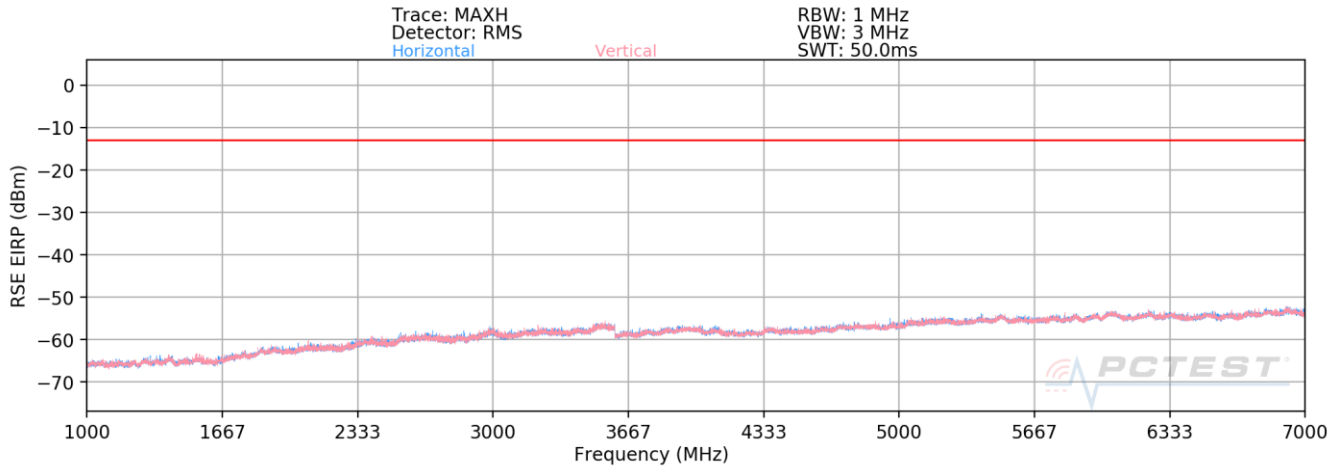
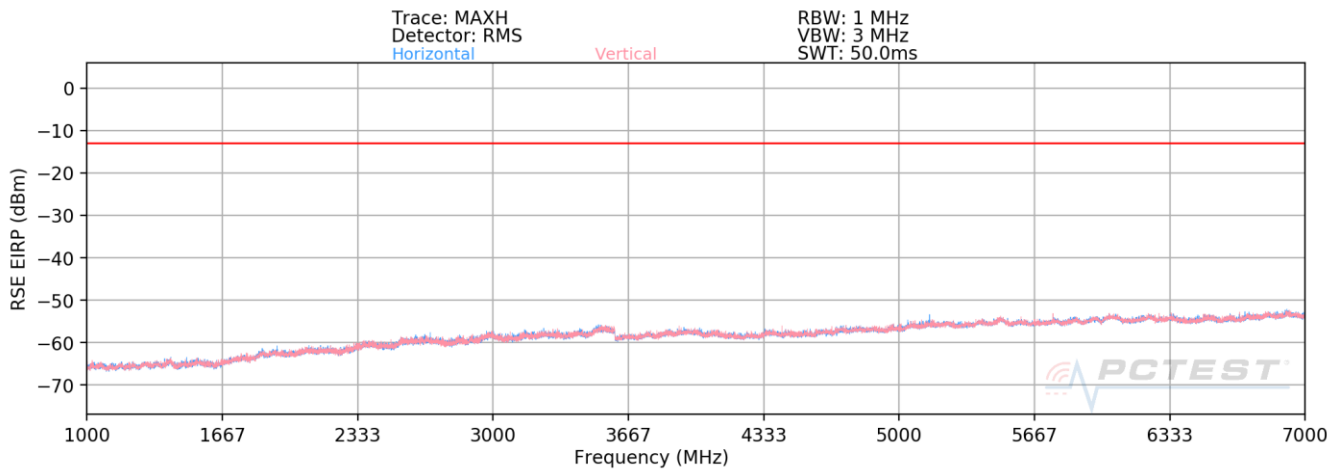


NR Band n71



Plot 7-363. Radiated Spurious Plot (NR Band n71 – Open)



Plot 7-364. Radiated Spurious Plot (NR Band n71 – Closed)

| | | | | |
|-----------------------------------------|----------------------------------------------|-----------------------------------|--|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | | Page 224 of 254 |

| | |
|------------------|--------|
| Bandwidth (MHz): | 20 |
| Frequency (MHz): | 673.0 |
| RB / Offset: | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1346.0 | H | - | - | -76.19 | -1.44 | 29.37 | -65.89 | -13.00 | -52.89 |
| 2019.0 | H | - | - | -77.24 | 2.21 | 31.97 | -63.28 | -13.00 | -50.28 |
| 2692.0 | H | - | - | -77.49 | 3.73 | 33.24 | -62.02 | -13.00 | -49.02 |

Table 7-23. Radiated Spurious Data (NR Band n71 – Low Channel – Open)

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



| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1361.0 | H | - | - | -76.43 | -1.69 | 28.88 | -66.38 | -13.00 | -53.38 |
| 2041.5 | H | - | - | -77.26 | 2.01 | 31.75 | -63.50 | -13.00 | -50.50 |
| 2722.0 | H | - | - | -77.72 | 4.01 | 33.29 | -61.97 | -13.00 | -48.97 |

Table 7-24. Radiated Spurious Data (NR Band n71 – Mid Channel – Open)

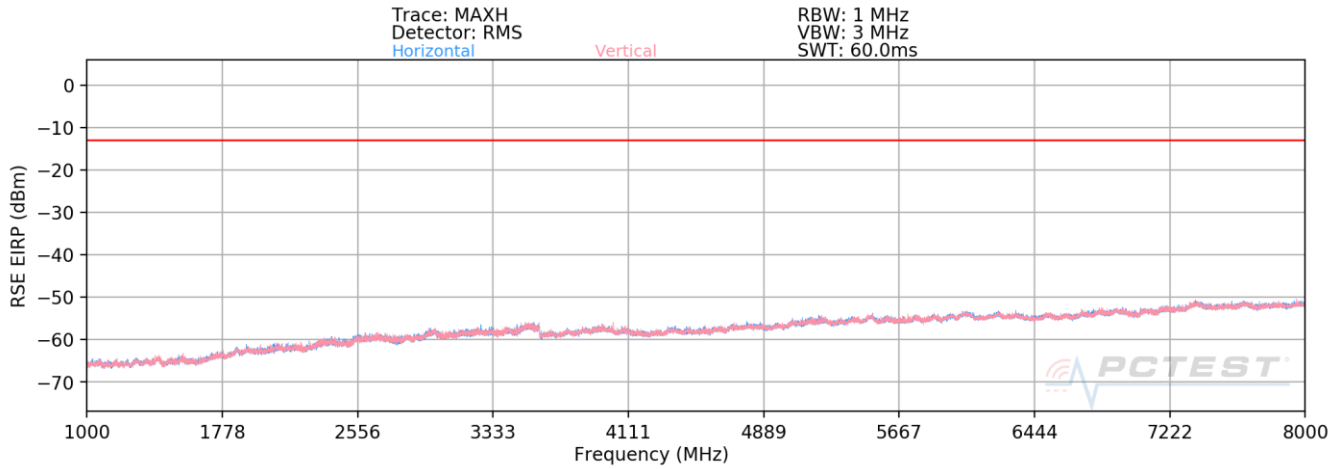
| | |
|------------------|--------|
| Bandwidth (MHz): | 20 |
| Frequency (MHz): | 688.0 |
| RB / Offset: | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1376.0 | H | 237 | 35 | -75.32 | -1.56 | 30.12 | -65.14 | -13.00 | -52.14 |
| 2064.0 | H | - | - | -77.22 | 2.05 | 31.83 | -63.43 | -13.00 | -50.43 |
| 2752.0 | H | - | - | -78.14 | 4.46 | 33.32 | -61.94 | -13.00 | -48.94 |

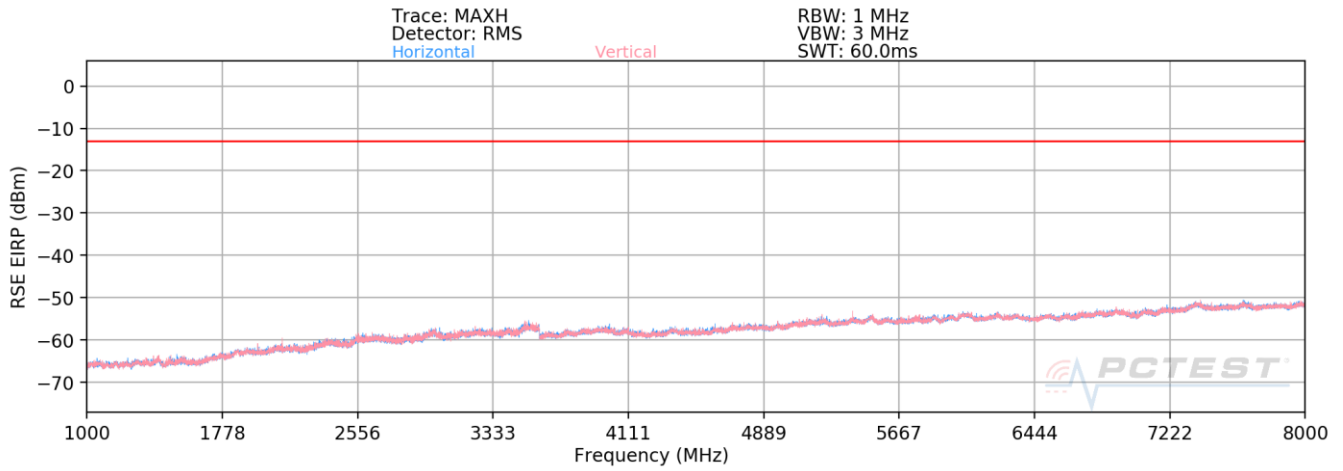
Table 7-25. Radiated Spurious Data (NR Band n71 – High Channel – Open)

| | | | | |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | Page 225 of 254 | |

NR Band n12



Plot 7-365. Radiated Spurious Plot (NR Band n12 – Open)



Plot 7-366. Radiated Spurious Plot (NR Band n12 – Closed)

| | | | | |
|-----------------------------------------|----------------------------------------------|-----------------------------------|--|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | | Page 226 of 254 |

| | |
|------------------|------------|
| Bandwidth (MHz): | 10 |
| Frequency (MHz): | 704.0 |
| RB / Offset: | 1 / 25 |
| Mode: | Standalone |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBµV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1408.0 | H | 220 | 63 | -72.86 | -5.28 | 28.86 | -66.39 | -13.00 | -53.39 |
| 2112.0 | H | - | - | -77.67 | -2.79 | 26.54 | -68.71 | -13.00 | -55.71 |
| 2816.0 | H | - | - | -77.27 | -1.67 | 28.06 | -67.20 | -13.00 | -54.20 |
| 3520.0 | H | - | - | -77.91 | 1.49 | 30.58 | -64.68 | -13.00 | -51.68 |

Table 7-26. Radiated Spurious Data (NR Band n12 – Low Channel – Closed)

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



| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBµV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1415.0 | H | 157 | 147 | -75.23 | -5.29 | 26.48 | -68.77 | -13.00 | -55.77 |
| 2122.5 | H | - | - | -77.24 | -2.98 | 26.78 | -68.48 | -13.00 | -55.48 |
| 2830.0 | H | - | - | -77.30 | -1.25 | 28.45 | -66.81 | -13.00 | -53.81 |
| 3537.5 | H | - | - | -78.14 | 1.57 | 30.43 | -64.83 | -13.00 | -51.83 |

Table 7-27. Radiated Spurious Data (NR Band n12 – Mid Channel – Closed)

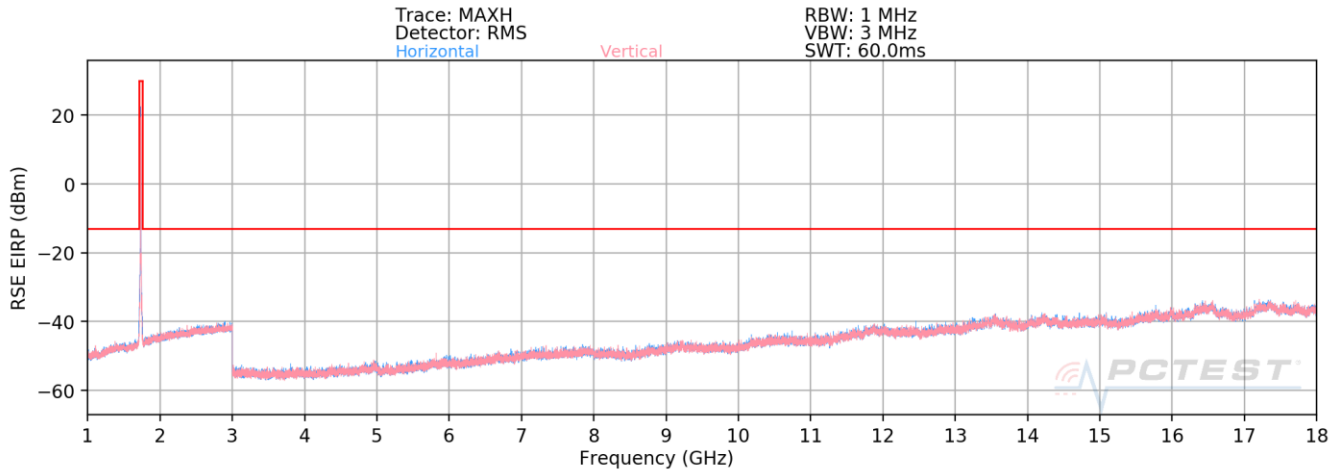
| | |
|------------------|------------|
| Bandwidth (MHz): | 10 |
| Frequency (MHz): | 711.0 |
| RB / Offset: | 1 / 25 |
| Mode: | Standalone |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBµV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1422.0 | H | 148 | 229 | -74.32 | -5.66 | 27.02 | -68.24 | -13.00 | -55.24 |
| 2133.0 | H | - | - | -77.07 | -3.22 | 26.71 | -68.55 | -13.00 | -55.55 |
| 2844.0 | H | - | - | -77.32 | -1.17 | 28.51 | -66.75 | -13.00 | -53.75 |
| 3555.0 | H | - | - | -78.10 | 1.43 | 30.33 | -64.92 | -13.00 | -51.92 |

