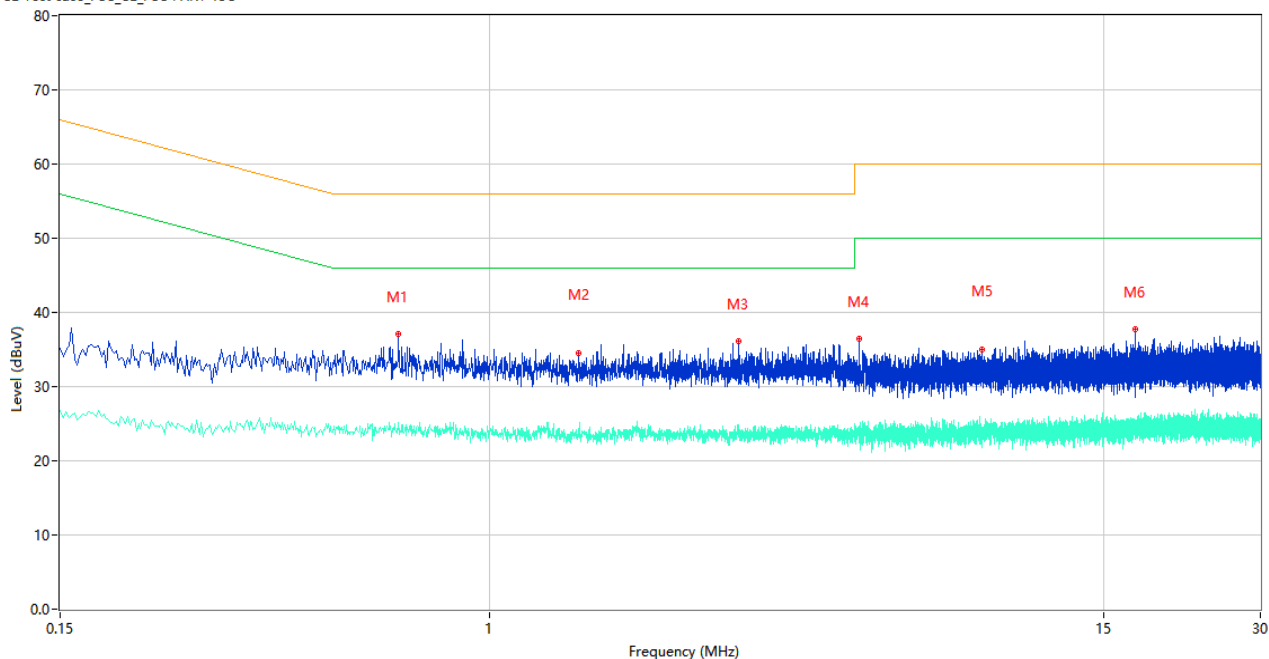
CE Test case\_FCC\_CE\_FCC PART 15C



| No. | Frequency (MHz) | Results (dBuV) | Factor (dB) | Limit (dBuV) | Margin (dB) | Detector | Line | Verdict |
|-----|-----------------|----------------|-------------|--------------|-------------|----------|------|---------|
| 1   | 0.524           | 38.55          | 10.06       | 56.00        | 17.45       | Peak     | L    | Pass    |
| 1** | 0.524           | 23.88          | 10.06       | 46.00        | 22.12       | AV       | L    | Pass    |
| 2   | 0.660           | 40.49          | 10.36       | 56.00        | 15.51       | Peak     | L    | Pass    |
| 2** | 0.660           | 24.61          | 10.36       | 46.00        | 21.39       | AV       | L    | Pass    |
| 3   | 1.088           | 38.43          | 10.09       | 56.00        | 17.57       | Peak     | L    | Pass    |
| 3** | 1.088           | 24.59          | 10.09       | 46.00        | 21.41       | AV       | L    | Pass    |
| 4   | 2.298           | 36.05          | 10.39       | 56.00        | 19.95       | Peak     | L    | Pass    |
| 4** | 2.298           | 24.78          | 10.39       | 46.00        | 21.22       | AV       | L    | Pass    |
| 5   | 3.898           | 35.00          | 10.36       | 56.00        | 21.00       | Peak     | L    | Pass    |
| 5** | 3.898           | 23.67          | 10.36       | 46.00        | 22.33       | AV       | L    | Pass    |
| 6   | 7.428           | 35.22          | 10.46       | 60.00        | 24.78       | Peak     | L    | Pass    |
| 6** | 7.428           | 24.28          | 10.46       | 50.00        | 25.72       | AV       | L    | Pass    |

## PHASE N

CE Test case\_FCC\_CE\_FCC PART 15C



| No. | Frequency (MHz) | Results (dBuV) | Factor (dB) | Limit (dBuV) | Margin (dB) | Detector | Line | Verdict |
|-----|-----------------|----------------|-------------|--------------|-------------|----------|------|---------|
| 1   | 0.668           | 37.08          | 10.43       | 56.00        | 18.92       | Peak     | N    | Pass    |
| 1** | 0.668           | 24.89          | 10.43       | 46.00        | 21.11       | AV       | N    | Pass    |
| 2   | 1.482           | 34.47          | 10.26       | 56.00        | 21.53       | Peak     | N    | Pass    |
| 2** | 1.482           | 24.29          | 10.26       | 46.00        | 21.71       | AV       | N    | Pass    |
| 3   | 3.002           | 36.18          | 10.32       | 56.00        | 19.82       | Peak     | N    | Pass    |
| 3** | 3.002           | 23.55          | 10.32       | 46.00        | 22.45       | AV       | N    | Pass    |
| 4   | 5.098           | 36.46          | 10.33       | 60.00        | 23.54       | Peak     | N    | Pass    |
| 4** | 5.098           | 24.42          | 10.33       | 50.00        | 25.58       | AV       | N    | Pass    |
| 5   | 8.768           | 34.97          | 10.30       | 60.00        | 25.03       | Peak     | N    | Pass    |
| 5** | 8.768           | 24.00          | 10.30       | 50.00        | 26.00       | AV       | N    | Pass    |
| 6   | 17.288          | 37.73          | 10.76       | 60.00        | 22.27       | Peak     | N    | Pass    |
| 6** | 17.288          | 25.43          | 10.76       | 50.00        | 24.57       | AV       | N    | Pass    |

## A.6 Radiated Spurious Emission

Note <sup>1</sup>: The symbol of “--” in the table which means not application.

