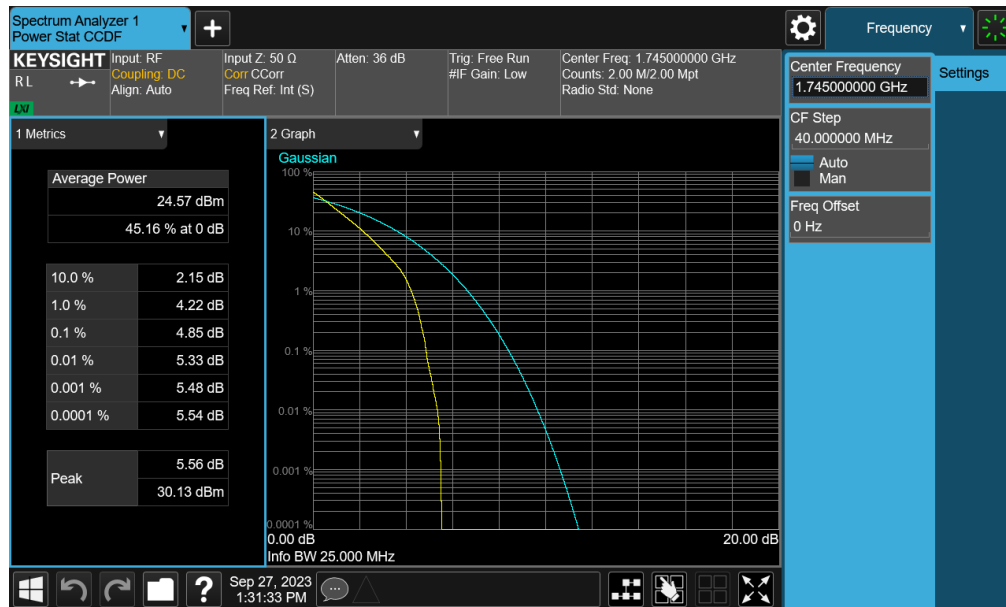




## NR Band n66 – ANT1



Plot 7-183. PAR Plot (NR Band n66 - 25.0MHz DFT-s-OFDM  $\pi/2$  BPSK- Full RB - ANT1)



Plot 7-184. PAR Plot (NR Band n66 - 25.0MHz CP-OFDM QPSK - Full RB - ANT1)

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 133 of 179                   |



Plot 7-185. PAR Plot (NR Band n66 - 25.0MHz CP-OFDM 256-QAM - Full RB - ANT1)

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 134 of 179                   |

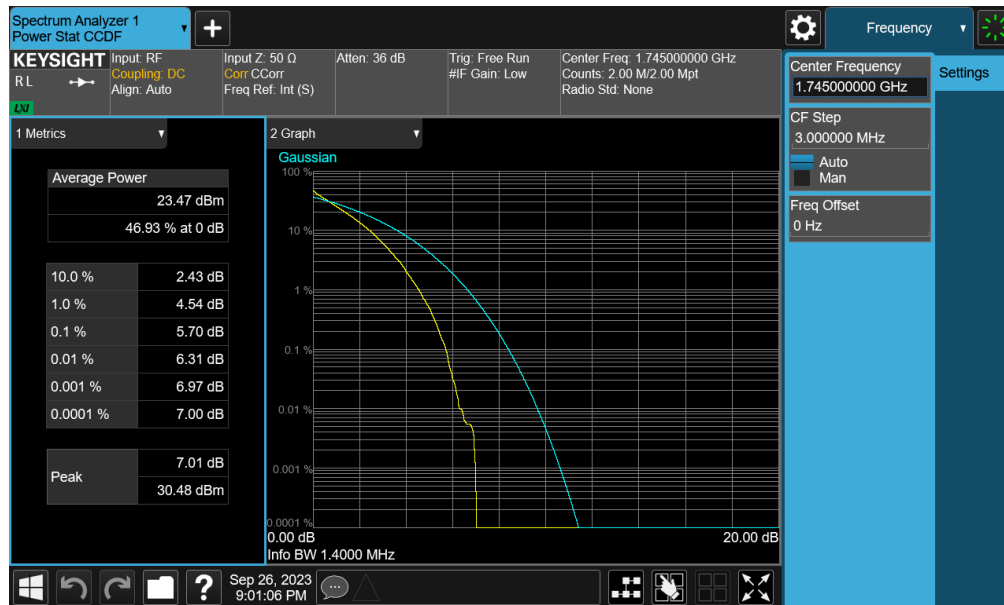
| Mode      | Bandwidth | Modulation   | Average Power [dBm] | PAR at 0.1% [dB] | PAR Limit [dB] | Margin [dB] |
|-----------|-----------|--------------|---------------------|------------------|----------------|-------------|
| LTE-B66-4 | 20MHz     | QPSK         | 23.57               | 5.57             | 13             | -7.43       |
|           |           | 256QAM       | 19.68               | 6.55             | 13             | -6.45       |
|           | 15MHz     | QPSK         | 23.56               | 5.58             | 13             | -7.42       |
|           |           | 256QAM       | 19.67               | 6.58             | 13             | -6.42       |
|           | 10MHz     | QPSK         | 23.51               | 5.66             | 13             | -7.34       |
|           |           | 256QAM       | 19.58               | 6.58             | 13             | -6.42       |
|           | 5MHz      | QPSK         | 23.54               | 5.63             | 13             | -7.37       |
|           |           | 256QAM       | 19.63               | 6.55             | 13             | -6.45       |
|           | 3MHz      | QPSK         | 23.48               | 5.69             | 13             | -7.31       |
|           |           | 256QAM       | 19.62               | 6.57             | 13             | -6.43       |
|           | 1.4MHz    | QPSK         | 23.47               | 5.70             | 13             | -7.30       |
|           |           | 256QAM       | 19.58               | 6.61             | 13             | -6.39       |
| NR-n66    | 40MHz     | $\pi/2$ BPSK | 23.47               | 5.04             | 13             | -7.96       |
|           |           | QPSK         | 20.99               | 8.26             | 13             | -4.74       |
|           |           | 256QAM       | 17.55               | 8.51             | 13             | -4.49       |
|           | 30MHz     | $\pi/2$ BPSK | 23.44               | 4.63             | 13             | -8.38       |
|           |           | QPSK         | 20.93               | 8.07             | 13             | -4.93       |
|           |           | 256QAM       | 17.54               | 8.38             | 13             | -4.62       |
|           | 25MHz     | $\pi/2$ BPSK | 23.40               | 4.97             | 13             | -8.03       |
|           |           | QPSK         | 20.89               | 8.09             | 13             | -4.91       |
|           |           | 256QAM       | 17.17               | 8.59             | 13             | -4.41       |
|           | 20MHz     | $\pi/2$ BPSK | 23.40               | 4.55             | 13             | -8.45       |
|           |           | QPSK         | 20.84               | 8.13             | 13             | -4.87       |
|           |           | 256QAM       | 17.43               | 8.38             | 13             | -4.62       |
|           | 15MHz     | $\pi/2$ BPSK | 23.34               | 4.53             | 13             | -8.47       |
|           |           | QPSK         | 20.88               | 8.08             | 13             | -4.92       |
|           |           | 256QAM       | 17.44               | 8.33             | 13             | -4.67       |
|           | 10MHz     | $\pi/2$ BPSK | 23.37               | 4.45             | 13             | -8.55       |
|           |           | QPSK         | 20.83               | 8.19             | 13             | -4.81       |
|           |           | 256QAM       | 17.49               | 8.35             | 13             | -4.65       |
|           | 5MHz      | $\pi/2$ BPSK | 23.41               | 4.53             | 13             | -8.47       |
|           |           | QPSK         | 20.86               | 8.19             | 13             | -4.81       |
|           |           | 256QAM       | 17.51               | 8.38             | 13             | -4.62       |

Table 7-17. Peak-Average Ratio Test Results – Ant2

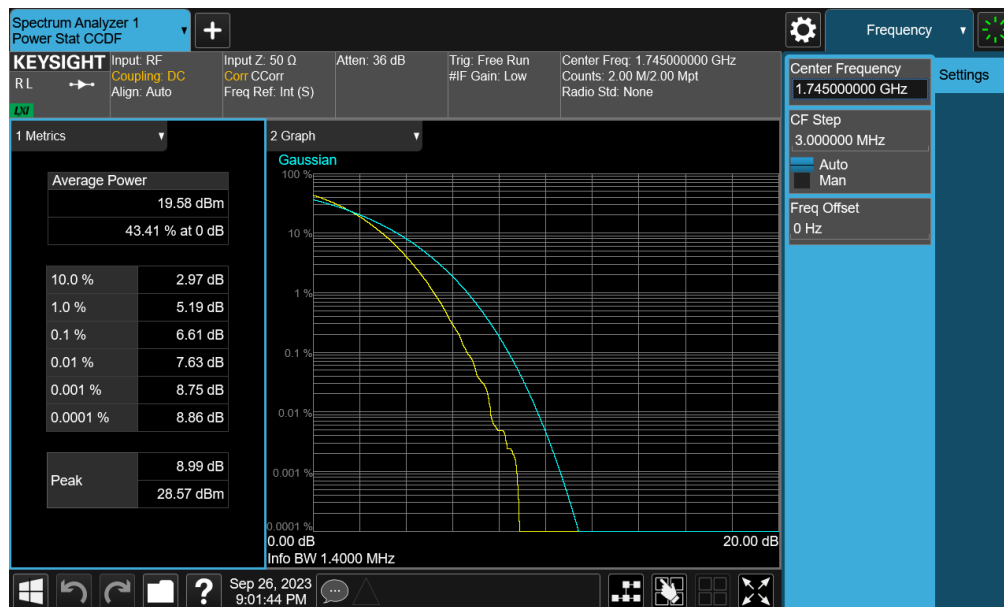
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 135 of 179                   |



## LTE Band 66/4 – ANT2



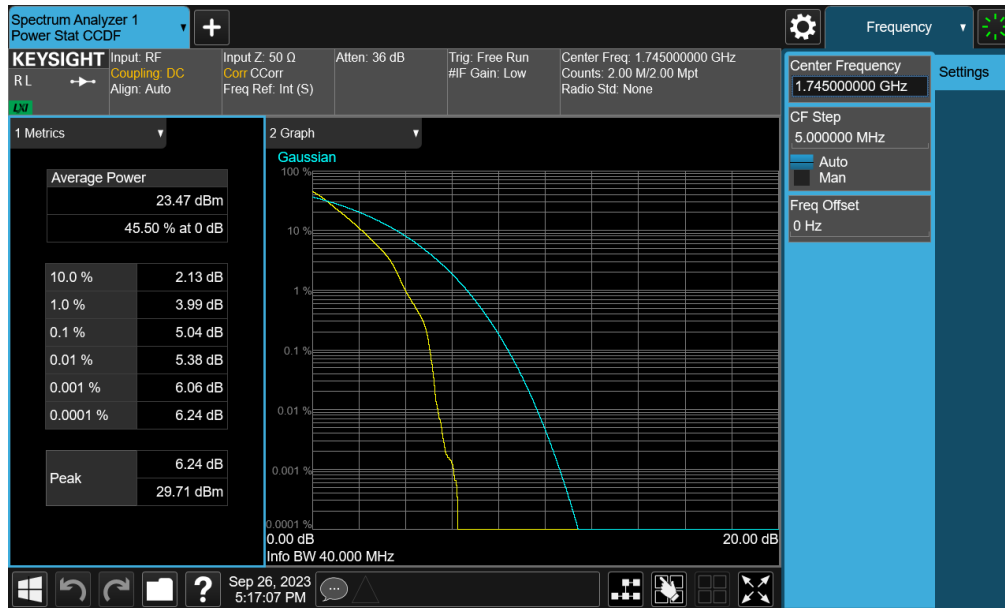
Plot 7-186. PAR Plot (LTE Band 66/4 – 1.4MHz QPSK - Full RB - ANT2)



Plot 7-187. PAR Plot (LTE Band 66/4 – 1.4MHz 256-QAM - Full RB - ANT2)

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 136 of 179                   |

## NR Band n66 – ANT2

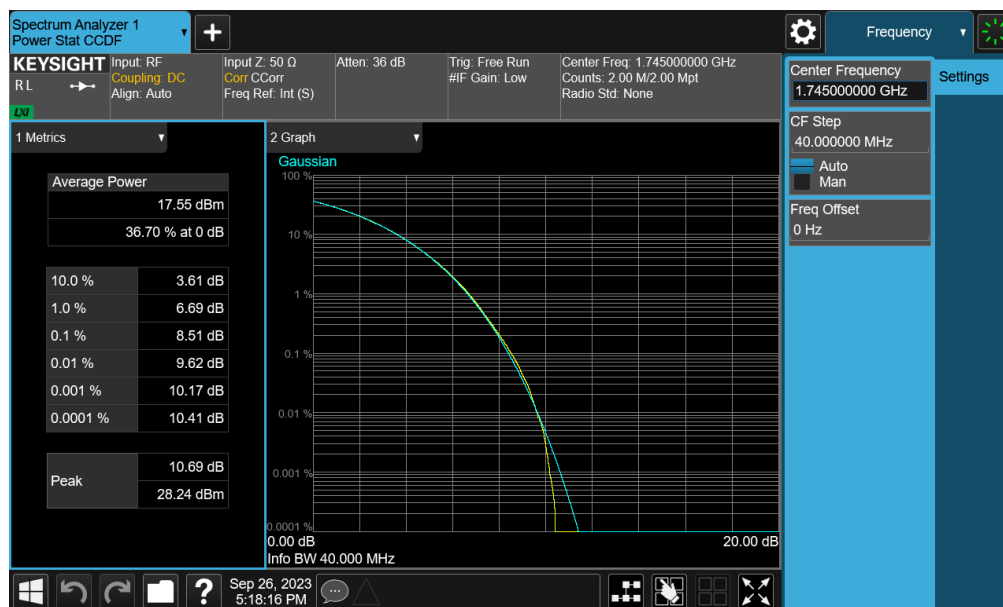


lot 7-188. PAR Plot (NR Band n66 - 40.0MHz DFT-s-OFDM  $\pi/2$  BPSK- Full RB - ANT2)



Plot 7-189. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM QPSK - Full RB - ANT2)

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 137 of 179                   |



Plot 7-190. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM 256-QAM - Full RB - ANT2)

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 138 of 179                   |



## 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

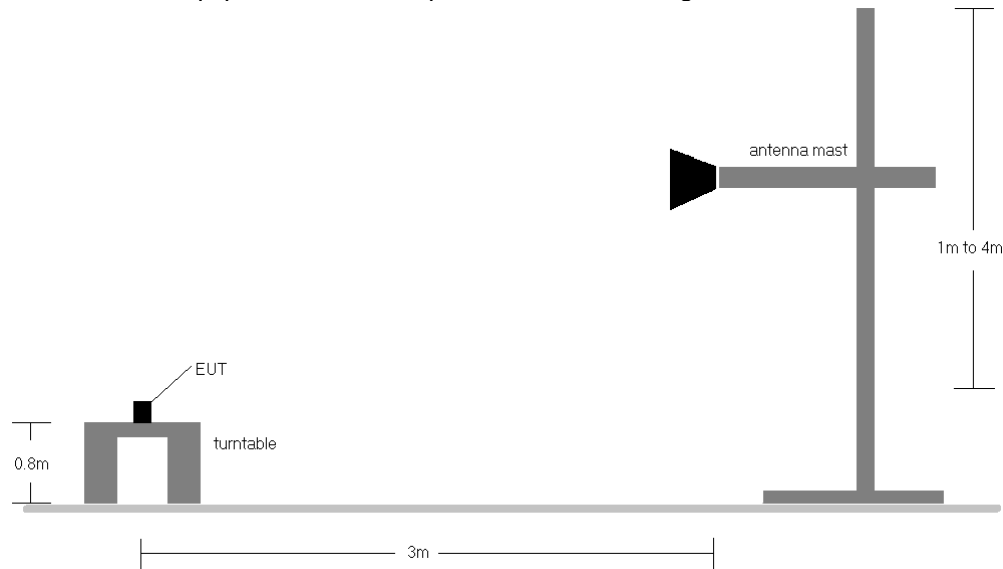
### Test Settings

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  $\geq 3 \times$  RBW
4. Span = 1.5 times the OBW
5. No. of sweep points  $\geq 2 \times$  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

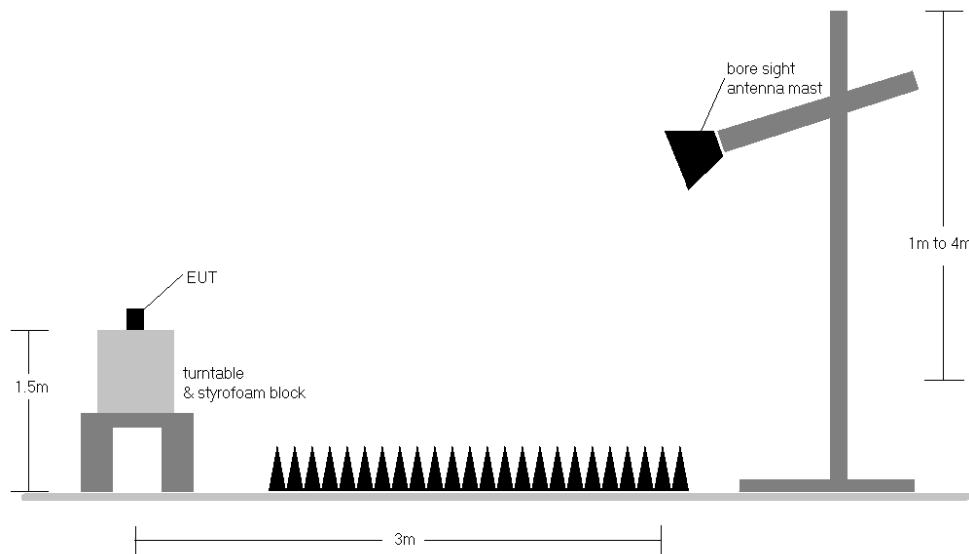
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 139 of 179                   |

## 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: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 140 of 179                   |

- 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> A3LSMA156U                      | <b>PART 27 MEASUREMENT REPORT</b>          |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2309070100-03.A3L | <b>Test Dates:</b><br>9/8/2023 - 11/2/2023 | <b>EUT Type:</b><br>Portable Handset | Page 141 of 179                          |

| Bandwidth | Mod.   | Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Ant. Gain [dBi] | RB Size/Offset | Substitute Level [dBm] | ERP [dBm]    | ERP [Watts] | ERP Limit [dBm] | Margin [dB] |
|-----------|--------|-----------------|-----------------|---------------------|----------------------------|-----------------|----------------|------------------------|--------------|-------------|-----------------|-------------|
| 20 MHz    | QPSK   | 673.00          | H               | 165                 | 344                        | 0.69            | 1 / 99         | 18.81                  | 17.35        | 0.054       | 34.77           | -17.42      |
|           | QPSK   | 680.50          | H               | 250                 | 351                        | 0.81            | 1 / 99         | 20.12                  | 18.78        | 0.076       | 34.77           | -15.99      |
|           | QPSK   | 688.00          | H               | 251                 | 347                        | 0.93            | 1 / 99         | 20.59                  | <b>19.37</b> | 0.087       | 34.77           | -15.40      |
|           | 16-QAM | 688.00          | H               | 251                 | 347                        | 0.93            | 1 / 99         | 19.90                  | 18.68        | 0.074       | 34.77           | -16.09      |
| 15 MHz    | QPSK   | 670.50          | H               | 165                 | 344                        | 0.65            | 1 / 37         | 18.87                  | 17.37        | 0.055       | 34.77           | -17.40      |
|           | QPSK   | 680.50          | H               | 250                 | 351                        | 0.81            | 1 / 74         | 19.94                  | 18.60        | 0.072       | 34.77           | -16.17      |
|           | QPSK   | 690.50          | H               | 251                 | 347                        | 0.97            | 1 / 37         | 20.87                  | <b>19.69</b> | 0.093       | 34.77           | -15.08      |
|           | 16-QAM | 690.50          | H               | 251                 | 347                        | 0.97            | 1 / 74         | 20.15                  | 18.97        | 0.079       | 34.77           | -15.80      |
| 10 MHz    | QPSK   | 668.00          | H               | 165                 | 344                        | 0.61            | 1 / 25         | 18.77                  | 17.22        | 0.053       | 34.77           | -17.55      |
|           | QPSK   | 680.50          | H               | 250                 | 351                        | 0.81            | 1 / 49         | 20.10                  | 18.76        | 0.075       | 34.77           | -16.01      |
|           | QPSK   | 693.00          | H               | 251                 | 347                        | 1.01            | 1 / 49         | 20.76                  | <b>19.62</b> | 0.092       | 34.77           | -15.15      |
|           | 16-QAM | 693.00          | H               | 251                 | 347                        | 1.01            | 1 / 49         | 20.00                  | 18.86        | 0.077       | 34.77           | -15.91      |
| 5 MHz     | QPSK   | 665.50          | H               | 165                 | 344                        | 0.57            | 1 / 0          | 18.93                  | 17.34        | 0.054       | 34.77           | -17.43      |
|           | QPSK   | 680.50          | H               | 250                 | 351                        | 0.81            | 1 / 12         | 19.85                  | 18.51        | 0.071       | 34.77           | -16.26      |
|           | QPSK   | 695.50          | H               | 251                 | 347                        | 1.05            | 1 / 24         | 20.75                  | <b>19.65</b> | 0.092       | 34.77           | -15.12      |
|           | 16-QAM | 695.50          | H               | 251                 | 347                        | 1.05            | 1 / 12         | 20.10                  | 19.00        | 0.079       | 34.77           | -15.77      |

