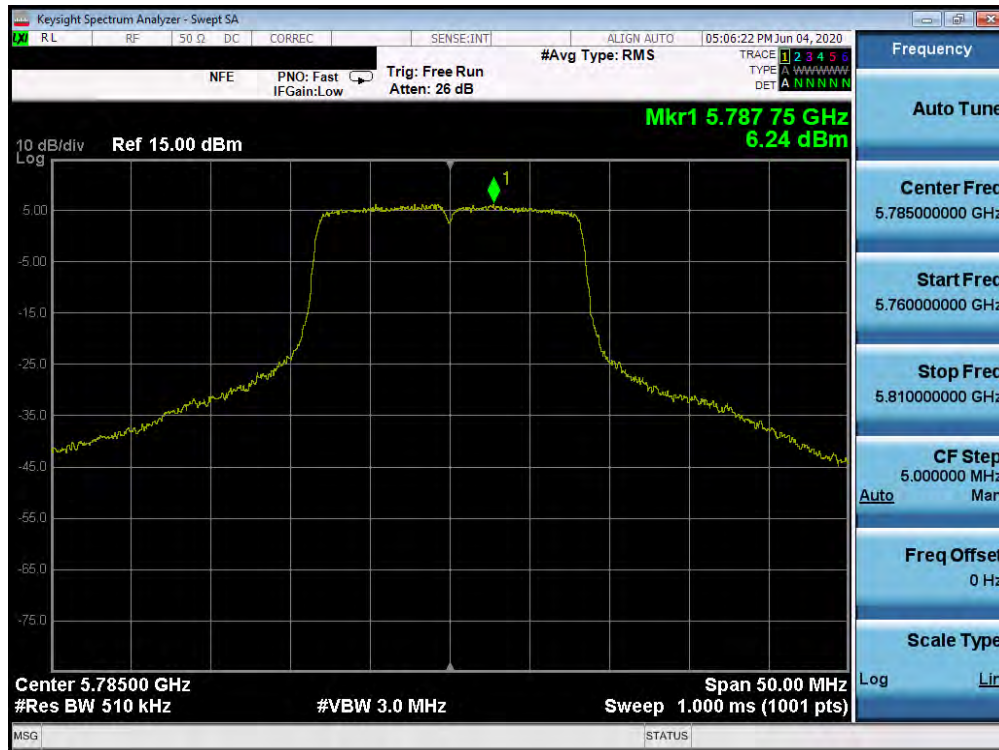
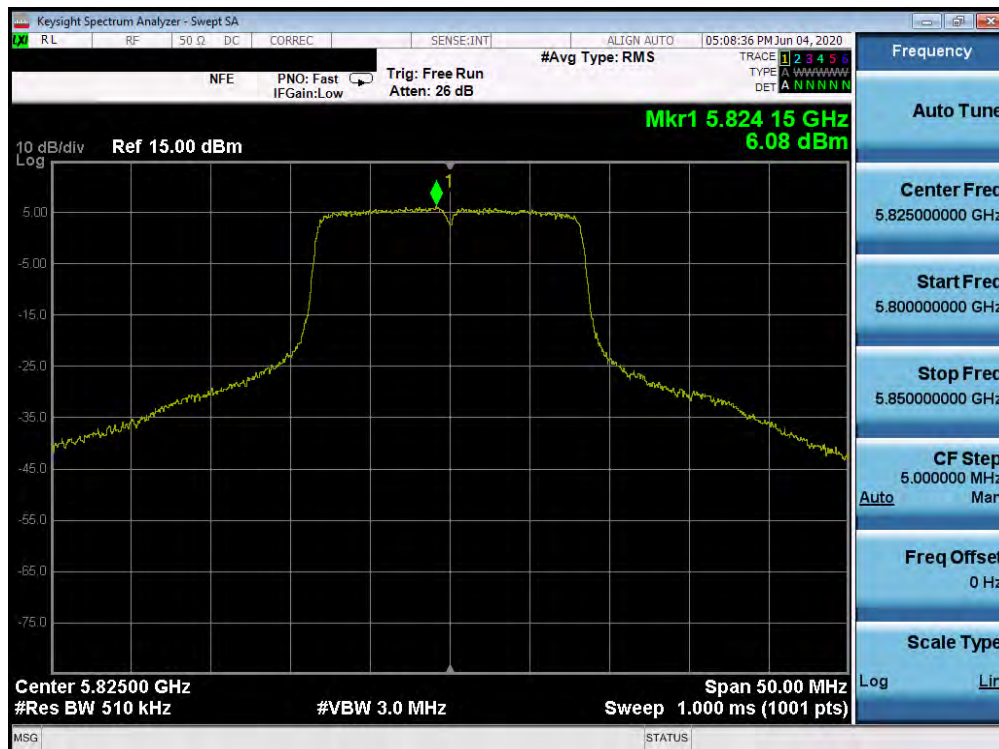