Note <sup>2</sup>: For the test data above 1 GHz, according the ANSI C63.10-2020, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note <sup>3</sup>: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

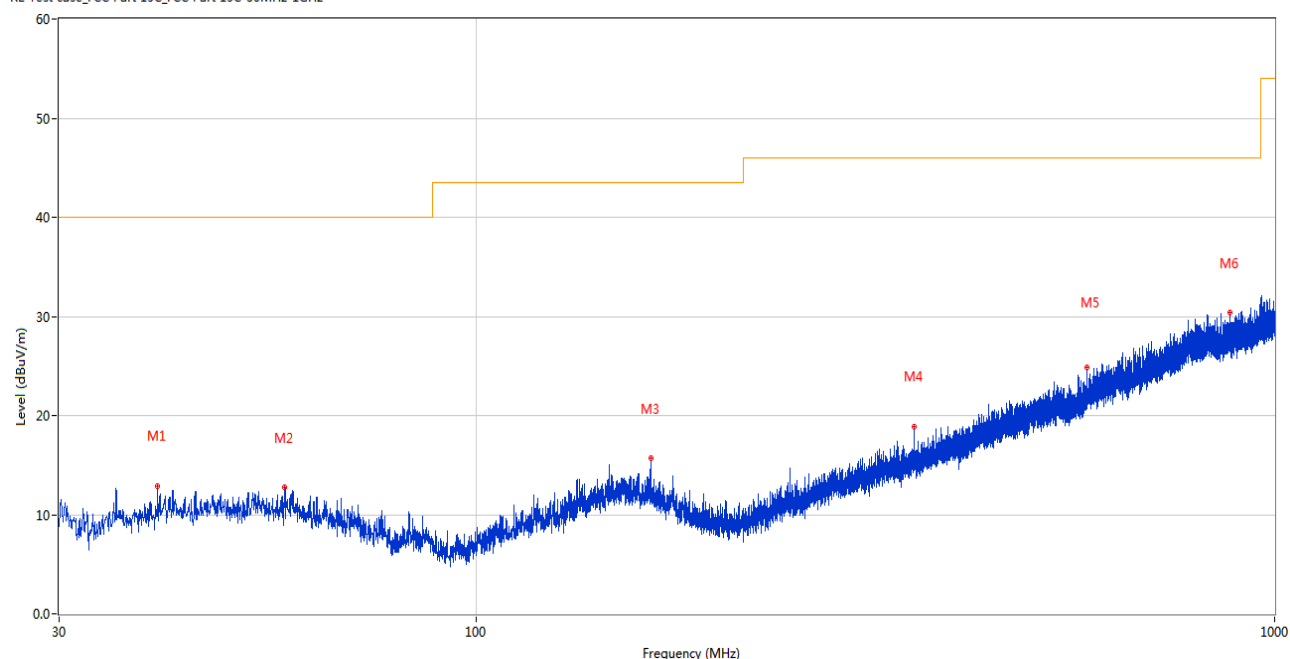
Note <sup>4</sup>: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and BLE 2M-High channel mode is the worst.

Note <sup>5</sup>: Results (dBuV/m) = Original reading level of Spectrum Analyzer (dBuV/m) + Factor (dB)

### Test Data and Plots

#### 30 MHz to 1 GHz, ANT H

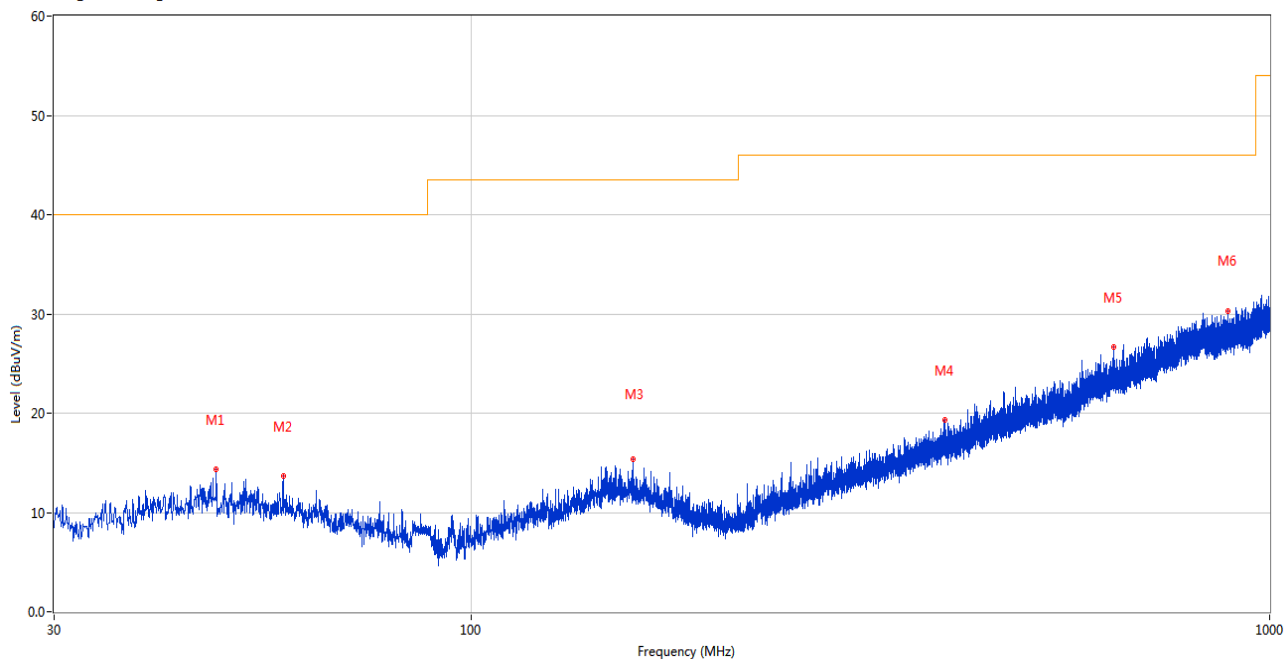
RE Test case\_FCC Part 15C\_FCC Part 15C-30MHz-1GHz



| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|---------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 39.894          | 12.91            | -25.69        | 40.0           | 27.09       | Peak     | 188.00         | 100         | Horizontal | Pass    |
| 2   | 57.548          | 12.74            | -25.46        | 40.0           | 27.26       | Peak     | 355.00         | 100         | Horizontal | Pass    |
| 3   | 165.266         | 15.73            | -24.13        | 43.5           | 27.77       | Peak     | 338.00         | 100         | Horizontal | Pass    |
| 4   | 353.107         | 18.92            | -21.09        | 46.0           | 27.08       | Peak     | 295.00         | 100         | Horizontal | Pass    |
| 5   | 581.785         | 24.89            | -14.62        | 46.0           | 21.11       | Peak     | 70.00          | 100         | Horizontal | Pass    |
| 6   | 879.041         | 30.39            | -9.60         | 46.0           | 15.61       | Peak     | 143.00         | 100         | Horizontal | Pass    |