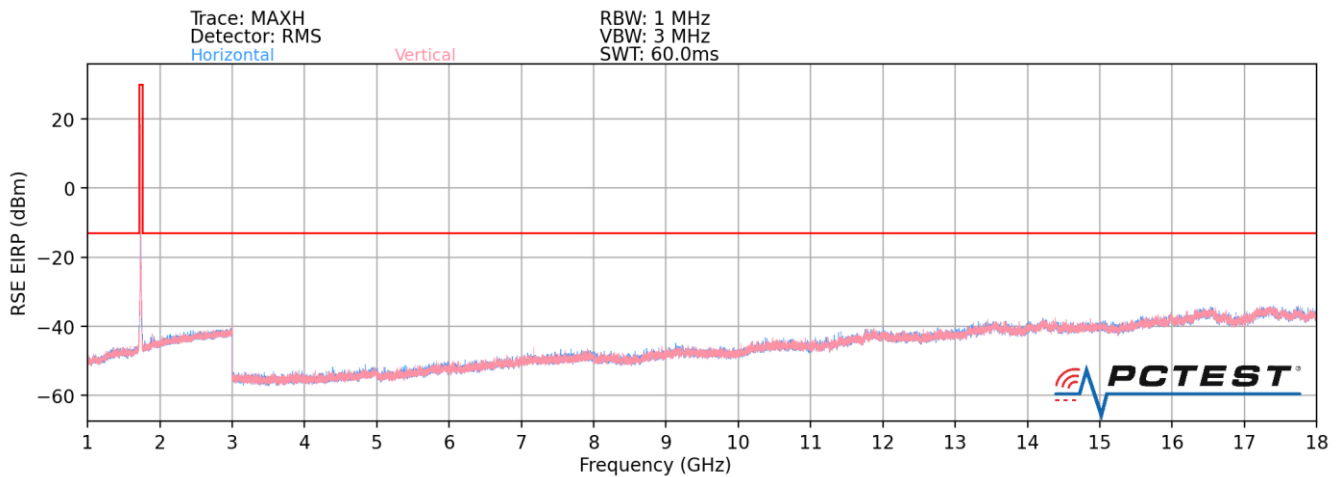
Table 7-28. Radiated Spurious Data (NR Band n12 – High Channel – Closed)

| | | | | |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | Page 227 of 254 | |

WCDMA AWS



Plot 7-367. Radiated Spurious Plot (WCDMA AWS – Open)



Plot 7-368. Radiated Spurious Plot (WCDMA AWS – Closed)

| | |
|------------------|-----------|
| Mode: | WCDMA RMC |
| Channel: | 1312 |
| Frequency (MHz): | 1712.4 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3424.8 | V | - | - | -78.54 | 7.57 | 36.03 | -59.23 | -13.00 | -46.23 |
| 5137.2 | V | - | - | -79.12 | 10.73 | 38.61 | -56.65 | -13.00 | -43.65 |
| 6849.6 | V | - | - | -79.10 | 14.90 | 42.80 | -52.45 | -13.00 | -39.45 |

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

| | | | | |
|-----------------------------------------|----------------------------------------|-------------------------------|-----------------|-----------------------------------|
| FCC ID: A3LSMF711U | | PART 27 MEASUREMENT REPORT | | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | Page 228 of 254 | |

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



| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3465.2 | V | - | - | -78.01 | 7.24 | 36.23 | -59.03 | -13.00 | -46.03 |
| 5197.8 | V | - | - | -78.69 | 10.36 | 38.67 | -56.59 | -13.00 | -43.59 |
| 6930.4 | V | - | - | -79.12 | 14.67 | 42.55 | -52.71 | -13.00 | -39.71 |

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

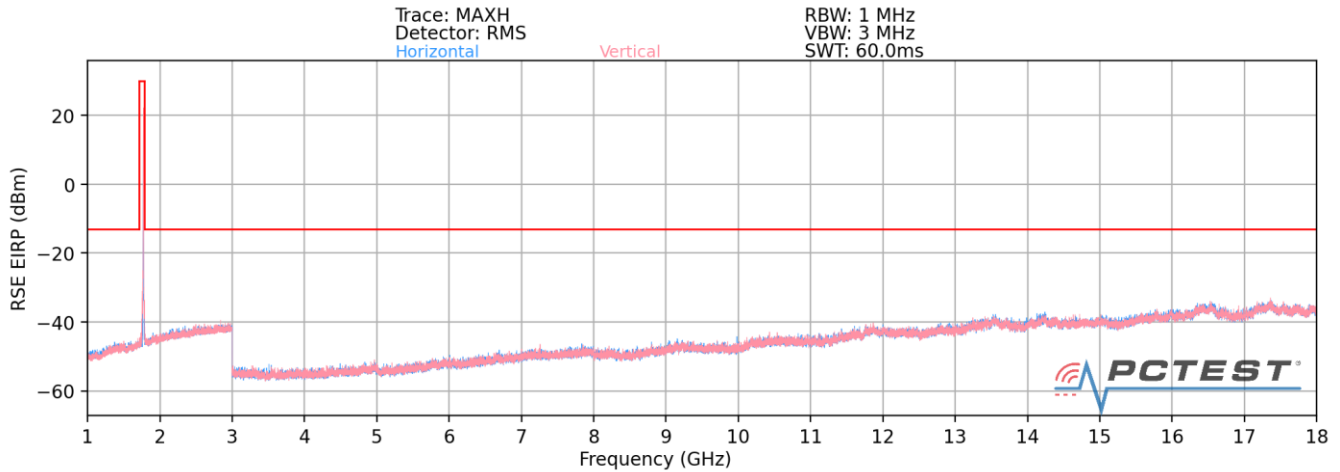
| | |
|-------------------------|-----------|
| Mode: | WCDMA RMC |
| Channel: | 1513 |
| Frequency (MHz): | 1752.6 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3505.2 | V | - | - | -78.29 | 7.68 | 36.39 | -58.87 | -13.00 | -45.87 |
| 5257.8 | V | - | - | -79.35 | 10.82 | 38.47 | -56.79 | -13.00 | -43.79 |
| 7010.4 | V | - | - | -78.75 | 14.91 | 43.16 | -52.09 | -13.00 | -39.09 |

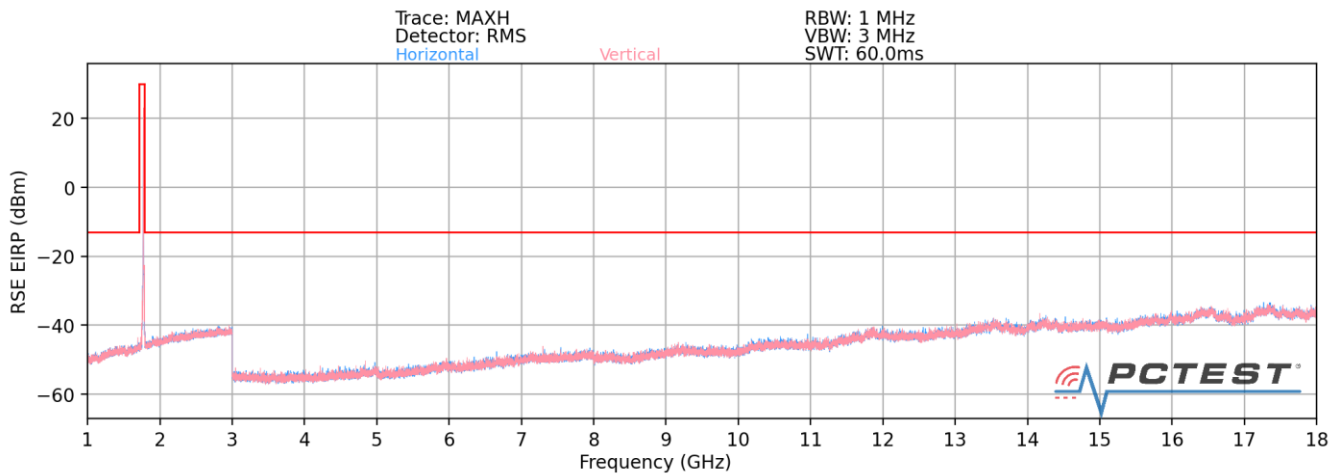
Table 7-31. Radiated Spurious Data (WCDMA AWS – High Channel – Open)

| | | | | |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------|
| FCC ID: A3LSMF711U |  PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | | Page 229 of 254 |

LTE Band 66/4



Plot 7-369. Radiated Spurious Plot (LTE Band 66/4 – Open)





Plot 7-370. Radiated Spurious Plot (LTE Band 66/4 – Closed)

| | |
|------------------|--------|
| Bandwidth (MHz): | 20 |
| Frequency (MHz): | 1720.0 |
| RB / Offset: | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3440.0 | V | - | - | -79.97 | 7.79 | 34.82 | -60.44 | -13.00 | -47.44 |
| 5160.0 | V | - | - | -81.12 | 10.62 | 36.50 | -58.76 | -13.00 | -45.76 |
| 6880.0 | V | - | - | -82.21 | 14.42 | 39.21 | -56.05 | -13.00 | -43.05 |
| 8600.0 | V | - | - | -83.17 | 17.90 | 41.73 | -53.53 | -13.00 | -40.53 |

Table 7-32. Radiated Spurious Data (LTE Band 66/4 – Low Channel – Open)

| | | | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | Page 230 of 254 |

| | |
|------------------|--------|
| Bandwidth (MHz): | 20 |
| Frequency (MHz): | 1745.0 |
| RB / Offset: | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3490.0 | V | 102 | 167 | -74.40 | 7.63 | 40.23 | -55.03 | -13.00 | -42.03 |
| 5235.0 | V | - | - | -81.39 | 10.39 | 36.00 | -59.26 | -13.00 | -46.26 |
| 6980.0 | V | - | - | -81.86 | 14.54 | 39.68 | -55.58 | -13.00 | -42.58 |
| 8725.0 | V | - | - | -83.37 | 17.61 | 41.24 | -54.02 | -13.00 | -41.02 |

Table 7-33. Radiated Spurious Data (LTE Band 66/4 – Mid Channel – Open)

| | |
|------------------|--------|
| Bandwidth (MHz): | 20 |
| Frequency (MHz): | 1770.0 |
| RB / Offset: | 1 / 50 |



| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3540.00 | V | 163 | 137 | -78.32 | 8.04 | 36.72 | -58.53 | -13.00 | -45.53 |
| 5310.00 | V | 249 | 179 | -78.75 | 11.38 | 39.63 | -55.63 | -13.00 | -42.63 |
| 7080.00 | V | - | - | -82.38 | 14.82 | 39.44 | -55.81 | -13.00 | -42.81 |
| 8850.00 | V | - | - | -83.13 | 17.23 | 41.10 | -54.16 | -13.00 | -41.16 |

Table 7-34. Radiated Spurious Data (LTE Band 66/4 – High Channel – Open)

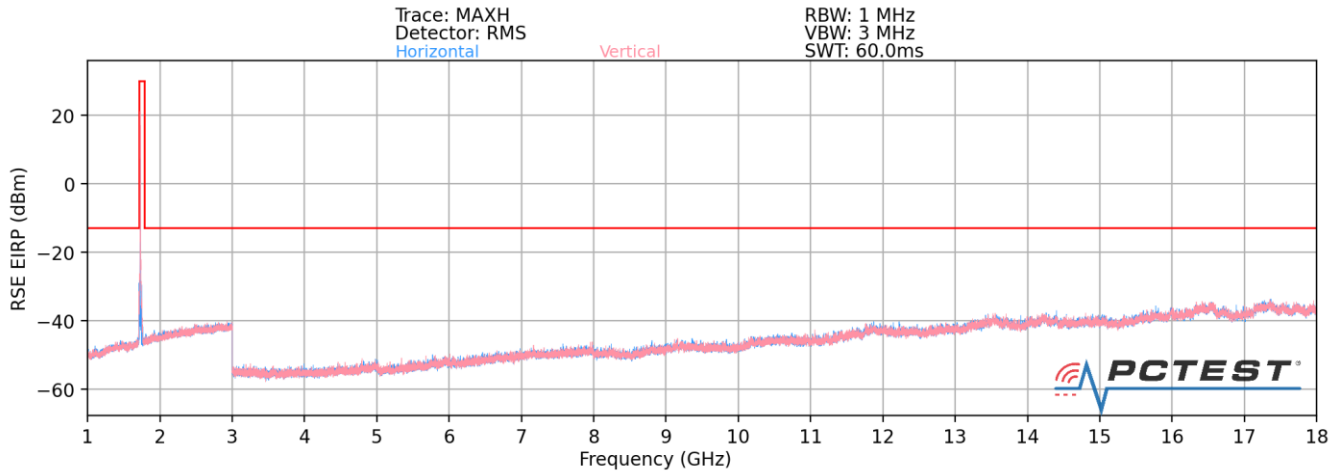
| | |
|------------------|--------|
| Bandwidth (MHz): | 20 |
| Frequency (MHz): | 1745.0 |
| RB / Offset: | 1 / 50 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3490.0 | V | - | - | -78.52 | 5.21 | 33.69 | -61.57 | -13.00 | -48.57 |
| 5235.0 | V | - | - | -79.59 | 7.24 | 34.65 | -60.61 | -13.00 | -47.61 |
| 6980.0 | V | - | - | -79.73 | 11.17 | 38.44 | -56.81 | -13.00 | -43.81 |

