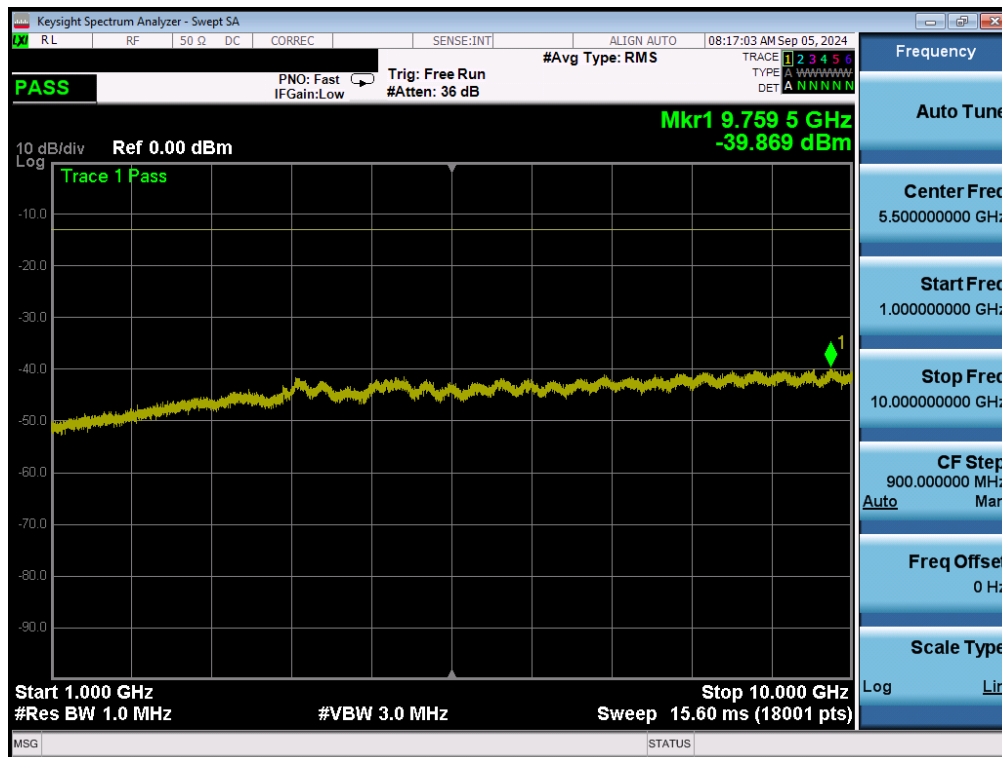
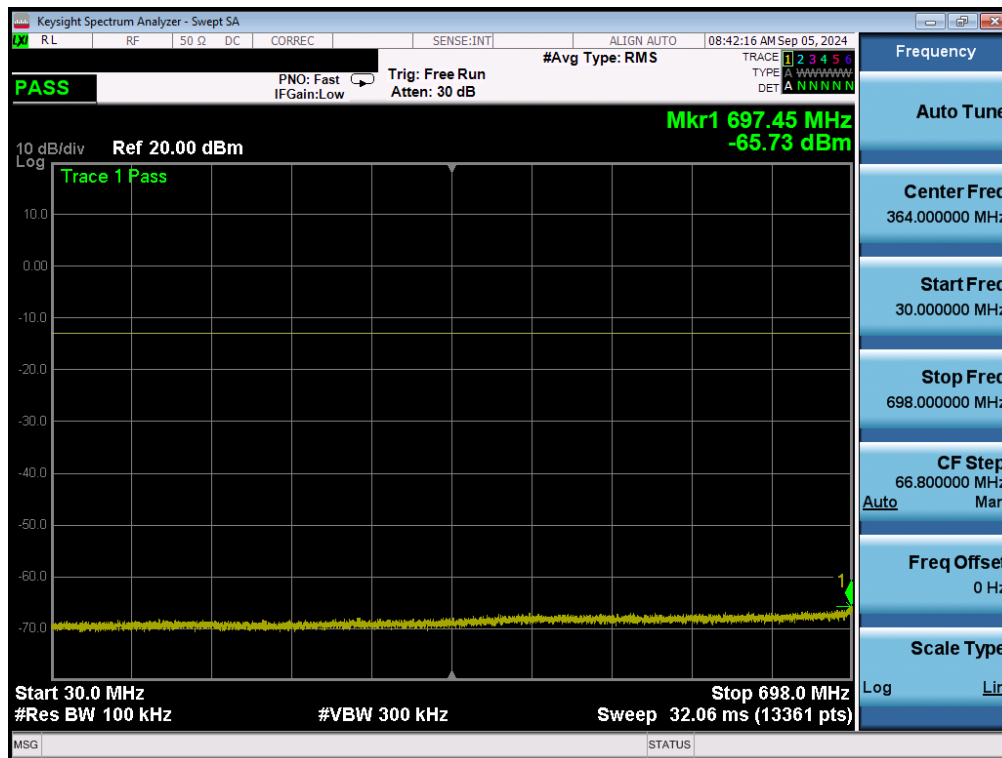


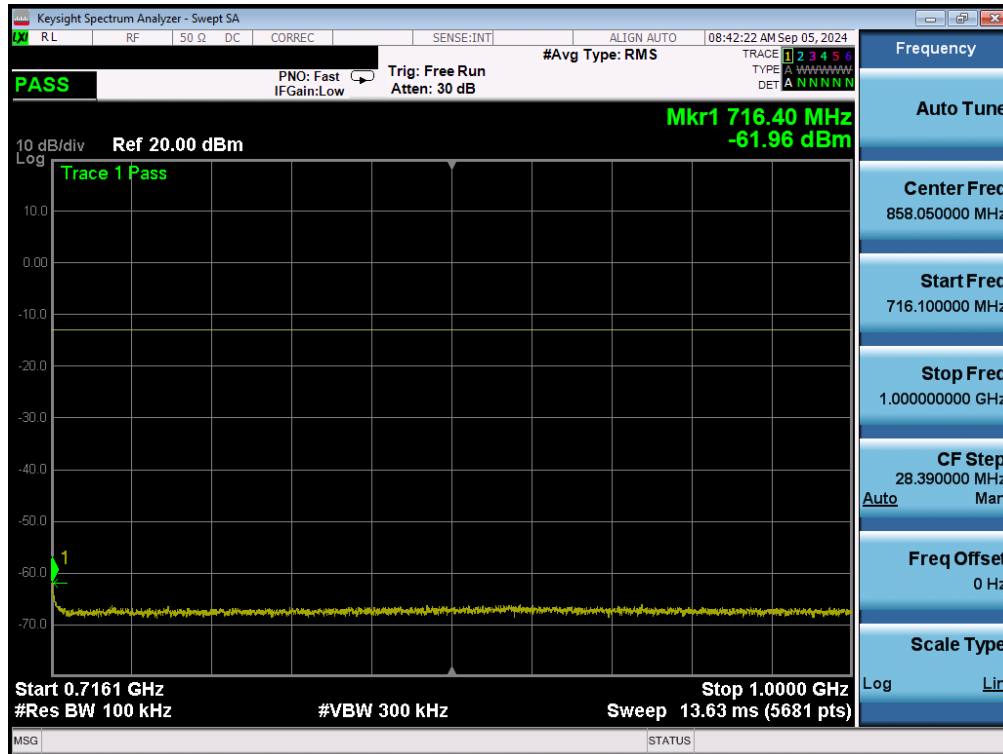


Plot 7-203. Conducted Spurious Plot (LTE Band 71 - 20MHz QPSK - 1 RB - High Channel - ANT1)LTE Band 12 – ANT1

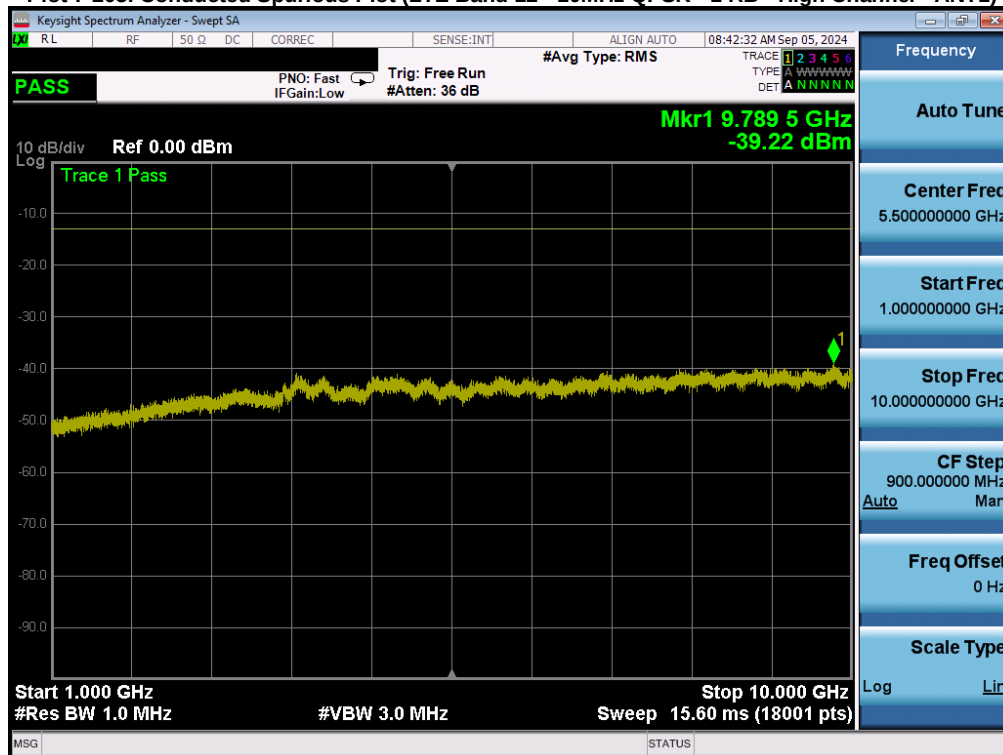


Plot 7-204. Conducted Spurious Plot (LTE Band 12 - 10MHz QPSK - 1 RB - High Channel - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 132 of 272                   |



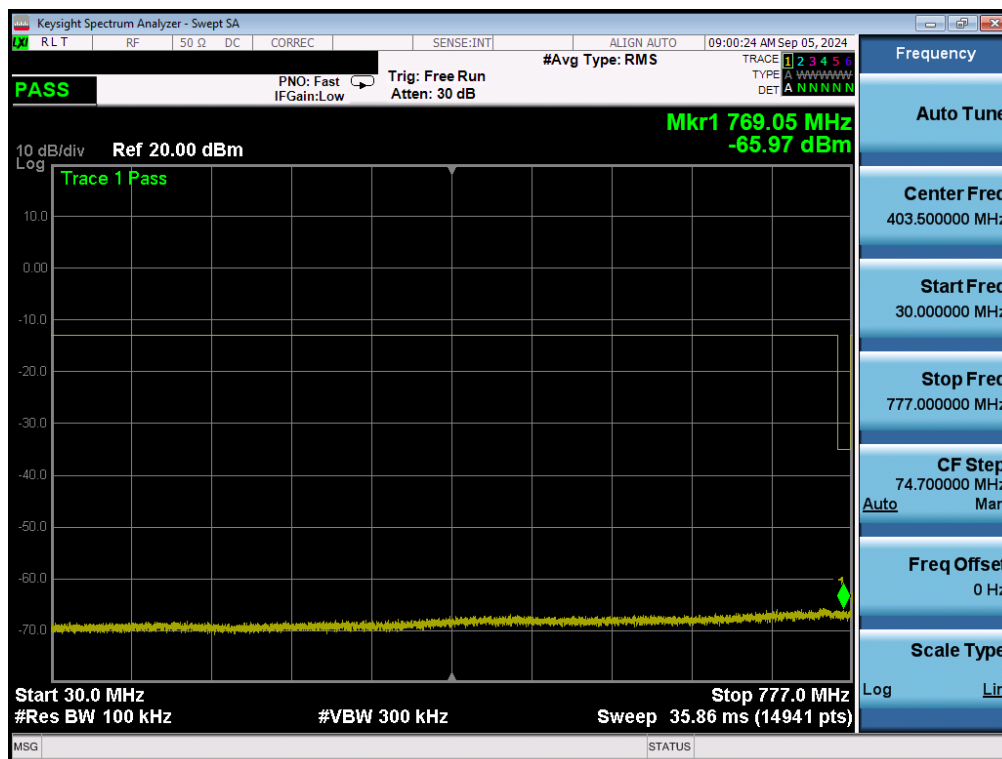
Plot 7-205. Conducted Spurious Plot (LTE Band 12 - 10MHz QPSK - 1 RB - High Channel - ANT1)



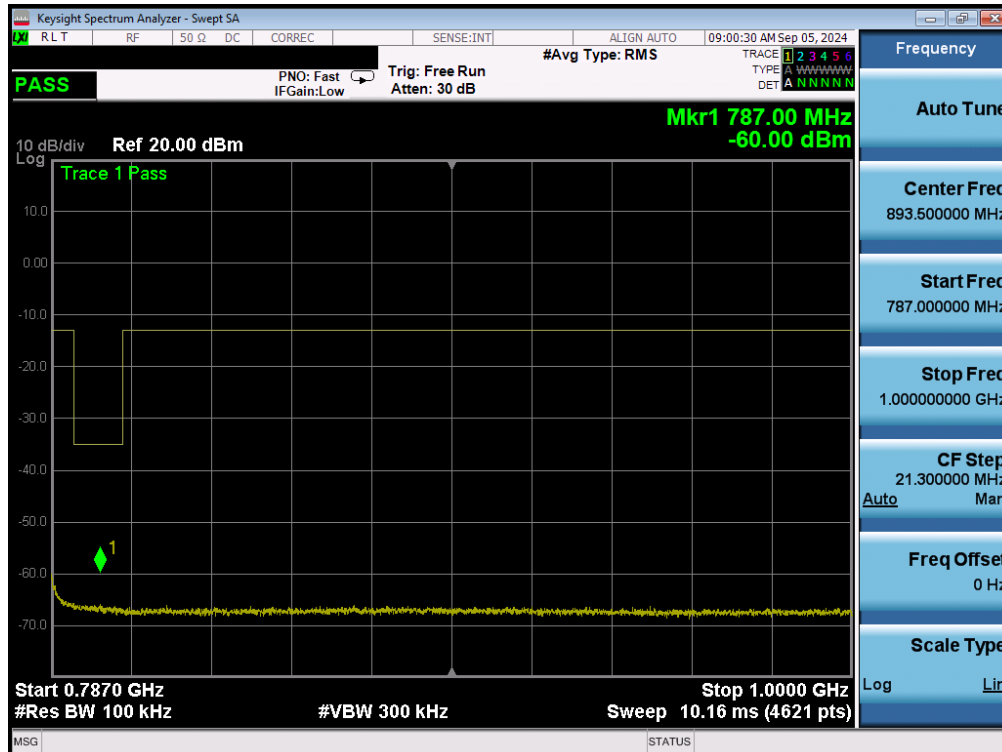
Plot 7-206. Conducted Spurious Plot (LTE Band 12 - 10MHz QPSK - 1 RB - High Channel - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 133 of 272                   |

## LTE Band 13 – ANT1



Plot 7-207. Conducted Spurious Plot (LTE Band 13 - 10MHz QPSK - 1 RB)



Plot 7-208. Conducted Spurious Plot (LTE Band 13 - 10MHz QPSK - 1 RB)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 134 of 272                   |



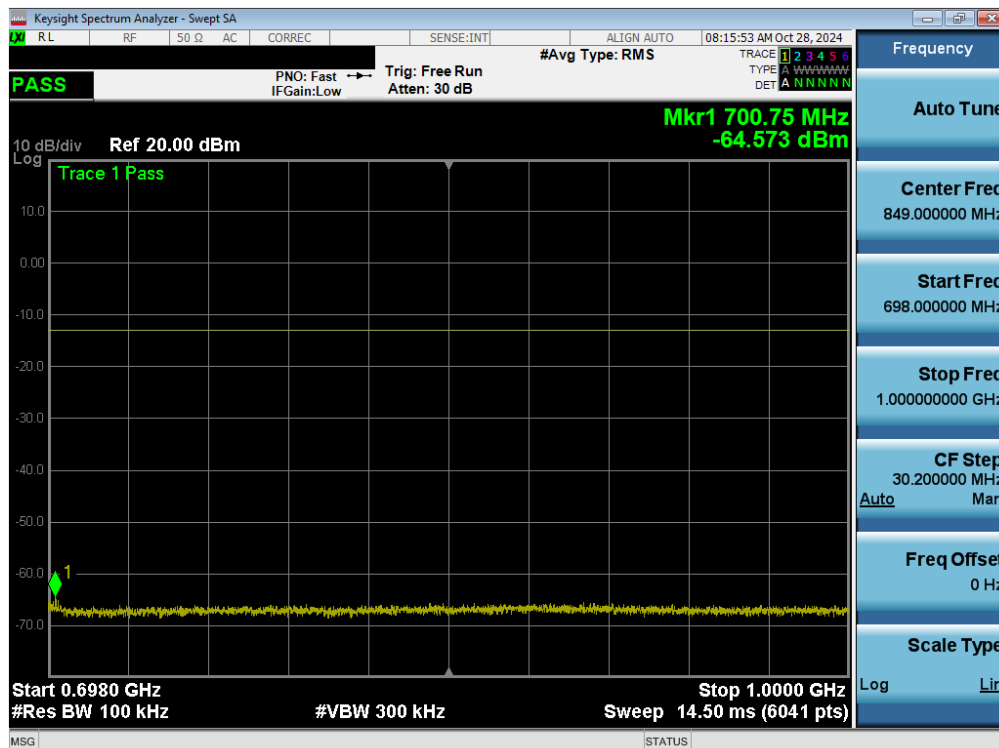
Plot 7-209. Conducted Spurious Plot (LTE Band 13 - 10MHz QPSK - 1 RB)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 135 of 272                   |

## NR Band n71 – ANT1



Plot 7-210. Conducted Spurious Plot (NR Band n71 - 35MHz - 1 RB - ANT1)



Plot 7-211. Conducted Spurious Plot (NR Band n71 - 35MHz - 1 RB - ANT1)

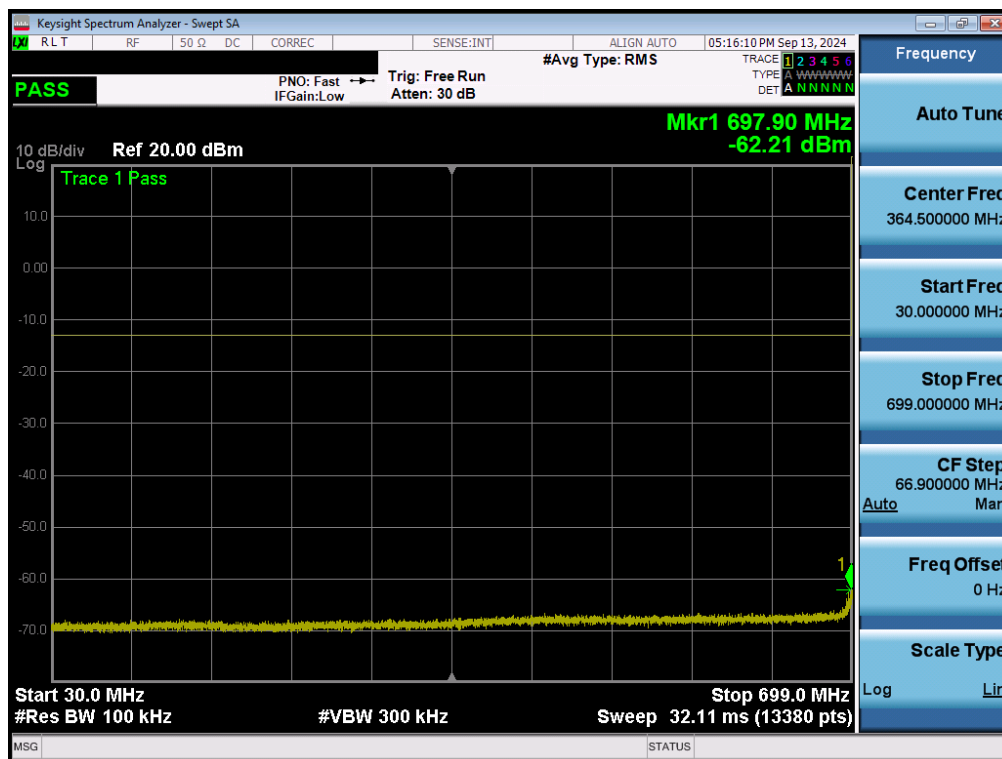
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 136 of 272                   |



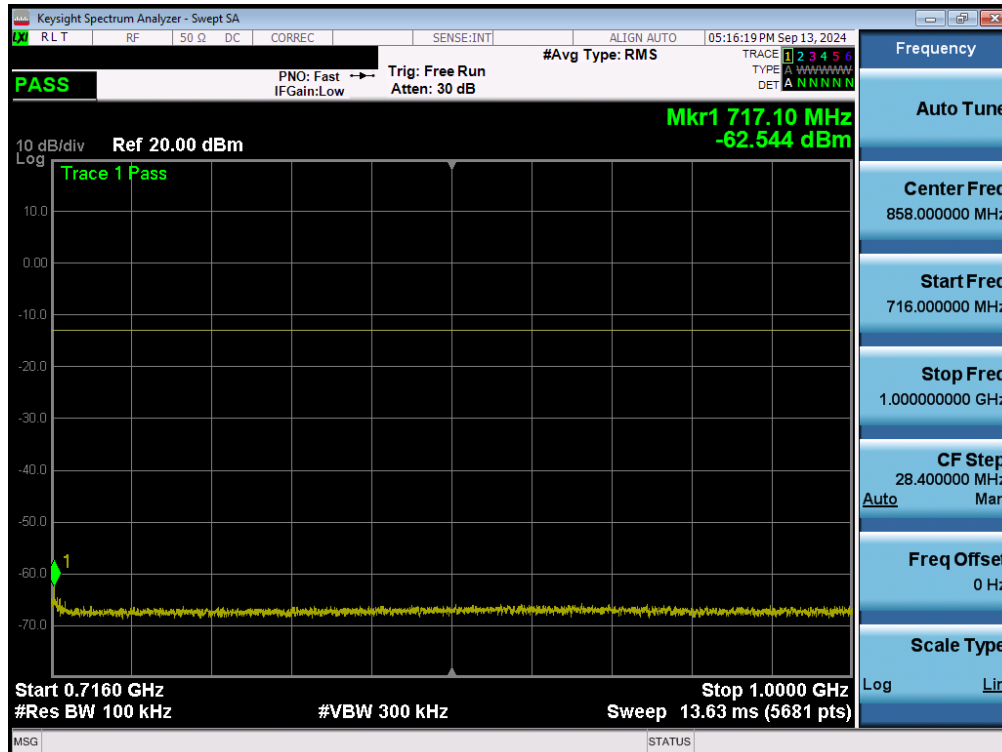
Plot 7-212. Conducted Spurious Plot (NR Band n71 - 35MHz - 1 RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 137 of 272                   |

## NR Band n12 – ANT1

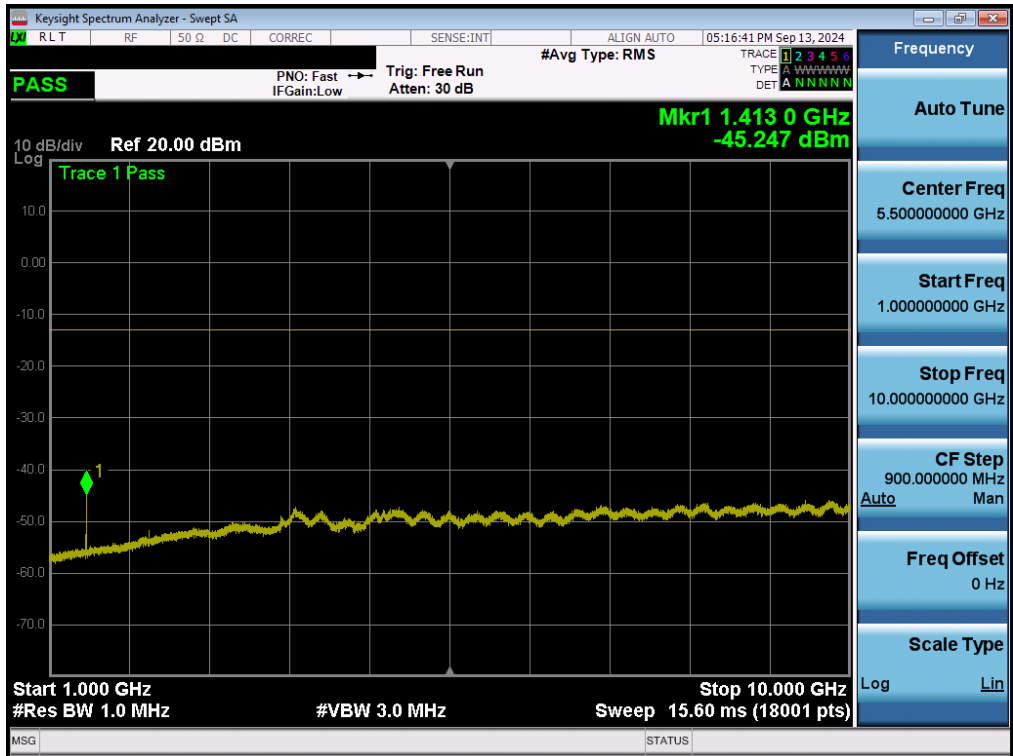


Plot 7-213. Conducted Spurious Plot (NR Band n12 - 15.0MHz - 1 RB - Low Channel - ANT1)



Plot 7-214. Conducted Spurious Plot (NR Band n12 - 15.0MHz - 1 RB - Low Channel - ANT1)

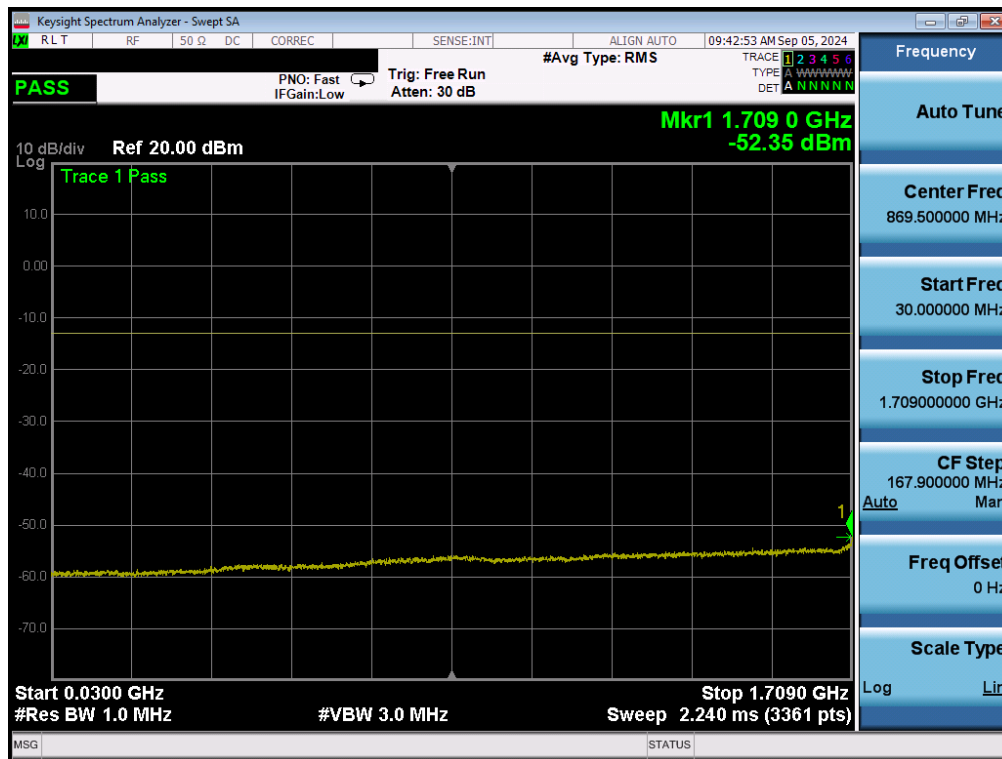
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 138 of 272                   |