## 30 MHz to 1 GHz, ANT V

RE Test case\_FCC Part 15C\_FCC Part 15C-30MHz-1GHz



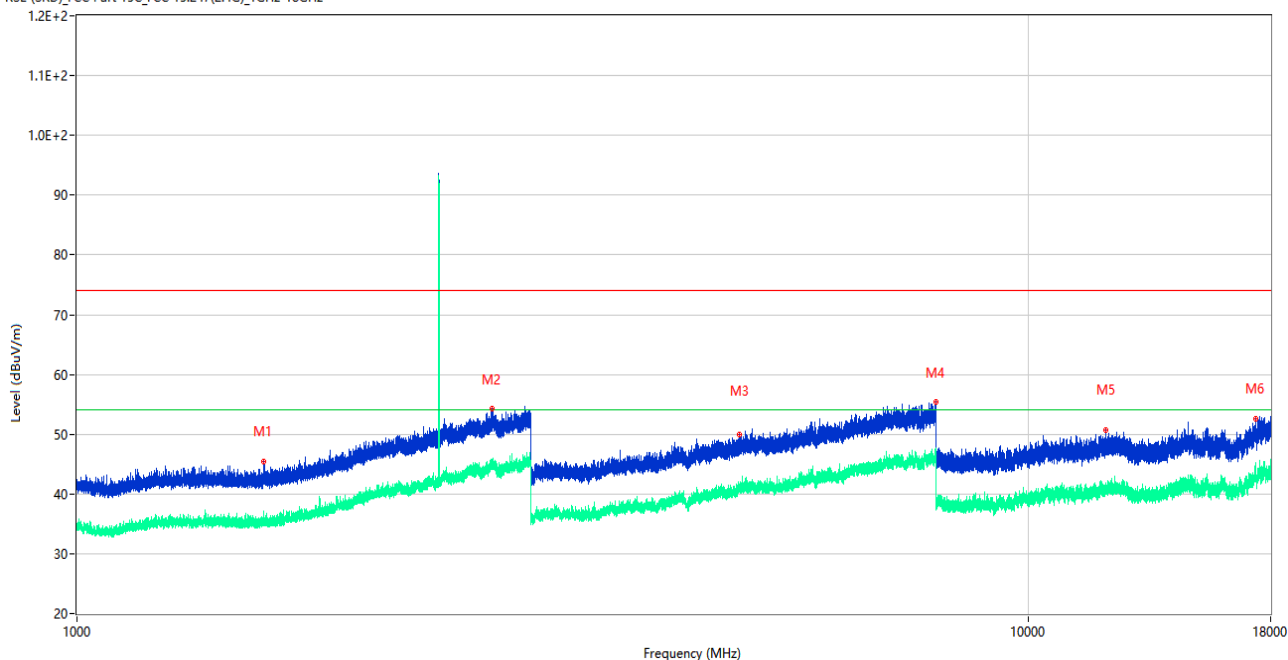
| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna  | Verdict |
|-----|-----------------|------------------|---------------|----------------|-------------|----------|----------------|-------------|----------|---------|
| 1   | 47.897          | 14.33            | -25.02        | 40.0           | 25.67       | Peak     | 31.00          | 100         | Vertical | Pass    |
| 2   | 58.081          | 13.63            | -25.52        | 40.0           | 26.37       | Peak     | 217.00         | 100         | Vertical | Pass    |
| 3   | 159.398         | 15.37            | -24.16        | 43.5           | 28.13       | Peak     | 200.00         | 100         | Vertical | Pass    |
| 4   | 391.325         | 19.35            | -19.87        | 46.0           | 26.65       | Peak     | 307.00         | 100         | Vertical | Pass    |
| 5   | 637.511         | 26.70            | -12.81        | 46.0           | 19.30       | Peak     | 58.00          | 100         | Vertical | Pass    |
| 6   | 885.492         | 30.25            | -9.41         | 46.0           | 15.75       | Peak     | 244.00         | 100         | Vertical | Pass    |

Note 1: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental signal.

Note 2: The spurious from 18GHz-25GHz is noise only, do not show on the report.

### GFSK (BLE 1Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT H

RSE (SRD)\_FCC Part 15C\_FCC 15.247(2.4G)\_1GHz-18GHz



| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 1574.609        | 45.51            | 74.0           | 28.49       | Peak     | 112.00         | 300         | Horizontal | Pass    |
| 1** | 1574.609        | 37.35            | 54.0           | 16.65       | AV       | 112.00         | 300         | Horizontal | Pass    |
| 2   | 2727.861        | 54.46            | 74.0           | 19.54       | Peak     | 222.00         | 400         | Horizontal | Pass    |
| 2** | 2727.861        | 44.98            | 54.0           | 9.02        | AV       | 222.00         | 400         | Horizontal | Pass    |
| 3   | 4970.748        | 49.91            | 74.0           | 24.09       | Peak     | 269.00         | 200         | Horizontal | Pass    |
| 3** | 4970.748        | 40.84            | 54.0           | 13.16       | AV       | 269.00         | 200         | Horizontal | Pass    |
| 4   | 7996.196        | 55.60            | 74.0           | 18.40       | Peak     | 340.00         | 400         | Horizontal | Pass    |
| 4** | 7996.196        | 46.81            | 54.0           | 7.19        | AV       | 340.00         | 400         | Horizontal | Pass    |
| 5   | 12083.463       | 50.78            | 74.0           | 23.22       | Peak     | 159.00         | 200         | Horizontal | Pass    |
| 5** | 12083.463       | 40.63            | 54.0           | 13.37       | AV       | 159.00         | 200         | Horizontal | Pass    |
| 6   | 17352.514       | 52.93            | 74.0           | 21.07       | Peak     | 209.00         | 200         | Horizontal | Pass    |
| 6** | 17352.514       | 43.71            | 54.0           | 10.29       | AV       | 209.00         | 200         | Horizontal | Pass    |

## GFSK (BLE 1Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT V

| No. | Frequency<br>(MHz) | Results<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Table<br>(Degree) | Height<br>(cm) | Antenna  | Verdict |
|-----|--------------------|---------------------|-------------------|----------------|----------|-------------------|----------------|----------|---------|
| 1   | 1161.139           | 44.54               | 74.0              | 29.47          | Peak     | 128.00            | 300            | Vertical | Pass    |
| 1** | 1161.139           | 32.64               | 54.0              | 21.36          | AV       | 128.00            | 300            | Vertical | Pass    |
| 2   | 2991.027           | 50.87               | 74.0              | 23.13          | Peak     | 9.00              | 400            | Vertical | Pass    |
| 2** | 2991.027           | 39.56               | 54.0              | 14.44          | AV       | 9.00              | 400            | Vertical | Pass    |
| 3   | 6801.566           | 52.49               | 74.0              | 21.51          | Peak     | 225.00            | 200            | Vertical | Pass    |
| 3** | 6801.566           | 43.27               | 54.0              | 10.73          | AV       | 225.00            | 200            | Vertical | Pass    |
| 4   | 7965.958           | 56.61               | 74.0              | 17.40          | Peak     | 172.00            | 300            | Vertical | Pass    |
| 4** | 7965.958           | 43.64               | 54.0              | 10.36          | AV       | 172.00            | 300            | Vertical | Pass    |
| 5   | 12495.362          | 49.33               | 74.0              | 24.67          | Peak     | 55.00             | 200            | Vertical | Pass    |
| 5** | 12495.362          | 40.37               | 54.0              | 13.63          | AV       | 55.00             | 200            | Vertical | Pass    |
| 6   | 17095.845          | 52.54               | 74.0              | 21.46          | Peak     | 80.00             | 400            | Vertical | Pass    |
| 6** | 17095.845          | 43.54               | 54.0              | 10.46          | AV       | 80.00             | 400            | Vertical | Pass    |

## GFSK (BLE 1Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 1570.751        | 45.00            | 74.0           | 29.00       | Peak     | 341.00         | 100         | Horizontal | Pass    |
| 1** | 1570.751        | 37.32            | 54.0           | 16.68       | AV       | 341.00         | 100         | Horizontal | Pass    |
| 2   | 2729.911        | 54.45            | 74.0           | 19.55       | Peak     | 252.00         | 400         | Horizontal | Pass    |
| 2** | 2729.911        | 44.60            | 54.0           | 9.40        | AV       | 252.00         | 400         | Horizontal | Pass    |
| 3   | 4970.356        | 49.00            | 74.0           | 25.00       | Peak     | 344.00         | 200         | Horizontal | Pass    |
| 3** | 4970.356        | 40.22            | 54.0           | 13.78       | AV       | 344.00         | 200         | Horizontal | Pass    |
| 4   | 7994.829        | 54.61            | 74.0           | 19.39       | Peak     | 153.00         | 100         | Horizontal | Pass    |
| 4** | 7994.829        | 45.82            | 54.0           | 8.18        | AV       | 153.00         | 100         | Horizontal | Pass    |
| 5   | 12086.323       | 50.56            | 74.0           | 23.44       | Peak     | 320.00         | 300         | Horizontal | Pass    |
| 5** | 12086.323       | 40.54            | 54.0           | 13.46       | AV       | 320.00         | 300         | Horizontal | Pass    |
| 6   | 17349.511       | 52.83            | 74.0           | 21.17       | Peak     | 217.00         | 400         | Horizontal | Pass    |
| 6** | 17349.511       | 43.63            | 54.0           | 10.37       | AV       | 217.00         | 400         | Horizontal | Pass    |