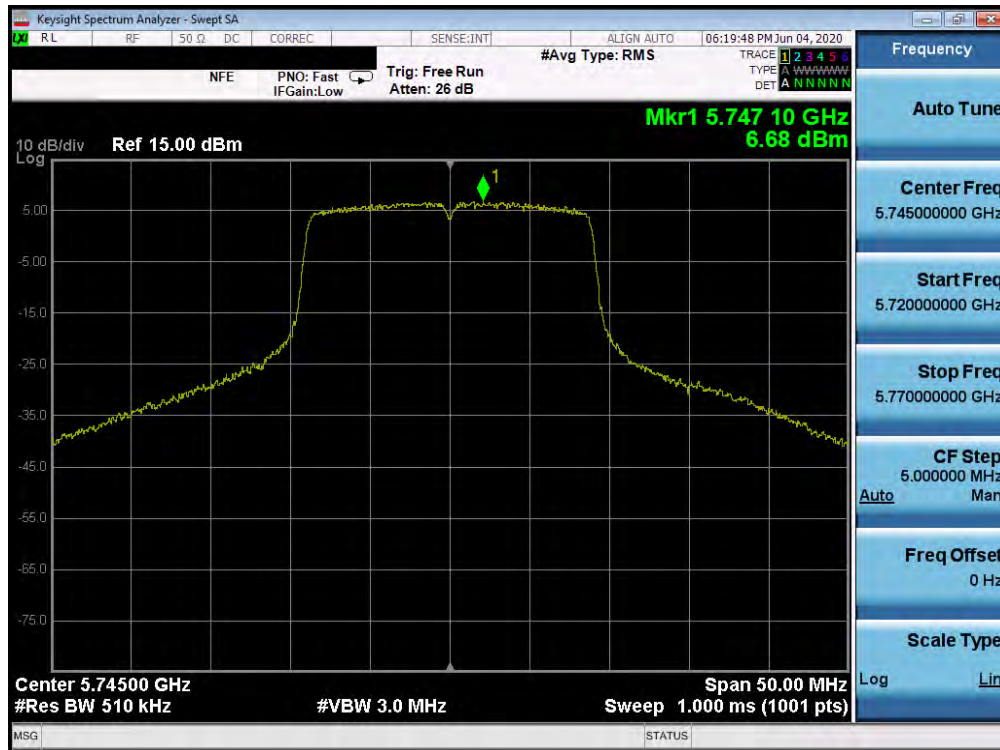


Plot 7-251. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 3) – Ch. 157)

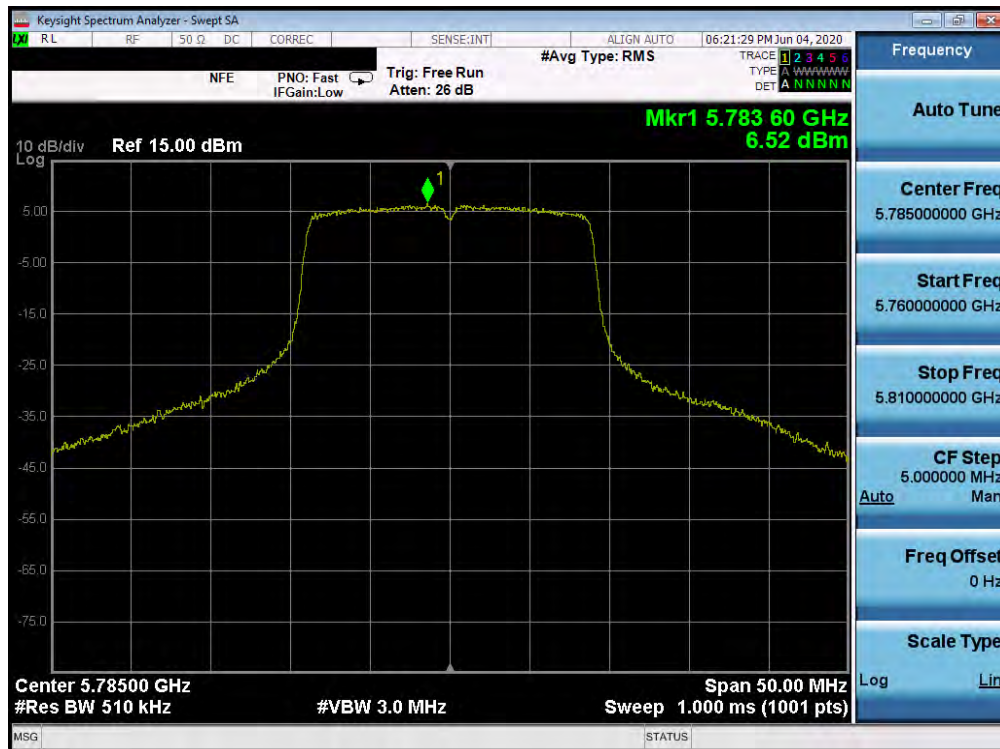


Plot 7-252. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 3) – Ch. 165)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 159 of 240                 |