Table 7-191. ERP Data (LTE Band 71) – Ant1

| Bandwidth | Mod.   | Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Ant. Gain [dBi] | RB Size/Offset | Substitute Level [dBm] | ERP [dBm]    | ERP [Watts] | ERP Limit [dBm] | Margin [dB] |
|-----------|--------|-----------------|-----------------|---------------------|----------------------------|-----------------|----------------|------------------------|--------------|-------------|-----------------|-------------|
| 10 MHz    | QPSK   | 704.00          | H               | 254                 | 353                        | 1.14            | 1 / 0          | 21.18                  | 20.17        | 0.104       | 34.77           | -14.60      |
|           | QPSK   | 707.50          | H               | 244                 | 343                        | 1.16            | 1 / 0          | 21.17                  | <b>20.18</b> | 0.104       | 34.77           | -14.59      |
|           | QPSK   | 711.00          | H               | 237                 | 349                        | 1.17            | 1 / 0          | 21.00                  | 20.02        | 0.101       | 34.77           | -14.75      |
|           | 16-QAM | 704.00          | H               | 254                 | 353                        | 1.14            | 1 / 0          | 20.36                  | 19.35        | 0.086       | 34.77           | -15.42      |
| 5 MHz     | QPSK   | 701.50          | H               | 254                 | 353                        | 1.13            | 1 / 24         | 21.15                  | <b>20.13</b> | 0.103       | 34.77           | -14.64      |
|           | QPSK   | 707.50          | H               | 244                 | 343                        | 1.16            | 1 / 24         | 21.01                  | 20.02        | 0.100       | 34.77           | -14.75      |
|           | QPSK   | 713.50          | H               | 237                 | 349                        | 1.19            | 1 / 12         | 20.93                  | 19.97        | 0.099       | 34.77           | -14.80      |
|           | 16-QAM | 701.50          | H               | 254                 | 353                        | 1.13            | 1 / 24         | 20.15                  | 19.13        | 0.082       | 34.77           | -15.64      |
| 3 MHz     | QPSK   | 700.50          | H               | 254                 | 353                        | 1.12            | 1 / 7          | 20.74                  | 19.71        | 0.094       | 34.77           | -15.06      |
|           | QPSK   | 707.50          | H               | 244                 | 343                        | 1.16            | 1 / 7          | 21.04                  | <b>20.05</b> | 0.101       | 34.77           | -14.72      |
|           | QPSK   | 714.50          | H               | 237                 | 349                        | 1.19            | 1 / 14         | 20.84                  | 19.88        | 0.097       | 34.77           | -14.89      |
|           | 16-QAM | 707.50          | H               | 244                 | 343                        | 1.16            | 1 / 14         | 20.01                  | 19.02        | 0.080       | 34.77           | -15.75      |
| 1.4 MHz   | QPSK   | 699.70          | H               | 254                 | 353                        | 1.12            | 1 / 5          | 20.90                  | 19.87        | 0.097       | 34.77           | -14.90      |
|           | QPSK   | 707.50          | H               | 244                 | 343                        | 1.16            | 1 / 0          | 21.00                  | <b>20.00</b> | 0.100       | 34.77           | -14.77      |
|           | QPSK   | 715.30          | H               | 237                 | 349                        | 1.20            | 1 / 3          | 20.87                  | 19.91        | 0.098       | 34.77           | -14.86      |
|           | 16-QAM | 707.50          | H               | 244                 | 343                        | 1.16            | 1 / 3          | 19.96                  | 18.97        | 0.079       | 34.77           | -15.80      |

Table 7-192. ERP Data (LTE Band 12) – Ant1

| Bandwidth | Mod.   | Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Ant. Gain [dBi] | RB Size/Offset | Substitute Level [dBm] | ERP [dBm]    | ERP [Watts] | ERP Limit [dBm] | Margin [dB] |
|-----------|--------|-----------------|-----------------|---------------------|----------------------------|-----------------|----------------|------------------------|--------------|-------------|-----------------|-------------|
| 10 MHz    | QPSK   | 782.00          | H               | 146                 | 340                        | 1.09            | 1 / 25         | 19.08                  | <b>18.02</b> | 0.063       | 34.77           | -16.76      |
|           | 16-QAM | 782.00          | H               | 146                 | 340                        | 1.09            | 1 / 25         | 18.29                  | 17.23        | 0.053       | 34.77           | -17.55      |
| 5 MHz     | QPSK   | 779.50          | H               | 146                 | 340                        | 1.11            | 1 / 24         | 18.92                  | 17.88        | 0.061       | 34.77           | -16.89      |
|           | QPSK   | 782.00          | H               | 146                 | 340                        | 1.09            | 1 / 24         | 18.98                  | 17.92        | 0.062       | 34.77           | -16.85      |
|           | QPSK   | 784.50          | H               | 146                 | 340                        | 1.06            | 1 / 12         | 19.30                  | <b>18.21</b> | 0.066       | 34.77           | -16.56      |
|           | 16-QAM | 784.50          | H               | 146                 | 340                        | 1.06            | 1 / 12         | 18.47                  | 17.39        | 0.055       | 34.77           | -17.39      |

Table 7-193. 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 | V               | 109                 | 69                         | 19.30                  | 2.88            | 22.18        | 0.165        | 30.00            | -7.82       |
| 1732.60         | WCDMA1700 | V               | 120                 | 69                         | 19.43                  | 2.92            | <b>22.35</b> | <b>0.172</b> | 30.00            | -7.65       |
| 1752.60         | WCDMA1700 | V               | 118                 | 56                         | 19.19                  | 2.96            | 22.15        | 0.164        | 30.00            | -7.85       |

Table 7-194. EIRP Data (WCDMA) – Ant1

|                                         |                                     |                               |  |  |  |  |  |  |                                   |  |
|-----------------------------------------|-------------------------------------|-------------------------------|--|--|--|--|--|--|-----------------------------------|--|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  |  |  |  |  |  | Approved by:<br>Technical Manager |  |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  |  |  |  |  |  | Page 142 of 179                   |  |

| Bandwidth | Mod.   | Frequency [MHz] | Ant. Pol. [H/V] | 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               | 124                 | 60                         | 2.90            | 1 / 50         | 21.68                  | 24.58        | 0.287        | 30.00            | -5.42       |
|           | QPSK   | 1745.00         | V               | 116                 | 60                         | 2.94            | 1 / 50         | 21.84                  | <b>24.78</b> | 0.301        | 30.00            | -5.22       |
|           | QPSK   | 1770.00         | V               | 133                 | 91                         | 3.02            | 1 / 50         | 21.64                  | 24.66        | 0.292        | 30.00            | -5.34       |
|           | 16-QAM | 1745.00         | V               | 116                 | 60                         | 2.94            | 1 / 50         | 21.02                  | 23.96        | 0.249        | 30.00            | -6.04       |
| 15 MHz    | QPSK   | 1717.50         | V               | 124                 | 60                         | 2.89            | 1 / 0          | 21.71                  | 24.60        | 0.288        | 30.00            | -5.40       |
|           | QPSK   | 1745.00         | V               | 116                 | 60                         | 2.94            | 1 / 74         | 21.73                  | <b>24.68</b> | 0.294        | 30.00            | -5.32       |
|           | QPSK   | 1772.50         | V               | 133                 | 91                         | 3.03            | 1 / 0          | 21.61                  | 24.64        | 0.291        | 30.00            | -5.36       |
|           | 16-QAM | 1745.00         | V               | 116                 | 60                         | 2.94            | 1 / 37         | 20.82                  | 23.76        | 0.238        | 30.00            | -6.24       |
| 10 MHz    | QPSK   | 1715.00         | V               | 124                 | 60                         | 2.89            | 1 / 25         | 21.69                  | 24.58        | 0.287        | 30.00            | -5.42       |
|           | QPSK   | 1745.00         | V               | 116                 | 60                         | 2.94            | 1 / 25         | 21.84                  | <b>24.79</b> | 0.301        | 30.00            | -5.21       |
|           | QPSK   | 1775.00         | V               | 133                 | 91                         | 3.04            | 1 / 25         | 21.50                  | 24.54        | 0.284        | 30.00            | -5.46       |
|           | 16-QAM | 1745.00         | V               | 116                 | 60                         | 2.94            | 1 / 0          | 20.90                  | 23.84        | 0.242        | 30.00            | -6.16       |
| 5 MHz     | QPSK   | 1712.50         | V               | 124                 | 60                         | 2.88            | 1 / 0          | 21.71                  | 24.60        | 0.288        | 30.00            | -5.40       |
|           | QPSK   | 1745.00         | V               | 116                 | 60                         | 2.94            | 1 / 12         | 21.78                  | <b>24.73</b> | 0.297        | 30.00            | -5.27       |
|           | QPSK   | 1777.50         | V               | 133                 | 91                         | 3.05            | 1 / 24         | 21.60                  | 24.65        | 0.292        | 30.00            | -5.35       |
|           | 16-QAM | 1745.00         | V               | 116                 | 60                         | 2.94            | 1 / 24         | 20.97                  | 23.91        | 0.246        | 30.00            | -6.09       |
| 3 MHz     | QPSK   | 1711.50         | V               | 124                 | 60                         | 2.88            | 1 / 7          | 21.71                  | 24.59        | 0.288        | 30.00            | -5.41       |
|           | QPSK   | 1745.00         | V               | 116                 | 60                         | 2.94            | 1 / 0          | 21.68                  | <b>24.62</b> | 0.290        | 30.00            | -5.38       |
|           | QPSK   | 1778.50         | V               | 133                 | 91                         | 3.05            | 1 / 0          | 21.52                  | 24.57        | 0.286        | 30.00            | -5.43       |
|           | 16-QAM | 1745.00         | V               | 116                 | 60                         | 2.94            | 1 / 0          | 20.75                  | 23.69        | 0.234        | 30.00            | -6.31       |
| 1.4 MHz   | QPSK   | 1710.70         | V               | 124                 | 60                         | 2.88            | 1 / 3          | 21.72                  | <b>24.60</b> | 0.288        | 30.00            | -5.40       |
|           | QPSK   | 1745.00         | V               | 116                 | 60                         | 2.94            | 1 / 5          | 21.64                  | 24.59        | 0.287        | 30.00            | -5.41       |
|           | QPSK   | 1779.30         | V               | 133                 | 91                         | 3.05            | 1 / 3          | 21.47                  | 24.52        | 0.283        | 30.00            | -5.48       |
|           | 16-QAM | 1745.00         | V               | 116                 | 60                         | 2.94            | 1 / 3          | 20.75                  | 23.69        | 0.234        | 30.00            | -6.31       |

Table 7-195. EIRP Data (LTE Band 66/4) – Ant1

| Bandwidth | Mod.           | Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Ant. Gain [dBi] | RB Size/Offset | Substitute Level [dBm] | ERP [dBm]    | ERP [Watts] | ERP Limit [dBm] | Margin [dB] |
|-----------|----------------|-----------------|-----------------|---------------------|----------------------------|-----------------|----------------|------------------------|--------------|-------------|-----------------|-------------|
| 20 MHz    | $\pi/2$ BPSK   | 673.00          | H               | 294                 | 289                        | 0.69            | 1 / 104        | 17.92                  | 16.46        | 0.044       | 34.77           | -18.31      |
|           | $\pi/2$ BPSK   | 680.50          | H               | 8                   | 268                        | 0.81            | 1 / 104        | 18.07                  | 16.73        | 0.047       | 34.77           | -18.04      |
|           | $\pi/2$ BPSK   | 688.00          | H               | 345                 | 262                        | 0.93            | 1 / 104        | 19.29                  | 18.07        | 0.064       | 34.77           | -16.70      |
|           | QPSK           | 673.00          | H               | 294                 | 289                        | 0.69            | 1 / 104        | 17.96                  | 16.50        | 0.045       | 34.77           | -18.27      |
|           | QPSK           | 680.50          | H               | 8                   | 268                        | 0.81            | 1 / 104        | 18.09                  | 16.75        | 0.047       | 34.77           | -18.02      |
|           | QPSK           | 688.00          | H               | 345                 | 262                        | 0.93            | 1 / 104        | 19.31                  | <b>18.09</b> | 0.064       | 34.77           | -16.68      |
| 15 MHz    | 16-QAM         | 688.00          | H               | 345                 | 262                        | 0.93            | 1 / 104        | 18.65                  | 17.43        | 0.055       | 34.77           | -17.34      |
|           | $\pi/2$ BPSK   | 670.50          | H               | 294                 | 289                        | 0.65            | 1 / 39         | 18.05                  | 16.55        | 0.045       | 34.77           | -18.22      |
|           | $\pi/2$ BPSK   | 680.50          | H               | 8                   | 268                        | 0.81            | 1 / 77         | 18.18                  | 16.84        | 0.048       | 34.77           | -17.93      |
|           | $\pi/2$ BPSK   | 690.50          | H               | 345                 | 262                        | 0.97            | 1 / 77         | 19.42                  | <b>18.24</b> | 0.067       | 34.77           | -16.53      |
|           | QPSK           | 670.50          | H               | 294                 | 289                        | 0.65            | 1 / 1          | 18.02                  | 16.52        | 0.045       | 34.77           | -18.26      |
|           | QPSK           | 680.50          | H               | 8                   | 268                        | 0.81            | 1 / 77         | 18.06                  | 16.72        | 0.047       | 34.77           | -18.05      |
| 10 MHz    | QPSK           | 690.50          | H               | 345                 | 262                        | 0.97            | 1 / 77         | 19.19                  | 18.01        | 0.063       | 34.77           | -16.76      |
|           | 16-QAM         | 690.50          | H               | 345                 | 262                        | 0.97            | 1 / 77         | 18.66                  | 17.48        | 0.056       | 34.77           | -17.29      |
|           | $\pi/2$ BPSK   | 668.00          | H               | 294                 | 289                        | 0.61            | 1 / 1          | 18.04                  | 16.49        | 0.045       | 34.77           | -18.28      |
|           | $\pi/2$ BPSK   | 680.50          | H               | 8                   | 268                        | 0.81            | 1 / 50         | 18.10                  | 16.76        | 0.047       | 34.77           | -18.01      |
|           | $\pi/2$ BPSK   | 693.00          | H               | 345                 | 262                        | 1.01            | 1 / 50         | 19.48                  | <b>18.34</b> | 0.068       | 34.77           | -16.43      |
|           | QPSK           | 668.00          | H               | 294                 | 289                        | 0.61            | 1 / 1          | 18.01                  | 16.46        | 0.044       | 34.77           | -18.31      |
| 5 MHz     | QPSK           | 680.50          | H               | 8                   | 268                        | 0.81            | 1 / 50         | 18.08                  | 16.74        | 0.047       | 34.77           | -18.03      |
|           | QPSK           | 693.00          | H               | 345                 | 262                        | 1.01            | 1 / 50         | 19.12                  | 17.98        | 0.063       | 34.77           | -16.79      |
|           | 16-QAM         | 693.00          | H               | 345                 | 262                        | 1.01            | 1 / 50         | 18.58                  | 17.44        | 0.055       | 34.77           | -17.34      |
|           | $\pi/2$ BPSK   | 665.50          | H               | 294                 | 289                        | 0.57            | 1 / 12         | 18.14                  | 16.55        | 0.045       | 34.77           | -18.22      |
|           | $\pi/2$ BPSK   | 680.50          | H               | 8                   | 268                        | 0.81            | 1 / 12         | 18.04                  | 16.70        | 0.047       | 34.77           | -18.07      |
|           | $\pi/2$ BPSK   | 695.50          | H               | 345                 | 262                        | 1.05            | 1 / 12         | 19.37                  | <b>18.27</b> | 0.067       | 34.77           | -16.50      |
| 20 MHz    | QPSK           | 665.50          | H               | 294                 | 289                        | 0.57            | 1 / 12         | 18.06                  | 16.47        | 0.044       | 34.77           | -18.30      |
|           | QPSK           | 680.50          | H               | 8                   | 268                        | 0.81            | 1 / 12         | 18.11                  | 16.77        | 0.048       | 34.77           | -18.00      |
|           | QPSK           | 695.50          | H               | 345                 | 262                        | 1.05            | 1 / 12         | 19.23                  | 18.13        | 0.065       | 34.77           | -16.64      |
|           | 16-QAM         | 695.50          | H               | 345                 | 262                        | 1.05            | 1 / 12         | 18.25                  | 17.15        | 0.052       | 34.77           | -17.63      |
| 20 MHz    | QPSK (CP-OFDM) | 688.00          | H               | 189                 | 280                        | 0.81            | 1/104          | 17.76                  | 16.42        | 0.044       | 34.77           | -18.35      |

Table 7-196. ERP Data (NR Band n71) – Ant1

|                                         |                                     |                               |  |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  | Page 143 of 179                   |



| Bandwidth | Mod.           | Frequency [MHz] | Ant. Pol. [H/V] | 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         | V               | 136                 | 302                        | 2.84            | 1 / 77         | 20.09                  | <b>22.93</b> | 0.197        | 30.00            | -7.07       |
|           | QPSK           | 1702.50         | V               | 136                 | 302                        | 2.84            | 1 / 77         | 20.02                  | 22.86        | 0.193        | 30.00            | -7.14       |
|           | 16-QAM         | 1702.50         | V               | 136                 | 302                        | 2.84            | 1 / 77         | 19.06                  | 21.90        | 0.155        | 30.00            | -8.10       |
| 10 MHz    | $\pi/2$ BPSK   | 1700.00         | V               | 136                 | 302                        | 2.84            | 1 / 26         | 20.14                  | 22.98        | 0.199        | 30.00            | -7.02       |
|           | $\pi/2$ BPSK   | 1702.50         | V               | 136                 | 302                        | 2.84            | 1 / 26         | 20.08                  | 22.92        | 0.196        | 30.00            | -7.08       |
|           | $\pi/2$ BPSK   | 1705.00         | V               | 136                 | 302                        | 2.84            | 1 / 1          | 20.27                  | <b>23.11</b> | 0.205        | 30.00            | -6.89       |
|           | QPSK           | 1700.00         | V               | 136                 | 302                        | 2.84            | 1 / 26         | 20.10                  | 22.94        | 0.197        | 30.00            | -7.06       |
|           | QPSK           | 1702.50         | V               | 136                 | 302                        | 2.84            | 1 / 26         | 20.03                  | 22.87        | 0.194        | 30.00            | -7.13       |
|           | QPSK           | 1705.00         | V               | 136                 | 302                        | 2.84            | 1 / 1          | 20.15                  | 22.99        | 0.199        | 30.00            | -7.01       |
|           | 16-QAM         | 1700.00         | V               | 136                 | 302                        | 2.84            | 1 / 26         | 18.66                  | 21.50        | 0.141        | 30.00            | -8.50       |
| 5 MHz     | $\pi/2$ BPSK   | 1697.50         | V               | 136                 | 302                        | 2.84            | 1 / 1          | 20.40                  | <b>23.24</b> | 0.211        | 30.00            | -6.76       |
|           | $\pi/2$ BPSK   | 1702.50         | V               | 136                 | 302                        | 2.84            | 1 / 23         | 20.20                  | 23.04        | 0.202        | 30.00            | -6.96       |
|           | $\pi/2$ BPSK   | 1707.50         | V               | 136                 | 302                        | 2.84            | 1 / 12         | 20.06                  | 22.90        | 0.195        | 30.00            | -7.10       |
|           | QPSK           | 1697.50         | V               | 136                 | 302                        | 2.84            | 1 / 1          | 20.33                  | 23.17        | 0.208        | 30.00            | -6.83       |
|           | QPSK           | 1702.50         | V               | 136                 | 302                        | 2.84            | 1 / 12         | 20.10                  | 22.94        | 0.197        | 30.00            | -7.06       |
|           | QPSK           | 1707.50         | V               | 136                 | 302                        | 2.84            | 1 / 12         | 20.10                  | 22.94        | 0.197        | 30.00            | -7.06       |
| 15 MHz    | 16-QAM         | 1702.50         | V               | 136                 | 302                        | 2.84            | 1 / 12         | 18.46                  | 21.30        | 0.135        | 30.00            | -8.70       |
|           | QPSK (CP-OFDM) | 1702.50         | V               | 136                 | 302                        | 2.84            | 1 / 77         | 18.68                  | 21.52        | 0.142        | 30.00            | -8.48       |

