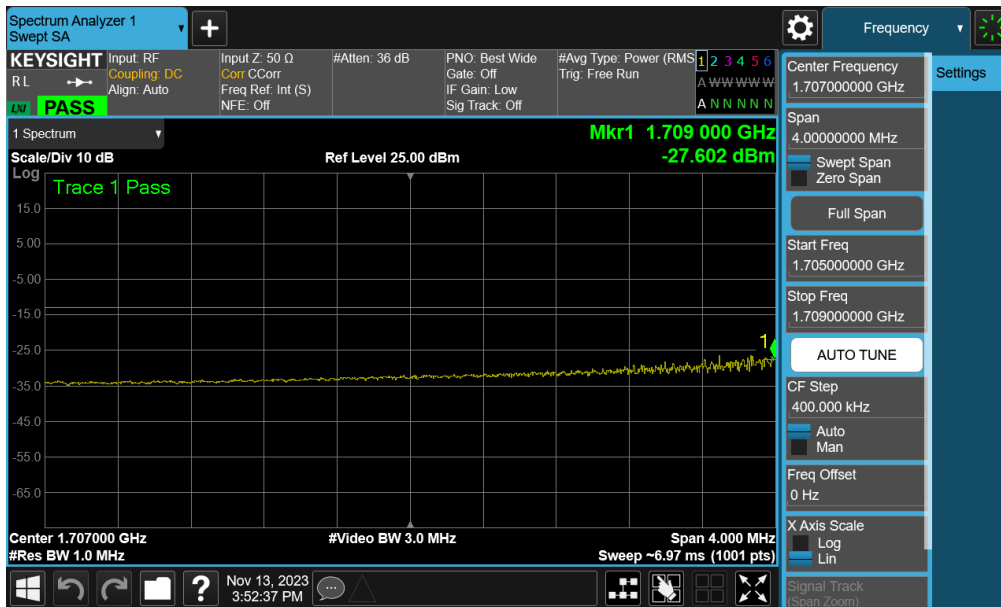
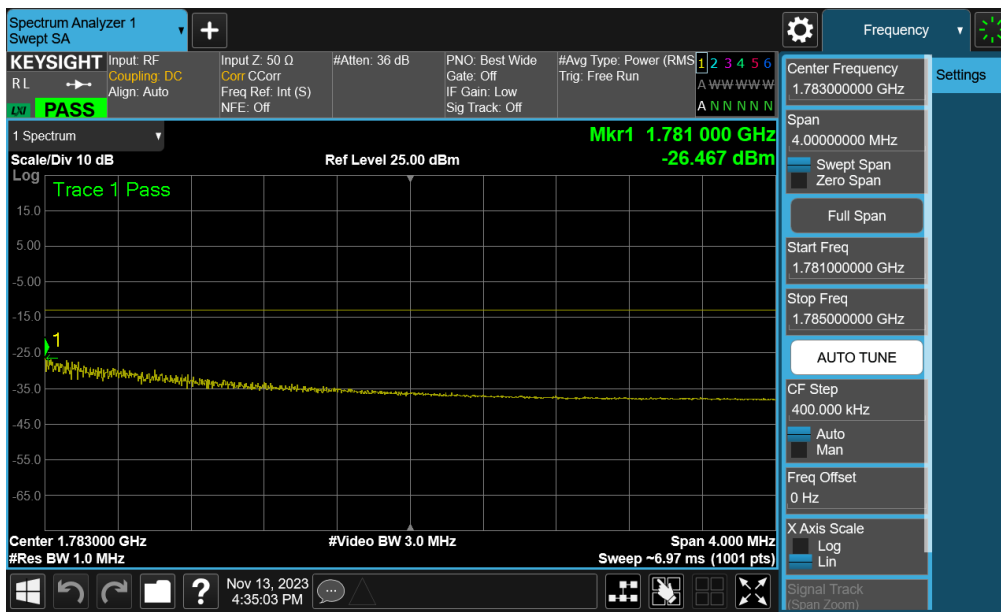
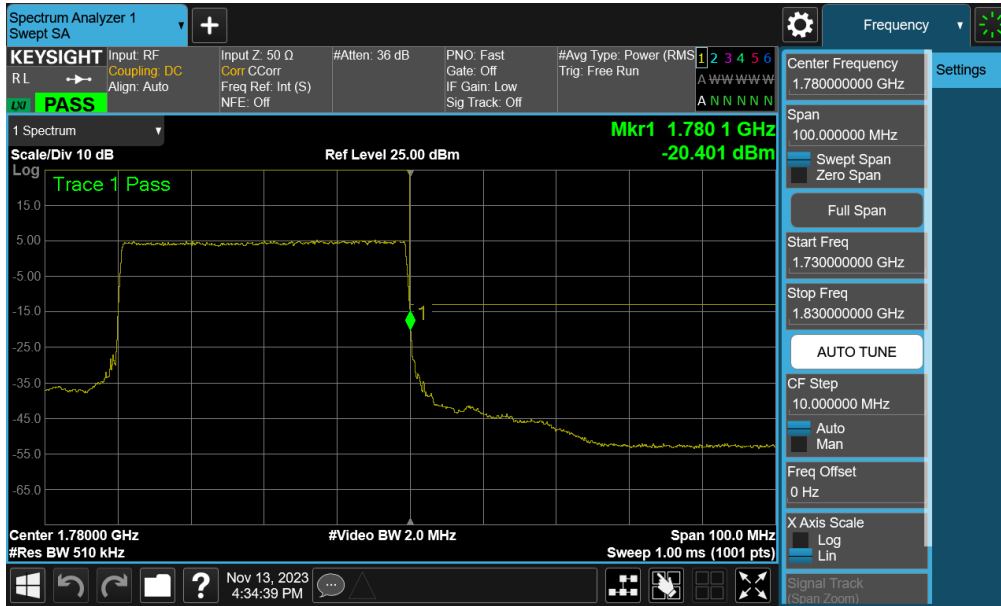


# NR Band n66 – ANT1



|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 121 of 181                   |



|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 122 of 181                   |

| Mode          | Bandwidth  | Channel    | Test Case | Level [dBm] | Limit [dBm] | Margin [dB] |
|---------------|------------|------------|-----------|-------------|-------------|-------------|
| LTE Band 66/4 | 20MHz      | Low        | Band Edge | -29.76      | -13         | -16.76      |
|               |            | Low        | Extended  | -30.47      | -13         | -17.47      |
|               |            | High (B4)  | Band Edge | -28.11      | -13         | -15.11      |
|               |            | High (B4)  | Extended  | -30.08      | -13         | -17.08      |
|               |            | High (B66) | Band Edge | -29.48      | -13         | -16.48      |
|               |            | High (B66) | Extended  | -31.02      | -13         | -18.02      |
|               | 15MHz      | Low        | Band Edge | -28.69      | -13         | -15.69      |
|               |            | Low        | Extended  | -28.67      | -13         | -15.67      |
|               |            | High (B4)  | Band Edge | -25.82      | -13         | -12.82      |
|               |            | High (B4)  | Extended  | -28.50      | -13         | -15.50      |
|               |            | High (B66) | Band Edge | -26.53      | -13         | -13.53      |
|               |            | High (B66) | Extended  | -29.02      | -13         | -16.02      |
|               | 10MHz      | Low        | Band Edge | -24.85      | -13         | -11.85      |
|               |            | Low        | Extended  | -24.10      | -13         | -11.10      |
|               |            | High (B4)  | Band Edge | -24.26      | -13         | -11.26      |
|               |            | High (B4)  | Extended  | -23.68      | -13         | -10.68      |
|               |            | High (B66) | Band Edge | -23.96      | -13         | -10.96      |
|               |            | High (B66) | Extended  | -23.61      | -13         | -10.61      |
|               | 5MHz       | Low        | Band Edge | -20.01      | -13         | -7.01       |
|               |            | Low        | Extended  | -14.86      | -13         | -1.86       |
|               |            | High (B4)  | Band Edge | -22.01      | -13         | -9.01       |
|               |            | High (B4)  | Extended  | -14.02      | -13         | -1.02       |
|               |            | High (B66) | Band Edge | -24.15      | -13         | -11.15      |
|               |            | High (B66) | Extended  | -14.52      | -13         | -1.52       |
|               | 3MHz       | Low        | Band Edge | -21.42      | -13         | -8.42       |
|               |            | Low        | Extended  | -25.24      | -13         | -12.24      |
|               |            | High (B4)  | Band Edge | -20.56      | -13         | -7.56       |
|               |            | High (B4)  | Extended  | -26.12      | -13         | -13.12      |
|               |            | High (B66) | Band Edge | -20.81      | -13         | -7.81       |
|               |            | High (B66) | Extended  | -26.72      | -13         | -13.72      |
| 1.4MHz        | Low        | Band Edge  | -25.35    | -13         | -12.35      |             |
|               | Low        | Extended   | -28.40    | -13         | -15.40      |             |
|               | High (B4)  | Band Edge  | -26.33    | -13         | -13.33      |             |
|               | High (B4)  | Extended   | -29.23    | -13         | -16.23      |             |
|               | High (B66) | Band Edge  | -25.62    | -13         | -12.62      |             |
|               | High (B66) | Extended   | -28.90    | -13         | -15.90      |             |

**Table 7-18. Conducted Band Edge Results – Ant2**

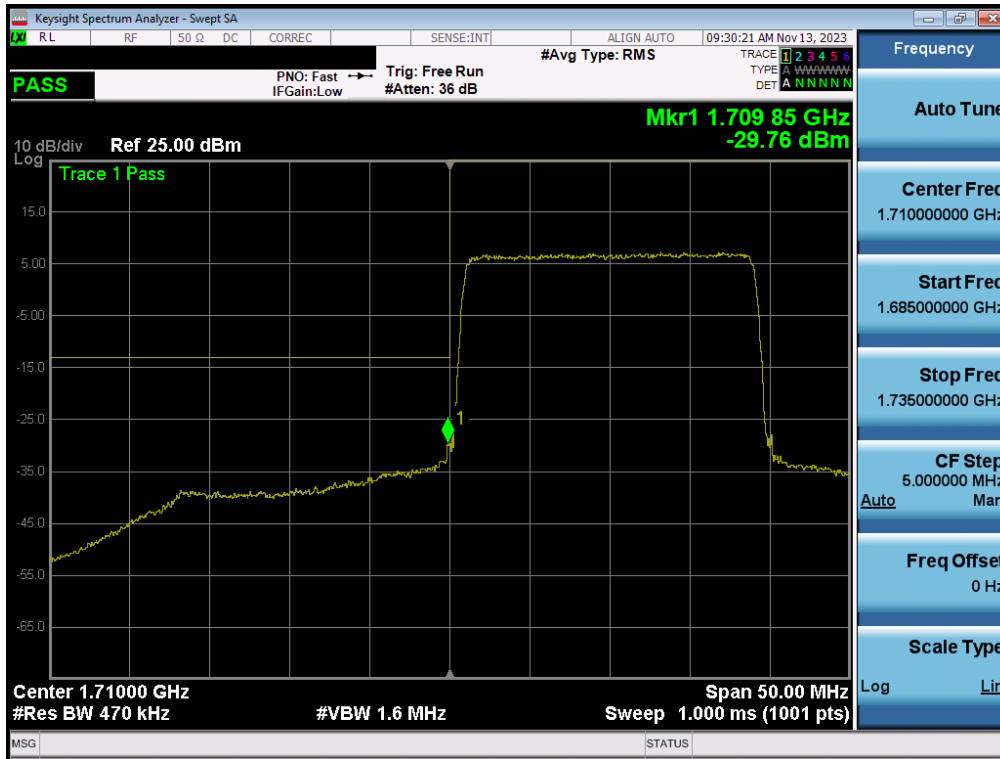
|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 123 of 181                   |

| Mode        | Bandwidth | Channel | Test Case | Level [dBm] | Limit [dBm] | Margin [dB] |
|-------------|-----------|---------|-----------|-------------|-------------|-------------|
| NR Band n66 | 40 MHz    | Low     | Band Edge | -25.94      | -13         | -12.94      |
|             |           | Low     | Extended  | -26.20      | -13         | -13.20      |
|             |           | High    | Band Edge | -21.16      | -13         | -8.16       |
|             |           | High    | Extended  | -26.28      | -13         | -13.28      |
|             | 30 MHz    | Low     | Band Edge | -24.31      | -13         | -11.31      |
|             |           | Low     | Extended  | -25.47      | -13         | -12.47      |
|             |           | High    | Band Edge | -23.06      | -13         | -10.06      |
|             |           | High    | Extended  | -26.01      | -13         | -13.01      |
|             | 20 MHz    | Low     | Band Edge | -25.62      | -13         | -12.62      |
|             |           | Low     | Extended  | -23.62      | -13         | -10.62      |
|             |           | High    | Band Edge | -28.79      | -13         | -15.79      |
|             |           | High    | Extended  | -25.62      | -13         | -12.62      |
|             | 15 MHz    | Low     | Band Edge | -28.06      | -13         | -15.06      |
|             |           | Low     | Extended  | -22.28      | -13         | -9.28       |
|             |           | High    | Band Edge | -27.27      | -13         | -14.27      |
|             |           | High    | Extended  | -23.12      | -13         | -10.12      |
|             | 10 MHz    | Low     | Band Edge | -26.57      | -13         | -13.57      |
|             |           | Low     | Extended  | -18.63      | -13         | -5.63       |
|             |           | High    | Band Edge | -26.16      | -13         | -13.16      |
|             |           | High    | Extended  | -19.16      | -13         | -6.16       |
|             | 5 MHz     | Low     | Band Edge | -25.11      | -13         | -12.11      |
|             |           | Low     | Extended  | -27.97      | -13         | -14.97      |
|             |           | High    | Band Edge | -21.26      | -13         | -8.26       |
|             |           | High    | Extended  | -27.54      | -13         | -14.54      |

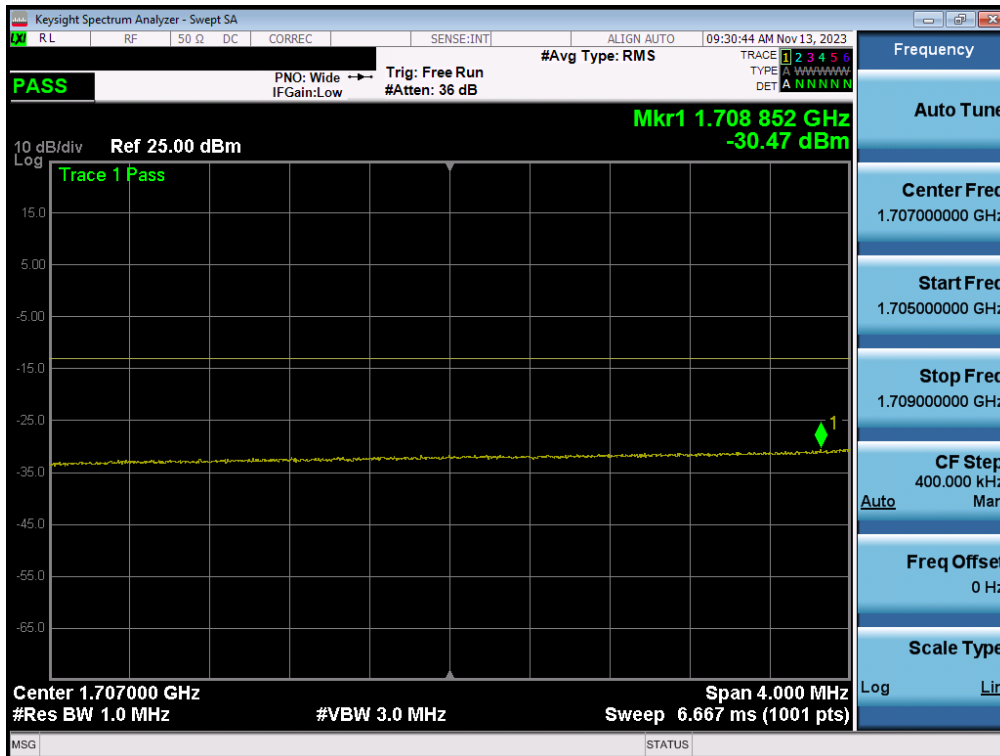
**Table 7-19. Conducted Band Edge Results – Ant2**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 124 of 181                   |

## LTE Band 66/4 – ANT2



Plot 7-173. Lower Band Edge Plot (LTE Band 66/4 - 20MHz QPSK – Full RB - ANT2)

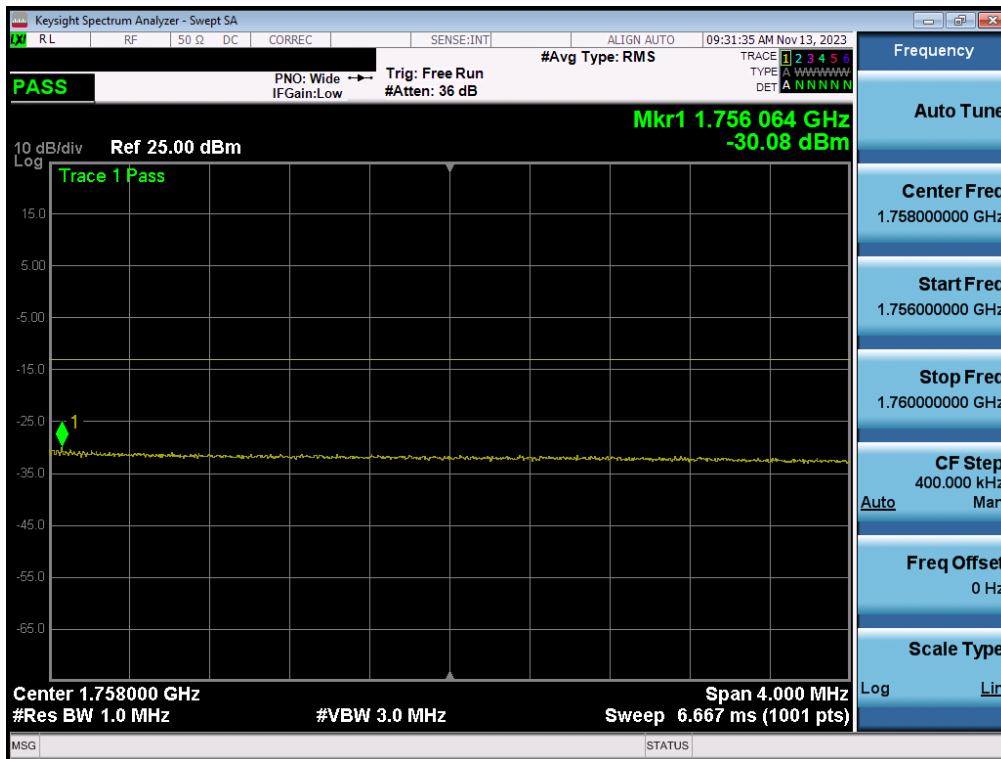


Plot 7-174. Lower Extended Band Edge Plot (LTE Band 66/4 - 20MHz QPSK – Full RB - ANT2)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 125 of 181                   |



Plot 7-175. Upper Band Edge Plot (LTE Band 4 - 20MHz QPSK – Full RB - ANT2)

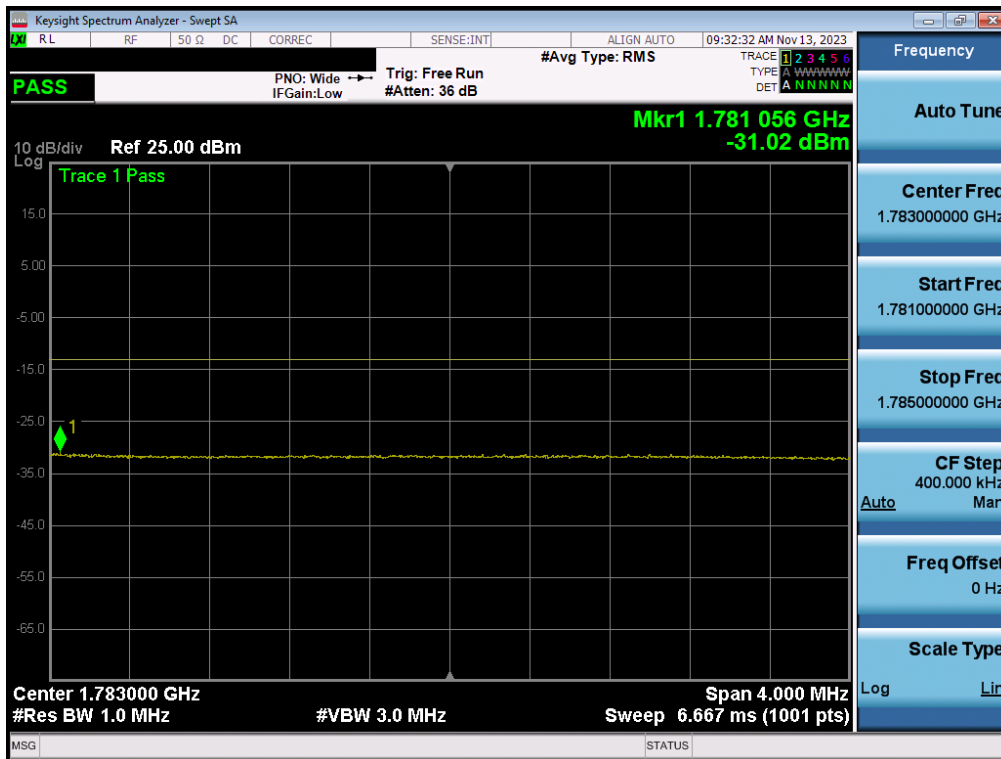


Plot 7-176. Upper Extended Band Edge Plot (LTE Band 4 - 20MHz QPSK – Full RB - ANT2)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 126 of 181                   |



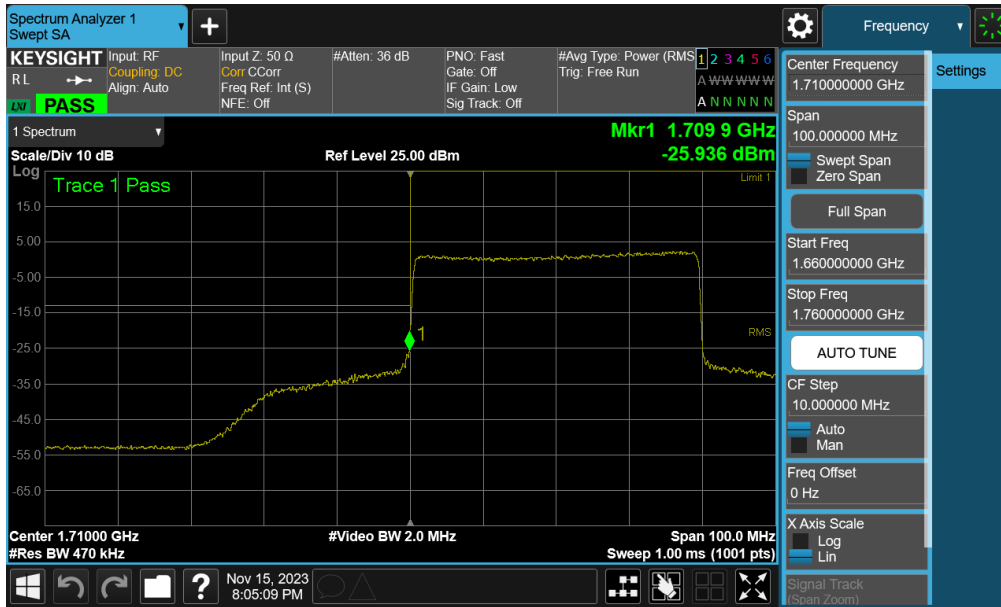
Plot 7-177. Upper Band Edge Plot (LTE Band 66 - 20MHz QPSK - Full RB - ANT2)



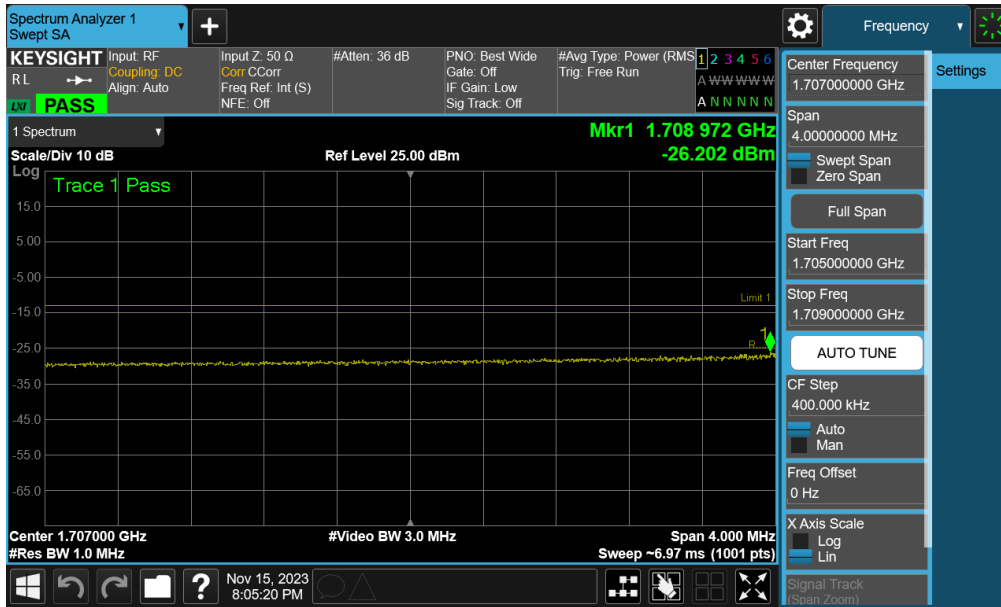
Plot 7-178. Upper Extended Band Edge Plot (LTE Band 66 - 20MHz QPSK - Full RB - ANT2)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 127 of 181                   |

# NR Band n66 – ANT2



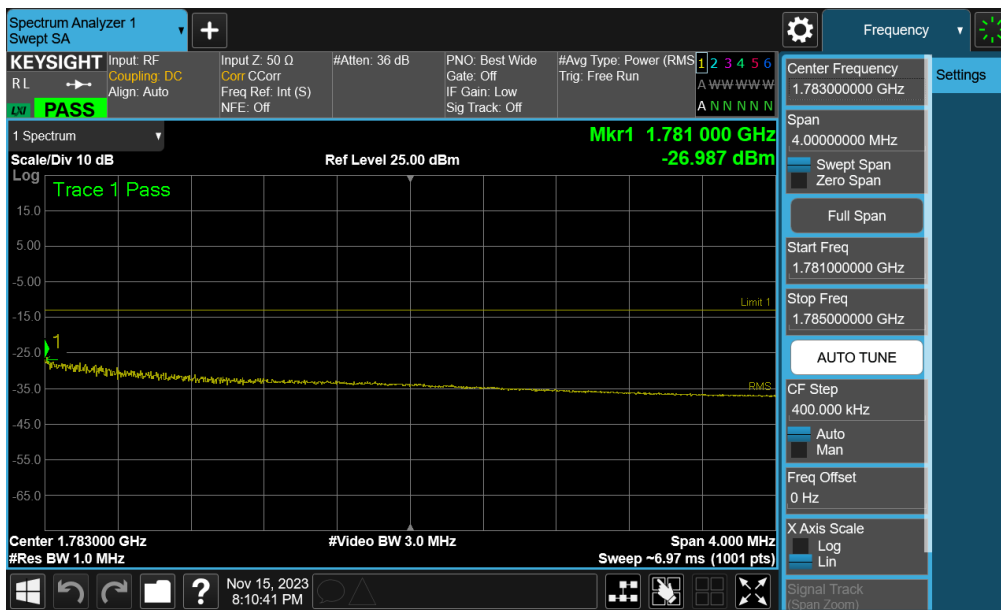
Plot 7-179. Lower Band Edge Plot (NR Band n66 – 5.0MHz - Full RB - ANT2)



Plot 7-180. Lower Extended Band Edge Plot (NR Band n66 – 5.0MHz - Full RB - ANT2)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 128 of 181                   |





|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 129 of 181                   |

## 7.6 Peak-Average Ratio

### Test Overview

A peak to average ratio measurement is performed at the conducted port of the EUT. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

### Test Procedure Used

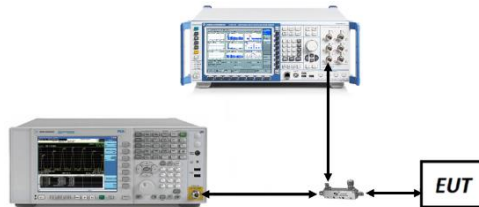
ANSI C63.26-2015 – Section 5.2.3.4

### Test Settings

1. The signal analyzer's CCDF measurement profile is enabled
2. Frequency = carrier center frequency
3. Measurement BW  $\geq$  OBW or specified reference bandwidth
4. The signal analyzer was set to collect one million samples to generate the CCDF curve
5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-5. Test Instrument & Measurement Setup**

### Test Notes

For the QAM modulations, 256QAM was found to have the worst-case peak-to-average ratio so it is the only QAM measurement included in this section.