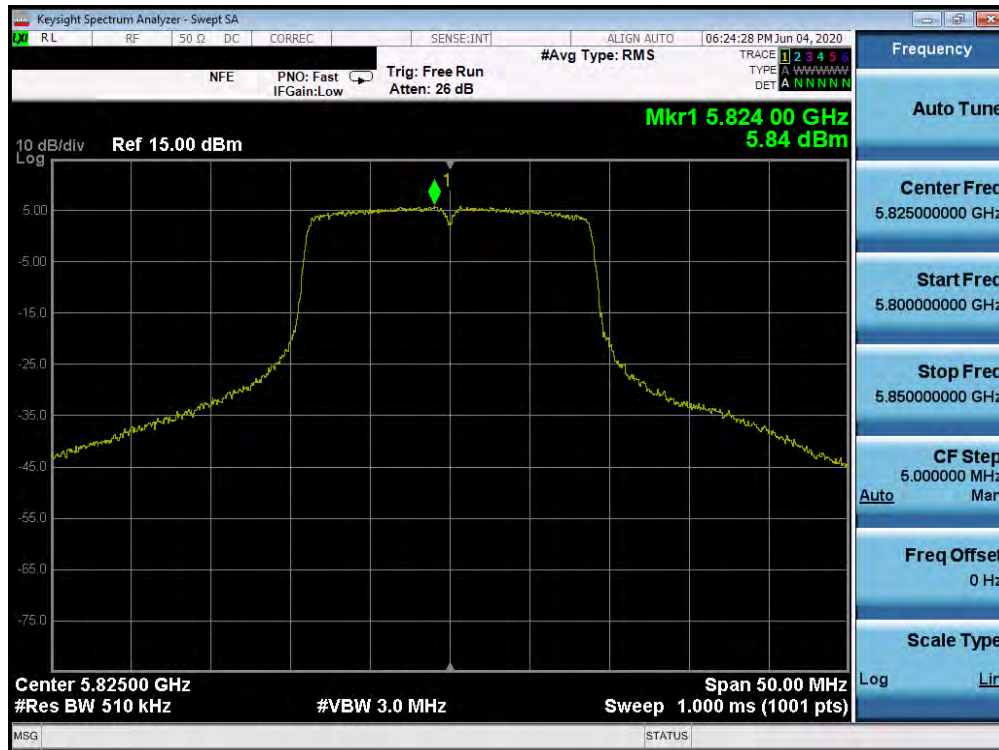


Plot 7-253. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 149)

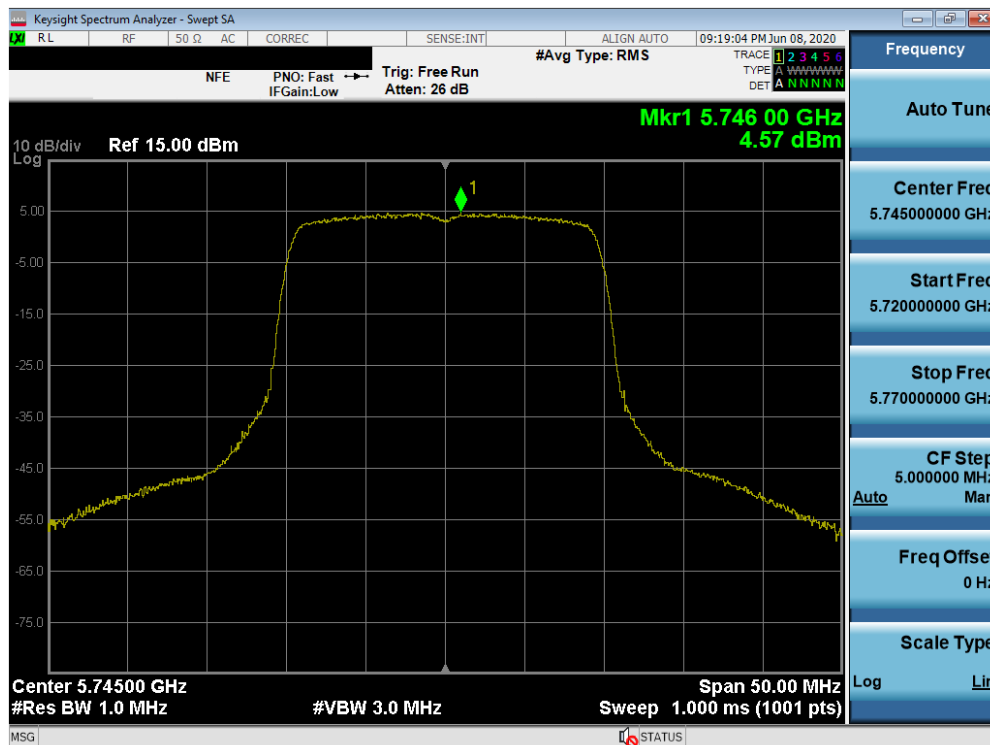


Plot 7-254. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 160 of 240                 |

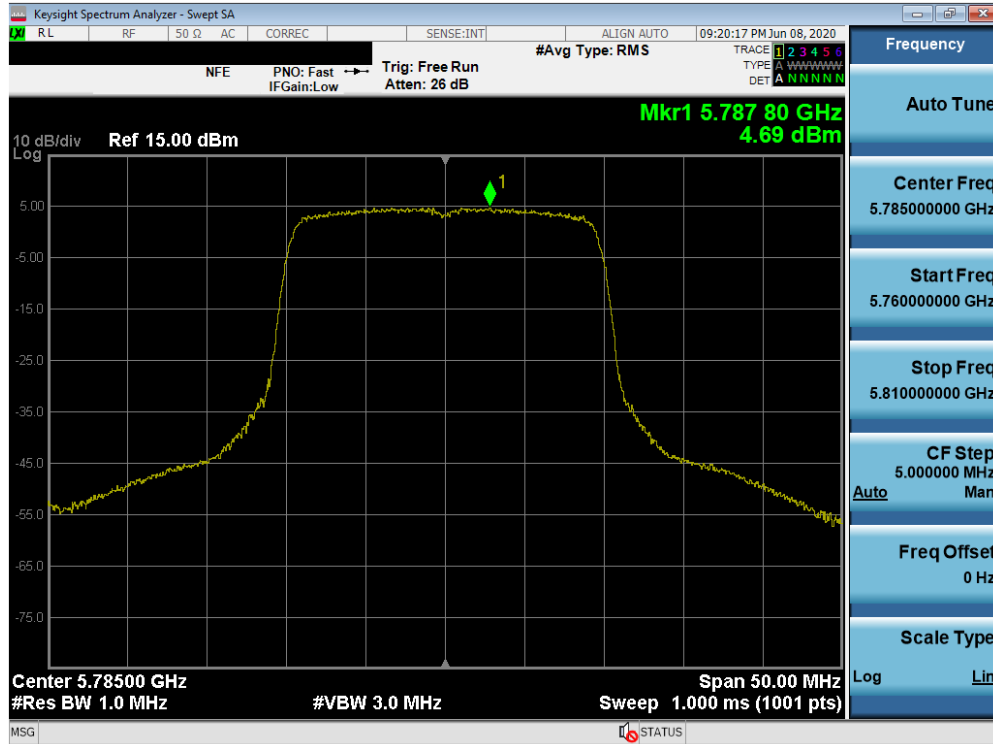


Plot 7-255. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 165)