Table 7-197. EIRP Data (NR Band n70) – Ant1

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 144 of 179                   |

| Bandwidth | Mod.           | Frequency [MHz] | Ant. Pol. [H/V] | 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    | $\pi/2$ BPSK   | 1730.00         | V               | 108                 | 55                         | 2.92            | 1 / 214        | 18.89                  | 21.81        | 0.152        | 30.00            | -8.19       |
|           | $\pi/2$ BPSK   | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 108        | 19.50                  | <b>22.44</b> | 0.176        | 30.00            | -7.56       |
|           | $\pi/2$ BPSK   | 1760.00         | V               | 115                 | 52                         | 2.99            | 216 / 0        | 18.73                  | 21.72        | 0.148        | 30.00            | -8.28       |
|           | QPSK           | 1730.00         | V               | 108                 | 55                         | 2.92            | 1 / 214        | 18.86                  | 21.78        | 0.151        | 30.00            | -8.22       |
|           | QPSK           | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 108        | 19.49                  | 22.43        | 0.175        | 30.00            | -7.57       |
|           | QPSK           | 1760.00         | V               | 115                 | 52                         | 2.99            | 1 / 1          | 18.65                  | 21.64        | 0.146        | 30.00            | -8.36       |
| 30 MHz    | 16-QAM         | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 108        | 18.22                  | 21.16        | 0.131        | 30.00            | -8.84       |
|           | $\pi/2$ BPSK   | 1725.00         | V               | 108                 | 55                         | 2.91            | 1 / 1          | 19.07                  | 21.97        | 0.157        | 30.00            | -8.03       |
|           | $\pi/2$ BPSK   | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 80         | 19.06                  | 22.00        | 0.159        | 30.00            | -8.00       |
|           | $\pi/2$ BPSK   | 1765.00         | V               | 115                 | 52                         | 3.00            | 1 / 1          | 18.84                  | 21.84        | 0.153        | 30.00            | -8.16       |
|           | QPSK           | 1725.00         | V               | 108                 | 55                         | 2.91            | 1 / 1          | 18.84                  | 21.74        | 0.149        | 30.00            | -8.26       |
|           | QPSK           | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 80         | 19.31                  | <b>22.25</b> | 0.168        | 30.00            | -7.75       |
| 25 MHz    | QPSK           | 1765.00         | V               | 115                 | 52                         | 3.00            | 1 / 1          | 18.88                  | 21.88        | 0.154        | 30.00            | -8.12       |
|           | 16-QAM         | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 80         | 18.27                  | 21.21        | 0.132        | 30.00            | -8.79       |
|           | $\pi/2$ BPSK   | 1722.50         | V               | 108                 | 55                         | 2.90            | 1 / 66         | 18.95                  | 21.85        | 0.153        | 30.00            | -8.15       |
|           | $\pi/2$ BPSK   | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 66         | 19.31                  | 22.25        | 0.168        | 30.00            | -7.75       |
|           | $\pi/2$ BPSK   | 1767.50         | V               | 115                 | 52                         | 3.01            | 1 / 131        | 18.88                  | 21.89        | 0.155        | 30.00            | -8.11       |
|           | QPSK           | 1722.50         | V               | 108                 | 55                         | 2.90            | 1 / 1          | 18.89                  | 21.79        | 0.151        | 30.00            | -8.21       |
| 20 MHz    | QPSK           | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 66         | 19.50                  | <b>22.44</b> | 0.176        | 30.00            | -7.56       |
|           | QPSK           | 1767.50         | V               | 115                 | 52                         | 3.01            | 1 / 131        | 18.85                  | 21.86        | 0.153        | 30.00            | -8.14       |
|           | 16-QAM         | 1722.50         | V               | 108                 | 55                         | 2.90            | 1 / 1          | 18.26                  | 21.17        | 0.131        | 30.00            | -8.83       |
|           | $\pi/2$ BPSK   | 1720.00         | V               | 108                 | 55                         | 2.90            | 1 / 53         | 18.96                  | 21.86        | 0.153        | 30.00            | -8.14       |
|           | $\pi/2$ BPSK   | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 53         | 19.08                  | 22.02        | 0.159        | 30.00            | -7.98       |
|           | $\pi/2$ BPSK   | 1770.00         | V               | 115                 | 52                         | 3.02            | 1 / 53         | 18.64                  | 21.67        | 0.147        | 30.00            | -8.33       |
| 15 MHz    | QPSK           | 1720.00         | V               | 108                 | 55                         | 2.90            | 1 / 53         | 18.99                  | 21.88        | 0.154        | 30.00            | -8.12       |
|           | QPSK           | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 53         | 19.49                  | 22.44        | 0.175        | 30.00            | -7.56       |
|           | QPSK           | 1770.00         | V               | 115                 | 52                         | 3.02            | 1 / 53         | 18.72                  | 21.74        | 0.149        | 30.00            | -8.26       |
|           | 16-QAM         | 1720.00         | V               | 108                 | 55                         | 2.90            | 1 / 53         | 18.18                  | 21.08        | 0.128        | 30.00            | -8.92       |
|           | $\pi/2$ BPSK   | 1717.5          | V               | 108                 | 55                         | 2.89            | 1 / 26         | 18.80                  | 21.69        | 0.148        | 30.00            | -8.31       |
|           | $\pi/2$ BPSK   | 1745.0          | V               | 112                 | 42                         | 2.94            | 1 / 26         | 19.22                  | 22.16        | 0.164        | 30.00            | -7.84       |
| 10 MHz    | $\pi/2$ BPSK   | 1772.5          | V               | 115                 | 52                         | 3.04            | 1 / 26         | 18.75                  | 21.79        | 0.151        | 30.00            | -8.21       |
|           | QPSK           | 1717.5          | V               | 108                 | 55                         | 2.89            | 1 / 26         | 19.03                  | 21.92        | 0.155        | 30.00            | -8.08       |
|           | QPSK           | 1745.0          | V               | 112                 | 42                         | 2.94            | 1 / 26         | 19.37                  | <b>22.31</b> | 0.170        | 30.00            | -7.69       |
|           | QPSK           | 1772.5          | V               | 115                 | 52                         | 3.04            | 1 / 26         | 18.95                  | 21.98        | 0.158        | 30.00            | -8.02       |
|           | 16-QAM         | 1717.5          | V               | 108                 | 55                         | 2.89            | 1 / 26         | 18.34                  | 21.23        | 0.133        | 30.00            | -8.77       |
|           | $\pi/2$ BPSK   | 1715.00         | V               | 108                 | 55                         | 2.89            | 1 / 50         | 19.14                  | 22.03        | 0.159        | 30.00            | -7.97       |
| 5 MHz     | $\pi/2$ BPSK   | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 26         | 19.29                  | 22.23        | 0.167        | 30.00            | -7.77       |
|           | $\pi/2$ BPSK   | 1775.00         | V               | 115                 | 52                         | 3.04            | 1 / 26         | 18.68                  | 21.71        | 0.148        | 30.00            | -8.29       |
|           | QPSK           | 1715.00         | V               | 108                 | 55                         | 2.89            | 1 / 50         | 18.73                  | 21.61        | 0.145        | 30.00            | -8.39       |
|           | QPSK           | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 26         | 19.31                  | 22.25        | 0.168        | 30.00            | -7.75       |
|           | QPSK           | 1775.00         | V               | 115                 | 52                         | 3.04            | 1 / 26         | 18.83                  | 21.87        | 0.154        | 30.00            | -8.13       |
|           | 16-QAM         | 1775.00         | V               | 115                 | 52                         | 3.04            | 1 / 26         | 17.93                  | 20.97        | 0.125        | 30.00            | -9.03       |
| 40 MHz    | $\pi/2$ BPSK   | 1712.50         | V               | 108                 | 55                         | 2.88            | 1 / 12         | 18.56                  | 21.45        | 0.140        | 30.00            | -8.55       |
|           | $\pi/2$ BPSK   | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 12         | 19.03                  | 21.97        | 0.157        | 30.00            | -8.03       |
|           | $\pi/2$ BPSK   | 1777.50         | V               | 115                 | 52                         | 3.05            | 1 / 1          | 18.55                  | 21.60        | 0.145        | 30.00            | -8.40       |
|           | QPSK           | 1712.50         | V               | 108                 | 55                         | 2.88            | 1 / 12         | 18.55                  | 21.43        | 0.139        | 30.00            | -8.57       |
|           | QPSK           | 1745.00         | V               | 112                 | 42                         | 2.94            | 1 / 12         | 19.22                  | <b>22.16</b> | 0.165        | 30.00            | -7.84       |
|           | QPSK           | 1777.50         | V               | 115                 | 52                         | 3.05            | 1 / 1          | 18.56                  | 21.60        | 0.145        | 30.00            | -8.40       |
| 40 MHz    | QPSK (CP-OFDM) | 1745.00         | V               | 188                 | 46                         | 2.94            | 1/108          | 17.63                  | 20.57        | 0.114        | 30.00            | -9.43       |

Table 7-198. EIRP Data (NR Band n66) – Ant1

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 145 of 179                   |

| Bandwidth | Mod.   | Frequency [MHz] | Ant. Pol. [H/V] | 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               | 112                 | 242                        | 2.90            | 1 / 99         | 13.30                  | 16.20      | 0.042        | 30.00            | -13.80      |
|           | QPSK   | 1745.00         | V               | 144                 | 237                        | 2.94            | 1 / 99         | 15.65                  | 18.59      | 0.072        | 30.00            | -11.41      |
|           | QPSK   | 1770.00         | V               | 152                 | 241                        | 3.02            | 1 / 99         | 16.42                  | 19.44      | 0.088        | 30.00            | -10.56      |
|           | 16-QAM | 1770.00         | V               | 152                 | 241                        | 3.02            | 1 / 99         | 15.50                  | 18.52      | 0.071        | 30.00            | -11.48      |
| 15 MHz    | QPSK   | 1717.50         | V               | 112                 | 242                        | 2.89            | 1 / 0          | 13.16                  | 16.06      | 0.040        | 30.00            | -13.94      |
|           | QPSK   | 1745.00         | V               | 144                 | 237                        | 2.94            | 1 / 0          | 15.75                  | 18.69      | 0.074        | 30.00            | -11.31      |
|           | QPSK   | 1772.50         | V               | 152                 | 241                        | 3.03            | 1 / 0          | 16.41                  | 19.43      | 0.088        | 30.00            | -10.57      |
|           | 16-QAM | 1772.50         | V               | 152                 | 241                        | 3.03            | 1 / 0          | 15.53                  | 18.56      | 0.072        | 30.00            | -11.44      |
| 10 MHz    | QPSK   | 1715.00         | V               | 112                 | 242                        | 2.89            | 1 / 0          | 13.20                  | 16.09      | 0.041        | 30.00            | -13.91      |
|           | QPSK   | 1745.00         | V               | 144                 | 237                        | 2.94            | 1 / 0          | 15.86                  | 18.80      | 0.076        | 30.00            | -11.20      |
|           | QPSK   | 1775.00         | V               | 152                 | 241                        | 3.04            | 1 / 0          | 16.32                  | 19.36      | 0.086        | 30.00            | -10.64      |
|           | 16-QAM | 1775.00         | V               | 152                 | 241                        | 3.04            | 1 / 0          | 15.22                  | 18.26      | 0.067        | 30.00            | -11.74      |
| 5 MHz     | QPSK   | 1712.50         | V               | 112                 | 242                        | 2.88            | 1 / 0          | 13.23                  | 16.12      | 0.041        | 30.00            | -13.88      |
|           | QPSK   | 1745.00         | V               | 144                 | 237                        | 2.94            | 1 / 0          | 15.68                  | 18.63      | 0.073        | 30.00            | -11.37      |
|           | QPSK   | 1777.50         | V               | 152                 | 241                        | 3.05            | 1 / 24         | 16.25                  | 19.30      | 0.085        | 30.00            | -10.70      |
|           | 16-QAM | 1777.50         | V               | 152                 | 241                        | 3.05            | 1 / 24         | 15.22                  | 18.27      | 0.067        | 30.00            | -11.73      |
| 3 MHz     | QPSK   | 1711.50         | V               | 112                 | 242                        | 2.88            | 1 / 0          | 13.21                  | 16.09      | 0.041        | 30.00            | -13.91      |
|           | QPSK   | 1745.00         | V               | 144                 | 237                        | 2.94            | 1 / 0          | 15.57                  | 18.51      | 0.071        | 30.00            | -11.49      |
|           | QPSK   | 1778.50         | V               | 152                 | 241                        | 3.05            | 1 / 0          | 16.12                  | 19.17      | 0.083        | 30.00            | -10.83      |
|           | 16-QAM | 1778.50         | V               | 152                 | 241                        | 3.05            | 1 / 0          | 15.08                  | 18.13      | 0.065        | 30.00            | -11.87      |
| 1.4 MHz   | QPSK   | 1710.70         | V               | 112                 | 242                        | 2.88            | 1 / 0          | 13.21                  | 16.09      | 0.041        | 30.00            | -13.91      |
|           | QPSK   | 1745.00         | V               | 144                 | 237                        | 2.94            | 1 / 0          | 15.46                  | 18.40      | 0.069        | 30.00            | -11.60      |
|           | QPSK   | 1779.30         | V               | 152                 | 241                        | 3.05            | 1 / 0          | 16.01                  | 19.07      | 0.081        | 30.00            | -10.93      |
|           | 16-QAM | 1779.30         | V               | 152                 | 241                        | 3.05            | 1 / 0          | 15.25                  | 18.30      | 0.068        | 30.00            | -11.70      |

Table 7-199. EIRP Data (LTE Band 66/4) – Ant2

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 146 of 179                   |

| Bandwidth | Mod.         | Frequency [MHz] | Ant. Pol. [H/V] | 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    | $\pi/2$ BPSK | 1730.00         | V               | 147                 | 237                        | 2.92            | 1 / 214        | 14.12                  | 17.04        | 0.051        | 30.00            | -12.96      |
|           | $\pi/2$ BPSK | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 214        | 15.12                  | 18.06        | 0.064        | 30.00            | -11.94      |
|           | $\pi/2$ BPSK | 1760.00         | V               | 102                 | 278                        | 2.99            | 1 / 214        | 15.79                  | <b>18.78</b> | 0.075        | 30.00            | -11.22      |
|           | QPSK         | 1730.00         | V               | 147                 | 237                        | 2.92            | 1 / 214        | 14.09                  | 17.01        | 0.050        | 30.00            | -12.99      |
|           | QPSK         | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 214        | 15.10                  | 18.04        | 0.064        | 30.00            | -11.96      |
|           | QPSK         | 1760.00         | V               | 102                 | 278                        | 2.99            | 1 / 214        | 15.73                  | 18.72        | 0.074        | 30.00            | -11.28      |
| 30 MHz    | 16-QAM       | 1760.00         | V               | 102                 | 278                        | 2.99            | 1 / 214        | 14.85                  | 17.84        | 0.061        | 30.00            | -12.16      |
|           | $\pi/2$ BPSK | 1725.00         | V               | 147                 | 237                        | 2.91            | 1 / 1          | 14.05                  | 16.96        | 0.050        | 30.00            | -13.04      |
|           | $\pi/2$ BPSK | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 1          | 14.96                  | 17.90        | 0.062        | 30.00            | -12.10      |
|           | $\pi/2$ BPSK | 1765.00         | V               | 102                 | 278                        | 3.00            | 1 / 158        | 15.60                  | 18.60        | 0.073        | 30.00            | -11.40      |
|           | QPSK         | 1725.00         | V               | 147                 | 237                        | 2.91            | 1 / 1          | 14.26                  | 17.17        | 0.052        | 30.00            | -12.83      |
|           | QPSK         | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 1          | 15.12                  | 18.06        | 0.064        | 30.00            | -11.94      |
| 25 MHz    | QPSK         | 1765.00         | V               | 102                 | 278                        | 3.00            | 1 / 158        | 15.75                  | <b>18.75</b> | 0.075        | 30.00            | -11.25      |
|           | 16-QAM       | 1765.00         | V               | 102                 | 278                        | 3.00            | 1 / 1          | 14.63                  | 17.63        | 0.058        | 30.00            | -12.37      |
|           | $\pi/2$ BPSK | 1722.50         | V               | 147                 | 237                        | 2.90            | 1 / 66         | 13.31                  | 16.21        | 0.042        | 30.00            | -13.79      |
|           | $\pi/2$ BPSK | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 1          | 14.65                  | 17.60        | 0.057        | 30.00            | -12.40      |
|           | $\pi/2$ BPSK | 1767.50         | V               | 102                 | 278                        | 3.01            | 1 / 66         | 14.97                  | 17.99        | 0.063        | 30.00            | -12.01      |
|           | QPSK         | 1722.50         | V               | 147                 | 237                        | 2.90            | 1 / 66         | 13.42                  | 16.32        | 0.043        | 30.00            | -13.68      |
| 20 MHz    | QPSK         | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 1          | 14.65                  | 17.59        | 0.057        | 30.00            | -12.41      |
|           | QPSK         | 1767.50         | V               | 102                 | 278                        | 3.01            | 1 / 66         | 14.90                  | 17.91        | 0.062        | 30.00            | -12.09      |
|           | 16-QAM       | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 1          | 13.88                  | 16.82        | 0.048        | 30.00            | -13.18      |
|           | $\pi/2$ BPSK | 1720.00         | V               | 147                 | 237                        | 2.90            | 1 / 1          | 14.20                  | 17.10        | 0.051        | 30.00            | -12.90      |
|           | $\pi/2$ BPSK | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 1          | 14.72                  | 17.66        | 0.058        | 30.00            | -12.34      |
|           | $\pi/2$ BPSK | 1770.00         | V               | 102                 | 278                        | 3.02            | 1 / 1          | 15.75                  | <b>18.77</b> | 0.075        | 30.00            | -11.23      |
| 15 MHz    | QPSK         | 1720.00         | V               | 147                 | 237                        | 2.90            | 1 / 53         | 14.35                  | 17.25        | 0.053        | 30.00            | -12.75      |
|           | QPSK         | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 1          | 14.72                  | 17.66        | 0.058        | 30.00            | -12.34      |
|           | QPSK         | 1770.00         | V               | 102                 | 278                        | 3.02            | 1 / 53         | 15.60                  | 18.62        | 0.073        | 30.00            | -11.38      |
|           | 16-QAM       | 1770.00         | V               | 102                 | 278                        | 3.02            | 1 / 1          | 14.59                  | 17.61        | 0.058        | 30.00            | -12.39      |
|           | $\pi/2$ BPSK | 1717.50         | V               | 147                 | 237                        | 2.89            | 1 / 1          | 14.20                  | 17.10        | 0.051        | 30.00            | -12.90      |
|           | $\pi/2$ BPSK | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 1          | 14.72                  | 17.66        | 0.058        | 30.00            | -12.34      |
| 10 MHz    | $\pi/2$ BPSK | 1772.50         | V               | 102                 | 278                        | 3.03            | 1 / 1          | 15.74                  | <b>18.77</b> | 0.075        | 30.00            | -11.23      |
|           | QPSK         | 1717.50         | V               | 147                 | 237                        | 2.89            | 1 / 39         | 14.35                  | 17.25        | 0.053        | 30.00            | -12.75      |
|           | QPSK         | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 1          | 14.72                  | 17.66        | 0.058        | 30.00            | -12.34      |
|           | QPSK         | 1772.50         | V               | 102                 | 278                        | 3.03            | 1 / 39         | 15.59                  | 18.62        | 0.073        | 30.00            | -11.38      |
|           | 16-QAM       | 1772.50         | V               | 102                 | 278                        | 3.03            | 1 / 1          | 14.58                  | 17.61        | 0.058        | 30.00            | -12.39      |
|           | $\pi/2$ BPSK | 1715.00         | V               | 147                 | 237                        | 2.89            | 1 / 26         | 14.09                  | 16.98        | 0.050        | 30.00            | -13.02      |
| 5 MHz     | $\pi/2$ BPSK | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 1          | 14.89                  | 17.83        | 0.061        | 30.00            | -12.17      |
|           | $\pi/2$ BPSK | 1775.00         | V               | 102                 | 278                        | 3.04            | 1 / 1          | 15.73                  | <b>18.77</b> | 0.075        | 30.00            | -11.23      |
|           | QPSK         | 1715.00         | V               | 147                 | 237                        | 2.89            | 1 / 26         | 14.61                  | 17.50        | 0.056        | 30.00            | -12.50      |
|           | QPSK         | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 1          | 14.81                  | 17.75        | 0.060        | 30.00            | -12.25      |
|           | QPSK         | 1775.00         | V               | 102                 | 278                        | 3.04            | 1 / 50         | 15.71                  | 18.74        | 0.075        | 30.00            | -11.26      |
|           | 16-QAM       | 1775.00         | V               | 102                 | 278                        | 3.04            | 1 / 50         | 14.60                  | 17.64        | 0.058        | 30.00            | -12.36      |
| 5 MHz     | $\pi/2$ BPSK | 1712.50         | V               | 147                 | 237                        | 2.88            | 1 / 23         | 14.12                  | 17.00        | 0.050        | 30.00            | -13.00      |
|           | $\pi/2$ BPSK | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 12         | 14.65                  | 17.59        | 0.057        | 30.00            | -12.41      |
|           | $\pi/2$ BPSK | 1777.50         | V               | 102                 | 278                        | 3.05            | 1 / 12         | 15.56                  | 18.61        | 0.073        | 30.00            | -11.39      |
|           | QPSK         | 1712.50         | V               | 147                 | 237                        | 2.88            | 1 / 23         | 14.59                  | 17.47        | 0.056        | 30.00            | -12.53      |
|           | QPSK         | 1745.00         | V               | 103                 | 245                        | 2.94            | 1 / 12         | 14.76                  | 17.71        | 0.059        | 30.00            | -12.29      |
|           | QPSK         | 1777.50         | V               | 102                 | 278                        | 3.05            | 1 / 12         | 15.72                  | <b>18.77</b> | 0.075        | 30.00            | -11.23      |
| 5 MHz     | 16-QAM       | 1777.50         | V               | 102                 | 278                        | 3.05            | 1 / 12         | 14.55                  | 17.59        | 0.057        | 30.00            | -12.41      |