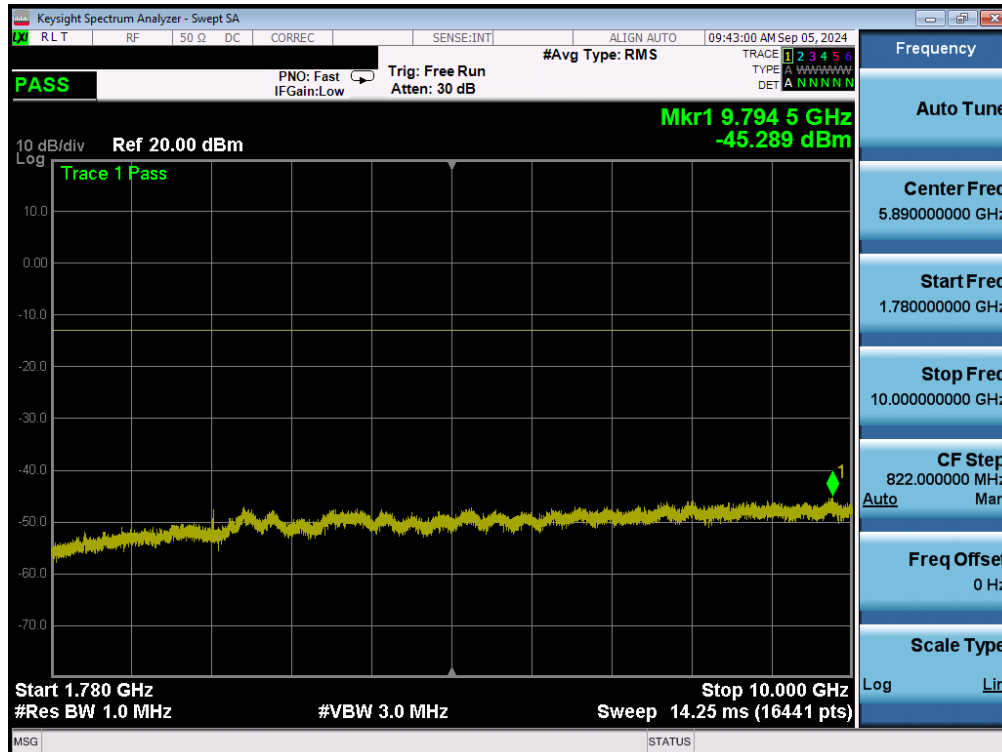
Plot 7-215. Conducted Spurious Plot (NR Band n12 - 15.0MHz - 1 RB - Low Channel - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 139 of 272                   |

## LTE Band 66/4 – ANT1

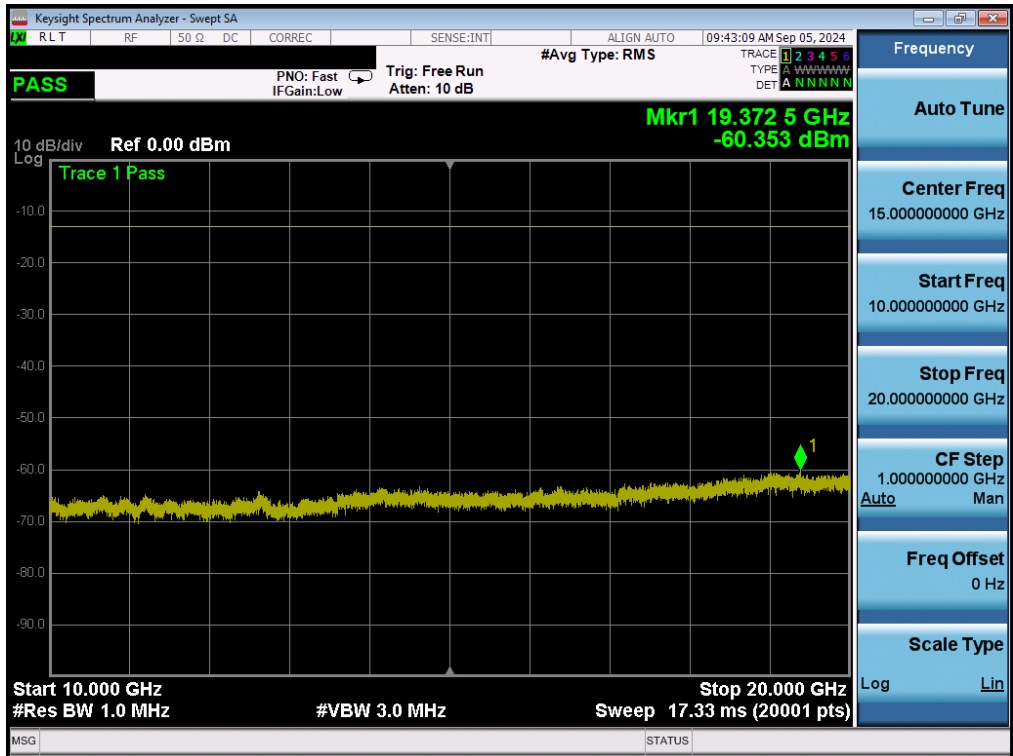


Plot 7-216. Conducted Spurious Plot (LTE Band 66/4 - 20MHz QPSK - 1 RB – Low Channel)



Plot 7-217. Conducted Spurious Plot (LTE Band 66/4 - 20MHz QPSK - 1 RB – Low Channel)

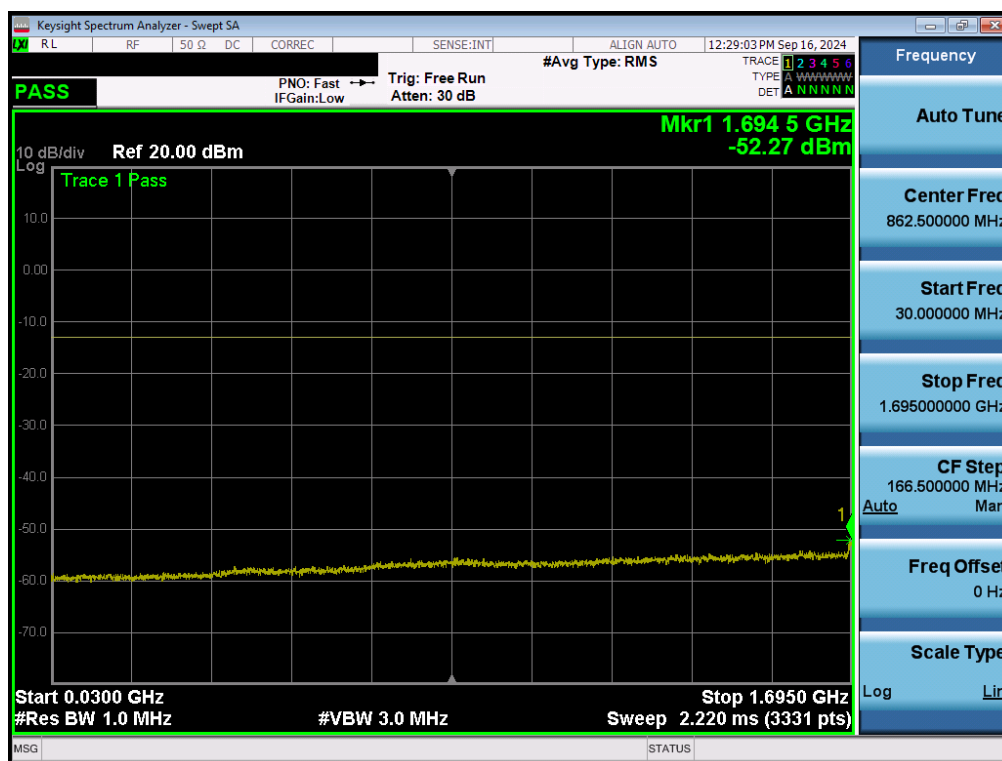
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 140 of 272                   |



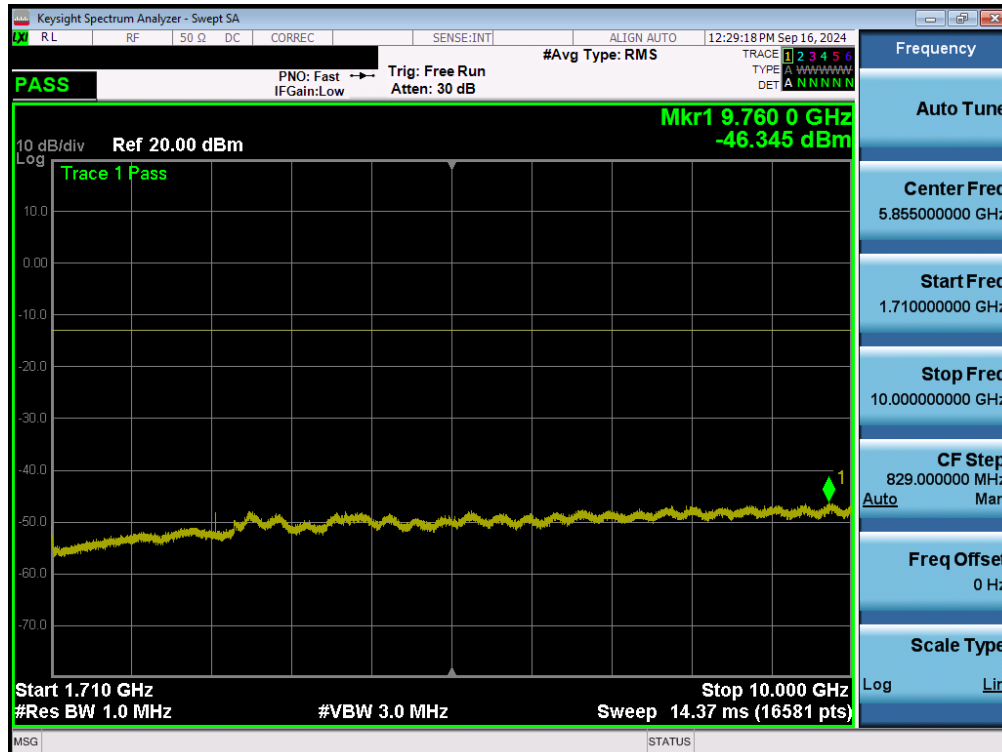
Plot 7-218. Conducted Spurious Plot (LTE Band 66/4 - 20MHz QPSK - 1 RB – Low Channel)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 141 of 272                   |

## NR Band n70 – ANT1



Plot 7-219. Conducted Spurious Plot (NR Band n70 - 15.0MHz - 1 RB - Mid Channel - ANT1)



Plot 7-220. Conducted Spurious Plot (NR Band n70 - 15.0MHz - 1 RB - Mid Channel - ANT1)

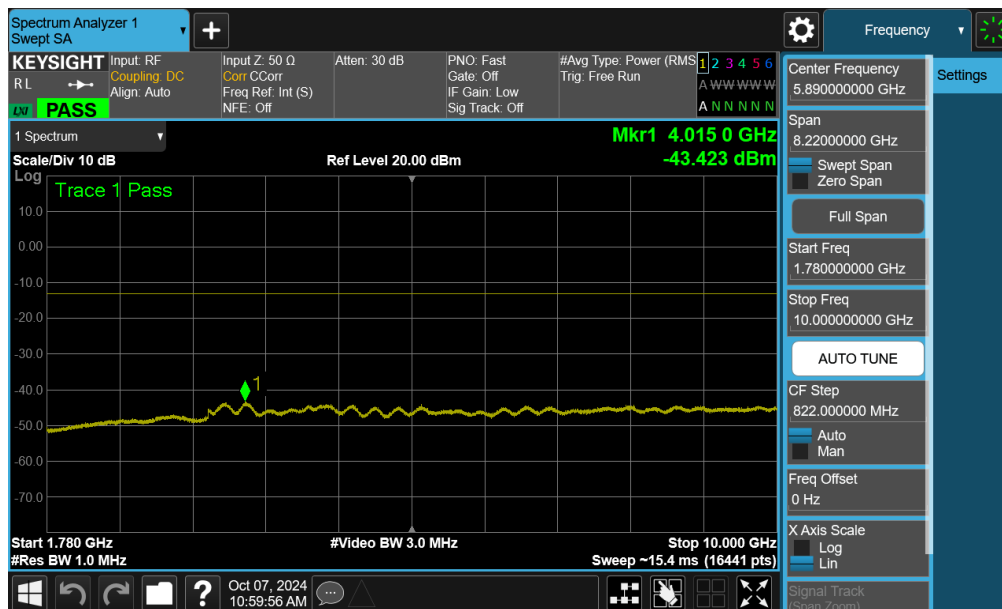
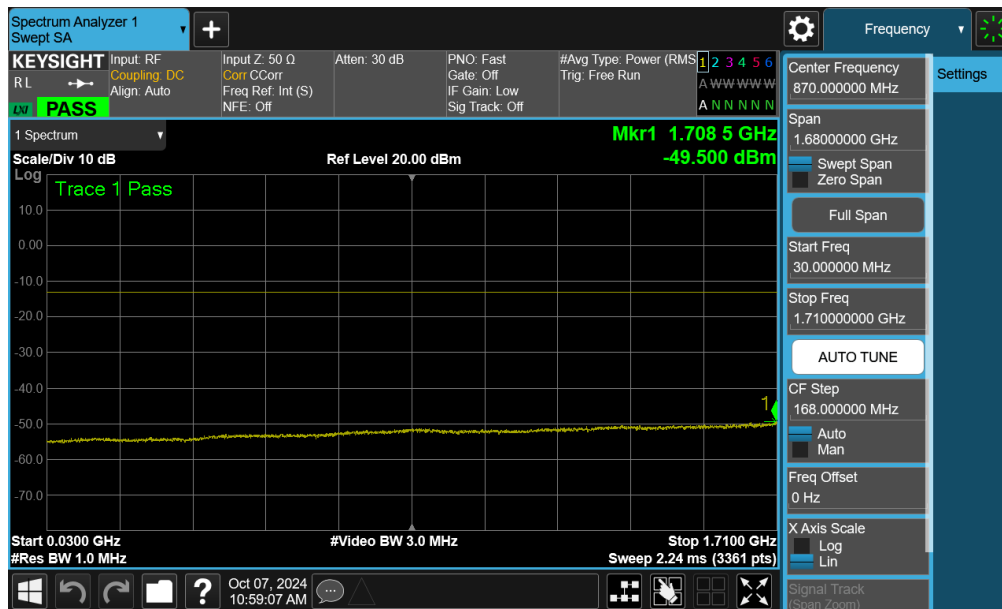
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 142 of 272                   |



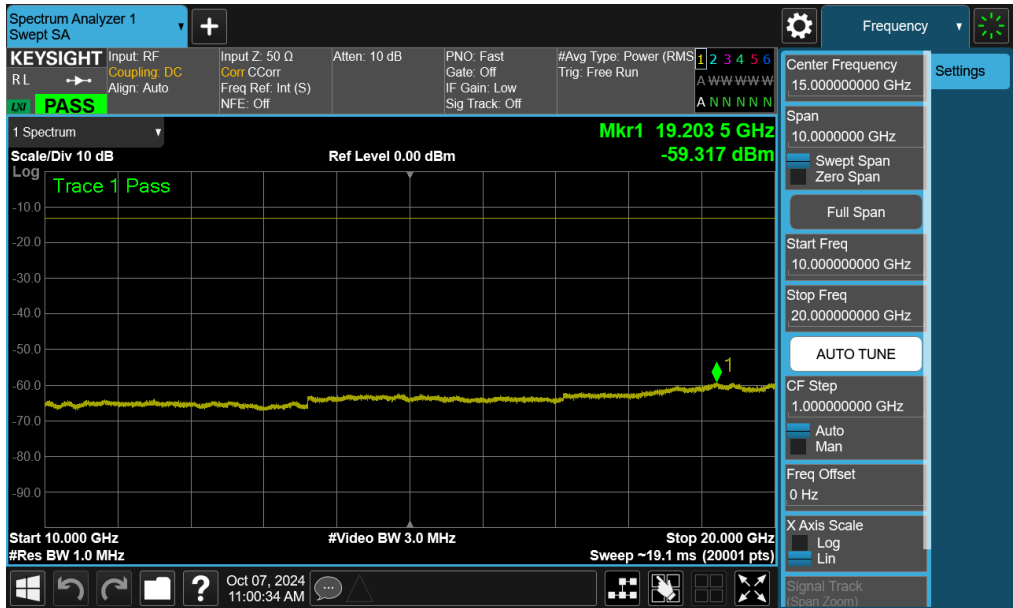
Plot 7-221. Conducted Spurious Plot (NR Band n70 - 15.0MHz - 1 RB - Mid Channel - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 143 of 272                   |

## NR Band n66 – ANT1



|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 144 of 272                   |



Plot 7-224. Conducted Spurious Plot (NR Band n66 - 45.0MHz - 1 RB - Low Channel - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 145 of 272                   |

| Mode        | Bandwidth | Channel | Range [MHz]      | Level [dBm] | Limit [dBm] | Margin [dB] |
|-------------|-----------|---------|------------------|-------------|-------------|-------------|
| LTE Band 71 | 20 MHz    | Low     | 30.0 - 662.0     | -63.69      | -13         | -50.69      |
|             |           | Low     | 698.0 - 1000.0   | -65.79      | -13         | -52.79      |
|             |           | Low     | 1000.0 - 10000.0 | -39.27      | -13         | -26.27      |
|             |           | Mid     | 30.0 - 663.0     | -63.77      | -13         | -50.77      |
|             |           | Mid     | 698.0 - 1000.0   | -65.73      | -13         | -52.73      |
|             |           | Mid     | 1000.0 - 10000.0 | -39.39      | -13         | -26.39      |
|             |           | High    | 30.0 - 663.0     | -64.18      | -13         | -51.18      |
|             |           | High    | 699.0 - 1000.0   | -65.12      | -13         | -52.12      |
|             |           | High    | 1000.0 - 10000.0 | -39.95      | -13         | -26.95      |
| LTE Band 12 | 10 MHz    | Low     | 30.0 - 697.9     | -63.47      | -13         | -50.47      |
|             |           | Low     | 716.0 - 1000.0   | -65.72      | -13         | -52.72      |
|             |           | Low     | 1000.0 - 10000.0 | -44.67      | -13         | -31.67      |
|             |           | Mid     | 30.0 - 698.0     | -65.12      | -13         | -52.12      |
|             |           | Mid     | 716.0 - 1000.0   | -65.38      | -13         | -52.38      |
|             |           | Mid     | 1000.0 - 10000.0 | -45.83      | -13         | -32.83      |
|             |           | High    | 30.0 - 697.9     | -65.61      | -13         | -52.61      |
|             |           | High    | 716.1 - 1000.0   | -62.32      | -13         | -49.32      |
|             |           | High    | 1000.0 - 10000.0 | -45.76      | -13         | -32.76      |
| LTE Band 13 | 10 MHz    | Mid     | 30.0 - 777.0     | -65.40      | -35         | -30.40      |
|             |           | Mid     | 787.0 - 1000.0   | -65.30      | -13         | -52.30      |
|             |           | Mid     | 1000.0 - 20000.0 | -41.04      | -13         | -28.04      |

Table 7-12. Conducted Spurious Emissions Results – Ant2

| Mode        | Bandwidth | Channel | Range [MHz]      | Level [dBm] | Limit [dBm] | Margin [dB] |
|-------------|-----------|---------|------------------|-------------|-------------|-------------|
| NR Band n71 | 35 MHz    | Mid     | 30.0 - 663.0     | -61.73      | -13         | -48.73      |
|             |           | Mid     | 698.0 - 1000.0   | -61.56      | -13         | -48.56      |
|             |           | Mid     | 1000.0 - 10000.0 | -37.39      | -13         | -24.39      |
| NR Band n12 | 15 MHz    | Low     | 30.0 - 698.0     | -62.01      | -13         | -49.01      |
|             |           | Low     | 716.0 - 1000.0   | -62.85      | -13         | -49.85      |
|             |           | Low     | 1000.0 - 10000.0 | -42.10      | -13         | -29.10      |
|             |           | Mid     | 30.0 - 698.0     | -62.48      | -13         | -49.48      |
|             |           | Mid     | 716.0 - 1000.0   | -63.57      | -13         | -50.57      |
|             |           | Mid     | 1000.0 - 10000.0 | -42.03      | -13         | -29.03      |
|             |           | High    | 30.0 - 698.0     | -62.07      | -13         | -49.07      |
|             |           | High    | 716.0 - 1000.0   | -62.70      | -13         | -49.70      |
|             |           | High    | 1000.0 - 10000.0 | -42.10      | -13         | -29.10      |

Table 7-13. Conducted Spurious Emissions Results – Ant2

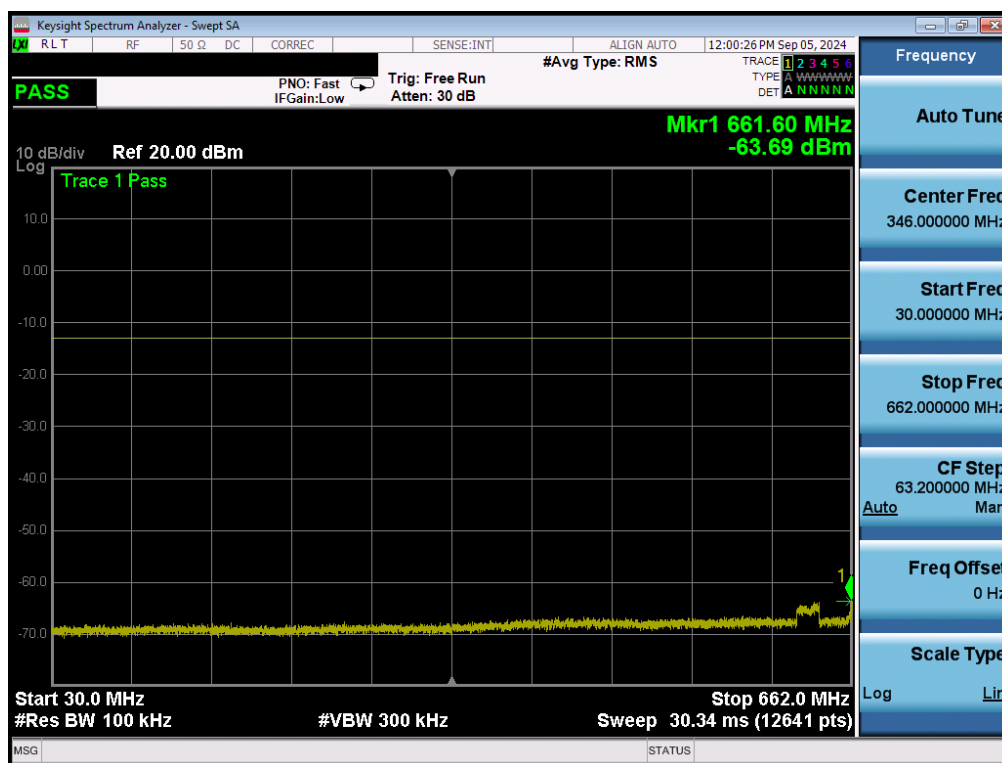
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 146 of 272                   |

| Mode        | Bandwidth | Channel | Range [MHz]       | Level [dBm] | Limit [dBm] | Margin [dB] |
|-------------|-----------|---------|-------------------|-------------|-------------|-------------|
| LTE-B66-4   | 20 MHz    | Low     | 30.0 - 663.0      | -45.24      | -13         | -32.24      |
|             |           | Low     | 698.0 - 1000.0    | -47.52      | -13         | -34.52      |
|             |           | Low     | 1000.0 - 10000.0  | -63.44      | -13         | -50.44      |
|             |           | Mid     | 30.0 - 663.0      | -54.04      | -13         | -41.04      |
|             |           | Mid     | 698.0 - 1000.0    | -47.46      | -13         | -34.46      |
|             |           | Mid     | 1000.0 - 10000.0  | -63.26      | -13         | -50.26      |
|             |           | High    | 30.0 - 663.0      | -53.69      | -13         | -40.69      |
|             |           | High    | 698.0 - 1000.0    | -47.48      | -13         | -34.48      |
|             |           | High    | 1000.0 - 10000.0  | -63.19      | -13         | -50.19      |
| NR Band n70 | 15 MHz    | Mid     | 30.0 - 1695.0     | -52.51      | -13         | -39.51      |
|             |           | Mid     | 1710.0 - 10000.0  | -45.86      | -13         | -32.86      |
|             |           | Mid     | 10000.0 - 20000.0 | -61.16      | -13         | -48.16      |
| NR Band n66 | 45 MHz    | Low     | 30.0 - 1710.0     | -52.57      | -13         | -39.57      |
|             |           | Low     | 1780.0 - 10000.0  | -46.29      | -13         | -33.29      |
|             |           | Low     | 10000.0 - 20000.0 | -61.37      | -13         | -48.37      |
|             |           | Mid     | 30.0 - 1710.0     | -54.05      | -13         | -41.05      |
|             |           | Mid     | 1780.0 - 10000.0  | -46.47      | -13         | -33.47      |
|             |           | Mid     | 10000.0 - 20000.0 | -61.44      | -13         | -48.44      |
|             |           | High    | 30.0 - 1710.0     | -53.98      | -13         | -40.98      |
|             |           | High    | 1780.0 - 10000.0  | -46.56      | -13         | -33.56      |
|             |           | High    | 10000.0 - 20000.0 | -61.88      | -13         | -48.88      |

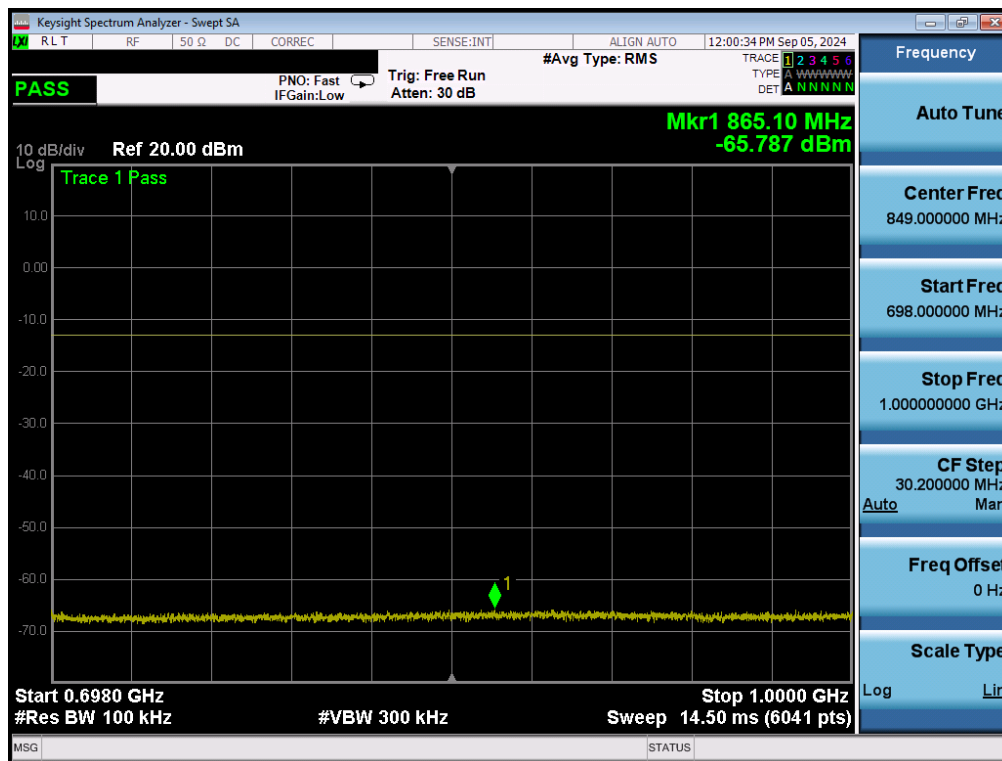
**Table 7-14. Conducted Spurious Emissions Results – Ant2**

|                                                   |                                               |                                      |                                          |
|---------------------------------------------------|-----------------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS938U                         | <b>PART 27 MEASUREMENT REPORT</b>             |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2408260067-03-R1.A3L | <b>Test Dates:</b><br>09/06/2024 - 10/30/2024 | <b>EUT Type:</b><br>Portable Handset | Page 147 of 272                          |