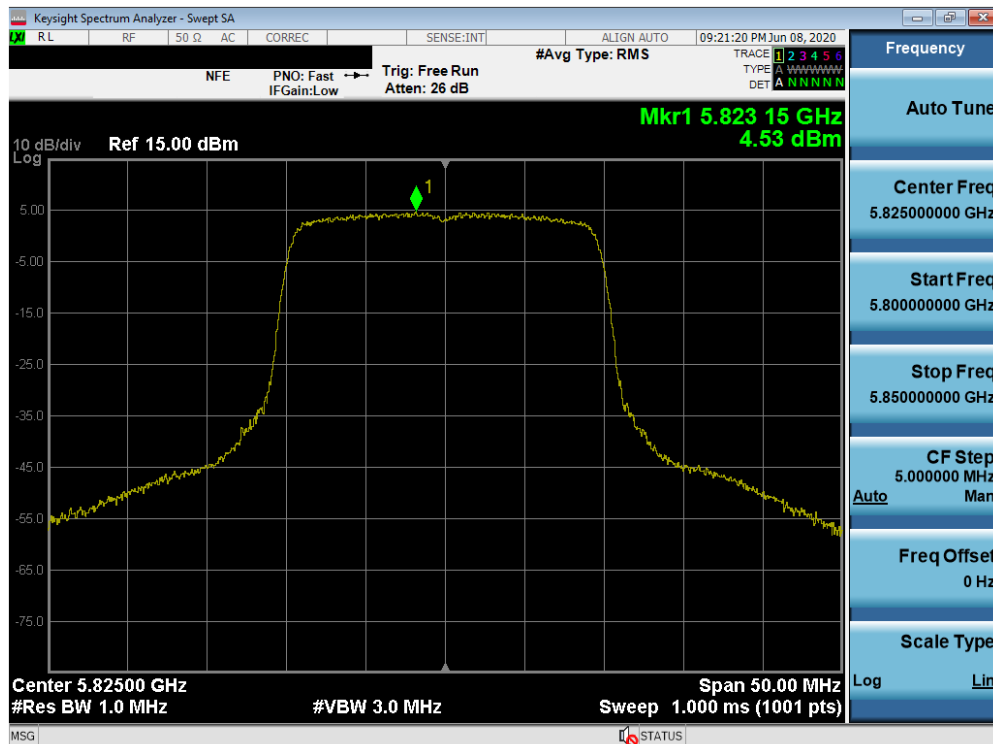


Plot 7-256. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax SU (UNII Band 3) – Ch. 149)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 161 of 240                 |

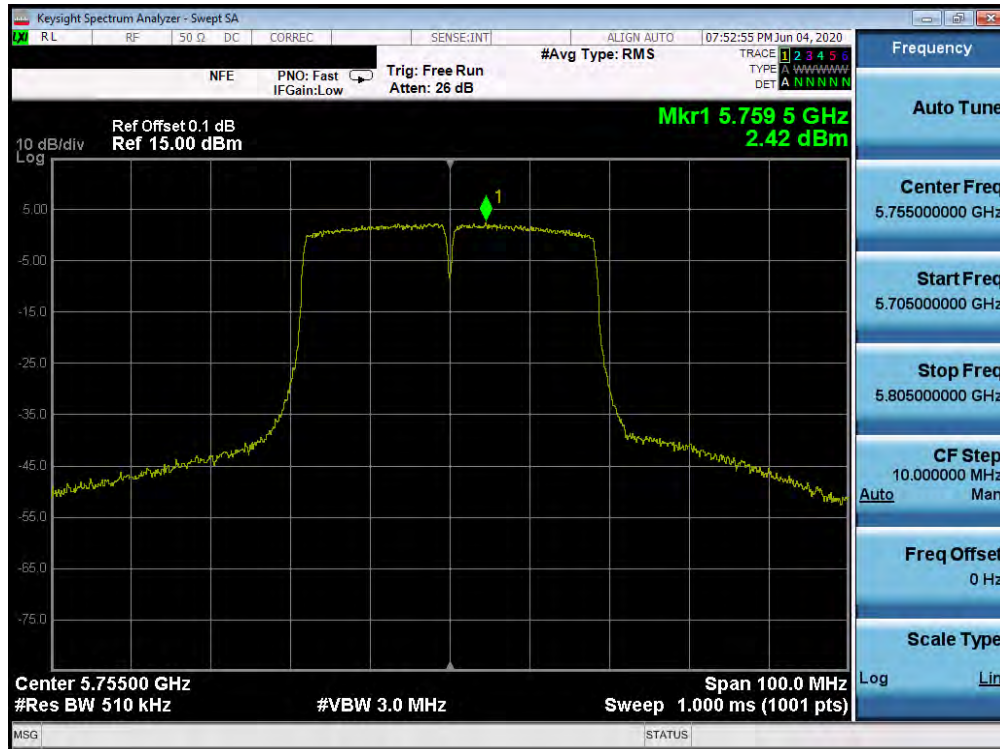


Plot 7-257. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax SU (UNII Band 3) – Ch. 157)