Table 7-200. EIRP Data (NR Band n66) – Ant2

|                                         |                                     |                               |  |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  | Page 147 of 179                   |

## 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

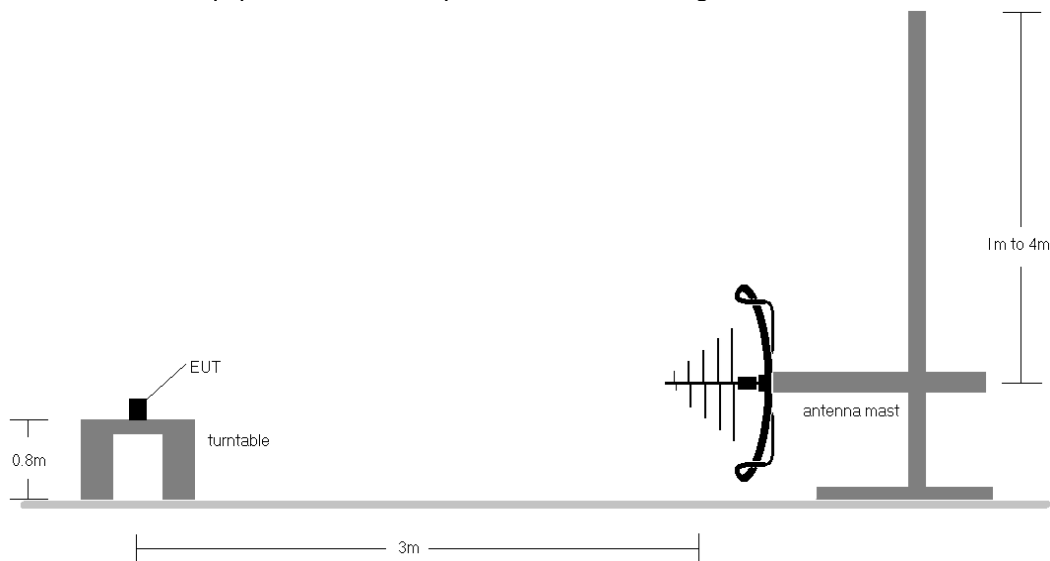
### Test Settings

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

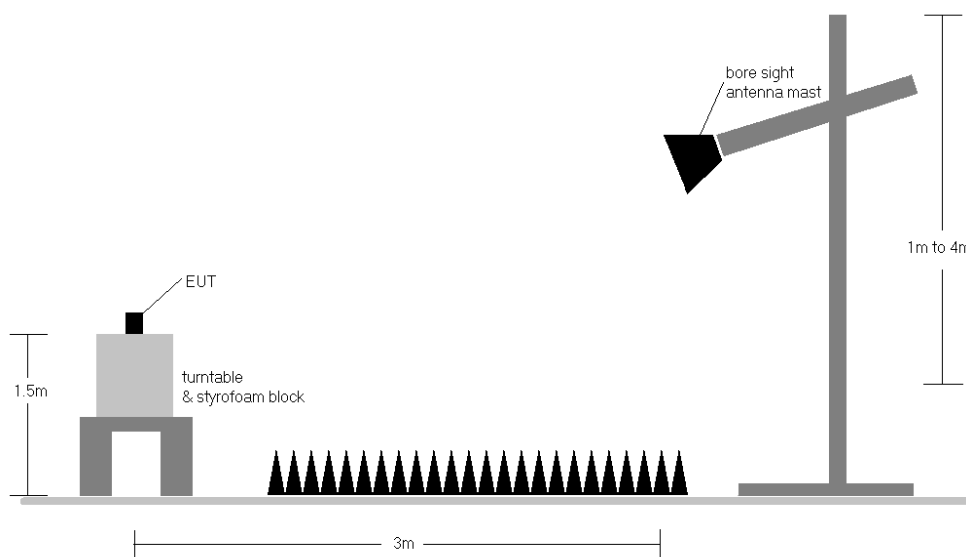
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 148 of 179                   |

## 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**

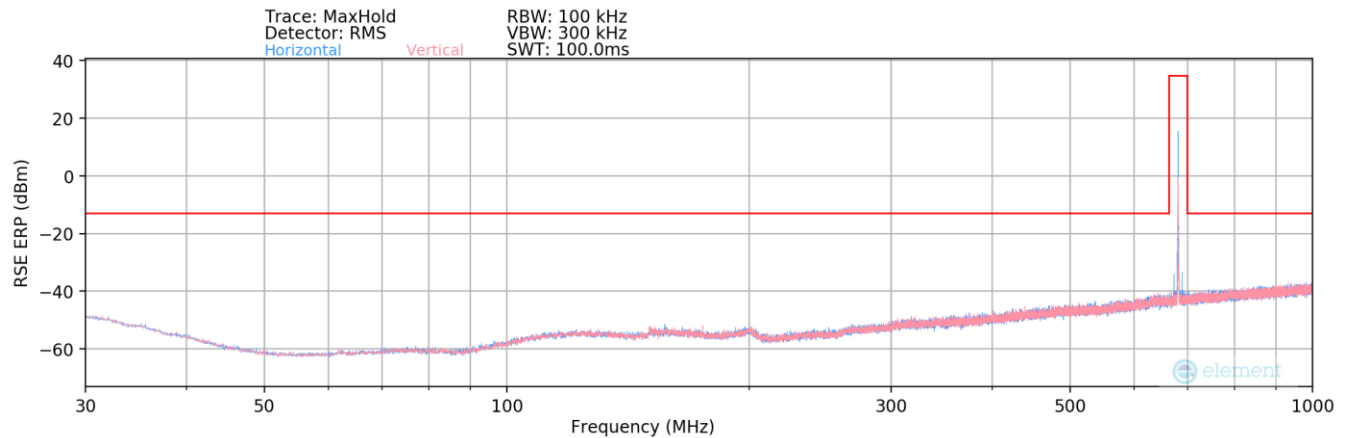
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 149 of 179                   |

## Test Notes

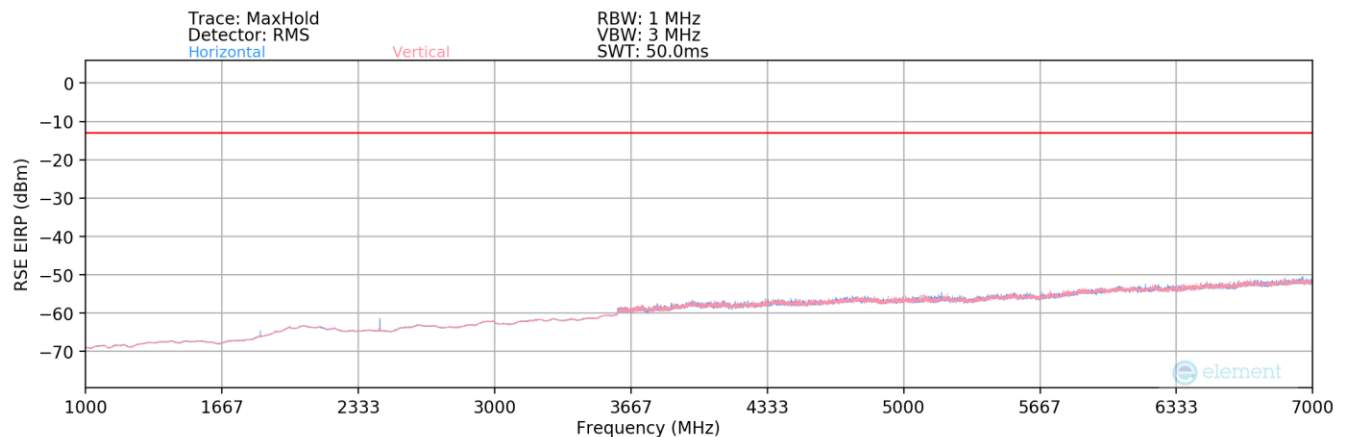
- 1) Field strengths are calculated using the Measurement quantity conversions in ANSI C63.26-2015 Section 5.2.7:
  - a)  $E(\text{dB}\mu\text{V/m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
  - b)  $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V/m}) + 20\log D - 104.8$ ; 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) ULCA spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.
- 8) 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.
- 9) Spurious emission in EN-DC Operating mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor) has been checked and was found to not to be the worst case. Spurious emissions from the NR carrier device are 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: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 150 of 179                   |

## LTE Band 71 – Ant1



**Plot 7-201. Radiated Spurious Plot (LTE Band 71) – Ant1**



**Plot 7-202. Radiated Spurious Plot (LTE Band 71) – Ant1**

|                        |               |
|------------------------|---------------|
| Mode:                  | Stand Alone   |
| Channel:               | 680.5         |
| Frequency (MHz):       | 1 / 50        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 182.00          | V               | -                   | -                          | -83.92               | 18.50       | 41.58                   | -55.83                            | -13.00      | -42.83      |
| 311.00          | V               | -                   | -                          | -83.85               | 21.53       | 44.68                   | -52.73                            | -13.00      | -39.73      |

**Table 7-18. Radiated Spurious Data (LTE Band 71 –Below 1GHz) – Ant1**

|                                         |                                     |                               |  |  |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|--|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  |  | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  |  | Page 151 of 179                   |

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 673           |
| RB / Offset:           | 1 / 50        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1346.00         | V               | 268                 | 10                         | -75.30               | -7.00       | 24.70                   | -70.56                             | -13.00      | -57.56      |
| 2019.00         | V               | -                   | -                          | -76.43               | -3.11       | 27.46                   | -67.79                             | -13.00      | -54.79      |
| 2692.00         | V               | -                   | -                          | -76.47               | -2.69       | 27.84                   | -67.42                             | -13.00      | -54.42      |
| 3365.00         | V               | -                   | -                          | -76.67               | -1.18       | 29.15                   | -66.11                             | -13.00      | -53.11      |

**Table 7-19. Radiated Spurious Data (LTE Band 71 – Low Channel) – Ant1**

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 680.5         |
| RB / Offset:           | 1 / 50        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1361.00         | V               | 138                 | 11                         | -74.38               | -7.06       | 25.56                   | -69.69                             | -13.00      | -56.69      |
| 2041.50         | V               | 175                 | 370                        | -76.29               | -2.87       | 27.84                   | -67.41                             | -13.00      | -54.41      |
| 2722.00         | V               | -                   | -                          | -76.57               | -2.94       | 27.49                   | -67.77                             | -13.00      | -54.77      |
| 3402.50         | V               | -                   | -                          | -76.81               | -1.21       | 28.98                   | -66.28                             | -13.00      | -53.28      |
| 4083.00         | V               | -                   | -                          | -78.27               | 1.54        | 30.27                   | -64.99                             | -13.00      | -51.99      |

**Table 7-20. Radiated Spurious Data (LTE Band 71 – Mid Channel) – Ant1**

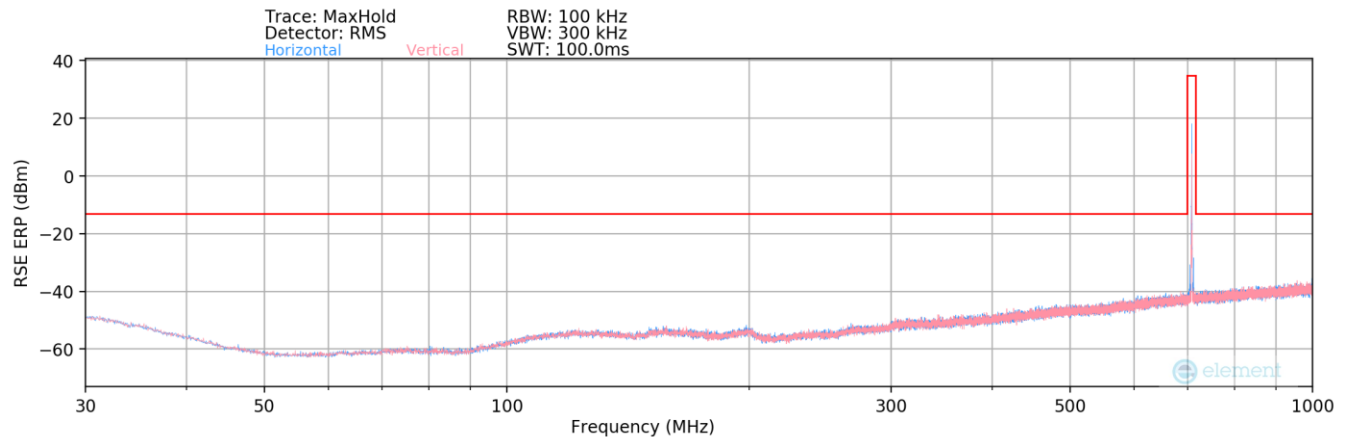
|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 688           |
| RB / Offset:           | 1 / 50        |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1376.00         | V               | 130                 | 9                          | -75.65               | -6.85       | 24.50                   | -70.76                             | -13.00      | -57.76      |
| 2064.00         | V               | 141                 | 325                        | -74.18               | -2.76       | 30.06                   | -65.19                             | -13.00      | -52.19      |
| 2752.00         | V               | -                   | -                          | -76.91               | -3.04       | 27.05                   | -68.20                             | -13.00      | -55.20      |
| 3440.00         | V               | -                   | -                          | -76.84               | -1.02       | 29.14                   | -66.11                             | -13.00      | -53.11      |
| 4128.00         | V               | -                   | -                          | -77.41               | 1.54        | 31.13                   | -64.13                             | -13.00      | -51.13      |

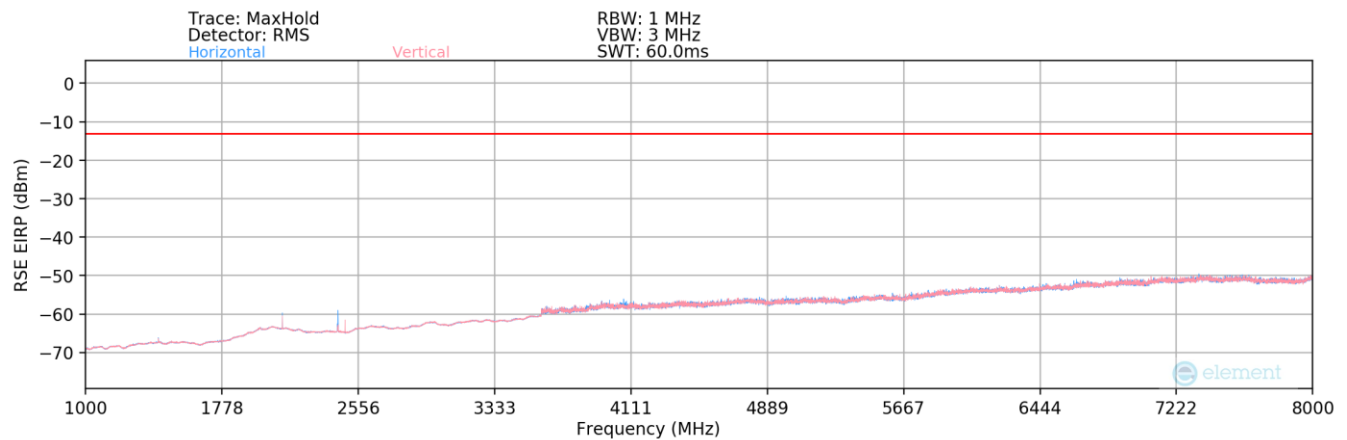
**Table 7-21. Radiated Spurious Data (LTE Band 71 – High Channel) – Ant1**

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 152 of 179                   |

## LTE Band 12 – Ant1



Plot 7-203. Radiated Spurious Plot (LTE Band 12) – Ant1



Plot 7-204. Radiated Spurious Plot (LTE Band 12) – Ant1

|                        |               |
|------------------------|---------------|
| Mode:                  | Stand Alone   |
| Channel:               | 707.5         |
| Frequency (MHz):       | 1 / 25        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 165.00          | H               | -                   | -                          | -83.90               | 19.57       | 42.67                   | -54.73                            | -13.00      | -41.73      |
| 234.00          | H               | -                   | -                          | -83.88               | 18.93       | 42.05                   | -55.35                            | -13.00      | -42.35      |
| 495.00          | H               | -                   | -                          | -83.72               | 26.42       | 49.70                   | -47.71                            | -13.00      | -34.71      |

Table 7-22. Radiated Spurious Data (LTE Band 12 – Below 1GHz) – Ant1

|                                         |                                     |                               |  |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  | Page 153 of 179                   |

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 10            |
| Frequency (MHz):       | 704           |
| RB / Offset:           | 1 / 25        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1408.00         | H               | 323                 | 356                        | -75.25               | -6.80       | 24.95                   | -70.31                             | -13.00      | -57.31      |
| 2112.00         | H               | 164                 | 354                        | -69.18               | -2.83       | 34.99                   | -60.27                             | -13.00      | -47.27      |
| 2816.00         | H               | -                   | -                          | -77.13               | -2.91       | 26.96                   | -68.30                             | -13.00      | -55.30      |
| 3520.00         | H               | -                   | -                          | -77.11               | -0.45       | 29.44                   | -65.82                             | -13.00      | -52.82      |
| 4224.00         | H               | -                   | -                          | -77.18               | 1.43        | 31.25                   | -64.01                             | -13.00      | -51.01      |

**Table 7-23. Radiated Spurious Data (LTE Band 12 – Low Channel) – Ant1**

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 10            |
| Frequency (MHz):       | 707.5         |
| RB / Offset:           | 1 / 25        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1415.00         | H               | 165                 | 361                        | -73.46               | -6.86       | 26.68                   | -68.58                             | -13.00      | -55.58      |
| 2122.50         | H               | 157                 | 342                        | -67.51               | -2.97       | 36.52                   | -58.74                             | -13.00      | -45.74      |
| 2830.00         | H               | -                   | -                          | -76.98               | -2.85       | 27.17                   | -68.09                             | -13.00      | -55.09      |
| 3537.50         | H               | -                   | -                          | -77.02               | -0.17       | 29.81                   | -65.45                             | -13.00      | -52.45      |
| 4245.00         | H               | -                   | -                          | -77.42               | 1.50        | 31.08                   | -64.18                             | -13.00      | -51.18      |