## GFSK (BLE 1Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna  | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|----------|---------|
| 1   | 1162.683        | 44.13            | 74.0           | 29.88       | Peak     | 151.00         | 300         | Vertical | Pass    |
| 1** | 1162.683        | 31.78            | 54.0           | 22.22       | AV       | 151.00         | 300         | Vertical | Pass    |
| 2   | 2991.249        | 50.00            | 74.0           | 24.00       | Peak     | 267.00         | 400         | Vertical | Pass    |
| 2** | 2991.249        | 39.19            | 54.0           | 14.81       | AV       | 267.00         | 400         | Vertical | Pass    |
| 3   | 6803.274        | 51.79            | 74.0           | 22.21       | Peak     | 228.00         | 200         | Vertical | Pass    |
| 3** | 6803.274        | 43.11            | 54.0           | 10.89       | AV       | 228.00         | 200         | Vertical | Pass    |
| 4   | 7963.237        | 55.92            | 74.0           | 18.09       | Peak     | 195.00         | 400         | Vertical | Pass    |
| 4** | 7963.237        | 43.63            | 54.0           | 10.37       | AV       | 195.00         | 400         | Vertical | Pass    |
| 5   | 12490.610       | 48.41            | 74.0           | 25.59       | Peak     | 76.00          | 100         | Vertical | Pass    |
| 5** | 12490.610       | 39.97            | 54.0           | 14.03       | AV       | 76.00          | 100         | Vertical | Pass    |
| 6   | 17094.935       | 51.68            | 74.0           | 22.32       | Peak     | 41.00          | 400         | Vertical | Pass    |
| 6** | 17094.935       | 42.65            | 54.0           | 11.35       | AV       | 41.00          | 400         | Vertical | Pass    |

## GFSK (BLE 1Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT H

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 1571.385        | 44.94            | 74.0           | 29.06       | Peak     | 19.00          | 300         | Horizontal | Pass    |
| 1** | 1571.385        | 37.12            | 54.0           | 16.88       | AV       | 19.00          | 300         | Horizontal | Pass    |
| 2   | 2727.451        | 53.92            | 74.0           | 20.08       | Peak     | 169.00         | 100         | Horizontal | Pass    |
| 2** | 2727.451        | 44.28            | 54.0           | 9.72        | AV       | 169.00         | 100         | Horizontal | Pass    |
| 3   | 4970.856        | 49.31            | 74.0           | 24.69       | Peak     | 313.00         | 200         | Horizontal | Pass    |
| 3** | 4970.856        | 40.21            | 54.0           | 13.79       | AV       | 313.00         | 200         | Horizontal | Pass    |
| 4   | 7997.078        | 55.44            | 74.0           | 18.56       | Peak     | 14.00          | 400         | Horizontal | Pass    |
| 4** | 7997.078        | 45.93            | 54.0           | 8.07        | AV       | 14.00          | 400         | Horizontal | Pass    |
| 5   | 12080.243       | 49.80            | 74.0           | 24.20       | Peak     | 114.00         | 100         | Horizontal | Pass    |
| 5** | 12080.243       | 40.13            | 54.0           | 13.87       | AV       | 114.00         | 100         | Horizontal | Pass    |
| 6   | 17356.565       | 52.38            | 74.0           | 21.62       | Peak     | 349.00         | 100         | Horizontal | Pass    |
| 6** | 17356.565       | 43.33            | 54.0           | 10.67       | AV       | 349.00         | 100         | Horizontal | Pass    |

## GFSK (BLE 1Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT V

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna  | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|----------|---------|
| 1   | 1166.001        | 44.48            | 74.0           | 29.53       | Peak     | 87.00          | 300         | Vertical | Pass    |
| 1** | 1166.001        | 32.58            | 54.0           | 21.42       | AV       | 87.00          | 300         | Vertical | Pass    |
| 2   | 2990.518        | 50.87            | 74.0           | 23.13       | Peak     | 271.00         | 100         | Vertical | Pass    |
| 2** | 2990.518        | 39.51            | 54.0           | 14.49       | AV       | 271.00         | 100         | Vertical | Pass    |
| 3   | 6806.710        | 52.45            | 74.0           | 21.55       | Peak     | 95.00          | 200         | Vertical | Pass    |
| 3** | 6806.710        | 43.21            | 54.0           | 10.79       | AV       | 95.00          | 200         | Vertical | Pass    |
| 4   | 7965.654        | 56.53            | 74.0           | 17.47       | Peak     | 205.00         | 300         | Vertical | Pass    |
| 4** | 7965.654        | 43.55            | 54.0           | 10.45       | AV       | 205.00         | 300         | Vertical | Pass    |
| 5   | 12496.415       | 49.27            | 74.0           | 24.73       | Peak     | 266.00         | 200         | Vertical | Pass    |
| 5** | 12496.415       | 40.31            | 54.0           | 13.69       | AV       | 266.00         | 200         | Vertical | Pass    |
| 6   | 17099.306       | 52.49            | 74.0           | 21.51       | Peak     | 90.00          | 200         | Vertical | Pass    |
| 6** | 17099.306       | 43.48            | 54.0           | 10.52       | AV       | 90.00          | 200         | Vertical | Pass    |

## GFSK (BLE 2Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT H

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 1288.587        | 44.54            | 74.0           | 29.46       | Peak     | 196.00         | 200         | Horizontal | Pass    |
| 1** | 1288.587        | 36.82            | 54.0           | 17.18       | AV       | 196.00         | 200         | Horizontal | Pass    |
| 2   | 2774.234        | 53.51            | 74.0           | 20.49       | Peak     | 287.00         | 400         | Horizontal | Pass    |
| 2** | 2774.234        | 44.89            | 54.0           | 9.11        | AV       | 287.00         | 400         | Horizontal | Pass    |
| 3   | 5165.093        | 49.26            | 74.0           | 24.74       | Peak     | 282.00         | 200         | Horizontal | Pass    |
| 3** | 5165.093        | 40.67            | 54.0           | 13.33       | AV       | 282.00         | 200         | Horizontal | Pass    |
| 4   | 6807.361        | 54.72            | 74.0           | 19.28       | Peak     | 13.00          | 400         | Horizontal | Pass    |
| 4** | 6807.361        | 45.87            | 54.0           | 8.13        | AV       | 13.00          | 400         | Horizontal | Pass    |
| 5   | 13468.085       | 50.44            | 74.0           | 23.56       | Peak     | 315.00         | 400         | Horizontal | Pass    |
| 5** | 13468.085       | 39.79            | 54.0           | 14.21       | AV       | 315.00         | 400         | Horizontal | Pass    |
| 6   | 17467.269       | 52.81            | 74.0           | 21.19       | Peak     | 178.00         | 400         | Horizontal | Pass    |
| 6** | 17467.269       | 43.56            | 54.0           | 10.44       | AV       | 178.00         | 400         | Horizontal | Pass    |