## LTE Band 71 – ANT2

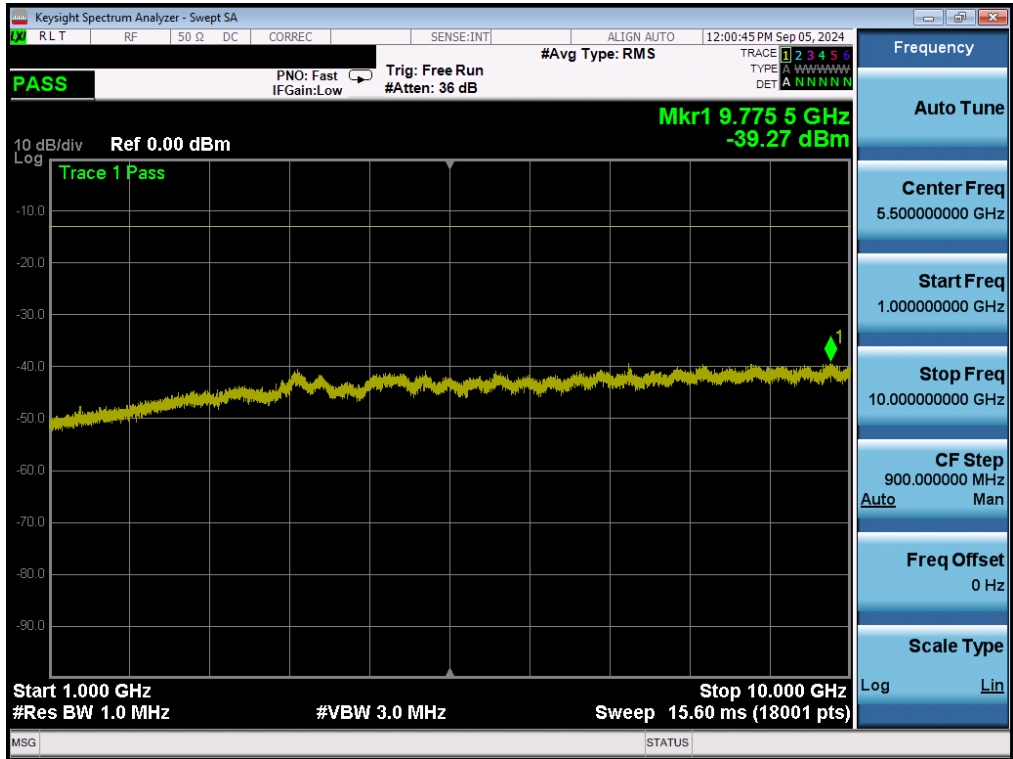


Plot 7-225. Conducted Spurious Plot (LTE Band 71 - 20MHz QPSK - 1 RB - Low Channel - ANT2)



Plot 7-226. Conducted Spurious Plot (LTE Band 71 - 20MHz QPSK - 1 RB - Low Channel - ANT2)

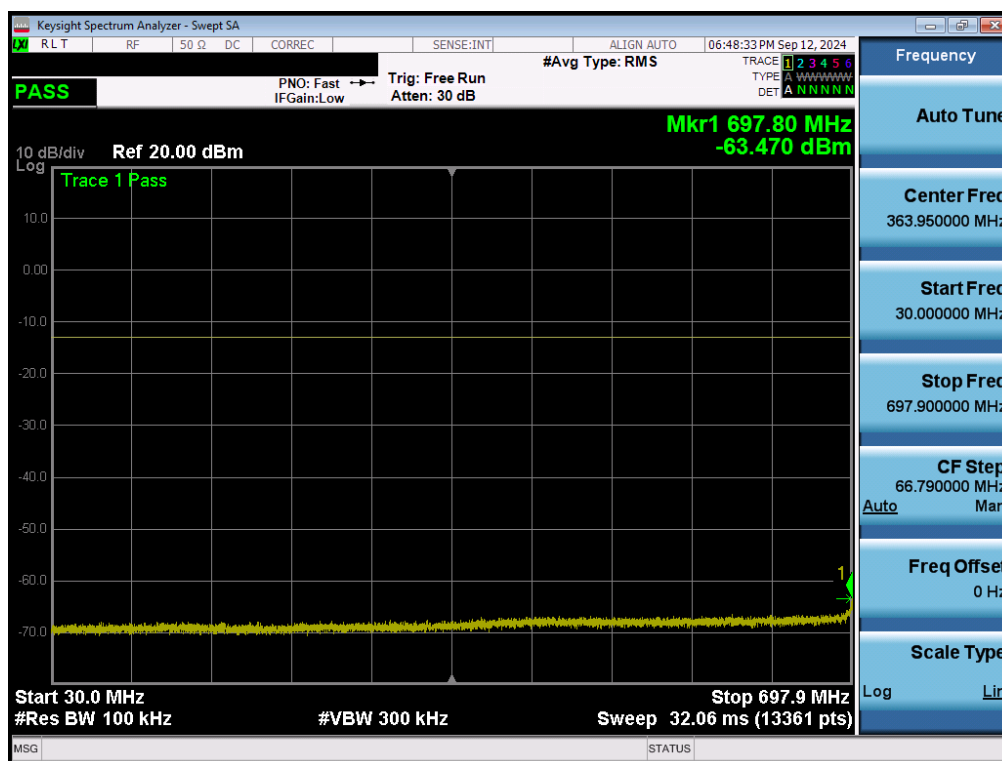
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 148 of 272                   |



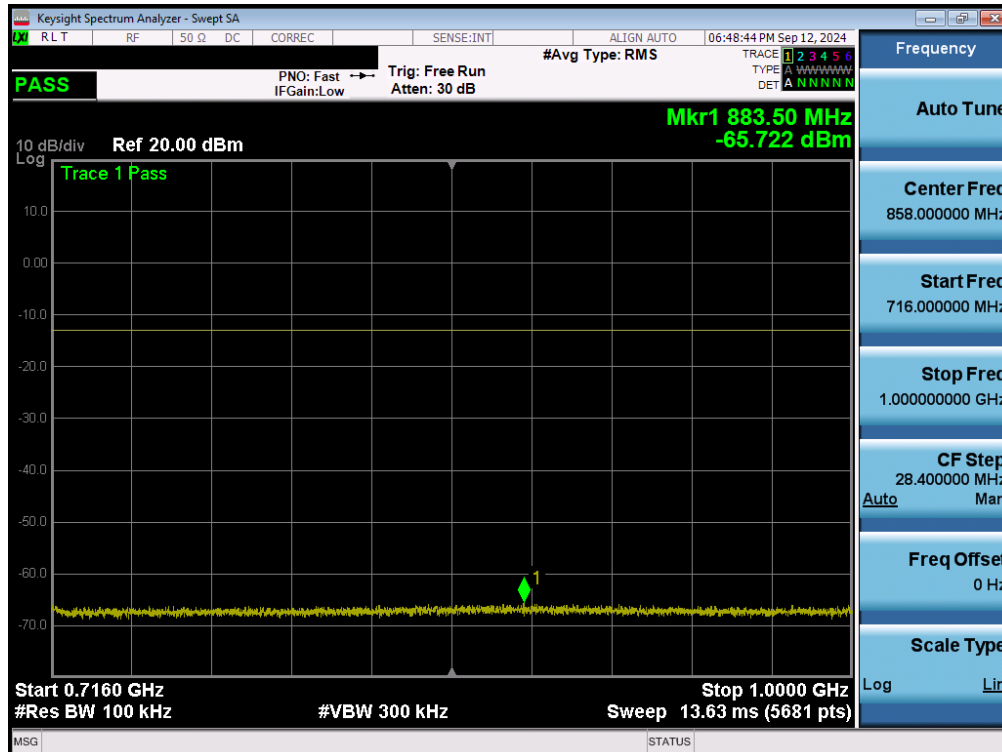
Plot 7-227. Conducted Spurious Plot (LTE Band 71 - 20MHz QPSK - 1 RB - Low Channel - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 149 of 272                   |

## LTE Band 12 – ANT2

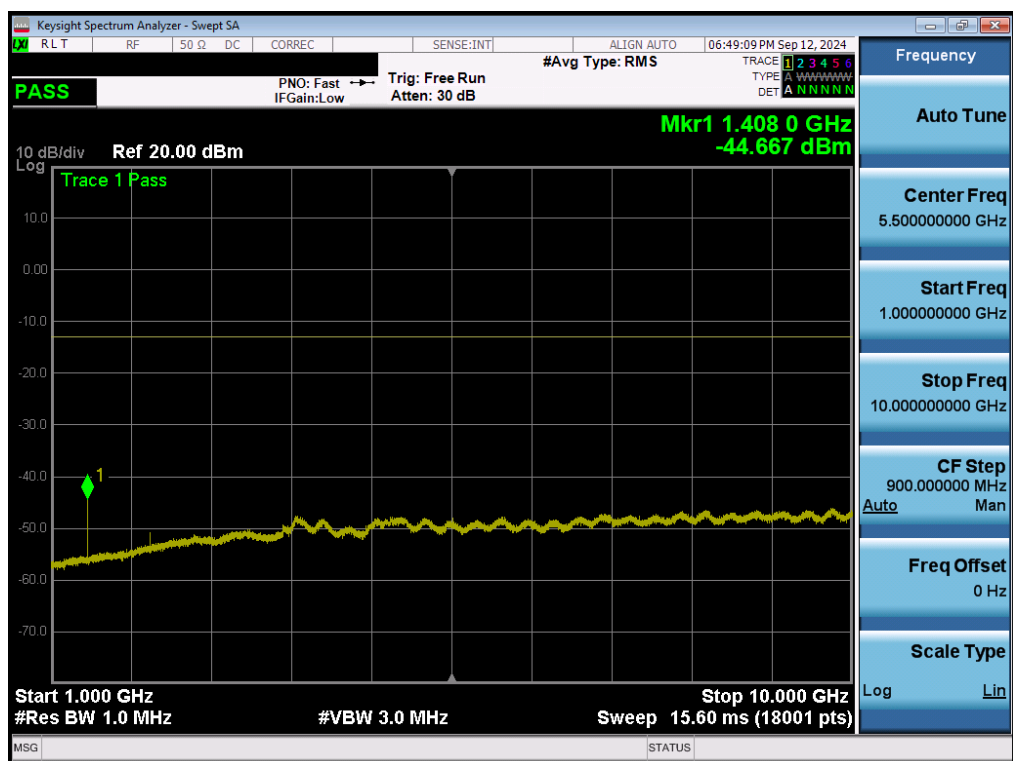


Plot 7-228. Conducted Spurious Plot (LTE Band 12 - 10MHz QPSK - 1 RB - Low Channel - ANT2)



Plot 7-229. Conducted Spurious Plot (LTE Band 12 - 10MHz QPSK - 1 RB - Low Channel - ANT2)

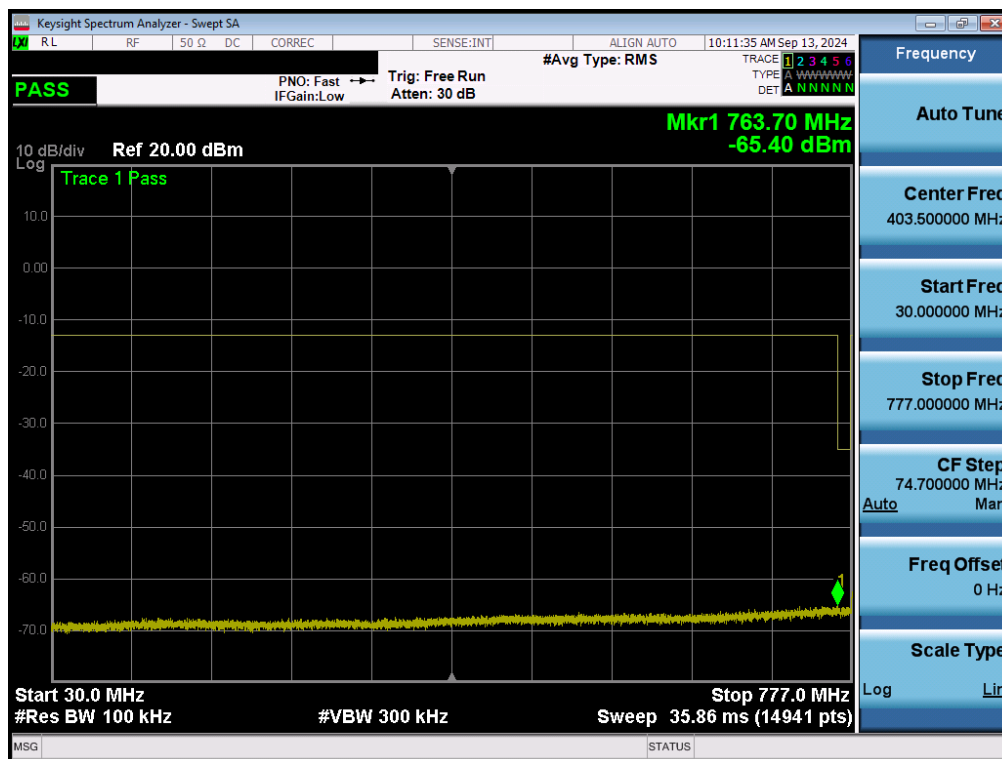
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 150 of 272                   |



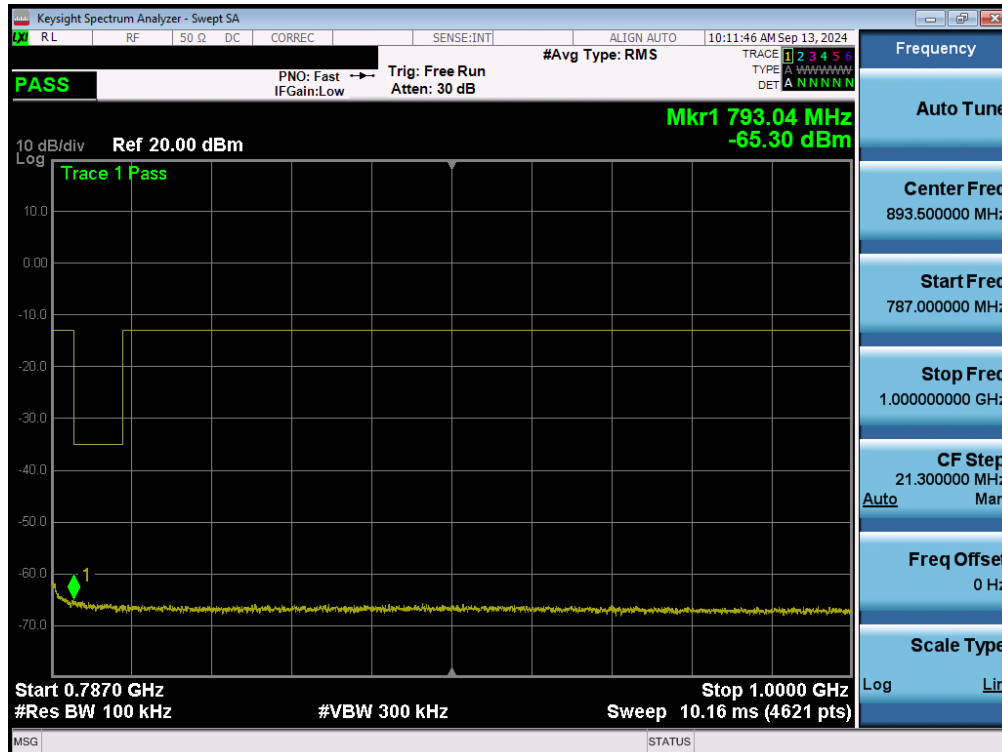
Plot 7-230. Conducted Spurious Plot (LTE Band 12 - 10MHz QPSK - 1 RB - Low Channel - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 151 of 272                   |

## LTE Band 13 – ANT2

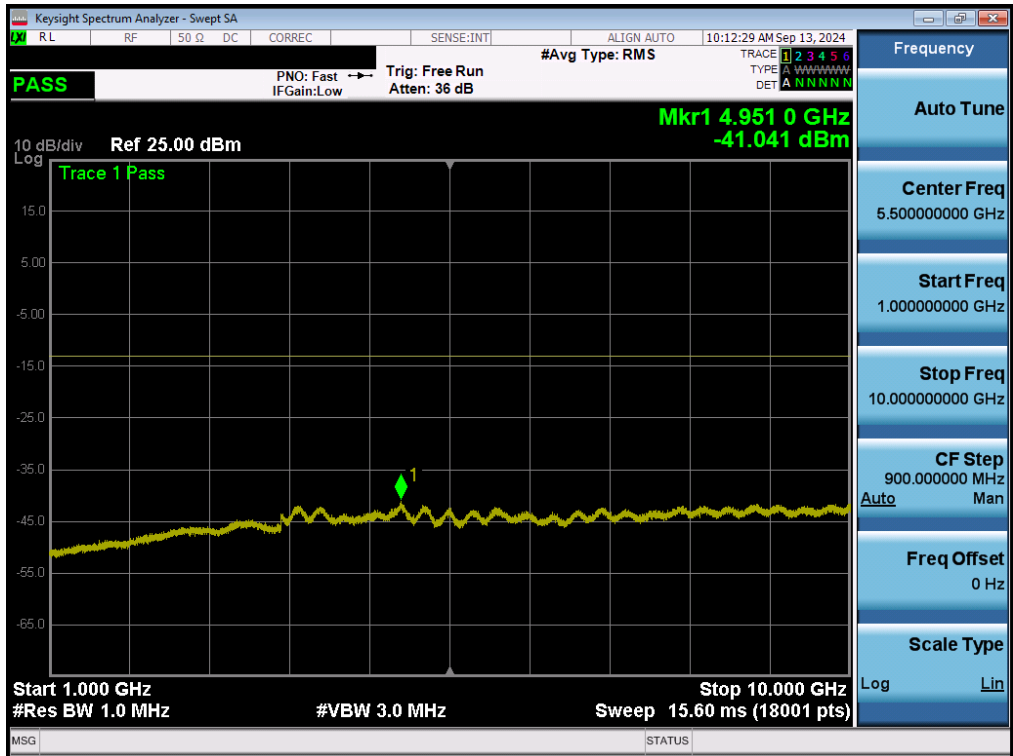


Plot 7-231. Conducted Spurious Plot (LTE Band 13 - 10MHz QPSK - 1 RB)



Plot 7-232. Conducted Spurious Plot (LTE Band 13 - 10MHz QPSK - 1 RB)

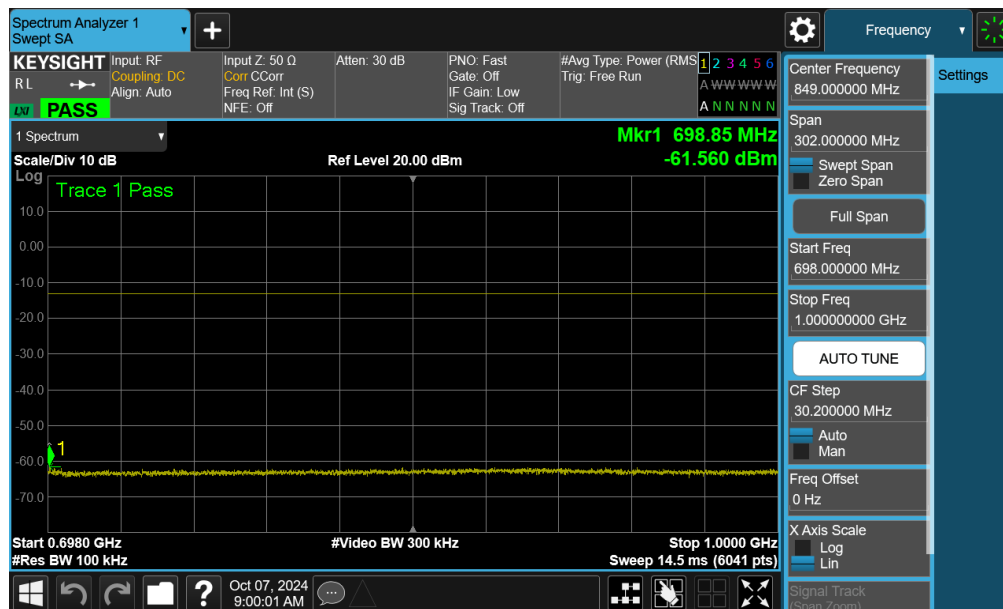
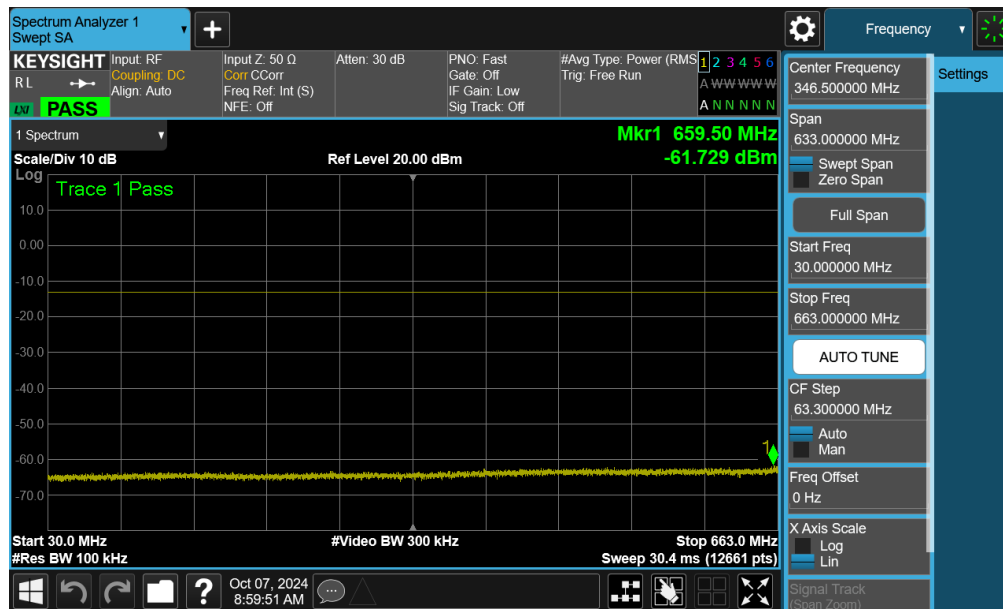
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 152 of 272                   |



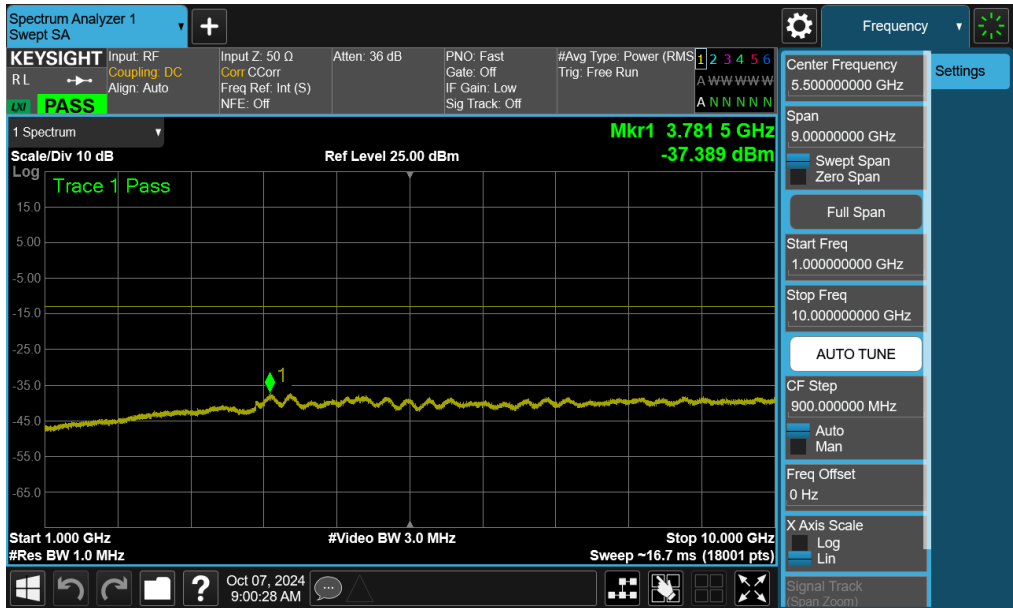
Plot 7-233. Conducted Spurious Plot (LTE Band 13 - 10MHz QPSK - 1 RB)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 153 of 272                   |

## NR Band n71 – ANT2



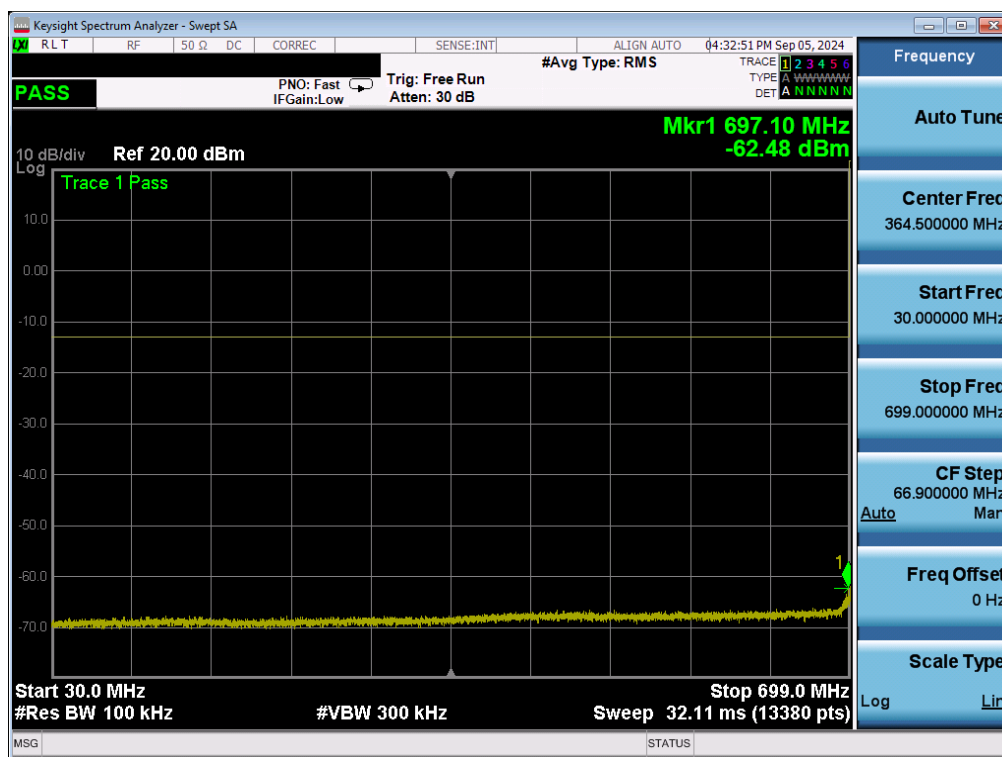
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 154 of 272                   |



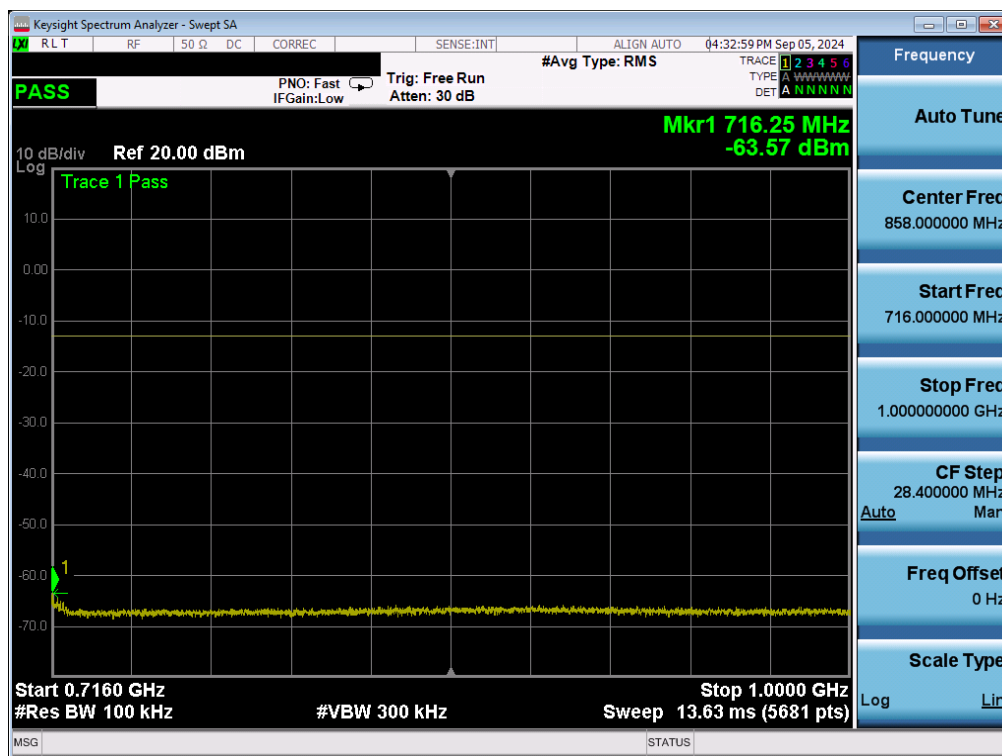
Plot 7-236. Conducted Spurious Plot (NR Band n71 - 35MHz - 1 RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 155 of 272                   |