**Table 7-24. Radiated Spurious Data (LTE Band 12 – Mid Channel) – Ant1**

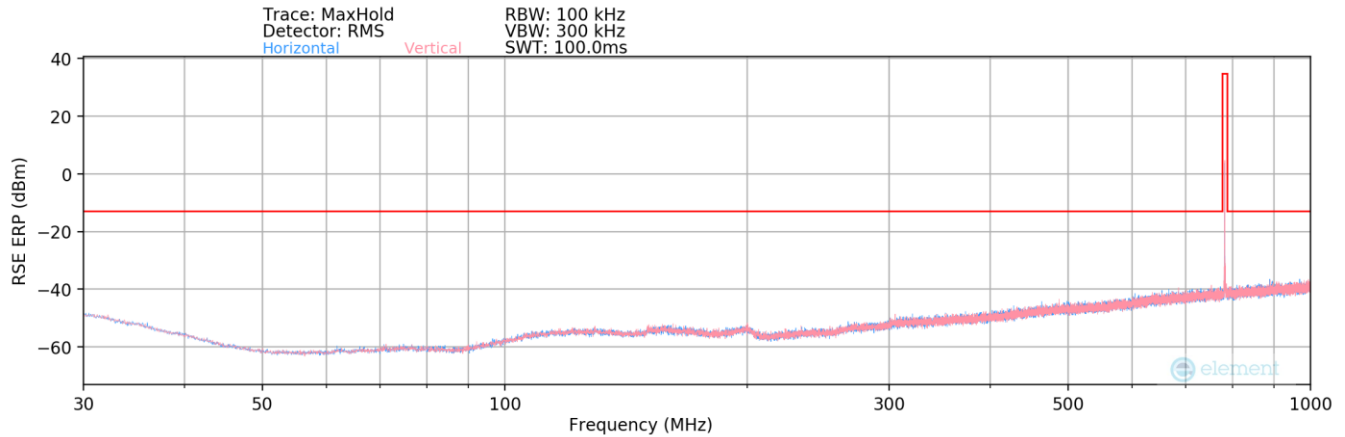
|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 10            |
| Frequency (MHz):       | 711           |
| RB / Offset:           | 1 / 25        |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1422.00         | H               | 155                 | 337                        | -73.09               | -6.90       | 27.01                   | -68.24                             | -13.00      | -55.24      |
| 2133.00         | H               | 202                 | 7                          | -69.68               | -3.11       | 34.21                   | -61.05                             | -13.00      | -48.05      |
| 2844.00         | H               | -                   | -                          | -76.82               | -2.80       | 27.38                   | -67.87                             | -13.00      | -54.87      |
| 3555.00         | H               | -                   | -                          | -76.99               | -0.04       | 29.97                   | -65.29                             | -13.00      | -52.29      |
| 4266.00         | H               | -                   | -                          | -77.74               | 1.56        | 30.82                   | -64.44                             | -13.00      | -51.44      |

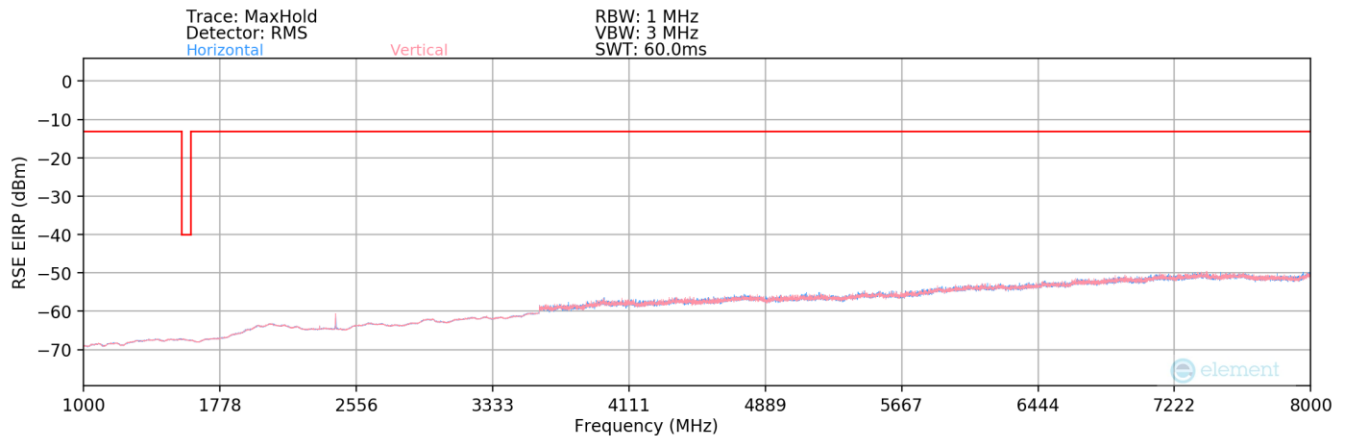
**Table 7-25. Radiated Spurious Data (LTE Band 12 – High Channel) – Ant1**

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 154 of 179                   |

## LTE Band 13 – Ant1



Plot 7-205. Radiated Spurious Plot (LTE Band 13) – Ant1



Plot 7-206. Radiated Spurious Plot (LTE Band 13) – Ant1

|                        |                 |
|------------------------|-----------------|
| Mode:                  | Stand Alone     |
| Channel:               | 782             |
| Frequency (MHz):       | 1 / 25          |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 161.00          | H               | -                   | -                          | -83.95               | 19.93       | 42.98                   | -54.42                            | -13.00      | -41.42      |
| 393.00          | H               | -                   | -                          | -83.90               | 23.36       | 46.46                   | -50.95                            | -13.00      | -37.95      |
| 508.00          | H               | -                   | -                          | -83.77               | 25.96       | 49.19                   | -48.22                            | -13.00      | -35.22      |

Table 7-26. Radiated Spurious Data (LTE Band 13 – Below 1GHz) – Ant1

|                                         |                                     |                               |  |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  | Page 155 of 179                   |



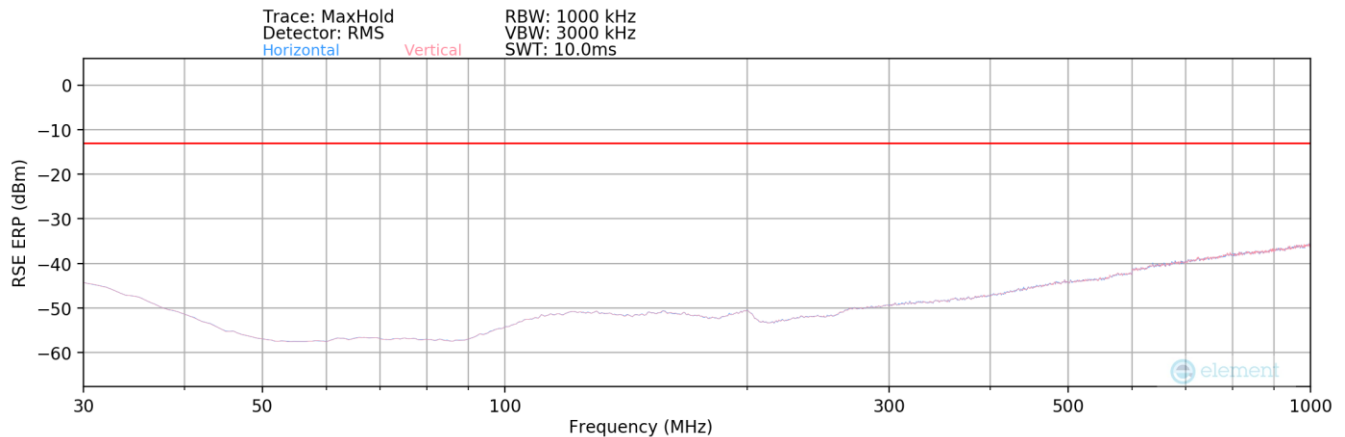
|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 10            |
| Frequency (MHz):       | 782           |
| RB / Offset:           | 1 / 25        |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1564.00         | H               | -                   | -                          | -75.97               | -6.76       | 24.27                   | -70.98                             | -40.00      | -30.98      |
| 2346.00         | H               | 171                 | 315                        | -73.75               | -3.91       | 29.34                   | -65.92                             | -13.00      | -52.92      |
| 3128.00         | H               | -                   | -                          | -76.75               | -1.74       | 28.51                   | -66.75                             | -13.00      | -53.75      |
| 3910.00         | H               | -                   | -                          | -78.21               | 1.28        | 30.07                   | -65.18                             | -13.00      | -52.18      |
| 4692.00         | H               | -                   | -                          | -77.78               | 2.73        | 31.95                   | -63.31                             | -13.00      | -50.31      |

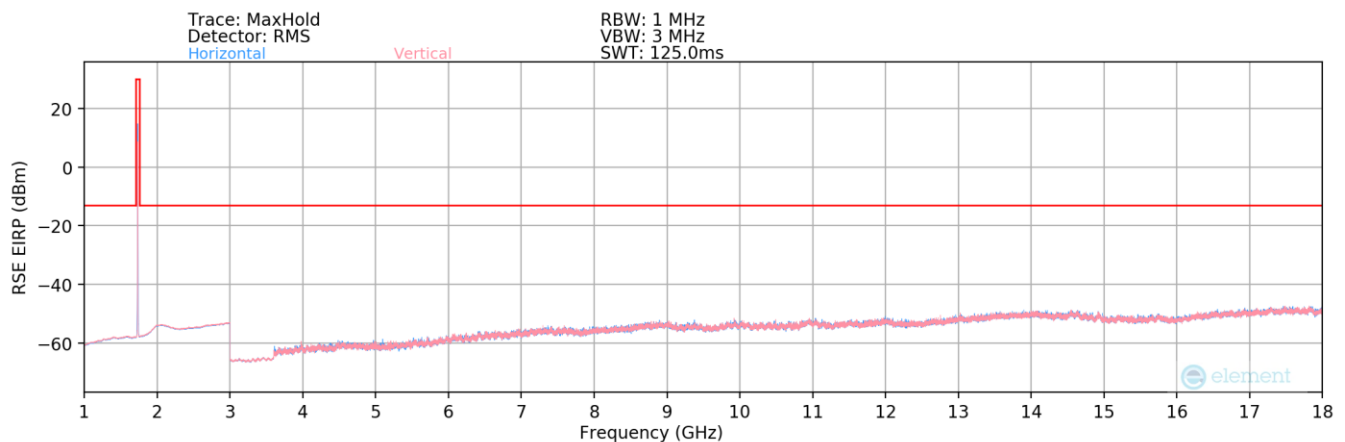
**Table 7-27. Radiated Spurious Data (LTE Band 13 – Mid Channel) – Ant1**

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 156 of 179                   |

## WCDMA AWS – Ant1



Plot 7-207. Radiated Spurious Plot (WCDMA AWS) – Ant1



Plot 7-208. Radiated Spurious Plot (WCDMA AWS) – Ant1

|                        |                 |
|------------------------|-----------------|
| Mode:                  | Stand Alone     |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 902.00          | H               | -                   | -                          | -89.53               | 31.20       | 48.67                   | -48.74                            | -13.00      | -35.74      |

7-28. Radiated Spurious Data (WCDMA AWS – Below 1GHz) – Ant1

|                                         |                                     |                               |  |  |  |                 |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|--|--|-----------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  |  |  |                 | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  |  |  | Page 157 of 179 |                                   |

|                        |               |
|------------------------|---------------|
| Mode:                  | WCDMA RMC     |
| Channel:               | 1312          |
| Frequency (MHz):       | 1712.4        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3424.80         | H               | -                   | -                          | -77.20               | 0.11        | 29.91                   | -65.35                             | -13.00      | -52.35      |
| 5137.20         | H               | -                   | -                          | -78.61               | 3.16        | 31.55                   | -63.71                             | -13.00      | -50.71      |
| 6849.60         | H               | -                   | -                          | -78.63               | 8.50        | 36.87                   | -58.39                             | -13.00      | -45.39      |

**7-29. Radiated Spurious Data (WCDMA AWS – Low Channel) – Ant1**

|                        |               |
|------------------------|---------------|
| Mode:                  | WCDMA RMC     |
| Channel:               | 1413          |
| Frequency (MHz):       | 1732.6        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3465.20         | H               | -                   | -                          | -77.05               | 0.25        | 30.20                   | -65.06                             | -13.00      | -52.06      |
| 5197.80         | H               | -                   | -                          | -78.56               | 3.46        | 31.90                   | -63.35                             | -13.00      | -50.35      |
| 6930.40         | H               | -                   | -                          | -78.57               | 8.24        | 36.67                   | -58.59                             | -13.00      | -45.59      |

**Table 7-30. Radiated Spurious Data (WCDMA AWS – Mid Channel) – Ant1**

|                        |               |
|------------------------|---------------|
| Mode:                  | WCDMA RMC     |
| Channel:               | 1513          |
| Frequency (MHz):       | 1752.6        |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

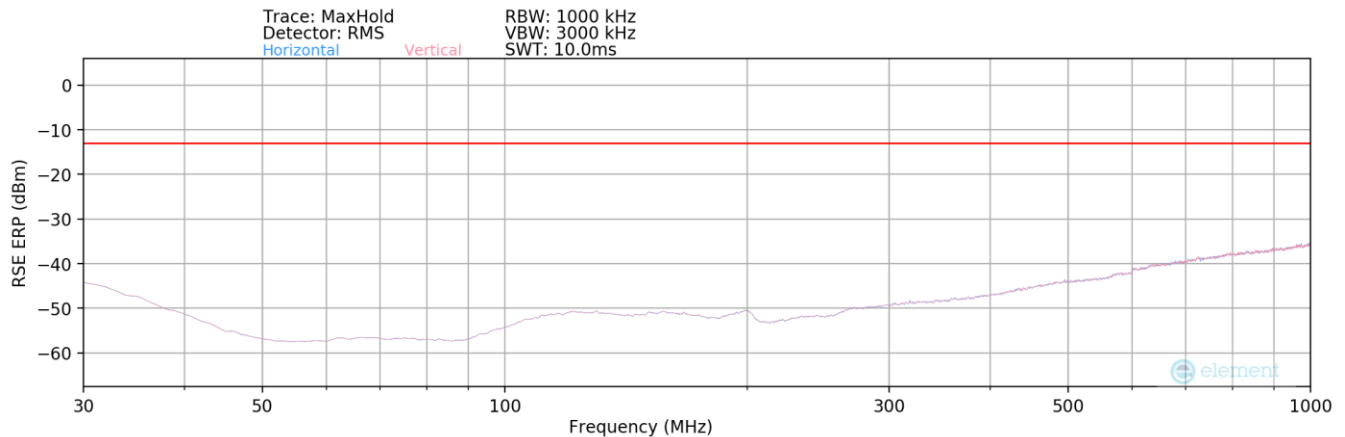
| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3505.20         | H               | -                   | -                          | -76.85               | -0.21       | 29.94                   | -65.32                             | -13.00      | -52.32      |
| 5257.80         | H               | -                   | -                          | -78.42               | 3.35        | 31.93                   | -63.33                             | -13.00      | -50.33      |
| 7010.40         | H               | -                   | -                          | -78.53               | 7.71        | 36.18                   | -59.07                             | -13.00      | -46.07      |

**Table 7-31. Radiated Spurious Data (WCDMA AWS – High Channel) – Ant1**

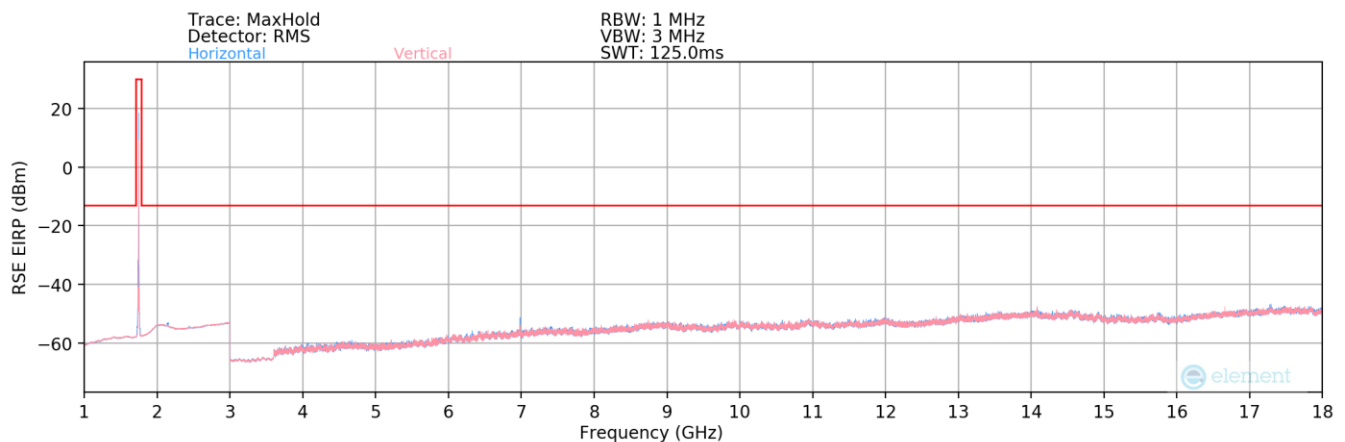
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 158 of 179                   |



## LTE Band 66/4 – Ant1



Plot 7-209. Radiated Spurious Plot (LTE Band 66/4) – Ant1



Plot 7-210. Radiated Spurious Plot (LTE Band 66/4) – Ant1

|                        |                 |
|------------------------|-----------------|
| Mode:                  | Stand Alone     |
| Channel:               | 1745            |
| Frequency (MHz):       | 1 / 50          |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 165.00          | H               | -                   | -                          | -83.88               | 19.57       | 42.69                   | -54.71                            | -13.00      | -41.71      |
| 261.00          | H               | -                   | -                          | -83.84               | 19.75       | 42.91                   | -54.50                            | -13.00      | -41.50      |
| 496.00          | H               | -                   | -                          | -83.79               | 25.71       | 48.92                   | -48.49                            | -13.00      | -35.49      |

Table 7-32. Radiated Spurious Data (LTE Band 66/4 – Below 1GHz) – Ant1

|                                         |                                     |                               |  |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  | Page 159 of 179                   |

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 1720          |
| RB / Offset:           | 1 / 50        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3440.00         | H               | -                   | -                          | -77.00               | 0.26        | 30.26                   | -64.99                             | -13.00      | -51.99      |
| 5160.00         | H               | -                   | -                          | -78.04               | 3.27        | 32.23                   | -63.03                             | -13.00      | -50.03      |
| 6880.00         | H               | 159                 | 35                         | -68.04               | 8.28        | 47.24                   | -48.02                             | -13.00      | -35.02      |
| 8600.00         | H               | -                   | -                          | -79.98               | 10.78       | 37.80                   | -57.46                             | -13.00      | -44.46      |
| 10320.00        | H               | -                   | -                          | -79.85               | 11.26       | 38.41                   | -56.85                             | -13.00      | -43.85      |
| 12040.00        | H               | -                   | -                          | -80.37               | 13.38       | 40.01                   | -55.24                             | -13.00      | -42.24      |

**Table 7-33. Radiated Spurious Data (LTE Band 66/4 – Low Channel) – Ant1**

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 1745          |
| RB / Offset:           | 1 / 50        |
| 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               | -                   | -                          | -76.99               | -0.08       | 29.93                   | -65.32                             | -13.00      | -52.32      |
| 5235.00         | H               | -                   | -                          | -78.26               | 3.24        | 31.98                   | -63.28                             | -13.00      | -50.28      |
| 6980.00         | H               | 254                 | 67                         | -72.29               | 7.55        | 42.26                   | -52.99                             | -13.00      | -39.99      |
| 8725.00         | H               | -                   | -                          | -79.23               | 10.82       | 38.59                   | -56.67                             | -13.00      | -43.67      |
| 10470.00        | H               | -                   | -                          | -80.27               | 12.23       | 38.96                   | -56.29                             | -13.00      | -43.29      |
| 12215.00        | H               | -                   | -                          | -80.06               | 12.81       | 39.75                   | -55.51                             | -13.00      | -42.51      |

**Table 7-34. Radiated Spurious Data (LTE Band 66/4 – Mid Channel) – Ant1**

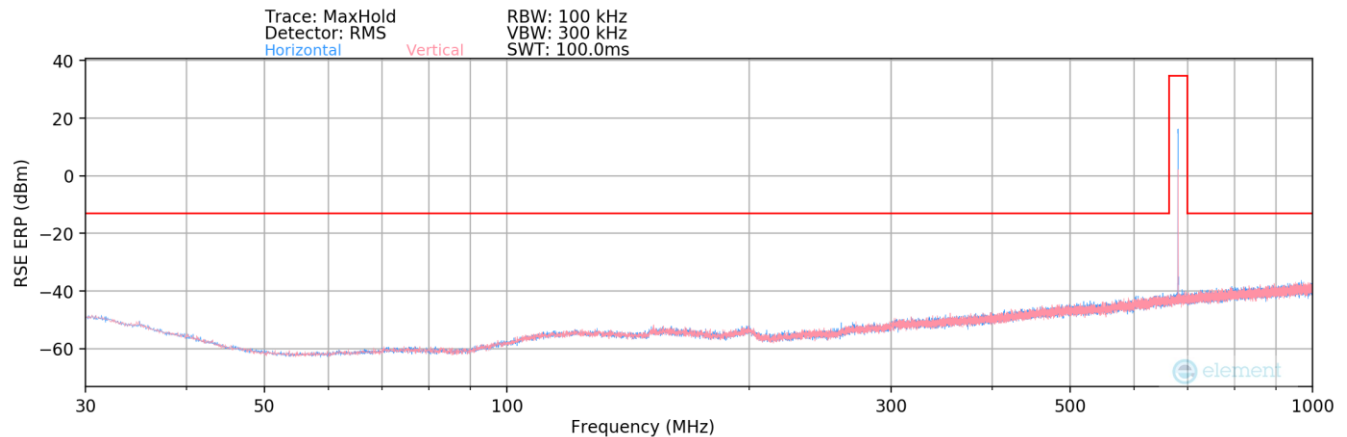
|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 1770          |
| RB / Offset:           | 1 / 50        |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3540.00         | H               | -                   | -                          | -77.55               | -0.26       | 29.19                   | -66.07                             | -13.00      | -53.07      |
| 5310.00         | H               | -                   | -                          | -78.22               | 3.07        | 31.85                   | -63.41                             | -13.00      | -50.41      |
| 7080.00         | H               | 152                 | 61                         | -69.03               | 8.25        | 46.22                   | -49.04                             | -13.00      | -36.04      |
| 8850.00         | H               | -                   | -                          | -78.83               | 10.85       | 39.02                   | -56.24                             | -13.00      | -43.24      |
| 10620.00        | H               | -                   | -                          | -80.63               | 12.12       | 38.49                   | -56.77                             | -13.00      | -43.77      |
| 12390.00        | H               | -                   | -                          | -80.31               | 12.82       | 39.51                   | -55.74                             | -13.00      | -42.74      |