## GFSK (BLE 2Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT V

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna  | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|----------|---------|
| 1   | 1282.714        | 44.49            | 74.0           | 29.51       | Peak     | 262.00         | 400         | Vertical | Pass    |
| 1** | 1282.714        | 32.62            | 54.0           | 21.38       | AV       | 262.00         | 400         | Vertical | Pass    |
| 2   | 2770.948        | 50.82            | 74.0           | 23.18       | Peak     | 78.00          | 400         | Vertical | Pass    |
| 2** | 2770.948        | 39.47            | 54.0           | 14.53       | AV       | 78.00          | 400         | Vertical | Pass    |
| 3   | 5163.991        | 52.39            | 74.0           | 21.61       | Peak     | 224.00         | 200         | Vertical | Pass    |
| 3** | 5163.991        | 43.26            | 54.0           | 10.74       | AV       | 224.00         | 200         | Vertical | Pass    |
| 4   | 6810.118        | 56.55            | 74.0           | 17.45       | Peak     | 304.00         | 400         | Vertical | Pass    |
| 4** | 6810.118        | 43.56            | 54.0           | 10.44       | AV       | 304.00         | 400         | Vertical | Pass    |
| 5   | 13471.075       | 49.26            | 74.0           | 24.74       | Peak     | 306.00         | 400         | Vertical | Pass    |
| 5** | 13471.075       | 40.28            | 54.0           | 13.72       | AV       | 306.00         | 400         | Vertical | Pass    |
| 6   | 17466.874       | 52.49            | 74.0           | 21.51       | Peak     | 349.00         | 200         | Vertical | Pass    |
| 6** | 17466.874       | 43.51            | 54.0           | 10.50       | AV       | 349.00         | 200         | Vertical | Pass    |

## GFSK (BLE 2Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 1287.437        | 45.24            | 74.0           | 28.76       | Peak     | 96.00          | 200         | Horizontal | Pass    |
| 1** | 1287.437        | 36.64            | 54.0           | 17.36       | AV       | 96.00          | 200         | Horizontal | Pass    |
| 2   | 2767.461        | 54.32            | 74.0           | 19.68       | Peak     | 329.00         | 100         | Horizontal | Pass    |
| 2** | 2767.461        | 44.37            | 54.0           | 9.63        | AV       | 329.00         | 100         | Horizontal | Pass    |
| 3   | 5169.388        | 49.68            | 74.0           | 24.32       | Peak     | 212.00         | 200         | Horizontal | Pass    |
| 3** | 5169.388        | 40.13            | 54.0           | 13.87       | AV       | 212.00         | 200         | Horizontal | Pass    |
| 4   | 6806.404        | 55.23            | 74.0           | 18.77       | Peak     | 210.00         | 200         | Horizontal | Pass    |
| 4** | 6806.404        | 46.28            | 54.0           | 7.72        | AV       | 210.00         | 200         | Horizontal | Pass    |
| 5   | 13466.491       | 50.11            | 74.0           | 23.89       | Peak     | 223.00         | 400         | Horizontal | Pass    |
| 5** | 13466.491       | 40.59            | 54.0           | 13.41       | AV       | 223.00         | 400         | Horizontal | Pass    |
| 6   | 17463.159       | 52.26            | 74.0           | 21.74       | Peak     | 130.00         | 200         | Horizontal | Pass    |
| 6** | 17463.159       | 43.53            | 54.0           | 10.47       | AV       | 130.00         | 200         | Horizontal | Pass    |

## GFSK (BLE 2Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna  | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|----------|---------|
| 1   | 1284.125        | 44.53            | 74.0           | 29.47       | Peak     | 324.00         | 400         | Vertical | Pass    |
| 1** | 1284.125        | 32.57            | 54.0           | 21.43       | AV       | 324.00         | 400         | Vertical | Pass    |
| 2   | 2768.547        | 50.87            | 74.0           | 23.13       | Peak     | 61.00          | 400         | Vertical | Pass    |
| 2** | 2768.547        | 39.47            | 54.0           | 14.53       | AV       | 61.00          | 400         | Vertical | Pass    |
| 3   | 5165.216        | 52.49            | 74.0           | 21.51       | Peak     | 238.00         | 200         | Vertical | Pass    |
| 3** | 5165.216        | 43.23            | 54.0           | 10.77       | AV       | 238.00         | 200         | Vertical | Pass    |
| 4   | 6804.672        | 56.53            | 74.0           | 17.47       | Peak     | 7.00           | 300         | Vertical | Pass    |
| 4** | 6804.672        | 43.61            | 54.0           | 10.39       | AV       | 7.00           | 300         | Vertical | Pass    |
| 5   | 13466.764       | 49.28            | 74.0           | 24.72       | Peak     | 288.00         | 300         | Vertical | Pass    |
| 5** | 13466.764       | 40.29            | 54.0           | 13.71       | AV       | 288.00         | 300         | Vertical | Pass    |
| 6   | 17467.815       | 52.46            | 74.0           | 21.54       | Peak     | 156.00         | 100         | Vertical | Pass    |
| 6** | 17467.815       | 43.53            | 54.0           | 10.47       | AV       | 156.00         | 100         | Vertical | Pass    |

## GFSK (BLE 2Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT H

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 1289.551        | 45.20            | 74.0           | 28.80       | Peak     | 244.00         | 300         | Horizontal | Pass    |
| 1** | 1289.551        | 37.24            | 54.0           | 16.76       | AV       | 244.00         | 300         | Horizontal | Pass    |
| 2   | 2774.231        | 54.32            | 74.0           | 19.68       | Peak     | 236.00         | 400         | Horizontal | Pass    |
| 2** | 2774.231        | 44.44            | 54.0           | 9.56        | AV       | 236.00         | 400         | Horizontal | Pass    |
| 3   | 5395.744        | 49.01            | 74.0           | 24.99       | Peak     | 156.00         | 200         | Horizontal | Pass    |
| 3** | 5395.744        | 40.62            | 54.0           | 13.38       | AV       | 156.00         | 200         | Horizontal | Pass    |
| 4   | 6515.709        | 55.23            | 74.0           | 18.77       | Peak     | 230.00         | 300         | Horizontal | Pass    |
| 4** | 6515.709        | 45.82            | 54.0           | 8.18        | AV       | 230.00         | 300         | Horizontal | Pass    |
| 5   | 13350.731       | 49.94            | 74.0           | 24.06       | Peak     | 268.00         | 300         | Horizontal | Pass    |
| 5** | 13350.731       | 39.72            | 54.0           | 14.28       | AV       | 268.00         | 300         | Horizontal | Pass    |
| 6   | 17442.418       | 52.82            | 74.0           | 21.18       | Peak     | 154.00         | 200         | Horizontal | Pass    |
| 6** | 17442.418       | 43.11            | 54.0           | 10.89       | AV       | 154.00         | 200         | Horizontal | Pass    |