## NR Band n12 – ANT2

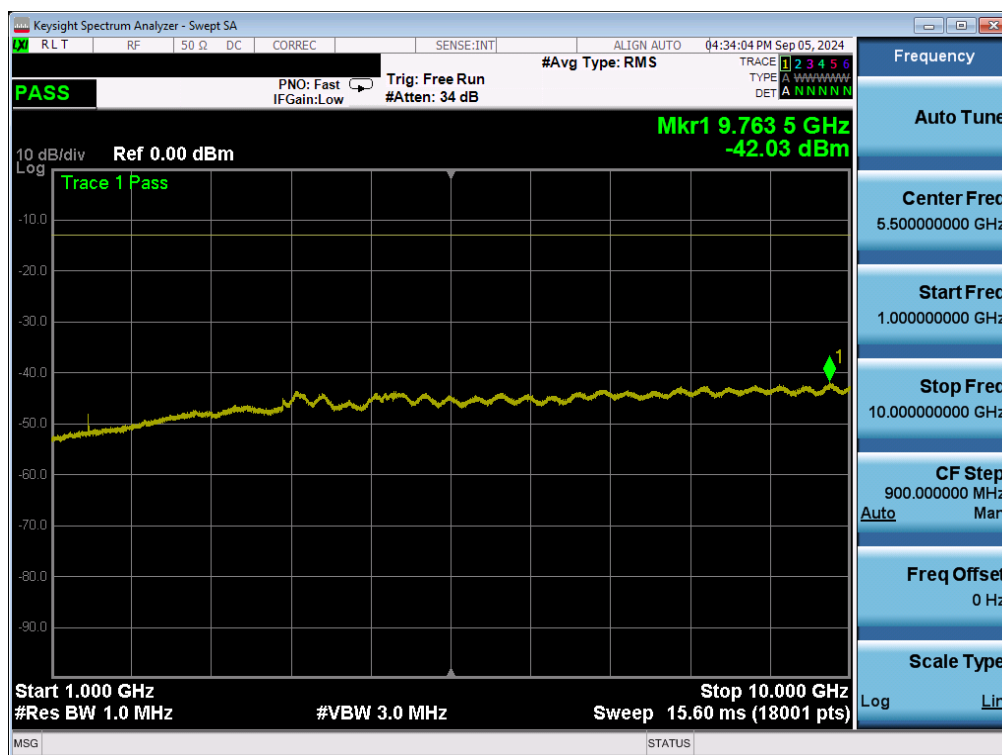


Plot 7-237. Conducted Spurious Plot (NR Band n12 - 15.0MHz - 1 RB - Mid Channel - ANT2)



Plot 7-238. Conducted Spurious Plot (NR Band n12 - 15.0MHz - 1 RB - Mid Channel - ANT2)

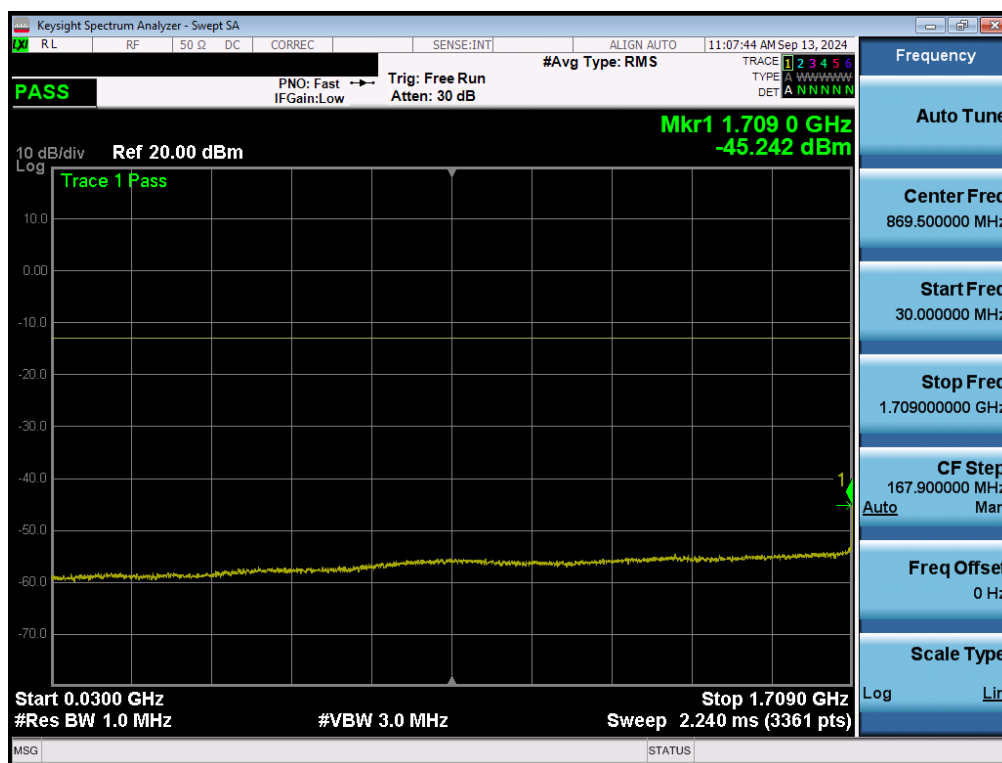
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 156 of 272                   |



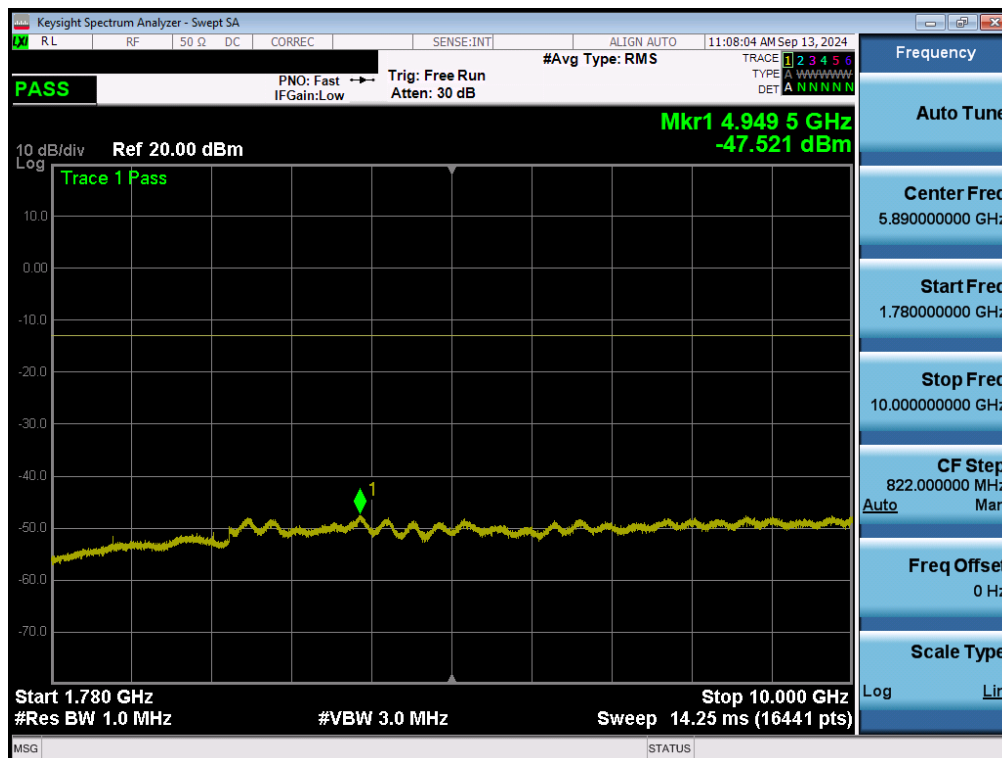
Plot 7-239. Conducted Spurious Plot (NR Band n12 - 15.0MHz - 1 RB – Mid Channel - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 157 of 272                   |

## LTE Band 66/4 – ANT2

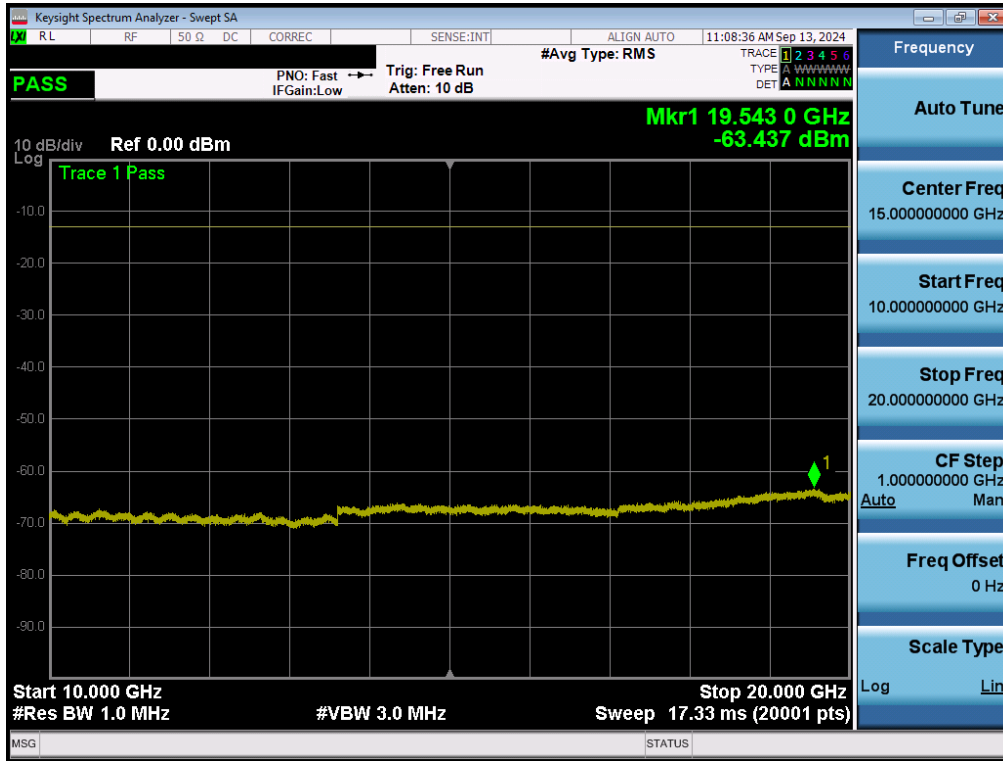


Plot 7-240. Conducted Spurious Plot (LTE Band 66/4 - 20MHz QPSK - 1 RB – Low Channel)



Plot 7-241. Conducted Spurious Plot (LTE Band 66/4 - 20MHz QPSK - 1 RB – Low Channel)

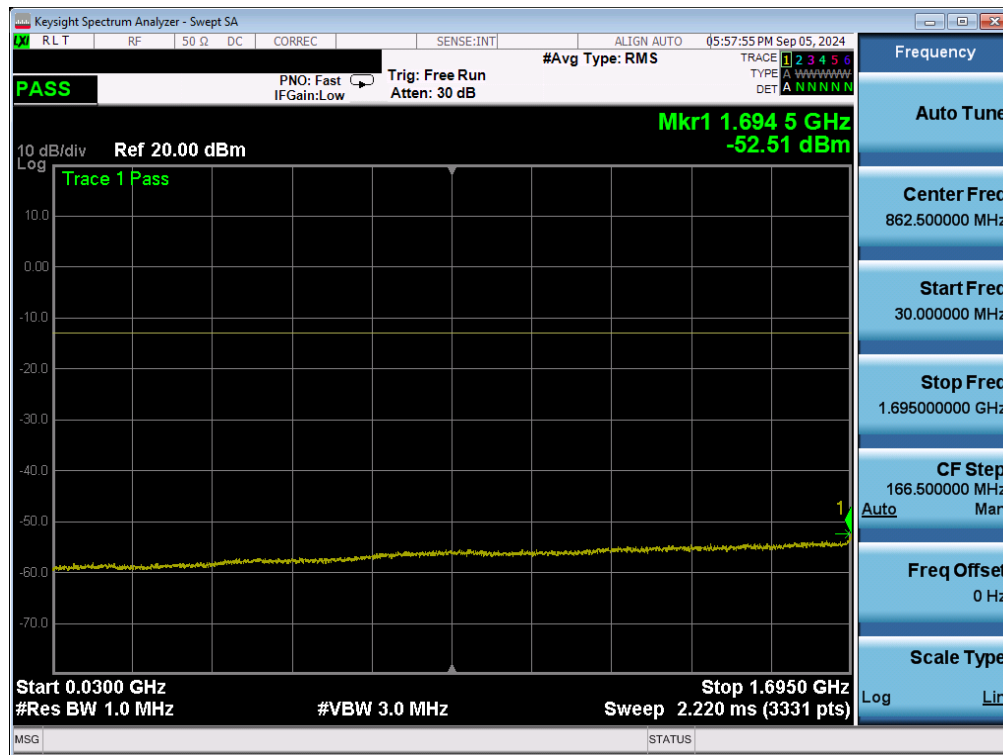
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 158 of 272                   |



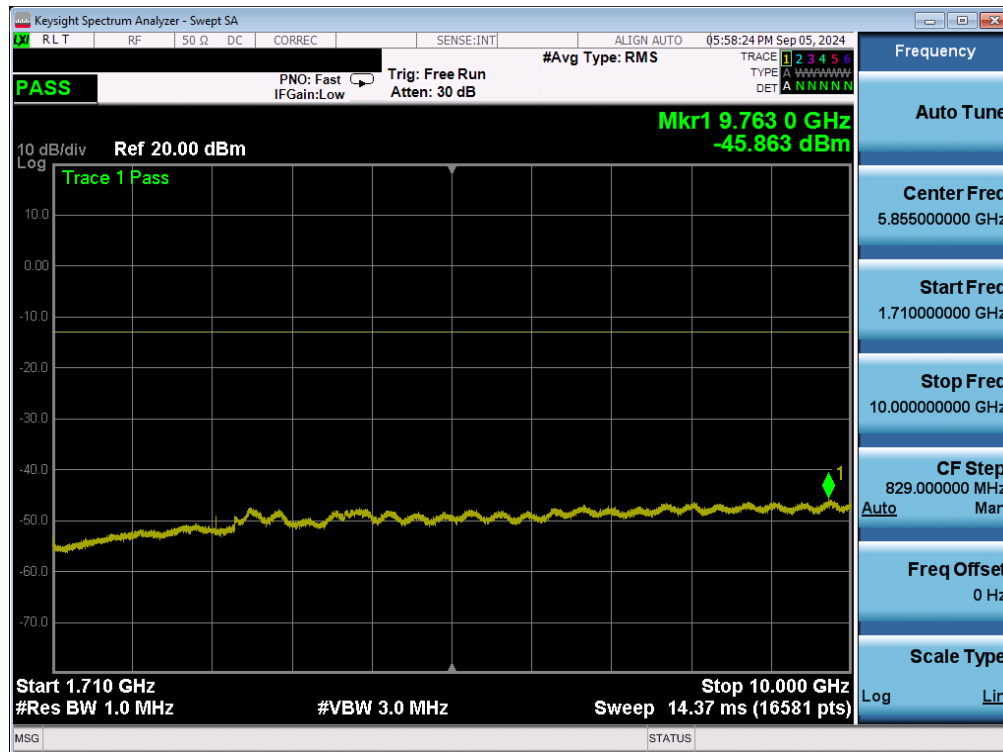
Plot 7-242. Conducted Spurious Plot (LTE Band 66/4 - 20MHz QPSK - 1 RB - Low Channel)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 159 of 272                   |

## NR Band n70 – ANT2

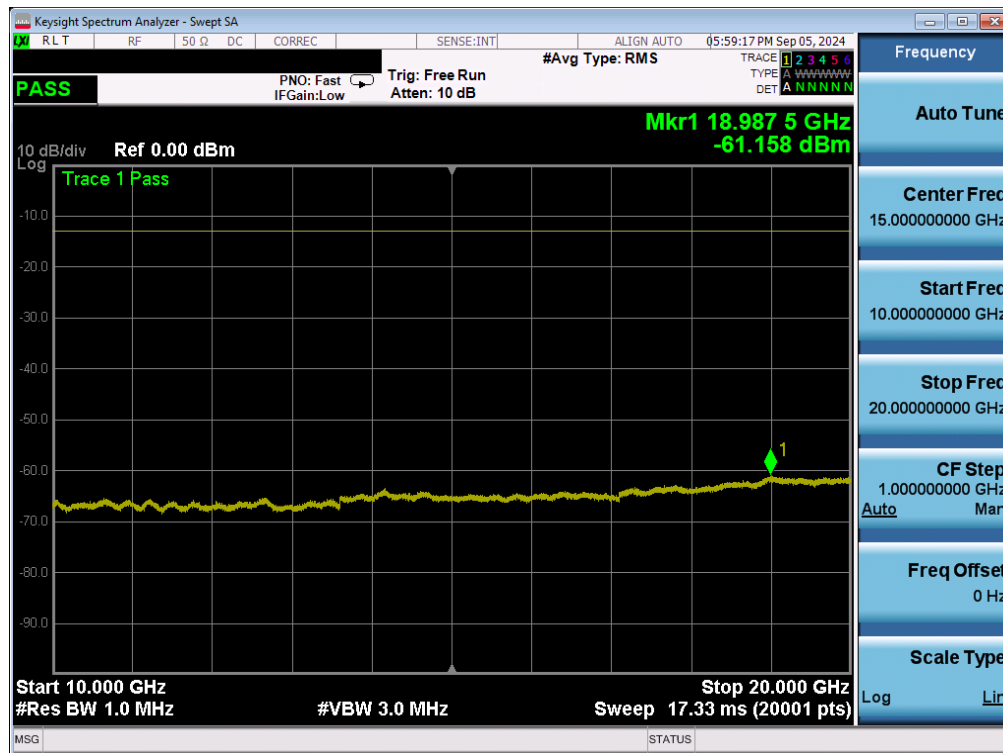


Plot 7-243. Conducted Spurious Plot (NR Band n70 - 15.0MHz - 1 RB - Mid Channel - ANT2)

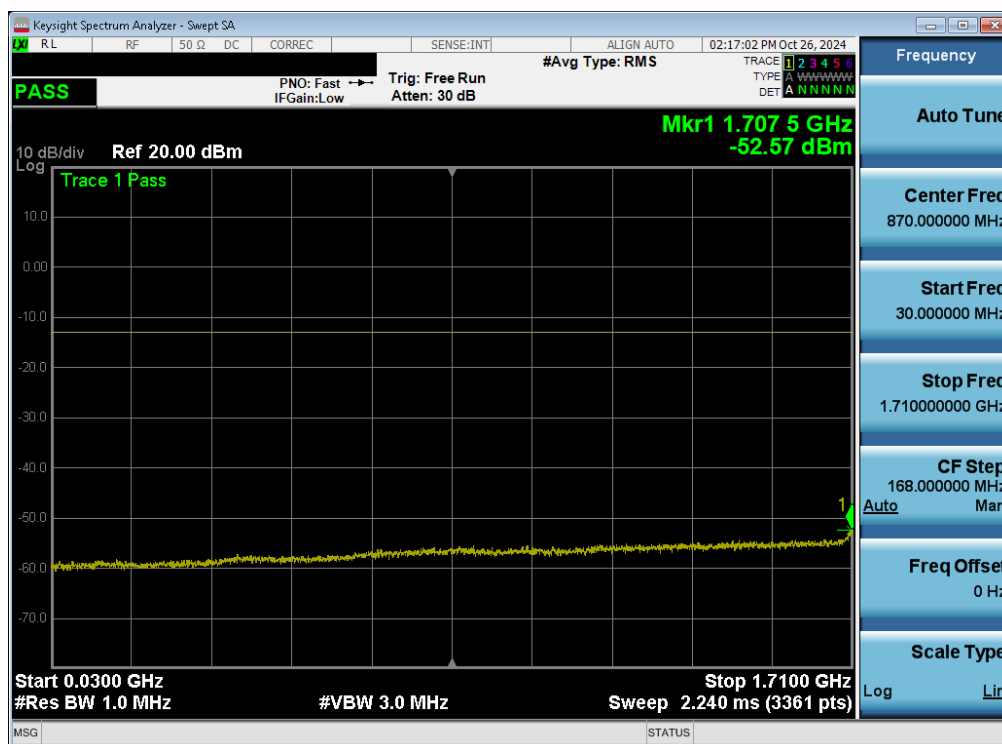


Plot 7-244. Conducted Spurious Plot (NR Band n70 - 15.0MHz - 1 RB - Mid Channel - ANT2)

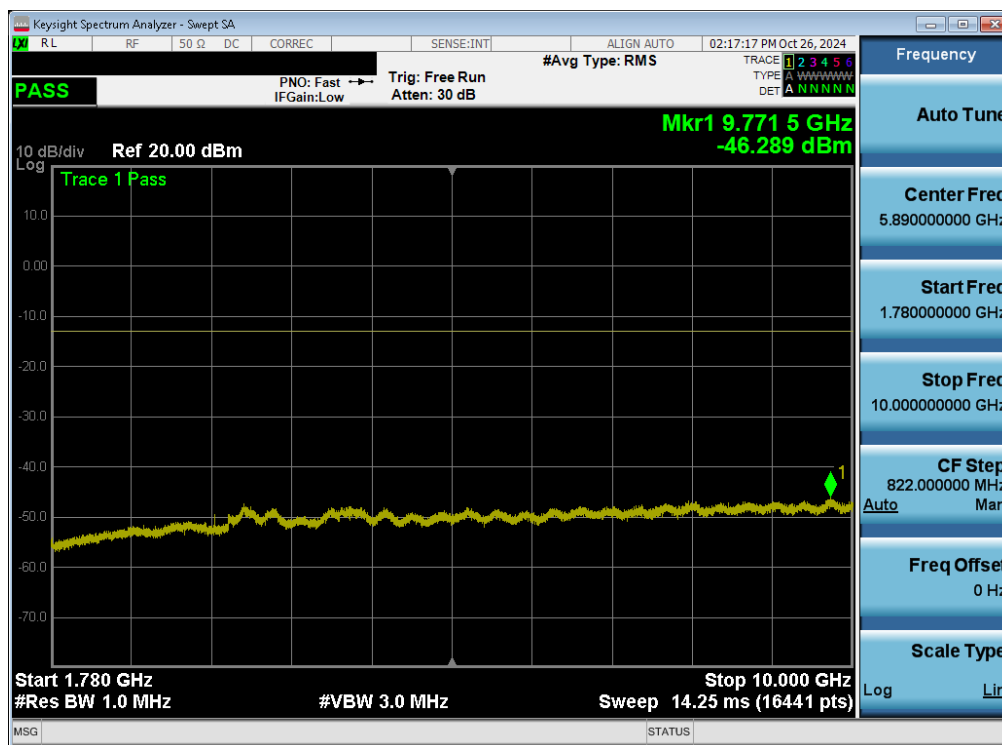
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 160 of 272                   |



## NR Band n66 – ANT2

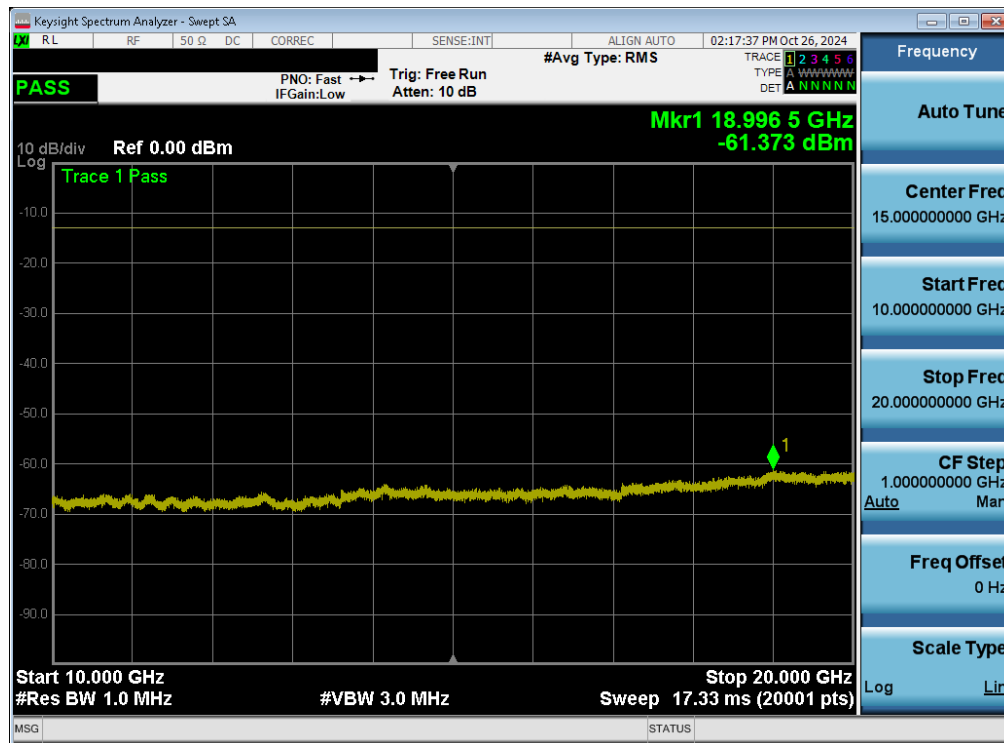


Plot 7-246. Conducted Spurious Plot (NR Band n66 - 45.0MHz - 1 RB - Low Channel - ANT2)



Plot 7-247. Conducted Spurious Plot (NR Band n66 - 45.0MHz - 1 RB - Low Channel - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 162 of 272                   |



|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 163 of 272                   |

## 7.5 Band Edge Emissions at Antenna Terminal

### Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates 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.

***The minimum permissible attenuation level of any spurious emission is  $43 + 10 \log_{10}(P_{\text{Watts}})$ , where  $P$  is the transmitter power in Watts.***

### Test Procedure Used

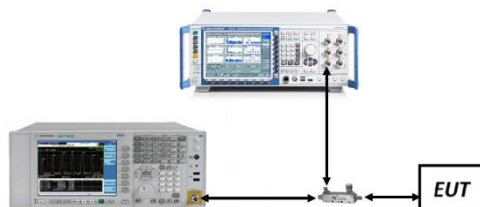
ANSI C63.26-2015 – Section 5.7.3

### Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW  $\geq 1\%$  of the emission bandwidth
4. VBW  $\geq 3 \times$  RBW
5. Detector = RMS
6. Number of sweep points  $\geq 2 \times$  Span/RBW
7. Trace mode = trace average for continuous emissions, max hold for pulse emissions
8. Sweep time = auto couple
9. The trace was allowed to stabilize

### Test Setup

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



**Figure 7-4. Test Instrument & Measurement Setup**

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 164 of 272                   |

## Test Notes

1. Per 27.53(h) for AWS band operation, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.
2. Per 27.53(g) for operations in the 663 - 698 MHz and 698 – 746MHz bands, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.
3. Per 27.53(c)(5) for operations in the 776-788 MHz band, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.
4. For all plots showing emissions in the 763 – 775MHz and 793 – 805MHz band, the FCC limit per 27.53(c)(4) is  $65 + 10 \log_{10}(P) = -35\text{dBm}$  in a 6.25kHz bandwidth.