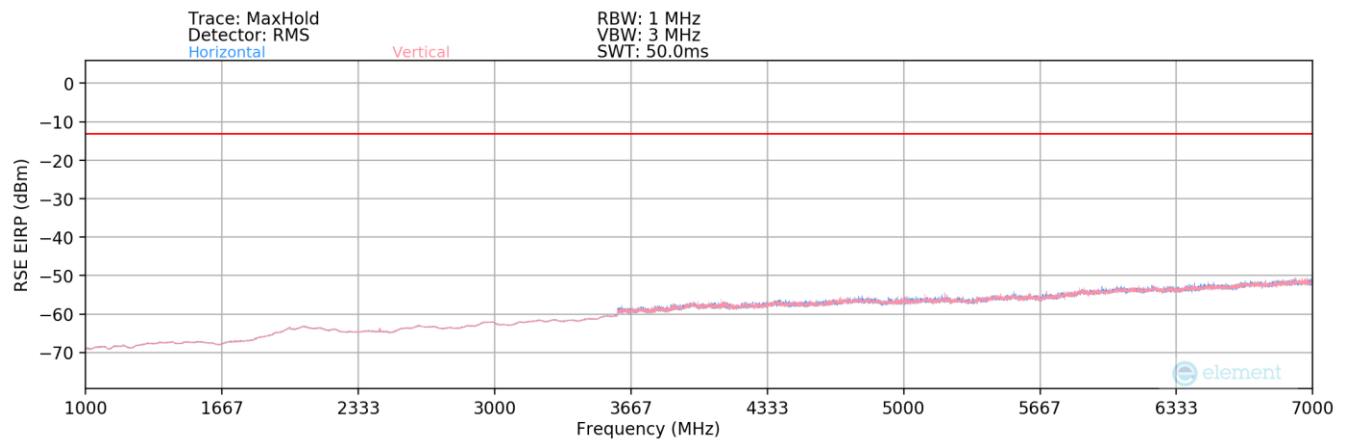
**Table 7-35. Radiated Spurious Data (LTE Band 66/4 – High Channel) – Ant1**

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 160 of 179                   |

## NR Band n71 – Ant1



Plot 7-211. Radiated Spurious Plot (NR Band n71) – Ant1



Plot 7-212. Radiated Spurious Plot (NR Band n71) – Ant1

|                        |                 |
|------------------------|-----------------|
| Mode:                  | Stand Alone     |
| Channel:               | 680.5           |
| Frequency (MHz):       | 1 / 53          |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 123.00          | H               | -                   | -                          | -83.94               | 20.42       | 43.48                   | -53.93                            | -13.00      | -40.93      |
| 232.98          | H               | -                   | -                          | -83.83               | 18.88       | 42.05                   | -55.36                            | -13.00      | -42.36      |
| 489.42          | H               | -                   | -                          | -83.74               | 25.54       | 48.80                   | -48.61                            | -13.00      | -35.61      |

Table 7-36. Radiated Spurious Data (NR Band n71 – Below 1GHz) – Ant1

|                                         |                                     |                               |  |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  | Page 161 of 179                   |

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 673           |
| RB / Offset:           | 1 / 53        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1346.00         | H               | 183                 | 36                         | -75.48               | -7.00       | 24.52                   | -70.74                             | -13.00      | -57.74      |
| 2019.00         | H               | -                   | -                          | -76.13               | -3.11       | 27.76                   | -67.49                             | -13.00      | -54.49      |
| 2692.00         | H               | -                   | -                          | -76.39               | -2.69       | 27.92                   | -67.34                             | -13.00      | -54.34      |
| 3365.00         | H               | -                   | -                          | -76.77               | -1.18       | 29.05                   | -66.21                             | -13.00      | -53.21      |

**Table 7-37. Radiated Spurious Data (NR Band n71 – Low Channel) – Ant1**

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 680.5         |
| RB / Offset:           | 1 / 53        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1361.00         | H               | 170                 | 358                        | -74.58               | -7.06       | 25.36                   | -69.89                             | -13.00      | -56.89      |
| 2041.50         | H               | 127                 | 18                         | -75.24               | -2.87       | 28.89                   | -66.36                             | -13.00      | -53.36      |
| 2722.00         | H               | -                   | -                          | -76.55               | -2.94       | 27.51                   | -67.75                             | -13.00      | -54.75      |
| 3402.50         | H               | -                   | -                          | -76.88               | -1.21       | 28.91                   | -66.35                             | -13.00      | -53.35      |
| 4083.00         | H               | -                   | -                          | -78.00               | 1.54        | 30.54                   | -64.72                             | -13.00      | -51.72      |

**Table 7-38. Radiated Spurious Data (NR Band n71 – Mid Channel) – Ant1**

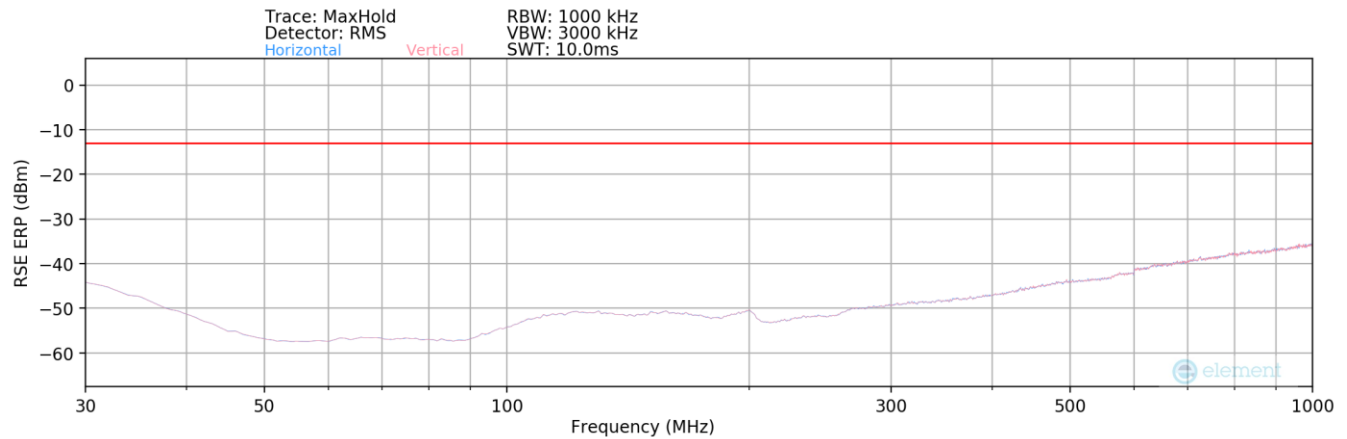
|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 688           |
| RB / Offset:           | 1 / 53        |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1376.00         | H               | 153                 | 29                         | -75.26               | -6.85       | 24.89                   | -70.37                             | -13.00      | -57.37      |
| 2064.00         | H               | 130                 | 3                          | -74.64               | -2.76       | 29.60                   | -65.65                             | -13.00      | -52.65      |
| 2752.00         | H               | -                   | -                          | -76.48               | -3.04       | 27.48                   | -67.77                             | -13.00      | -54.77      |
| 3440.00         | H               | -                   | -                          | -76.69               | -1.02       | 29.29                   | -65.96                             | -13.00      | -52.96      |
| 4128.00         | H               | -                   | -                          | -77.40               | 1.54        | 31.14                   | -64.12                             | -13.00      | -51.12      |

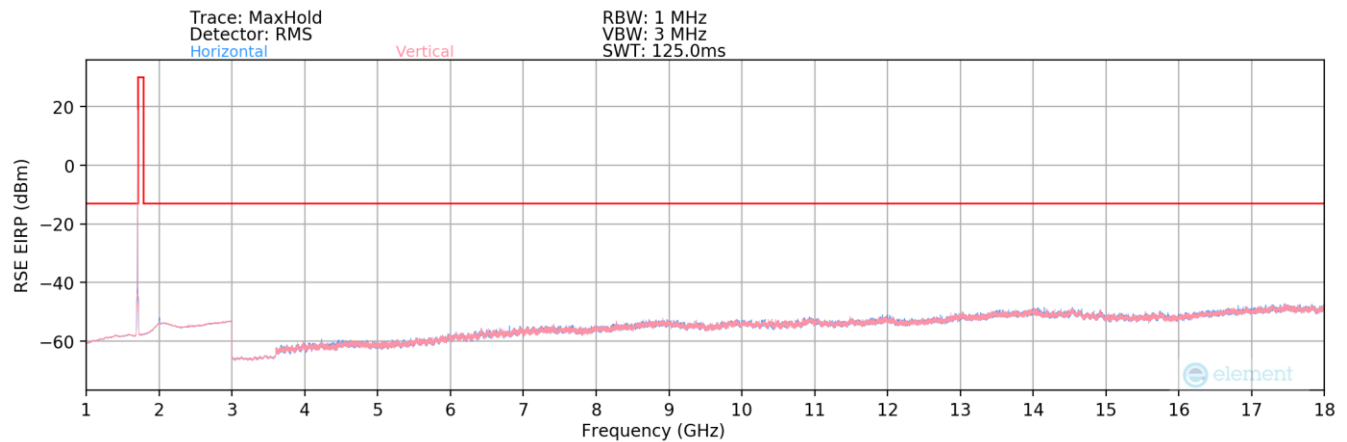
**Table 7-39. Radiated Spurious Data (NR Band n71 – High Channel) – Ant1**

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 162 of 179                   |

## NR Band n70 – Ant1



Plot 7-213. Radiated Spurious Plot (NR Band n70) – Ant1



Plot 7-214. Radiated Spurious Plot (NR Band n70) – Ant1

|                        |               |
|------------------------|---------------|
| Mode:                  | Stand Alone   |
| Channel:               | 340500        |
| Frequency (MHz):       | 1702.5        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 101.47          | H               | -                   | -                          | -83.97               | 17.52       | 40.55                   | -56.85                            | -13.00      | -43.85      |
| 192.43          | H               | -                   | -                          | -83.78               | 18.99       | 42.21                   | -55.20                            | -13.00      | -42.20      |
| 510.70          | H               | -                   | -                          | -83.76               | 25.89       | 49.13                   | -48.28                            | -13.00      | -35.28      |

Table 7-40. Radiated Spurious Data (NR Band n70 – Below 1GHz) – Ant1

|                                         |                                     |                               |  |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  | Page 163 of 179                   |



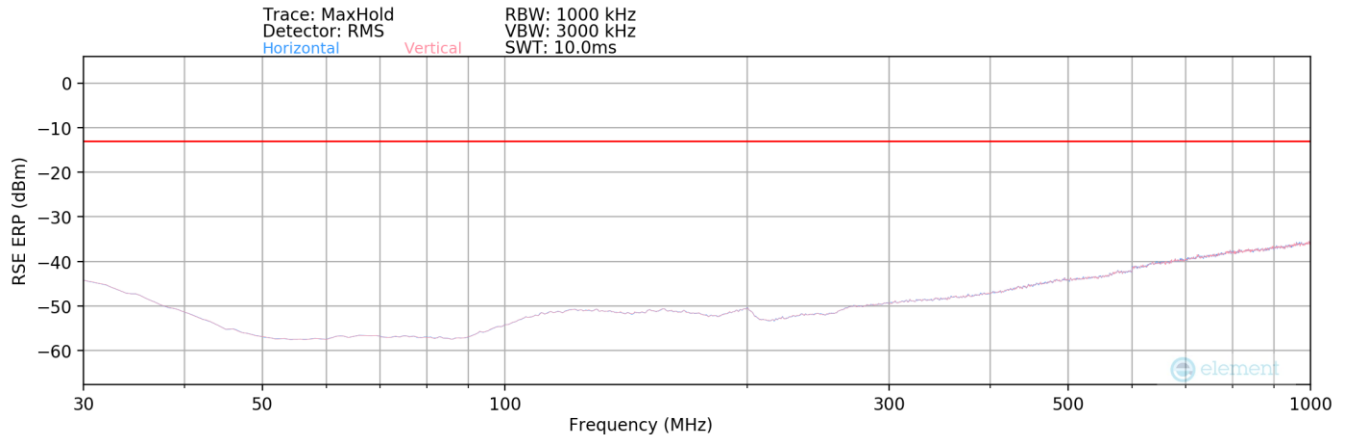
|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 15            |
| Frequency (MHz):       | 1702.5        |
| RB / Offset:           | 1 / 39        |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3405.00         | H               | -                   | -                          | -76.96               | -0.10       | 29.94                   | -65.32                             | -13.00      | -52.32      |
| 5107.50         | H               | -                   | -                          | -78.42               | 3.34        | 31.92                   | -63.34                             | -13.00      | -50.34      |
| 6810.00         | H               | 273                 | 38                         | -74.58               | 8.45        | 40.87                   | -54.39                             | -13.00      | -41.39      |
| 8512.50         | H               | -                   | -                          | -79.76               | 10.24       | 37.48                   | -57.77                             | -13.00      | -44.77      |
| 10215.00        | H               | -                   | -                          | -79.77               | 11.56       | 38.79                   | -56.46                             | -13.00      | -43.46      |
| 11917.50        | H               | -                   | -                          | -80.16               | 12.91       | 39.75                   | -55.51                             | -13.00      | -42.51      |

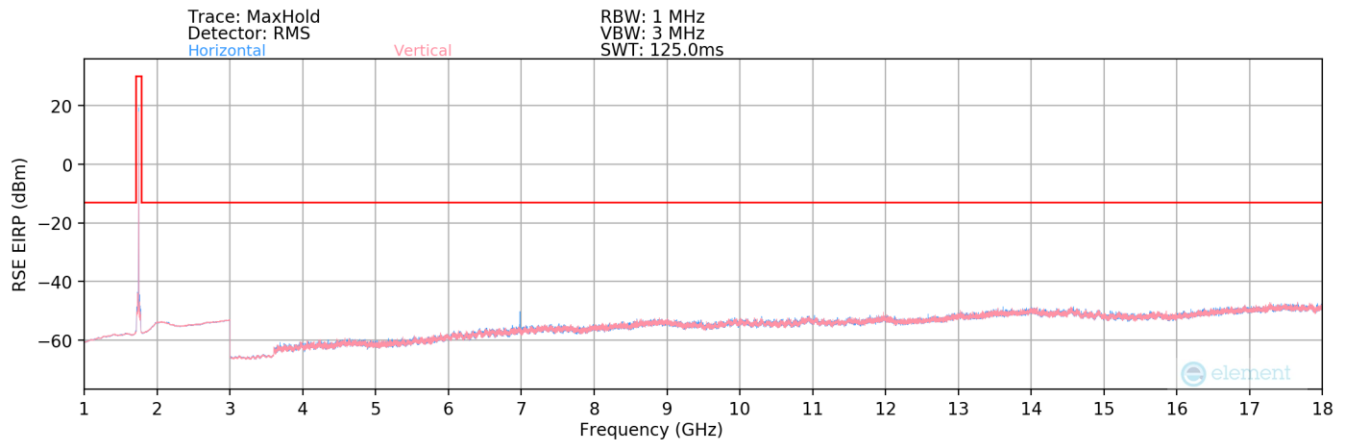
**Table 7-41. Radiated Spurious Data (NR Band n70 – Mid Channel) – Ant1**

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 164 of 179                   |

## NR Band n66 – Ant1



Plot 7-215. Radiated Spurious Plot (NR Band n66) – Ant1



Plot 7-216. Radiated Spurious Plot (NR Band n66) – Ant1

|                        |                 |
|------------------------|-----------------|
| Mode:                  | Stand Alone     |
| Channel:               | 1745            |
| Frequency (MHz):       | 1 / 108         |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 191.82          | H               | -                   | -                          | -83.75               | 18.89       | 42.14                   | -55.27                            | -13.00      | -42.27      |
| 483.10          | H               | -                   | -                          | -83.80               | 25.88       | 49.08                   | -48.33                            | -13.00      | -35.33      |
| 587.33          | H               | -                   | -                          | -83.82               | 27.05       | 50.23                   | -47.18                            | -13.00      | -34.18      |

Table 7-42. Radiated Spurious Data (NR Band n66 – Below 1GHz) – Ant1

|                                         |                                     |                               |  |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  | Page 165 of 179                   |

|                        |               |
|------------------------|---------------|
| 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               | -                   | -                          | -77.05               | 0.28        | 30.23                   | -65.03                             | -13.00      | -52.03      |
| 5190.00         | H               | -                   | -                          | -78.52               | 3.49        | 31.97                   | -63.28                             | -13.00      | -50.28      |
| 6920.00         | H               | 154                 | 32                         | -74.53               | 8.36        | 40.83                   | -54.43                             | -13.00      | -41.43      |
| 8650.00         | H               | -                   | -                          | -79.83               | 10.99       | 38.16                   | -57.10                             | -13.00      | -44.10      |
| 10380.00        | H               | -                   | -                          | -80.13               | 11.75       | 38.62                   | -56.64                             | -13.00      | -43.64      |
| 12110.00        | H               | -                   | -                          | -80.30               | 12.97       | 39.67                   | -55.59                             | -13.00      | -42.59      |

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

|                        |               |
|------------------------|---------------|
| 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               | -                   | -                          | -76.93               | -0.08       | 29.99                   | -65.26                             | -13.00      | -52.26      |
| 5235.00         | H               | -                   | -                          | -78.49               | 3.24        | 31.75                   | -63.51                             | -13.00      | -50.51      |
| 6980.00         | H               | 132                 | 76                         | -73.80               | 7.55        | 40.75                   | -54.50                             | -13.00      | -41.50      |
| 8725.00         | H               | -                   | -                          | -79.21               | 10.82       | 38.61                   | -56.65                             | -13.00      | -43.65      |
| 10470.00        | H               | -                   | -                          | -80.26               | 12.23       | 38.97                   | -56.28                             | -13.00      | -43.28      |
| 12215.00        | H               | -                   | -                          | -80.04               | 12.81       | 39.77                   | -55.49                             | -13.00      | -42.49      |

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

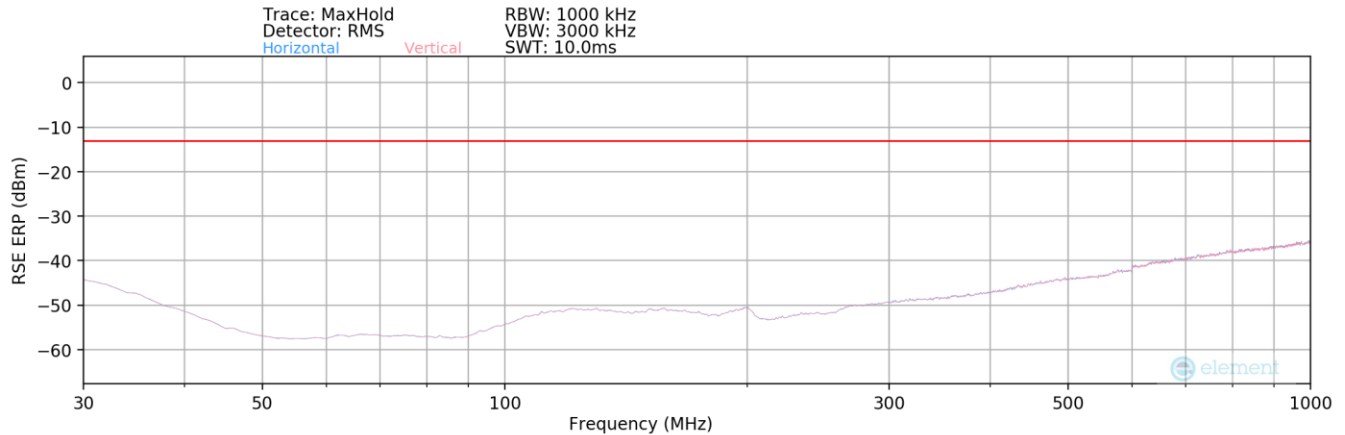
|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 40            |
| Frequency (MHz):       | 1760          |
| RB / Offset:           | 1 / 108       |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

| 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               | -                   | -                          | -77.68               | -0.16       | 29.16                   | -66.09                             | -13.00      | -53.09      |
| 5280.00         | H               | -                   | -                          | -78.29               | 3.34        | 32.05                   | -63.21                             | -13.00      | -50.21      |
| 7040.00         | H               | 142                 | 73                         | -71.28               | 7.70        | 43.42                   | -51.84                             | -13.00      | -38.84      |
| 8800.00         | H               | -                   | -                          | -78.99               | 10.78       | 38.79                   | -56.47                             | -13.00      | -43.47      |
| 10560.00        | H               | -                   | -                          | -80.35               | 12.23       | 38.88                   | -56.38                             | -13.00      | -43.38      |
| 12320.00        | H               | -                   | -                          | -80.28               | 12.74       | 39.46                   | -55.80                             | -13.00      | -42.80      |