## GFSK (BLE 2Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT V

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna  | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|----------|---------|
| 1   | 1287.540        | 44.45            | 74.0           | 29.55       | Peak     | 246.00         | 200         | Vertical | Pass    |
| 1** | 1287.540        | 32.61            | 54.0           | 21.39       | AV       | 246.00         | 200         | Vertical | Pass    |
| 2   | 2773.332        | 50.86            | 74.0           | 23.14       | Peak     | 93.00          | 400         | Vertical | Pass    |
| 2** | 2773.332        | 39.50            | 54.0           | 14.50       | AV       | 93.00          | 400         | Vertical | Pass    |
| 3   | 5286.673        | 52.40            | 74.0           | 21.60       | Peak     | 244.00         | 200         | Vertical | Pass    |
| 3** | 5286.673        | 43.22            | 54.0           | 10.79       | AV       | 244.00         | 200         | Vertical | Pass    |
| 4   | 6657.760        | 56.52            | 74.0           | 17.49       | Peak     | 117.00         | 200         | Vertical | Pass    |
| 4** | 6657.760        | 43.59            | 54.0           | 10.41       | AV       | 117.00         | 200         | Vertical | Pass    |
| 5   | 13304.684       | 49.31            | 74.0           | 24.69       | Peak     | 292.00         | 200         | Vertical | Pass    |
| 5** | 13304.684       | 40.28            | 54.0           | 13.72       | AV       | 292.00         | 200         | Vertical | Pass    |
| 6   | 17418.809       | 52.48            | 74.0           | 21.52       | Peak     | 211.00         | 400         | Vertical | Pass    |
| 6** | 17418.809       | 43.51            | 54.0           | 10.49       | AV       | 211.00         | 400         | Vertical | Pass    |

## A.7 Band Edge (Restricted-band band-edge)

Note <sup>1</sup>: The lowest and highest channels are tested to verify the band edge emissions. Please refer to the following the plots for emissions values.

Note <sup>2</sup>: The test data all are tested in the vertical and horizontal antenna which the trace is max hold. So these plots have shown the worst case.

Note <sup>3</sup>: According the ANSI C63.10-2020, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note <sup>4</sup>: The Level (dBuV/m) has been corrected by factor.

Note <sup>5</sup>: Both horizontal and vertical directions were pre tested, only the worst configuration has been reported in this report.

### Test Data and Plots

#### GFSK (BLE 1Mbps) LOW CHANNEL

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 2331.158        | 55.93            | 74.0           | 18.07       | Peak     | 120.00         | 200         | Horizontal | Pass    |
| 1** | 2331.158        | 41.17            | 54.0           | 12.83       | AV       | 120.00         | 200         | Horizontal | Pass    |
| 2   | 2390.000        | 51.2             | 74.0           | 22.80       | Peak     | 321.00         | 100         | Horizontal | Pass    |
| 2** | 2390.000        | 41.75            | 54.0           | 12.25       | AV       | 321.00         | 100         | Horizontal | Pass    |

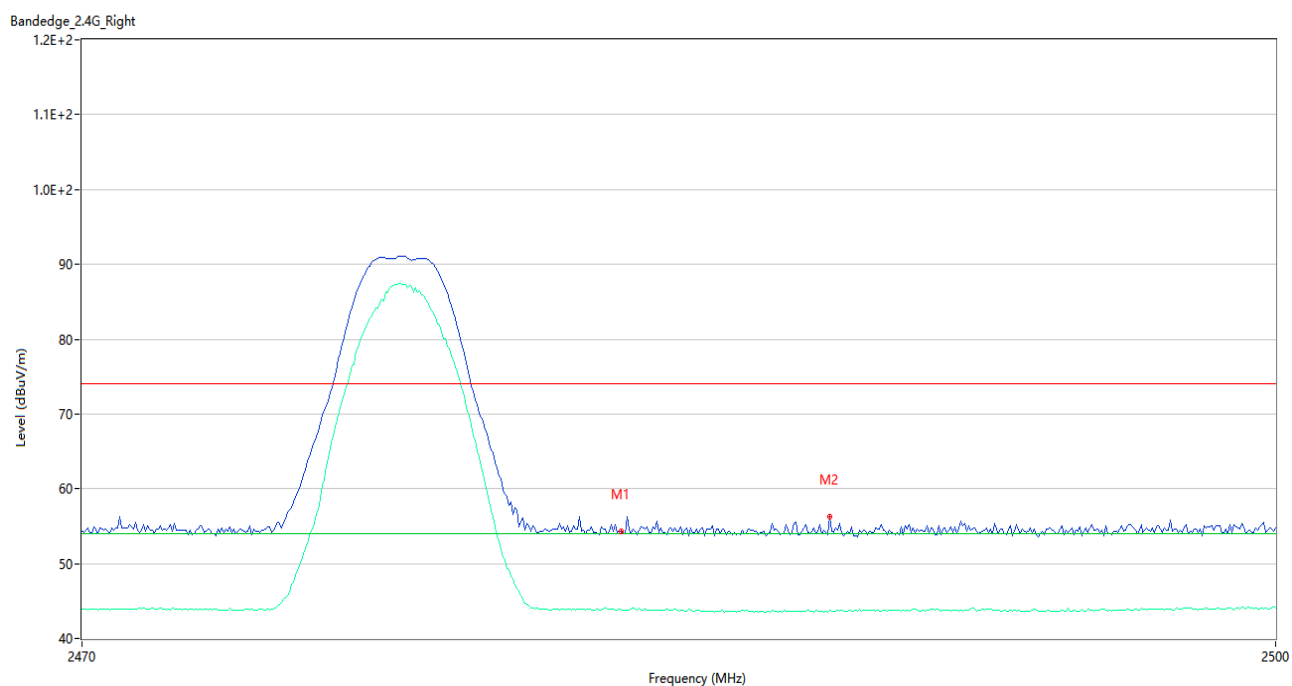
#### GFSK (BLE 1Mbps) HIGH CHANNEL

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 2483.500        | 54.4             | 74.0           | 19.60       | Peak     | 116.00         | 100         | Horizontal | Pass    |
| 1** | 2483.500        | 44               | 54.0           | 10.00       | AV       | 116.00         | 100         | Horizontal | Pass    |
| 2   | 2489.834        | 55.53            | 74.0           | 18.47       | Peak     | 43.00          | 300         | Horizontal | Pass    |
| 2** | 2489.834        | 42.82            | 54.0           | 11.18       | AV       | 43.00          | 300         | Horizontal | Pass    |

## GFSK (BLE 2Mbps) LOW CHANNEL

| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 2347.269        | 56.06            | 74.0           | 17.94       | Peak     | 103.00         | 300         | Horizontal | Pass    |
| 1** | 2347.269        | 42.5             | 54.0           | 11.50       | AV       | 103.00         | 300         | Horizontal | Pass    |
| 2   | 2390.000        | 53.93            | 74.0           | 20.07       | Peak     | 244.00         | 200         | Horizontal | Pass    |
| 2** | 2390.000        | 41.83            | 54.0           | 12.17       | AV       | 244.00         | 200         | Horizontal | Pass    |

## GFSK (BLE 2Mbps) HIGH CHANNEL



| No. | Frequency (MHz) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 2483.500        | 54.89            | 74.0           | 19.11       | Peak     | 62.00          | 200         | Horizontal | Pass    |
| 1** | 2483.500        | 44.2             | 54.0           | 9.80        | AV       | 62.00          | 200         | Horizontal | Pass    |
| 2   | 2489.119        | 55.96            | 74.0           | 18.04       | Peak     | 291.00         | 300         | Horizontal | Pass    |
| 2** | 2489.119        | 42.87            | 54.0           | 11.13       | AV       | 291.00         | 300         | Horizontal | Pass    |