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | <b>PART 27 MEASUREMENT REPORT</b>     |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 130 of 181                   |

| Mode      | Bandwidth | Modulation      | Average Power [dBm] | PAR at 0.1% [dB] | PAR Limit [dB] | Margin [dB] |
|-----------|-----------|-----------------|---------------------|------------------|----------------|-------------|
| WCDMA-AWS | 5MHz      | Spread Spectrum | 3.01                | 3.03             | 13             | -9.97       |
| LTE-B66-4 | 20MHz     | QPSK            | 22.51               | 5.91             | 13             | -7.09       |
|           |           | 256QAM          | 18.31               | 6.81             | 13             | -6.19       |
|           | 15MHz     | QPSK            | 22.42               | 5.93             | 13             | -7.07       |
|           |           | 256QAM          | 18.30               | 6.73             | 13             | -6.27       |
|           | 10MHz     | QPSK            | 22.45               | 6.08             | 13             | -6.92       |
|           |           | 256QAM          | 18.31               | 6.72             | 13             | -6.28       |
|           | 5MHz      | QPSK            | 22.43               | 6.02             | 13             | -6.98       |
|           |           | 256QAM          | 18.28               | 6.80             | 13             | -6.20       |
|           | 3MHz      | QPSK            | 22.48               | 6.21             | 13             | -6.79       |
|           |           | 256QAM          | 18.28               | 6.77             | 13             | -6.23       |
|           | 1.4MHz    | QPSK            | 22.42               | 6.14             | 13             | -6.86       |
|           |           | 256QAM          | 18.19               | 6.77             | 13             | -6.23       |

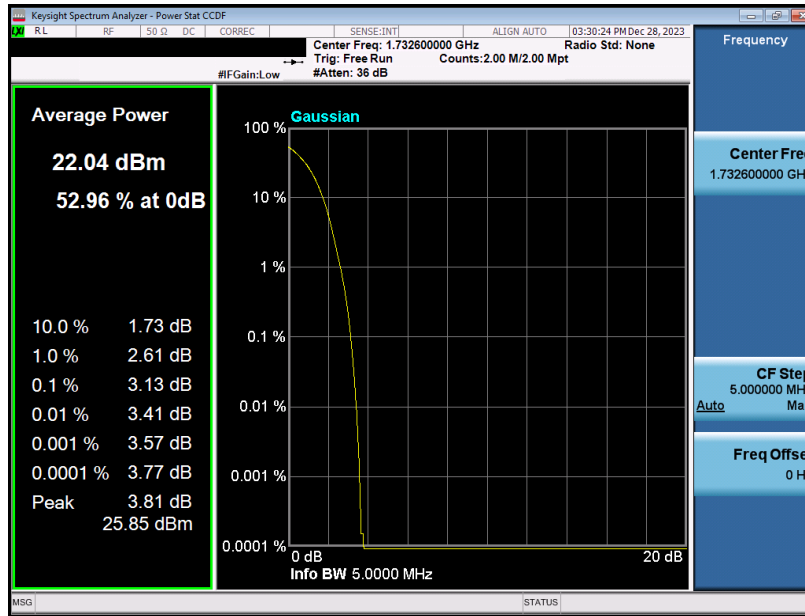
**Table 7-20. Peak-Average Ratio Results – Ant1**

| Mode   | Bandwidth    | Modulation   | Average Power [dBm] | PAR at 0.1% [dB] | PAR Limit [dB] | Margin [dB] |
|--------|--------------|--------------|---------------------|------------------|----------------|-------------|
| NR-n70 | 15MHz        | $\pi/2$ BPSK | 23.01               | 4.68             | 13             | -8.32       |
|        |              | QPSK         | 20.41               | 8.56             | 13             | -4.44       |
|        |              | 256QAM       | 16.88               | 8.69             | 13             | -4.31       |
|        | 10MHz        | $\pi/2$ BPSK | 23.05               | 4.63             | 13             | -8.37       |
|        |              | QPSK         | 20.40               | 8.54             | 13             | -4.46       |
|        |              | 256QAM       | 16.88               | 8.61             | 13             | -4.39       |
| 5MHz   | $\pi/2$ BPSK | 23.06        | 4.64                | 13               | -8.36          |             |
|        | QPSK         | 20.39        | 8.53                | 13               | -4.47          |             |
|        | 256QAM       | 16.83        | 8.64                | 13               | -4.36          |             |
| NR-n66 | 40MHz        | $\pi/2$ BPSK | 23.11               | 5.29             | 13             | -7.71       |
|        |              | QPSK         | 20.55               | 8.54             | 13             | -4.46       |
|        |              | 256QAM       | 17.01               | 8.59             | 13             | -4.41       |
|        | 30MHz        | $\pi/2$ BPSK | 23.13               | 4.69             | 13             | -8.31       |
|        |              | QPSK         | 20.57               | 8.51             | 13             | -4.49       |
|        |              | 256QAM       | 16.99               | 8.49             | 13             | -4.51       |
|        | 20MHz        | $\pi/2$ BPSK | 23.08               | 4.62             | 13             | -8.38       |
|        |              | QPSK         | 20.56               | 8.69             | 13             | -4.31       |
|        |              | 256QAM       | 17.02               | 8.59             | 13             | -4.41       |
|        | 15MHz        | $\pi/2$ BPSK | 23.09               | 4.62             | 13             | -8.38       |
|        |              | QPSK         | 20.50               | 8.68             | 13             | -4.32       |
|        |              | 256QAM       | 17.02               | 8.56             | 13             | -4.44       |
|        | 10MHz        | $\pi/2$ BPSK | 23.07               | 4.64             | 13             | -8.36       |
|        |              | QPSK         | 20.56               | 8.70             | 13             | -4.30       |
|        |              | 256QAM       | 17.04               | 8.62             | 13             | -4.38       |
|        | 5MHz         | $\pi/2$ BPSK | 23.11               | 4.60             | 13             | -8.40       |
|        |              | QPSK         | 20.55               | 8.62             | 13             | -4.38       |
|        |              | 256QAM       | 16.98               | 8.57             | 13             | -4.43       |

**Table 7-21. Peak-Average Ratio Results – Ant1**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 131 of 181                   |

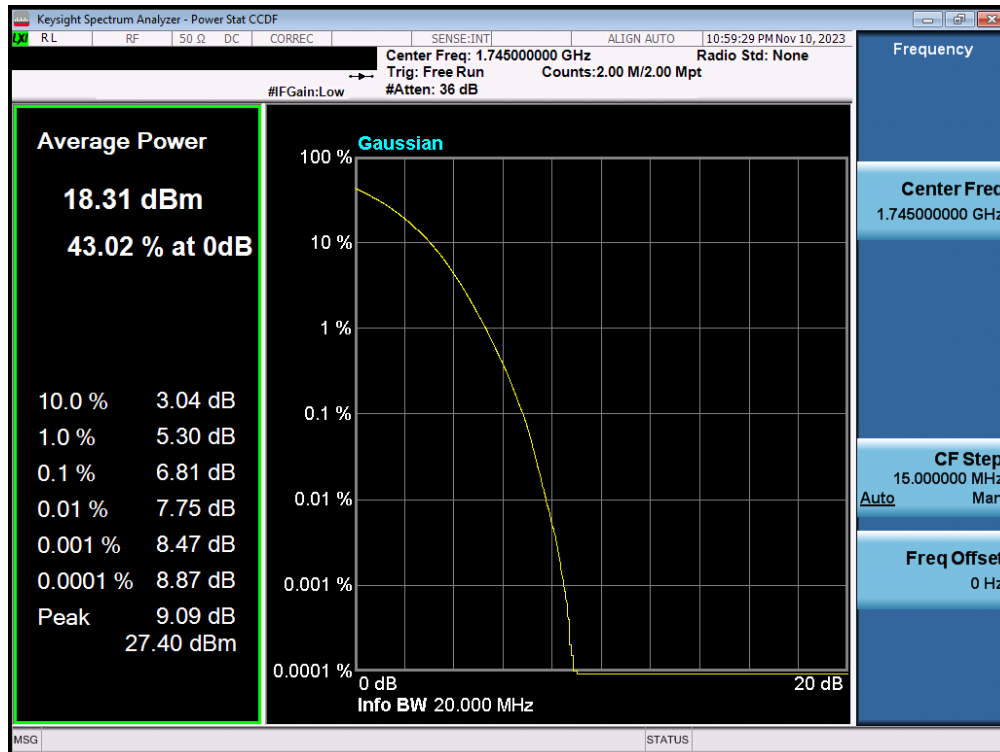
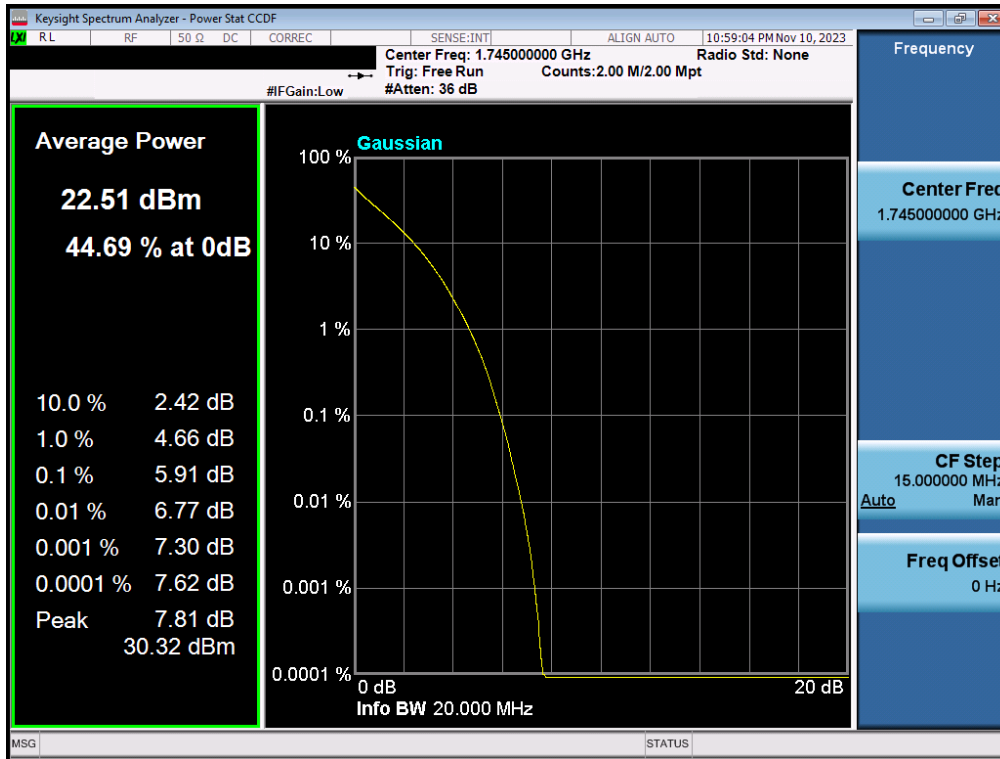
## WCDMA AWS – ANT1



**Plot 7-183. PAR Plot (WCDMA, Ch. 1413 – ANT1)**

|  |  |                                      |  |
|--|--|--------------------------------------|--|
| <b>FCC ID:</b> A3LSMA356U                      | <b>PART 27 MEASUREMENT REPORT</b>            |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2311010111-05.A3L | <b>Test Dates:</b><br>11/6/2023 - 12/28/2023 | <b>EUT Type:</b><br>Portable Handset | Page 132 of 181                          |

### LTE Band 66/4 – ANT1

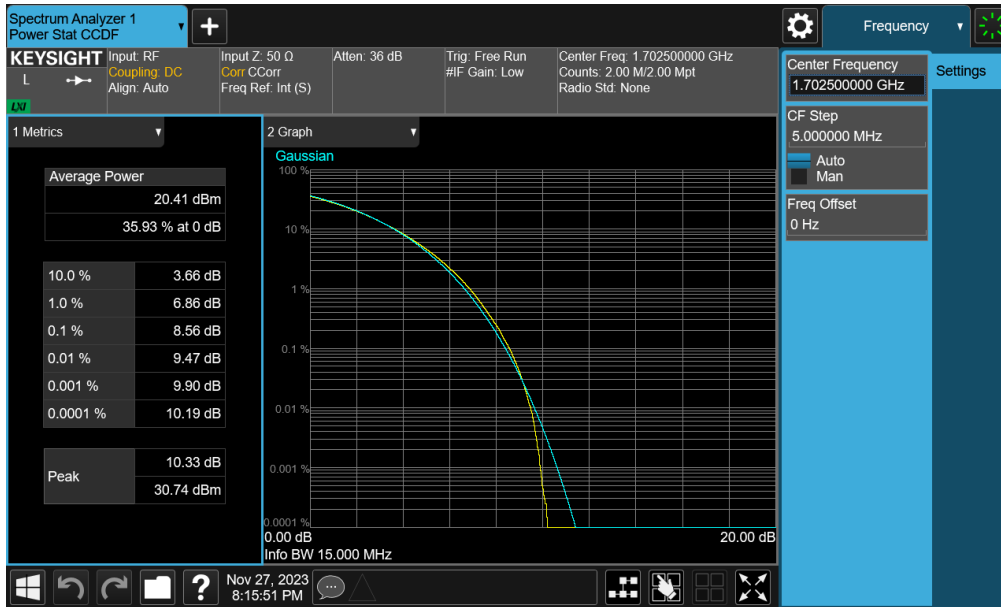


|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 133 of 181                   |

# NR Band n70 – ANT1



Plot 7-186. PAR Plot (NR Band n70 - 15.0MHz DFT-s-OFDM  $\pi/2$  BPSK- Full RB - ANT1)



Plot 7-187. PAR Plot (NR Band n70 - 15.0MHz CP-OFDM QPSK - Full RB - ANT1)

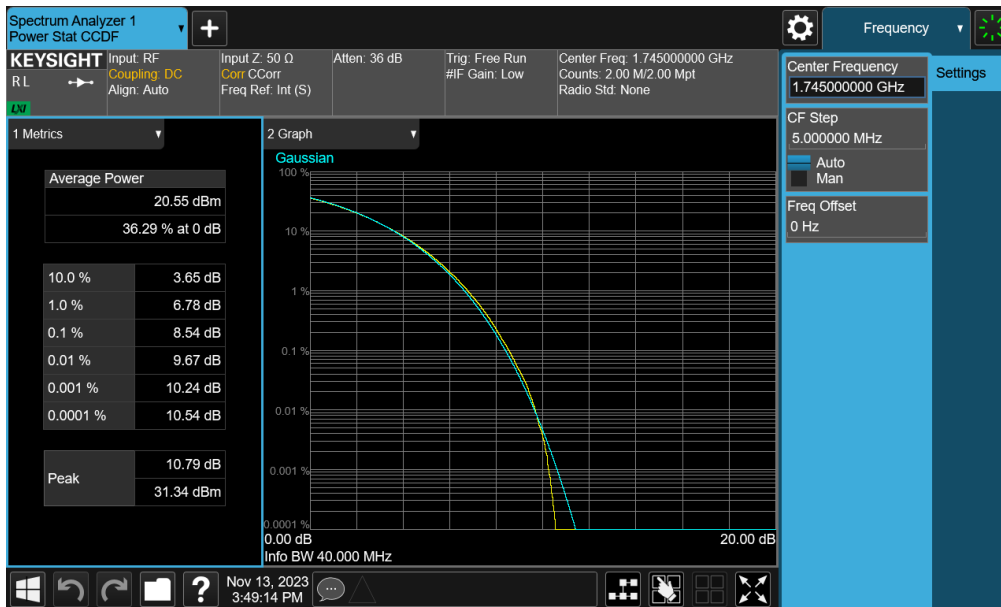
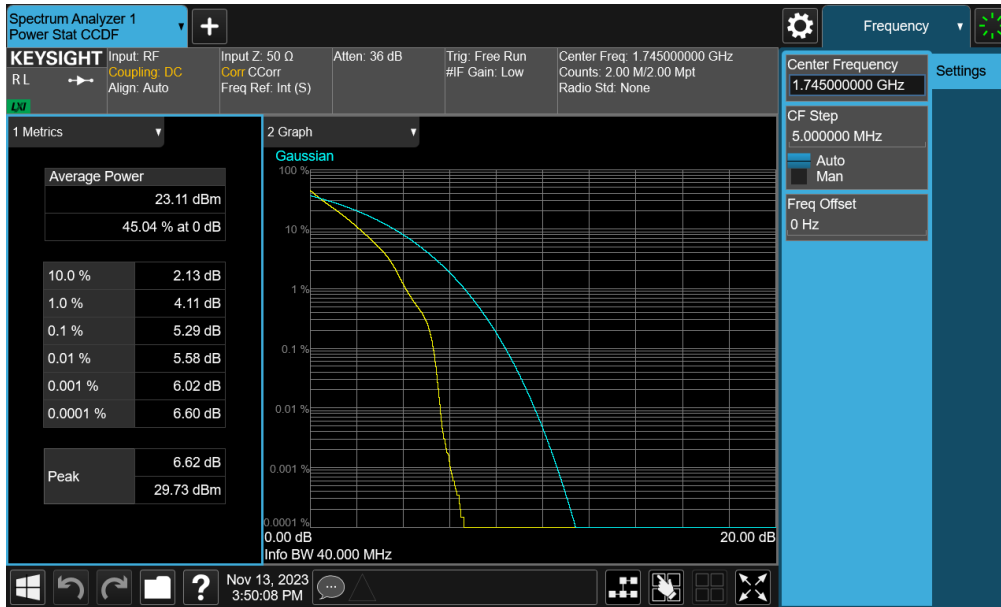
|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 134 of 181                   |



Plot 7-188. PAR Plot (NR Band n70 - 15.0MHz CP-OFDM 256-QAM - Full RB - ANT1)

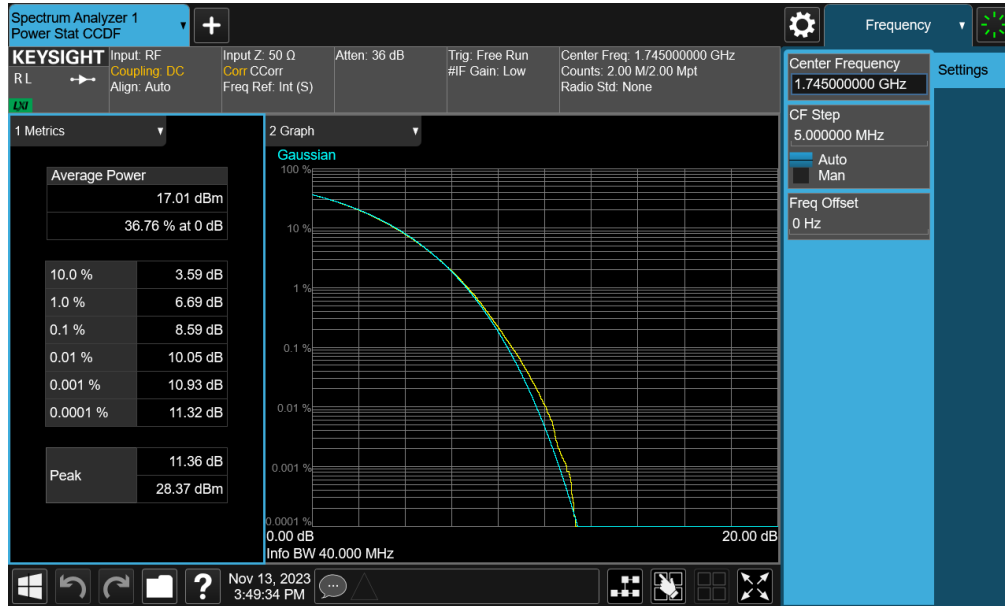
|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 135 of 181                   |

# NR Band n66 – ANT1



|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 136 of 181                   |





Plot 7-191. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM 256-QAM - Full RB - ANT1)

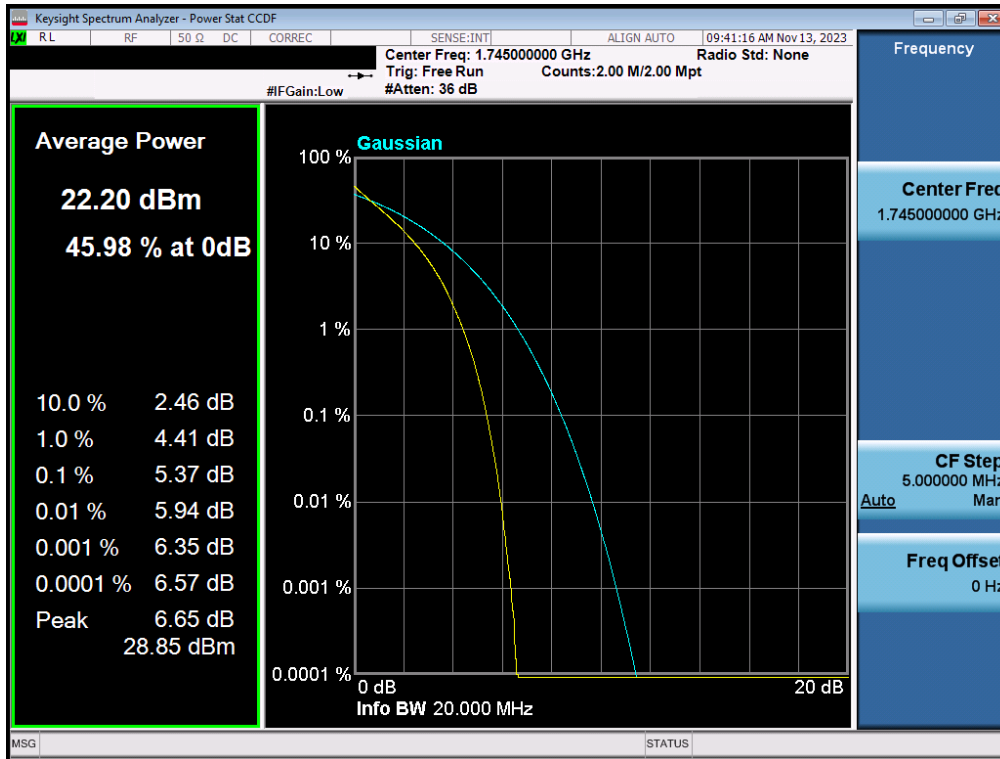
|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 137 of 181                   |

| Mode      | Bandwidth | Modulation   | Average Power [dBm] | PAR at 0.1% [dB] | PAR Limit [dB] | Margin [dB] |
|-----------|-----------|--------------|---------------------|------------------|----------------|-------------|
| LTE-B66-4 | 20MHz     | QPSK         | 22.20               | 5.37             | 13             | -7.63       |
|           |           | 256QAM       | 17.56               | 8.38             | 13             | -4.62       |
|           | 15MHz     | QPSK         | 22.12               | 5.40             | 13             | -7.60       |
|           |           | 256QAM       | 16.16               | 6.67             | 13             | -6.33       |
|           | 10MHz     | QPSK         | 22.18               | 5.49             | 13             | -7.51       |
|           |           | 256QAM       | 17.01               | 5.92             | 13             | -7.08       |
|           | 5MHz      | QPSK         | 22.12               | 5.44             | 13             | -7.56       |
|           |           | 256QAM       | 11.37               | 11.02            | 13             | -1.98       |
|           | 3MHz      | QPSK         | 22.23               | 5.50             | 13             | -7.50       |
|           |           | 256QAM       | 17.04               | 5.87             | 13             | -7.13       |
|           | 1.4MHz    | QPSK         | 22.90               | 5.28             | 13             | -7.72       |
|           |           | 256QAM       | 17.00               | 5.81             | 13             | -7.19       |
| NR-n66    | 40MHz     | $\pi/2$ BPSK | 22.44               | 4.97             | 13             | -8.03       |
|           |           | QPSK         | 19.90               | 7.28             | 13             | -5.72       |
|           |           | 256QAM       | 16.40               | 8.48             | 13             | -4.52       |
|           | 30MHz     | $\pi/2$ BPSK | 22.50               | 4.35             | 13             | -8.65       |
|           |           | QPSK         | 19.99               | 7.09             | 13             | -5.91       |
|           |           | 256QAM       | 16.41               | 8.38             | 13             | -4.62       |
|           | 20MHz     | $\pi/2$ BPSK | 22.38               | 3.93             | 13             | -9.08       |
|           |           | QPSK         | 19.92               | 7.11             | 13             | -5.89       |
|           |           | 256QAM       | 16.36               | 6.86             | 13             | -6.14       |
|           | 15MHz     | $\pi/2$ BPSK | 22.39               | 3.90             | 13             | -9.10       |
|           |           | QPSK         | 19.93               | 7.01             | 13             | -5.99       |
|           |           | 256QAM       | 16.40               | 8.34             | 13             | -4.66       |
|           | 10MHz     | $\pi/2$ BPSK | 22.39               | 4.36             | 13             | -8.64       |
|           |           | QPSK         | 19.88               | 7.10             | 13             | -5.90       |
|           |           | 256QAM       | 16.37               | 8.36             | 13             | -4.64       |
|           | 5MHz      | $\pi/2$ BPSK | 22.39               | 3.89             | 13             | -9.11       |
|           |           | QPSK         | 19.91               | 6.92             | 13             | -6.08       |
|           |           | 256QAM       | 16.36               | 8.38             | 13             | -4.62       |