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 165 of 272                   |

| Mode        | Bandwidth | Channel | Test Case     | Level [dBm] | Limit [dBm] | Margin [dB] |
|-------------|-----------|---------|---------------|-------------|-------------|-------------|
| WCDMA1700   | N/A       | Low     | Band Edge     | -23.25      | -13         | -10.25      |
|             |           | High    | Band Edge     | -24.40      | -13         | -11.40      |
| LTE Band 71 | 20 MHz    | Low     | Band Edge     | -25.30      | -13         | -12.30      |
|             |           | High    | Band Edge     | -26.24      | -13         | -13.24      |
|             | 15 MHz    | Low     | Band Edge     | -24.78      | -13         | -11.78      |
|             |           | High    | Band Edge     | -25.13      | -13         | -12.13      |
|             | 10 MHz    | Low     | Band Edge     | -23.52      | -13         | -10.52      |
|             |           | High    | Band Edge     | -25.90      | -13         | -12.90      |
|             | 5 MHz     | Low     | Band Edge     | -18.96      | -13         | -5.96       |
|             |           | High    | Band Edge     | -20.96      | -13         | -7.96       |
| LTE Band 12 | 10 MHz    | Low     | Band Edge     | -27.05      | -13         | -14.05      |
|             |           | High    | Band Edge     | -28.66      | -13         | -15.66      |
|             | 5 MHz     | Low     | Band Edge     | -20.57      | -13         | -7.57       |
|             |           | High    | Band Edge     | -21.98      | -13         | -8.98       |
|             | 3 MHz     | Low     | Band Edge     | -16.64      | -13         | -3.64       |
|             |           | High    | Band Edge     | -17.74      | -13         | -4.74       |
|             | 1.4 MHz   | Low     | Band Edge     | -24.21      | -13         | -11.21      |
|             |           | High    | Band Edge     | -25.97      | -13         | -12.97      |
| LTE Band 13 | 10 MHz    | Low     | Band Edge     | -27.89      | -13         | -14.89      |
|             |           | Low     | Emission Mask | -64.07      | -13         | -51.07      |
|             |           | High    | Band Edge     | -26.89      | -13         | -13.89      |
|             |           | High    | Emission Mask | -45.69      | -13         | -32.69      |
|             | 5 MHz     | Low     | Band Edge     | -23.31      | -13         | -10.31      |
|             |           | Low     | Emission Mask | -59.11      | -13         | -46.11      |
|             |           | High    | Band Edge     | -22.74      | -13         | -9.74       |
|             |           | High    | EmMask        | -54.56      | -13         | -41.56      |

**Table 7-15. Conducted Band Edge Results – Ant1**

|                                                   |                                               |                                      |                                          |
|---------------------------------------------------|-----------------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS938U                         | <b>PART 27 MEASUREMENT REPORT</b>             |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2408260067-03-R1.A3L | <b>Test Dates:</b><br>09/06/2024 - 10/30/2024 | <b>EUT Type:</b><br>Portable Handset | Page 166 of 272                          |

| Mode          | Bandwidth | Channel    | Test Case | Level [dBm] | Limit [dBm] | Margin [dB] |
|---------------|-----------|------------|-----------|-------------|-------------|-------------|
| LTE Band 66/4 | 20MHz     | Low        | Band Edge | -27.41      | -13         | -14.41      |
|               |           | Low        | Extended  | -23.14      | -13         | -10.14      |
|               |           | High (B4)  | Band Edge | -26.32      | -13         | -13.32      |
|               |           | High (B4)  | Extended  | -24.28      | -13         | -11.28      |
|               |           | High (B66) | Band Edge | -26.63      | -13         | -13.63      |
|               |           | High (B66) | Extended  | -24.25      | -13         | -11.25      |
|               | 15MHz     | Low        | Band Edge | -24.99      | -13         | -11.99      |
|               |           | Low        | Extended  | -21.31      | -13         | -8.31       |
|               |           | High (B4)  | Band Edge | -25.30      | -13         | -12.30      |
|               |           | High (B4)  | Extended  | -22.35      | -13         | -9.35       |
|               |           | High (B66) | Band Edge | -25.76      | -13         | -12.76      |
|               |           | High (B66) | Extended  | -22.57      | -13         | -9.57       |
|               | 10MHz     | Low        | Band Edge | -25.48      | -13         | -12.48      |
|               |           | Low        | Extended  | -20.51      | -13         | -7.51       |
|               |           | High (B4)  | Band Edge | -21.37      | -13         | -8.37       |
|               |           | High (B4)  | Extended  | -20.01      | -13         | -7.01       |
|               |           | High (B66) | Band Edge | -24.00      | -13         | -11.00      |
|               |           | High (B66) | Extended  | -20.20      | -13         | -7.20       |
|               | 5MHz      | Low        | Band Edge | -19.94      | -13         | -6.94       |
|               |           | Low        | Extended  | -23.06      | -13         | -10.06      |
|               |           | High (B4)  | Band Edge | -21.40      | -13         | -8.40       |
|               |           | High (B4)  | Extended  | -26.28      | -13         | -13.28      |
|               |           | High (B66) | Band Edge | -22.12      | -13         | -9.12       |
|               |           | High (B66) | Extended  | -26.58      | -13         | -13.58      |
|               | 3MHz      | Low        | Band Edge | -18.51      | -13         | -5.51       |
|               |           | Low        | Extended  | -24.48      | -13         | -11.48      |
|               |           | High (B4)  | Band Edge | -19.35      | -13         | -6.35       |
|               |           | High (B4)  | Extended  | -22.84      | -13         | -9.84       |
|               |           | High (B66) | Band Edge | -21.66      | -13         | -8.66       |
|               |           | High (B66) | Extended  | -24.77      | -13         | -11.77      |
|               | 1.4MHz    | Low        | Band Edge | -21.15      | -13         | -8.15       |
|               |           | Low        | Extended  | -32.13      | -13         | -19.13      |
|               |           | High (B4)  | Band Edge | -20.17      | -13         | -7.17       |
|               |           | High (B4)  | Extended  | -27.21      | -13         | -14.21      |
|               |           | High (B66) | Band Edge | -19.60      | -13         | -6.60       |
|               |           | High (B66) | Extended  | -30.61      | -13         | -17.61      |

**Table 7-16. Conducted Band Edge Results – Ant1**

|                                                   |                                               |                                      |                                          |
|---------------------------------------------------|-----------------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS938U                         | <b>PART 27 MEASUREMENT REPORT</b>             |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2408260067-03-R1.A3L | <b>Test Dates:</b><br>09/06/2024 - 10/30/2024 | <b>EUT Type:</b><br>Portable Handset | Page 167 of 272                          |

## WCDMA AWS – ANT1



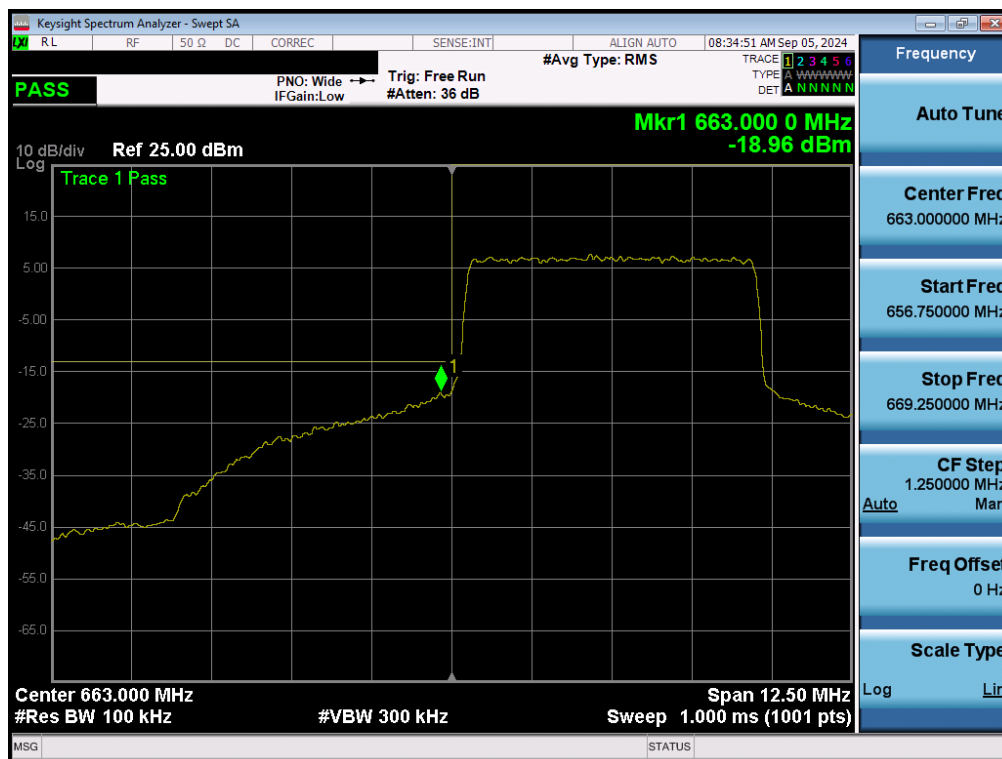
Plot 7-249. Lower Band Edge Plot (WCDMA AWS – Ch. 1312 – ANT1)



Plot 7-250. Upper Band Edge Plot (WCDMA AWS – Ch. 1513 – ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 168 of 272                   |

## LTE Band 71 – ANT1



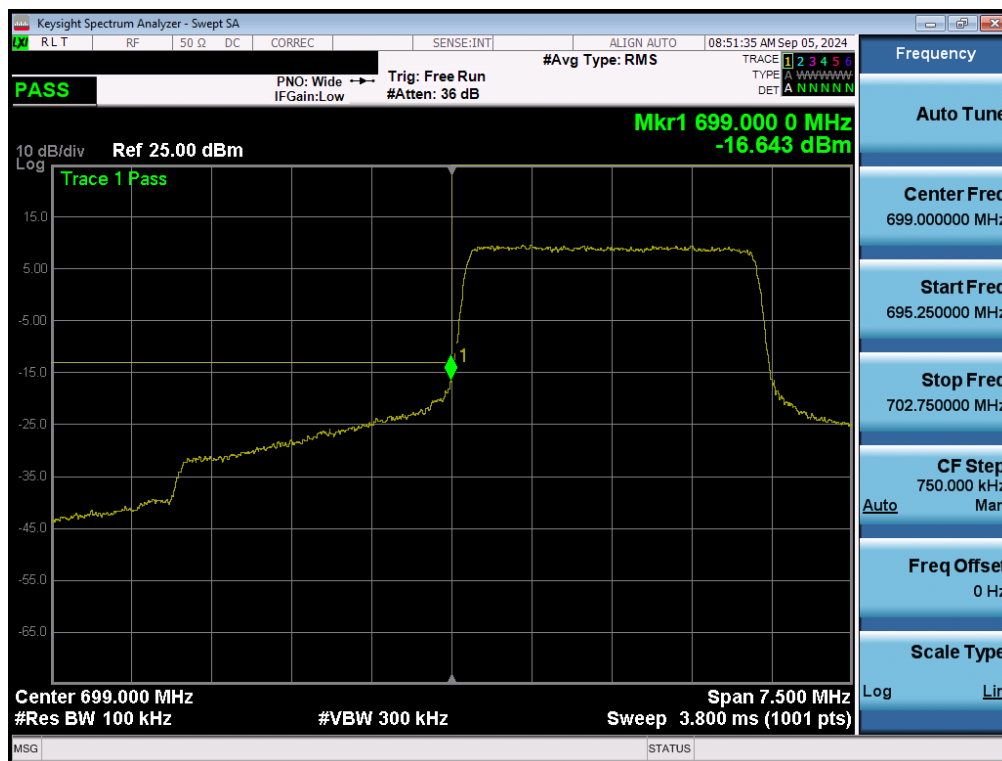
Plot 7-251. Lower Band Edge Plot (LTE Band 71 - 5MHz QPSK – Full RB - ANT1)



Plot 7-252. Upper Band Edge Plot (LTE Band 71 - 5MHz QPSK – Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 169 of 272                   |

## LTE Band 12 – ANT1



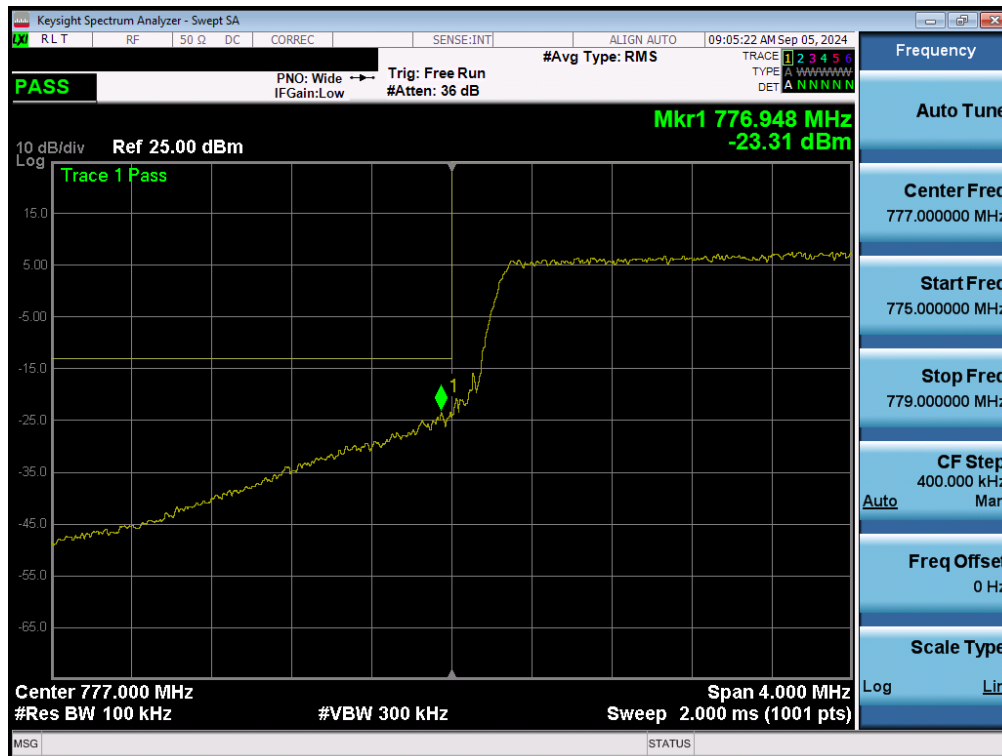
Plot 7-253. Lower Band Edge Plot (LTE Band 12 – 3MHz QPSK – Full RB - ANT1)



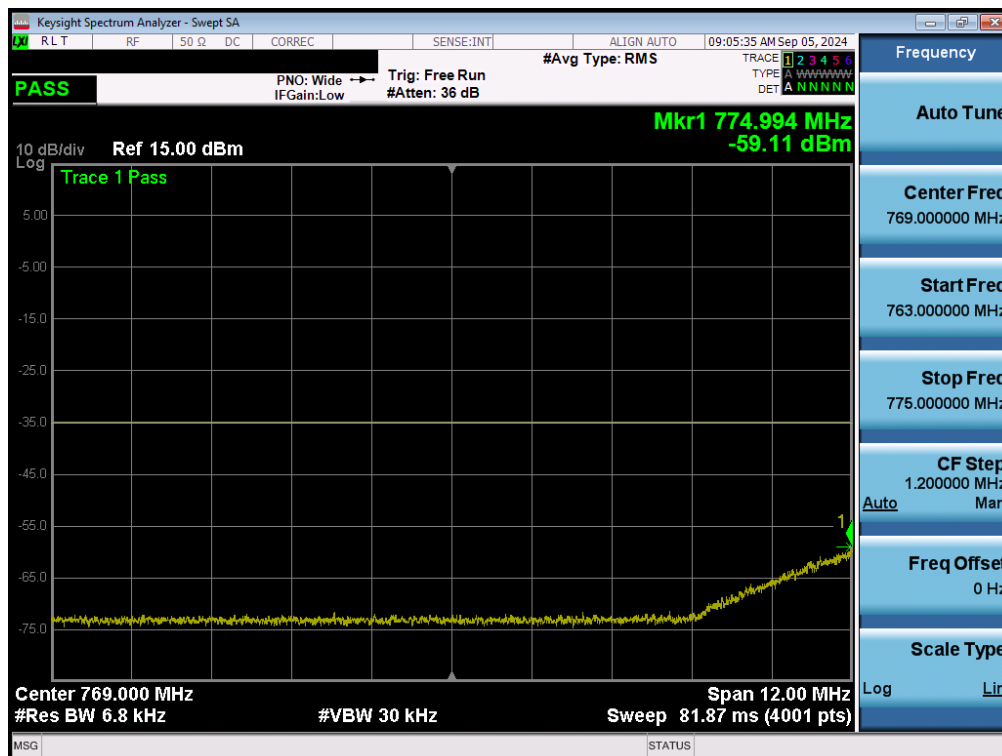
Plot 7-254. Upper Band Edge Plot (LTE Band 12 – 3MHz QPSK – Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 170 of 272                   |

## LTE Band 13 – ANT1



Plot 7-255. Lower Band Edge Plot (LTE Band 13 - 5MHz QPSK – Full RB - ANT1)

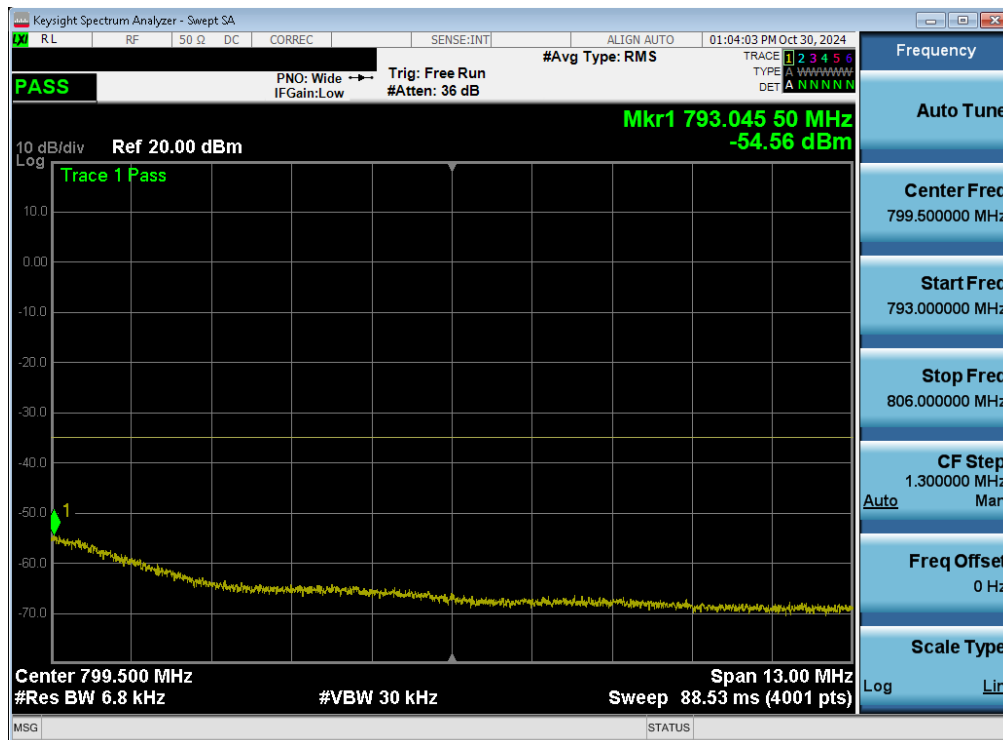


Plot 7-256. Lower Emission Mask Plot (LTE Band 13 - 5MHz QPSK – Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 171 of 272                   |



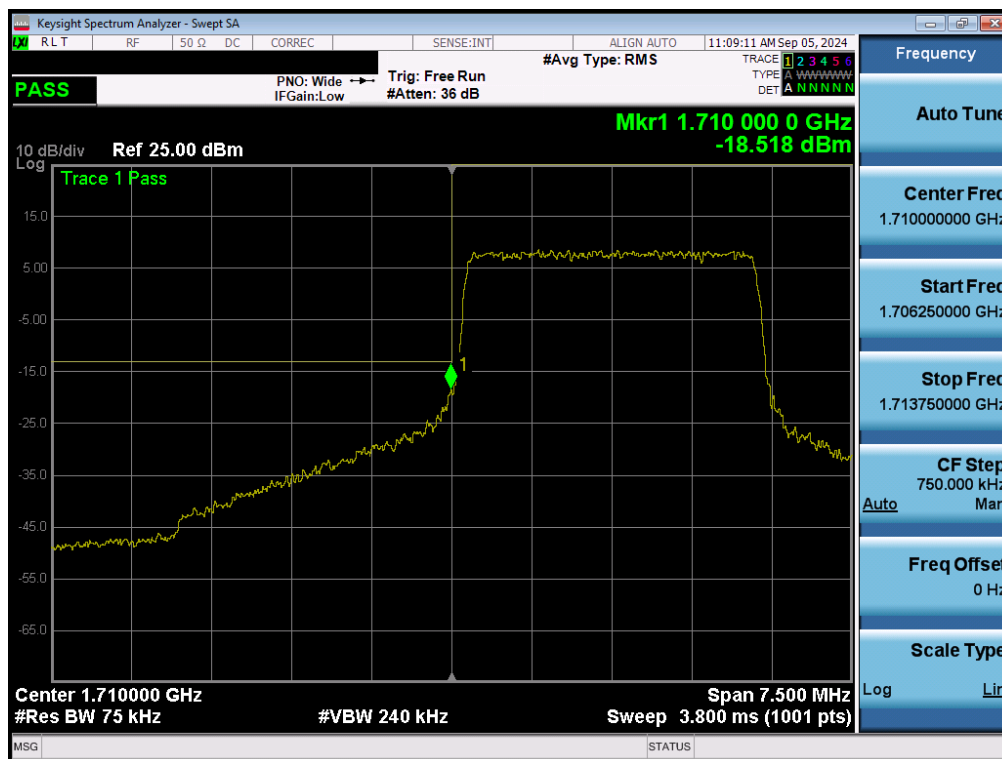
Plot 7-257. Upper Band Edge Plot (LTE Band 13 - 5MHz QPSK - Full RB - ANT1)



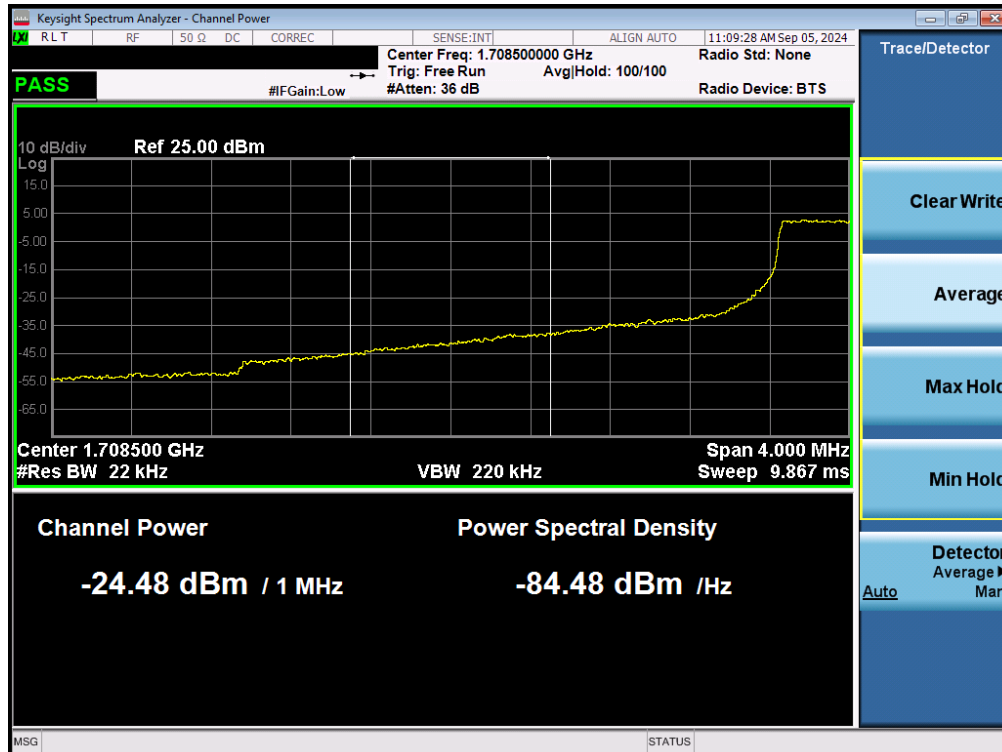
Plot 7-258. Upper Emission Mask Plot (LTE Band 13 - 5MHz QPSK - Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 172 of 272                   |

## LTE Band 66/4 – ANT1



Plot 7-259. Lower Band Edge Plot (LTE Band 66/4 - 3MHz QPSK – Full RB - ANT1)

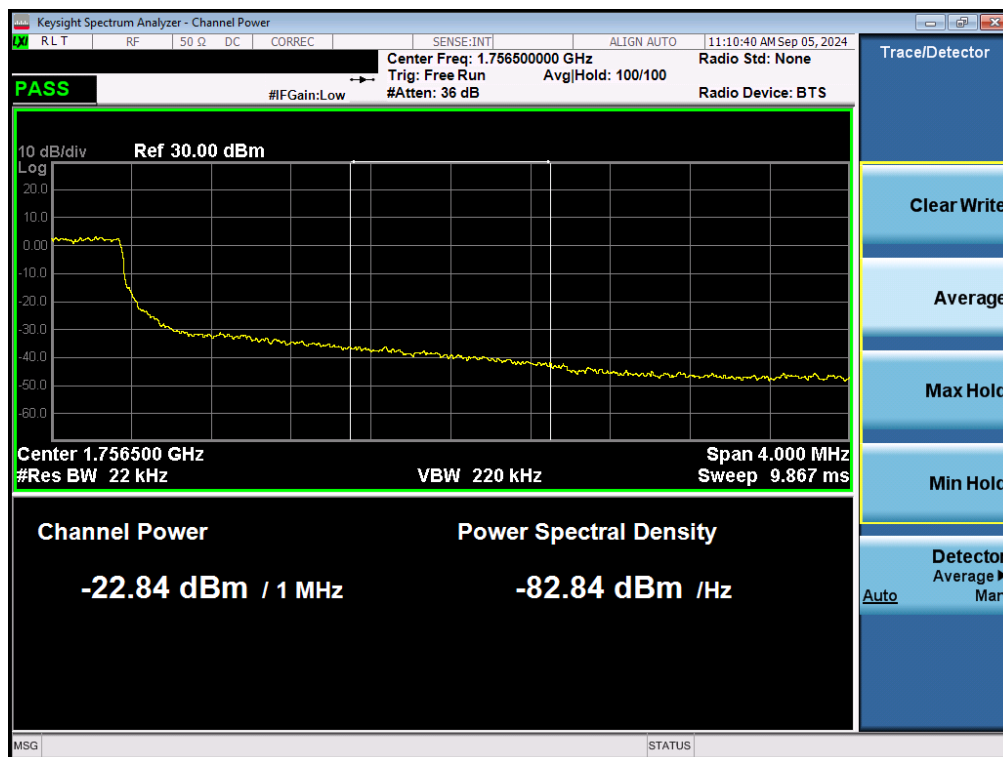


Plot 7-260. Lower Extended Band Edge Plot (LTE Band 66/4 - 3MHz QPSK – Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 173 of 272                   |



Plot 7-261. Upper Band Edge Plot (LTE Band 4 - 3MHz QPSK – Full RB - ANT1)

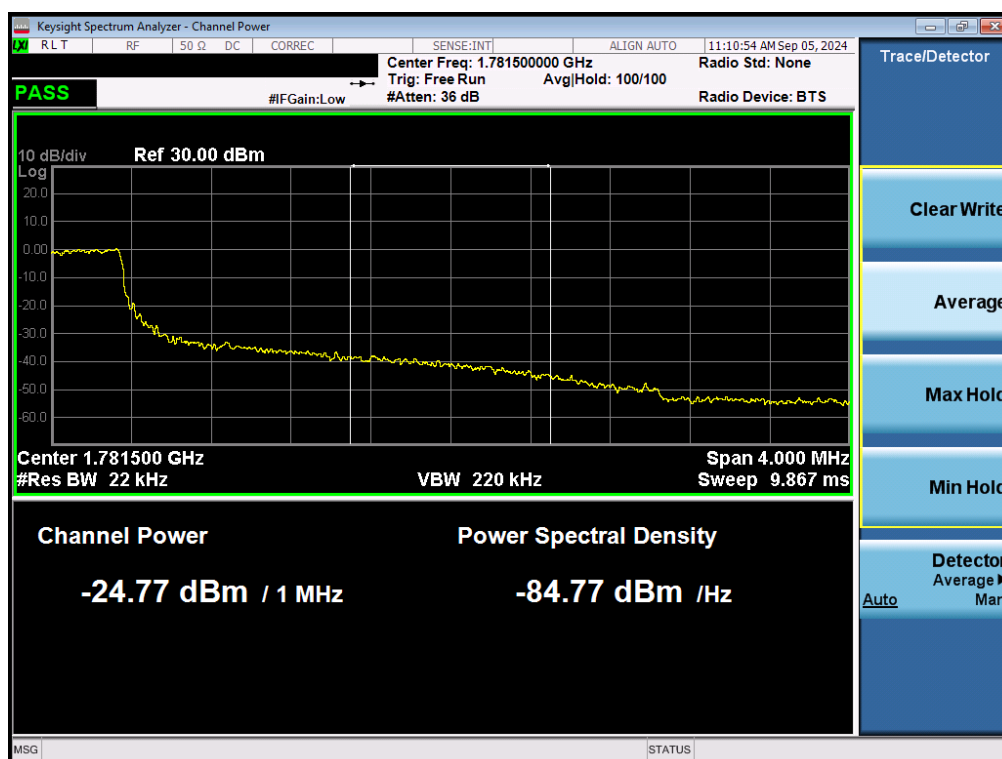


Plot 7-262. Upper Extended Band Edge Plot (LTE Band 4 - 3MHz QPSK – Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 174 of 272                   |



Plot 7-263. Upper Band Edge Plot (LTE Band 66 - 3MHz QPSK – Full RB - ANT1)