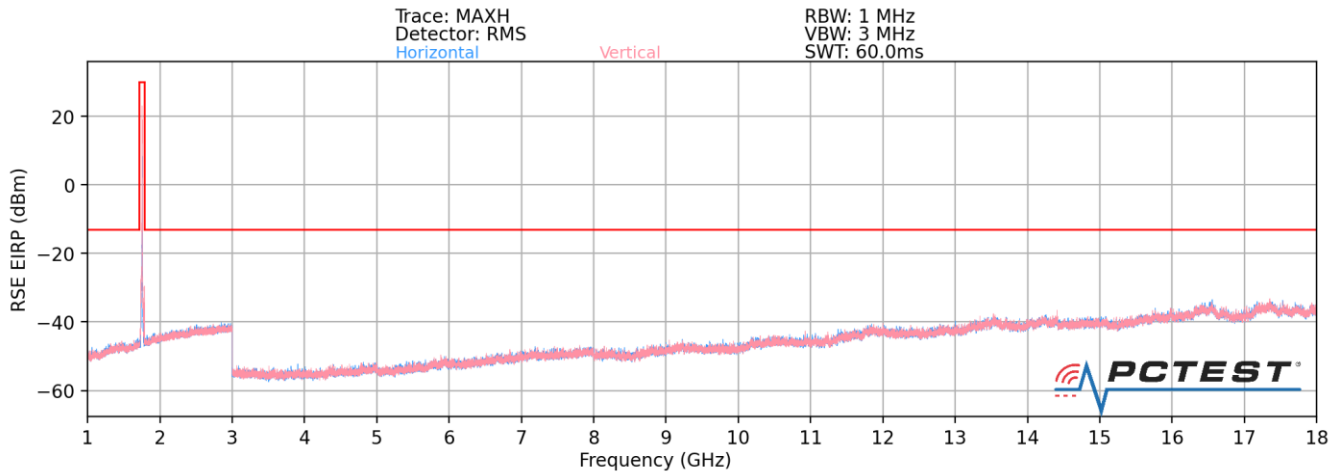
Table 7-35. Radiated Spurious Data (LTE Band 66/4 – Mid Channel – Open) – With WCP

| | | | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | Page 231 of 254 |

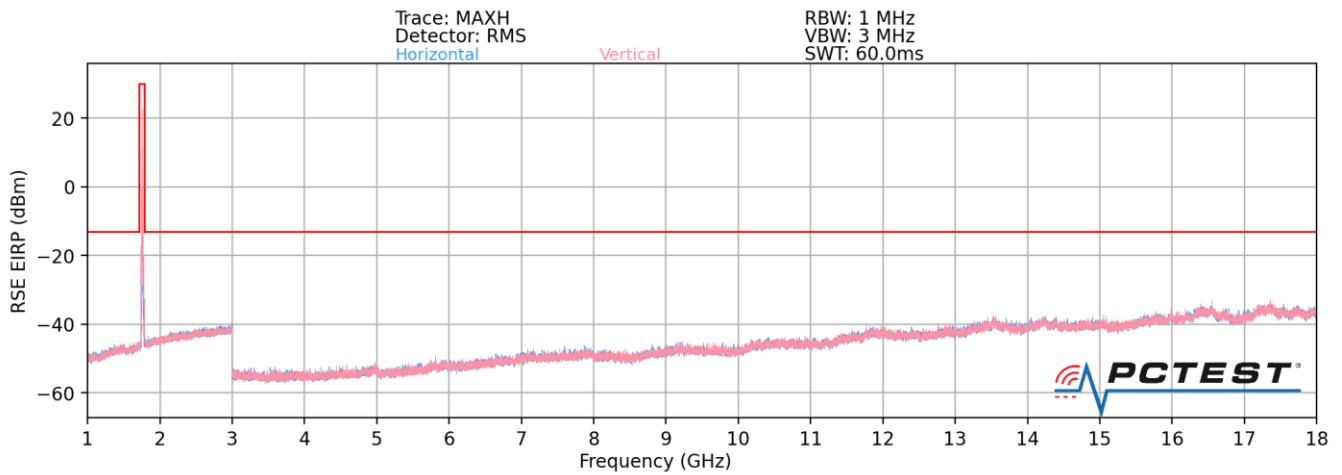
Uplink CA LTE Band 66B/C



Plot 7-371. Radiated Spurious Plot (ULCA LTE Band 66 – Low Channel – Open)

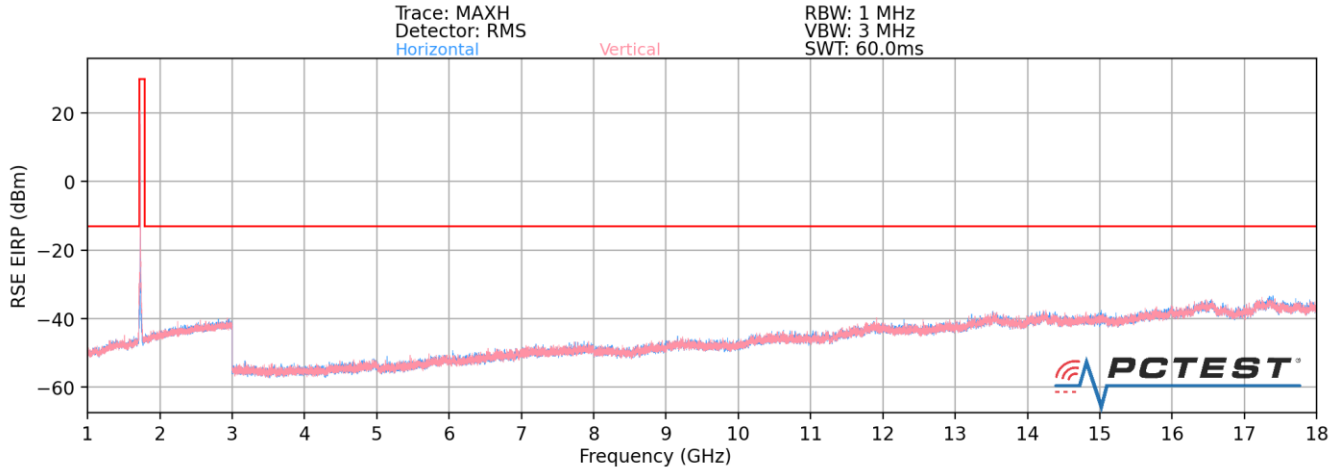


Plot 7-372. Radiated Spurious Plot (ULCA LTE Band 66 – Mid Channel – Open)

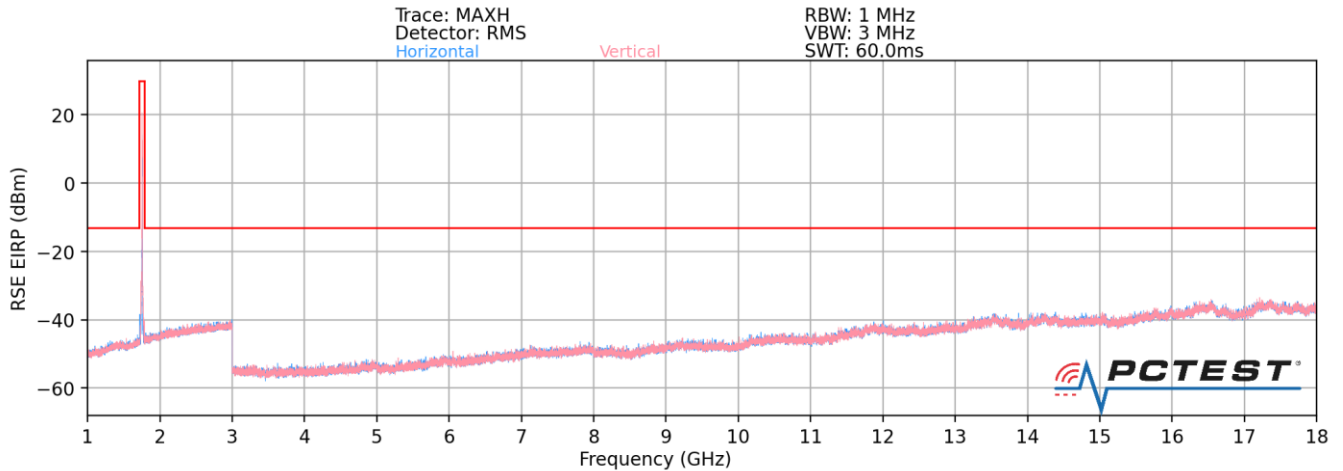


Plot 7-373. Radiated Spurious Plot (ULCA LTE Band 66 – High Channel – Open)

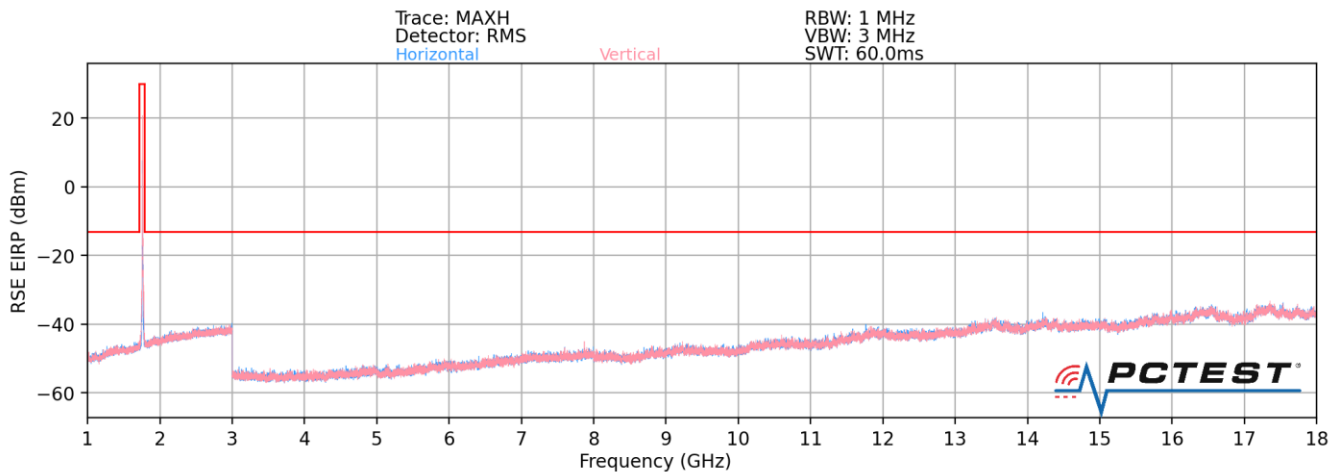
| | | | | |
|-----------------------------------------|----------------------------------------|-------------------------------|--|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | | Page 232 of 254 |



Plot 7-374. Radiated Spurious Plot (ULCA LTE Band 66 – Low Channel – Closed)



Plot 7-375. Radiated Spurious Plot (ULCA LTE Band 66 – Mid Channel – Closed)



Plot 7-376. Radiated Spurious Plot (ULCA LTE Band 66 – High Channel – Closed)

| | | | | |
|-----------------------------------------|----------------------------------------------|-------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | SAMSUNG | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | | Page 233 of 254 |

| | |
|----------------------|--------|
| PCC Bandwidth (MHz): | 20 |
| PCC Frequency (MHz): | 1720.0 |
| PCC RB / Offset: | 1 / 99 |
| SCC Bandwidth (MHz): | 20 |
| SCC Frequency (MHz): | 1739.8 |
| SCC RB / Offset: | 1 / 0 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3440.0 | V | 112 | 177 | -76.22 | 7.79 | 38.57 | -56.69 | -13.00 | -43.69 |
| 5160.0 | V | - | - | -79.86 | 10.62 | 37.76 | -57.50 | -13.00 | -44.50 |
| 6880.0 | V | - | - | -81.46 | 14.42 | 39.96 | -55.30 | -13.00 | -42.30 |
| 8600.0 | V | - | - | -82.19 | 17.90 | 42.71 | -52.55 | -13.00 | -39.55 |

7-36. Radiated Spurious Data (ULCA LTE66 – Low Channel – Open)

| | |
|----------------------|--------|
| PCC Bandwidth (MHz): | 20 |
| PCC Frequency (MHz): | 1745.0 |
| PCC RB / Offset: | 1 / 99 |
| SCC Bandwidth (MHz): | 20 |
| SCC Frequency (MHz): | 1764.8 |
| SCC RB / Offset: | 1 / 0 |



| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3490.0 | V | 155 | 174 | -74.56 | 7.63 | 40.07 | -55.19 | -13.00 | -42.19 |
| 5235.0 | V | - | - | -79.99 | 10.39 | 37.40 | -57.86 | -13.00 | -44.86 |
| 6980.0 | V | - | - | -81.32 | 14.54 | 40.22 | -55.04 | -13.00 | -42.04 |
| 8725.0 | V | - | - | -82.10 | 17.61 | 42.51 | -52.75 | -13.00 | -39.75 |

Table 7-37. Radiated Spurious Data (ULCA LTE66 – Mid Channel – Open)

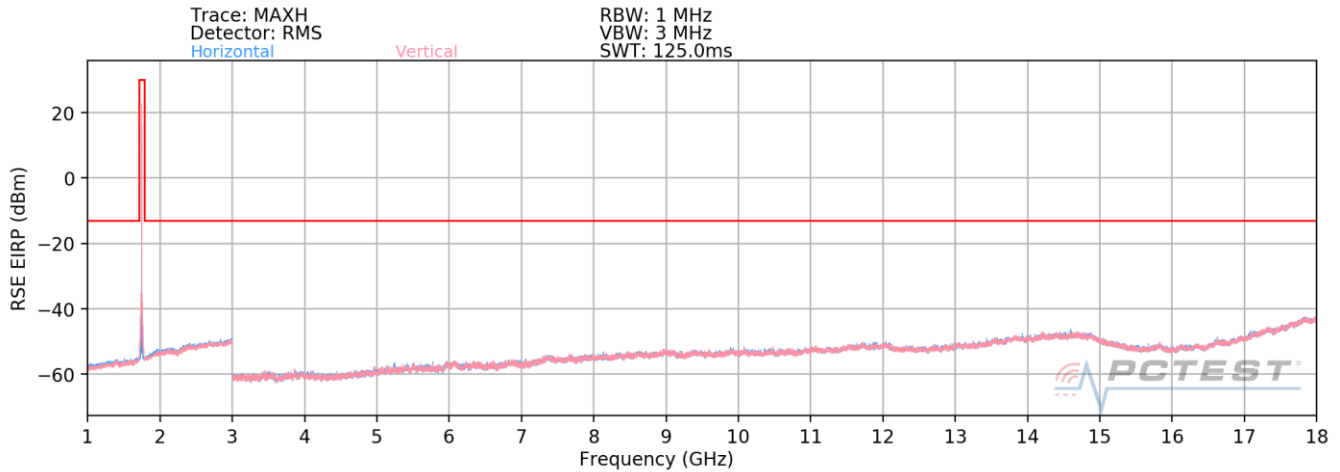
| | |
|----------------------|--------|
| PCC Bandwidth (MHz): | 20 |
| PCC Frequency (MHz): | 1770.0 |
| PCC RB / Offset: | 1 / 0 |
| SCC Bandwidth (MHz): | 20 |
| SCC Frequency (MHz): | 1750.2 |
| SCC RB / Offset: | 1 / 99 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3540.0 | V | 100 | 173 | -74.17 | 8.04 | 40.87 | -54.38 | -13.00 | -41.38 |
| 5310.0 | V | - | - | -81.36 | 11.38 | 37.02 | -58.24 | -13.00 | -45.24 |
| 7080.0 | V | - | - | -82.32 | 14.82 | 39.50 | -55.75 | -13.00 | -42.75 |
| 8850.0 | V | - | - | -83.39 | 17.23 | 40.84 | -54.42 | -13.00 | -41.42 |