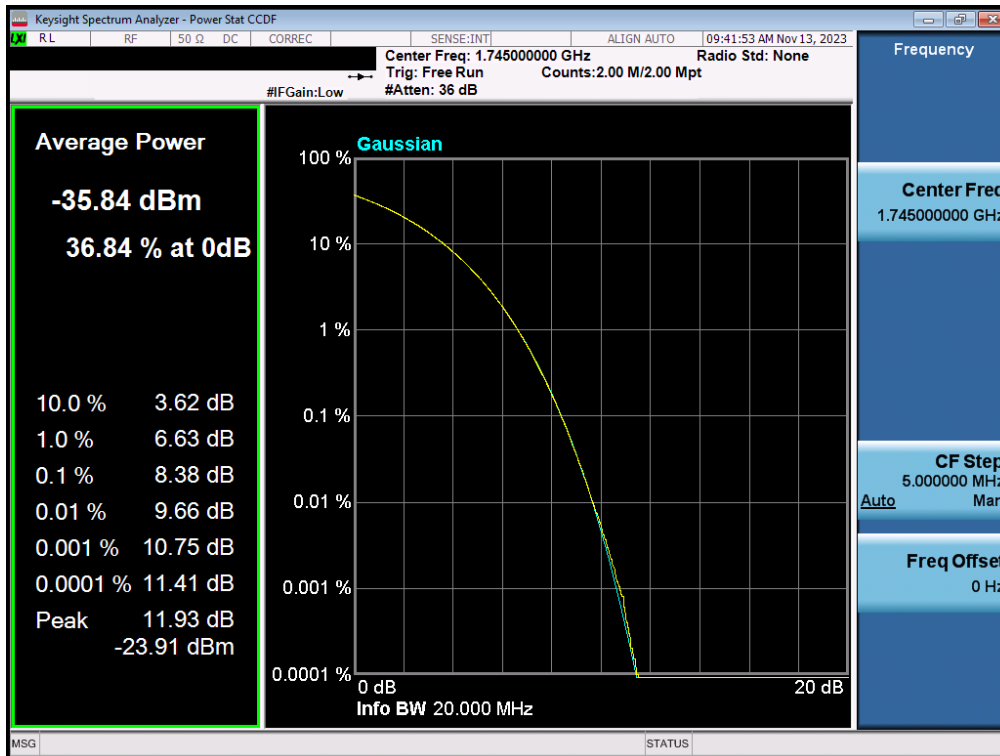
**Table 7-22. Peak-Average Ratio Results – Ant2**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 138 of 181                   |

### LTE Band 66/4 – ANT2



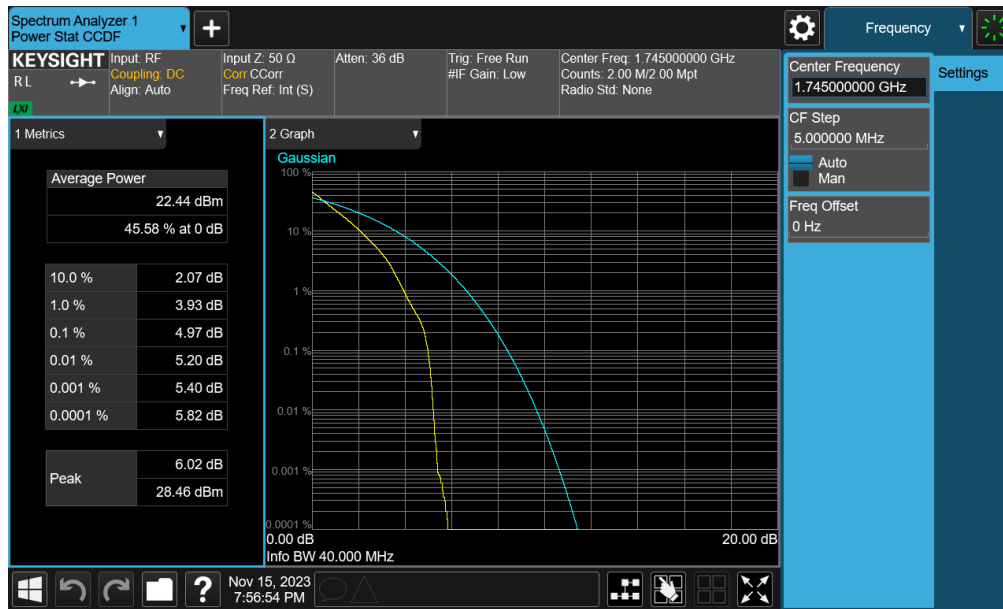
Plot 7-192. PAR Plot (LTE Band 66/4 - 20MHz QPSK - Full RB - ANT2)



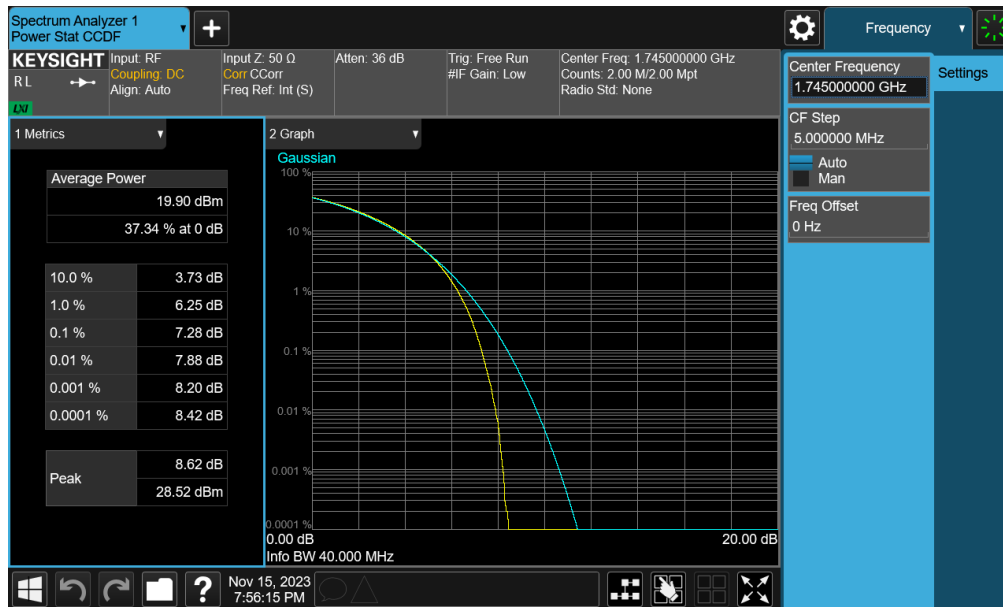
Plot 7-193. PAR Plot (LTE Band 66/4 - 20MHz 256-QAM - Full RB - ANT2)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 139 of 181                   |

## NR Band n66 – ANT2



lot 7-194. PAR Plot (NR Band n66 - 20.0MHz DFT-s-OFDM  $\pi/2$  BPSK- Full RB - ANT2)



Plot 7-195. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM QPSK - Full RB - ANT2)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 140 of 181                   |



Plot 7-196. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM 256-QAM - Full RB - ANT2)

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 141 of 181                   |



## 7.7 Radiated Power (ERP/EIRP)

### Test Overview

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

### Test Procedures Used

ANSI C63.26-2015 – Section 5.2.4.4

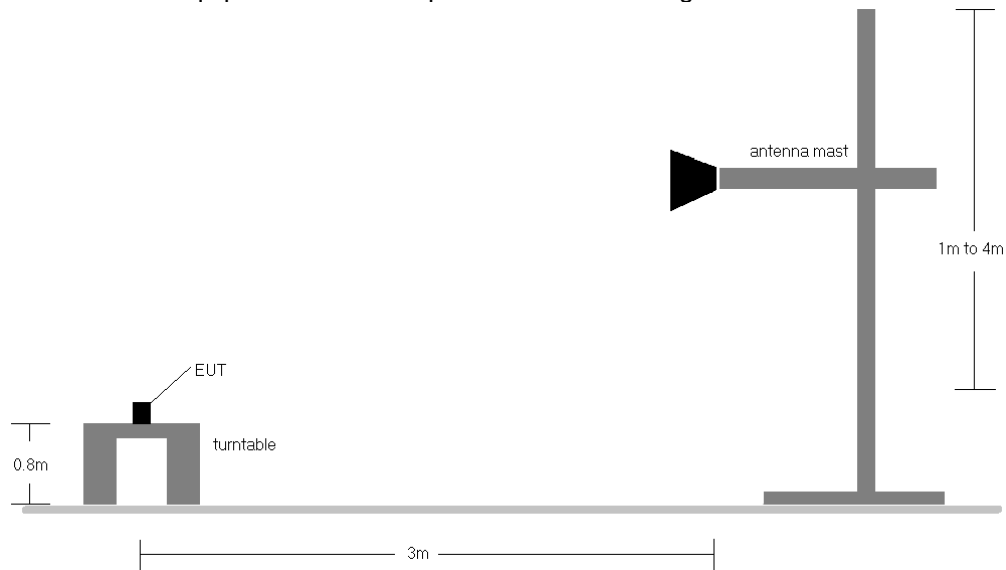
### Test Settings

1. Radiated power measurements are performed using the signal analyzer’s “channel power” measurement capability for signals with continuous operation.
2. RBW = 1 – 5% of the expected OBW, not to exceed 1MHz
3. VBW  $\geq$  3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points  $\geq$  2 x span / RBW
6. Detector = RMS
7. Trigger is set to “free run” for signals with continuous operation with the sweep times set to “auto”.
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize

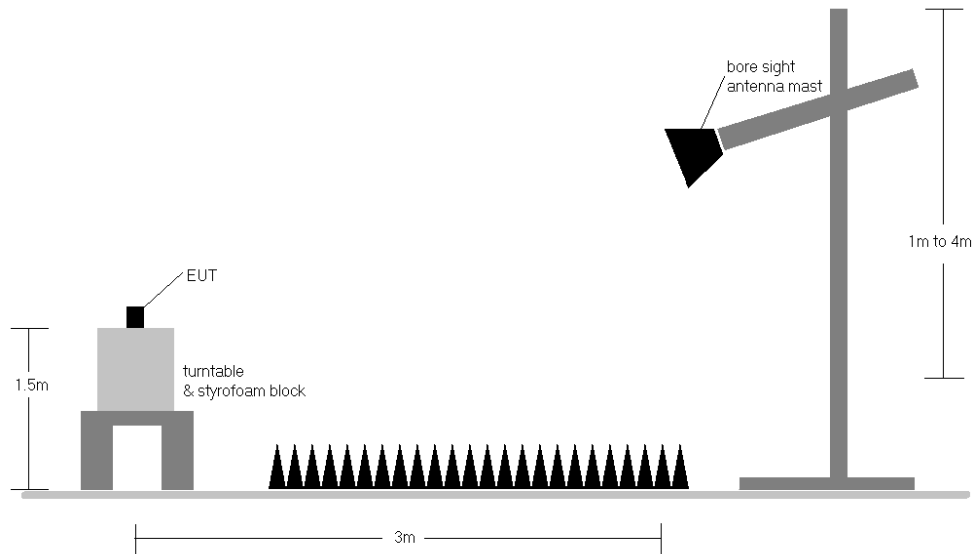
|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | <b>PART 27 MEASUREMENT REPORT</b>     |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 142 of 181                   |

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-6. Radiated Test Setup <1GHz**



**Figure 7-7. Radiated Test Setup >1GHz**

### Test Notes

- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 2) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst-case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 143 of 181                   |



- 3) This unit was tested with its standard battery.
- 4) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

|  |  |                                      |  |
|--|--|--------------------------------------|--|
| <b>FCC ID:</b> A3LSMA356U                      | <b>PART 27 MEASUREMENT REPORT</b>            |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2311010111-05.A3L | <b>Test Dates:</b><br>11/6/2023 - 12/28/2023 | <b>EUT Type:</b><br>Portable Handset | Page 144 of 181                          |





| Bandwidth | Mod.          | Frequency [MHz] | Ant. Pol. [H/V] | EUT Pol. | Antenna Height [cm] | Turntable Azimuth [degree] | Ant. Gain [dBi] | RB Size/Offset | Substitute Level [dBm] | EIRP [dBm]   | EIRP [Watts] | EIRP Limit [dBm] | Margin [dB] | ERP [dBm]    | ERP [Watts] | ERP Limit [dBm] | Margin [dB] |
|-----------|---------------|-----------------|-----------------|----------|---------------------|----------------------------|-----------------|----------------|------------------------|--------------|--------------|------------------|-------------|--------------|-------------|-----------------|-------------|
| 20 MHz    | QPSK          | 673.00          | H               | X        | 123                 | 297                        | 0.69            | 1 / 50         | 20.85                  | 21.54        | 0.143        | 36.99            | -15.45      | 19.39        | 0.087       | 34.77           | -15.38      |
|           | QPSK          | 680.50          | H               | X        | 138                 | 301                        | 0.81            | 1 / 50         | 21.47                  | 22.28        | 0.169        | 36.99            | -14.71      | 20.13        | 0.103       | 34.77           | -14.64      |
|           | QPSK          | 688.00          | H               | X        | 138                 | 303                        | 0.93            | 1 / 50         | 21.63                  | <b>22.56</b> | 0.180        | 36.99            | -14.43      | <b>20.41</b> | 0.110       | 34.77           | -14.36      |
|           | 16-QAM        | 673.00          | H               | X        | 123                 | 297                        | 0.69            | 1 / 50         | 20.20                  | 20.89        | 0.123        | 36.99            | -16.10      | 18.74        | 0.075       | 34.77           | -16.03      |
|           | 16-QAM        | 680.50          | H               | X        | 138                 | 301                        | 0.81            | 1 / 50         | 20.65                  | 21.46        | 0.140        | 36.99            | -15.53      | 19.31        | 0.085       | 34.77           | -15.46      |
| 15 MHz    | 16-QAM        | 688.00          | H               | X        | 138                 | 303                        | 0.93            | 1 / 50         | 20.95                  | 21.88        | 0.154        | 36.99            | -15.11      | 19.73        | 0.094       | 34.77           | -15.04      |
|           | QPSK          | 670.50          | H               | X        | 123                 | 297                        | 0.65            | 1 / 0          | 20.84                  | 21.49        | 0.141        | 36.99            | -15.50      | 19.34        | 0.086       | 34.77           | -15.43      |
|           | QPSK          | 680.50          | H               | X        | 138                 | 301                        | 0.81            | 1 / 37         | 21.46                  | 22.27        | 0.169        | 36.99            | -14.72      | 20.12        | 0.103       | 34.77           | -14.65      |
|           | QPSK          | 690.50          | H               | X        | 138                 | 303                        | 0.97            | 1 / 0          | 21.62                  | <b>22.59</b> | 0.182        | 36.99            | -14.40      | <b>20.44</b> | 0.111       | 34.77           | -14.33      |
|           | 16-QAM        | 690.50          | H               | X        | 138                 | 303                        | 0.97            | 1 / 0          | 20.96                  | 21.93        | 0.156        | 36.99            | -15.06      | 19.78        | 0.095       | 34.77           | -14.99      |
| 10 MHz    | QPSK          | 668.00          | H               | X        | 123                 | 297                        | 0.61            | 1 / 0          | 20.85                  | 21.46        | 0.140        | 36.99            | -15.53      | 19.31        | 0.085       | 34.77           | -15.46      |
|           | QPSK          | 680.50          | H               | X        | 138                 | 301                        | 0.81            | 1 / 0          | 21.51                  | 22.32        | 0.171        | 36.99            | -14.67      | 20.17        | 0.104       | 34.77           | -14.60      |
|           | QPSK          | 693.00          | H               | X        | 138                 | 303                        | 1.01            | 1 / 0          | 21.69                  | <b>22.70</b> | 0.186        | 36.99            | -14.29      | <b>20.55</b> | 0.114       | 34.77           | -14.22      |
|           | 16-QAM        | 693.00          | H               | X        | 138                 | 303                        | 1.01            | 1 / 0          | 21.12                  | 22.13        | 0.163        | 36.99            | -14.86      | 19.98        | 0.100       | 34.77           | -14.79      |
| 5 MHz     | QPSK          | 665.50          | H               | X        | 123                 | 297                        | 0.57            | 1 / 0          | 21.01                  | 21.57        | 0.144        | 36.99            | -15.42      | 19.42        | 0.088       | 34.77           | -15.35      |
|           | QPSK          | 680.50          | H               | X        | 138                 | 301                        | 0.81            | 1 / 0          | 21.74                  | <b>22.55</b> | 0.180        | 36.99            | -14.44      | <b>20.40</b> | 0.110       | 34.77           | -14.37      |
|           | QPSK          | 695.50          | H               | X        | 138                 | 303                        | 1.05            | 1 / 0          | 21.46                  | 22.51        | 0.178        | 36.99            | -14.48      | 20.36        | 0.109       | 34.77           | -14.41      |
|           | 16-QAM        | 695.50          | H               | X        | 138                 | 303                        | 1.05            | 1 / 0          | 20.79                  | 21.84        | 0.153        | 36.99            | -15.15      | 19.69        | 0.093       | 34.77           | -15.08      |
| 20 MHz    | Opposite Pol. | 688.00          | V               | Y        | 165                 | 298                        | 0.93            | 1 / 99         | 20.92                  | 21.85        | 0.153        | 36.99            | -15.14      | 19.70        | 0.093       | 34.77           | -15.07      |

Table 7-197. ERP Data (LTE Band 71) – Ant1

| Bandwidth | Mod.          | Frequency [MHz] | Ant. Pol. [H/V] | EUT Pol. | Antenna Height [cm] | Turntable Azimuth [degree] | Ant. Gain [dBi] | RB Size/Offset | Substitute Level [dBm] | EIRP [dBm]   | EIRP [Watts] | EIRP Limit [dBm] | Margin [dB] | ERP [dBm]    | ERP [Watts] | ERP Limit [dBm] | Margin [dB] |
|-----------|---------------|-----------------|-----------------|----------|---------------------|----------------------------|-----------------|----------------|------------------------|--------------|--------------|------------------|-------------|--------------|-------------|-----------------|-------------|
| 10 MHz    | QPSK          | 704.00          | H               | Y        | 130                 | 174                        | 1.14            | 1 / 49         | 18.99                  | 20.13        | 0.103        | 36.99            | -16.86      | 17.98        | 0.063       | 34.77           | -16.79      |
|           | QPSK          | 707.50          | H               | Y        | 129                 | 170                        | 1.16            | 1 / 49         | 19.05                  | 20.21        | 0.105        | 36.99            | -16.78      | 18.06        | 0.064       | 34.77           | -16.71      |
|           | QPSK          | 711.00          | H               | Y        | 142                 | 173                        | 1.17            | 1 / 49         | 19.57                  | <b>20.74</b> | 0.119        | 36.99            | -16.25      | <b>18.59</b> | 0.072       | 34.77           | -16.18      |
|           | 16-QAM        | 711.00          | H               | Y        | 142                 | 173                        | 1.17            | 1 / 49         | 19.36                  | 20.53        | 0.113        | 36.99            | -16.46      | 18.38        | 0.069       | 34.77           | -16.39      |
| 5 MHz     | QPSK          | 701.50          | H               | Y        | 130                 | 174                        | 1.13            | 1 / 12         | 19.20                  | 20.33        | 0.108        | 36.99            | -16.66      | 18.18        | 0.066       | 34.77           | -16.59      |
|           | QPSK          | 707.50          | H               | Y        | 129                 | 170                        | 1.16            | 1 / 12         | 19.12                  | 20.28        | 0.107        | 36.99            | -16.71      | 18.13        | 0.065       | 34.77           | -16.65      |
|           | QPSK          | 713.50          | H               | Y        | 142                 | 173                        | 1.19            | 1 / 0          | 19.70                  | <b>20.89</b> | 0.123        | 36.99            | -16.10      | <b>18.74</b> | 0.075       | 34.77           | -16.04      |
|           | 16-QAM        | 713.50          | H               | Y        | 142                 | 173                        | 1.19            | 1 / 0          | 19.37                  | 20.56        | 0.114        | 36.99            | -16.43      | 18.41        | 0.069       | 34.77           | -16.36      |
| 3 MHz     | QPSK          | 700.50          | H               | Y        | 130                 | 174                        | 1.12            | 1 / 7          | 19.18                  | 20.31        | 0.107        | 36.99            | -16.68      | 18.16        | 0.065       | 34.77           | -16.62      |
|           | QPSK          | 707.50          | H               | Y        | 129                 | 170                        | 1.16            | 1 / 0          | 19.00                  | 20.15        | 0.104        | 36.99            | -16.84      | 18.00        | 0.063       | 34.77           | -16.77      |
|           | QPSK          | 714.50          | H               | Y        | 142                 | 173                        | 1.19            | 1 / 0          | 19.74                  | <b>20.93</b> | 0.124        | 36.99            | -16.06      | <b>18.78</b> | 0.076       | 34.77           | -15.99      |
|           | 16-QAM        | 714.50          | H               | Y        | 142                 | 173                        | 1.19            | 1 / 0          | 19.39                  | 20.58        | 0.114        | 36.99            | -16.41      | 18.43        | 0.070       | 34.77           | -16.34      |
| 1.4 MHz   | QPSK          | 699.70          | H               | Y        | 130                 | 174                        | 1.12            | 1 / 0          | 19.06                  | 20.17        | 0.104        | 36.99            | -16.82      | 18.02        | 0.063       | 34.77           | -16.75      |
|           | QPSK          | 707.50          | H               | Y        | 129                 | 170                        | 1.16            | 1 / 5          | 19.01                  | 20.16        | 0.104        | 36.99            | -16.83      | 18.01        | 0.063       | 34.77           | -16.76      |
|           | QPSK          | 715.30          | H               | Y        | 142                 | 173                        | 1.20            | 1 / 5          | 19.61                  | <b>20.81</b> | 0.120        | 36.99            | -16.18      | <b>18.66</b> | 0.073       | 34.77           | -16.12      |
|           | 16-QAM        | 715.30          | H               | Y        | 142                 | 173                        | 1.20            | 1 / 5          | 19.24                  | 20.43        | 0.110        | 36.99            | -16.56      | 18.28        | 0.067       | 34.77           | -16.49      |
| 10 MHz    | Opposite Pol. | 711.00          | V               | Z        | 151                 | 338                        | 1.17            | 1 / 49         | 19.23                  | 20.40        | 0.110        | 36.99            | -16.59      | 18.25        | 0.067       | 34.77           | -16.52      |

Table 7-198. ERP Data (LTE Band 12) – Ant1

| Bandwidth | Mod.          | Frequency [MHz] | Ant. Pol. [H/V] | EUT Pol. | Antenna Height [cm] | Turntable Azimuth [degree] | Ant. Gain [dBi] | RB Size/Offset | Substitute Level [dBm] | EIRP [dBm]   | EIRP [Watts] | EIRP Limit [dBm] | Margin [dB] | ERP [dBm]    | ERP [Watts] | ERP Limit [dBm] | Margin [dB] |
|-----------|---------------|-----------------|-----------------|----------|---------------------|----------------------------|-----------------|----------------|------------------------|--------------|--------------|------------------|-------------|--------------|-------------|-----------------|-------------|
| 10 MHz    | QPSK          | 782.00          | V               | Z        | 152                 | 205                        | 0.82            | 1 / 49         | 20.85                  | <b>21.67</b> | 0.147        | 36.99            | -15.32      | <b>19.52</b> | 0.090       | 34.77           | -15.25      |
|           | 16-QAM        | 782.00          | V               | Z        | 152                 | 205                        | 0.82            | 1 / 49         | 20.17                  | 20.99        | 0.126        | 36.99            | -16.00      | 18.84        | 0.077       | 34.77           | -15.93      |
| 5 MHz     | QPSK          | 779.50          | V               | Z        | 152                 | 205                        | 0.94            | 1 / 12         | 20.75                  | 21.69        | 0.147        | 36.99            | -15.30      | 19.54        | 0.090       | 34.77           | -15.23      |
|           | QPSK          | 782.00          | V               | Z        | 152                 | 205                        | 0.89            | 1 / 12         | 20.85                  | 21.74        | 0.149        | 36.99            | -15.25      | 19.59        | 0.091       | 34.77           | -15.18      |
|           | QPSK          | 784.50          | V               | Z        | 152                 | 205                        | 0.85            | 1 / 12         | 20.94                  | <b>21.78</b> | 0.151        | 36.99            | -15.21      | <b>19.63</b> | 0.092       | 34.77           | -15.14      |
|           | 16-QAM        | 779.50          | V               | Z        | 152                 | 205                        | 0.94            | 1 / 12         | 20.12                  | 21.06        | 0.128        | 36.99            | -15.93      | 18.91        | 0.078       | 34.77           | -15.86      |
| 10 MHz    | Opposite Pol. | 782.00          | H               | Y        | 101                 | 171                        | 1.09            | 1 / 49         | 20.17                  | 21.26        | 0.134        | 36.99            | -15.73      | 19.11        | 0.081       | 34.77           | -15.66      |

Table 7-199. ERP Data (LTE Band 13) – Ant1

| Frequency [MHz] | Mode      | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Substitute Level [dBm] | Ant. Gain [dBi] | EIRP [dBm]   | EIRP [Watts] | EIRP Limit [dBm] | Margin [dB] |
|-----------------|-----------|-----------------|---------------------|----------------------------|------------------------|-----------------|--------------|--------------|------------------|-------------|
| 1712.40         | WCDMA1700 | H               | 251                 | 11                         | 21.09                  | 2.89            | <b>23.98</b> | <b>0.250</b> | 30.00            | -6.02       |
| 1732.60         | WCDMA1700 | H               | 159                 | 63                         | 20.80                  | 2.86            | 23.66        | 0.232        | 30.00            | -6.34       |
| 1752.60         | WCDMA1700 | H               | 179                 | 1                          | 20.28                  | 2.83            | 23.11        | 0.205        | 30.00            | -6.89       |