Plot 7-264. Upper Extended Band Edge Plot (LTE Band 66 - 3MHz QPSK – Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 175 of 272                   |

| Mode        | Bandwidth | Channel | Test Case | Level [dBm] | Limit [dBm] | Margin [dB] |
|-------------|-----------|---------|-----------|-------------|-------------|-------------|
| NR Band n71 | 35 MHz    | Low     | Band Edge | -25.48      | -13         | -12.48      |
|             |           | High    | Band Edge | -25.88      | -13         | -12.88      |
|             | 30 MHz    | Low     | Band Edge | -25.91      | -13         | -12.91      |
|             |           | High    | Band Edge | -27.05      | -13         | -14.05      |
|             | 25 MHz    | Low     | Band Edge | -24.75      | -13         | -11.75      |
|             |           | High    | Band Edge | -26.04      | -13         | -13.04      |
|             | 20 MHz    | Low     | Band Edge | -24.88      | -13         | -11.88      |
|             |           | High    | Band Edge | -27.22      | -13         | -14.22      |
|             | 15 MHz    | Low     | Band Edge | -24.69      | -13         | -11.69      |
|             |           | High    | Band Edge | -27.55      | -13         | -14.55      |
|             | 10 MHz    | Low     | Band Edge | -23.75      | -13         | -10.75      |
|             |           | High    | Band Edge | -26.67      | -13         | -13.67      |
|             | 5 MHz     | Low     | Band Edge | -18.27      | -13         | -5.27       |
|             |           | High    | Band Edge | -19.16      | -13         | -6.16       |
| NR Band n12 | 15 MHz    | Low     | Band Edge | -24.28      | -13         | -11.28      |
|             |           | High    | Band Edge | -29.56      | -13         | -16.56      |
|             | 10 MHz    | Low     | Band Edge | -22.47      | -13         | -9.47       |
|             |           | High    | Band Edge | -24.35      | -13         | -11.35      |
|             | 5 MHz     | Low     | Band Edge | -20.50      | -13         | -7.50       |
|             |           | High    | Band Edge | -21.83      | -13         | -8.83       |
| NR Band n70 | 15 MHz    | Low     | Band Edge | -28.17      | -13         | -15.17      |
|             |           | Low     | Extended  | -22.56      | -13         | -9.56       |
|             |           | High    | Band Edge | -30.36      | -13         | -17.36      |
|             |           | High    | Extended  | -24.53      | -13         | -11.53      |
|             | 10 MHz    | Low     | Band Edge | -26.82      | -13         | -13.82      |
|             |           | Low     | Extended  | -19.10      | -13         | -6.10       |
|             |           | High    | Band Edge | -27.25      | -13         | -14.25      |
|             |           | High    | Extended  | -20.85      | -13         | -7.85       |
|             | 5 MHz     | Low     | Band Edge | -28.60      | -13         | -15.60      |
|             |           | Low     | Extended  | -36.44      | -13         | -23.44      |
|             |           | High    | Band Edge | -23.97      | -13         | -10.97      |
|             |           | High    | Extended  | -31.80      | -13         | -18.80      |

Table 7-17. Conducted Band Edge Results – Ant1

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 176 of 272                   |

| Mode        | Bandwidth | Channel | Test Case | Level [dBm] | Limit [dBm] | Margin [dB] |
|-------------|-----------|---------|-----------|-------------|-------------|-------------|
| NR Band n66 | 45 MHz    | Low     | Band Edge | -28.48      | -13         | -15.48      |
|             |           | Low     | Extended  | -32.84      | -13         | -19.84      |
|             |           | High    | Band Edge | -28.97      | -13         | -15.97      |
|             |           | High    | Extended  | -31.06      | -13         | -18.06      |
|             | 40 MHz    | Low     | Band Edge | -27.54      | -13         | -14.54      |
|             |           | Low     | Extended  | -31.33      | -13         | -18.33      |
|             |           | High    | Band Edge | -24.14      | -13         | -11.14      |
|             |           | High    | Extended  | -30.47      | -13         | -17.47      |
|             | 35 MHz    | Low     | Band Edge | -30.16      | -13         | -17.16      |
|             |           | Low     | Extended  | -29.09      | -13         | -16.09      |
|             |           | High    | Band Edge | -29.53      | -13         | -16.53      |
|             |           | High    | Extended  | -28.87      | -13         | -15.87      |
|             | 30 MHz    | Low     | Band Edge | -26.72      | -13         | -13.72      |
|             |           | Low     | Extended  | -27.53      | -13         | -14.53      |
|             |           | High    | Band Edge | -27.67      | -13         | -14.67      |
|             |           | High    | Extended  | -28.13      | -13         | -15.13      |
|             | 25 MHz    | Low     | Band Edge | -31.08      | -13         | -18.08      |
|             |           | Low     | Extended  | -26.98      | -13         | -13.98      |
|             |           | High    | Band Edge | -32.29      | -13         | -19.29      |
|             |           | High    | Extended  | -27.66      | -13         | -14.66      |
|             | 20 MHz    | Low     | Band Edge | -28.90      | -13         | -15.90      |
|             |           | Low     | Extended  | -25.72      | -13         | -12.72      |
|             |           | High    | Band Edge | -29.33      | -13         | -16.33      |
|             |           | High    | Extended  | -27.85      | -13         | -14.85      |
|             | 15 MHz    | Low     | Band Edge | -29.90      | -13         | -16.90      |
|             |           | Low     | Extended  | -24.12      | -13         | -11.12      |
|             |           | High    | Band Edge | -28.71      | -13         | -15.71      |
|             |           | High    | Extended  | -23.70      | -13         | -10.70      |
|             | 10 MHz    | Low     | Band Edge | -26.54      | -13         | -13.54      |
|             |           | Low     | Extended  | -18.43      | -13         | -5.43       |
|             |           | High    | Band Edge | -27.95      | -13         | -14.95      |
|             |           | High    | Extended  | -19.74      | -13         | -6.74       |
|             | 5 MHz     | Low     | Band Edge | -24.80      | -13         | -11.80      |
|             |           | Low     | Extended  | -32.29      | -13         | -19.29      |
|             |           | High    | Band Edge | -22.54      | -13         | -9.54       |
|             |           | High    | Extended  | -30.05      | -13         | -17.05      |

**Table 7-18. Conducted Band Edge Results – Ant1**

|                                                   |                                               |                                      |                                          |
|---------------------------------------------------|-----------------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS938U                         | <b>PART 27 MEASUREMENT REPORT</b>             |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2408260067-03-R1.A3L | <b>Test Dates:</b><br>09/06/2024 - 10/30/2024 | <b>EUT Type:</b><br>Portable Handset | Page 177 of 272                          |

## NR Band n71 – ANT1



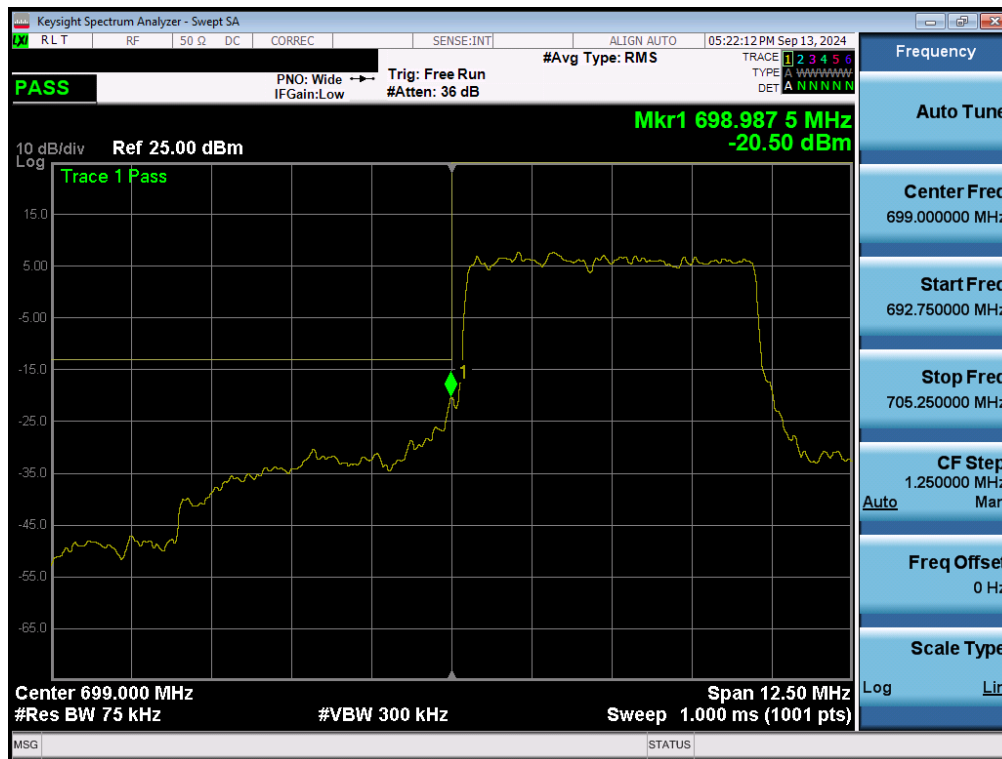
Plot 7-265. Lower Band Edge Plot (NR Band n71 – 5.0MHz - Full RB - ANT1)



Plot 7-266. Upper Band Edge Plot (NR Band n71 – 5.0MHz - Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 178 of 272                   |

## NR Band n12 – ANT1



Plot 7-267. Lower Band Edge Plot (NR Band n12 – 5.0MHz - Full RB - ANT1)



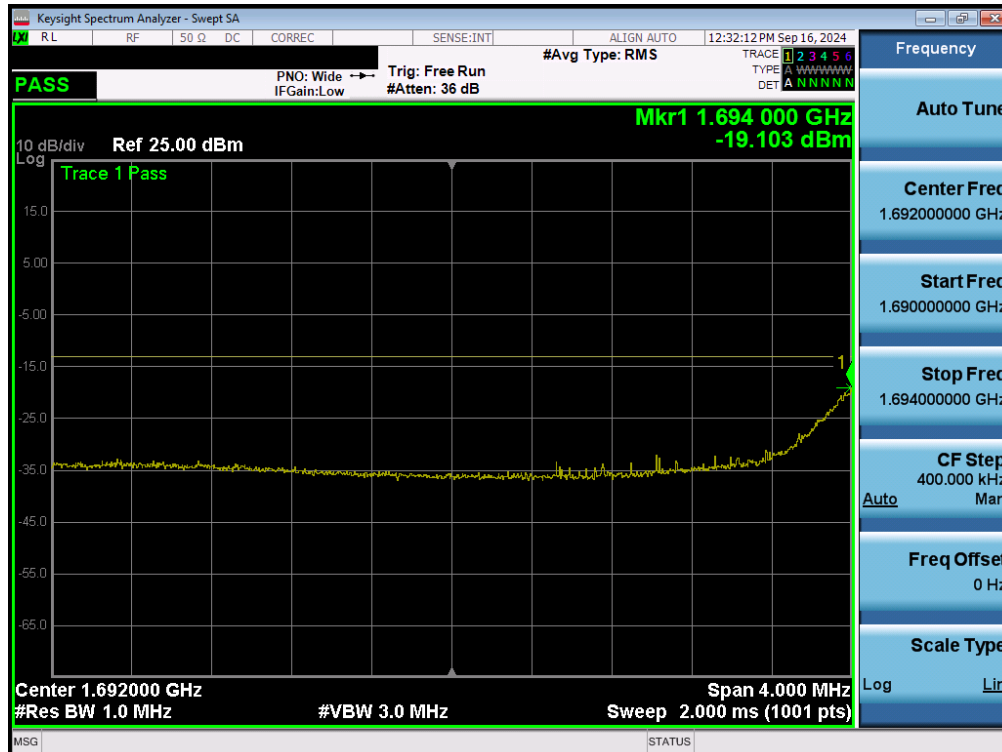
Plot 7-268. Upper Band Edge Plot (NR Band n12 – 5.0MHz - Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 179 of 272                   |

## NR Band n70 – ANT1

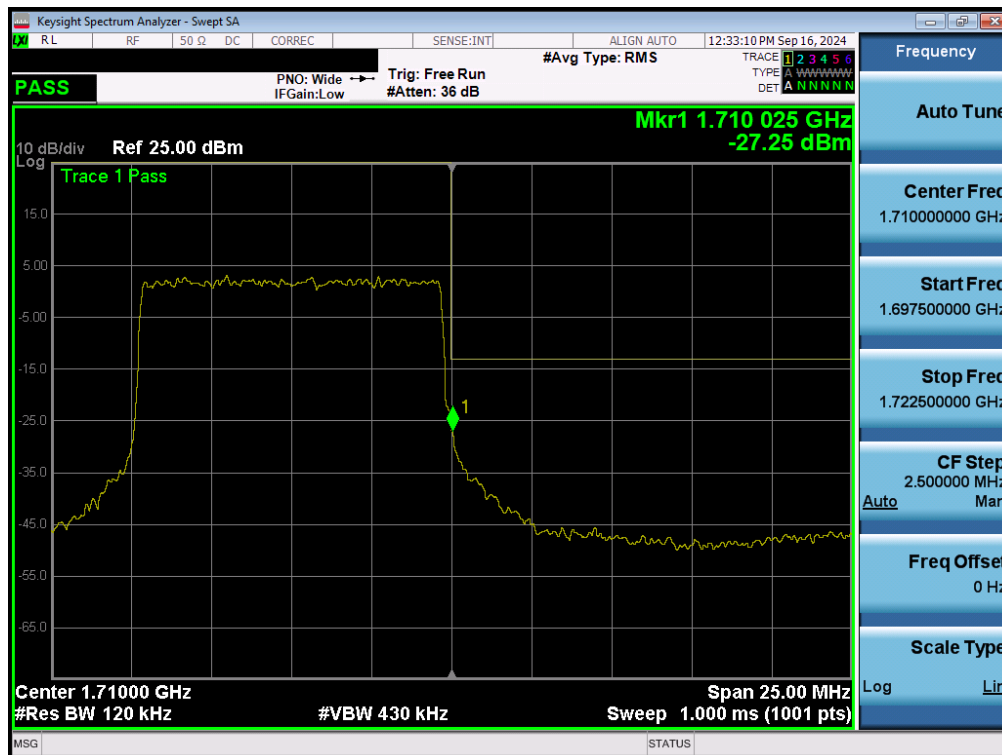


Plot 7-269. Lower Band Edge Plot (NR Band n70 – 10.0MHz - Full RB - ANT1)

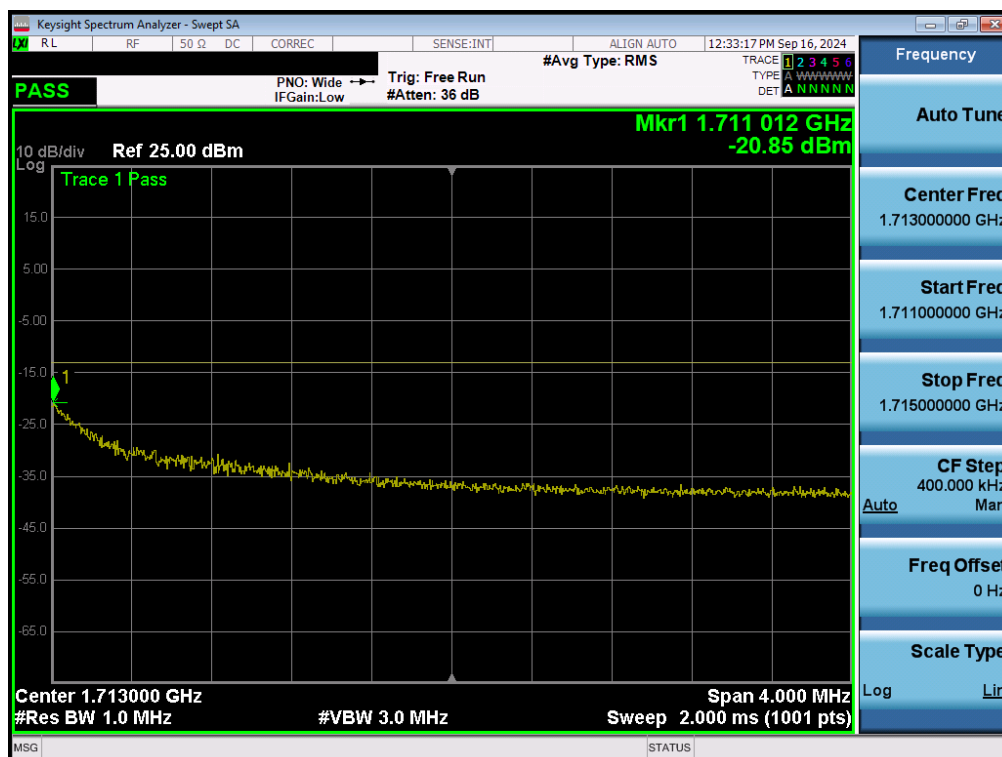


Plot 7-270. Lower Extended Band Edge Plot (NR Band n70 – 10.0MHz - Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 180 of 272                   |



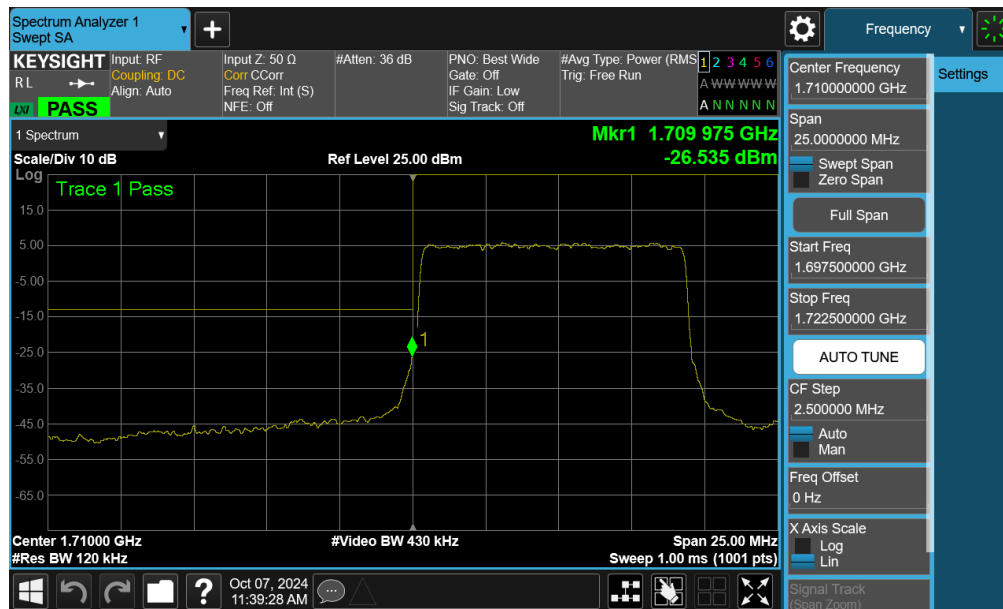
Plot 7-271. Upper Band Edge Plot (NR Band n70 – 10.0MHz - Full RB - ANT1)



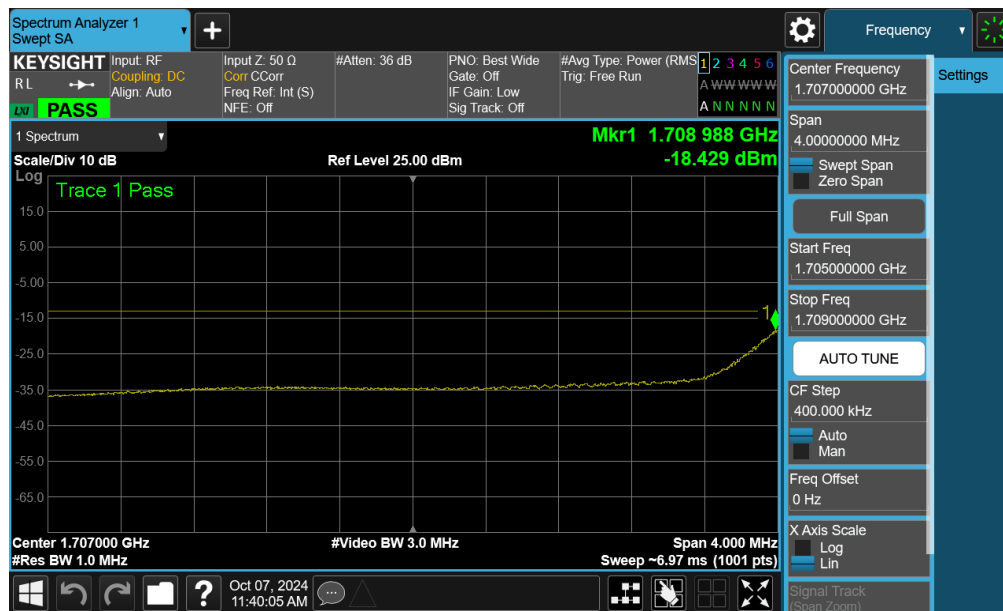
Plot 7-272. Upper Extended Band Edge Plot (NR Band n70 – 10.0MHz - Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 181 of 272                   |

## NR Band n66 – ANT1

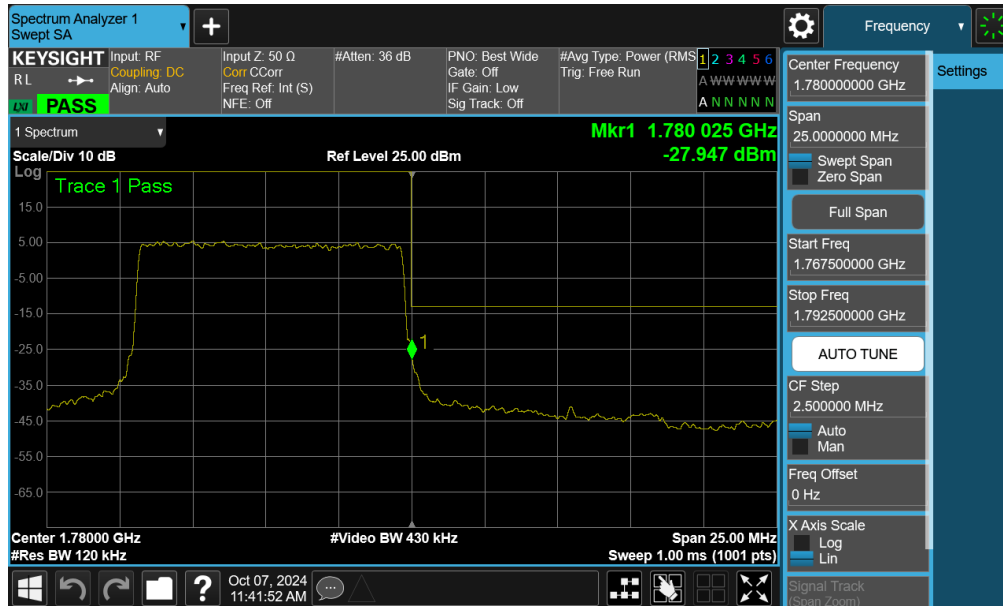


Plot 7-273. Lower Band Edge Plot (NR Band n66 – 10.0MHz - Full RB - ANT1)

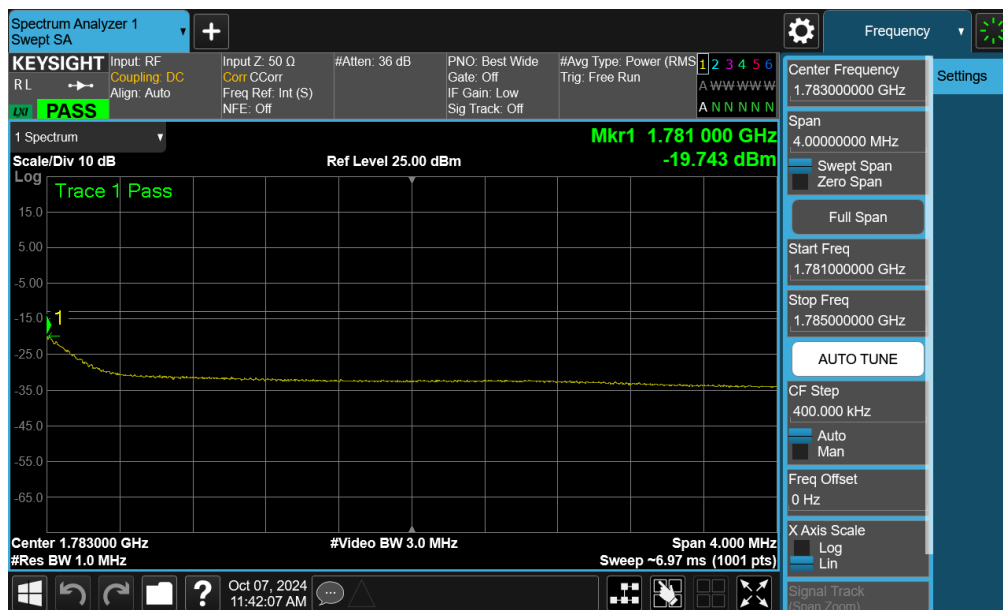


Plot 7-274. Lower Extended Band Edge Plot (NR Band n66 – 10.0MHz - Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 182 of 272                   |



Plot 7-275. Upper Band Edge Plot (NR Band n66 – 10.0MHz - Full RB - ANT1)



Plot 7-276. Upper Extended Band Edge Plot (NR Band n66 – 10.0MHz - Full RB - ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 183 of 272                   |

| Mode        | Bandwidth | Channel | Test Case     | Level [dBm] | Limit [dBm] | Margin [dB] |
|-------------|-----------|---------|---------------|-------------|-------------|-------------|
| LTE Band 71 | 20 MHz    | Low     | Band Edge     | -23.86      | -13         | -10.86      |
|             |           | High    | Band Edge     | -24.56      | -13         | -11.56      |
|             | 15 MHz    | Low     | Band Edge     | -24.27      | -13         | -11.27      |
|             |           | High    | Band Edge     | -22.83      | -13         | -9.83       |
|             | 10 MHz    | Low     | Band Edge     | -22.11      | -13         | -9.11       |
|             |           | High    | Band Edge     | -25.11      | -13         | -12.11      |
|             | 5 MHz     | Low     | Band Edge     | -17.16      | -13         | -4.16       |
|             |           | High    | Band Edge     | -19.68      | -13         | -6.68       |
| LTE Band 12 | 10 MHz    | Low     | Band Edge     | -26.02      | -13         | -13.02      |
|             |           | High    | Band Edge     | -27.32      | -13         | -14.32      |
|             | 5 MHz     | Low     | Band Edge     | -20.77      | -13         | -7.77       |
|             |           | High    | Band Edge     | -22.62      | -13         | -9.62       |
|             | 3 MHz     | Low     | Band Edge     | -17.18      | -13         | -4.18       |
|             |           | High    | Band Edge     | -18.16      | -13         | -5.16       |
|             | 1.4 MHz   | Low     | Band Edge     | -23.88      | -13         | -10.88      |
|             |           | High    | Band Edge     | -25.11      | -13         | -12.11      |
| LTE Band 13 | 10 MHz    | Low     | Band Edge     | -28.47      | -13         | -15.47      |
|             |           | Low     | Emission Mask | -63.94      | -13         | -50.94      |
|             |           | High    | Band Edge     | -25.60      | -13         | -12.60      |
|             |           | High    | Emission Mask | -45.12      | -13         | -32.12      |
|             | 5 MHz     | Low     | Band Edge     | -21.11      | -13         | -8.11       |
|             |           | Low     | Emission Mask | -60.14      | -13         | -47.14      |
|             |           | High    | Band Edge     | -20.11      | -13         | -7.11       |
|             |           | High    | EmMask        | -54.39      | -13         | -41.39      |