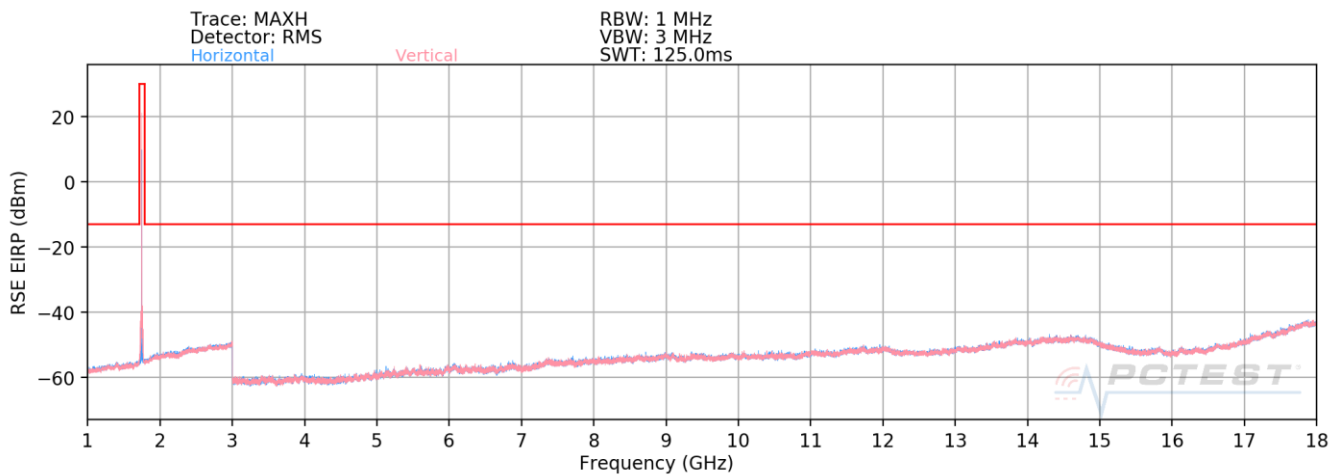
Table 7-38. Radiated Spurious Data (ULCA LTE66 – High Channel – Open)

| | | | | |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | Page 234 of 254 | |

NR Band n66 – Ant A



Plot 7-377. Radiated Spurious Plot (NR Band n66 – Open)





Plot 7-378. Radiated Spurious Plot (NR Band n66 – Closed)

| | |
|------------------|---------|
| Bandwidth (MHz): | 40 |
| Frequency (MHz): | 1730.0 |
| RB / Offset: | 1 / 108 |
| Mode: | SA |
| Anchor Band: | - |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3460.0 | H | - | - | -77.64 | 1.27 | 30.63 | -64.63 | -13.00 | -51.63 |
| 5190.0 | H | 368 | 332 | -75.66 | 5.14 | 36.48 | -58.77 | -13.00 | -45.77 |
| 6920.0 | H | - | - | -80.39 | 7.77 | 34.38 | -60.88 | -13.00 | -47.88 |
| 8650.0 | H | - | - | -81.24 | 11.11 | 36.87 | -58.39 | -13.00 | -45.39 |

Table 7-39. Radiated Spurious Data (NR Band n66 – Low Channel – Open)

| | | | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | Page 235 of 254 |

| | |
|------------------|---------|
| Bandwidth (MHz): | 40 |
| Frequency (MHz): | 1745.0 |
| RB / Offset: | 1 / 108 |
| Mode: | SA |
| Anchor Band: | - |



| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3490.0 | H | 269 | 2 | -75.68 | 1.27 | 32.59 | -62.66 | -13.00 | -49.66 |
| 5235.0 | H | 227 | 339 | -74.74 | 4.93 | 37.19 | -58.06 | -13.00 | -45.06 |
| 6980.0 | H | - | - | -79.83 | 6.82 | 33.99 | -61.27 | -13.00 | -48.27 |
| 8725.0 | H | - | - | -80.79 | 10.67 | 36.88 | -58.38 | -13.00 | -45.38 |

Table 7-40. Radiated Spurious Data (NR Band n66 – Mid Channel – Open)

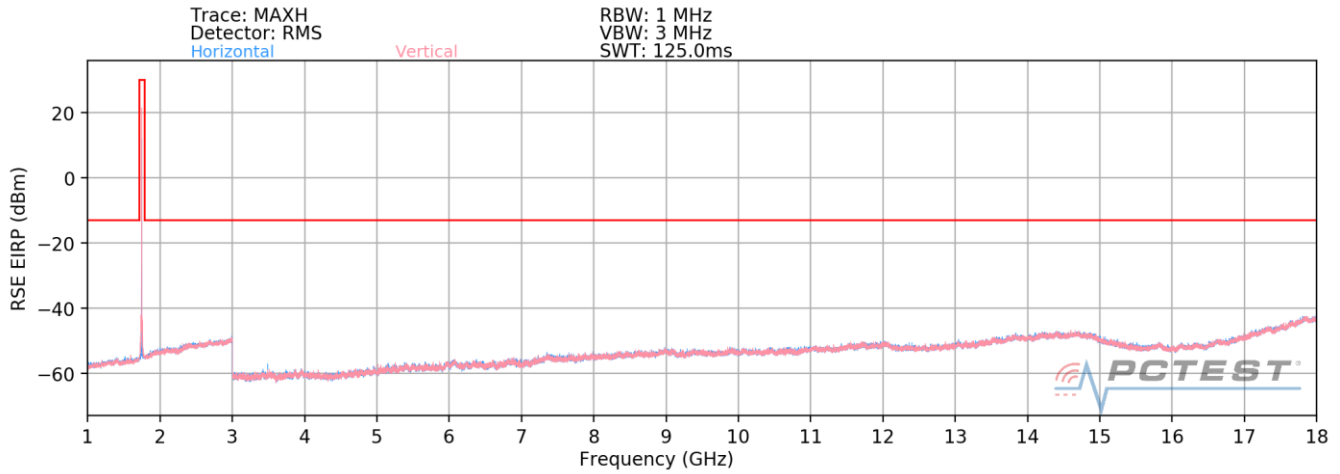
| | |
|------------------|---------|
| Bandwidth (MHz): | 40 |
| Frequency (MHz): | 1760.0 |
| RB / Offset: | 1 / 108 |
| Mode: | SA |
| Anchor Band: | - |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3520.0 | H | 382 | 325 | -76.62 | 1.74 | 32.12 | -63.14 | -13.00 | -50.14 |
| 5280.0 | H | 302 | 337 | -74.97 | 4.69 | 36.72 | -58.54 | -13.00 | -45.54 |
| 7040.0 | H | - | - | -80.06 | 6.93 | 33.87 | -61.39 | -13.00 | -48.39 |
| 8800.0 | H | - | - | -80.88 | 10.75 | 36.87 | -58.39 | -13.00 | -45.39 |

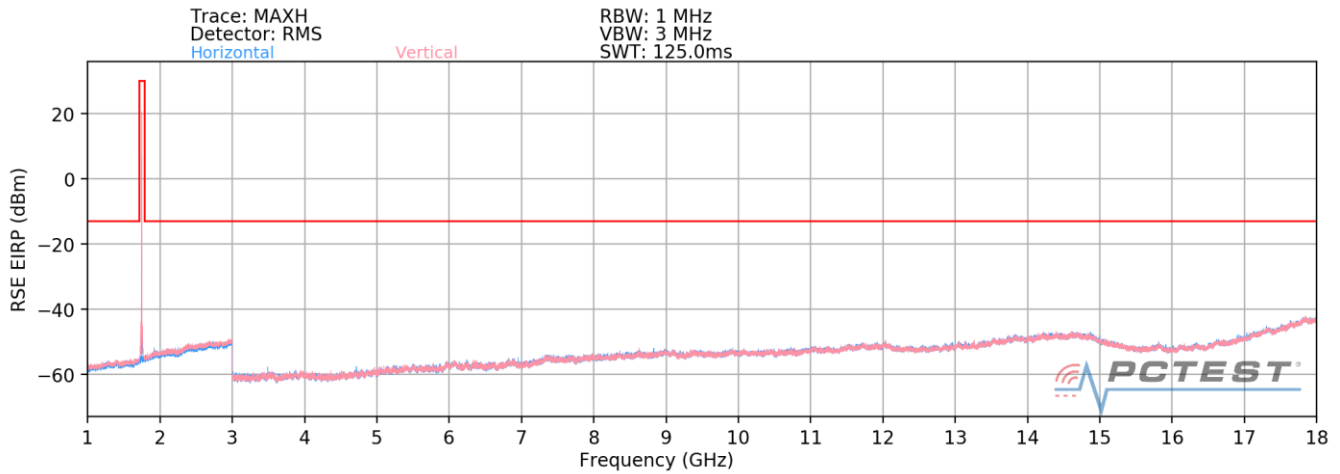
Table 7-41. Radiated Spurious Data (NR Band n66 – High Channel – Open)

| | | | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
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NR Band n66 – Ant I



Plot 7-379. Radiated Spurious Plot (NR Band n66 – Open)



Plot 7-380. Radiated Spurious Plot (NR Band n66 – Closed)

| | |
|------------------|---------|
| Bandwidth (MHz): | 40 |
| Frequency (MHz): | 1730.0 |
| RB / Offset: | 1 / 108 |
| Mode: | SA |
| Anchor Band: | - |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3460.0 | H | 111 | 139 | -75.73 | 1.27 | 32.54 | -62.72 | -13.00 | -49.72 |
| 5190.0 | H | - | - | -79.56 | 5.14 | 32.58 | -62.67 | -13.00 | -49.67 |
| 6920.0 | H | - | - | -80.37 | 7.77 | 34.40 | -60.86 | -13.00 | -47.86 |
| 8650.0 | H | - | - | -80.27 | 11.11 | 37.84 | -57.42 | -13.00 | -44.42 |

Table 7-42. Radiated Spurious Data (NR Band n66 – Low Channel – Open)

| | | | | |
|-----------------------------------------|----------------------------------------------|-----------------------------------|-----------------|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | SAMSUNG | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | Page 237 of 254 | |

| | |
|------------------|---------|
| Bandwidth (MHz): | 40 |
| Frequency (MHz): | 1745.0 |
| RB / Offset: | 1 / 108 |
| Mode: | SA |
| Anchor Band: | - |



| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3490.0 | H | 122 | 138 | -74.66 | 1.27 | 33.61 | -61.64 | -13.00 | -48.64 |
| 5235.0 | H | 242 | 325 | -75.19 | 4.93 | 36.74 | -58.51 | -13.00 | -45.51 |
| 6980.0 | H | - | - | -79.88 | 6.82 | 33.94 | -61.32 | -13.00 | -48.32 |
| 8725.0 | H | - | - | -80.89 | 10.67 | 36.78 | -58.48 | -13.00 | -45.48 |

Table 7-43. Radiated Spurious Data (NR Band n66 – Mid Channel – Open)

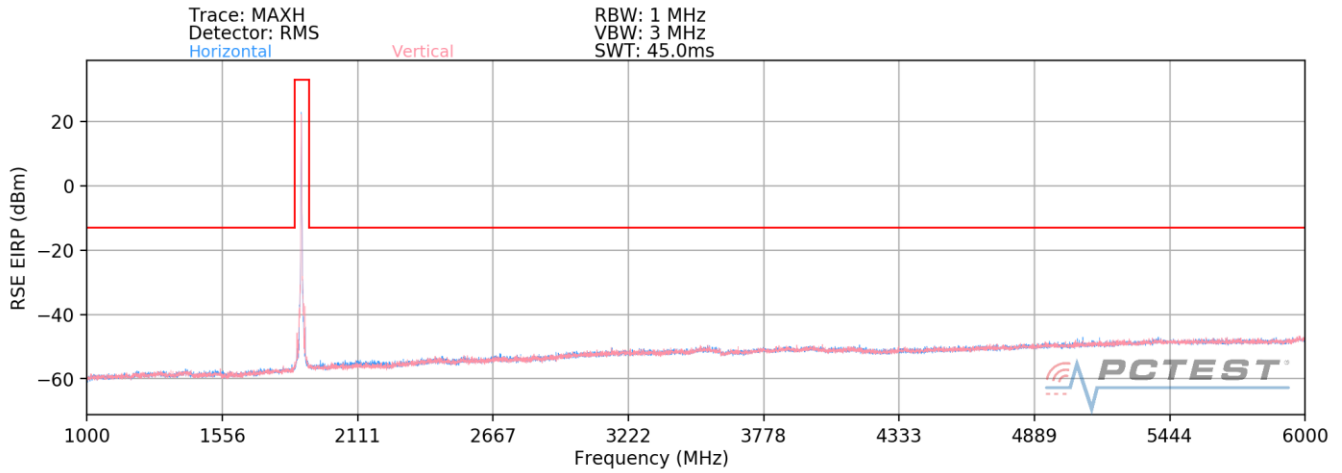
| | |
|------------------|---------|
| Bandwidth (MHz): | 40 |
| Frequency (MHz): | 1760.0 |
| RB / Offset: | 1 / 108 |
| Mode: | SA |
| Anchor Band: | - |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 3520.0 | H | 372 | 119 | -76.90 | 1.74 | 31.84 | -63.42 | -13.00 | -50.42 |
| 5280.0 | H | - | - | -79.10 | 4.69 | 32.59 | -62.67 | -13.00 | -49.67 |
| 7040.0 | H | - | - | -80.07 | 6.93 | 33.86 | -61.40 | -13.00 | -48.40 |
| 8800.0 | H | - | - | -80.95 | 10.75 | 36.80 | -58.46 | -13.00 | -45.46 |

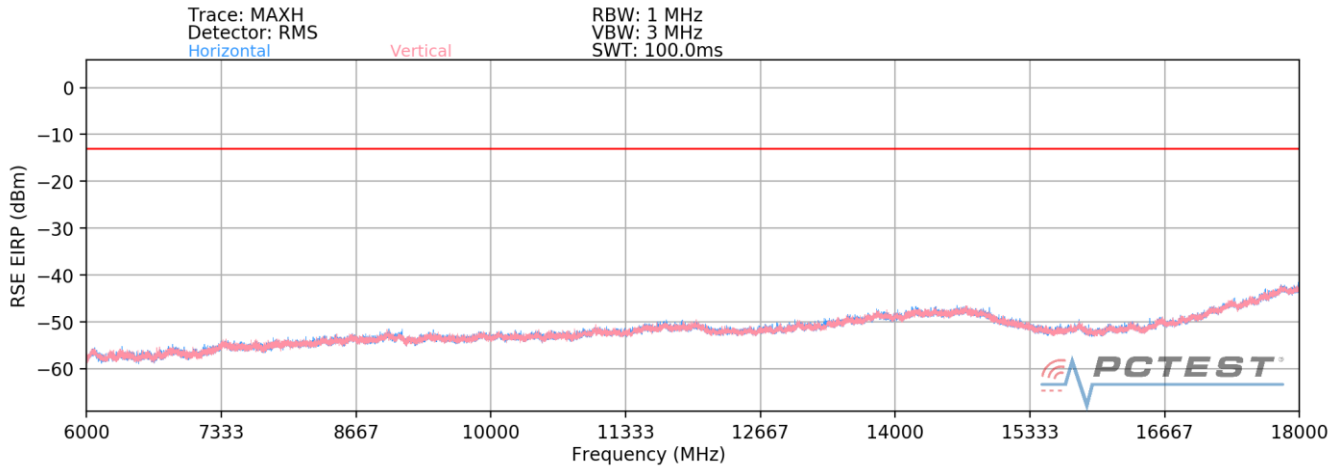
Table 7-44. Radiated Spurious Data (NR Band n66 – High Channel – Open)

| | | | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
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EN-DC n71 - B2