Table 7-200. EIRP Data (WCDMA AWS) – Ant1

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 145 of 181                   |



| Bandwidth | Mod.          | Frequency [MHz] | Ant. Pol. [H/V] | EUT Pol. | Antenna Height [cm] | Turntable Azimuth [degree] | Ant. Gain [dBi] | RB Size/Offset | Substitute Level [dBm] | EIRP [dBm]   | EIRP [Watts] | EIRP Limit [dBm] | Margin [dB] |
|-----------|---------------|-----------------|-----------------|----------|---------------------|----------------------------|-----------------|----------------|------------------------|--------------|--------------|------------------|-------------|
| 20 MHz    | QPSK          | 1720.00         | V               | Y        | 144                 | 350                        | 2.90            | 1 / 50         | 19.58                  | 22.48        | 0.177        | 30.00            | -7.52       |
|           | QPSK          | 1745.00         | V               | Y        | 159                 | 341                        | 2.94            | 1 / 50         | 20.75                  | <b>23.69</b> | 0.234        | 30.00            | -6.31       |
|           | QPSK          | 1770.00         | V               | Y        | 138                 | 344                        | 3.02            | 1 / 0          | 19.61                  | 22.63        | 0.183        | 30.00            | -7.37       |
|           | 16-QAM        | 1745.00         | V               | Y        | 159                 | 341                        | 2.94            | 1 / 50         | 19.91                  | 22.85        | 0.193        | 30.00            | -7.15       |
| 15 MHz    | QPSK          | 1717.50         | V               | Y        | 144                 | 350                        | 2.89            | 1 / 37         | 19.97                  | 22.86        | 0.193        | 30.00            | -7.14       |
|           | QPSK          | 1745.00         | V               | Y        | 159                 | 341                        | 2.94            | 1 / 0          | 20.42                  | <b>23.36</b> | 0.217        | 30.00            | -6.64       |
|           | QPSK          | 1772.50         | V               | Y        | 138                 | 344                        | 3.03            | 1 / 74         | 19.71                  | 22.74        | 0.188        | 30.00            | -7.26       |
|           | 16-QAM        | 1745.00         | V               | Y        | 159                 | 341                        | 2.94            | 1 / 37         | 19.60                  | 22.54        | 0.180        | 30.00            | -7.46       |
| 10 MHz    | QPSK          | 1715.00         | V               | Y        | 144                 | 350                        | 2.89            | 1 / 0          | 19.92                  | 22.81        | 0.191        | 30.00            | -7.19       |
|           | QPSK          | 1745.00         | V               | Y        | 159                 | 341                        | 2.94            | 1 / 0          | 20.33                  | <b>23.28</b> | 0.213        | 30.00            | -6.72       |
|           | QPSK          | 1775.00         | V               | Y        | 138                 | 344                        | 3.04            | 1 / 0          | 19.78                  | 22.81        | 0.191        | 30.00            | -7.19       |
|           | 16-QAM        | 1745.00         | V               | Y        | 159                 | 341                        | 2.94            | 1 / 0          | 19.61                  | 22.55        | 0.180        | 30.00            | -7.45       |
| 5 MHz     | QPSK          | 1712.50         | V               | Y        | 144                 | 350                        | 2.88            | 1 / 12         | 20.03                  | 22.92        | 0.196        | 30.00            | -7.08       |
|           | QPSK          | 1745.00         | V               | Y        | 159                 | 341                        | 2.94            | 1 / 12         | 20.63                  | <b>23.58</b> | 0.228        | 30.00            | -6.42       |
|           | QPSK          | 1777.50         | V               | Y        | 138                 | 344                        | 3.05            | 1 / 12         | 19.96                  | 23.00        | 0.200        | 30.00            | -7.00       |
|           | 16-QAM        | 1745.00         | V               | Y        | 159                 | 341                        | 2.94            | 1 / 0          | 19.87                  | 22.82        | 0.191        | 30.00            | -7.18       |
| 3 MHz     | QPSK          | 1711.50         | V               | Y        | 144                 | 350                        | 2.88            | 1 / 7          | 20.11                  | 23.00        | 0.199        | 30.00            | -7.00       |
|           | QPSK          | 1745.00         | V               | Y        | 159                 | 341                        | 2.94            | 1 / 7          | 20.65                  | <b>23.59</b> | 0.229        | 30.00            | -6.41       |
|           | QPSK          | 1778.50         | V               | Y        | 138                 | 344                        | 3.05            | 1 / 7          | 19.87                  | 22.92        | 0.196        | 30.00            | -7.08       |
|           | 16-QAM        | 1745.00         | V               | Y        | 159                 | 341                        | 2.94            | 1 / 0          | 19.54                  | 22.48        | 0.177        | 30.00            | -7.52       |
| 1.4 MHz   | QPSK          | 1710.70         | V               | Y        | 144                 | 350                        | 2.88            | 1 / 3          | 19.96                  | 22.84        | 0.192        | 30.00            | -7.16       |
|           | QPSK          | 1745.00         | V               | Y        | 159                 | 341                        | 2.94            | 1 / 3          | 20.61                  | <b>23.56</b> | 0.227        | 30.00            | -6.44       |
|           | QPSK          | 1779.30         | V               | Y        | 138                 | 344                        | 3.05            | 1 / 3          | 19.91                  | 22.96        | 0.198        | 30.00            | -7.04       |
|           | 16-QAM        | 1745.00         | V               | Y        | 159                 | 341                        | 2.94            | 1 / 0          | 19.78                  | 22.72        | 0.187        | 30.00            | -7.28       |
| 20 MHz    | Opposite Pol. | 1745.00         | H               | X        | 101                 | 16                         | 2.84            | 1 / 50         | 19.05                  | 21.89        | 0.155        | 30.00            | -8.11       |

Table 7-201. EIRP Data (LTE Band 66/4) – Ant1

| Bandwidth | Mod.           | Frequency [MHz] | Ant. Pol. [H/V] | EUT Pol. | Antenna Height [cm] | Turntable Azimuth [degree] | Ant. Gain [dBi] | RB Size/Offset | Substitute Level [dBm] | EIRP [dBm]   | EIRP [Watts] | EIRP Limit [dBm] | Margin [dB] |
|-----------|----------------|-----------------|-----------------|----------|---------------------|----------------------------|-----------------|----------------|------------------------|--------------|--------------|------------------|-------------|
| 15 MHz    | $\pi/2$ BPSK   | 1702.50         | H               | X        | 180                 | 230                        | 2.87            | 1 / 39         | 21.03                  | 23.90        | 0.245        | 30.00            | -6.10       |
|           | QPSK           | 1702.50         | H               | X        | 180                 | 230                        | 2.87            | 1 / 39         | 21.10                  | <b>23.97</b> | 0.249        | 30.00            | -6.03       |
|           | 16-QAM         | 1702.50         | H               | X        | 180                 | 230                        | 2.90            | 1 / 39         | 20.07                  | 22.97        | 0.198        | 30.00            | -7.03       |
| 10 MHz    | $\pi/2$ BPSK   | 1700.00         | H               | X        | 180                 | 230                        | 2.86            | 1 / 50         | 21.14                  | 24.00        | 0.251        | 30.00            | -6.00       |
|           | $\pi/2$ BPSK   | 1702.50         | H               | X        | 180                 | 230                        | 2.87            | 1 / 1          | 21.05                  | 23.92        | 0.247        | 30.00            | -6.08       |
|           | $\pi/2$ BPSK   | 1705.00         | H               | X        | 180                 | 230                        | 2.87            | 1 / 50         | 21.08                  | 23.95        | 0.248        | 30.00            | -6.05       |
|           | QPSK           | 1700.00         | H               | X        | 180                 | 230                        | 2.86            | 1 / 50         | 21.22                  | 24.08        | 0.256        | 30.00            | -5.92       |
|           | QPSK           | 1702.50         | H               | X        | 180                 | 230                        | 2.87            | 1 / 1          | 21.10                  | 23.97        | 0.249        | 30.00            | -6.03       |
|           | QPSK           | 1705.00         | H               | X        | 180                 | 230                        | 2.87            | 1 / 50         | 21.31                  | <b>24.18</b> | 0.262        | 30.00            | -5.82       |
| 5 MHz     | 16-QAM         | 1705.00         | H               | X        | 180                 | 230                        | 2.87            | 1 / 50         | 20.19                  | 23.06        | 0.202        | 30.00            | -6.94       |
|           | $\pi/2$ BPSK   | 1697.50         | H               | X        | 180                 | 230                        | 2.86            | 1 / 12         | 20.99                  | 23.85        | 0.243        | 30.00            | -6.15       |
|           | $\pi/2$ BPSK   | 1702.50         | H               | X        | 180                 | 230                        | 2.87            | 1 / 12         | 21.06                  | 23.92        | 0.247        | 30.00            | -6.08       |
|           | $\pi/2$ BPSK   | 1707.50         | H               | X        | 180                 | 230                        | 2.88            | 1 / 1          | 21.22                  | 24.09        | 0.257        | 30.00            | -5.91       |
|           | QPSK           | 1697.50         | H               | X        | 180                 | 230                        | 2.86            | 1 / 12         | 21.27                  | 24.13        | 0.259        | 30.00            | -5.87       |
|           | QPSK           | 1702.50         | H               | X        | 180                 | 230                        | 2.87            | 1 / 12         | 21.13                  | 24.00        | 0.251        | 30.00            | -6.00       |
| 15 MHz    | QPSK           | 1707.50         | H               | X        | 180                 | 230                        | 2.88            | 1 / 1          | 21.33                  | <b>24.20</b> | 0.263        | 30.00            | -5.80       |
|           | 16-QAM         | 1707.50         | H               | X        | 180                 | 230                        | 2.88            | 1 / 1          | 20.27                  | 23.15        | 0.206        | 30.00            | -6.85       |
|           | QPSK (CP-OFDM) | 1702.50         | H               | X        | 180                 | 230                        | 2.90            | 1 / 39         | 19.50                  | 22.40        | 0.174        | 30.00            | -7.60       |

Table 7-202. EIRP Data (NR Band n70) – Ant1

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 146 of 181                   |



| Bandwidth | Mod.           | Frequency [MHz] | Ant. Pol. [H/V] | EUT Pol. | Antenna Height [cm] | Turntable Azimuth [degree] | Ant. Gain [dBi] | RB Size/Offset | Substitute Level [dBm] | EIRP [dBm]   | EIRP [Watts] | EIRP Limit [dBm] | Margin [dB] |
|-----------|----------------|-----------------|-----------------|----------|---------------------|----------------------------|-----------------|----------------|------------------------|--------------|--------------|------------------|-------------|
| 40 MHz    | π/2 BPSK       | 1730.00         | H               | X        | 133                 | 230                        | 2.86            | 1 / 108        | 20.40                  | 23.26        | 0.212        | 30.00            | -6.74       |
|           | π/2 BPSK       | 1745.00         | H               | X        | 127                 | 229                        | 2.86            | 1 / 214        | 20.62                  | 23.48        | 0.223        | 30.00            | -6.52       |
|           | π/2 BPSK       | 1760.00         | H               | X        | 128                 | 230                        | 2.86            | 1 / 108        | 20.92                  | <b>23.78</b> | 0.239        | 30.00            | -6.22       |
|           | QPSK           | 1730.00         | H               | X        | 133                 | 230                        | 2.86            | 1 / 108        | 20.37                  | 23.23        | 0.211        | 30.00            | -6.77       |
|           | QPSK           | 1745.00         | H               | X        | 127                 | 229                        | 2.86            | 1 / 214        | 20.69                  | 23.55        | 0.227        | 30.00            | -6.45       |
|           | QPSK           | 1760.00         | H               | X        | 128                 | 230                        | 2.86            | 1 / 108        | 20.89                  | 23.75        | 0.237        | 30.00            | -6.25       |
| 30 MHz    | 16-QAM         | 1760.00         | H               | X        | 128                 | 230                        | 2.86            | 1 / 108        | 20.01                  | 22.87        | 0.194        | 30.00            | -7.13       |
|           | π/2 BPSK       | 1725.00         | H               | X        | 133                 | 230                        | 2.86            | 1 / 80         | 20.37                  | 23.23        | 0.210        | 30.00            | -6.77       |
|           | π/2 BPSK       | 1745.00         | H               | X        | 127                 | 229                        | 2.86            | 1 / 80         | 20.54                  | 23.41        | 0.219        | 30.00            | -6.59       |
|           | π/2 BPSK       | 1765.00         | H               | X        | 128                 | 230                        | 2.86            | 1 / 1          | 21.13                  | <b>24.00</b> | 0.251        | 30.00            | -6.00       |
|           | QPSK           | 1725.00         | H               | X        | 133                 | 230                        | 2.86            | 1 / 80         | 20.29                  | 23.15        | 0.207        | 30.00            | -6.85       |
|           | QPSK           | 1745.00         | H               | X        | 127                 | 229                        | 2.86            | 1 / 80         | 20.77                  | 23.64        | 0.231        | 30.00            | -6.36       |
| 25 MHz    | QPSK           | 1765.00         | H               | X        | 128                 | 230                        | 2.86            | 1 / 1          | 21.01                  | 23.87        | 0.244        | 30.00            | -6.13       |
|           | 16-QAM         | 1765.00         | H               | X        | 128                 | 230                        | 2.86            | 1 / 1          | 20.32                  | 23.19        | 0.208        | 30.00            | -6.81       |
|           | π/2 BPSK       | 1722.5          | H               | X        | 128                 | 230                        | 2.86            | 1 / 66         | 20.51                  | 23.38        | 0.218        | 30.00            | -6.62       |
|           | π/2 BPSK       | 1745.0          | H               | X        | 128                 | 230                        | 2.86            | 1 / 66         | 20.53                  | 23.40        | 0.219        | 30.00            | -6.60       |
|           | π/2 BPSK       | 1767.5          | H               | X        | 128                 | 230                        | 2.86            | 1 / 1          | 20.93                  | 23.79        | 0.239        | 30.00            | -6.21       |
|           | QPSK           | 1722.5          | H               | X        | 128                 | 230                        | 2.86            | 1 / 66         | 20.26                  | 23.12        | 0.205        | 30.00            | -6.88       |
| 20 MHz    | QPSK           | 1745.0          | H               | X        | 128                 | 230                        | 2.86            | 1 / 66         | 20.76                  | 23.62        | 0.230        | 30.00            | -6.38       |
|           | QPSK           | 1767.5          | H               | X        | 128                 | 230                        | 2.86            | 1 / 1          | 21.00                  | <b>23.87</b> | 0.244        | 30.00            | -6.13       |
|           | 16-QAM         | 1767.5          | H               | X        | 128                 | 230                        | 2.86            | 1 / 1          | 20.22                  | 23.08        | 0.203        | 30.00            | -6.92       |
|           | π/2 BPSK       | 1720.00         | H               | X        | 133                 | 230                        | 2.88            | 1 / 39         | 20.36                  | 23.24        | 0.211        | 30.00            | -6.76       |
|           | π/2 BPSK       | 1745.00         | H               | X        | 127                 | 229                        | 2.84            | 1 / 77         | 20.62                  | 23.46        | 0.222        | 30.00            | -6.54       |
|           | π/2 BPSK       | 1770.00         | H               | X        | 128                 | 230                        | 2.79            | 1 / 39         | 21.01                  | <b>23.80</b> | 0.240        | 30.00            | -6.20       |
| 15 MHz    | QPSK           | 1720.00         | H               | X        | 133                 | 230                        | 2.88            | 1 / 39         | 20.28                  | 23.16        | 0.207        | 30.00            | -6.84       |
|           | QPSK           | 1745.00         | H               | X        | 127                 | 229                        | 2.84            | 1 / 77         | 20.54                  | 23.39        | 0.218        | 30.00            | -6.61       |
|           | QPSK           | 1770.00         | H               | X        | 128                 | 230                        | 2.79            | 1 / 39         | 20.96                  | 23.74        | 0.237        | 30.00            | -6.26       |
|           | 16-QAM         | 1770.00         | H               | X        | 128                 | 230                        | 2.79            | 1 / 39         | 20.26                  | 23.05        | 0.202        | 30.00            | -6.95       |
|           | π/2 BPSK       | 1717.50         | H               | X        | 133                 | 230                        | 2.88            | 1 / 77         | 20.41                  | 23.29        | 0.213        | 30.00            | -6.71       |
|           | π/2 BPSK       | 1745.00         | H               | X        | 127                 | 229                        | 2.84            | 1 / 77         | 20.64                  | 23.48        | 0.223        | 30.00            | -6.52       |
| 10 MHz    | π/2 BPSK       | 1772.50         | H               | X        | 128                 | 230                        | 2.78            | 1 / 39         | 21.02                  | <b>23.80</b> | 0.240        | 30.00            | -6.20       |
|           | QPSK           | 1717.50         | H               | X        | 133                 | 230                        | 2.88            | 1 / 77         | 20.28                  | 23.17        | 0.207        | 30.00            | -6.83       |
|           | QPSK           | 1745.00         | H               | X        | 127                 | 229                        | 2.84            | 1 / 77         | 20.68                  | 23.52        | 0.225        | 30.00            | -6.48       |
|           | QPSK           | 1772.50         | H               | X        | 128                 | 230                        | 2.78            | 1 / 39         | 20.96                  | 23.74        | 0.237        | 30.00            | -6.26       |
|           | 16-QAM         | 1772.50         | H               | X        | 128                 | 230                        | 2.78            | 1 / 39         | 20.18                  | 22.96        | 0.198        | 30.00            | -7.04       |
|           | 5 MHz          | π/2 BPSK        | 1715.00         | H        | X                   | 133                        | 230             | 2.88           | 1 / 26                 | 20.43        | 23.32        | 0.215            | 30.00       |
| π/2 BPSK  |                | 1745.00         | H               | X        | 127                 | 229                        | 2.84            | 1 / 50         | 20.62                  | 23.47        | 0.222        | 30.00            | -6.53       |
| π/2 BPSK  |                | 1775.00         | H               | X        | 128                 | 230                        | 2.78            | 1 / 50         | 20.95                  | <b>23.73</b> | 0.236        | 30.00            | -6.27       |
| QPSK      |                | 1715.00         | H               | X        | 133                 | 230                        | 2.88            | 1 / 26         | 20.31                  | 23.19        | 0.209        | 30.00            | -6.81       |
| QPSK      |                | 1745.00         | H               | X        | 127                 | 229                        | 2.84            | 1 / 50         | 20.79                  | 23.63        | 0.231        | 30.00            | -6.37       |
| QPSK      |                | 1775.00         | H               | X        | 128                 | 230                        | 2.78            | 1 / 50         | 20.80                  | 23.58        | 0.228        | 30.00            | -6.42       |
| 40 MHz    | 16-QAM         | 1775.00         | H               | X        | 128                 | 230                        | 2.78            | 1 / 50         | 20.04                  | 22.82        | 0.191        | 30.00            | -7.18       |
|           | π/2 BPSK       | 1712.50         | H               | X        | 133                 | 230                        | 2.89            | 1 / 12         | 20.42                  | 23.31        | 0.214        | 30.00            | -6.69       |
|           | π/2 BPSK       | 1745.00         | H               | X        | 127                 | 229                        | 2.84            | 1 / 12         | 20.66                  | 23.50        | 0.224        | 30.00            | -6.50       |
|           | π/2 BPSK       | 1777.50         | H               | X        | 128                 | 230                        | 2.77            | 1 / 1          | 20.91                  | 23.68        | 0.233        | 30.00            | -6.32       |
|           | QPSK           | 1712.50         | H               | X        | 133                 | 230                        | 2.89            | 1 / 12         | 20.20                  | 23.08        | 0.203        | 30.00            | -6.92       |
|           | QPSK           | 1745.00         | H               | X        | 127                 | 229                        | 2.84            | 1 / 12         | 20.86                  | <b>23.70</b> | 0.235        | 30.00            | -6.30       |
| 40 MHz    | QPSK           | 1777.50         | H               | X        | 128                 | 230                        | 2.77            | 1 / 1          | 20.81                  | 23.58        | 0.228        | 30.00            | -6.42       |
|           | 16-QAM         | 1777.50         | H               | X        | 128                 | 230                        | 2.77            | 1 / 1          | 20.11                  | 22.88        | 0.194        | 30.00            | -7.12       |
| 40 MHz    | QPSK (CP-OFDM) | 1760.00         | H               | X        | 128                 | 230                        | 2.86            | 1/108          | 19.31                  | 22.17        | 0.165        | 30.00            | -7.83       |

Table 7-203. EIRP Data (NR Band n66) – Ant1

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 147 of 181                   |



| Bandwidth | Mod.   | Frequency [MHz] | Ant. Pol. [H/V] | EUT Pol. | Antenna Height [cm] | Turntable Azimuth [degree] | Ant. Gain [dBi] | RB Size/Offset | Substitute Level [dBm] | EIRP [dBm]   | EIRP [Watts] | EIRP Limit [dBm] | Margin [dB] |
|-----------|--------|-----------------|-----------------|----------|---------------------|----------------------------|-----------------|----------------|------------------------|--------------|--------------|------------------|-------------|
| 20 MHz    | QPSK   | 1720.00         | V               | Y        | 121                 | 7                          | 2.88            | 1 / 50         | 18.59                  | 21.47        | 0.140        | 30.00            | -8.53       |
|           | QPSK   | 1745.00         | V               | Y        | 136                 | 22                         | 2.84            | 1 / 99         | 19.18                  | <b>22.02</b> | 0.159        | 30.00            | -7.98       |
|           | QPSK   | 1770.00         | V               | Y        | 113                 | 358                        | 2.79            | 1 / 50         | 17.32                  | 20.11        | 0.103        | 30.00            | -9.89       |
|           | 16-QAM | 1745.00         | V               | Y        | 136                 | 22                         | 2.84            | 1 / 99         | 18.41                  | 21.25        | 0.133        | 30.00            | -8.75       |
| 15 MHz    | QPSK   | 1717.50         | V               | Y        | 121                 | 7                          | 2.88            | 1 / 0          | 18.52                  | 21.41        | 0.138        | 30.00            | -8.59       |
|           | QPSK   | 1745.00         | V               | Y        | 136                 | 22                         | 2.84            | 1 / 74         | 18.99                  | <b>21.83</b> | 0.153        | 30.00            | -8.17       |
|           | QPSK   | 1772.50         | V               | Y        | 113                 | 358                        | 2.78            | 1 / 74         | 17.08                  | 19.87        | 0.097        | 30.00            | -10.13      |
|           | 16-QAM | 1745.00         | V               | Y        | 136                 | 22                         | 2.84            | 1 / 0          | 18.34                  | 21.18        | 0.131        | 30.00            | -8.82       |
| 10 MHz    | QPSK   | 1715.00         | V               | Y        | 121                 | 7                          | 2.88            | 1 / 49         | 18.58                  | 21.46        | 0.140        | 30.00            | -8.54       |
|           | QPSK   | 1745.00         | V               | Y        | 136                 | 22                         | 2.84            | 1 / 49         | 19.19                  | <b>22.03</b> | 0.160        | 30.00            | -7.97       |
|           | QPSK   | 1775.00         | V               | Y        | 113                 | 358                        | 2.78            | 1 / 0          | 17.26                  | 20.04        | 0.101        | 30.00            | -9.96       |
|           | 16-QAM | 1745.00         | V               | Y        | 136                 | 22                         | 2.84            | 1 / 49         | 18.62                  | 21.47        | 0.140        | 30.00            | -8.53       |
| 5 MHz     | QPSK   | 1712.50         | V               | Y        | 121                 | 7                          | 2.89            | 1 / 24         | 18.42                  | 21.30        | 0.135        | 30.00            | -8.70       |
|           | QPSK   | 1745.00         | V               | Y        | 136                 | 22                         | 2.84            | 1 / 12         | 19.10                  | <b>21.94</b> | 0.156        | 30.00            | -8.06       |
|           | QPSK   | 1777.50         | V               | Y        | 113                 | 358                        | 2.77            | 1 / 12         | 17.16                  | 19.93        | 0.098        | 30.00            | -10.07      |
|           | 16-QAM | 1745.00         | V               | Y        | 136                 | 22                         | 2.84            | 1 / 12         | 18.48                  | 21.33        | 0.136        | 30.00            | -8.67       |
| 3 MHz     | QPSK   | 1711.50         | V               | Y        | 121                 | 7                          | 2.89            | 1 / 0          | 18.44                  | 21.33        | 0.136        | 30.00            | -8.67       |
|           | QPSK   | 1745.00         | V               | Y        | 136                 | 22                         | 2.84            | 1 / 14         | 19.05                  | <b>21.89</b> | 0.155        | 30.00            | -8.11       |
|           | QPSK   | 1778.50         | V               | Y        | 113                 | 358                        | 2.77            | 1 / 14         | 17.22                  | 19.99        | 0.100        | 30.00            | -10.01      |
|           | 16-QAM | 1745.00         | V               | Y        | 136                 | 22                         | 2.84            | 1 / 0          | 18.44                  | 21.28        | 0.134        | 30.00            | -8.72       |
| 1.4 MHz   | QPSK   | 1710.70         | V               | Y        | 121                 | 7                          | 2.89            | 1 / 5          | 18.52                  | 21.41        | 0.138        | 30.00            | -8.59       |
|           | QPSK   | 1745.00         | V               | Y        | 136                 | 22                         | 2.84            | 1 / 5          | 19.03                  | <b>21.88</b> | 0.154        | 30.00            | -8.12       |
|           | QPSK   | 1779.30         | V               | Y        | 113                 | 358                        | 2.77            | 1 / 5          | 17.33                  | 20.09        | 0.102        | 30.00            | -9.91       |
|           | 16-QAM | 1745.00         | V               | Y        | 136                 | 22                         | 2.84            | 1 / 3          | 18.46                  | 21.30        | 0.135        | 30.00            | -8.70       |