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

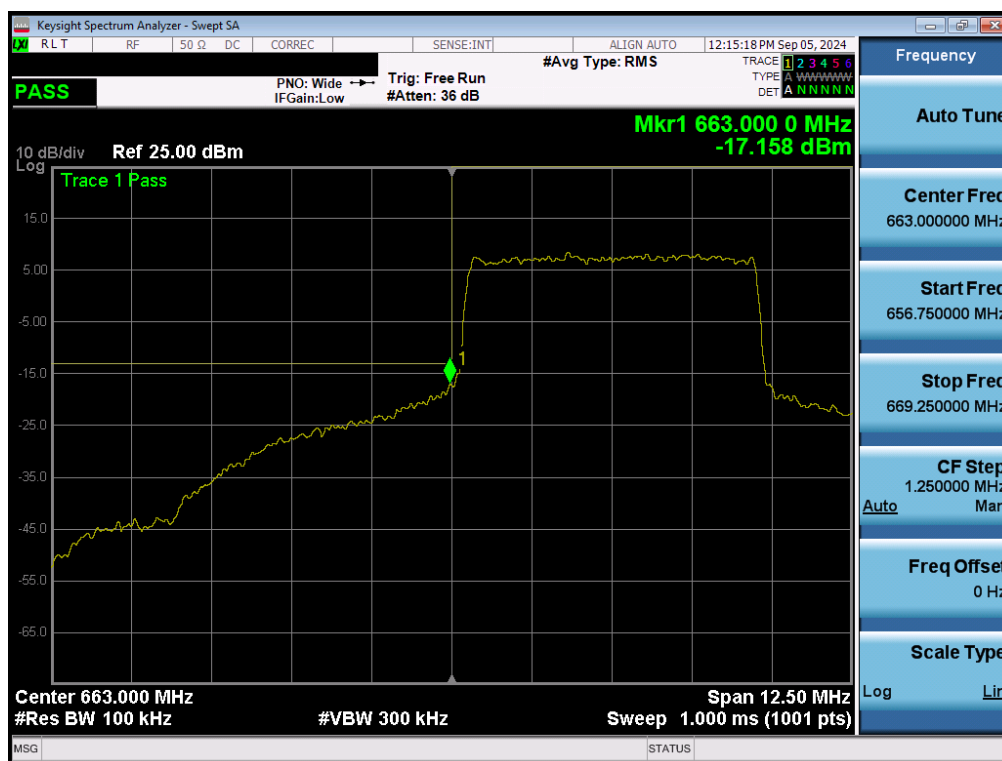
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 184 of 272                   |

| Mode          | Bandwidth | Channel    | Test Case | Level [dBm] | Limit [dBm] | Margin [dB] |
|---------------|-----------|------------|-----------|-------------|-------------|-------------|
| LTE Band 66/4 | 20MHz     | Low        | Band Edge | -21.96      | -13         | -8.96       |
|               |           | Low        | Extended  | -20.18      | -13         | -7.18       |
|               |           | High (B4)  | Band Edge | -17.83      | -13         | -4.83       |
|               |           | High (B4)  | Extended  | -15.60      | -13         | -2.60       |
|               |           | High (B66) | Band Edge | -24.41      | -13         | -11.41      |
|               |           | High (B66) | Extended  | -23.67      | -13         | -10.67      |
|               | 15MHz     | Low        | Band Edge | -20.90      | -13         | -7.90       |
|               |           | Low        | Extended  | -19.09      | -13         | -6.09       |
|               |           | High (B4)  | Band Edge | -16.80      | -13         | -3.80       |
|               |           | High (B4)  | Extended  | -14.93      | -13         | -1.93       |
|               |           | High (B66) | Band Edge | -25.21      | -13         | -12.21      |
|               |           | High (B66) | Extended  | -23.06      | -13         | -10.06      |
|               | 10MHz     | Low        | Band Edge | -19.50      | -13         | -6.50       |
|               |           | Low        | Extended  | -15.53      | -13         | -2.53       |
|               |           | High (B4)  | Band Edge | -17.61      | -13         | -4.61       |
|               |           | High (B4)  | Extended  | -14.16      | -13         | -1.16       |
|               |           | High (B66) | Band Edge | -21.18      | -13         | -8.18       |
|               |           | High (B66) | Extended  | -20.87      | -13         | -7.87       |
|               | 5MHz      | Low        | Band Edge | -16.89      | -13         | -3.89       |
|               |           | Low        | Extended  | -21.37      | -13         | -8.37       |
|               |           | High (B4)  | Band Edge | -16.59      | -13         | -3.59       |
|               |           | High (B4)  | Extended  | -14.02      | -13         | -1.02       |
|               |           | High (B66) | Band Edge | -20.63      | -13         | -7.63       |
|               |           | High (B66) | Extended  | -19.06      | -13         | -6.06       |
|               | 3MHz      | Low        | Band Edge | -14.66      | -13         | -1.66       |
|               |           | Low        | Extended  | -20.94      | -13         | -7.94       |
|               |           | High (B4)  | Band Edge | -16.77      | -13         | -3.77       |
|               |           | High (B4)  | Extended  | -14.07      | -13         | -1.07       |
|               |           | High (B66) | Band Edge | -20.74      | -13         | -7.74       |
|               |           | High (B66) | Extended  | -18.22      | -13         | -5.22       |
|               | 1.4MHz    | Low        | Band Edge | -16.69      | -13         | -3.69       |
|               |           | Low        | Extended  | -28.05      | -13         | -15.05      |
|               |           | High (B4)  | Band Edge | -17.66      | -13         | -4.66       |
|               |           | High (B4)  | Extended  | -31.04      | -13         | -18.04      |
|               |           | High (B66) | Band Edge | -20.19      | -13         | -7.19       |
|               |           | High (B66) | Extended  | -33.30      | -13         | -20.30      |

**Table 7-20. Conducted Band Edge Results – Ant2**

|                                                   |                                               |                                      |                                          |
|---------------------------------------------------|-----------------------------------------------|--------------------------------------|------------------------------------------|
| <b>FCC ID:</b> A3LSMS938U                         | <b>PART 27 MEASUREMENT REPORT</b>             |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2408260067-03-R1.A3L | <b>Test Dates:</b><br>09/06/2024 - 10/30/2024 | <b>EUT Type:</b><br>Portable Handset | Page 185 of 272                          |

## LTE Band 71 – ANT2



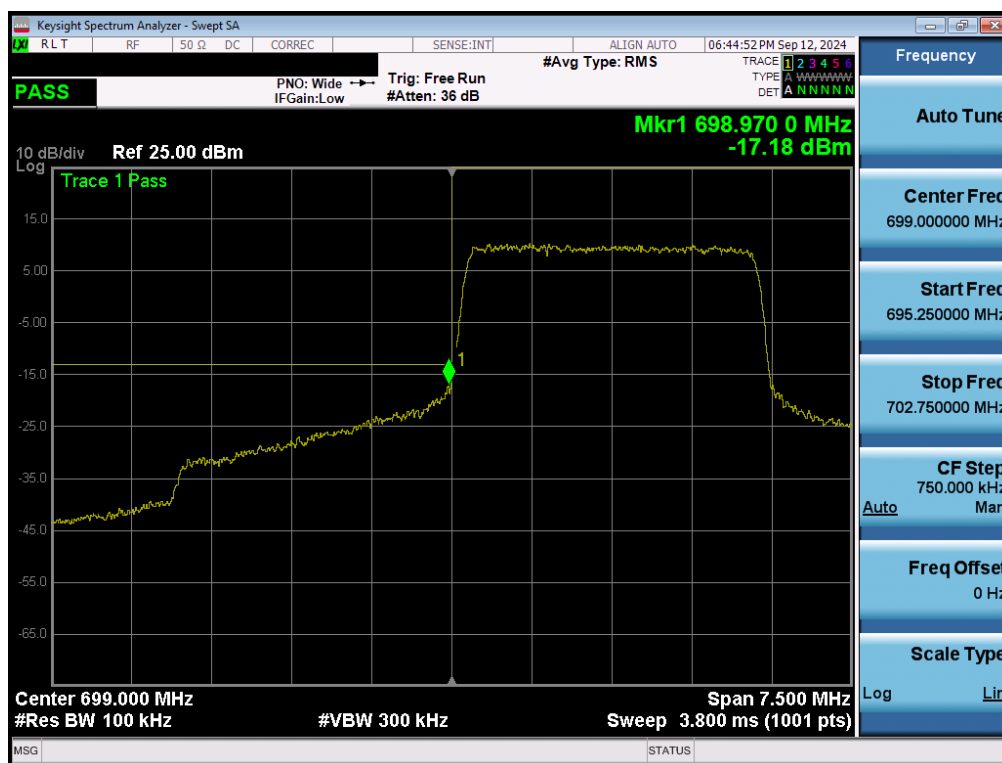
Plot 7-277. Lower Band Edge Plot (LTE Band 71 - 5MHz QPSK – Full RB - ANT2)



Plot 7-278. Upper Band Edge Plot (LTE Band 71 - 5MHz QPSK – Full RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 186 of 272                   |

## LTE Band 12 – ANT2



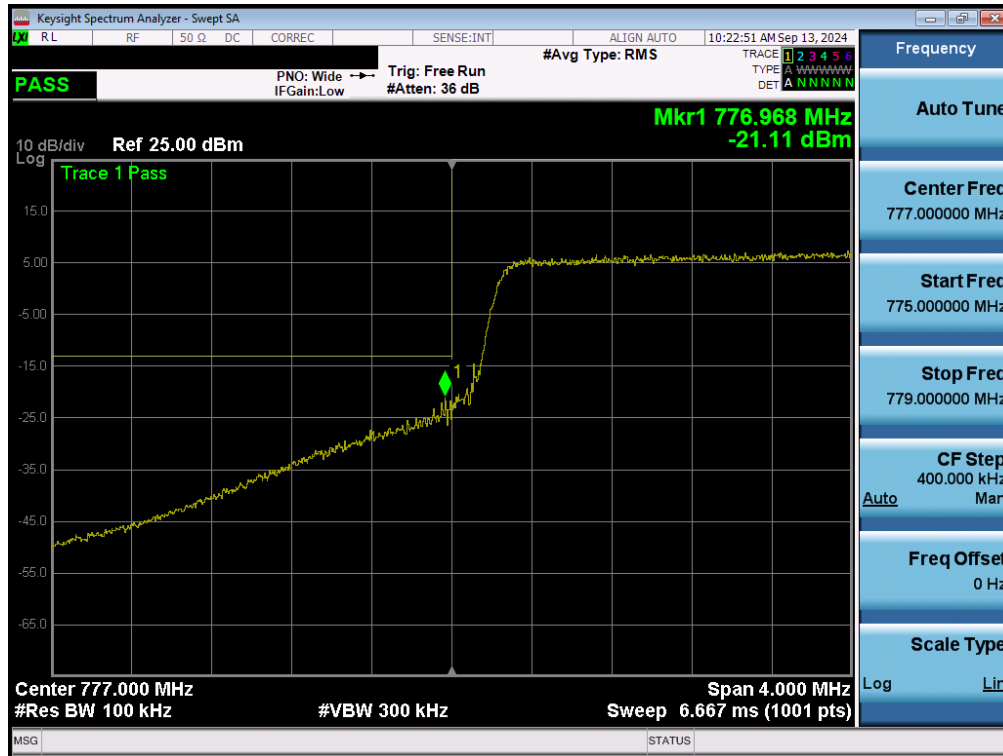
Plot 7-279. Lower Band Edge Plot (LTE Band 12 – 3MHz QPSK – Full RB - ANT2)



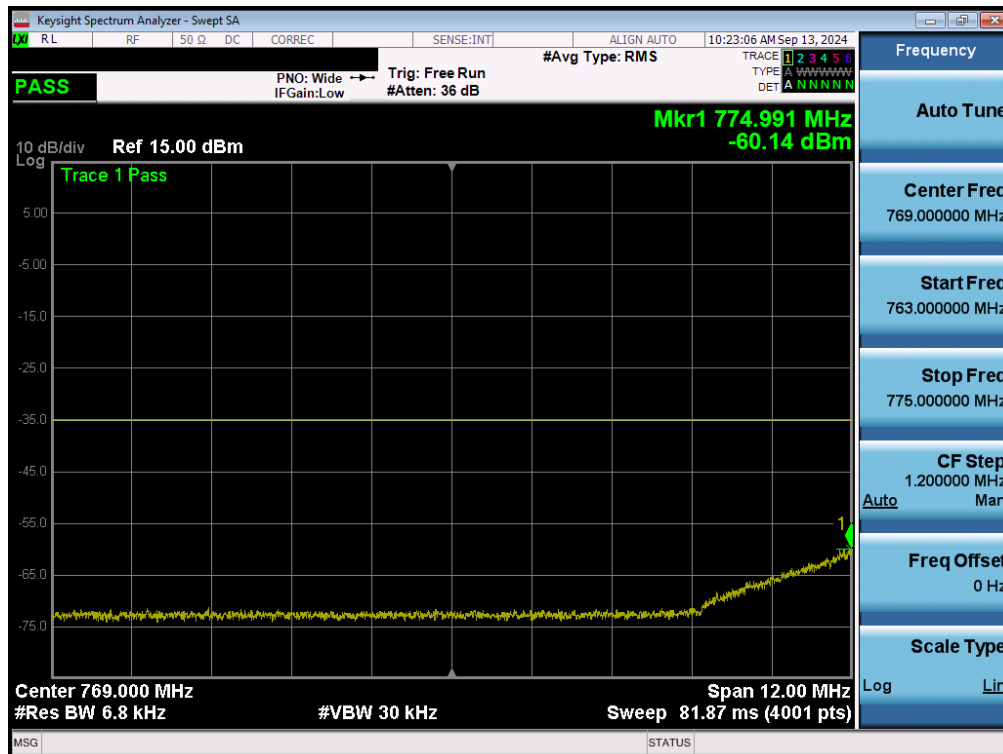
Plot 7-280. Upper Band Edge Plot (LTE Band 12 – 3MHz QPSK – Full RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 187 of 272                   |

## LTE Band 13 – ANT2

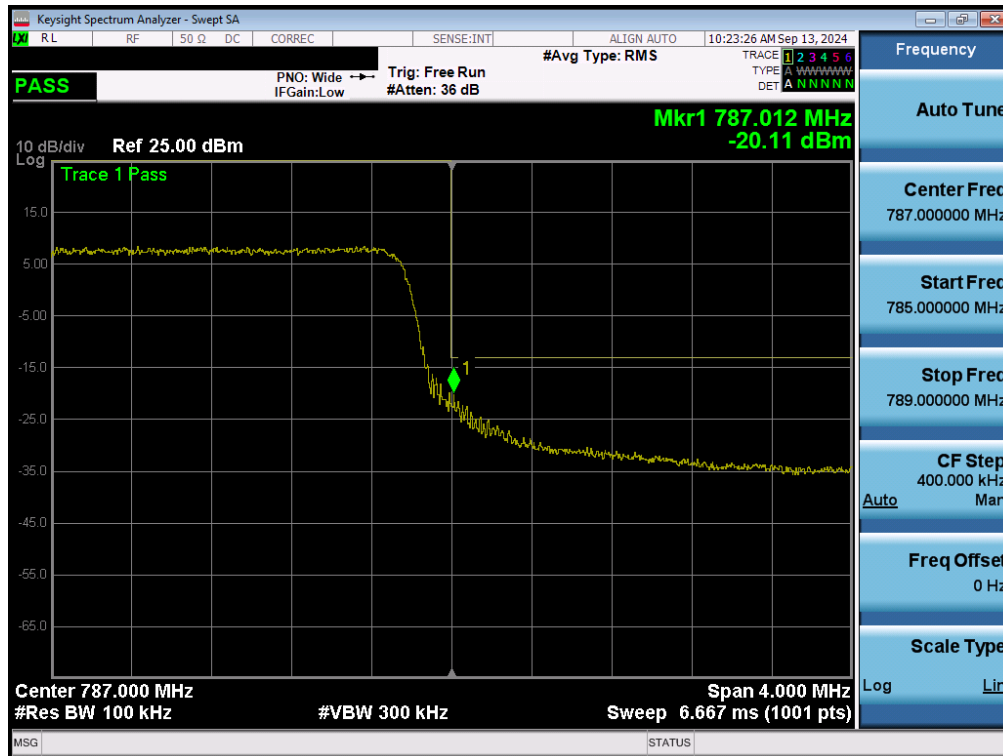


Plot 7-281. Lower Band Edge Plot (LTE Band 13 - 5MHz QPSK – Full RB - ANT2)



Plot 7-282. Lower Emission Mask Plot (LTE Band 13 - 5MHz QPSK – Full RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 188 of 272                   |



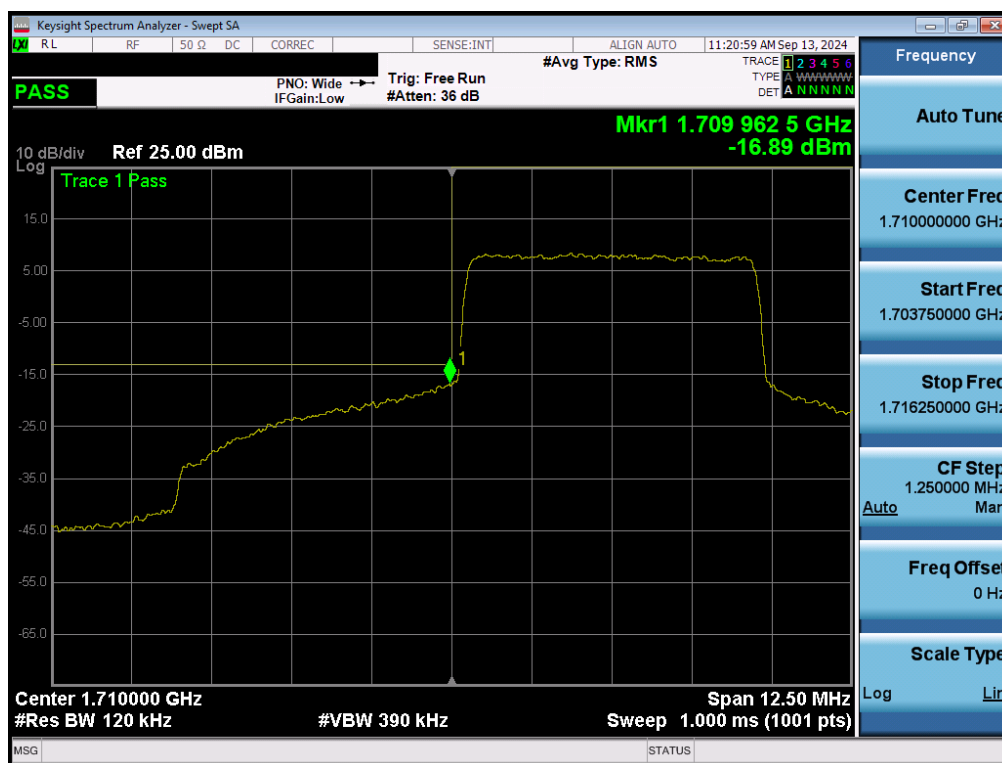
Plot 7-283. Upper Band Edge Plot (LTE Band 13 - 5MHz QPSK - Full RB - ANT2)



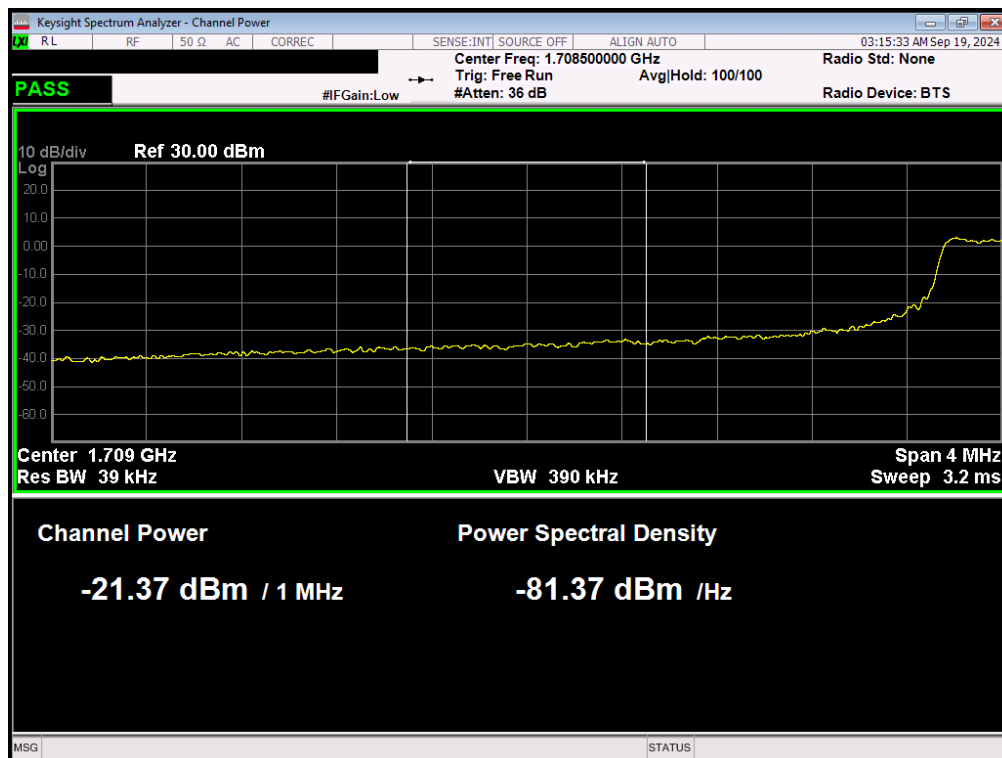
Plot 7-284. Upper Emission Mask Plot (LTE Band 13 - 5MHz QPSK - Full RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 189 of 272                   |

## LTE Band 66/4 – ANT2



Plot 7-285. Lower Band Edge Plot (LTE Band 66/4 - 5MHz QPSK – Full RB - ANT2)

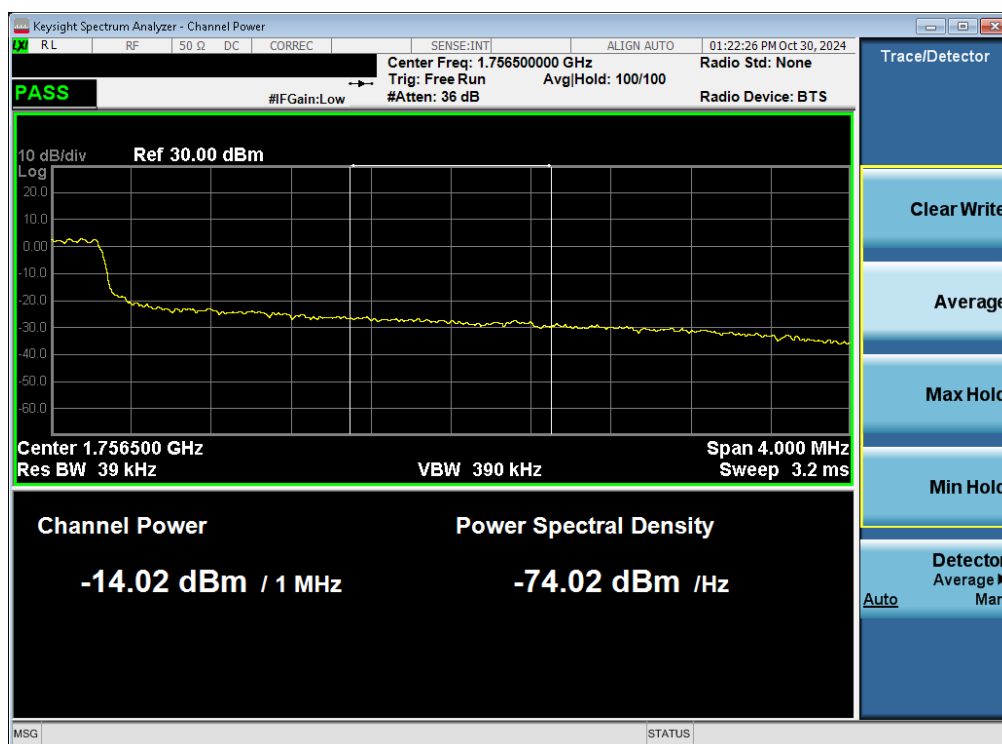


Plot 7-286. Lower Extended Band Edge Plot (LTE Band 66/4 - 5MHz QPSK – Full RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 190 of 272                   |



Plot 7-287. Upper Band Edge Plot (LTE Band 4 - 5MHz QPSK – Full RB - ANT2)

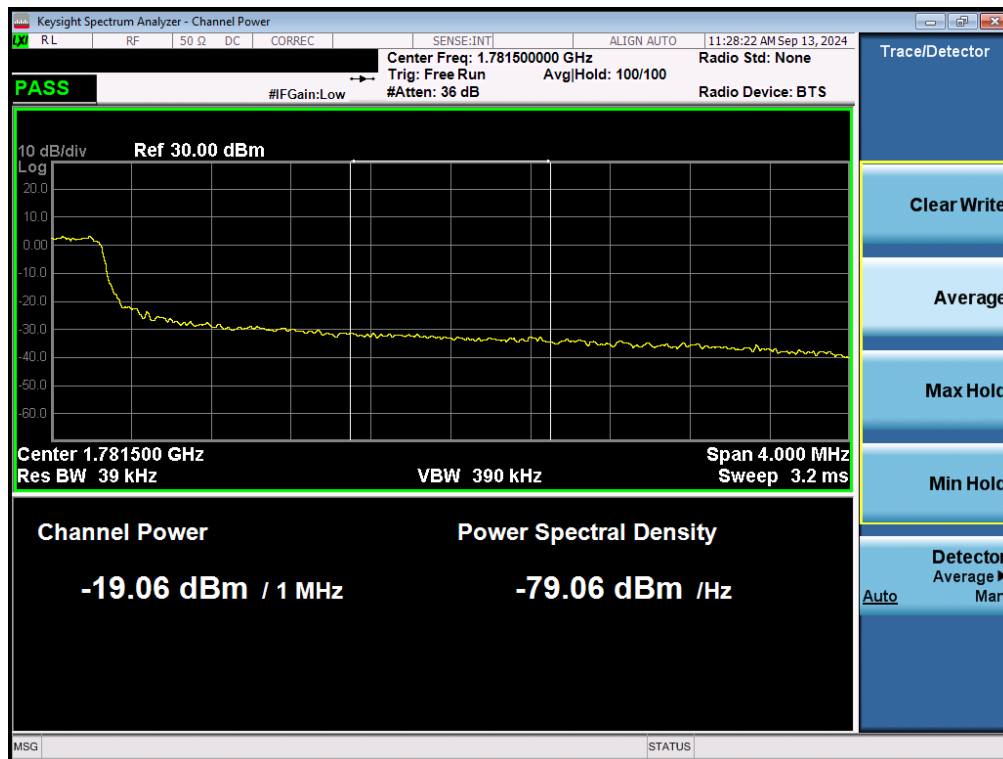


Plot 7-288. Upper Extended Band Edge Plot (LTE Band 4 - 5MHz QPSK – Full RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 191 of 272                   |



Plot 7-289. Upper Band Edge Plot (LTE Band 66 - 5MHz QPSK - Full RB - ANT2)



Plot 7-290. Upper Extended Band Edge Plot (LTE Band 66 - 5MHz QPSK - Full RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 192 of 272                   |

| Mode        | Bandwidth | Channel | Test Case | Level [dBm] | Limit [dBm] | Margin [dB] |
|-------------|-----------|---------|-----------|-------------|-------------|-------------|
| NR Band n71 | 35 MHz    | Low     | Band Edge | -23.57      | -13         | -10.57      |
|             |           | High    | Band Edge | -24.07      | -13         | -11.07      |
|             | 30 MHz    | Low     | Band Edge | -23.58      | -13         | -10.58      |
|             |           | High    | Band Edge | -24.79      | -13         | -11.79      |
|             | 25 MHz    | Low     | Band Edge | -22.74      | -13         | -9.74       |
|             |           | High    | Band Edge | -23.56      | -13         | -10.56      |
|             | 20 MHz    | Low     | Band Edge | -23.38      | -13         | -10.38      |
|             |           | High    | Band Edge | -22.88      | -13         | -9.88       |
|             | 15 MHz    | Low     | Band Edge | -23.48      | -13         | -10.48      |
|             |           | High    | Band Edge | -23.66      | -13         | -10.66      |
|             | 10 MHz    | Low     | Band Edge | -23.50      | -13         | -10.50      |
|             |           | High    | Band Edge | -24.39      | -13         | -11.39      |
|             | 5 MHz     | Low     | Band Edge | -18.19      | -13         | -5.19       |
|             |           | High    | Band Edge | -19.83      | -13         | -6.83       |
| NR Band n12 | 15 MHz    | Low     | Band Edge | -25.92      | -13         | -12.92      |
|             |           | High    | Band Edge | -26.20      | -13         | -13.20      |
|             | 10 MHz    | Low     | Band Edge | -24.03      | -13         | -11.03      |
|             |           | High    | Band Edge | -22.41      | -13         | -9.41       |
|             | 5 MHz     | Low     | Band Edge | -20.26      | -13         | -7.26       |
|             |           | High    | Band Edge | -21.66      | -13         | -8.66       |
| NR Band n70 | 15 MHz    | Low     | Band Edge | -23.23      | -13         | -10.23      |
|             |           | Low     | Extended  | -20.33      | -13         | -7.33       |
|             |           | High    | Band Edge | -23.53      | -13         | -10.53      |
|             |           | High    | Extended  | -16.89      | -13         | -3.89       |
|             | 10 MHz    | Low     | Band Edge | -26.50      | -13         | -13.50      |
|             |           | Low     | Extended  | -17.49      | -13         | -4.49       |
|             |           | High    | Band Edge | -21.32      | -13         | -8.32       |
|             |           | High    | Extended  | -15.31      | -13         | -2.31       |
|             | 5 MHz     | Low     | Band Edge | -24.11      | -13         | -11.11      |
|             |           | Low     | Extended  | -23.66      | -13         | -10.66      |
|             |           | High    | Band Edge | -20.04      | -13         | -7.04       |
|             |           | High    | Extended  | -15.32      | -13         | -2.32       |