Plot 7-381. Radiated Spurious Plot (EN-DC n71 – B2 – Open)



Plot 7-382. Radiated Spurious Plot (EN-DC n71 – B2 – Open)

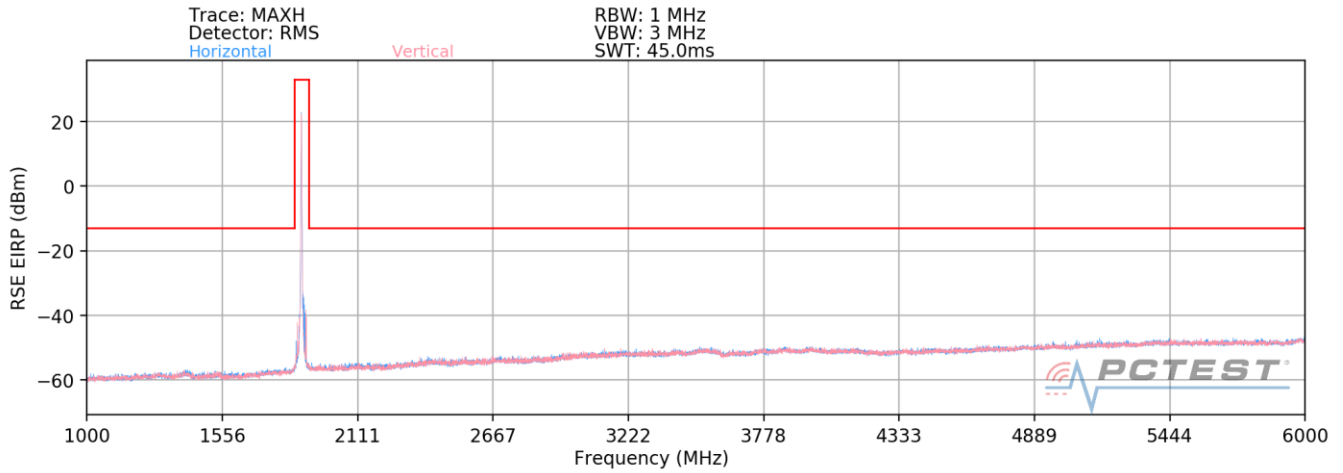
| | |
|-------------------------|--------|
| Bandwidth (MHz): | 20 |
| Frequency (MHz): | 680.5 |
| RB / Offset: | 1 / 53 |
| Mode: | EN-DC |
| Anchor Band: | B2 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1718.5 | H | - | - | -77.36 | 3.83 | 33.47 | -61.79 | -13.00 | -48.79 |
| 2918.0 | H | - | - | -77.68 | 8.22 | 37.54 | -57.71 | -13.00 | -44.71 |
| 3079.5 | H | - | - | -779.92 | 9.27 | -663.65 | -758.91 | -13.00 | -745.91 |

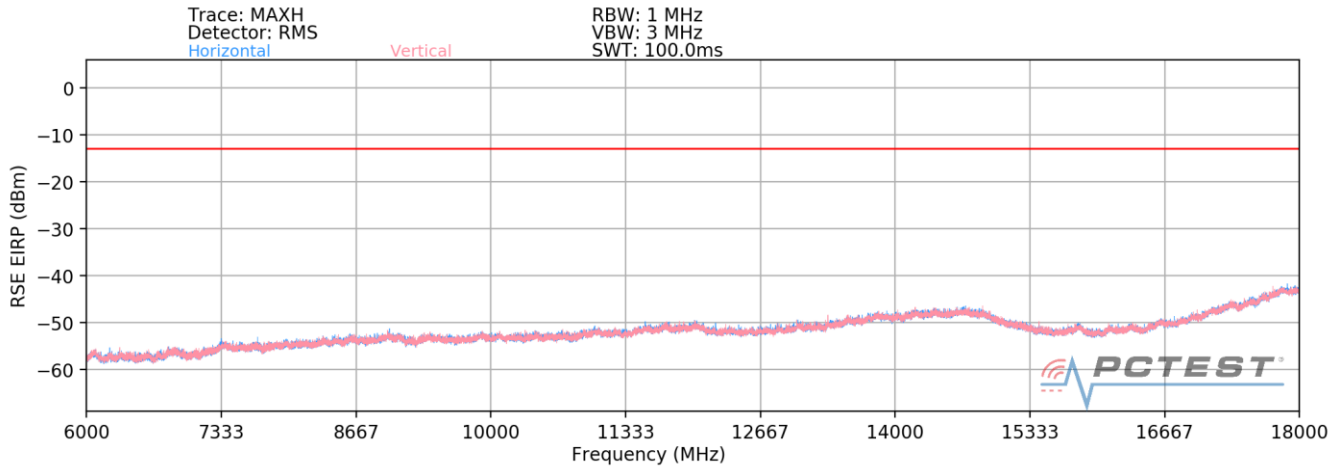
Table 7-45. Radiated Spurious Data (EN-DC n71 – B2 – Open)

| | | | | |
|-----------------------------------------|----------------------------------------------|-----------------------------------|-----------------|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | SAMSUNG | Approved by: Technical Manager |
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EN-DC n12 - B2



Plot 7-383. Radiated Spurious Plot (EN-DC n12 -B2 - Open)



Plot 7-384. Radiated Spurious Plot (EN-DC n12 -B2 - Open)

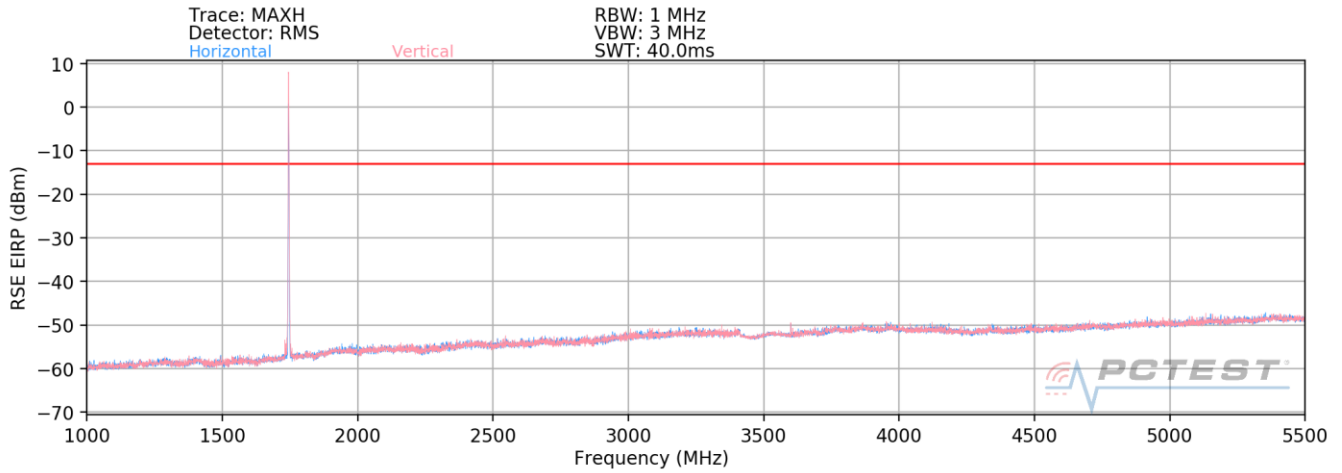
| | |
|------------------|--------|
| Bandwidth (MHz): | 20 |
| Frequency (MHz): | 707.5 |
| RB / Offset: | 1 / 39 |
| Mode: | EN-DC |
| Anchor Band: | B2 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1637.5 | H | - | - | -77.49 | 3.05 | 32.56 | -62.70 | -13.00 | -49.70 |
| 2810.0 | H | - | - | -77.80 | 7.36 | 36.56 | -58.70 | -13.00 | -45.70 |
| 3052.5 | H | - | - | -77.86 | 9.12 | 38.26 | -57.00 | -13.00 | -44.00 |

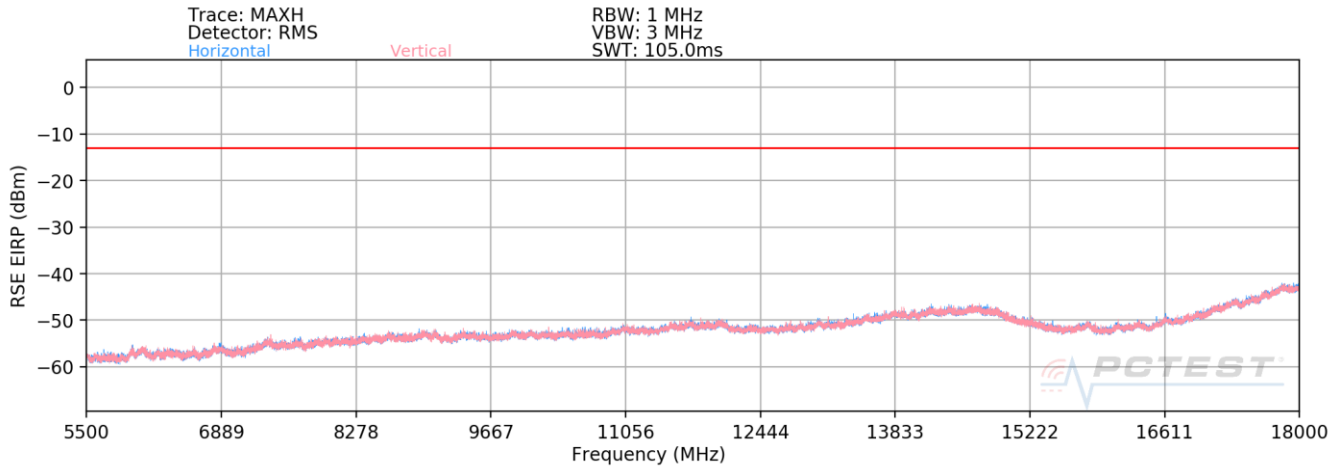
Table 7-46. Radiated Spurious Data (EN-DC n12 -B2 - Open)

| | | | | |
|-----------------------------------------|----------------------------------------------|-------------------------------|-----------------|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | SAMSUNG | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | Page 240 of 254 | |

EN-DC n66 (Ant I) – B14



Plot 7-385. Radiated Spurious Plot (EN-DC n66 –B14 – Open)





Plot 7-386. Radiated Spurious Plot (EN-DC n66 –B14 – Open)

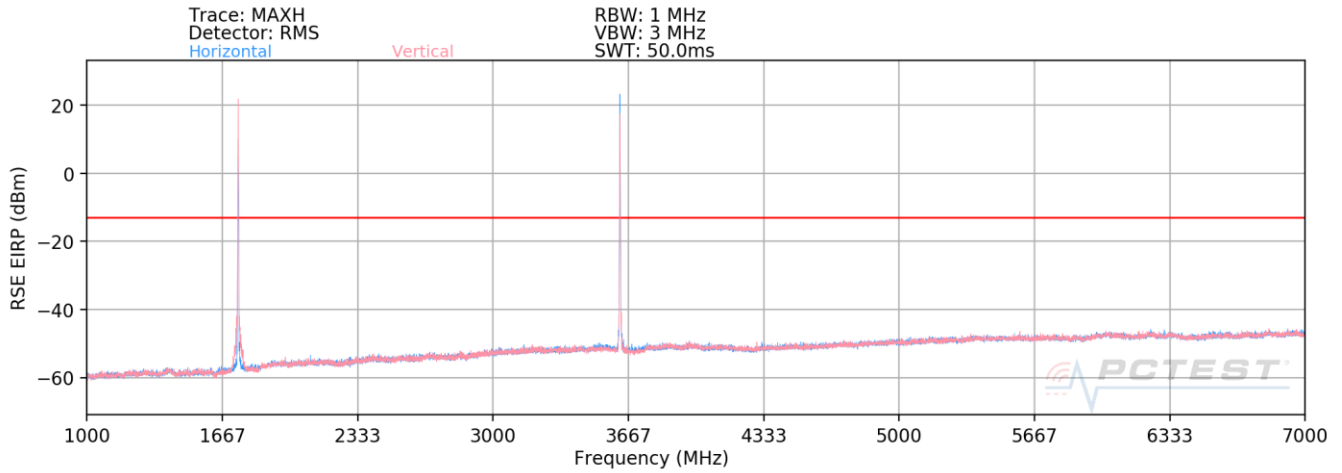
| | |
|------------------|-------------|
| Bandwidth (MHz): | 40 |
| Frequency (MHz): | 1745.0 |
| RB / Offset: | 2/107 |
| Mode: | EN-DC |
| Anchor Band: | LTE Band 14 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1111.0 | H | - | - | -75.89 | -6.51 | 24.60 | -70.65 | -13.00 | -57.65 |
| 2379.0 | H | 144 | 49 | -63.36 | -1.92 | 41.72 | -53.54 | -13.00 | -40.54 |
| 2697.0 | H | - | - | -77.16 | -1.19 | 28.65 | -66.60 | -13.00 | -53.60 |
| 3649.0 | H | - | - | -78.05 | 2.00 | 30.95 | -64.31 | -13.00 | -51.31 |