Table 7-204. EIRP Data (LTE Band 66/4) – Ant2

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 148 of 181                   |



| Bandwidth | Mod.           | Frequency [MHz] | Ant. Pol. [H/V] | EUT Pol. | Antenna Height [cm] | Turntable Azimuth [degree] | Ant. Gain [dBi] | RB Size/Offset | Substitute Level [dBm] | EIRP [dBm]   | EIRP [Watts] | EIRP Limit [dBm] | Margin [dB] |       |
|-----------|----------------|-----------------|-----------------|----------|---------------------|----------------------------|-----------------|----------------|------------------------|--------------|--------------|------------------|-------------|-------|
| 40 MHz    | π/2 BPSK       | 1730.00         | V               | Y        | 140                 | 334                        | 2.92            | 1 / 108        | 18.30                  | 21.22        | 0.132        | 30.00            | -8.78       |       |
|           | π/2 BPSK       | 1745.00         | V               | Y        | 143                 | 318                        | 2.94            | 1 / 108        | 18.13                  | 21.07        | 0.128        | 30.00            | -8.93       |       |
|           | π/2 BPSK       | 1760.00         | V               | Y        | 144                 | 324                        | 2.99            | 1 / 1          | 18.37                  | 21.36        | 0.137        | 30.00            | -8.64       |       |
|           | QPSK           | 1730.00         | V               | Y        | 140                 | 334                        | 2.92            | 1 / 108        | 18.25                  | 21.17        | 0.131        | 30.00            | -8.83       |       |
|           | QPSK           | 1745.00         | V               | Y        | 143                 | 318                        | 2.94            | 1 / 108        | 18.07                  | 21.01        | 0.126        | 30.00            | -8.99       |       |
|           | QPSK           | 1760.00         | V               | Y        | 144                 | 324                        | 2.99            | 1 / 1          | 18.50                  | <b>21.49</b> | 0.141        | 30.00            | -8.51       |       |
|           | 16-QAM         | 1730.00         | V               | Y        | 140                 | 334                        | 2.92            | 1 / 108        | 17.31                  | 20.23        | 0.105        | 30.00            | -9.77       |       |
| 30 MHz    | π/2 BPSK       | 1725.00         | V               | Y        | 140                 | 334                        | 2.91            | 1 / 80         | 18.33                  | 21.24        | 0.133        | 30.00            | -8.76       |       |
|           | π/2 BPSK       | 1745.00         | V               | Y        | 143                 | 318                        | 2.94            | 1 / 80         | 18.25                  | 21.19        | 0.132        | 30.00            | -8.81       |       |
|           | π/2 BPSK       | 1765.00         | V               | Y        | 144                 | 324                        | 3.00            | 1 / 80         | 18.24                  | <b>21.25</b> | 0.133        | 30.00            | -8.75       |       |
|           | QPSK           | 1725.00         | V               | Y        | 140                 | 334                        | 2.91            | 1 / 80         | 18.09                  | 21.00        | 0.126        | 30.00            | -9.00       |       |
|           | QPSK           | 1745.00         | V               | Y        | 143                 | 318                        | 2.94            | 1 / 80         | 18.10                  | 21.04        | 0.127        | 30.00            | -8.96       |       |
|           | QPSK           | 1765.00         | V               | Y        | 144                 | 324                        | 3.00            | 1 / 80         | 18.23                  | 21.24        | 0.133        | 30.00            | -8.76       |       |
|           |                | 16-QAM          | 1725.00         | V        | Y                   | 140                        | 334             | 2.91           | 1 / 80                 | 17.51        | 20.42        | 0.110            | 30.00       | -9.58 |
|           |                | π/2 BPSK        | 1722.5          | V        | Y                   | 144                        | 324             | 2.90           | 1 / 66                 | 18.61        | <b>21.51</b> | 0.142            | 30.00       | -8.49 |
|           |                | π/2 BPSK        | 1745.0          | V        | Y                   | 144                        | 324             | 2.94           | 1 / 66                 | 18.29        | 21.24        | 0.133            | 30.00       | -8.76 |
|           |                | π/2 BPSK        | 1767.5          | V        | Y                   | 144                        | 324             | 3.01           | 1 / 1                  | 18.35        | 21.37        | 0.137            | 30.00       | -8.63 |
|           |                | QPSK            | 1722.5          | V        | Y                   | 144                        | 324             | 2.90           | 1 / 66                 | 18.20        | 21.11        | 0.129            | 30.00       | -8.89 |
|           |                | QPSK            | 1745.0          | V        | Y                   | 144                        | 324             | 2.94           | 1 / 66                 | 18.28        | 21.22        | 0.132            | 30.00       | -8.78 |
|           |                | QPSK            | 1767.5          | V        | Y                   | 144                        | 324             | 3.01           | 1 / 1                  | 18.29        | 21.30        | 0.135            | 30.00       | -8.70 |
|           |                | 16-QAM          | 1722.5          | V        | Y                   | 144                        | 324             | 2.90           | 1 / 66                 | 17.11        | 20.01        | 0.100            | 30.00       | -9.99 |
| 20 MHz    | π/2 BPSK       | 1720.00         | V               | Y        | 140                 | 334                        | 2.90            | 1 / 53         | 18.30                  | 21.20        | 0.132        | 30.00            | -8.80       |       |
|           | π/2 BPSK       | 1745.00         | V               | Y        | 143                 | 318                        | 2.94            | 1 / 104        | 18.29                  | 21.24        | 0.133        | 30.00            | -8.76       |       |
|           | π/2 BPSK       | 1770.00         | V               | Y        | 144                 | 324                        | 3.02            | 1 / 1          | 18.31                  | 21.33        | 0.136        | 30.00            | -8.67       |       |
|           | QPSK           | 1720.00         | V               | Y        | 140                 | 334                        | 2.90            | 1 / 53         | 18.04                  | 20.94        | 0.124        | 30.00            | -9.06       |       |
|           | QPSK           | 1745.00         | V               | Y        | 143                 | 318                        | 2.94            | 1 / 104        | 18.37                  | 21.32        | 0.135        | 30.00            | -8.68       |       |
|           | QPSK           | 1770.00         | V               | Y        | 144                 | 324                        | 3.02            | 1 / 1          | 18.43                  | <b>21.45</b> | 0.140        | 30.00            | -8.55       |       |
|           | 16-QAM         | 1770.00         | V               | Y        | 144                 | 324                        | 3.02            | 1 / 1          | 17.28                  | 20.30        | 0.107        | 30.00            | -9.70       |       |
| 15 MHz    | π/2 BPSK       | 1717.50         | V               | Y        | 140                 | 334                        | 2.89            | 1 / 77         | 18.47                  | 21.37        | 0.137        | 30.00            | -8.63       |       |
|           | π/2 BPSK       | 1745.00         | V               | Y        | 143                 | 318                        | 2.94            | 1 / 39         | 18.37                  | 21.31        | 0.135        | 30.00            | -8.69       |       |
|           | π/2 BPSK       | 1772.50         | V               | Y        | 144                 | 324                        | 3.03            | 1 / 39         | 18.25                  | 21.28        | 0.134        | 30.00            | -8.72       |       |
|           | QPSK           | 1717.50         | V               | Y        | 140                 | 334                        | 2.89            | 1 / 77         | 18.13                  | 21.02        | 0.126        | 30.00            | -8.98       |       |
|           | QPSK           | 1745.00         | V               | Y        | 143                 | 318                        | 2.94            | 1 / 39         | 18.25                  | 21.20        | 0.132        | 30.00            | -8.80       |       |
|           | QPSK           | 1772.50         | V               | Y        | 144                 | 324                        | 3.03            | 1 / 39         | 18.41                  | <b>21.44</b> | 0.139        | 30.00            | -8.56       |       |
|           | 16-QAM         | 1717.50         | V               | Y        | 144                 | 334                        | 2.89            | 1 / 77         | 17.20                  | 20.09        | 0.102        | 30.00            | -9.91       |       |
| 10 MHz    | π/2 BPSK       | 1715.00         | V               | Y        | 140                 | 334                        | 2.89            | 1 / 26         | 18.43                  | 21.32        | 0.135        | 30.00            | -8.68       |       |
|           | π/2 BPSK       | 1745.00         | V               | Y        | 143                 | 318                        | 2.94            | 1 / 1          | 18.23                  | 21.17        | 0.131        | 30.00            | -8.83       |       |
|           | π/2 BPSK       | 1775.00         | V               | Y        | 144                 | 324                        | 3.04            | 1 / 26         | 18.31                  | <b>21.35</b> | 0.136        | 30.00            | -8.65       |       |
|           | QPSK           | 1715.00         | V               | Y        | 140                 | 334                        | 2.89            | 1 / 26         | 17.91                  | 20.79        | 0.120        | 30.00            | -9.21       |       |
|           | QPSK           | 1745.00         | V               | Y        | 143                 | 318                        | 2.94            | 1 / 1          | 18.15                  | 21.09        | 0.129        | 30.00            | -8.91       |       |
|           | QPSK           | 1775.00         | V               | Y        | 144                 | 324                        | 3.04            | 1 / 26         | 18.31                  | 21.35        | 0.136        | 30.00            | -8.65       |       |
|           | 16-QAM         | 1775.00         | V               | Y        | 144                 | 324                        | 3.04            | 1 / 26         | 17.14                  | 20.18        | 0.104        | 30.00            | -9.82       |       |
| 5 MHz     | π/2 BPSK       | 1712.50         | V               | Y        | 140                 | 334                        | 2.88            | 1 / 12         | 18.36                  | 21.25        | 0.133        | 30.00            | -8.75       |       |
|           | π/2 BPSK       | 1745.00         | V               | Y        | 143                 | 318                        | 2.94            | 1 / 23         | 18.52                  | 21.46        | 0.140        | 30.00            | -8.54       |       |
|           | π/2 BPSK       | 1777.50         | V               | Y        | 144                 | 324                        | 3.05            | 1 / 12         | 18.43                  | 21.48        | 0.140        | 30.00            | -8.52       |       |
|           | QPSK           | 1712.50         | V               | Y        | 140                 | 334                        | 2.88            | 1 / 12         | 17.96                  | 20.84        | 0.121        | 30.00            | -9.16       |       |
|           | QPSK           | 1745.00         | V               | Y        | 143                 | 318                        | 2.94            | 1 / 23         | 18.37                  | 21.31        | 0.135        | 30.00            | -8.69       |       |
|           | QPSK           | 1777.50         | V               | Y        | 144                 | 324                        | 3.05            | 1 / 12         | 18.52                  | <b>21.57</b> | 0.143        | 30.00            | -8.43       |       |
| 40 MHz    | QPSK (CP-OFDM) | 1760.00         | V               | Y        | 144                 | 324                        | 2.99            | 1/1            | 16.79                  | 19.78        | 0.095        | 30.00            | -10.22      |       |

Table 7-205. EIRP Data (NR Band n66) – Ant2

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 149 of 181                   |



## 7.8 Radiated Spurious Emissions Measurements

### Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using hybrid (biconical/log) antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

### Test Procedures Used

ANSI C63.26-2015 – Section 5.5.4

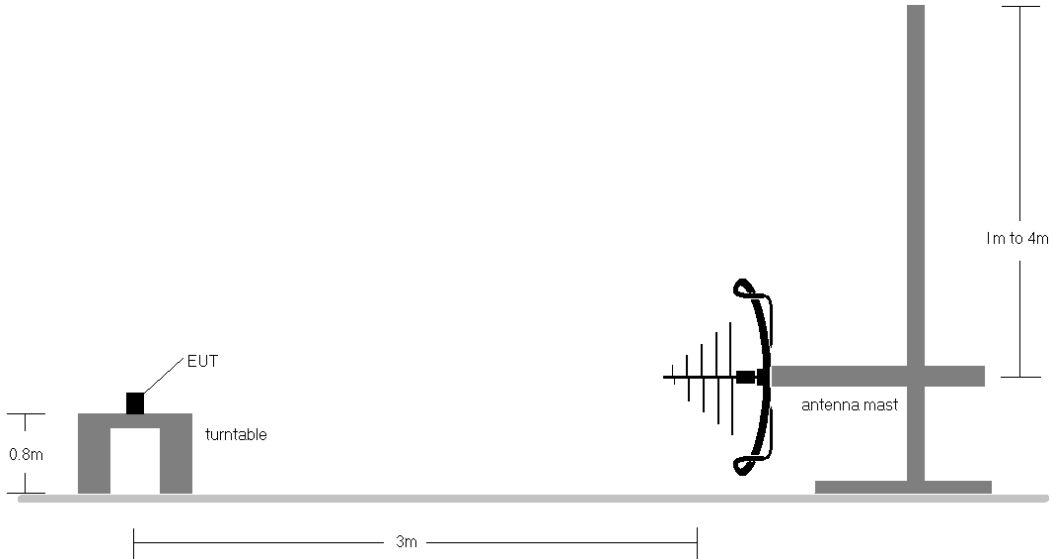
### Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW  $\geq$  3 x RBW
3. Span = 1.5 times the OBW
4. No. of sweep points  $\geq$  2 x span / RBW
5. Detector = RMS
6. Trace mode = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize

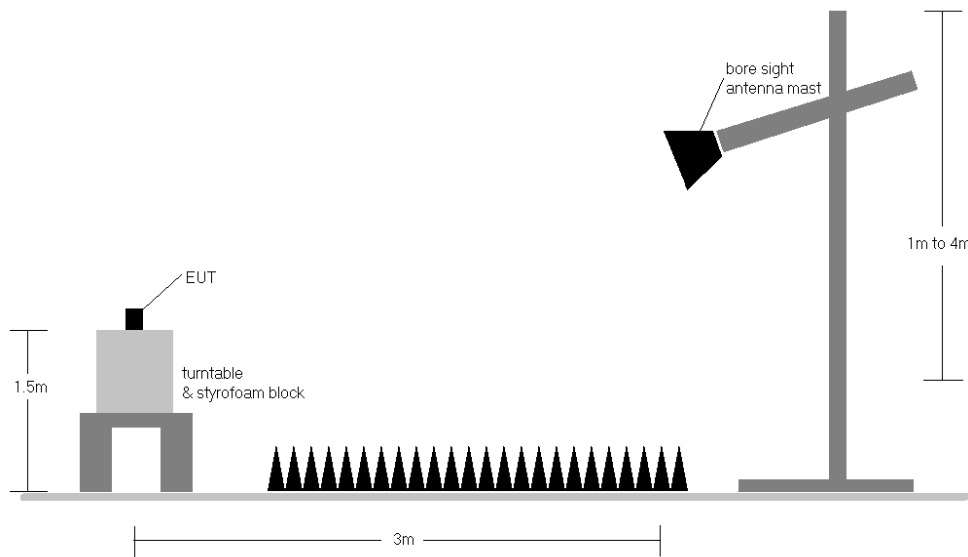
|  |  |                                      |  |
|--|--|--------------------------------------|--|
| <b>FCC ID:</b> A3LSMA356U                      | <b>PART 27 MEASUREMENT REPORT</b>            |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2311010111-05.A3L | <b>Test Dates:</b><br>11/6/2023 - 12/28/2023 | <b>EUT Type:</b><br>Portable Handset | Page 150 of 181                          |

**Test Setup**

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-8. Test Instrument & Measurement Setup < 1GHz**



**Figure 7-9. Test Instrument & Measurement Setup > 1GHz**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 151 of 181                   |



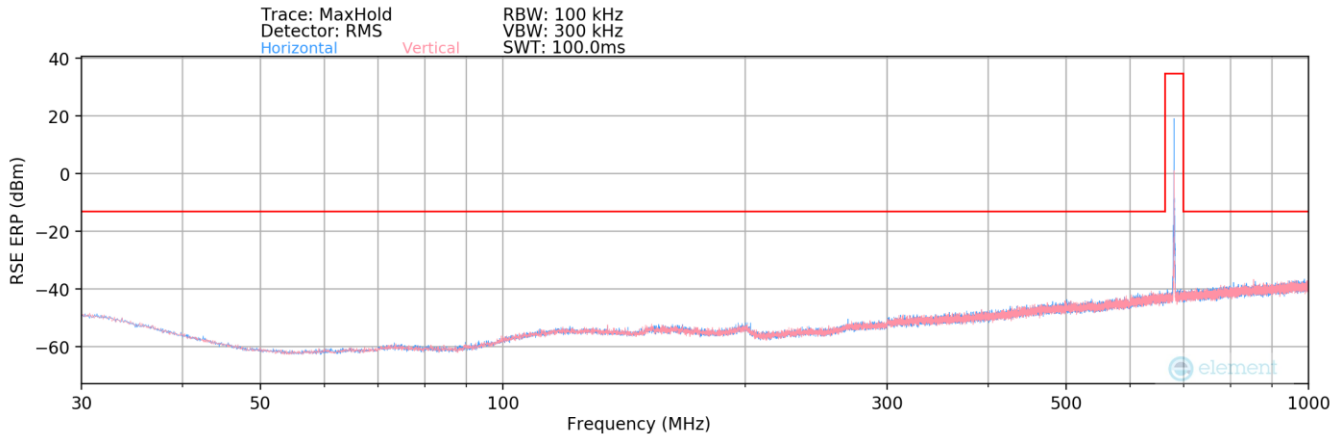
**Test Notes**

- 1) Field strengths are calculated using the Measurement quantity conversions in ANSI C63.26-2015 Section 5.2.7:
  - a)  $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
  - b)  $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20\log D - 104.8$ ; where D is the measurement distance in meters.
- 2) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 3) This unit was tested with its standard battery.
- 4) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 5) Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
- 6) The "-" shown in the following RSE tables are used to denote a noise floor measurement.
- 7) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.
- 8) Spurious emissions shown in this section are measured while operating in EN-DC mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor). Spurious emissions from the NR carrier device, is subject to the rules under which the NR carrier operates. Spurious emissions caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

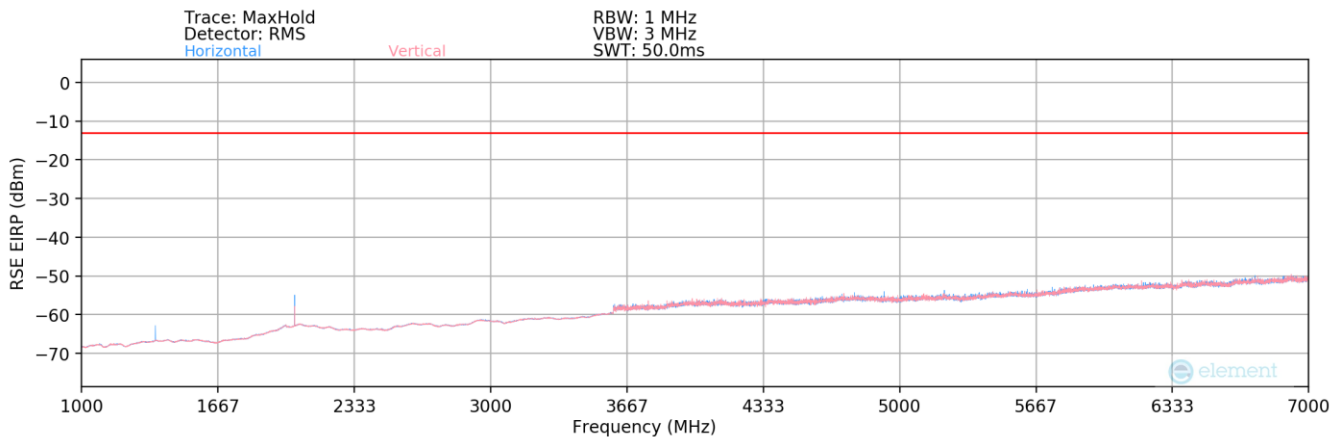
|  |  |                                      |  |
|--|--|--------------------------------------|--|
| FCC ID: A3LSMA356U                             | <b>PART 27 MEASUREMENT REPORT</b>            |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2311010111-05.A3L | <b>Test Dates:</b><br>11/6/2023 - 12/28/2023 | <b>EUT Type:</b><br>Portable Handset | Page 152 of 181                          |



## LTE Band 71 – Ant1



**Plot 7-206. Radiated Spurious Plot (LTE Band 71) – Ant1**



**Plot 7-207. Radiated Spurious Plot (LTE Band 71) – Ant1**

|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 20     |
| Frequency (MHz): | 673    |
| RB / Offset:     | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1346.00         | H               | -                   | -                          | -75.60               | -6.87       | 24.53                   | -70.72                             | -13.00      | -57.72      |
| 2019.00         | H               | 133                 | 24                         | -73.46               | -2.93       | 30.61                   | -64.65                             | -13.00      | -51.65      |
| 2692.00         | H               | -                   | -                          | -75.98               | -2.37       | 28.65                   | -66.61                             | -13.00      | -53.61      |
| 3365.00         | H               | -                   | -                          | -76.11               | -1.06       | 29.83                   | -65.42                             | -13.00      | -52.42      |
| 4038.00         | H               | -                   | -                          | -76.18               | 1.91        | 32.73                   | -62.52                             | -13.00      | -49.52      |

**Table 7-23. Radiated Spurious Data (LTE Band 71 – Low Channel) – Ant1**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 153 of 181                   |



|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 20     |
| Frequency (MHz): | 680.5  |
| RB / Offset:     | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1361.00         | H               | 187                 | 159                        | -67.26               | -6.84       | 32.90                   | -62.36                             | -13.00      | -49.36      |
| 2041.50         | H               | 137                 | 168                        | -74.40               | -2.67       | 29.93                   | -65.33                             | -13.00      | -52.33      |
| 2722.00         | H               | -                   | -                          | -76.01               | -2.73       | 28.26                   | -67.00                             | -13.00      | -54.00      |
| 3402.50         | H               | -                   | -                          | -76.21               | -0.94       | 29.85                   | -65.40                             | -13.00      | -52.40      |
| 4083.00         | H               | -                   | -                          | -77.46               | 1.71        | 31.25                   | -64.00                             | -13.00      | -51.00      |

**Table 7-24. Radiated Spurious Data (LTE Band 71 – Mid Channel) – Ant1**

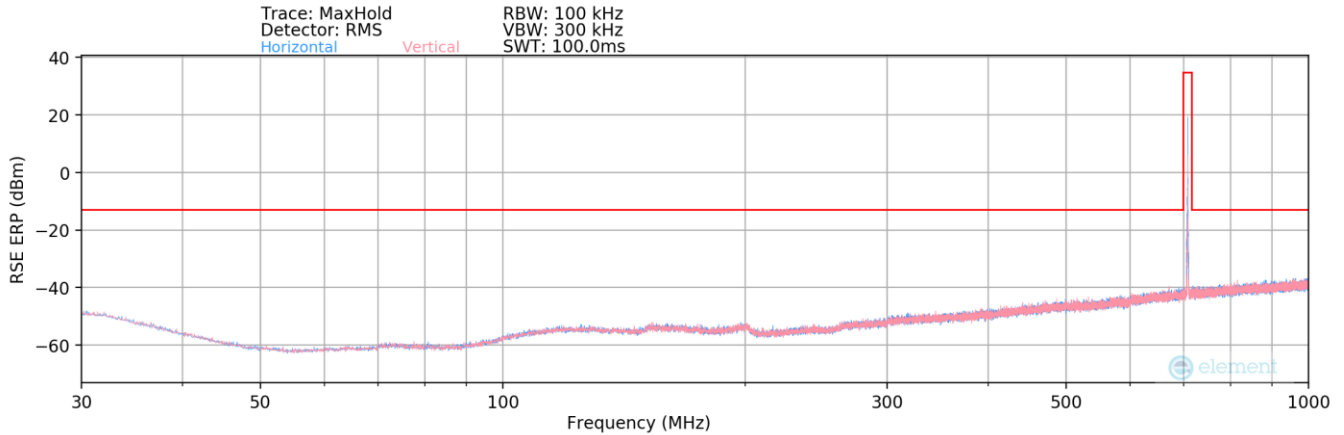
|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 20     |
| Frequency (MHz): | 688    |
| RB / Offset:     | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1376.00         | H               | 337                 | 144                        | -72.72               | -6.78       | 27.50                   | -67.76                             | -13.00      | -54.76      |
| 2064.00         | H               | 158                 | 249                        | -72.51               | -2.56       | 31.93                   | -63.33                             | -13.00      | -50.33      |
| 2752.00         | H               | -                   | -                          | -76.08               | -2.84       | 28.08                   | -67.18                             | -13.00      | -54.18      |
| 3440.00         | H               | -                   | -                          | -76.12               | -0.82       | 30.06                   | -65.20                             | -13.00      | -52.20      |
| 4128.00         | H               | -                   | -                          | -77.27               | 1.74        | 31.47                   | -63.79                             | -13.00      | -50.79      |

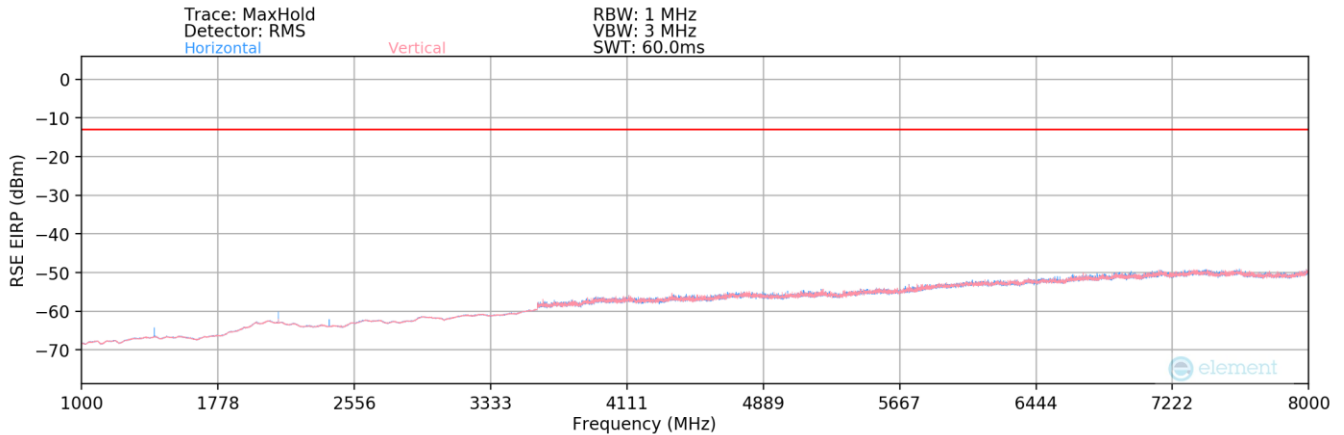
**Table 7-25. Radiated Spurious Data (LTE Band 71 – High Channel) – Ant1**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 154 of 181                   |

### LTE Band 12 – Ant1



**Plot 7-208. Radiated Spurious Plot (LTE Band 12) – Ant1**



**Plot 7-209. Radiated Spurious Plot (LTE Band 12) – Ant1**

|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 10     |
| Frequency (MHz): | 704    |
| RB / Offset:     | 1 / 25 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1408.00         | H               | 308                 | 188                        | -68.95               | -6.66       | 31.39                   | -63.86                             | -13.00      | -50.86      |
| 2112.00         | H               | 123                 | 178                        | -70.71               | -2.64       | 33.65                   | -61.61                             | -13.00      | -48.61      |
| 2816.00         | H               | -                   | -                          | -76.39               | -2.76       | 27.85                   | -67.40                             | -13.00      | -54.40      |
| 3520.00         | H               | -                   | -                          | -76.38               | -0.27       | 30.35                   | -64.90                             | -13.00      | -51.90      |
| 4224.00         | H               | -                   | -                          | -76.92               | 1.59        | 31.67                   | -63.59                             | -13.00      | -50.59      |

**Table 7-26. Radiated Spurious Data (LTE Band 12 – Low Channel) – Ant1**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 155 of 181                   |



|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 10     |
| Frequency (MHz): | 707.5  |
| RB / Offset:     | 1 / 25 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBµV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1415.00         | H               | 173                 | 192                        | -70.08               | -6.69       | 30.23                   | -65.03                             | -13.00      | -52.03      |
| 2122.50         | H               | 170                 | 17                         | -71.07               | -2.75       | 33.18                   | -62.07                             | -13.00      | -49.07      |
| 2830.00         | H               | -                   | -                          | -76.43               | -2.62       | 27.95                   | -67.30                             | -13.00      | -54.30      |
| 3537.50         | H               | -                   | -                          | -76.43               | -0.14       | 30.43                   | -64.83                             | -13.00      | -51.83      |
| 4245.00         | H               | -                   | -                          | -76.93               | 1.69        | 31.76                   | -63.49                             | -13.00      | -50.49      |

**Table 7-27. Radiated Spurious Data (LTE Band 12 – Mid Channel) – Ant1**

|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 10     |
| Frequency (MHz): | 711    |
| RB / Offset:     | 1 / 25 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBµV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1422.00         | H               | 160                 | 193                        | -70.34               | -6.73       | 29.93                   | -65.32                             | -13.00      | -52.32      |
| 2133.00         | H               | 155                 | 253                        | -69.80               | -2.86       | 34.34                   | -60.92                             | -13.00      | -47.92      |
| 2844.00         | H               | -                   | -                          | -76.41               | -2.56       | 28.03                   | -67.22                             | -13.00      | -54.22      |
| 3555.00         | H               | -                   | -                          | -76.40               | 0.12        | 30.72                   | -64.54                             | -13.00      | -51.54      |
| 4266.00         | H               | -                   | -                          | -77.29               | 1.82        | 31.53                   | -63.72                             | -13.00      | -50.72      |

**Table 7-28. Radiated Spurious Data (LTE Band 12 – High Channel) – Ant1**

|                        |               |
|------------------------|---------------|
| Mode:                  | Stand Alone   |
| Frequency (MHz):       | 707.5         |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

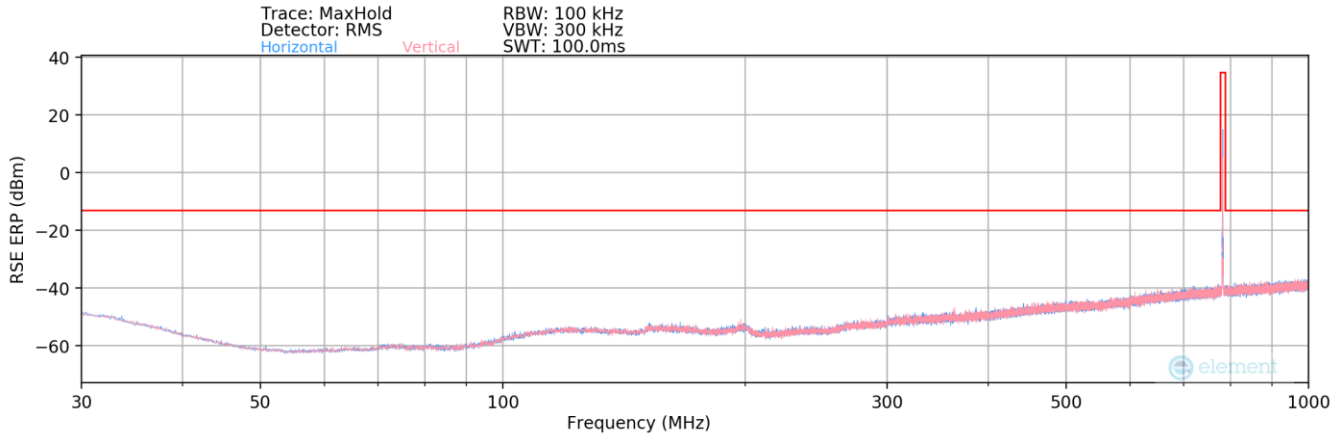
| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBµV/m] | ERP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 83.65           | H               | -                   | -                          | -83.38               | 14.25       | 37.87                   | -59.54                            | -13.00      | -46.54      |
| 195.99          | H               | -                   | -                          | -83.21               | 19.86       | 43.65                   | -53.76                            | -13.00      | -40.76      |
| 491.58          | H               | -                   | -                          | -83.13               | 25.70       | 49.57                   | -47.84                            | -13.00      | -34.84      |