## A.8 Power Spectral Density (PSD)

### Test Data

#### Left Ear

| GFSK (BLE 1Mbps) |                                      |                     |         |
|------------------|--------------------------------------|---------------------|---------|
| Channel          | Spectral power density<br>(dBm/3kHz) | Limit<br>(dBm/3kHz) | Verdict |
| Low Channel      | -18.00                               | 8                   | Pass    |
| Middle Channel   | -17.69                               | 8                   | Pass    |
| High Channel     | -17.29                               | 8                   | Pass    |

| GFSK (BLE 2Mbps) |                                      |                     |         |
|------------------|--------------------------------------|---------------------|---------|
| Channel          | Spectral power density<br>(dBm/3kHz) | Limit<br>(dBm/3kHz) | Verdict |
| Low Channel      | -20.86                               | 8                   | Pass    |
| Middle Channel   | -20.36                               | 8                   | Pass    |
| High Channel     | -20.02                               | 8                   | Pass    |

#### Right Ear

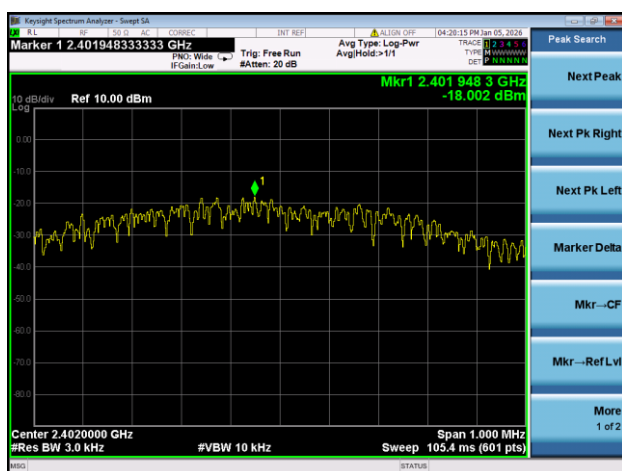
| GFSK (BLE 1Mbps) |                                      |                     |         |
|------------------|--------------------------------------|---------------------|---------|
| Channel          | Spectral power density<br>(dBm/3kHz) | Limit<br>(dBm/3kHz) | Verdict |
| Low Channel      | -20.08                               | 8                   | Pass    |
| Middle Channel   | -20.15                               | 8                   | Pass    |
| High Channel     | -21.18                               | 8                   | Pass    |

| GFSK (BLE 2Mbps) |                                      |                     |         |
|------------------|--------------------------------------|---------------------|---------|
| Channel          | Spectral power density<br>(dBm/3kHz) | Limit<br>(dBm/3kHz) | Verdict |
| Low Channel      | -22.85                               | 8                   | Pass    |
| Middle Channel   | -23.05                               | 8                   | Pass    |
| High Channel     | -23.97                               | 8                   | Pass    |