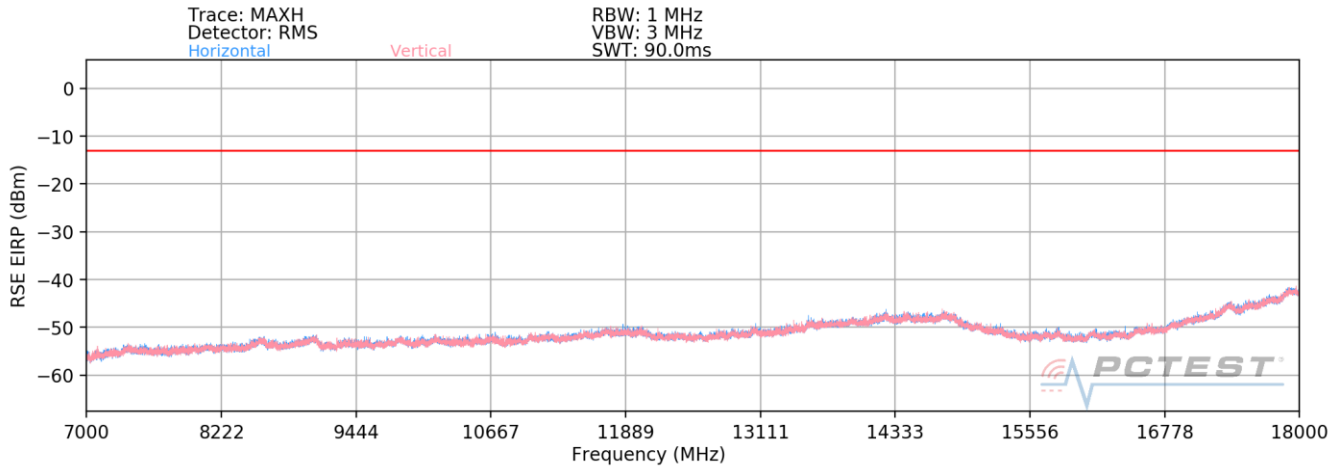
Table 7-47. Radiated Spurious Data (EN-DC n66 –B14 – Open)

| | | | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | Page 241 of 254 |

EN-DC n66 (Ant I) – B48



Plot 7-387. Radiated Spurious Plot (EN-DC n66 – B48 – Open)





Plot 7-388. Radiated Spurious Plot (EN-DC n66 – B48 – Open)

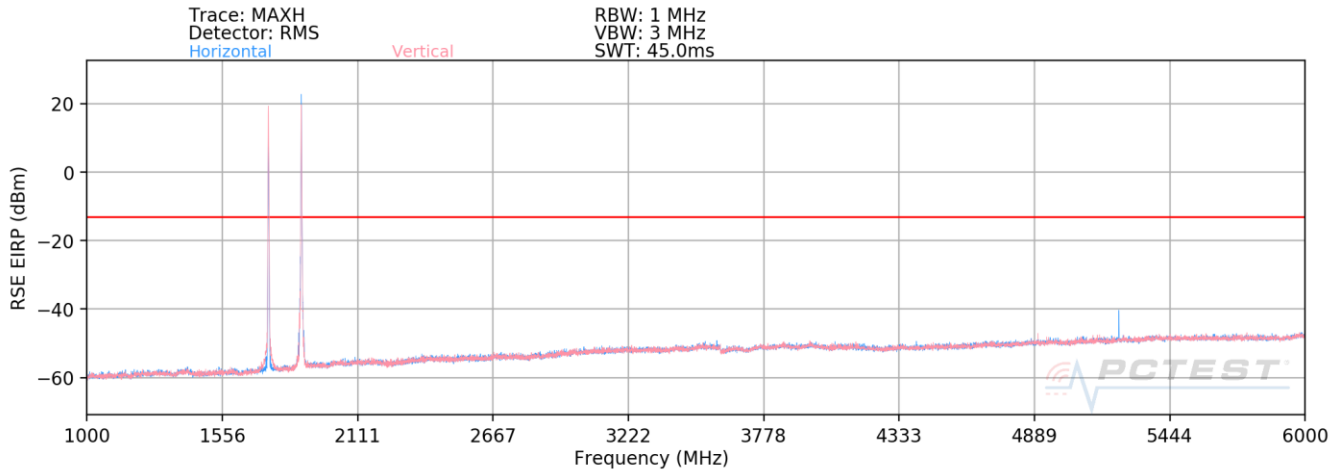
| | |
|------------------|-------------|
| Bandwidth (MHz): | 40 |
| Frequency (MHz): | 1745.0 |
| RB / Offset: | 2 / 107 |
| Mode: | EN-DC |
| Anchor Band: | LTE Band 48 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 2015.0 | V | - | - | -76.66 | -3.61 | 26.73 | -68.52 | -13.00 | -55.52 |
| 5505.0 | V | - | - | -79.36 | 6.24 | 33.88 | -61.38 | -13.00 | -48.38 |
| 7385.0 | V | - | - | -79.76 | 9.85 | 37.09 | -58.17 | -13.00 | -45.17 |

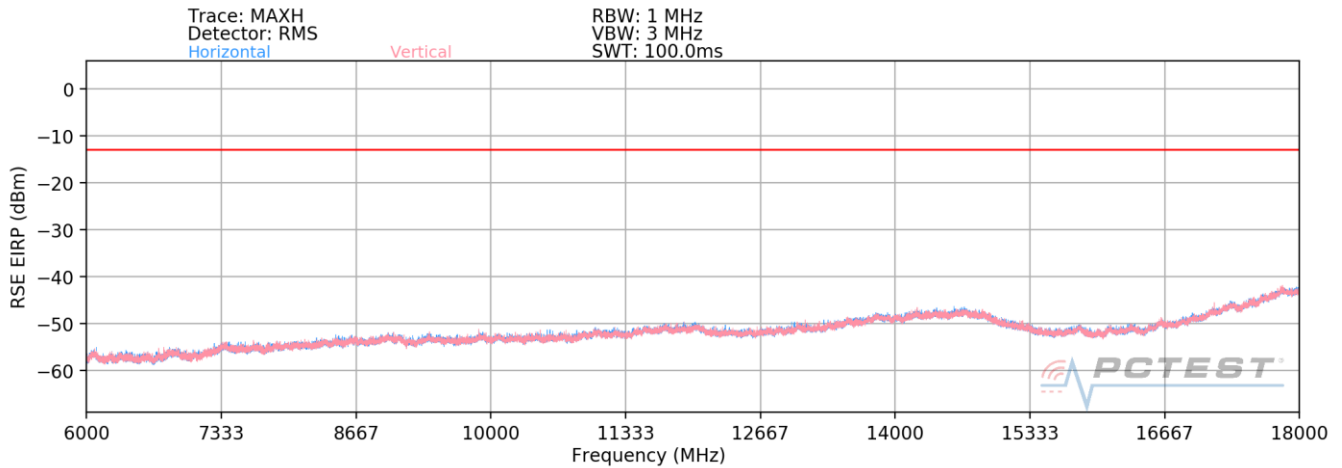
Table 7-48. Radiated Spurious Data (EN-DC n66 – B48 – Open)

| | | | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
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EN-DC n66 (Ant I) – B2



Plot 7-389. Radiated Spurious Plot (EN-DC n66 – B2 – Open)





Plot 7-390. Radiated Spurious Plot (EN-DC n66 – B2– Open)

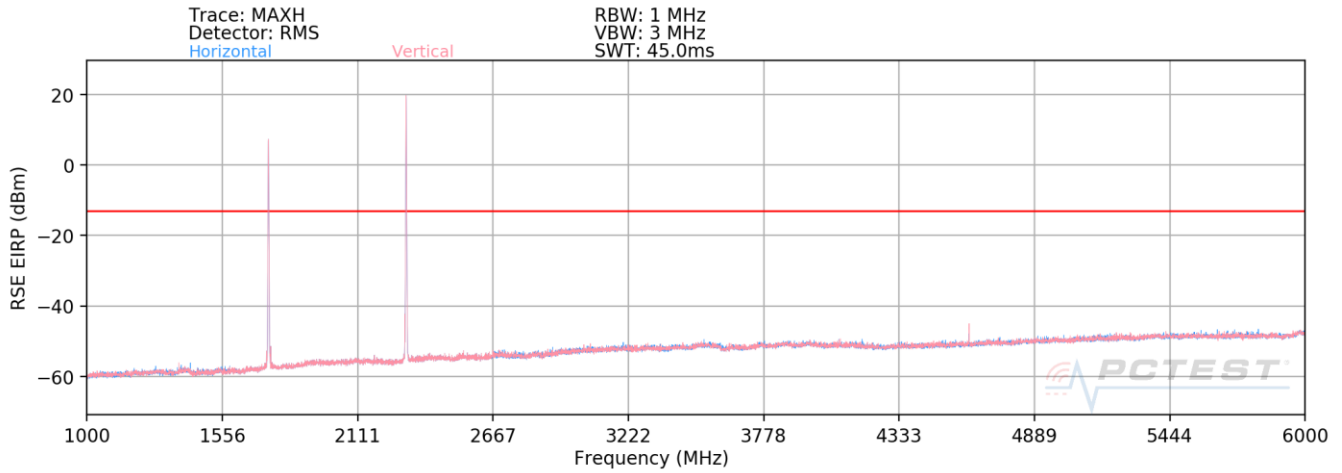
| | |
|------------------|------------|
| Bandwidth (MHz): | 40 |
| Frequency (MHz): | 1745.0 |
| RB / Offset: | 2/107 |
| Mode: | EN-DC |
| Anchor Band: | LTE Band 2 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1475.0 | H | - | - | -76.38 | -5.79 | 24.83 | -70.43 | -13.00 | -57.43 |
| 1610.0 | H | - | - | -76.13 | -5.70 | 25.17 | -70.09 | -13.00 | -57.09 |
| 2015.0 | H | - | - | -76.56 | -3.61 | 26.83 | -68.42 | -13.00 | -55.42 |
| 2150.0 | H | - | - | -76.55 | -2.94 | 27.51 | -67.75 | -13.00 | -54.75 |
| 5235.0 | H | 315 | 348 | -69.34 | 5.00 | 42.66 | -52.60 | -13.00 | -39.60 |

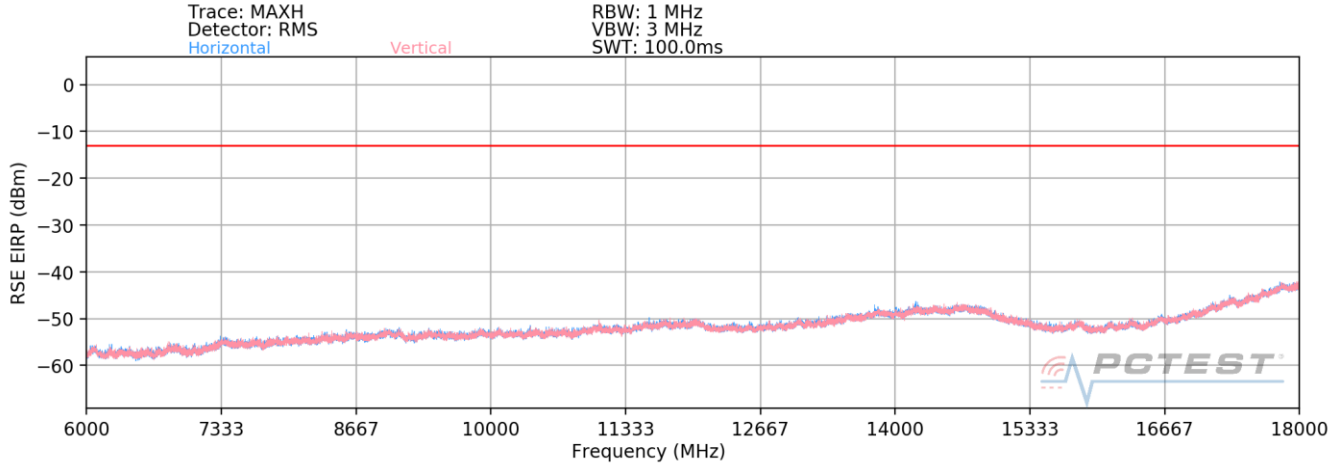
Table 7-49. Radiated Spurious Data (EN-DC n66 – B2 – Open)

| | | | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
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EN-DC n66 (Ant I) – B30



Plot 7-391. Radiated Spurious Plot (EN-DC n66 – B30 – Open)





Plot 7-392. Radiated Spurious Plot (EN-DC n66 – B30 – Open)

| | |
|------------------|-------------|
| Bandwidth (MHz): | 40 |
| Frequency (MHz): | 1745.0 |
| RB / Offset: | 2 / 107 |
| Mode: | EN-DC |
| Anchor Band: | LTE Band 30 |

| Frequency [MHz] | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBµV/m] | EIRP Spurious Emission Level [dBm] | Limit [dBm] | Margin [dB] |
|-----------------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|------------------------------------|-------------|-------------|
| 1180.0 | V | - | - | -76.22 | -6.62 | 24.16 | -71.09 | -13.00 | -58.09 |
| 2875.0 | V | - | - | -76.71 | -1.15 | 29.14 | -66.11 | -13.00 | -53.11 |
| 3490.0 | V | 23 | 187 | -76.31 | 0.59 | 31.28 | -63.98 | -13.00 | -50.98 |
| 4005.0 | V | - | - | -78.18 | 2.66 | 31.48 | -63.78 | -13.00 | -50.78 |
| 4570.0 | V | - | - | -78.29 | 2.38 | 31.09 | -64.17 | -13.00 | -51.17 |
| 4620.0 | V | 176 | 20 | -65.21 | 2.89 | 44.68 | -50.57 | -13.00 | -37.57 |

Table 7-50. Radiated Spurious Data (EN-DC n66 – B30 – Open)

| | | | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
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7.10 Frequency Stability / Temperature Variation

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI/TIA-603-E-2016. The frequency stability of the transmitter is measured by:

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

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

Test Procedure Used

ANSI/TIA-603-E-2016

Test Settings



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

Test Setup

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

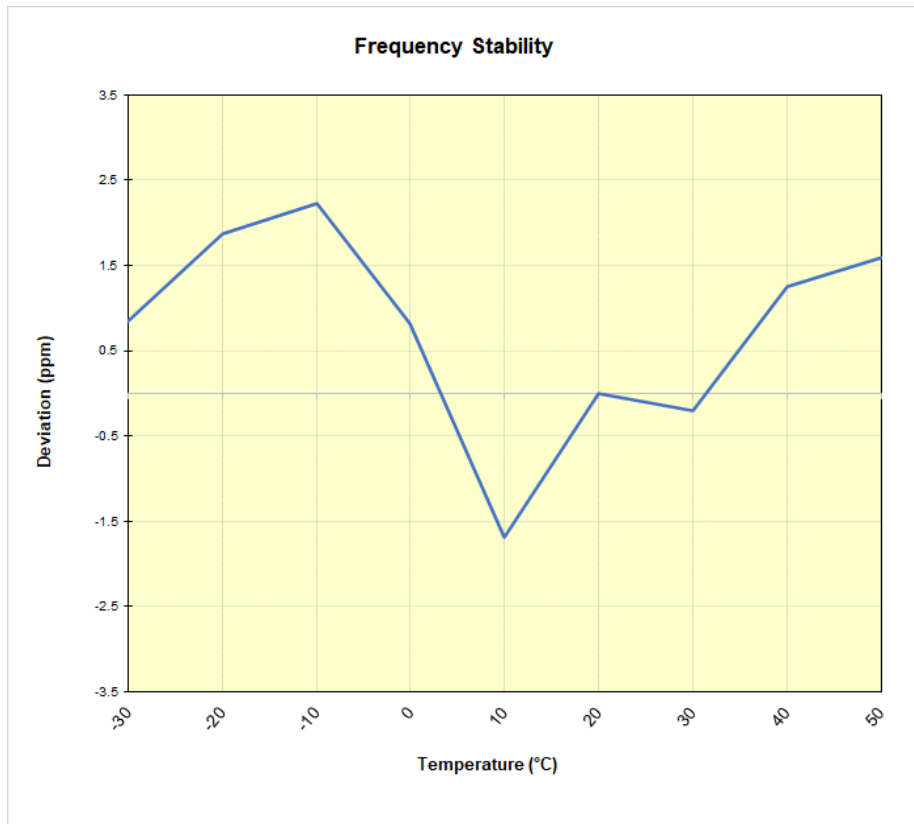
Test Notes

None

| | | | | |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
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| LTE Band 71 | | | | | |
|---------------------------|-------------|-------------|----------------|-----------------|---------------|
| Operating Frequency (Hz): | | 680,500,000 | | | |
| Ref. Voltage (VDC): | | 4.43 | | | |
| Voltage (%) | Power (VDC) | Temp (°C) | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
| 100 % | 4.43 | - 30 | 680,506,504 | 579 | 0.0000851 |
| | | - 20 | 680,507,202 | 1,277 | 0.0001876 |
| | | - 10 | 680,507,440 | 1,515 | 0.0002227 |
| | | 0 | 680,506,485 | 560 | 0.0000823 |
| | | + 10 | 680,504,774 | -1,151 | -0.0001691 |
| | | + 20 (Ref) | 680,505,925 | 0 | 0.0000000 |
| | | + 30 | 680,505,790 | -135 | -0.0000199 |
| | | + 40 | 680,506,778 | 853 | 0.0001253 |
| | | + 50 | 680,507,011 | 1,086 | 0.0001596 |
| Battery Endpoint | 3.36 | + 20 | 680,506,434 | 509 | 0.0000748 |

Table 7-51. LTE Band 71 Frequency Stability Data

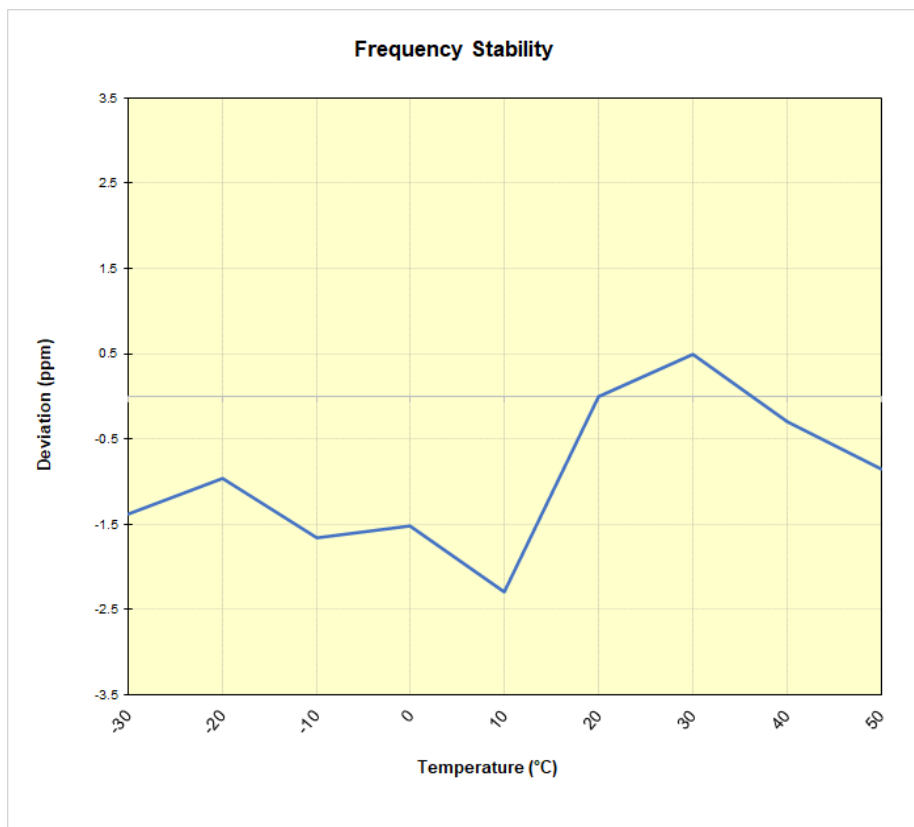


Plot 7-393. LTE Band 71 Frequency Stability Chart

| | | | | |
|-----------------------------------------|----------------------------------------------|-------------------------------|-----------------|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | SAMSUNG | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | Page 246 of 254 | |

| LTE Band 12 | | | | | |
|---------------------------|-------------|-------------|----------------|-----------------|---------------|
| Operating Frequency (Hz): | | 707,500,000 | | | |
| Ref. Voltage (VDC): | | 4.43 | | | |
| Voltage (%) | Power (VDC) | Temp (°C) | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
| 100 % | 4.43 | - 30 | 707,512,792 | -972 | -0.0001373 |
| | | - 20 | 707,513,081 | -682 | -0.0000965 |
| | | - 10 | 707,512,593 | -1,171 | -0.0001655 |
| | | 0 | 707,512,687 | -1,076 | -0.0001521 |
| | | + 10 | 707,512,148 | -1,616 | -0.0002284 |
| | | + 20 (Ref) | 707,513,763 | 0 | 0.0000000 |
| | | + 30 | 707,514,112 | 349 | 0.0000493 |
| | | + 40 | 707,513,552 | -212 | -0.0000299 |
| Battery Endpoint | 3.36 | + 20 | 707,513,098 | -665 | -0.0000940 |

Table 7-52. LTE Band 12 Frequency Stability Data

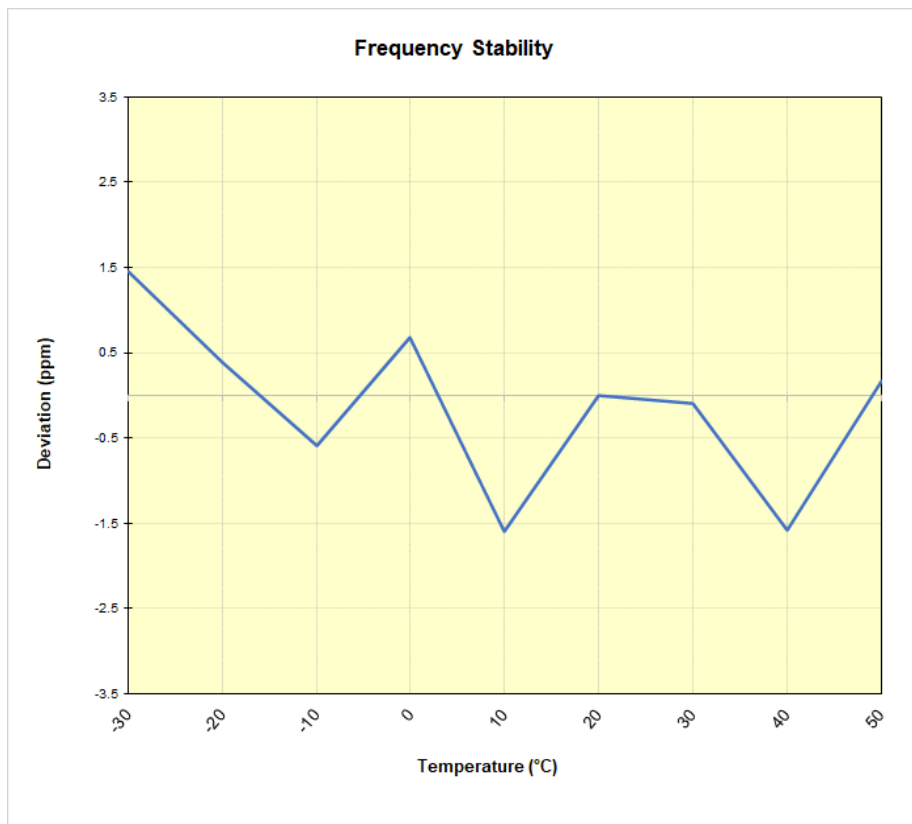


Plot 7-394. LTE Band 12 Frequency Stability Chart



| | | | | |
|-----------------------------------------|----------------------------------------------|-------------------------------|-----------------|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | SAMSUNG | Approved by: Technical Manager |
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| LTE Band 13 | | | | | |
|---------------------------|-------------|-------------|----------------|-----------------|---------------|
| Operating Frequency (Hz): | | 782,000,000 | | | |
| Ref. Voltage (VDC): | | 4.43 | | | |
| Voltage (%) | Power (VDC) | Temp (°C) | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
| 100 % | 4.43 | - 30 | 782,009,283 | 1,140 | 0.0001458 |
| | | - 20 | 782,008,445 | 302 | 0.0000386 |
| | | - 10 | 782,007,689 | -455 | -0.0000581 |
| | | 0 | 782,008,678 | 535 | 0.0000684 |
| | | + 10 | 782,006,897 | -1,246 | -0.0001593 |
| | | + 20 (Ref) | 782,008,143 | 0 | 0.0000000 |
| | | + 30 | 782,008,073 | -70 | -0.0000089 |
| | | + 40 | 782,006,914 | -1,229 | -0.0001572 |
| | | + 50 | 782,008,275 | 132 | 0.0000168 |
| Battery Endpoint | 3.36 | + 20 | 782,008,044 | -99 | -0.0000127 |

Table 7-53. LTE Band 13 Frequency Stability Data

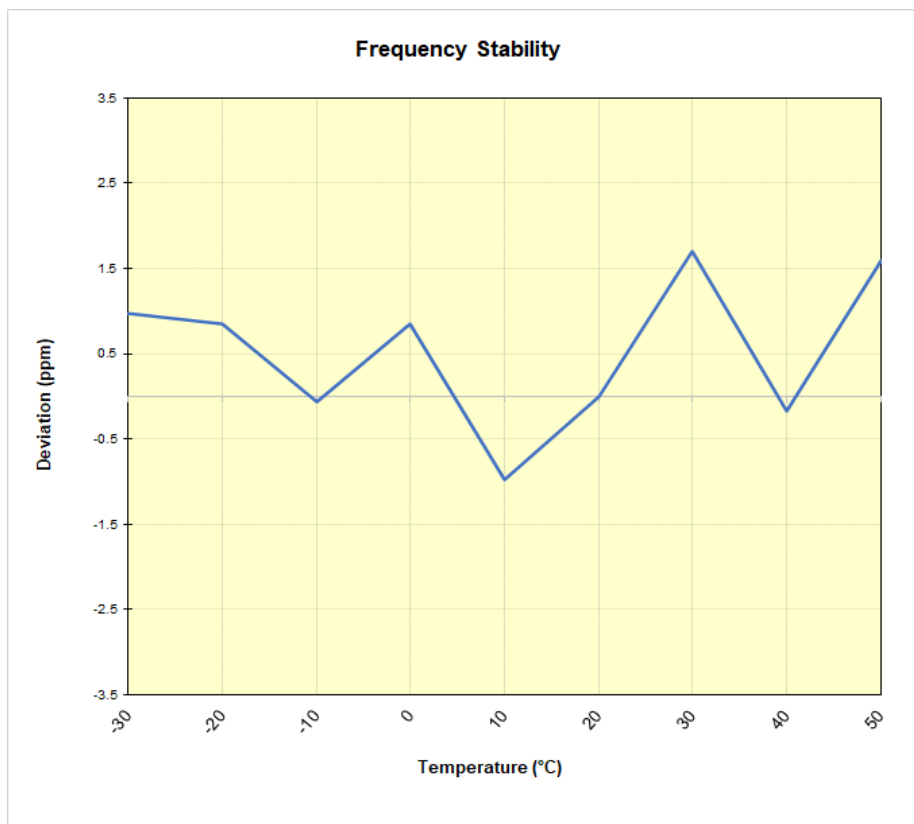


Plot 7-395. LTE Band 13 Frequency Stability Chart

| | | | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
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| NR Band n71 | | | | | |
|---------------------------|-------------|-------------|----------------|-----------------|---------------|
| Operating Frequency (Hz): | | 680,500,000 | | | |
| Ref. Voltage (VDC): | | 4.43 | | | |
| Voltage (%) | Power (VDC) | Temp (°C) | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
| 100 % | 4.43 | - 30 | 680,566,920 | 659 | 0.0000968 |
| | | - 20 | 680,566,839 | 578 | 0.0000850 |
| | | - 10 | 680,566,220 | -41 | -0.0000061 |
| | | 0 | 680,566,838 | 577 | 0.0000848 |
| | | + 10 | 680,565,595 | -666 | -0.0000979 |
| | | + 20 (Ref) | 680,566,261 | 0 | 0.0000000 |
| | | + 30 | 680,567,423 | 1,162 | 0.0001707 |
| | | + 40 | 680,566,142 | -119 | -0.0000175 |
| Battery Endpoint | 3.36 | + 20 | 680,565,420 | -841 | -0.0001236 |