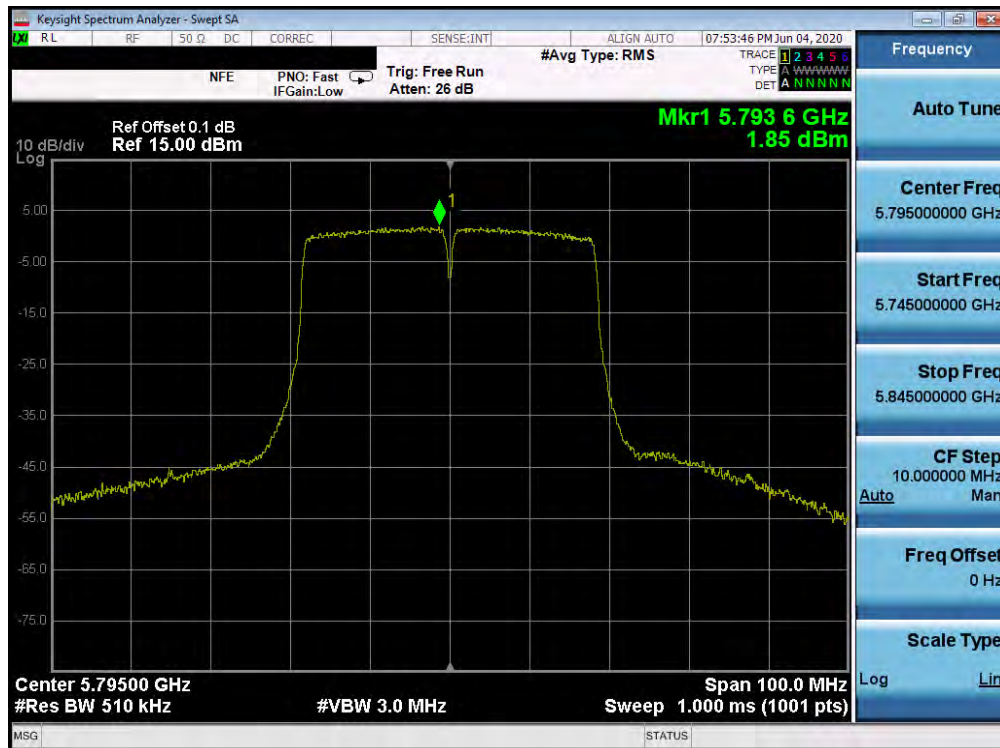


Plot 7-258. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax SU (UNII Band 3) – Ch. 165)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 162 of 240                 |