**Table 7-29. Radiated Spurious Data (LTE Band 12 - Mid Channel) - Below 1GHz - Ant1**

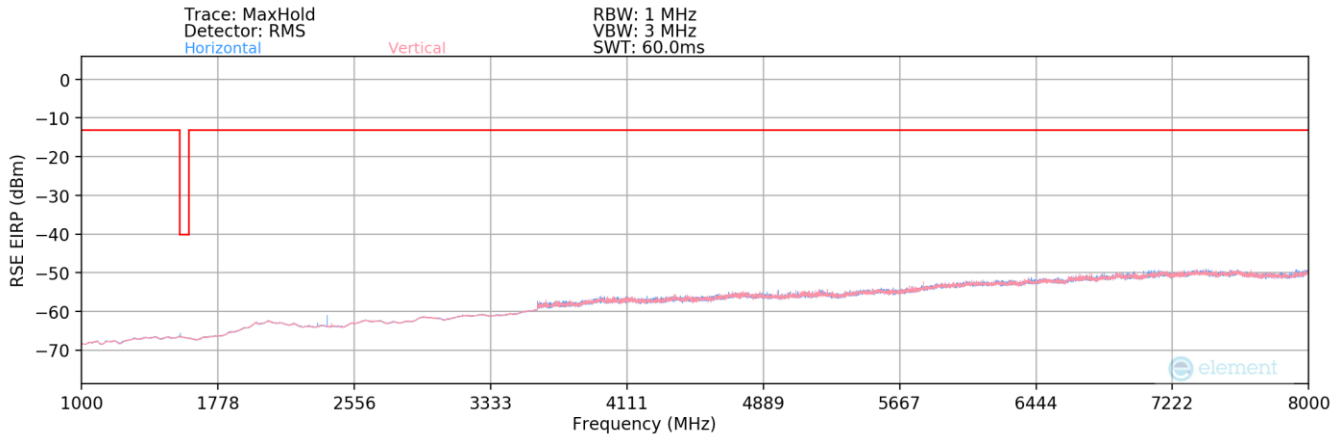
|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
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## LTE Band 13 – Ant1



Plot 7-210. Radiated Spurious Plot (LTE Band 13) – Ant1



Plot 7-211. Radiated Spurious Plot (LTE Band 13) – Ant1

|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 10     |
| Frequency (MHz): | 782    |
| RB / Offset:     | 1 / 25 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1564.00         | H               | 186                 | 225                        | -73.13               | -6.58       | 27.29                   | -67.96                             | -40.00      | -27.96      |
| 2346.00         | H               | 146                 | 321                        | -72.56               | -3.73       | 30.71                   | -64.54                             | -13.00      | -51.54      |
| 3128.00         | H               | -                   | -                          | -76.20               | -1.69       | 29.11                   | -66.15                             | -13.00      | -53.15      |
| 3910.00         | H               | -                   | -                          | -77.53               | 1.53        | 31.00                   | -64.25                             | -13.00      | -51.25      |
| 4692.00         | H               | -                   | -                          | -77.39               | 2.96        | 32.57                   | -62.69                             | -13.00      | -49.69      |

Table 7-30. Radiated Spurious Data (LTE Band 13 – Mid Channel) – Ant1

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 157 of 181                   |



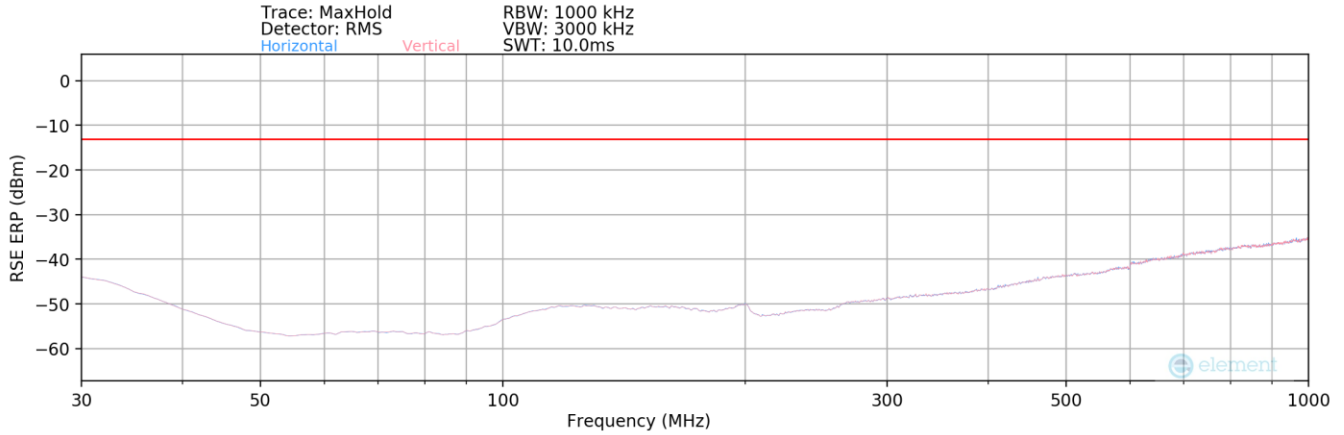
|                               |               |
|-------------------------------|---------------|
| <b>Mode:</b>                  | Stand Alone   |
| <b>Frequency (MHz):</b>       | 782           |
| <b>Detector / Trace Mode:</b> | RMS / Average |
| <b>RBW / VBW:</b>             | 1MHz / 3MHz   |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | ERP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 106.57          | H               | -                   | -                          | -83.28               | 18.94       | 42.66                   | -54.75                            | -13.00      | -41.75      |
| 234.69          | H               | -                   | -                          | -83.25               | 18.80       | 42.55                   | -54.86                            | -13.00      | -41.86      |
| 500.80          | H               | -                   | -                          | -83.13               | 25.97       | 49.84                   | -47.57                            | -13.00      | -34.57      |

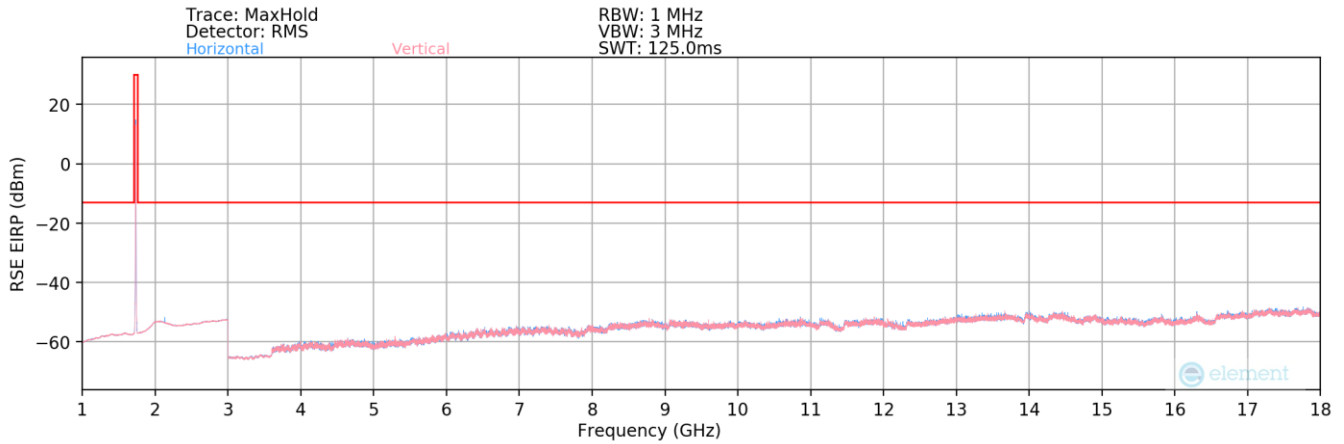
**Table 7-31. Radiated Spurious Data (LTE Band 13 – Mid Channel) – Below 1GHz – Ant1**

|  |  |                                      |  |
|--|--|--------------------------------------|--|
| <b>FCC ID:</b> A3LSMA356U                      | <b>PART 27 MEASUREMENT REPORT</b>            |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2311010111-05.A3L | <b>Test Dates:</b><br>11/6/2023 - 12/28/2023 | <b>EUT Type:</b><br>Portable Handset | Page 158 of 181                          |

## WCDMA AWS – Ant1



**Plot 7-212. Radiated Spurious Plot (WCDMA AWS) – Ant1**



**Plot 7-213. Radiated Spurious Plot (WCDMA AWS) – Ant1**

|                         |           |
|-------------------------|-----------|
| <b>Mode:</b>            | WCDMA RMC |
| <b>Channel:</b>         | 1312      |
| <b>Frequency (MHz):</b> | 1712.4    |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3424.80         | H               | -                   | -                          | -76.45               | 0.39        | 30.94                   | -64.32                             | -13.00      | -51.32      |
| 5137.20         | H               | 130                 | 322                        | -75.16               | 3.56        | 35.40                   | -59.86                             | -13.00      | -46.86      |
| 6849.60         | H               | 163                 | 59                         | -76.88               | 8.80        | 38.92                   | -56.33                             | -13.00      | -43.33      |
| 8562.00         | H               | -                   | -                          | -78.85               | 10.65       | 38.80                   | -56.46                             | -13.00      | -43.46      |
| 10274.40        | H               | -                   | -                          | -79.13               | 12.33       | 40.20                   | -55.06                             | -13.00      | -42.06      |
| 11986.80        | H               | -                   | -                          | -79.44               | 13.23       | 40.79                   | -54.47                             | -13.00      | -41.47      |

**7-32. Radiated Spurious Data (WCDMA AWS – Low Channel) – Ant1**

|  |  |                                      |  |
|--|--|--------------------------------------|--|
| <b>FCC ID:</b> A3LSMA356U                      | <b>PART 27 MEASUREMENT REPORT</b>            |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2311010111-05.A3L | <b>Test Dates:</b><br>11/6/2023 - 12/28/2023 | <b>EUT Type:</b><br>Portable Handset | Page 159 of 181                          |

|                  |           |
|------------------|-----------|
| Mode:            | WCDMA RMC |
| Channel:         | 1413      |
| Frequency (MHz): | 1732.6    |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3465.20         | H               | -                   | -                          | -76.34               | 0.20        | 30.86                   | -64.40                             | -13.00      | -51.40      |
| 5197.80         | H               | 386                 | 198                        | -77.39               | 3.58        | 33.19                   | -62.07                             | -13.00      | -49.07      |
| 6930.40         | H               | 214                 | 51                         | -76.89               | 8.39        | 38.50                   | -56.76                             | -13.00      | -43.76      |
| 8663.00         | H               | -                   | -                          | -78.98               | 11.15       | 39.17                   | -56.09                             | -13.00      | -43.09      |
| 10395.60        | H               | -                   | -                          | -79.50               | 12.33       | 39.83                   | -55.43                             | -13.00      | -42.43      |
| 12128.20        | H               | -                   | -                          | -79.95               | 13.10       | 40.15                   | -55.11                             | -13.00      | -42.11      |

**Table 7-33. Radiated Spurious Data (WCDMA AWS – Mid Channel) – Ant1**

|                  |           |
|------------------|-----------|
| Mode:            | WCDMA RMC |
| Channel:         | 1513      |
| Frequency (MHz): | 1752.6    |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3505.20         | H               | -                   | -                          | -76.22               | 0.11        | 30.89                   | -64.36                             | -13.00      | -51.36      |
| 5257.80         | H               | 126                 | 191                        | -76.99               | 3.45        | 33.46                   | -61.80                             | -13.00      | -48.80      |
| 7010.40         | H               | 198                 | 54                         | -75.43               | 7.98        | 39.55                   | -55.71                             | -13.00      | -42.71      |
| 8763.00         | H               | -                   | -                          | -78.51               | 10.86       | 39.35                   | -55.91                             | -13.00      | -42.91      |
| 10515.60        | H               | -                   | -                          | -79.92               | 12.47       | 39.55                   | -55.71                             | -13.00      | -42.71      |
| 12268.20        | H               | -                   | -                          | -79.94               | 12.87       | 39.93                   | -55.33                             | -13.00      | -42.33      |

**Table 7-34. Radiated Spurious Data (WCDMA AWS – High Channel) – Ant1**

|                        |                 |
|------------------------|-----------------|
| Channel:               | 1413            |
| Frequency (MHz):       | 1732.6          |
| Detector / Trace Mode: | RMS / Average   |
| RBW / VBW:             | 100kHz / 300kHz |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | ERP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 125.00          | H               | -                   | -                          | -83.33               | 20.26       | 43.93                   | -53.47                            | -13.00      | -40.47      |
| 193.66          | H               | -                   | -                          | -83.22               | 19.14       | 42.92                   | -54.49                            | -13.00      | -41.49      |
| 502.80          | H               | -                   | -                          | -83.11               | 25.85       | 49.74                   | -47.67                            | -13.00      | -34.67      |

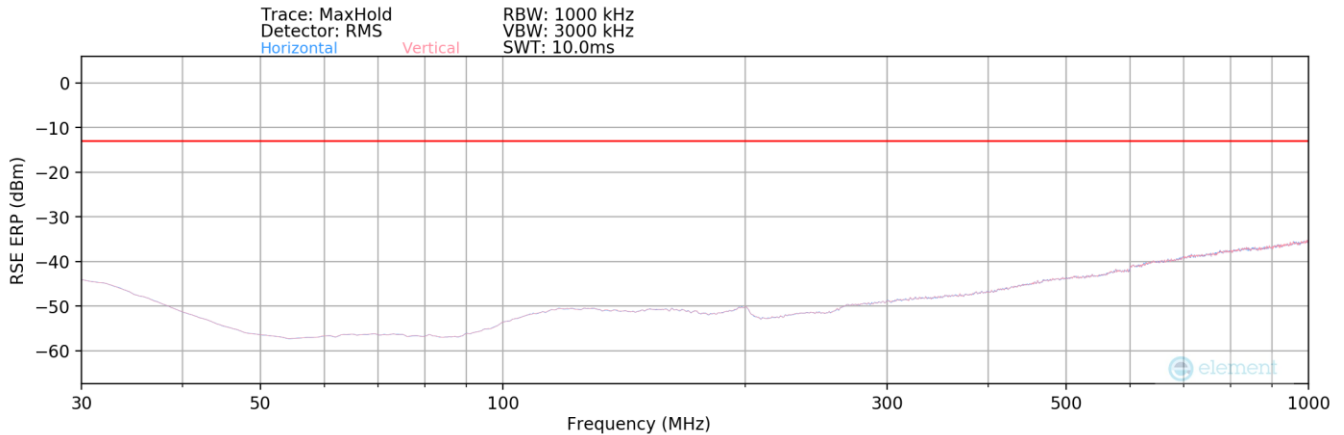
**Table 7-35. Radiated Spurious Data (WCDMA AWS – Mid Channel) – Below 1GHz – Ant1**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 160 of 181                   |

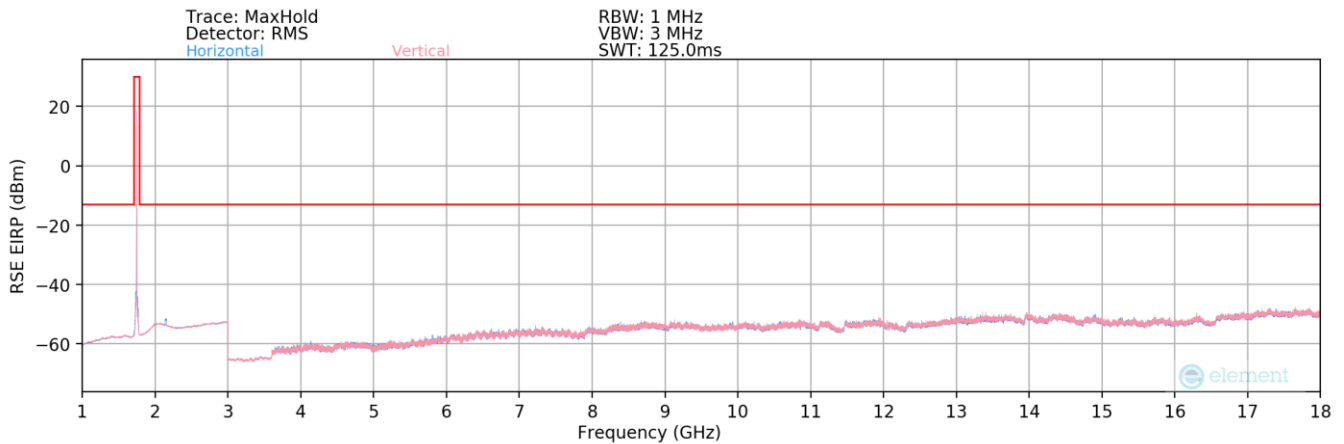




## LTE Band 66/4 – Ant1



Plot 7-214. Radiated Spurious Plot (LTE Band 66/4) – Ant1



Plot 7-215. Radiated Spurious Plot (LTE Band 66/4) – Ant1

|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 20     |
| Frequency (MHz): | 1720   |
| RB / Offset:     | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3440.00         | H               | 220                 | 72                         | -69.25               | 0.48        | 38.23                   | -57.03                             | -13.00      | -44.03      |
| 5160.00         | H               | -                   | -                          | -77.45               | 3.42        | 32.97                   | -62.28                             | -13.00      | -49.28      |
| 6880.00         | H               | -                   | -                          | -75.23               | 8.80        | 40.57                   | -54.69                             | -13.00      | -41.69      |
| 8600.00         | H               | -                   | -                          | -76.04               | 11.12       | 42.08                   | -53.18                             | -13.00      | -40.18      |

Table 7-36. Radiated Spurious Data (LTE Band 66/4 – Low Channel) – Ant1

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 161 of 181                   |



|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 20     |
| Frequency (MHz): | 1745   |
| RB / Offset:     | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3490.00         | H               | 217                 | 70                         | -68.25               | 0.12        | 38.87                   | -56.39                             | -13.00      | -43.39      |
| 5235.00         | H               | -                   | -                          | -78.25               | 3.65        | 32.40                   | -62.86                             | -13.00      | -49.86      |
| 6980.00         | H               | -                   | -                          | -75.10               | 7.94        | 39.84                   | -55.42                             | -13.00      | -42.42      |
| 8725.00         | H               | -                   | -                          | -75.94               | 11.02       | 42.08                   | -53.18                             | -13.00      | -40.18      |

**Table 7-37. Radiated Spurious Data (LTE Band 66/4 – Mid Channel) – Ant1**

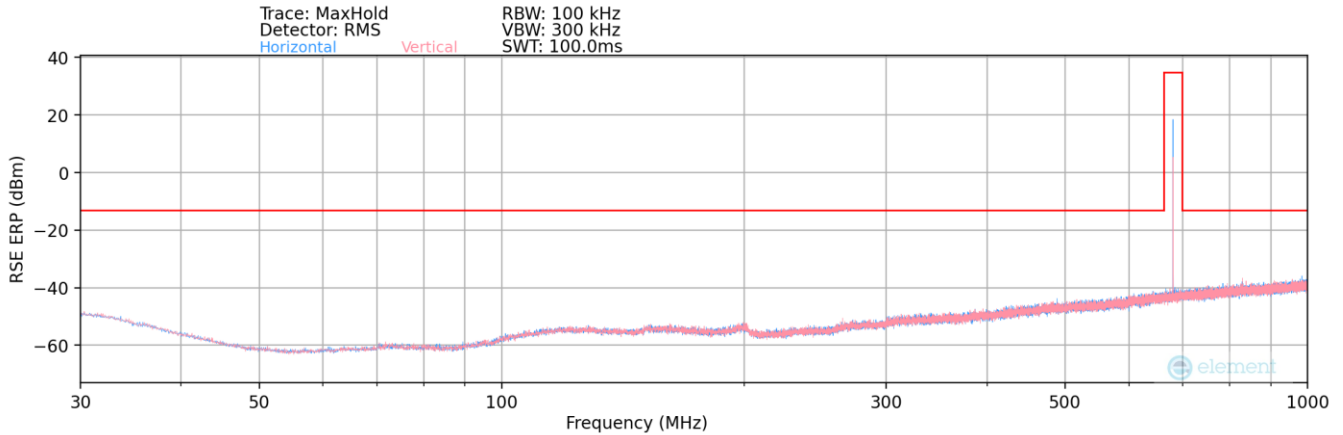
|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 20     |
| Frequency (MHz): | 1770   |
| RB / Offset:     | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3540.00         | H               | 222                 | 72                         | -69.01               | -0.17       | 37.82                   | -57.43                             | -13.00      | -44.43      |
| 5310.00         | H               | -                   | -                          | -78.36               | 3.36        | 32.00                   | -63.25                             | -13.00      | -50.25      |
| 7080.00         | H               | -                   | -                          | -75.25               | 8.42        | 40.17                   | -55.09                             | -13.00      | -42.09      |
| 8850.00         | H               | -                   | -                          | -76.01               | 11.06       | 42.05                   | -53.21                             | -13.00      | -40.21      |

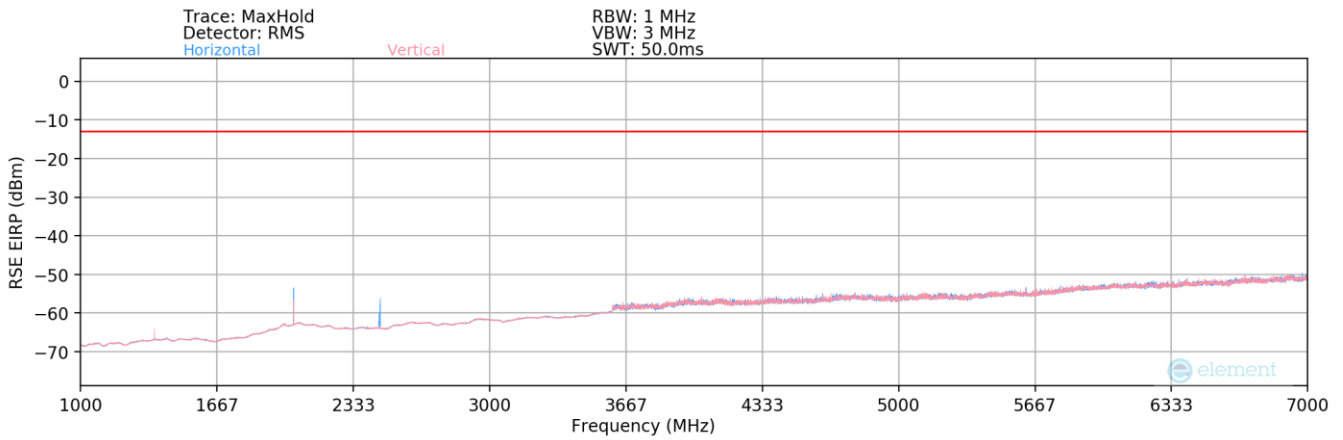
**Table 7-38. Radiated Spurious Data (LTE Band 66/4 – High Channel) – Ant1**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 162 of 181                   |

### NR Band n71 – Ant1



**Plot 7-216. Radiated Spurious Plot (NR Band n71) – Ant1**



**Plot 7-217. Radiated Spurious Plot (NR Band n71) – Ant1**

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 673           |
| RB / Offset:           | 1 / 53        |
| Detector / Trace Mode: | RMS / Average |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1346.00         | H               | 171                 | 147                        | -74.71               | -6.87       | 25.42                   | -69.83                             | -13.00      | -56.83      |
| 2019.00         | H               | 125                 | 143                        | -59.93               | -2.93       | 44.14                   | -51.12                             | -13.00      | -38.12      |
| 2692.00         | H               | -                   | -                          | -76.07               | -2.37       | 28.56                   | -66.70                             | -13.00      | -53.70      |
| 3365.00         | H               | -                   | -                          | -76.22               | -1.06       | 29.72                   | -65.53                             | -13.00      | -52.53      |
| 4038.00         | H               | -                   | -                          | -77.39               | 1.91        | 31.52                   | -63.73                             | -13.00      | -50.73      |

**Table 7-39. Radiated Spurious Data (NR Band n71 – Low Channel) – Ant1**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 163 of 181                   |



|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 680.5         |
| RB / Offset:           | 1 / 53        |
| Detector / Trace Mode: | RMS / Average |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dB $\mu$ V/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------------|------------------------------------|-------------|-------------|
| 1361.00         | H               | 386                 | 55                         | -74.45               | -6.84       | 25.71                         | -69.55                             | -13.00      | -56.55      |
| 2041.50         | H               | 134                 | 138                        | -60.52               | -2.67       | 43.81                         | -51.45                             | -13.00      | -38.45      |
| 2722.00         | H               | -                   | -                          | -76.09               | -2.73       | 28.18                         | -67.08                             | -13.00      | -54.08      |
| 3402.50         | H               | -                   | -                          | -76.35               | -0.94       | 29.71                         | -65.54                             | -13.00      | -52.54      |
| 4083.00         | H               | -                   | -                          | -77.51               | 1.71        | 31.20                         | -64.05                             | -13.00      | -51.05      |

**Table 7-40. Radiated Spurious Data (NR Band n71 – Mid Channel) – Ant1**

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 688           |
| RB / Offset:           | 1 / 53        |
| Detector / Trace Mode: | RMS / Average |

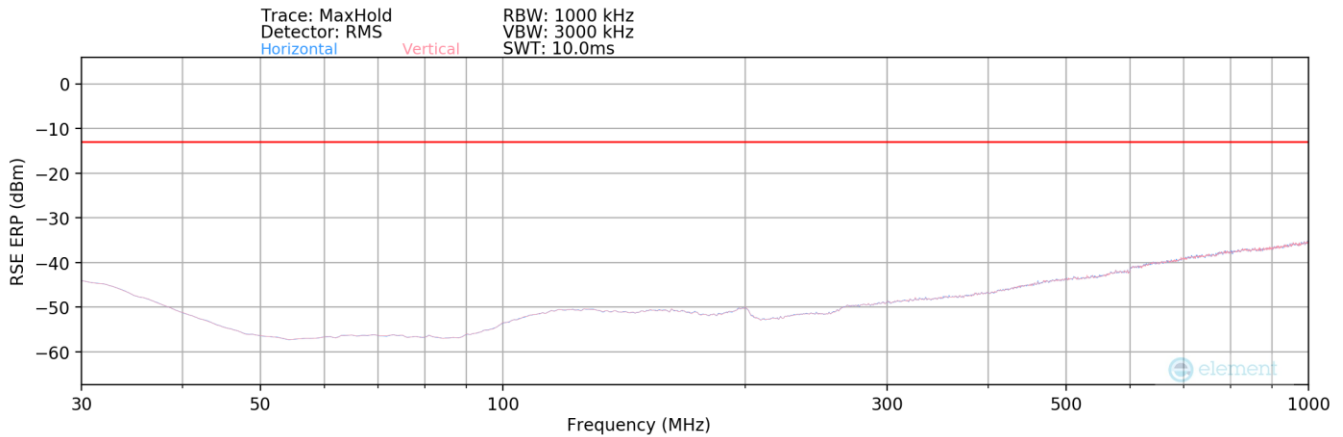
| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dB $\mu$ V/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------------|------------------------------------|-------------|-------------|
| 1376.00         | H               | 158                 | 149                        | -72.76               | -6.78       | 27.46                         | -67.80                             | -13.00      | -54.80      |
| 2064.00         | H               | 142                 | 147                        | -60.59               | -2.56       | 43.85                         | -51.41                             | -13.00      | -38.41      |
| 2752.00         | H               | -                   | -                          | -76.15               | -2.84       | 28.01                         | -67.25                             | -13.00      | -54.25      |
| 3440.00         | H               | -                   | -                          | -76.14               | -0.82       | 30.04                         | -65.22                             | -13.00      | -52.22      |
| 4128.00         | H               | -                   | -                          | -77.24               | 1.74        | 31.50                         | -63.76                             | -13.00      | -50.76      |