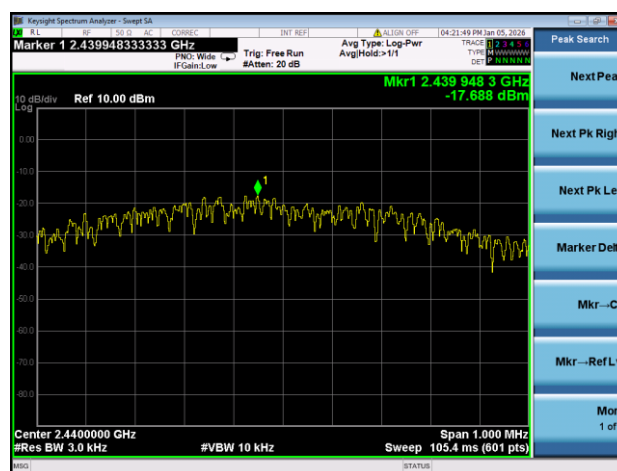
## Test Plots

### Left Ear

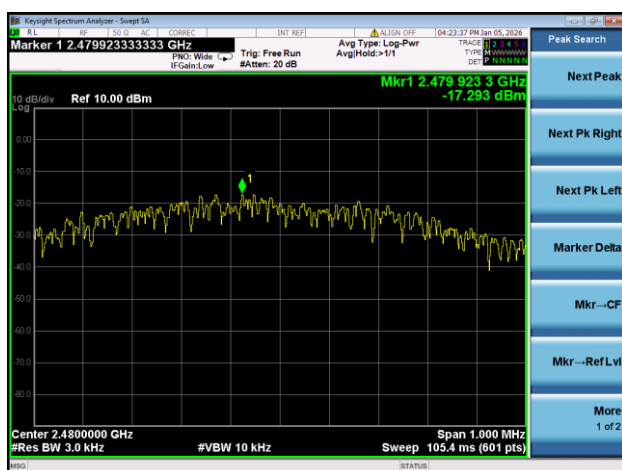
#### GFSK (BLE 1Mbps) LOW CHANNEL



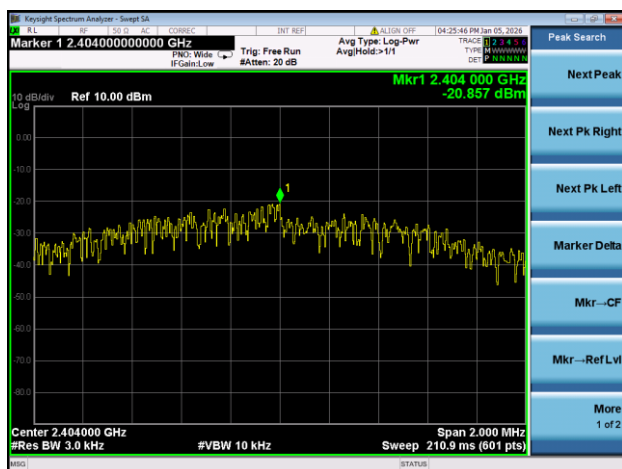
#### GFSK (BLE 1Mbps) MIDDLE CHANNEL



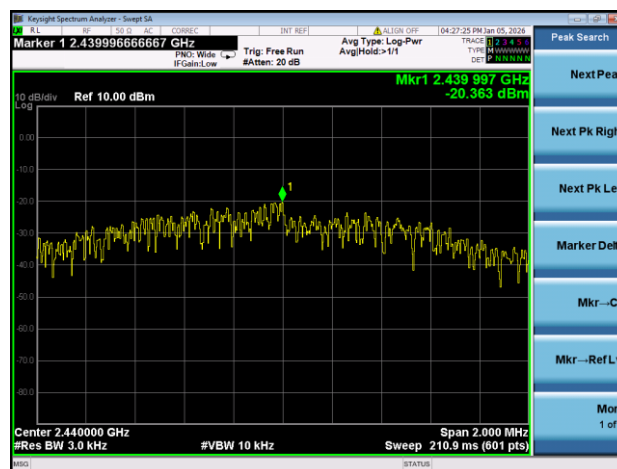
#### GFSK (BLE 1Mbps) HIGH CHANNEL



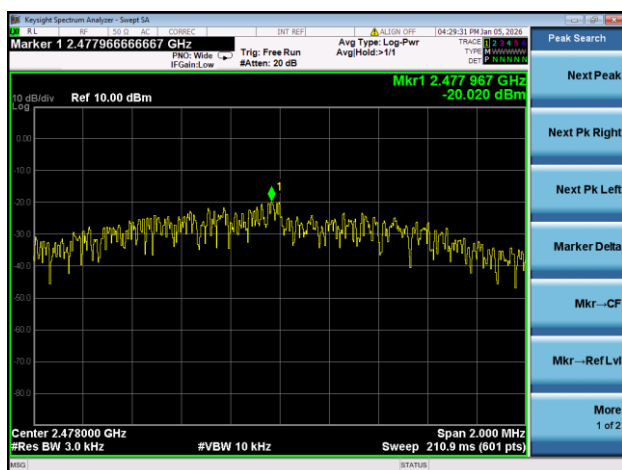
## GFSK (BLE 2Mbps) LOW CHANNEL



## GFSK (BLE 2Mbps) MIDDLE CHANNEL

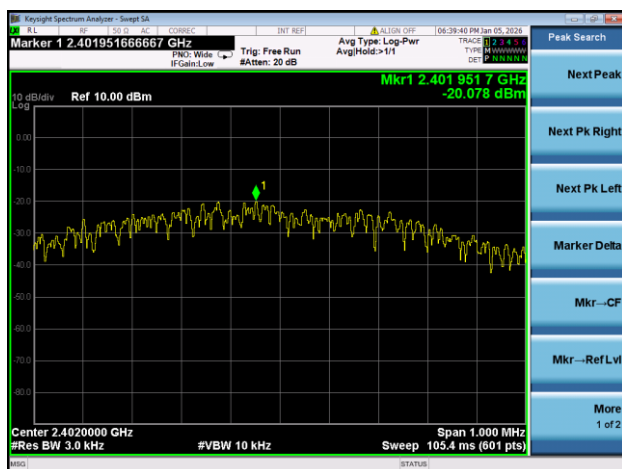


## GFSK (BLE 2Mbps) HIGH CHANNEL

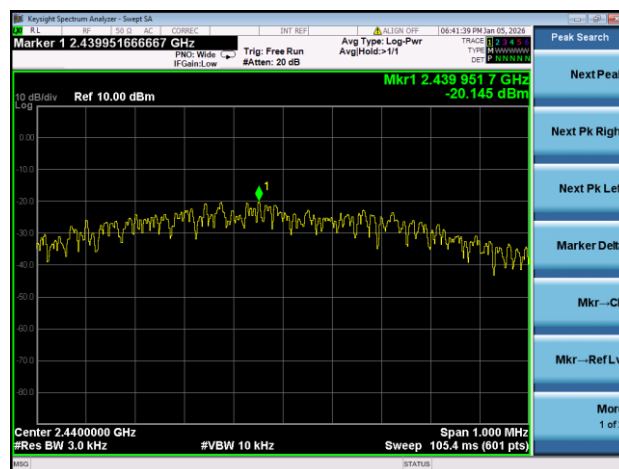


## Right Ear

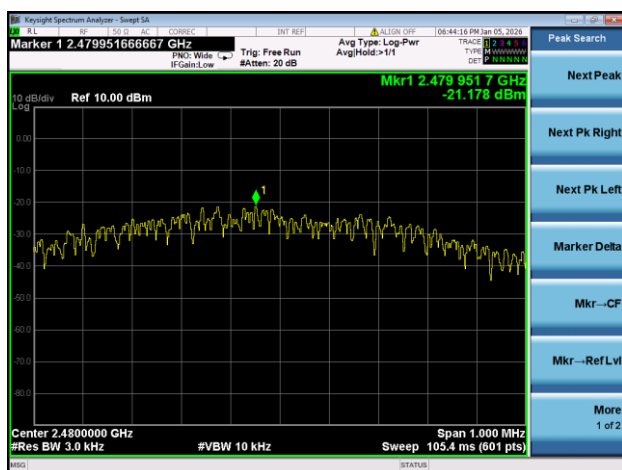
### GFSK (BLE 1Mbps) LOW CHANNEL



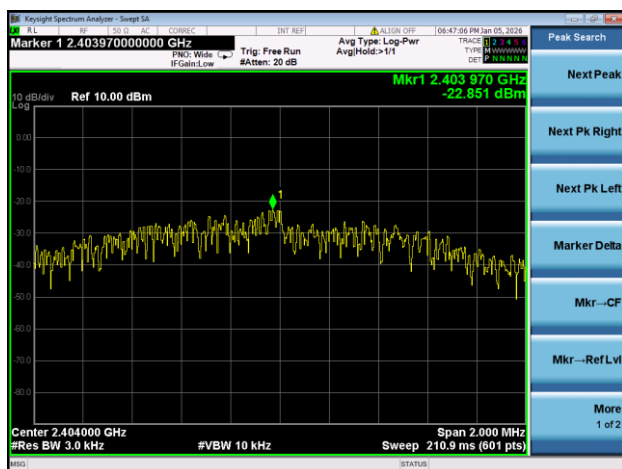
### GFSK (BLE 1Mbps) MIDDLE CHANNEL



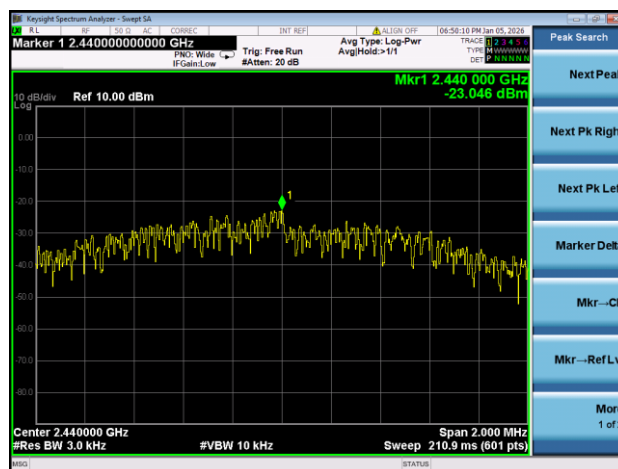
### GFSK (BLE 1Mbps) HIGH CHANNEL



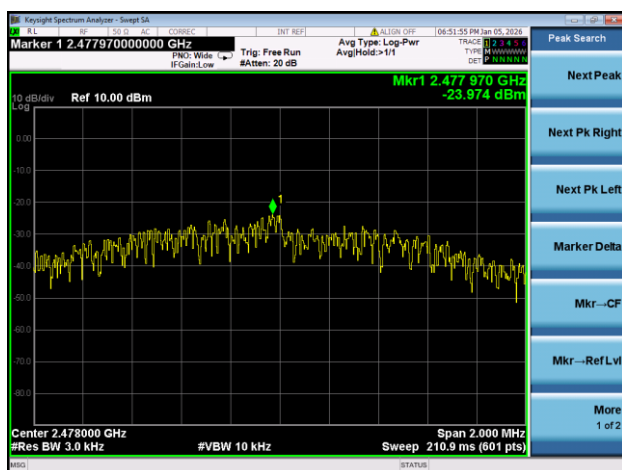
## GFSK (BLE 2Mbps) LOW CHANNEL



## GFSK (BLE 2Mbps) MIDDLE CHANNEL



## GFSK (BLE 2Mbps) HIGH CHANNEL



## **ANNEX B TEST SETUP PHOTOS**

Please refer the document “BL-SZ25C1428-AR.PDF”.

## **ANNEX C EUT EXTERNAL PHOTOS**

Please refer the document “BL-SZ25C1428-AW.PDF”.

## **ANNEX D EUT INTERNAL PHOTOS**

Please refer the document “BL-SZ25C1428-AI.PDF”.

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