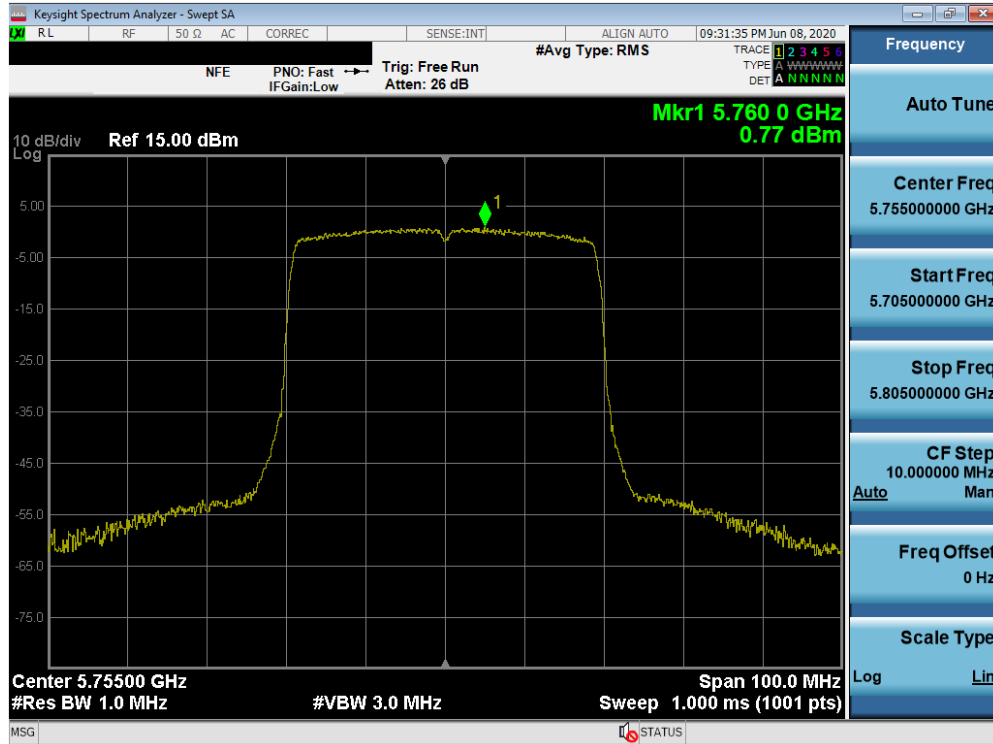


Plot 7-259. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

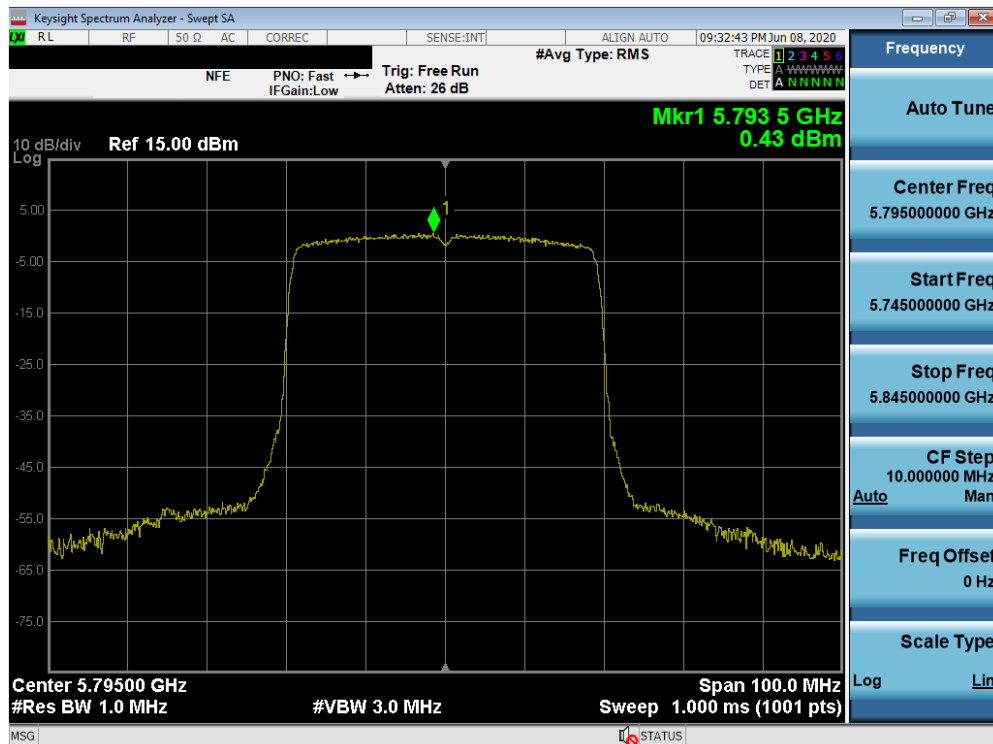


Plot 7-260. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 159)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 163 of 240                 |

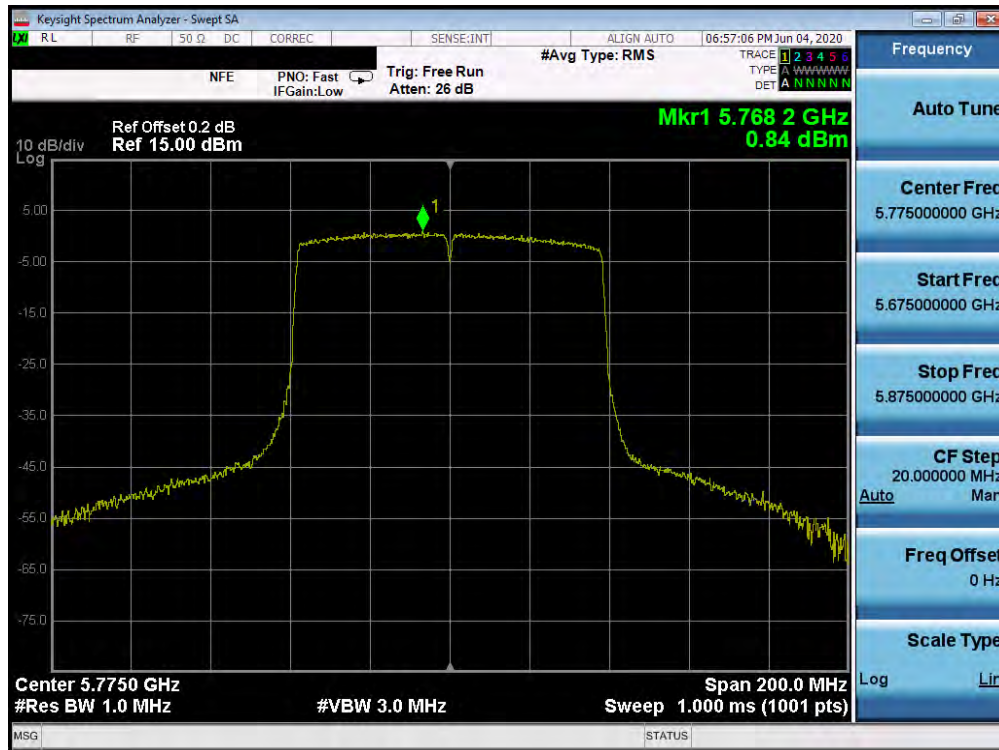


Plot 7-261. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax SU (UNII Band 3) – Ch. 151)

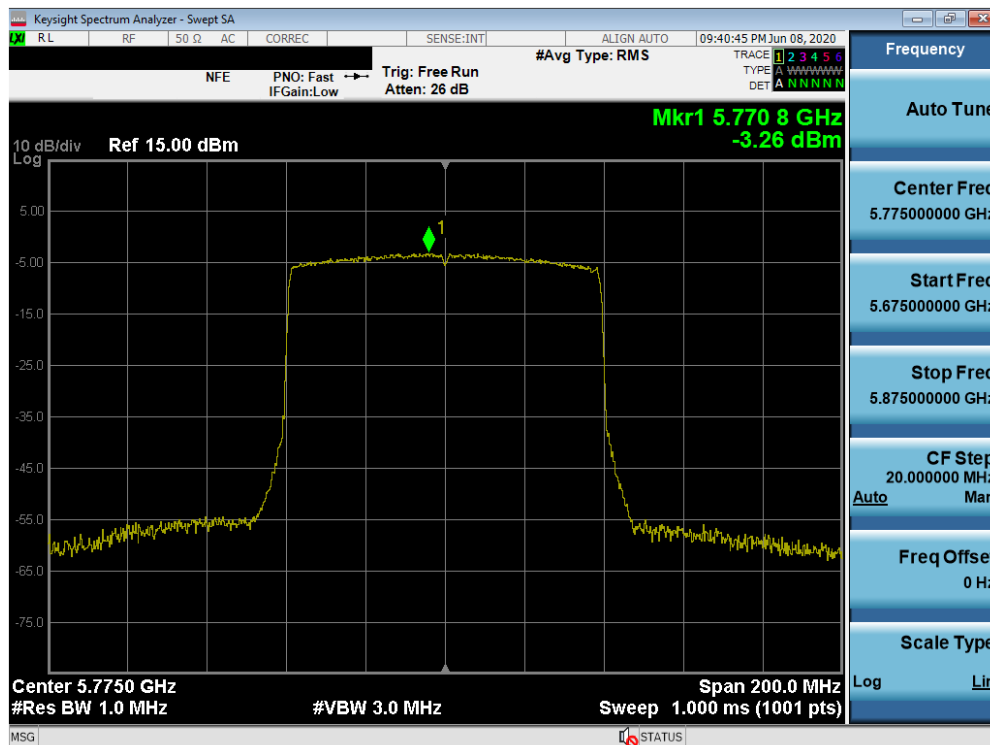


Plot 7-262. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax SU (UNII Band 3) – Ch. 159)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 164 of 240                 |