Table 7-54. NR Band n71 Frequency Stability Data

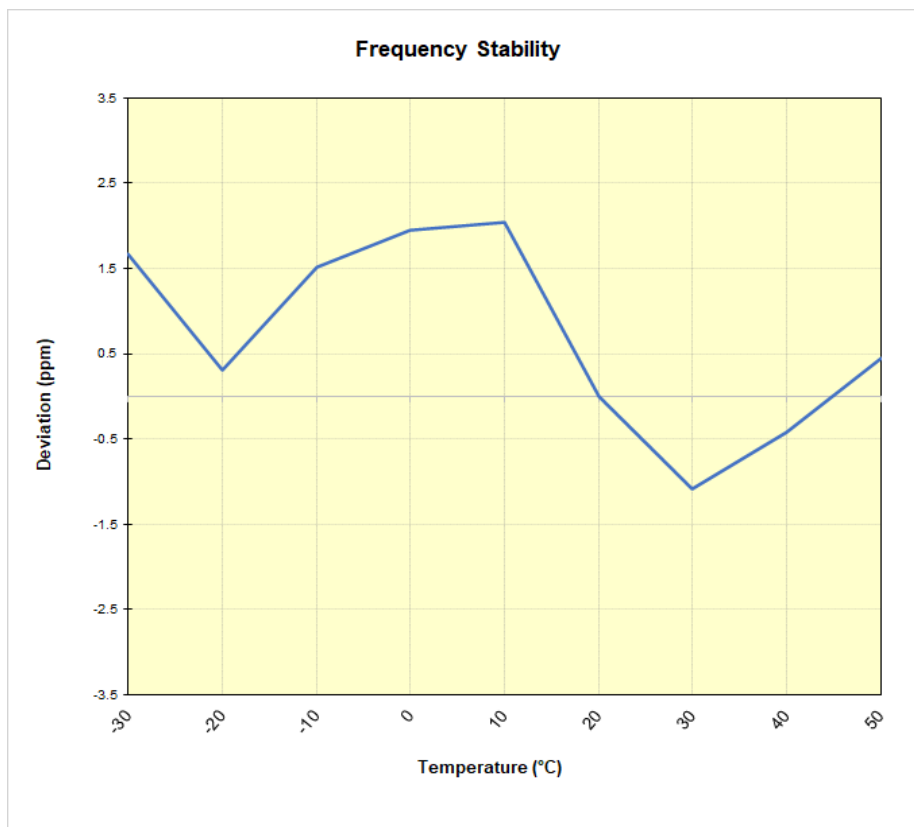


Plot 7-396. NR Band n71 Frequency Stability Chart

| | | | | |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | SAMSUNG | Approved by: Technical Manager |
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| NR Band n12 | | | | | |
|---------------------------|-------------|-------------|----------------|-----------------|---------------|
| Operating Frequency (Hz): | | 707,500,000 | | | |
| Ref. Voltage (VDC): | | 4.43 | | | |
| Voltage (%) | Power (VDC) | Temp (°C) | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
| 100 % | 4.43 | - 30 | 707,491,908 | 1,182 | 0.0001671 |
| | | - 20 | 707,490,939 | 214 | 0.0000302 |
| | | - 10 | 707,491,804 | 1,079 | 0.0001525 |
| | | 0 | 707,492,107 | 1,381 | 0.0001952 |
| | | + 10 | 707,492,169 | 1,443 | 0.0002040 |
| | | + 20 (Ref) | 707,490,726 | 0 | 0.0000000 |
| | | + 30 | 707,489,956 | -769 | -0.0001088 |
| | | + 40 | 707,490,434 | -292 | -0.0000412 |
| Battery Endpoint | 3.36 | + 20 | 707,491,647 | 921 | 0.0001302 |

Table 7-55. NR Band n12 Frequency Stability Data

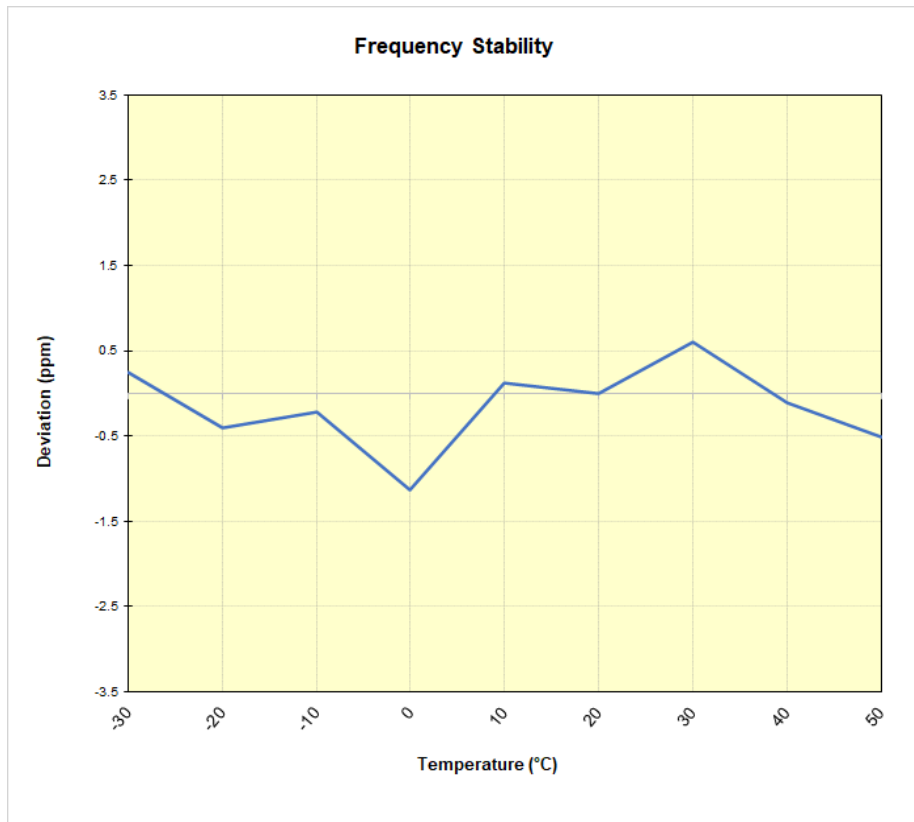


Plot 7-397. NR Band n12 Frequency Stability Chart

| | | | | |
|-----------------------------------------|----------------------------------------------|-------------------------------|-----------------|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | SAMSUNG | Approved by: Technical Manager |
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| WCDMA AWS | | | | | |
|---------------------------|-------------|---------------|----------------|-----------------|---------------|
| Operating Frequency (Hz): | | 1,732,600,000 | | | |
| Ref. Voltage (VDC): | | 4.43 | | | |
| Voltage (%) | Power (VDC) | Temp (°C) | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
| 100 % | 4.43 | - 30 | 1,732,592,334 | 418 | 0.0000241 |
| | | - 20 | 1,732,591,212 | -704 | -0.0000406 |
| | | - 10 | 1,732,591,528 | -388 | -0.0000224 |
| | | 0 | 1,732,589,964 | -1,952 | -0.0001127 |
| | | + 10 | 1,732,592,143 | 227 | 0.0000131 |
| | | + 20 (Ref) | 1,732,591,916 | 0 | 0.0000000 |
| | | + 30 | 1,732,592,951 | 1,035 | 0.0000597 |
| | | + 40 | 1,732,591,720 | -196 | -0.0000113 |
| Battery Endpoint | 3.36 | + 20 | 1,732,591,645 | -272 | -0.0000157 |

Table 7-56. WCDMA AWS Frequency Stability Data

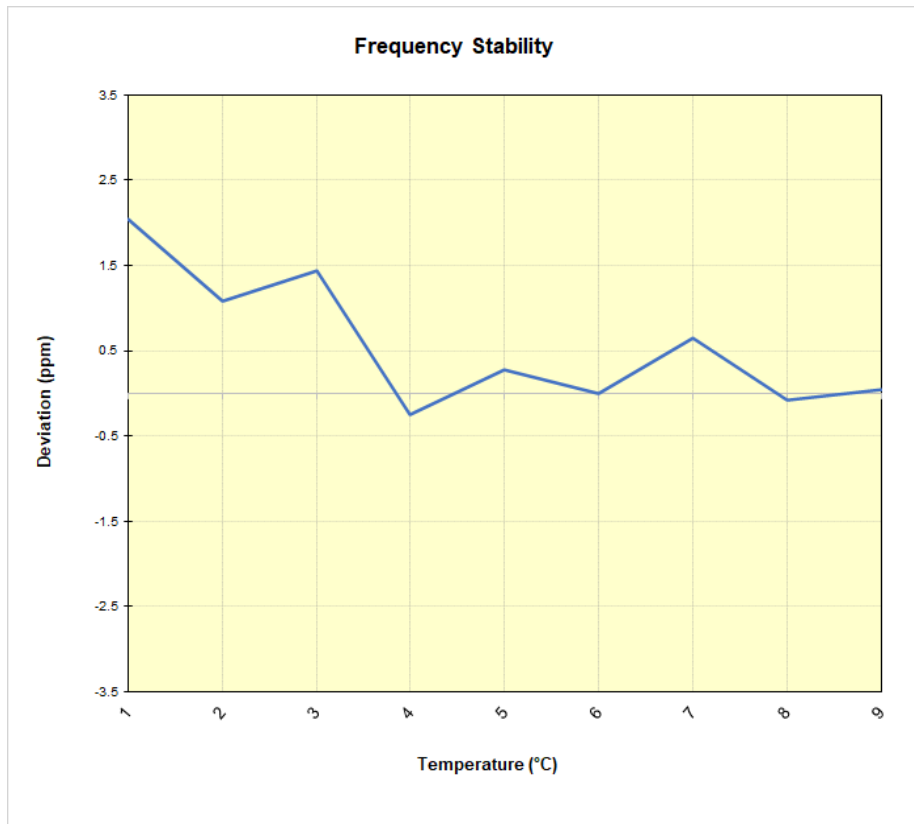


Plot 7-398. WCDMA AWS Frequency Stability Chart

| | | | | |
|-----------------------------------------|----------------------------------------------|-------------------------------|-----------------|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | SAMSUNG | Approved by: Technical Manager |
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| LTE Band 66/4 | | | | | |
|---------------------------|-------------|---------------|----------------|-----------------|---------------|
| Operating Frequency (Hz): | | 1,745,000,000 | | | |
| Ref. Voltage (VDC): | | 4.43 | | | |
| Voltage (%) | Power (VDC) | Temp (°C) | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
| 100 % | 4.43 | - 30 | 1,745,014,971 | 3,567 | 0.0002044 |
| | | - 20 | 1,745,013,286 | 1,882 | 0.0001078 |
| | | - 10 | 1,745,013,910 | 2,506 | 0.0001436 |
| | | 0 | 1,745,010,958 | -446 | -0.0000255 |
| | | + 10 | 1,745,011,893 | 489 | 0.0000280 |
| | | + 20 (Ref) | 1,745,011,404 | 0 | 0.0000000 |
| | | + 30 | 1,745,012,526 | 1,122 | 0.0000643 |
| | | + 40 | 1,745,011,274 | -130 | -0.0000075 |
| Battery Endpoint | 3.36 | + 20 | 1,745,012,411 | 1,007 | 0.0000577 |

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

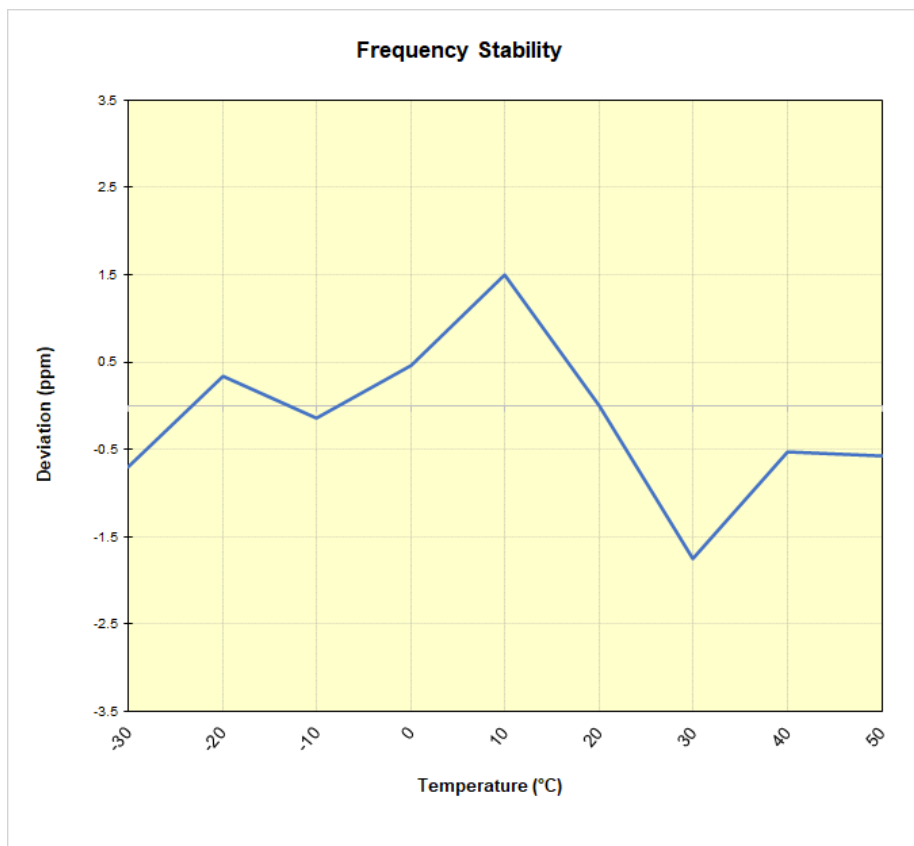


Plot 7-399. LTE Band 66/4 Frequency Stability Chart

| | | | | |
|-----------------------------------------|----------------------------------------------|-----------------------------------|-----------------|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | SAMSUNG | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | Page 252 of 254 | |

| NR Band n66 | | | | | |
|---------------------------|-------------|---------------|----------------|-----------------|---------------|
| Operating Frequency (Hz): | | 1,745,000,000 | | | |
| Ref. Voltage (VDC): | | 4.43 | | | |
| Voltage (%) | Power (VDC) | Temp (°C) | Frequency (Hz) | Freq. Dev. (Hz) | Deviation (%) |
| 100 % | 4.43 | - 30 | 1,745,071,892 | -1,207 | -0.0000692 |
| | | - 20 | 1,745,073,691 | 592 | 0.0000339 |
| | | - 10 | 1,745,072,847 | -251 | -0.0000144 |
| | | 0 | 1,745,073,920 | 821 | 0.0000470 |
| | | + 10 | 1,745,075,713 | 2,614 | 0.0001498 |
| | | + 20 (Ref) | 1,745,073,099 | 0 | 0.0000000 |
| | | + 30 | 1,745,070,042 | -3,057 | -0.0001752 |
| | | + 40 | 1,745,072,177 | -922 | -0.0000528 |
| Battery Endpoint | 3.36 | + 20 | 1,745,073,419 | 320 | 0.0000184 |

Table 7-58. NR Band n66 Frequency Stability Data





Plot 7-400. NR Band n66 Frequency Stability Chart

| | | | | |
|-----------------------------------------|----------------------------------------------|-------------------------------|-----------------|-----------------------------------|
| FCC ID: A3LSMF711U | PCTEST Proud to be part of element | PART 27 MEASUREMENT REPORT | SAMSUNG | Approved by: Technical Manager |
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8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMF711U** complies with all the requirements of Part 27 of the FCC rules.

| | | | | |
|-----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U |  | PART 27 MEASUREMENT REPORT |  | Approved by: Technical Manager |
| Test Report S/N: 1M2104070032-04.A3L | Test Dates: 04/12/2021 – 06/04/2021 | EUT Type: Portable Handset | | Page 254 of 254 |