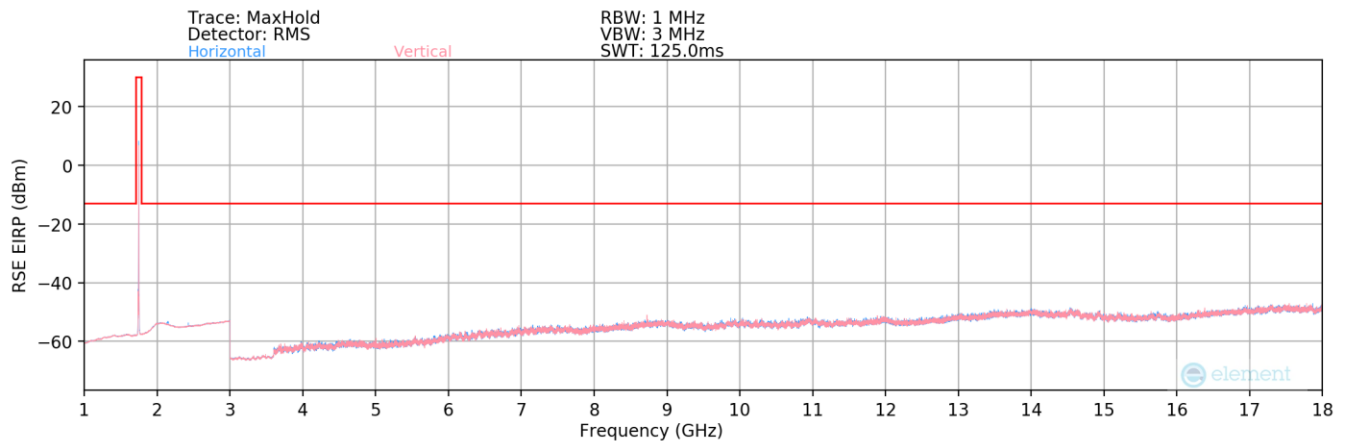
Table 7-45. Radiated Spurious Data (NR Band n66 – High Channel) – Ant1

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 166 of 179                   |

## LTE Band 66/4 – Ant2



Plot 7-217. Radiated Spurious Plot (LTE Band 66/4) – Ant2



Plot 7-218. Radiated Spurious Plot (LTE Band 66/4) – Ant2

|                        |                 |
|------------------------|-----------------|
| Mode:                  | Stand Alone     |
| Channel:               | 1745            |
| Frequency (MHz):       | 1 / 50          |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 725.00          | H               | -                   | -                          | -89.52               | 29.56       | 47.04                   | -50.37                            | -13.00      | -37.37      |

Table 7-46. Radiated Spurious Data (LTE Band 66/4 – Below 1GHz) – Ant2

|                                         |                                     |                               |  |  |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|--|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  |  | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  |  | Page 167 of 179                   |

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 1720          |
| RB / Offset:           | 1 / 50        |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3440.00         | H               | 132                 | 189                        | -69.28               | 0.26        | 37.98                   | -57.27                             | -13.00      | -44.27      |
| 5160.00         | H               | 122                 | 18                         | -77.04               | 3.27        | 33.23                   | -62.03                             | -13.00      | -49.03      |
| 6880.00         | H               | 261                 | 348                        | -78.77               | 8.28        | 36.51                   | -58.75                             | -13.00      | -45.75      |
| 8600.00         | H               | -                   | -                          | -81.22               | 10.78       | 36.56                   | -58.70                             | -13.00      | -45.70      |
| 10320.00        | H               | 122                 | 175                        | -79.42               | 11.26       | 38.84                   | -56.42                             | -13.00      | -43.42      |
| 12040.00        | H               | -                   | -                          | -81.87               | 13.38       | 38.51                   | -56.74                             | -13.00      | -43.74      |

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

|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 1745          |
| RB / Offset:           | 1 / 50        |
| 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               | 125                 | 194                        | -77.72               | -0.08       | 29.20                   | -66.05                             | -13.00      | -53.05      |
| 5235.00         | H               | -                   | -                          | -79.06               | 3.24        | 31.18                   | -64.08                             | -13.00      | -51.08      |
| 6980.00         | H               | -                   | -                          | -78.91               | 7.55        | 35.64                   | -59.61                             | -13.00      | -46.61      |
| 8725.00         | H               | 343                 | 306                        | -78.95               | 10.82       | 38.87                   | -56.39                             | -13.00      | -43.39      |
| 10470.00        | H               | -                   | -                          | -81.72               | 12.23       | 37.51                   | -57.74                             | -13.00      | -44.74      |

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

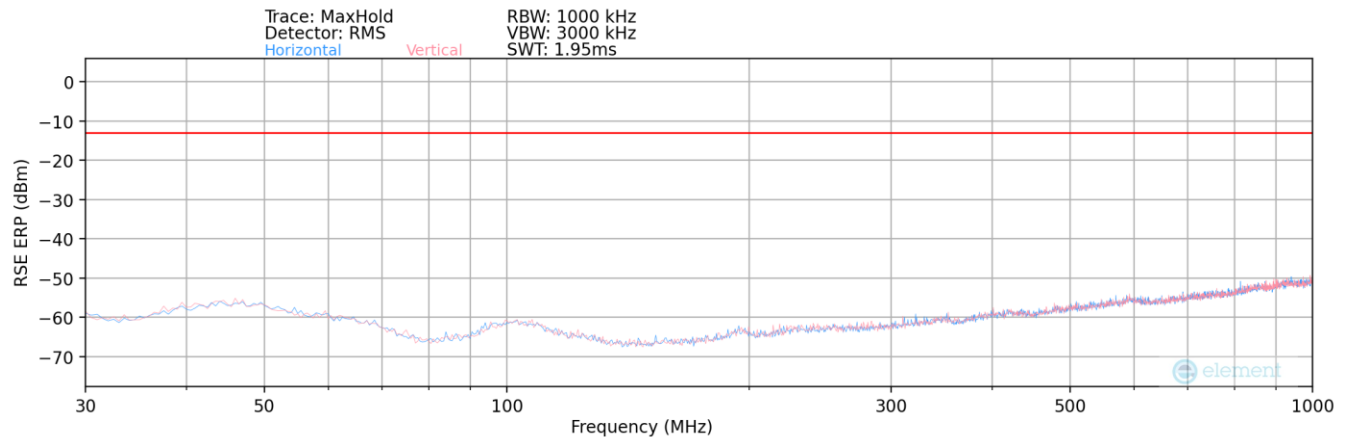
|                        |               |
|------------------------|---------------|
| Bandwidth (MHz):       | 20            |
| Frequency (MHz):       | 1770          |
| RB / Offset:           | 1 / 50        |
| Detector / Trace Mode: | RMS / Average |
| RBW / VBW:             | 1MHz / 3MHz   |

| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3540.00         | H               | 137                 | 189                        | -70.82               | -0.26       | 35.92                   | -59.34                             | -13.00      | -46.34      |
| 5310.00         | H               | 121                 | 7                          | -78.27               | 3.07        | 31.80                   | -63.46                             | -13.00      | -50.46      |
| 7080.00         | H               | -                   | -                          | -79.03               | 8.25        | 36.22                   | -59.04                             | -13.00      | -46.04      |
| 8850.00         | H               | -                   | -                          | -79.80               | 10.85       | 38.05                   | -57.21                             | -13.00      | -44.21      |
| 10620.00        | H               | -                   | -                          | -82.19               | 12.12       | 36.93                   | -58.33                             | -13.00      | -45.33      |

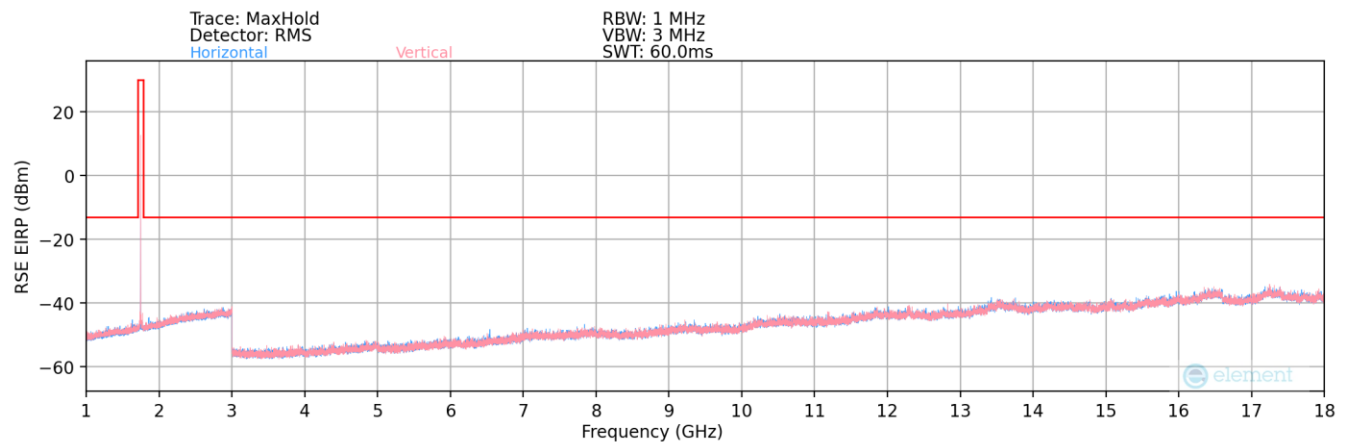
**Table 7-49. Radiated Spurious Data (LTE Band 66/4 – High Channel) – Ant2**

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
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## NR Band n66 – Ant2



**Plot 7-219. Radiated Spurious Plot (NR Band n66) – Ant2**



**Plot 7-220. Radiated Spurious Plot (NR Band n66) – Ant2**

|                        |                 |
|------------------------|-----------------|
| Mode:                  | Stand Alone     |
| Bandwidth (MHz):       | 40              |
| Frequency (MHz):       | 1745            |
| 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] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|-----------------------------------|-------------|-------------|
| 825.00          | H               | -                   | -                          | -77.06               | 0.83        | 30.77                   | -66.64                            | -13.00      | -53.64      |

**Table 7-50. Radiated Spurious Data (NR Band n66 – Below 1GHz) – Ant2**

|                                         |                                     |                               |  |  |  |                 |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|--|--|-----------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               |  |  |  |                 | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset |  |  |  | Page 169 of 179 |                                   |

|                        |               |
|------------------------|---------------|
| 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               | 124                 | 226                        | -73.67               | 6.82        | 40.15                   | -55.11                             | -13.00      | -42.11      |
| 5190.00         | H               | -                   | -                          | -81.22               | 10.27       | 36.05                   | -59.21                             | -13.00      | -46.21      |
| 6920.00         | H               | -                   | -                          | -81.80               | 13.50       | 38.70                   | -56.56                             | -13.00      | -43.56      |
| 8650.00         | H               | -                   | -                          | -83.48               | 16.96       | 40.48                   | -54.78                             | -13.00      | -41.78      |

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

|                        |               |
|------------------------|---------------|
| 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               | -                   | -                          | -79.70               | 6.95        | 34.25                   | -61.01                             | -13.00      | -48.01      |
| 5235.00         | H               | -                   | -                          | -81.20               | 10.00       | 35.80                   | -59.46                             | -13.00      | -46.46      |
| 6980.00         | H               | -                   | -                          | -82.01               | 13.74       | 38.73                   | -56.53                             | -13.00      | -43.53      |

**Table 7-52. 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               | 157                 | 226                        | -74.77               | 6.93        | 39.16                   | -56.10                             | -13.00      | -43.10      |
| 5280.00         | H               | -                   | -                          | -81.00               | 10.15       | 36.15                   | -59.11                             | -13.00      | -46.11      |
| 7040.00         | H               | -                   | -                          | -82.05               | 14.78       | 39.73                   | -55.52                             | -13.00      | -42.52      |
| 8800.00         | H               | -                   | -                          | -83.01               | 16.70       | 40.69                   | -54.57                             | -13.00      | -41.57      |

**Table 7-53. Radiated Spurious Data (NR Band n66 – High Channel) – Ant2**

|                                         |                                     |                               |  |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|--|-----------------------------------|
| FCC ID: A3LSMA156U                      | 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

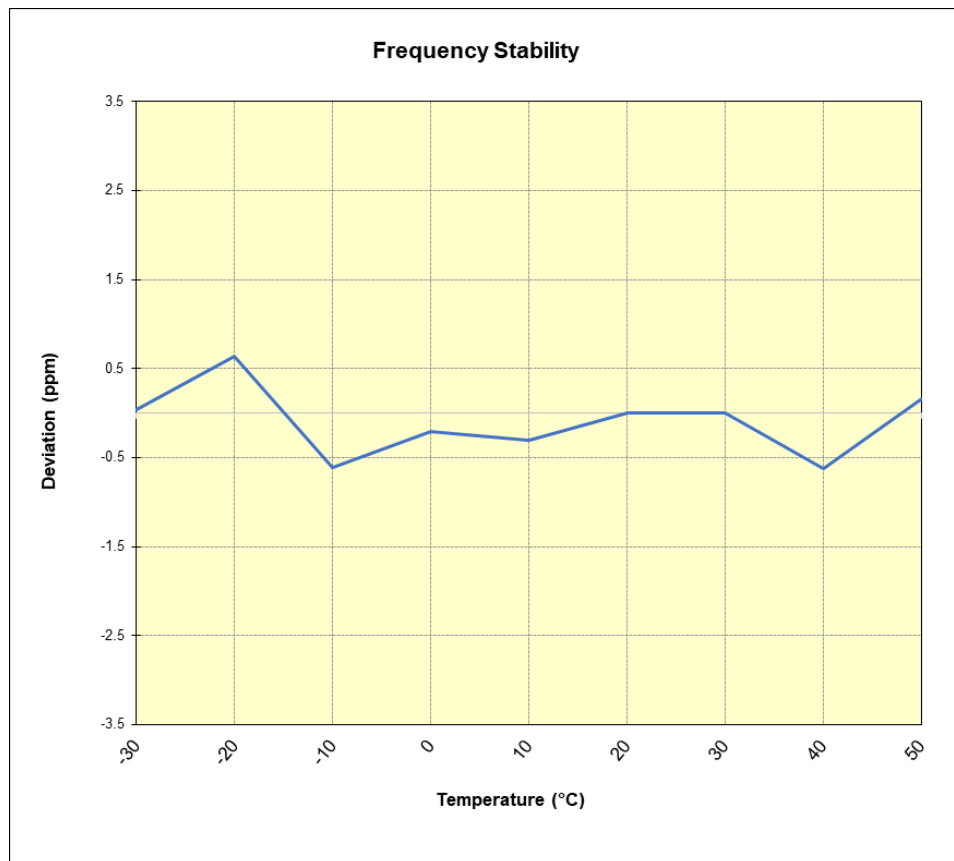
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
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## LTE Band 71

|                           |                       |
|---------------------------|-----------------------|
| Operating Frequency (Hz): | 680,500,000           |
| Ref. Voltage (VDC):       | 4.358                 |
| Deviation Limit:          | ± 0.00025% or 2.5 ppm |

| Voltage (%)      | Power (VDC) | Temp (°C)  | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
|------------------|-------------|------------|----------------|-----------------|---------------|
| 100 %            | 4.358       | - 30       | 680,499,900    | 29              | 0.0000043     |
|                  |             | - 20       | 680,500,310    | 439             | 0.0000645     |
|                  |             | - 10       | 680,499,456    | -415            | -0.0000610    |
|                  |             | 0          | 680,499,733    | -137            | -0.0000202    |
|                  |             | + 10       | 680,499,661    | -210            | -0.0000308    |
|                  |             | + 20 (Ref) | 680,499,871    | 0               | 0.0000000     |
|                  |             | + 30       | 680,499,870    | -1              | -0.0000001    |
|                  |             | + 40       | 680,499,450    | -421            | -0.0000619    |
|                  |             | + 50       | 680,499,981    | 110             | 0.0000162     |
| Battery Endpoint | 3.372       | + 20       | 680,498,828    | -1,043          | -0.0001533    |

Table 7-54. LTE Band 71 Frequency Stability Data



Plot 7-221. LTE Band 71 Frequency Stability Chart

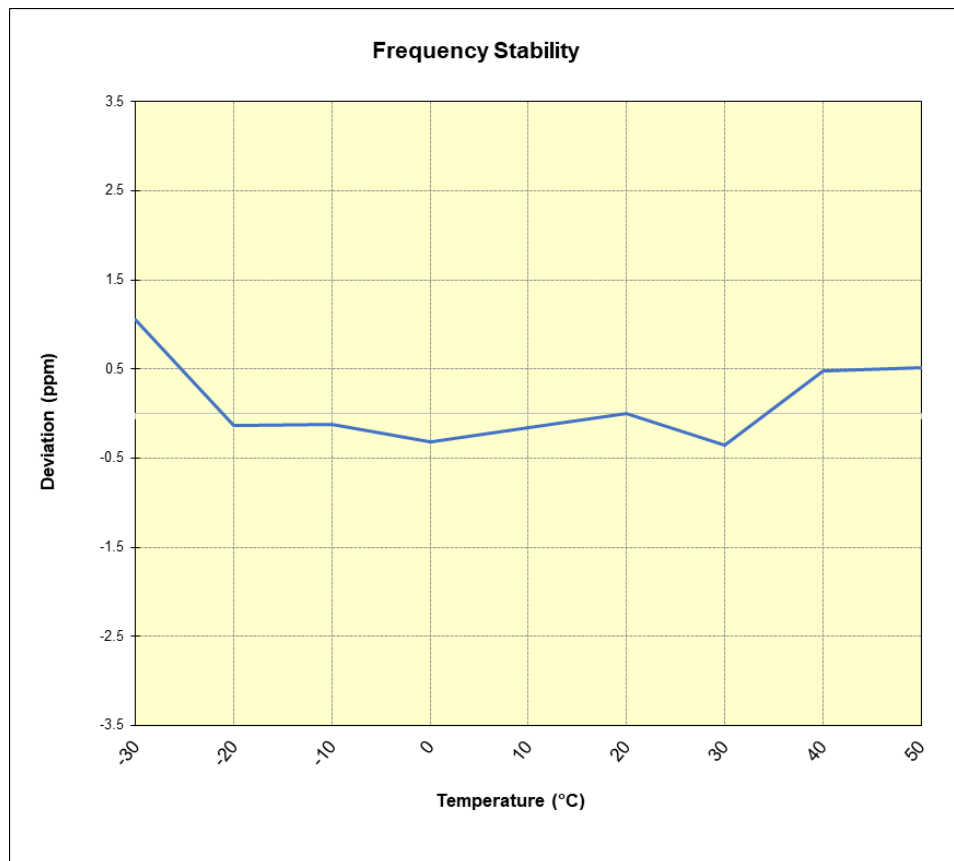
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
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## LTE Band 12

|                           |                       |
|---------------------------|-----------------------|
| Operating Frequency (Hz): | 707,500,000           |
| Ref. Voltage (VDC):       | 4.358                 |
| Deviation Limit:          | ± 0.00025% or 2.5 ppm |

| Voltage (%)      | Power (VDC) | Temp (°C)  | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
|------------------|-------------|------------|----------------|-----------------|---------------|
| 100 %            | 4.358       | - 30       | 707,499,372    | 749             | 0.0001058     |
|                  |             | - 20       | 707,498,532    | -91             | -0.0000129    |
|                  |             | - 10       | 707,498,537    | -86             | -0.0000122    |
|                  |             | 0          | 707,498,401    | -222            | -0.0000314    |
|                  |             | + 10       | 707,498,514    | -109            | -0.0000155    |
|                  |             | + 20 (Ref) | 707,498,623    | 0               | 0.0000000     |
|                  |             | + 30       | 707,498,378    | -245            | -0.0000347    |
|                  |             | + 40       | 707,498,966    | 342             | 0.0000483     |
|                  |             | + 50       | 707,498,993    | 369             | 0.0000522     |
| Battery Endpoint | 3.372       | + 20       | 707,499,064    | 440             | 0.0000622     |