Plot 7-263. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)



Plot 7-264. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax SU (UNII Band 3) – Ch. 155)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 165 of 240                 |

## Summed MIMO Power Spectral Density Measurements

|         | Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Antenna-1 Power Density [dBm] | Antenna-2 Power Density [dBm] | Summed MIMO Power Density [dBm] | Max Power Density [dBm/MHz] | Margin [dB] |
|---------|-----------------|-------------|-------------|------------------|-------------------------------|-------------------------------|---------------------------------|-----------------------------|-------------|
| Band 1  | 5180            | 36          | a           | 6                | 4.90                          | 6.98                          | 9.07                            | 11.0                        | -1.93       |
|         | 5200            | 40          | a           | 6                | 5.27                          | 7.23                          | 9.37                            | 11.0                        | -1.63       |
|         | 5240            | 48          | a           | 6                | 5.50                          | 7.75                          | 9.78                            | 11.0                        | -1.22       |
|         | 5180            | 36          | n (20MHz)   | 6.5/7.2 (MCS0)   | 4.64                          | 4.99                          | 7.83                            | 11.0                        | -3.17       |
|         | 5200            | 40          | n (20MHz)   | 6.5/7.2 (MCS0)   | 5.44                          | 5.38                          | 8.42                            | 11.0                        | -2.58       |
|         | 5240            | 48          | n (20MHz)   | 6.5/7.2 (MCS0)   | 5.75                          | 7.51                          | 9.73                            | 11.0                        | -1.27       |
|         | 5180            | 36          | ax (20MHz)  | 6.5/7.2 (MCS0)   | 6.71                          | 4.63                          | 8.81                            | 11.0                        | -2.19       |
|         | 5200            | 40          | ax (20MHz)  | 6.5/7.2 (MCS0)   | 6.73                          | 4.90                          | 8.92                            | 11.0                        | -2.08       |
|         | 5240            | 48          | ax (20MHz)  | 6.5/7.2 (MCS0)   | 6.98                          | 5.19                          | 9.18                            | 11.0                        | -1.82       |
|         | 5190            | 38          | n (40MHz)   | 13.5/15 (MCS0)   | 1.40                          | 4.39                          | 6.16                            | 11.0                        | -4.84       |
|         | 5230            | 46          | n (40MHz)   | 13.5/15 (MCS0)   | 1.45                          | 4.51                          | 6.25                            | 11.0                        | -4.75       |
|         | 5190            | 38          | ax (40MHz)  | 13.5/15 (MCS0)   | 1.33                          | 0.43                          | 3.91                            | 11.0                        | -7.09       |
|         | 5230            | 46          | ax (40MHz)  | 13.5/15 (MCS0)   | 1.90                          | 1.29                          | 4.62                            | 11.0                        | -6.38       |
|         | 5210            | 42          | ac (80MHz)  | 29.3/32.5 (MCS0) | -3.02                         | 0.16                          | 1.86                            | 11.0                        | -9.14       |
|         | 5210            | 42          | ax (80MHz)  | 29.3/32.5 (MCS0) | -2.44                         | -3.18                         | 0.21                            | 11.0                        | -10.79      |
| Band 2A | 5260            | 52          | a           | 6                | 7.36                          | 6.58                          | 10.00                           | 11.0                        | -1.00       |
|         | 5280            | 56          | a           | 6                | 7.15                          | 6.51                          | 9.85                            | 11.0                        | -1.15       |
|         | 5320            | 64          | a           | 6                | 6.88                          | 6.07                          | 9.50                            | 11.0                        | -1.50       |
|         | 5260            | 52          | n (20MHz)   | 6.5/7.2 (MCS0)   | 6.86                          | 6.60                          | 9.74                            | 11.0                        | -1.26       |
|         | 5280            | 56          | n (20MHz)   | 6.5/7.2 (MCS0)   | 6.63                          | 6.18                          | 9.42                            | 11.0                        | -1.58       |
|         | 5320            | 64          | n (20MHz)   | 6.5/7.2 (MCS0)   | 5.58                          | 8.04                          | 9.99                            | 11.0                        | -1.01       |
|         | 5260            | 52          | ax (20MHz)  | 6.5/7.2 (MCS0)   | 7.12                          | 4.76                          | 9.11                            | 11.0                        | -1.89       |
|         | 5280            | 56          | ax (20MHz)  | 6.5/7.2 (MCS0)   | 7.44                          | 5.02                          | 9.41                            | 11.0                        | -1.59       |
|         | 5320            | 64          | ax (20MHz)  | 6.5/7.2 (MCS0)   | 6.81                          | 4.88                          | 8.96                            | 11.0                        | -2.04       |
|         | 5270            | 54          | n (40MHz)   | 13.5/15 (MCS0)   | 1.47                          | 5.12                          | 6.68                            | 11.0                        | -4.32       |
|         | 5310            | 62          | n (40MHz)   | 13.5/15 (MCS0)   | 1.37                          | 5.33                          | 6.80                            | 11.0                        | -4.20       |
|         | 5270            | 54          | ax (40MHz)  | 13.5/15 (MCS0)   | 1.84                          | 0.91                          | 4.41                            | 11.0                        | -6.59       |
|         | 5310            | 62          | ax (40MHz)  | 13.5/15 (MCS0)   | 2.02                          | 0.94                          | 4.52                            | 11.0                        | -6.48       |
|         | 5290            | 58          | ac (80MHz)  | 29.3/32.5 (MCS0) | -2.77                         | 0.58                          | 2.23                            | 11.0                        | -8.77       |
|         | 5290            | 58          | ax (80MHz)  | 29.3/32.5 (MCS0) | -2.11                         | -3.29                         | 0.35                            | 11.0                        | -10.65      |
| Band 2C | 5500            | 100         | a           | 6                | 5.20                          | 8.24                          | 9.99                            | 11.0                        | -1.01       |
|         | 5600            | 120         | a           | 6                | 5.33                          | 7.83                          | 9.77                            | 11.0                        | -1.23       |
|         | 5720            | 144         | a           | 6                | 6.51                          | 6.27                          | 9.40                            | 11.0                        | -1.60       |
|         | 5500            | 100         | n (20MHz)   | 6.5/7.2 (MCS0)   | 5.68                          | 5.94                          | 8.83                            | 11.0                        | -2.17       |
|         | 5600            | 120         | n (20MHz)   | 6.5/7.2 (MCS0)   | 5.57                          | 7.95                          | 9.93                            | 11.0                        | -1.07       |
|         | 5720            | 144         | n (20MHz)   | 6.5/7.2 (MCS0)   | 6.01                          | 6.20                          | 9.11                            | 11.0                        | -1.89       |
|         | 5500            | 100         | ax (20MHz)  | 6.5/7.2 (MCS0)   | 5.26                          | 4.20                          | 7.77                            | 11.0                        | -3.23       |
|         | 5600            | 120         | ax (20MHz)  | 6.5/7.2 (MCS0)   | 5.53                          | 4.35                          | 7.99                            | 11.0                        | -3.01       |
|         | 5720            | 144         | ax (20MHz)  | 6.5/7.2 (MCS0)   | 5.16                          | 4.76                          | 7.97                            | 11.0                        | -3.03       |
|         | 5510            | 102         | n (40MHz)   | 13.5/15 (MCS0)   | 0.83                          | 4.61                          | 6.13                            | 11.0                        | -4.87       |
|         | 5590            | 118         | n (40MHz)   | 13.5/15 (MCS0)   | 1.46                          | 4.40                          | 6.18                            | 11.0                        | -4.82       |
|         | 5710            | 142         | n (40MHz)   | 13.5/15 (MCS0)   | 1.21                          | 4.92                          | 6.46                            | 11.0                        | -4.54       |
|         | 5510            | 102         | ax (40MHz)  | 13.5/15 (MCS0)   | 0.96                          | 0.61                          | 3.80                            | 11.0                        | -7.20       |
|         | 5590            | 118         | ax (40MHz)  | 13.5/15 (MCS0)   | 1.17                          | 0.38                          | 3.80                            | 11.0                        | -7.20       |
|         | 5710            | 142         | ax (40MHz)  | 13.5/15 (MCS0)   | 1.27                          | 0.85                          | 4.08                            | 11.0                        | -6.92       |
|         | 5530            | 106         | ac (80MHz)  | 29.3/32.5 (MCS0) | -2.86                         | 0.50                          | 2.15                            | 11.0                        | -8.85       |
|         | 5610            | 122         | ac (80MHz)  | 29.3/32.5 (MCS0) | -3.53                         | -0.17                         | 1.47                            | 11.0                        | -9.53       |
|         | 5690            | 138         | ac (80MHz)  | 29.3/32.5 (MCS0) | -3.22                         | -2.83                         | -0.01                           | 11.0                        | -11.01      |
|         | 5530            | 106         | ax (80MHz)  | 29.3/32.5 (MCS0) | -3.26                         | -3.83                         | -0.52                           | 11.0                        | -11.52      |
|         | 5610            | 122         | ax (80MHz)  | 29.3/32.5 (MCS0) | -3.30                         | -4.21                         | -0.72                           | 11.0                        | -11.72      |
|         | 5690            | 138         | ax (80MHz)  | 29.3/32.5 (MCS0) | -2.66                         | -3.70                         | -0.14                           | 11.0                        | -11.14      |