**Table 7-41. Radiated Spurious Data (NR Band n71 – High Channel) – Ant1**

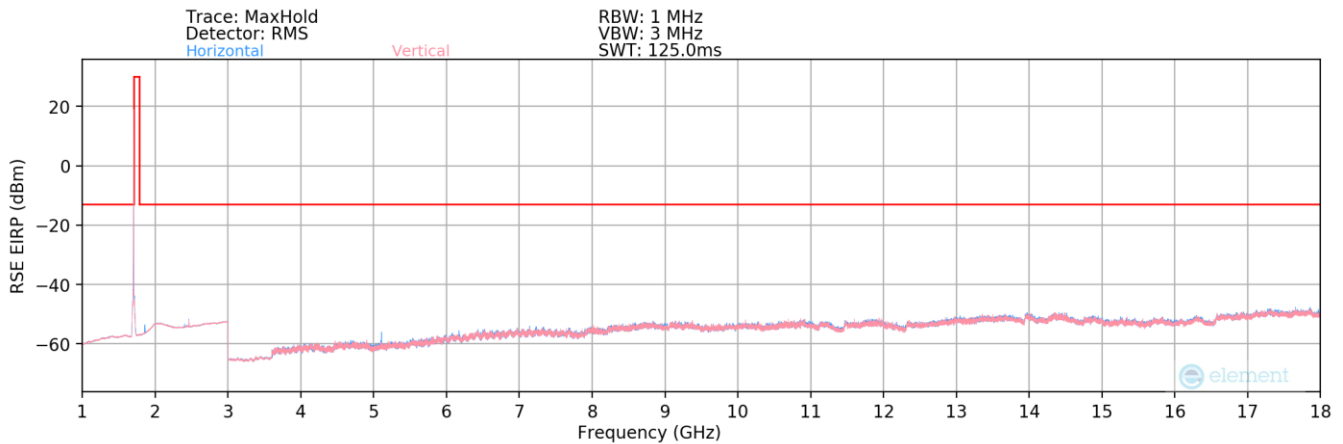
|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 164 of 181                   |



## NR Band n70 – Ant1



Plot 7-218. Radiated Spurious Plot (NR Band n70) – Ant1



Plot 7-219. Radiated Spurious Plot (NR Band n70) – Ant1

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 15            |
| Frequency (MHz):       | 1702.5        |
| RB / Offset:           | 1 / 39        |
| Detector / Trace Mode: | RMS / Average |

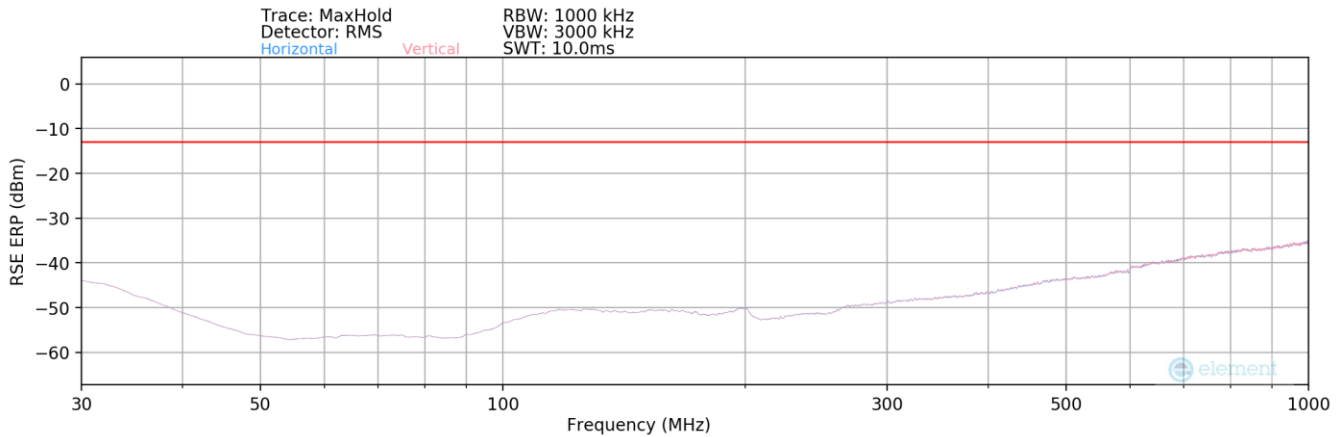
| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3405.00         | H               | 147                 | 349                        | -73.80               | 0.17        | 33.37                   | -61.88                             | -13.00      | -48.88      |
| 5107.50         | H               | 312                 | 61                         | -72.01               | 3.46        | 38.45                   | -56.81                             | -13.00      | -43.81      |
| 6810.00         | H               | 165                 | 61                         | -72.76               | 8.69        | 42.93                   | -52.33                             | -13.00      | -39.33      |
| 8512.50         | H               | -                   | -                          | -79.16               | 10.39       | 38.23                   | -57.03                             | -13.00      | -44.03      |
| 10215.00        | H               | -                   | -                          | -79.40               | 12.01       | 39.61                   | -55.65                             | -13.00      | -42.65      |
| 11917.50        | H               | -                   | -                          | -79.65               | 13.17       | 40.52                   | -54.74                             | -13.00      | -41.74      |

Table 7-42. Radiated Spurious Data (NR Band n70 – Mid Channel) – Ant1

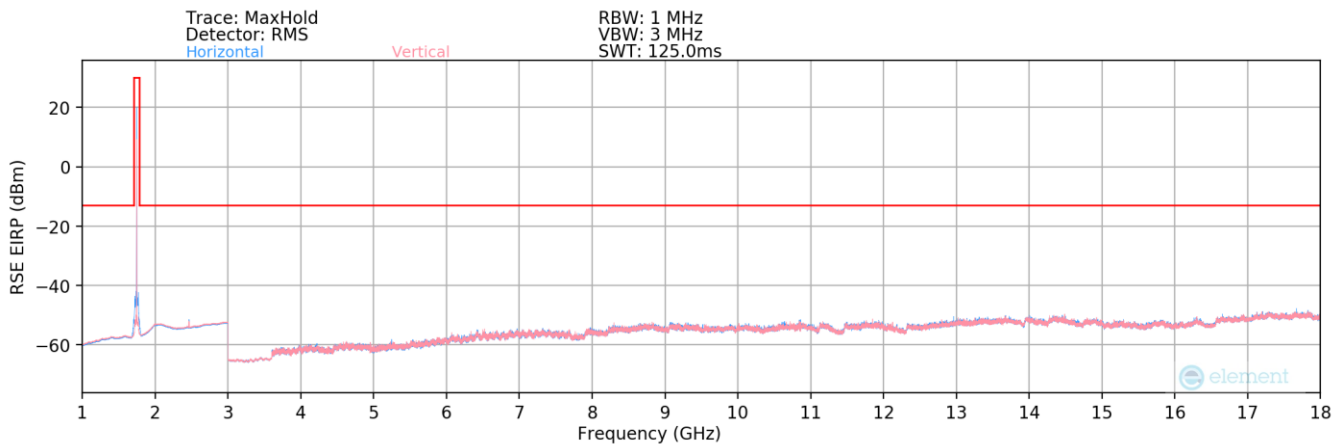
|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
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## NR Band n66 – Ant1



**Plot 7-220. Radiated Spurious Plot (NR Band n66) – Ant1**



**Plot 7-221. Radiated Spurious Plot (NR Band n66) – Ant1**

|                               |               |
|-------------------------------|---------------|
| <b>Bandwidth (MHz):</b>       | 40            |
| <b>Frequency (MHz):</b>       | 1730          |
| <b>RB / Offset:</b>           | 1 / 108       |
| <b>Detector / Trace Mode:</b> | RMS / Average |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3460.00         | V               | -                   | -                          | -76.42               | 0.26        | 30.84                   | -64.42                             | -13.00      | -51.42      |
| 5190.00         | V               | -                   | -                          | -78.17               | 3.53        | 32.36                   | -62.90                             | -13.00      | -49.90      |
| 6920.00         | V               | 128                 | 124                        | -77.50               | 8.51        | 38.01                   | -57.25                             | -13.00      | -44.25      |
| 8650.00         | V               | -                   | -                          | -79.03               | 11.10       | 39.07                   | -56.19                             | -13.00      | -43.19      |
| 10380.00        | V               | -                   | -                          | -79.60               | 12.26       | 39.66                   | -55.60                             | -13.00      | -42.60      |
| 12110.00        | V               | -                   | -                          | -79.83               | 13.22       | 40.39                   | -54.87                             | -13.00      | -41.87      |

**Table 7-43. Radiated Spurious Data (NR Band n66 – Low Channel) – Ant1**

|  |  |                                      |  |
|--|--|--------------------------------------|--|
| <b>FCC ID:</b> A3LSMA356U                      | <b>PART 27 MEASUREMENT REPORT</b>            |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2311010111-05.A3L | <b>Test Dates:</b><br>11/6/2023 - 12/28/2023 | <b>EUT Type:</b><br>Portable Handset | Page 166 of 181                          |



|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 40            |
| Frequency (MHz):       | 1745          |
| RB / Offset:           | 1 / 108       |
| Detector / Trace Mode: | RMS / Average |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3490.00         | V               | -                   | -                          | -76.53               | 0.12        | 30.59                   | -64.67                             | -13.00      | -51.67      |
| 5235.00         | V               | -                   | -                          | -78.04               | 3.65        | 32.61                   | -62.65                             | -13.00      | -49.65      |
| 6980.00         | V               | 120                 | 137                        | -75.33               | 7.94        | 39.61                   | -55.65                             | -13.00      | -42.65      |
| 8725.00         | V               | -                   | -                          | -78.54               | 11.02       | 39.48                   | -55.78                             | -13.00      | -42.78      |
| 10470.00        | V               | -                   | -                          | -80.05               | 12.72       | 39.67                   | -55.59                             | -13.00      | -42.59      |
| 12215.00        | V               | -                   | -                          | -79.90               | 12.88       | 39.98                   | -55.27                             | -13.00      | -42.27      |

**Table 7-44. Radiated Spurious Data (NR Band n66 – Mid Channel) – Ant1**

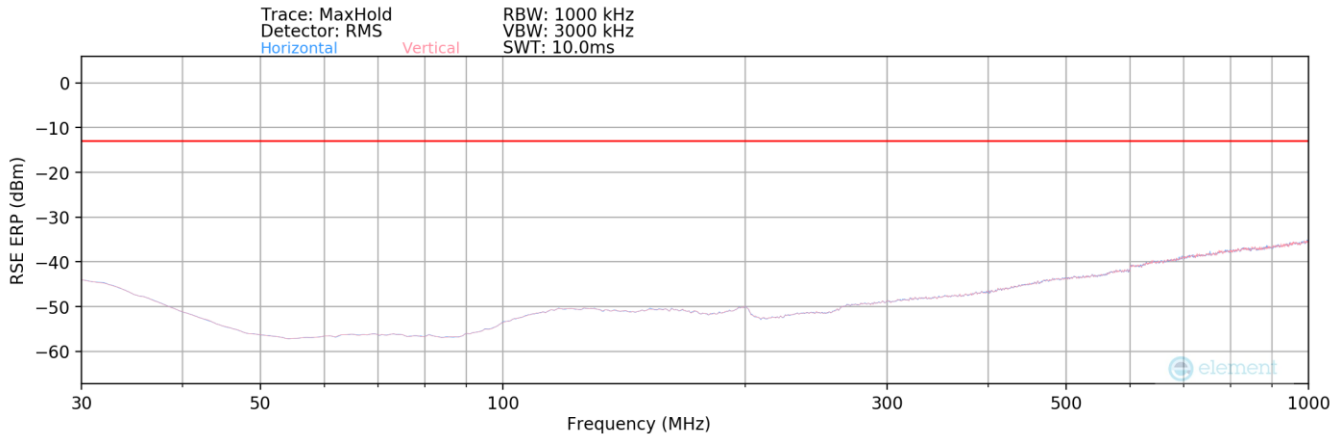
|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 40            |
| Frequency (MHz):       | 1760          |
| RB / Offset:           | 1 / 108       |
| Detector / Trace Mode: | RMS / Average |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3520.00         | V               | -                   | -                          | -76.23               | 0.02        | 30.79                   | -64.47                             | -13.00      | -51.47      |
| 5280.00         | V               | -                   | -                          | -77.86               | 3.43        | 32.57                   | -62.69                             | -13.00      | -49.69      |
| 7040.00         | V               | 122                 | 323                        | -73.37               | 8.08        | 41.71                   | -53.55                             | -13.00      | -40.55      |
| 8800.00         | V               | -                   | -                          | -78.42               | 10.91       | 39.49                   | -55.77                             | -13.00      | -42.77      |
| 10560.00        | V               | -                   | -                          | -80.08               | 12.61       | 39.53                   | -55.73                             | -13.00      | -42.73      |
| 12320.00        | V               | -                   | -                          | -79.89               | 12.84       | 39.95                   | -55.31                             | -13.00      | -42.31      |

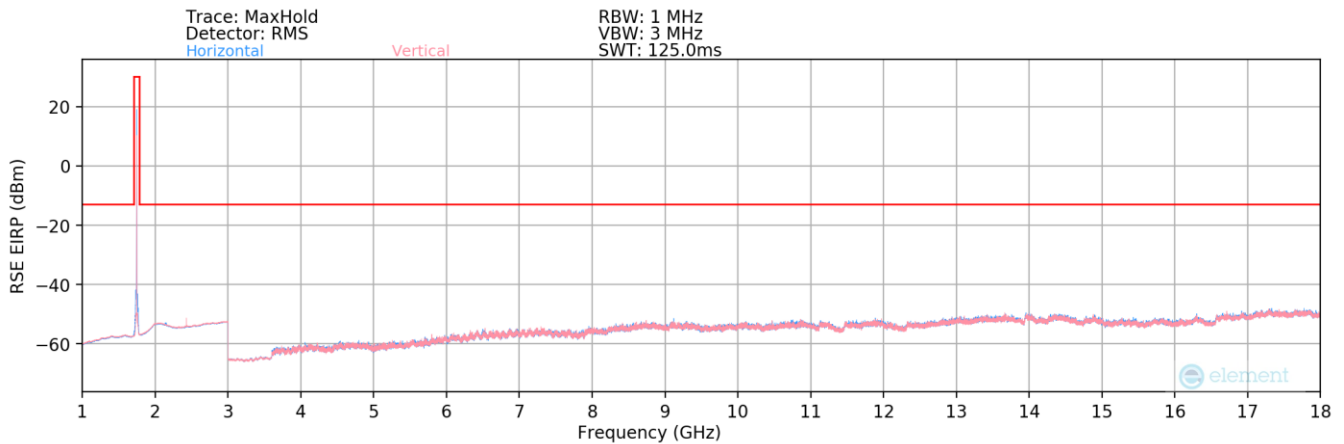
**Table 7-45. Radiated Spurious Data (NR Band n66 – High Channel) – Ant1**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | <b>PART 27 MEASUREMENT REPORT</b>     |                               | Approved by:<br>Technical Manager |
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## LTE Band 66/4 – Ant2



**Plot 7-222. Radiated Spurious Plot (LTE Band 66/4) – Ant2**



**Plot 7-223. Radiated Spurious Plot (LTE Band 66/4) – Ant2**

|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 20     |
| Frequency (MHz): | 1720   |
| RB / Offset:     | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3440.00         | H               | 148                 | 171                        | -75.39               | 0.48        | 32.09                   | -63.17                             | -13.00      | -50.17      |
| 5160.00         | H               | -                   | -                          | -78.19               | 3.42        | 32.23                   | -63.02                             | -13.00      | -50.02      |
| 6880.00         | H               | -                   | -                          | -78.48               | 8.80        | 37.32                   | -57.94                             | -13.00      | -44.94      |
| 8600.00         | H               | -                   | -                          | -79.08               | 11.12       | 39.04                   | -56.22                             | -13.00      | -43.22      |

**Table 7-46. Radiated Spurious Data (LTE Band 66/4 – Low Channel) – Ant2**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
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|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 20     |
| Frequency (MHz): | 1745   |
| RB / Offset:     | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3490.00         | H               | 145                 | 176                        | -75.60               | 0.12        | 31.52                   | -63.74                             | -13.00      | -50.74      |
| 5235.00         | H               | -                   | -                          | -77.91               | 3.65        | 32.74                   | -62.52                             | -13.00      | -49.52      |
| 6980.00         | H               | -                   | -                          | -78.62               | 7.94        | 36.32                   | -58.94                             | -13.00      | -45.94      |
| 8725.00         | H               | -                   | -                          | -79.97               | 11.02       | 38.05                   | -57.21                             | -13.00      | -44.21      |

**Table 7-47. Radiated Spurious Data (LTE Band 66/4 – Mid Channel) – Ant2**

|                  |        |
|------------------|--------|
| Bandwidth (MHz): | 20     |
| Frequency (MHz): | 1770   |
| RB / Offset:     | 1 / 50 |

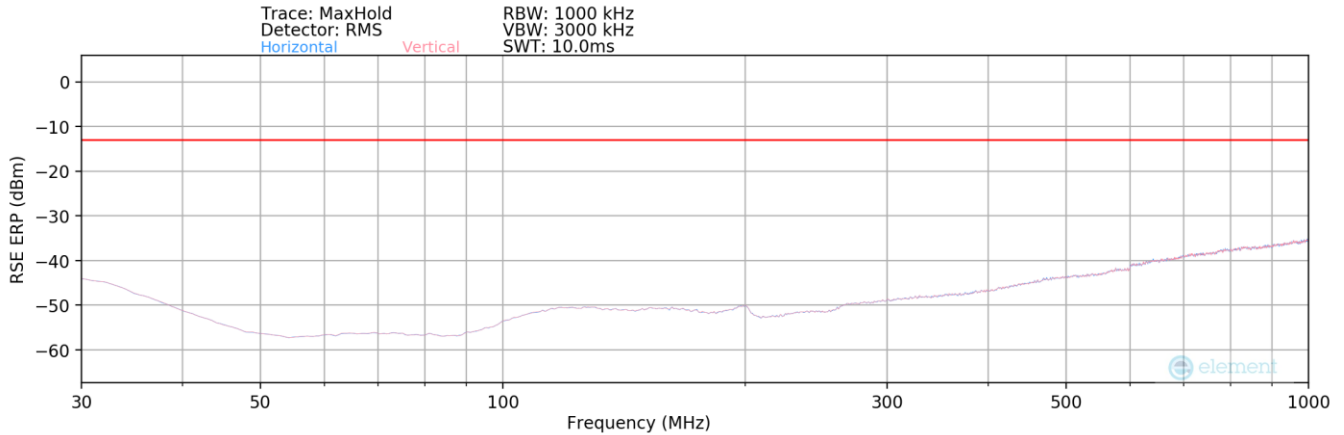
| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3540.00         | H               | 147                 | 146                        | -75.08               | -0.17       | 31.75                   | -63.50                             | -13.00      | -50.50      |
| 5310.00         | H               | -                   | -                          | -77.84               | 3.36        | 32.52                   | -62.73                             | -13.00      | -49.73      |
| 7080.00         | H               | -                   | -                          | -78.00               | 8.42        | 37.42                   | -57.84                             | -13.00      | -44.84      |
| 8850.00         | H               | -                   | -                          | -78.47               | 11.06       | 39.59                   | -55.67                             | -13.00      | -42.67      |

**Table 7-48. Radiated Spurious Data (LTE Band 66/4 – High Channel) – Ant2**

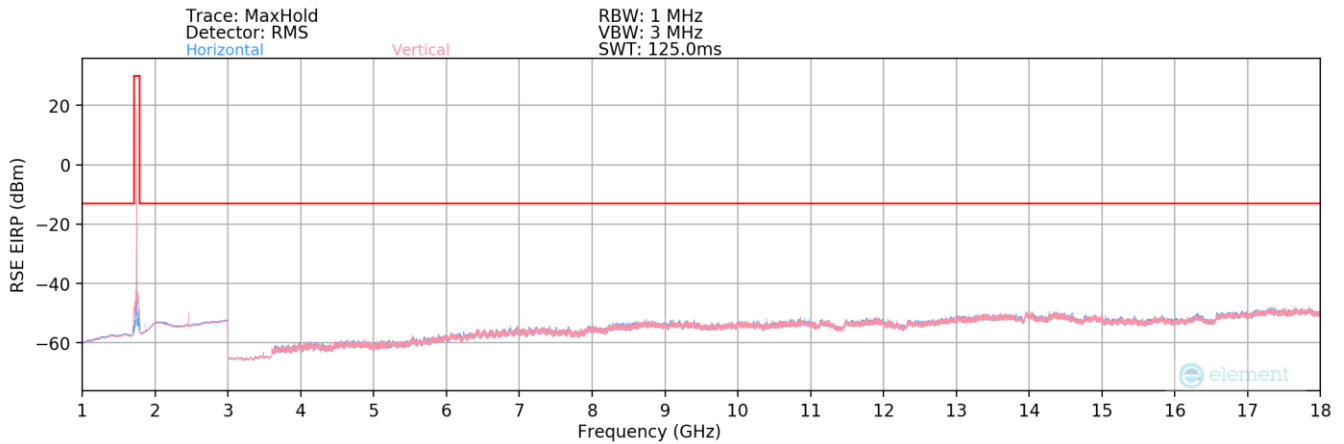
|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
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## NR Band n66 – Ant2



Plot 7-224. Radiated Spurious Plot (NR Band n66) – Ant2



Plot 7-225. Radiated Spurious Plot (NR Band n66) – Ant2

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 40            |
| Frequency (MHz):       | 1730          |
| RB / Offset:           | 1 / 108       |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3460.00         | H               | 129                 | 307                        | -73.33               | 0.26        | 33.93                   | -61.33                             | -13.00      | -48.33      |
| 5190.00         | H               | -                   | -                          | -78.22               | 3.53        | 32.31                   | -62.95                             | -13.00      | -49.95      |
| 6920.00         | H               | -                   | -                          | -78.77               | 8.51        | 36.74                   | -58.52                             | -13.00      | -45.52      |
| 8650.00         | H               | -                   | -                          | -79.13               | 11.10       | 38.97                   | -56.29                             | -13.00      | -43.29      |

Table 7-49. Radiated Spurious Data (NR Band n66 – Low Channel) – Ant2

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
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|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 40            |
| Frequency (MHz):       | 1745          |
| RB / Offset:           | 1 / 108       |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3490.00         | H               | 301                 | 306                        | -73.70               | 0.12        | 33.42                   | -61.84                             | -13.00      | -48.84      |
| 5235.00         | H               | -                   | -                          | -78.08               | 3.65        | 32.57                   | -62.69                             | -13.00      | -49.69      |
| 6980.00         | H               | -                   | -                          | -77.91               | 7.94        | 37.03                   | -58.23                             | -13.00      | -45.23      |
| 8725.00         | H               | -                   | -                          | -78.59               | 11.02       | 39.43                   | -55.83                             | -13.00      | -42.83      |

**Table 7-50. Radiated Spurious Data (NR Band n66 – Mid Channel) – Ant2**

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 40            |
| Frequency (MHz):       | 1760          |
| RB / Offset:           | 1 / 108       |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3520.00         | H               | 349                 | 301                        | -69.57               | 0.02        | 37.45                   | -57.81                             | -13.00      | -44.81      |
| 5280.00         | H               | -                   | -                          | -77.39               | 3.43        | 33.04                   | -62.22                             | -13.00      | -49.22      |
| 7040.00         | H               | -                   | -                          | -77.98               | 8.08        | 37.10                   | -58.16                             | -13.00      | -45.16      |
| 8800.00         | H               | -                   | -                          | -78.48               | 10.91       | 39.43                   | -55.83                             | -13.00      | -42.83      |

**Table 7-51. Radiated Spurious Data (NR Band n66 – High Channel) – Ant2**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
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## 7.9 Frequency Stability / Temperature Variation

### Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015. The frequency stability of the transmitter is measured by:

- a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

***For Part 27, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.***

### Test Procedure Used

ANSI C63.26-2015 – Section 5.6

### Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

### Test Setup

The EUT was connected via an RF cable to a spectrum analyzer with the EUT placed inside an environmental chamber.