Table 7-21. Conducted Band Edge Results – Ant2

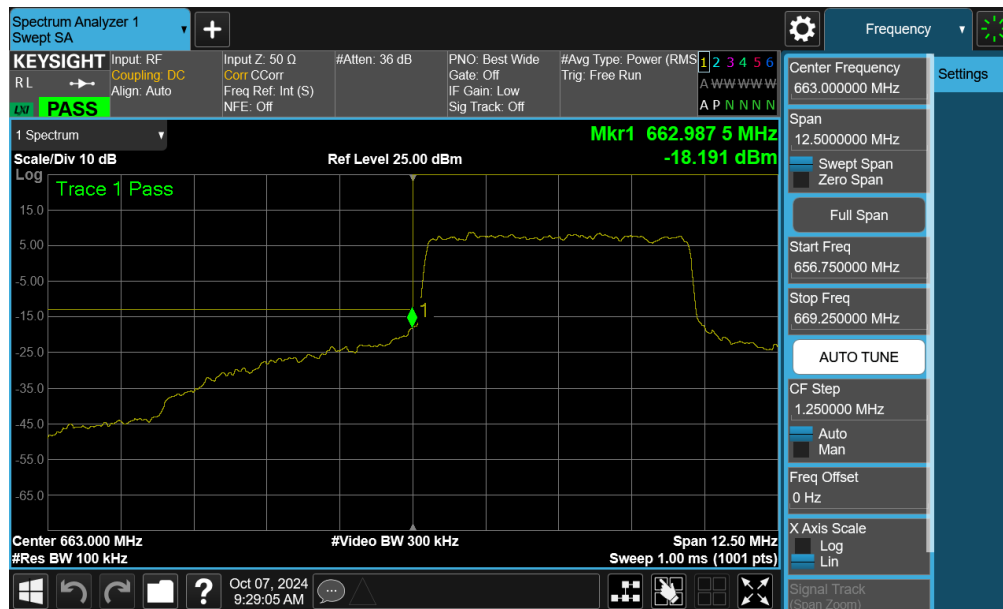
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 193 of 272                   |

| Mode        | Bandwidth | Channel | Test Case | Level [dBm] | Limit [dBm] | Margin [dB] |
|-------------|-----------|---------|-----------|-------------|-------------|-------------|
| NR Band n66 | 45 MHz    | Low     | Band Edge | -24.36      | -13         | -11.36      |
|             |           | Low     | Extended  | -22.30      | -13         | -9.30       |
|             |           | High    | Band Edge | -28.09      | -13         | -15.09      |
|             |           | High    | Extended  | -25.89      | -13         | -12.89      |
|             | 40 MHz    | Low     | Band Edge | -22.43      | -13         | -9.43       |
|             |           | Low     | Extended  | -20.11      | -13         | -7.11       |
|             |           | High    | Band Edge | -21.32      | -13         | -8.32       |
|             |           | High    | Extended  | -22.13      | -13         | -9.13       |
|             | 30 MHz    | Low     | Band Edge | -27.41      | -13         | -14.41      |
|             |           | Low     | Extended  | -25.41      | -13         | -12.41      |
|             |           | High    | Band Edge | -27.95      | -13         | -14.95      |
|             |           | High    | Extended  | -24.41      | -13         | -11.41      |
|             | 30 MHz    | Low     | Band Edge | -24.24      | -13         | -11.24      |
|             |           | Low     | Extended  | -23.66      | -13         | -10.66      |
|             |           | High    | Band Edge | -24.50      | -13         | -11.50      |
|             |           | High    | Extended  | -25.16      | -13         | -12.16      |
|             | 25 MHz    | Low     | Band Edge | -26.07      | -13         | -13.07      |
|             |           | Low     | Extended  | -26.07      | -13         | -13.07      |
|             |           | High    | Band Edge | -29.67      | -13         | -16.67      |
|             |           | High    | Extended  | -29.67      | -13         | -16.67      |
|             | 20 MHz    | Low     | Band Edge | -24.69      | -13         | -11.69      |
|             |           | Low     | Extended  | -20.08      | -13         | -7.08       |
|             |           | High    | Band Edge | -28.06      | -13         | -15.06      |
|             |           | High    | Extended  | -25.29      | -13         | -12.29      |
|             | 15 MHz    | Low     | Band Edge | -25.46      | -13         | -12.46      |
|             |           | Low     | Extended  | -18.30      | -13         | -5.30       |
|             |           | High    | Band Edge | -27.04      | -13         | -14.04      |
|             |           | High    | Extended  | -22.71      | -13         | -9.71       |
|             | 10 MHz    | Low     | Band Edge | -23.10      | -13         | -10.10      |
|             |           | Low     | Extended  | -16.57      | -13         | -3.57       |
|             |           | High    | Band Edge | -28.03      | -13         | -15.03      |
|             |           | High    | Extended  | -18.88      | -13         | -5.88       |
|             | 5 MHz     | Low     | Band Edge | -21.79      | -13         | -8.79       |
|             |           | Low     | Extended  | -15.46      | -13         | -2.46       |
|             |           | High    | Band Edge | -23.78      | -13         | -10.78      |
|             |           | High    | Extended  | -26.00      | -13         | -13.00      |

**Table 7-22. Conducted Band Edge Results – Ant2**

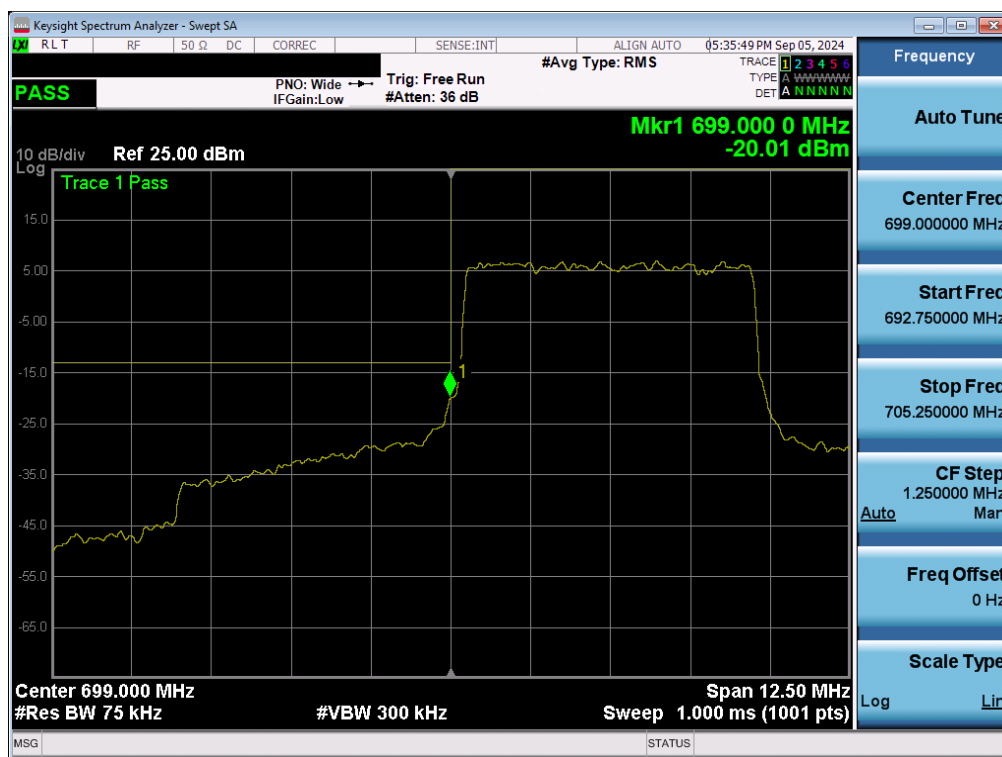
|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 194 of 272                   |

## NR Band n71 – ANT2



|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 195 of 272                   |

## NR Band n12 – ANT2



Plot 7-293. Lower Band Edge Plot (NR Band n12 – 5.0MHz - Full RB - ANT2)



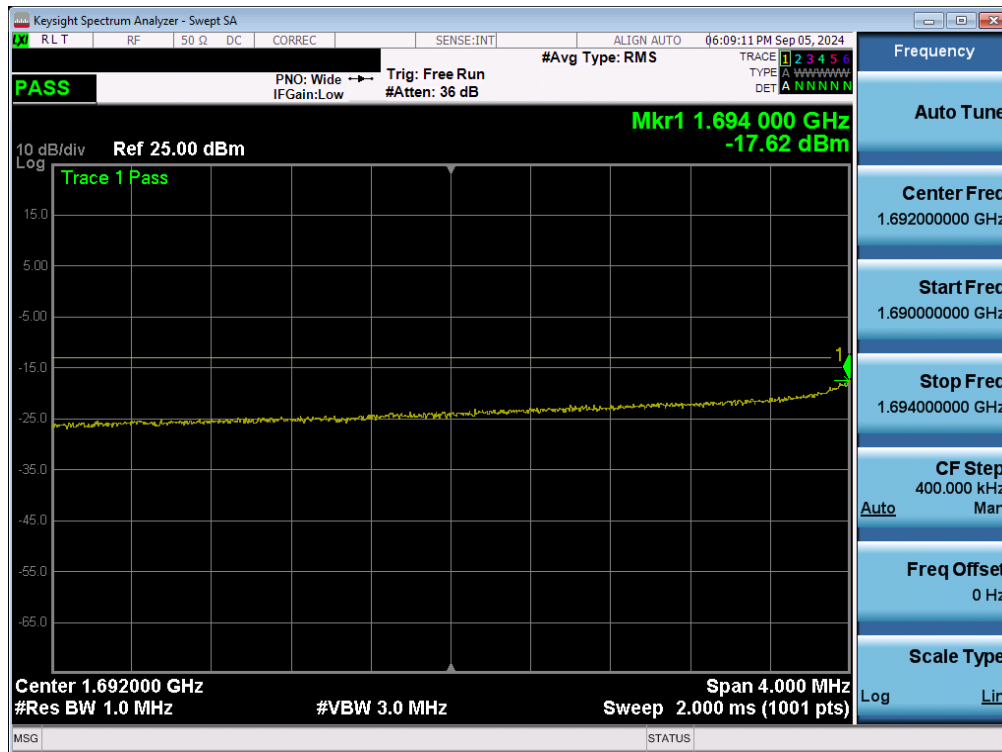
Plot 7-294. Upper Band Edge Plot (NR Band n12 – 5.0MHz - Full RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 196 of 272                   |

## NR Band n70 – ANT2



Plot 7-295. Lower Band Edge Plot (NR Band n70 – 10.0MHz - Full RB - ANT2)

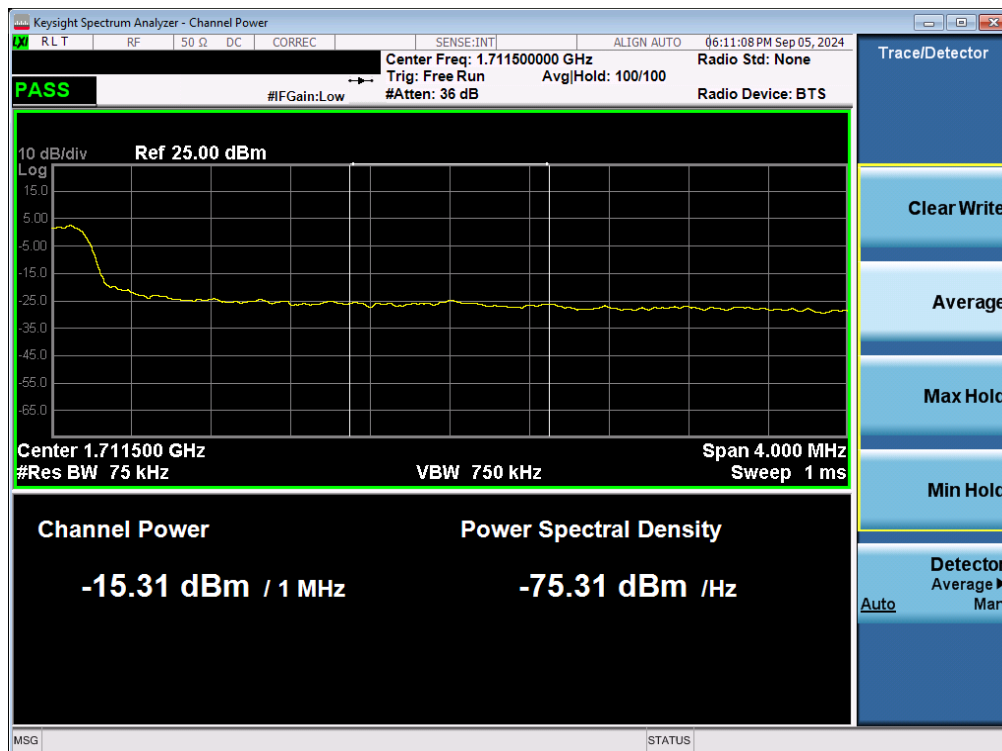


Plot 7-296. Lower Extended Band Edge Plot (NR Band n70 – 10.0MHz - Full RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 197 of 272                   |



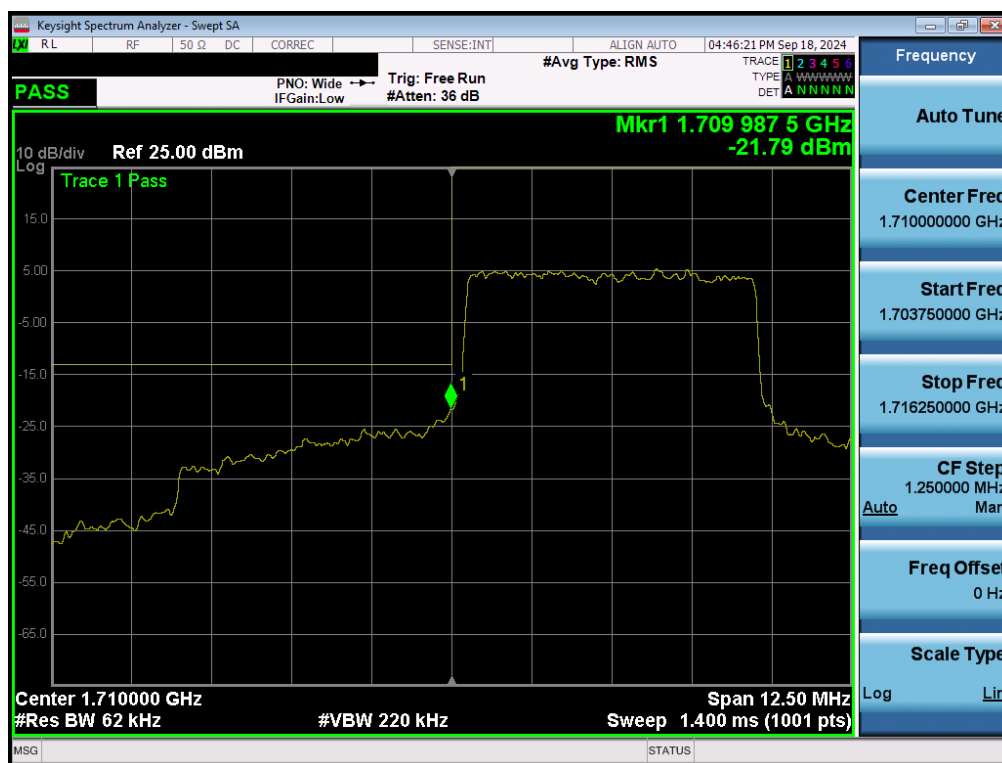
Plot 7-297. Upper Band Edge Plot (NR Band n70 – 10.0MHz - Full RB - ANT2)



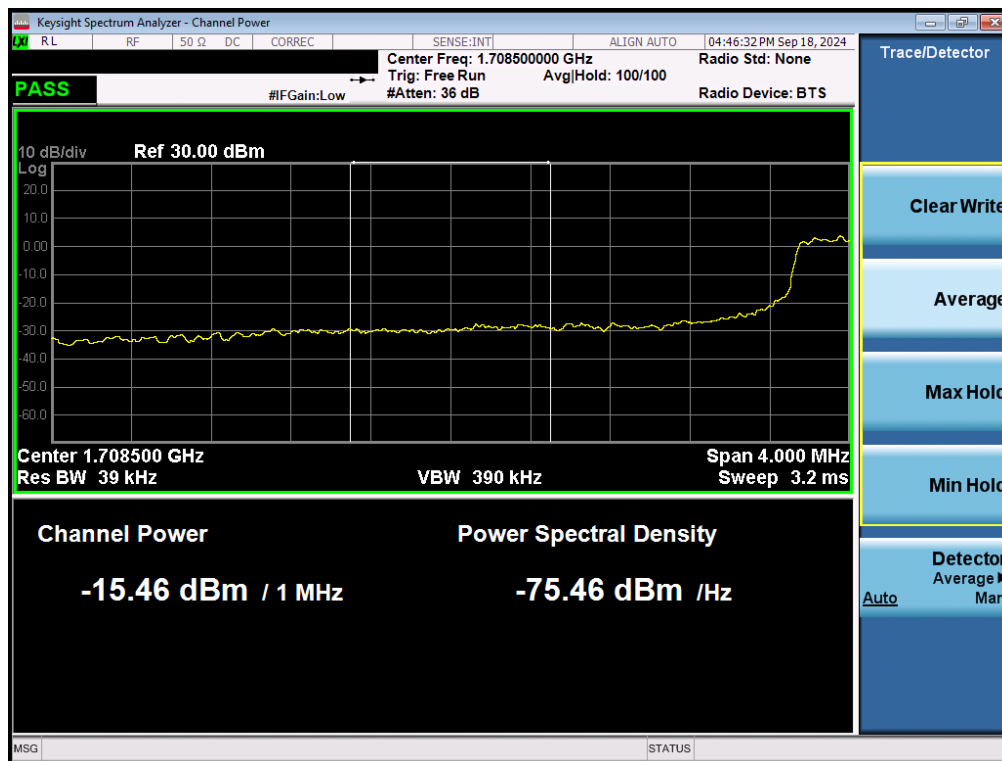
Plot 7-298. Upper Extended Band Edge Plot (NR Band n70 – 10.0MHz - Full RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 198 of 272                   |

## NR Band n66 – ANT2



Plot 7-299. Lower Band Edge Plot (NR Band n66 – 5MHz - Full RB - ANT2)

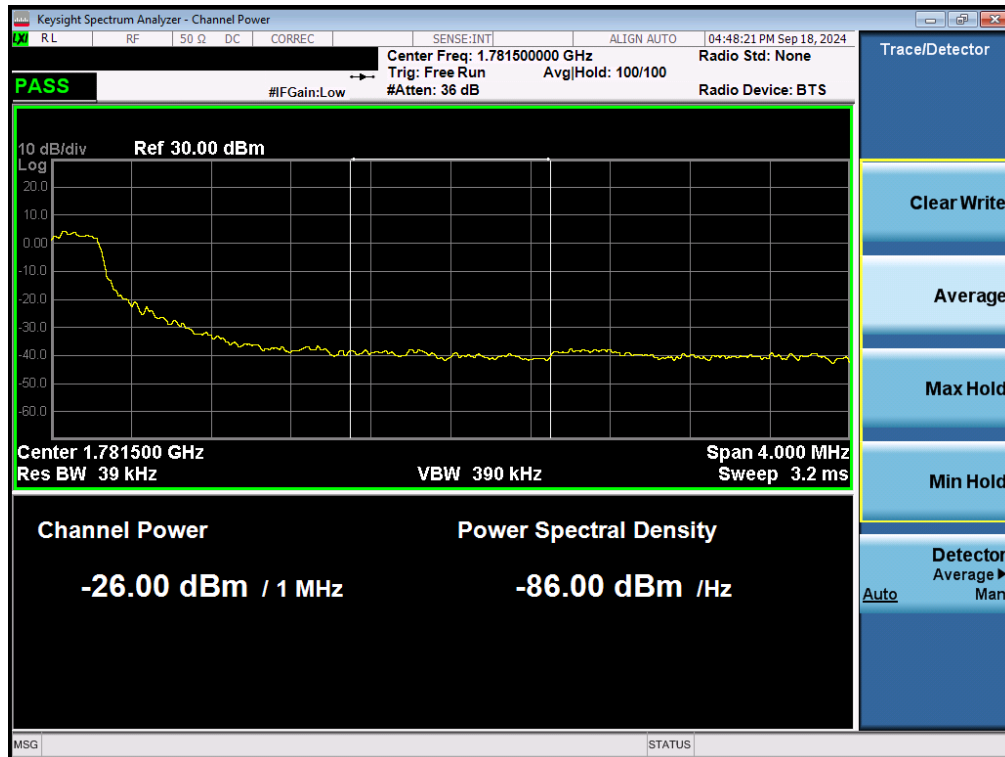


Plot 7-300. Lower Extended Band Edge Plot (NR Band n66 – 5MHz - Full RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 199 of 272                   |



Plot 7-301. Upper Band Edge Plot (NR Band n66 – 5MHz - Full RB - ANT2)



Plot 7-302. Upper Extended Band Edge Plot (NR Band n66 – 5MHz - Full RB - ANT2)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 200 of 272                   |

## 7.6 Peak-Average Ratio

### Test Overview

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

### Test Procedure Used

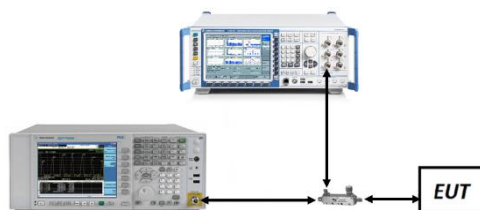
ANSI C63.26-2015 – Section 5.2.3.4

### Test Settings

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

### Test Setup

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



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

### Test Notes

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

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 201 of 272                   |

| Mode      | Bandwidth | Modulation | Average Power [dBm] | PAR at 0.1% [dB] | PAR Limit [dB] | Margin [dB] |
|-----------|-----------|------------|---------------------|------------------|----------------|-------------|
| WCDMA-AWS | 5MHz      | GMSK       | 22.94               | 3.16             | 13             | -9.84       |
| LTE-B66-4 | 20MHz     | QPSK       | 22.48               | 4.62             | 13             | -8.38       |
|           |           | 256QAM     | 18.47               | 6.72             | 13             | -6.28       |
|           | 15MHz     | QPSK       | 22.74               | 4.58             | 13             | -8.42       |
|           |           | 256QAM     | 18.83               | 6.66             | 13             | -6.34       |
|           | 10MHz     | QPSK       | 22.86               | 4.67             | 13             | -8.33       |
|           |           | 256QAM     | 18.90               | 6.74             | 13             | -6.26       |
|           | 5MHz      | QPSK       | 22.90               | 4.79             | 13             | -8.21       |
|           |           | 256QAM     | 18.96               | 6.70             | 13             | -6.30       |
|           | 3MHz      | QPSK       | 22.86               | 4.76             | 13             | -8.24       |
|           |           | 256QAM     | 18.94               | 6.76             | 13             | -6.24       |
|           | 1.4MHz    | QPSK       | 22.78               | 4.67             | 13             | -8.33       |
|           |           | 256QAM     | 18.87               | 6.77             | 13             | -6.23       |

Table 7-23. Peak-Average Ratio Results – Ant1

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 202 of 272                   |

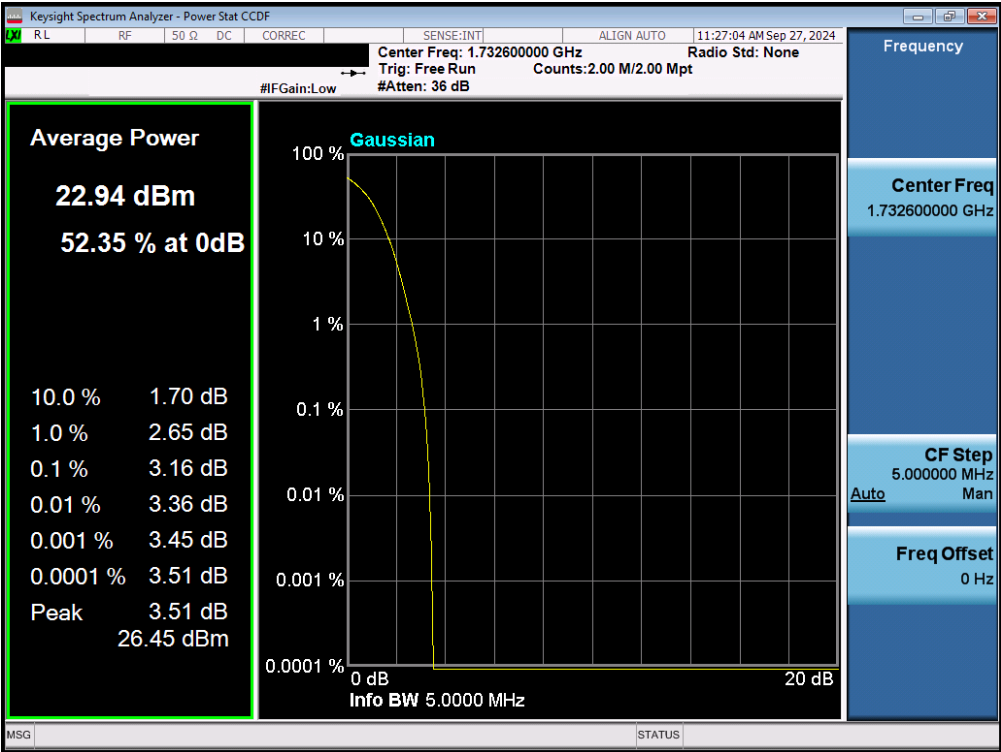
| Mode   | Bandwidth | Modulation   | Average Power [dBm] | PAR at 0.1% [dB] | PAR Limit [dB] | Margin [dB] |
|--------|-----------|--------------|---------------------|------------------|----------------|-------------|
| NR-n70 | 15MHz     | $\pi/2$ BPSK | 23.19               | 3.75             | 13             | -9.25       |
|        |           | QPSK         | 20.49               | 6.53             | 13             | -6.47       |
|        |           | 256QAM       | 16.96               | 8.34             | 13             | -4.66       |
|        | 10MHz     | $\pi/2$ BPSK | 23.15               | 3.75             | 13             | -9.25       |
|        |           | QPSK         | 20.61               | 6.61             | 13             | -6.39       |
|        |           | 256QAM       | 17.09               | 8.68             | 13             | -4.32       |
|        | 5MHz      | $\pi/2$ BPSK | 23.18               | 3.95             | 13             | -9.05       |
|        |           | QPSK         | 20.70               | 6.64             | 13             | -6.36       |
|        |           | 256QAM       | 17.13               | 8.43             | 13             | -4.57       |
| NR-n66 | 45MHz     | $\pi/2$ BPSK | 22.93               | 4.14             | 13             | -8.86       |
|        |           | QPSK         | 20.32               | 6.81             | 13             | -6.19       |
|        |           | 256QAM       | 16.77               | 8.27             | 13             | -4.73       |
|        | 40MHz     | $\pi/2$ BPSK | 22.69               | 4.03             | 13             | -8.97       |
|        |           | QPSK         | 20.23               | 6.54             | 13             | -6.46       |
|        |           | 256QAM       | 16.73               | 8.32             | 13             | -4.68       |
|        | 35MHz     | $\pi/2$ BPSK | 22.74               | 4.12             | 13             | -8.88       |
|        |           | QPSK         | 20.12               | 6.69             | 13             | -6.31       |
|        |           | 256QAM       | 16.63               | 8.42             | 13             | -4.58       |
|        | 30MHz     | $\pi/2$ BPSK | 23.43               | 3.94             | 13             | -9.06       |
|        |           | QPSK         | 20.69               | 6.55             | 13             | -6.45       |
|        |           | 256QAM       | 17.20               | 8.37             | 13             | -4.63       |
|        | 25MHz     | $\pi/2$ BPSK | 23.25               | 4.00             | 13             | -9.00       |
|        |           | QPSK         | 20.75               | 6.73             | 13             | -6.27       |
|        |           | 256QAM       | 17.21               | 8.51             | 13             | -4.49       |
|        | 20MHz     | $\pi/2$ BPSK | 23.28               | 3.79             | 13             | -9.21       |
|        |           | QPSK         | 20.71               | 6.48             | 13             | -6.52       |
|        |           | 256QAM       | 17.15               | 8.45             | 13             | -4.55       |
|        | 15MHz     | $\pi/2$ BPSK | 23.31               | 3.90             | 13             | -9.10       |
|        |           | QPSK         | 20.61               | 6.56             | 13             | -6.44       |
|        |           | 256QAM       | 17.05               | 8.48             | 13             | -4.52       |
|        | 10MHz     | $\pi/2$ BPSK | 23.28               | 3.88             | 13             | -9.12       |
|        |           | QPSK         | 20.63               | 6.65             | 13             | -6.35       |
|        |           | 256QAM       | 17.13               | 8.53             | 13             | -4.47       |
|        | 5MHz      | $\pi/2$ BPSK | 23.26               | 3.82             | 13             | -9.18       |
|        |           | QPSK         | 20.72               | 6.62             | 13             | -6.38       |
|        |           | 256QAM       | 17.16               | 8.45             | 13             | -4.55       |

**Table 7-24. Peak-Average Ratio Results – Ant1**

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 203 of 272                   |



WCDMA AWS – ANT1



Plot 7-303. PAR Plot (WCDMA, Ch. 1413 – ANT1)

|                                            |                                        |                               |                                   |
|--------------------------------------------|----------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMS938U                         | PART 27 MEASUREMENT REPORT             |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2408260067-03-R1.A3L | Test Dates:<br>09/06/2024 - 10/30/2024 | EUT Type:<br>Portable Handset | Page 204 of 272                   |