Table 7-55. LTE Band 12 Frequency Stability Data



Plot 7-222. LTE Band 12 Frequency Stability Chart

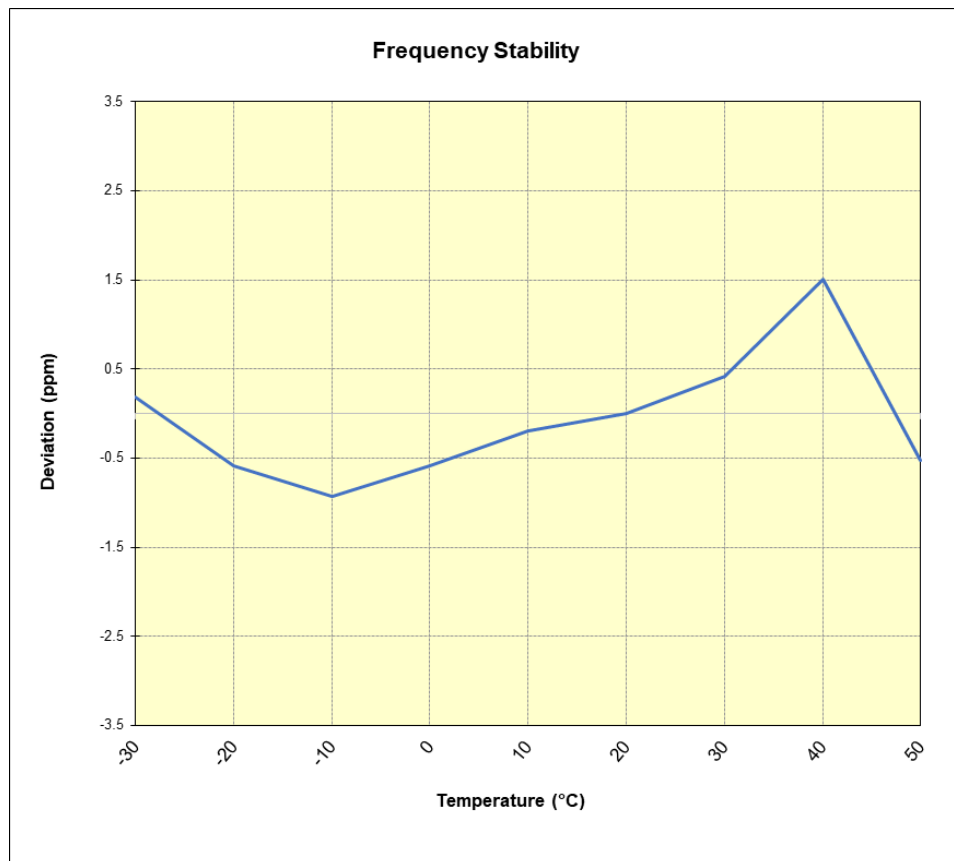
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
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## LTE Band 13

|                           |                       |
|---------------------------|-----------------------|
| Operating Frequency (Hz): | 782,000,000           |
| Ref. Voltage (VDC):       | 4.358                 |
| Deviation Limit:          | ± 0.00025% or 2.5 ppm |

| Voltage (%)      | Power (VDC) | Temp (°C)  | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
|------------------|-------------|------------|----------------|-----------------|---------------|
| 100 %            | 4.358       | - 30       | 781,999,863    | 142             | 0.0000182     |
|                  |             | - 20       | 781,999,268    | -453            | -0.0000579    |
|                  |             | - 10       | 781,998,997    | -724            | -0.0000926    |
|                  |             | 0          | 781,999,263    | -458            | -0.0000586    |
|                  |             | + 10       | 781,999,568    | -153            | -0.0000195    |
|                  |             | + 20 (Ref) | 781,999,721    | 0               | 0.0000000     |
|                  |             | + 30       | 782,000,045    | 324             | 0.0000415     |
|                  |             | + 40       | 782,000,906    | 1,185           | 0.0001515     |
|                  |             | + 50       | 781,999,314    | -407            | -0.0000520    |
| Battery Endpoint | 3.372       | + 20       | 781,999,612    | -109            | -0.0000139    |

Table 7-56. LTE Band 13 Frequency Stability Data



Plot 7-223. LTE Band 13 Frequency Stability Chart

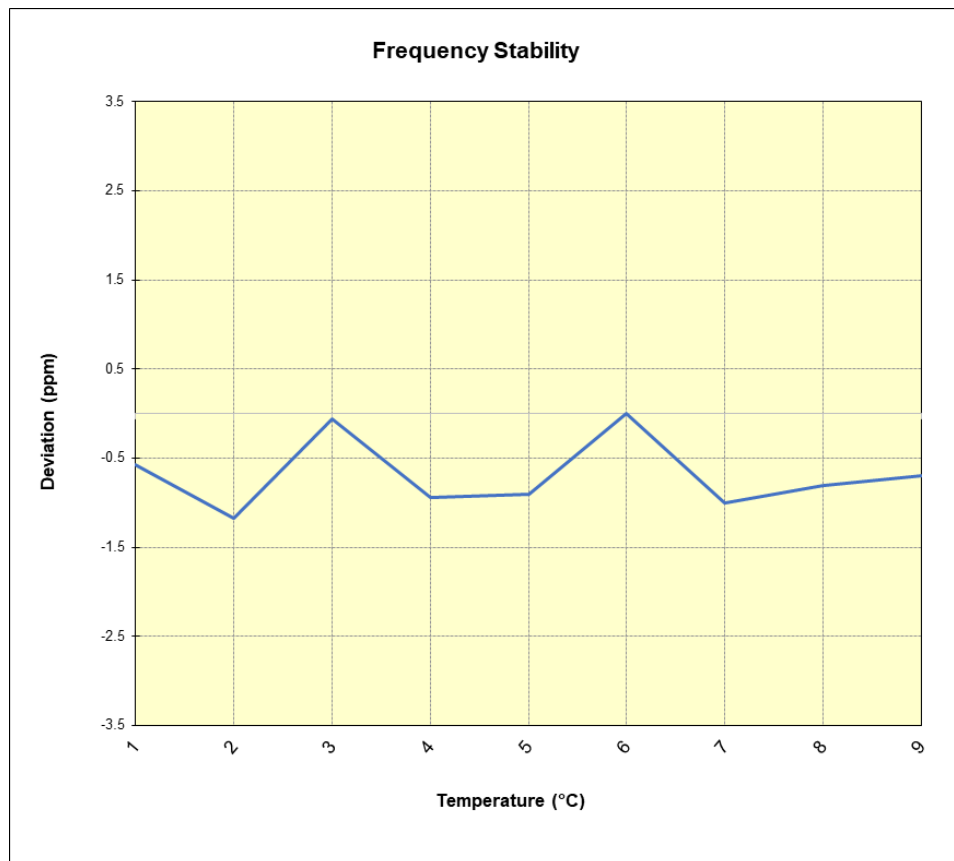
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
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## LTE Band 66

|                           |                       |
|---------------------------|-----------------------|
| Operating Frequency (Hz): | 1,745,000,000         |
| Ref. Voltage (VDC):       | 4.358                 |
| Deviation Limit:          | ± 0.00025% or 2.5 ppm |

| Voltage (%)      | Power (VDC) | Temp (°C)  | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
|------------------|-------------|------------|----------------|-----------------|---------------|
| 100 %            | 4.358       | - 30       | 1,744,999,849  | -1,008          | -0.0000578    |
|                  |             | - 20       | 1,744,998,810  | -2,047          | -0.0001173    |
|                  |             | - 10       | 1,745,000,757  | -100            | -0.0000057    |
|                  |             | 0          | 1,744,999,218  | -1,639          | -0.0000939    |
|                  |             | + 10       | 1,744,999,289  | -1,568          | -0.0000899    |
|                  |             | + 20 (Ref) | 1,745,000,857  | 0               | 0.0000000     |
|                  |             | + 30       | 1,744,999,119  | -1,738          | -0.0000996    |
|                  |             | + 40       | 1,744,999,463  | -1,394          | -0.0000799    |
|                  |             | + 50       | 1,744,999,636  | -1,221          | -0.0000700    |
| Battery Endpoint | 3.372       | + 20       | 1,744,999,172  | -1,685          | -0.0000966    |

Table 7-57. LTE Band 66/4 Frequency Stability Data



Plot 7-224. LTE Band 66/4 Frequency Stability Chart

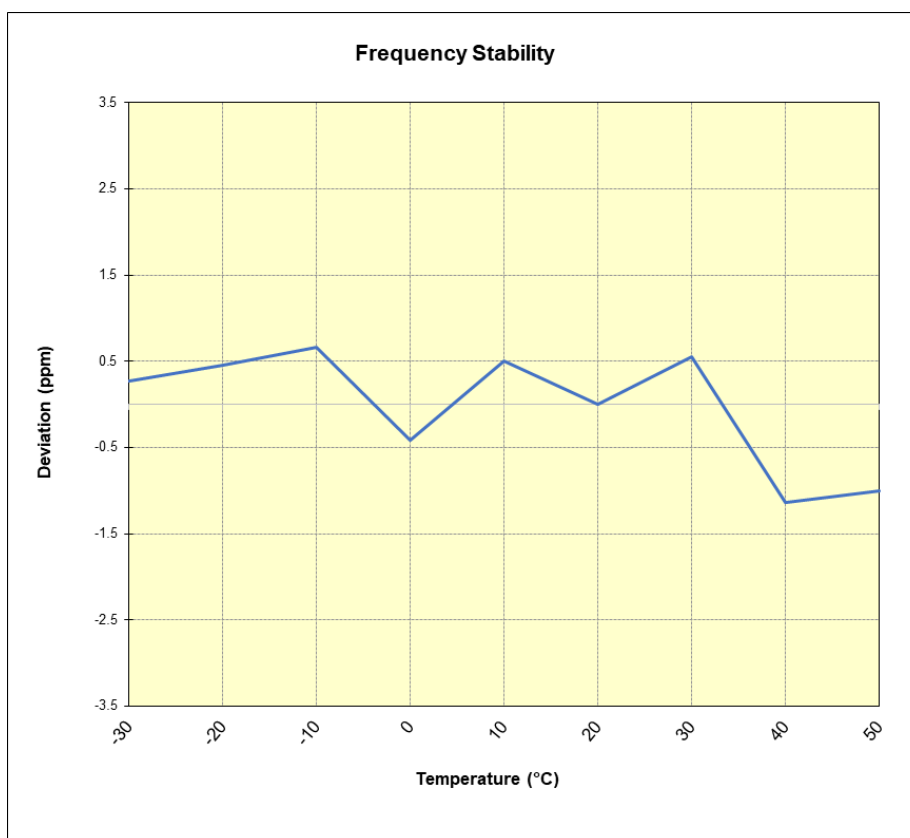
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
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## NR Band n71

|                           |                       |
|---------------------------|-----------------------|
| Operating Frequency (Hz): | 680,500,000           |
| Ref. Voltage (VDC):       | 4.358                 |
| Deviation Limit:          | ± 0.00025% or 2.5 ppm |

| Voltage (%)      | Power (VDC) | Temp (°C)  | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
|------------------|-------------|------------|----------------|-----------------|---------------|
| 100 %            | 4.358       | - 30       | 680,492,670    | 186             | 0.0000273     |
|                  |             | - 20       | 680,492,794    | 309             | 0.0000455     |
|                  |             | - 10       | 680,492,937    | 453             | 0.0000665     |
|                  |             | 0          | 680,492,201    | -284            | -0.0000417    |
|                  |             | + 10       | 680,492,832    | 347             | 0.0000510     |
|                  |             | + 20 (Ref) | 680,492,485    | 0               | 0.0000000     |
|                  |             | + 30       | 680,492,861    | 377             | 0.0000553     |
|                  |             | + 40       | 680,491,715    | -770            | -0.0001131    |
|                  |             | + 50       | 680,491,804    | -681            | -0.0001001    |
| Battery Endpoint | 3.372       | + 20       | 680,492,580    | 95              | 0.0000140     |

Table 7-58. NR Band n71 Frequency Stability Data



Plot 7-225. NR Band n71 Frequency Stability Chart

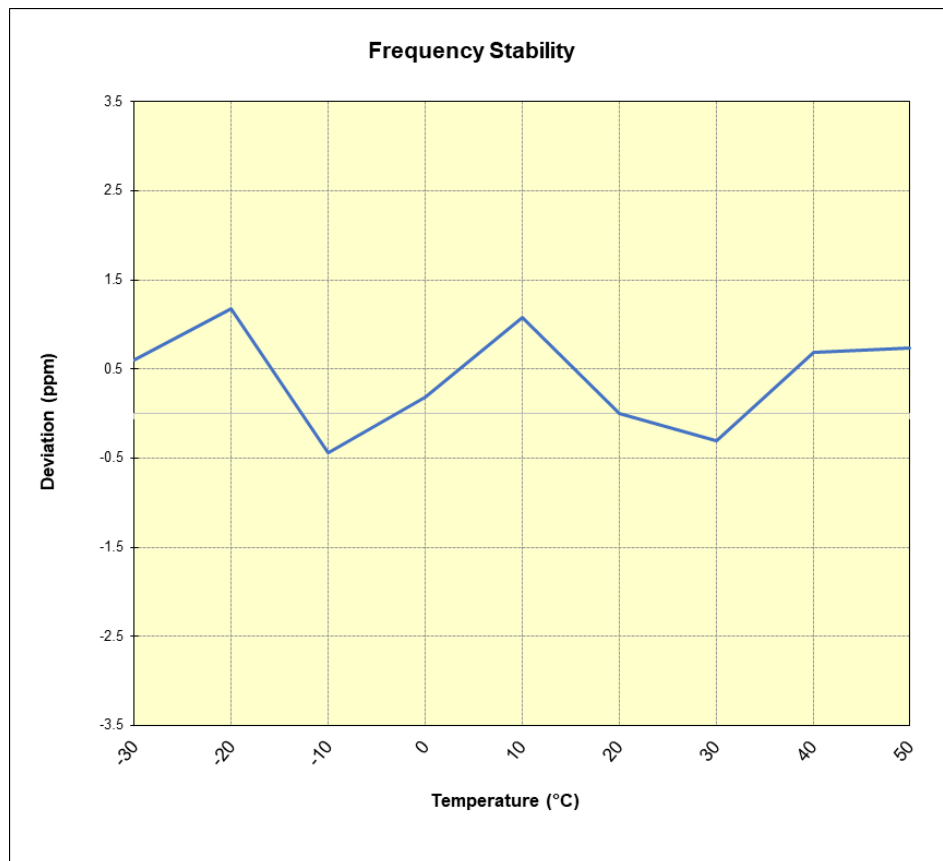
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
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## NR Band n70

|                           |                       |
|---------------------------|-----------------------|
| Operating Frequency (Hz): | 1,702,500,000         |
| Ref. Voltage (VDC):       | 4.358                 |
| Deviation Limit:          | ± 0.00025% or 2.5 ppm |

| Voltage (%)      | Power (VDC) | Temp (°C)  | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
|------------------|-------------|------------|----------------|-----------------|---------------|
| 100 %            | 4.358       | - 30       | 1,702,492,498  | 1,031           | 0.0000605     |
|                  |             | - 20       | 1,702,493,472  | 2,004           | 0.0001177     |
|                  |             | - 10       | 1,702,490,732  | -736            | -0.0000432    |
|                  |             | 0          | 1,702,491,795  | 327             | 0.0000192     |
|                  |             | + 10       | 1,702,493,314  | 1,846           | 0.0001084     |
|                  |             | + 20 (Ref) | 1,702,491,468  | 0               | 0.0000000     |
|                  |             | + 30       | 1,702,490,957  | -511            | -0.0000300    |
|                  |             | + 40       | 1,702,492,635  | 1,167           | 0.0000686     |
|                  |             | + 50       | 1,702,492,716  | 1,248           | 0.0000733     |
| Battery Endpoint | 3.372       | + 20       | 1,702,491,114  | -354            | -0.0000208    |

Table 7-59. NR Band n70 Frequency Stability Data



Plot 7-226. NR Band n70 Frequency Stability Chart

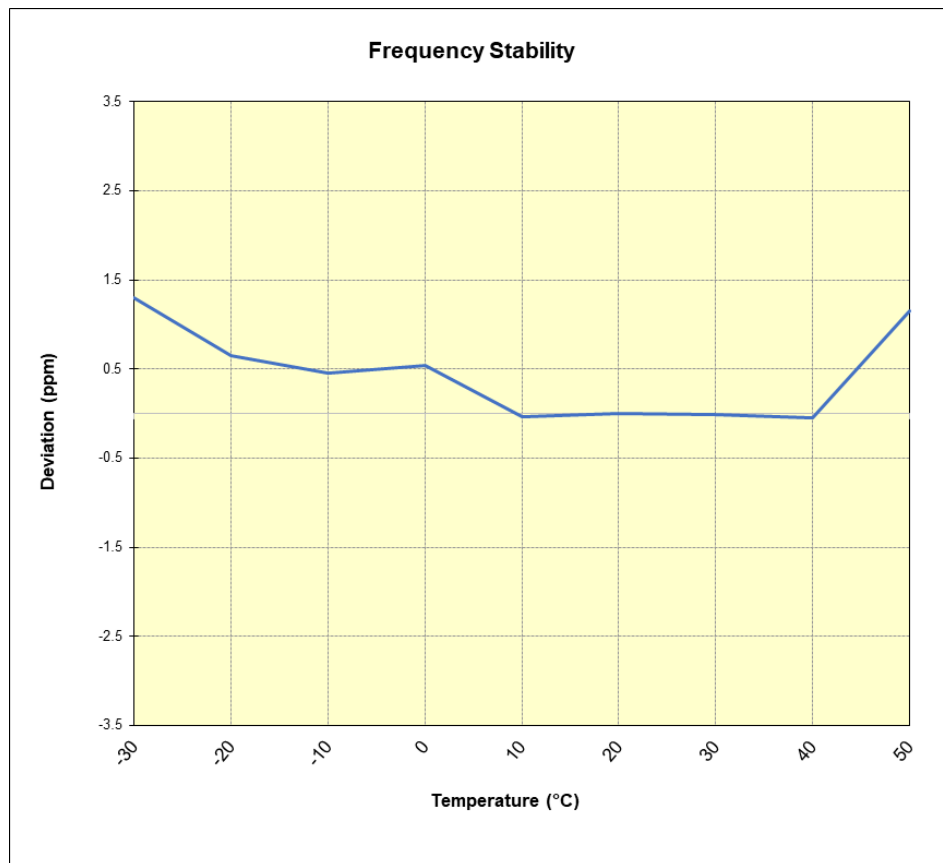
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
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## NR Band n66

|                           |                       |
|---------------------------|-----------------------|
| Operating Frequency (Hz): | 1,745,000,000         |
| Ref. Voltage (VDC):       | 4.358                 |
| Deviation Limit:          | ± 0.00025% or 2.5 ppm |

| Voltage (%)      | Power (VDC) | Temp (°C)  | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
|------------------|-------------|------------|----------------|-----------------|---------------|
| 100 %            | 4.358       | - 30       | 1,744,993,258  | 2,271           | 0.0001301     |
|                  |             | - 20       | 1,744,992,132  | 1,145           | 0.0000656     |
|                  |             | - 10       | 1,744,991,780  | 793             | 0.0000455     |
|                  |             | 0          | 1,744,991,927  | 940             | 0.0000539     |
|                  |             | + 10       | 1,744,990,920  | -67             | -0.0000038    |
|                  |             | + 20 (Ref) | 1,744,990,987  | 0               | 0.0000000     |
|                  |             | + 30       | 1,744,990,977  | -10             | -0.0000006    |
|                  |             | + 40       | 1,744,990,899  | -88             | -0.0000050    |
|                  |             | + 50       | 1,744,993,001  | 2,014           | 0.0001154     |
| Battery Endpoint | 3.372       | + 20       | 1,744,992,590  | 1,603           | 0.0000919     |

Table 7-60. NR Band n66 Frequency Stability Data



Plot 7-227. NR Band n66 Frequency Stability Chart

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2309070100-03.A3L | Test Dates:<br>9/8/2023 - 11/2/2023 | EUT Type:<br>Portable Handset | Page 178 of 179                   |

## 8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMA156U** complies with all the requirements of Part 27 of the FCC rules.

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMA156U                      | PART 27 MEASUREMENT REPORT          |                               | Approved by:<br>Technical Manager |
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