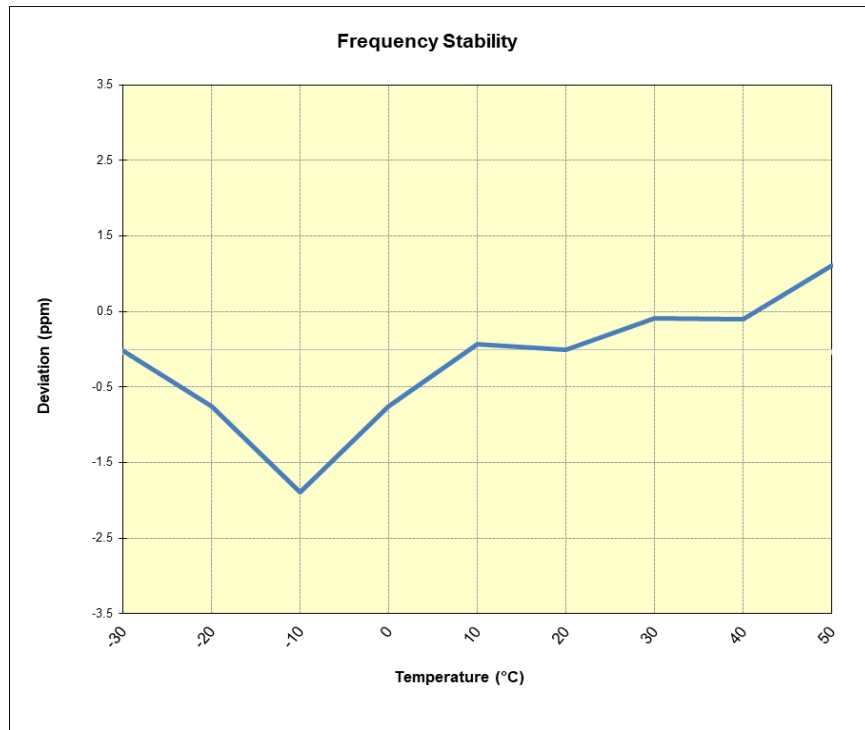
### Test Notes

None

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | <b>PART 27 MEASUREMENT REPORT</b>     |                               | Approved by:<br>Technical Manager |
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| WCDMA AWS                 |             |                       |                |                 |               |
|---------------------------|-------------|-----------------------|----------------|-----------------|---------------|
| Operating Frequency (Hz): |             | 1,732,600,000         |                |                 |               |
| Ref. Voltage (VDC):       |             | 4.411                 |                |                 |               |
| Deviation Limit:          |             | ± 0.00025% or 2.5 ppm |                |                 |               |
| Voltage (%)               | Power (VDC) | Temp (°C)             | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
| 100 %                     | 4.411       | - 30                  | 1,732,587,411  | -33             | -0.0000019    |
|                           |             | - 20                  | 1,732,586,147  | -1,297          | -0.0000749    |
|                           |             | - 10                  | 1,732,584,178  | -3,266          | -0.0001885    |
|                           |             | 0                     | 1,732,586,149  | -1,295          | -0.0000747    |
|                           |             | + 10                  | 1,732,587,559  | 115             | 0.0000066     |
|                           |             | + 20 (Ref)            | 1,732,587,444  | 0               | 0.0000000     |
|                           |             | + 30                  | 1,732,588,157  | 713             | 0.0000412     |
|                           |             | + 40                  | 1,732,588,145  | 701             | 0.0000405     |
|                           |             | + 50                  | 1,732,589,369  | 1,925           | 0.0001111     |
| Battery Endpoint          | 3.593       | + 20                  | 1,732,586,748  | -696            | -0.0000402    |

**Table 7-52. WCDMA AWS Frequency Stability Data**

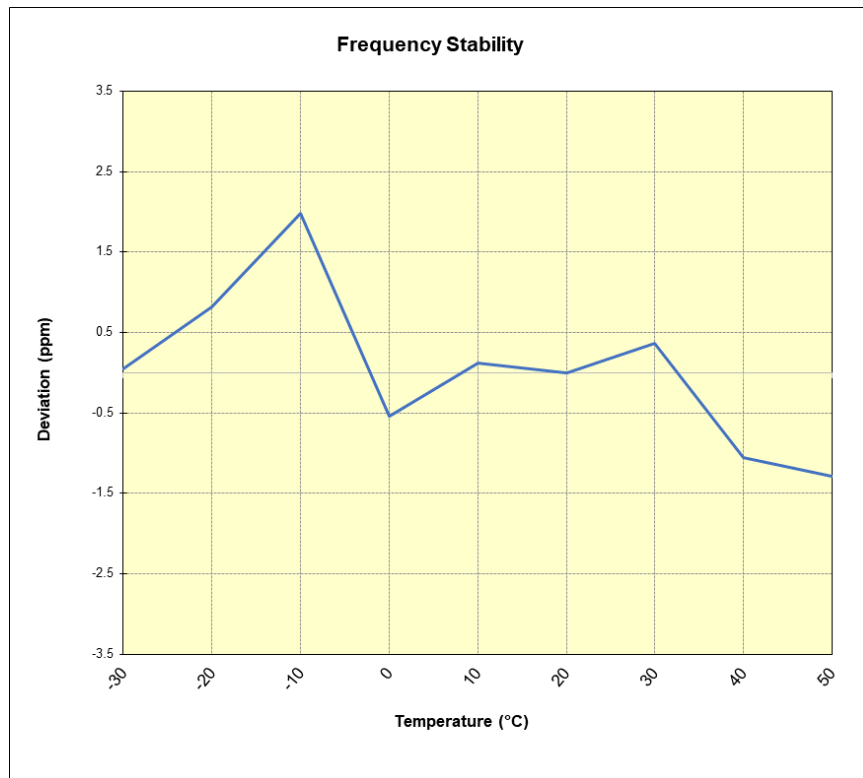


**Plot 7-226. WCDMA AWS Frequency Stability Chart**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 173 of 181                   |

| LTE Band 71               |             |                       |                |                 |               |
|---------------------------|-------------|-----------------------|----------------|-----------------|---------------|
| Operating Frequency (Hz): |             | 680,500,000           |                |                 |               |
| Ref. Voltage (VDC):       |             | 4.411                 |                |                 |               |
| Deviation Limit:          |             | ± 0.00025% or 2.5 ppm |                |                 |               |
| Voltage (%)               | Power (VDC) | Temp (°C)             | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
| 100 %                     | 4.411       | - 30                  | 680,435,898    | 32              | 0.0000047     |
|                           |             | - 20                  | 680,436,421    | 555             | 0.0000816     |
|                           |             | - 10                  | 680,437,211    | 1,345           | 0.0001977     |
|                           |             | 0                     | 680,435,501    | -365            | -0.0000536    |
|                           |             | + 10                  | 680,435,947    | 81              | 0.0000119     |
|                           |             | + 20 (Ref)            | 680,435,866    | 0               | 0.0000000     |
|                           |             | + 30                  | 680,436,114    | 248             | 0.0000364     |
|                           |             | + 40                  | 680,435,147    | -719            | -0.0001057    |
| Battery Endpoint          | 3.593       | + 20                  | 680,434,514    | -1,352          | -0.0001987    |

**Table 7-53. LTE Band 71 Frequency Stability Data**

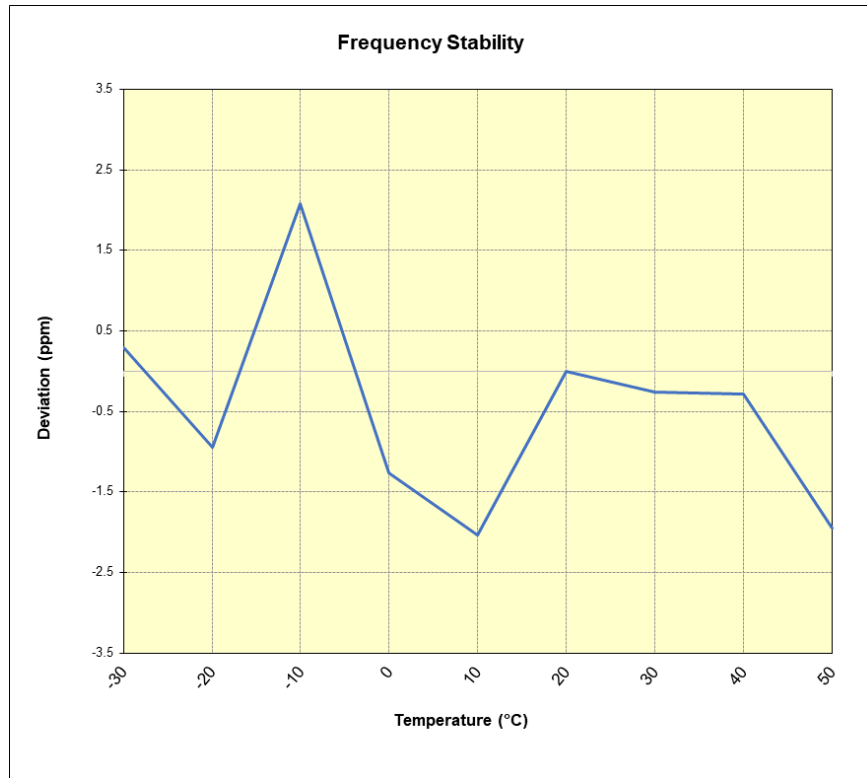


**Plot 7-227. LTE Band 71 Frequency Stability Chart**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 174 of 181                   |

| LTE Band 12               |             |                       |                |                 |               |
|---------------------------|-------------|-----------------------|----------------|-----------------|---------------|
| Operating Frequency (Hz): |             | 707,500,000           |                |                 |               |
| Ref. Voltage (VDC):       |             | 4.411                 |                |                 |               |
| Deviation Limit:          |             | ± 0.00025% or 2.5 ppm |                |                 |               |
| Voltage (%)               | Power (VDC) | Temp (°C)             | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
| 100 %                     | 4.411       | - 30                  | 707,425,459    | 204             | 0.0000288     |
|                           |             | - 20                  | 707,424,585    | -670            | -0.0000947    |
|                           |             | - 10                  | 707,426,722    | 1,467           | 0.0002074     |
|                           |             | 0                     | 707,424,361    | -894            | -0.0001264    |
|                           |             | + 10                  | 707,423,813    | -1,442          | -0.0002038    |
|                           |             | + 20 (Ref)            | 707,425,255    | 0               | 0.0000000     |
|                           |             | + 30                  | 707,425,074    | -181            | -0.0000256    |
|                           |             | + 40                  | 707,425,052    | -203            | -0.0000287    |
| Battery Endpoint          | 3.593       | + 20                  | 707,424,170    | -1,085          | -0.0001534    |

Table 7-54. LTE Band 12 Frequency Stability Data

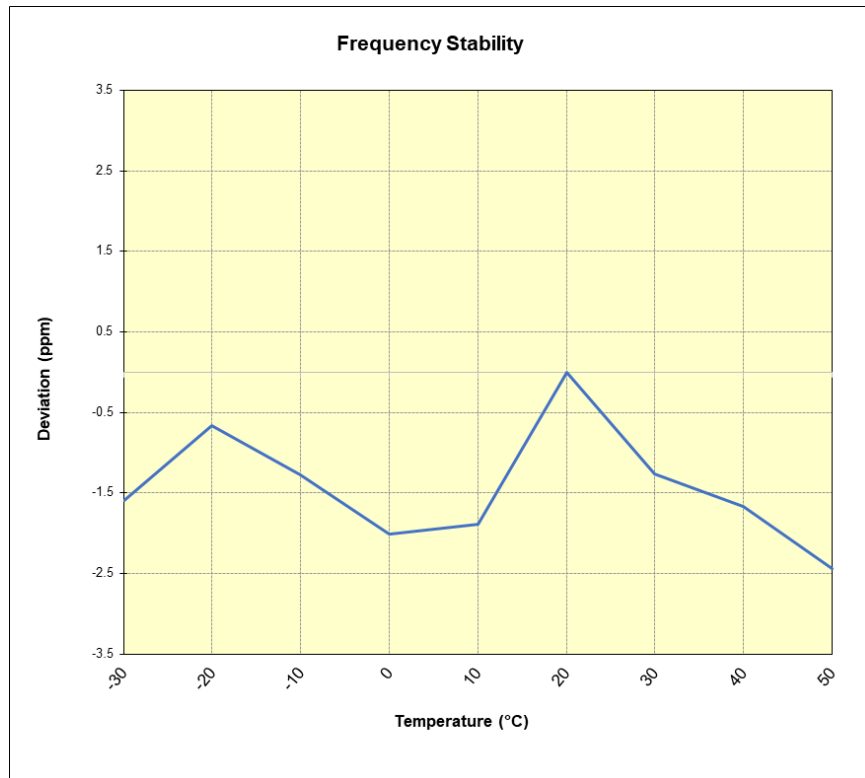


Plot 7-228. LTE Band 12 Frequency Stability Chart

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 175 of 181                   |

| LTE Band 13               |             |                       |                |                 |               |
|---------------------------|-------------|-----------------------|----------------|-----------------|---------------|
| Operating Frequency (Hz): |             | 782,000,000           |                |                 |               |
| Ref. Voltage (VDC):       |             | 4.411                 |                |                 |               |
| Deviation Limit:          |             | ± 0.00025% or 2.5 ppm |                |                 |               |
| Voltage (%)               | Power (VDC) | Temp (°C)             | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
| 100 %                     | 4.411       | - 30                  | 781,926,245    | -1,248          | -0.0001596    |
|                           |             | - 20                  | 781,926,977    | -516            | -0.0000660    |
|                           |             | - 10                  | 781,926,492    | -1,001          | -0.0001280    |
|                           |             | 0                     | 781,925,916    | -1,577          | -0.0002017    |
|                           |             | + 10                  | 781,926,018    | -1,475          | -0.0001886    |
|                           |             | + 20 (Ref)            | 781,927,493    | 0               | 0.0000000     |
|                           |             | + 30                  | 781,926,506    | -987            | -0.0001262    |
|                           |             | + 40                  | 781,926,193    | -1,300          | -0.0001663    |
| Battery Endpoint          | 3.593       | + 20                  | 781,926,426    | -1,067          | -0.0001365    |

**Table 7-55. LTE Band 13 Frequency Stability Data**



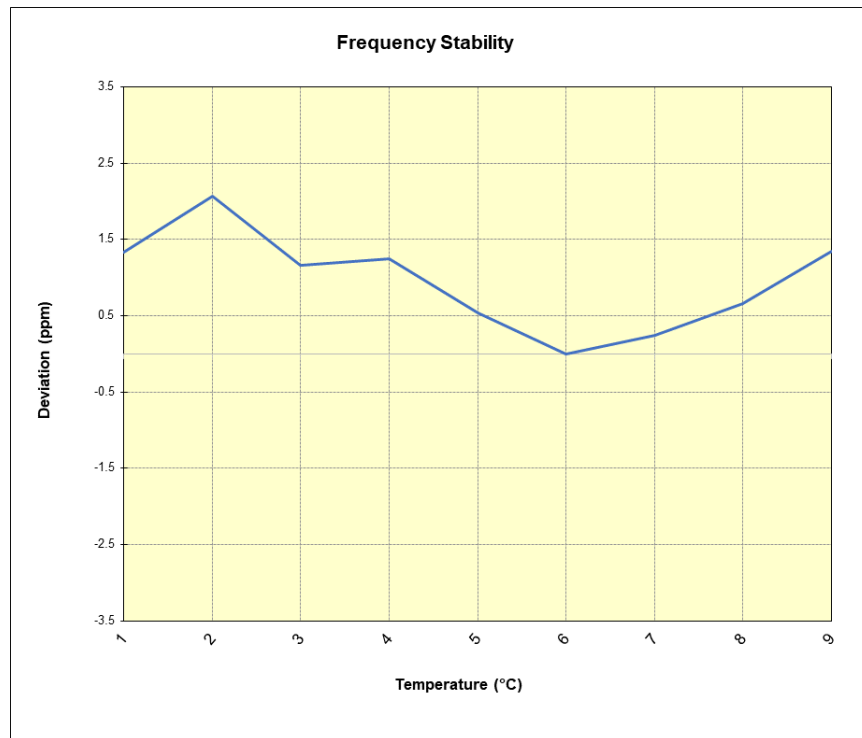
**Plot 7-229. LTE Band 13 Frequency Stability Chart**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 176 of 181                   |



| LTE Band 66/4    |             |                           |                |                       |               |
|------------------|-------------|---------------------------|----------------|-----------------------|---------------|
|                  |             | Operating Frequency (Hz): |                | 1,745,000,000         |               |
|                  |             | Ref. Voltage (VDC):       |                | 4.411                 |               |
|                  |             | Deviation Limit:          |                | ± 0.00025% or 2.5 ppm |               |
| Voltage (%)      | Power (VDC) | Temp (°C)                 | Frequency (Hz) | Freq. Dev. (Hz)       | Deviation (%) |
| 100 %            | 4.411       | - 30                      | 1,744,920,525  | 2,317                 | 0.0001328     |
|                  |             | - 20                      | 1,744,921,820  | 3,612                 | 0.0002070     |
|                  |             | - 10                      | 1,744,920,223  | 2,015                 | 0.0001155     |
|                  |             | 0                         | 1,744,920,376  | 2,168                 | 0.0001242     |
|                  |             | + 10                      | 1,744,919,147  | 939                   | 0.0000538     |
|                  |             | + 20 (Ref)                | 1,744,918,208  | 0                     | 0.0000000     |
|                  |             | + 30                      | 1,744,918,635  | 427                   | 0.0000245     |
|                  |             | + 40                      | 1,744,919,363  | 1,155                 | 0.0000662     |
|                  |             | + 50                      | 1,744,920,548  | 2,340                 | 0.0001341     |
| Battery Endpoint | 3.593       | + 20                      | 1,744,920,578  | 2,370                 | 0.0001358     |

**Table 7-56. LTE Band 66/4 Frequency Stability Data**

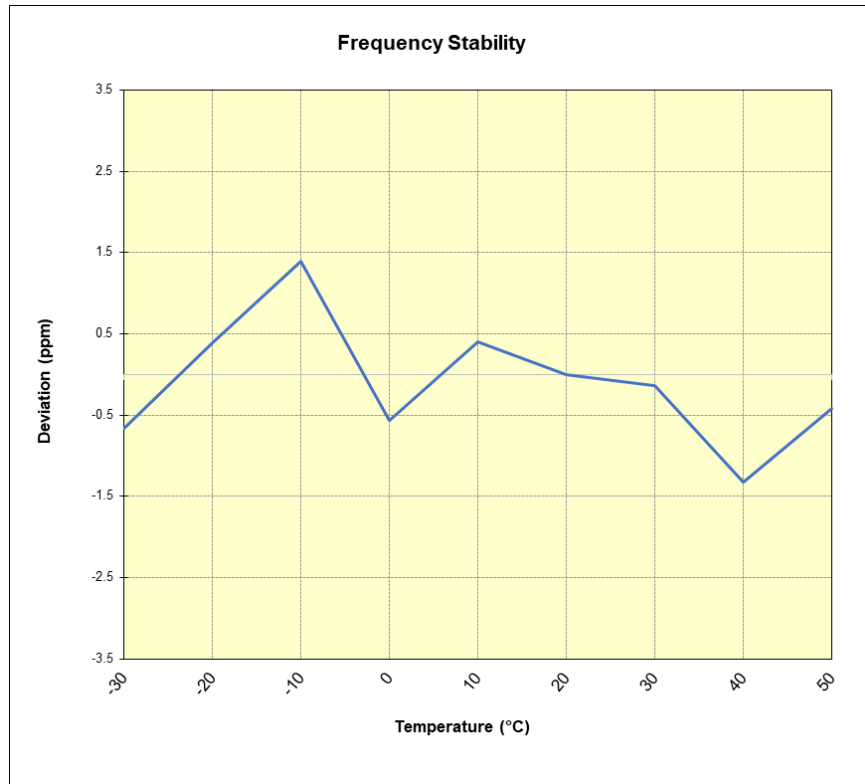


**Plot 7-230. LTE Band 66/4 Frequency Stability Chart**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 177 of 181                   |

| NR Band n71      |             |                           |                |                       |               |
|------------------|-------------|---------------------------|----------------|-----------------------|---------------|
|                  |             | Operating Frequency (Hz): |                | 680,500,000           |               |
|                  |             | Ref. Voltage (VDC):       |                | 4.411                 |               |
|                  |             | Deviation Limit:          |                | ± 0.00025% or 2.5 ppm |               |
| Voltage (%)      | Power (VDC) | Temp (°C)                 | Frequency (Hz) | Freq. Dev. (Hz)       | Deviation (%) |
| 100 %            | 4.411       | - 30                      | 680,582,237    | -456                  | -0.0000670    |
|                  |             | - 20                      | 680,582,959    | 265                   | 0.0000390     |
|                  |             | - 10                      | 680,583,644    | 951                   | 0.0001397     |
|                  |             | 0                         | 680,582,311    | -383                  | -0.0000562    |
|                  |             | + 10                      | 680,582,966    | 273                   | 0.0000401     |
|                  |             | + 20 (Ref)                | 680,582,693    | 0                     | 0.0000000     |
|                  |             | + 30                      | 680,582,601    | -92                   | -0.0000135    |
|                  |             | + 40                      | 680,581,788    | -905                  | -0.0001330    |
| Battery Endpoint | 3.593       | + 20                      | 680,583,514    | 821                   | 0.0001206     |

**Table 7-57. NR Band n71 Frequency Stability Data**

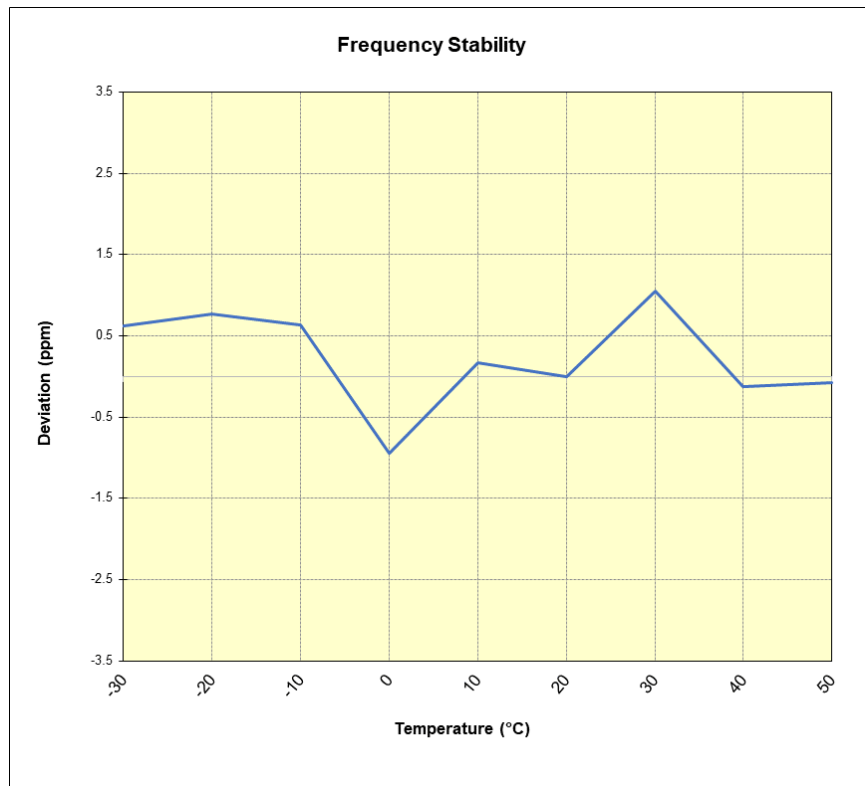


**Plot 7-231. NR Band n71 Frequency Stability Chart**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 178 of 181                   |

| NR Band n70      |             |                           |                |                       |               |
|------------------|-------------|---------------------------|----------------|-----------------------|---------------|
|                  |             | Operating Frequency (Hz): |                | 1,702,500,000         |               |
|                  |             | Ref. Voltage (VDC):       |                | 4.411                 |               |
|                  |             | Deviation Limit:          |                | ± 0.00025% or 2.5 ppm |               |
| Voltage (%)      | Power (VDC) | Temp (°C)                 | Frequency (Hz) | Freq. Dev. (Hz)       | Deviation (%) |
| 100 %            | 4.411       | - 30                      | 1,702,584,367  | 1,063                 | 0.0000624     |
|                  |             | - 20                      | 1,702,584,617  | 1,313                 | 0.0000771     |
|                  |             | - 10                      | 1,702,584,389  | 1,085                 | 0.0000637     |
|                  |             | 0                         | 1,702,581,694  | -1,610                | -0.0000945    |
|                  |             | + 10                      | 1,702,583,586  | 282                   | 0.0000166     |
|                  |             | + 20 (Ref)                | 1,702,583,304  | 0                     | 0.0000000     |
|                  |             | + 30                      | 1,702,585,097  | 1,794                 | 0.0001053     |
|                  |             | + 40                      | 1,702,583,092  | -211                  | -0.0000124    |
| Battery Endpoint | 3.593       | + 20                      | 1,702,584,930  | 1,626                 | 0.0000955     |

**Table 7-58. NR Band n70 Frequency Stability Data**

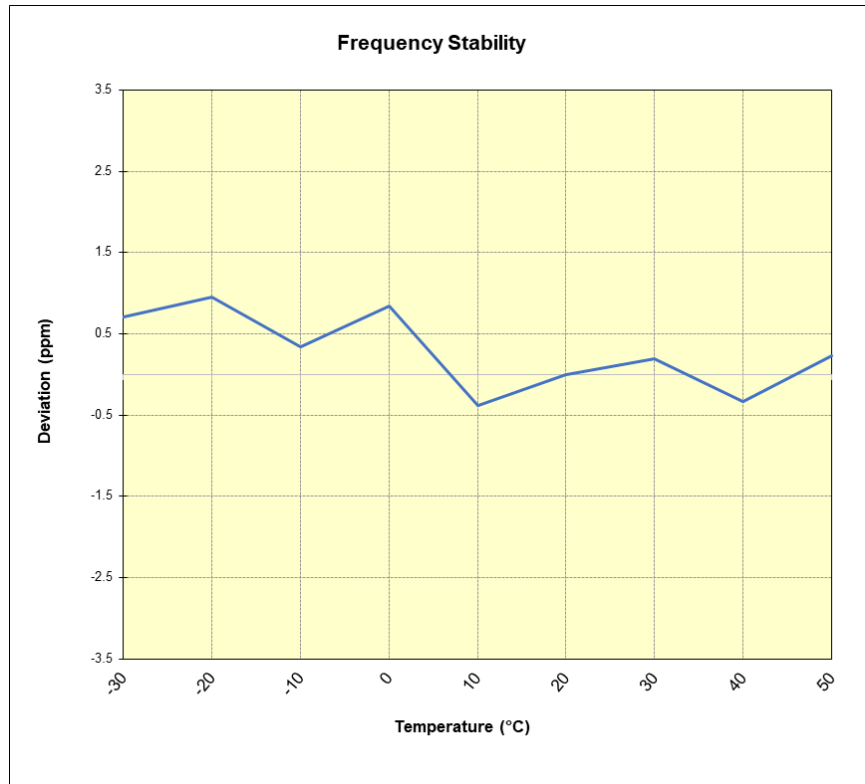


**Plot 7-232. NR Band n70 Frequency Stability Chart**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 179 of 181                   |

| NR Band n66      |             |                           |                |                       |               |
|------------------|-------------|---------------------------|----------------|-----------------------|---------------|
|                  |             | Operating Frequency (Hz): |                | 1,745,000,000         |               |
|                  |             | Ref. Voltage (VDC):       |                | 4.411                 |               |
|                  |             | Deviation Limit:          |                | ± 0.00025% or 2.5 ppm |               |
| Voltage (%)      | Power (VDC) | Temp (°C)                 | Frequency (Hz) | Freq. Dev. (Hz)       | Deviation (%) |
| 100 %            | 4.411       | - 30                      | 1,745,084,000  | 1,232                 | 0.0000706     |
|                  |             | - 20                      | 1,745,084,437  | 1,669                 | 0.0000956     |
|                  |             | - 10                      | 1,745,083,368  | 600                   | 0.0000344     |
|                  |             | 0                         | 1,745,084,243  | 1,475                 | 0.0000845     |
|                  |             | + 10                      | 1,745,082,095  | -673                  | -0.0000386    |
|                  |             | + 20 (Ref)                | 1,745,082,768  | 0                     | 0.0000000     |
|                  |             | + 30                      | 1,745,083,107  | 338                   | 0.0000194     |
|                  |             | + 40                      | 1,745,082,191  | -577                  | -0.0000331    |
| Battery Endpoint | 3.593       | + 20                      | 1,745,084,282  | 1,514                 | 0.0000868     |

**Table 7-59. NR Band n66 Frequency Stability Data**



**Plot 7-233. NR Band n66 Frequency Stability Chart**

|   |                                       |                               |                                   |
|---|---------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA356U                      | PART 27 MEASUREMENT REPORT            |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2311010111-05.A3L | Test Dates:<br>11/6/2023 - 12/28/2023 | EUT Type:<br>Portable Handset | Page 180 of 181                   |

## 8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMA356U** complies with all the requirements of Part 27 of the FCC rules.

|  |  |                                      |  |
|--|--|--------------------------------------|--|
| <b>FCC ID:</b> A3LSMA356U                      | <b>PART 27 MEASUREMENT REPORT</b>            |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2311010111-05.A3L | <b>Test Dates:</b><br>11/6/2023 - 12/28/2023 | <b>EUT Type:</b><br>Portable Handset | Page 181 of 181                          |