**Table 7-27. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 166 of 240                                                                       |                                 |

|        | Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Antenna-1 Power Density [dBm] | Antenna-2 Power Density [dBm] | Summed MIMO Power Density [dBm] | Directional Antenna Gain [dBi] | e.i.r.p. Power Density [dBm/MHz] | ISED Max e.i.r.p. Power Density [dBm/MHz] | Margin [dB] |
|--------|-----------------|-------------|-------------|------------------|-------------------------------|-------------------------------|---------------------------------|--------------------------------|----------------------------------|-------------------------------------------|-------------|
| Band 1 | 5180            | 36          | a           | 6.5/7.2 (MCS0)   | 4.90                          | 6.98                          | 9.07                            | -3.49                          | 5.58                             | 10.0                                      | -4.42       |
|        | 5200            | 40          | a           | 6.5/7.2 (MCS0)   | 5.27                          | 7.23                          | 9.37                            | -3.69                          | 5.68                             | 10.0                                      | -4.32       |
|        | 5240            | 48          | a           | 6.5/7.2 (MCS0)   | 5.50                          | 7.75                          | 9.78                            | -3.89                          | 5.89                             | 10.0                                      | -4.11       |
|        | 5180            | 36          | n (20MHz)   | 6.5/7.2 (MCS0)   | 4.64                          | 4.99                          | 7.83                            | -3.49                          | 4.34                             | 10.0                                      | -5.66       |
|        | 5200            | 40          | n (20MHz)   | 6.5/7.2 (MCS0)   | 5.44                          | 5.38                          | 8.42                            | -3.69                          | 4.73                             | 10.0                                      | -5.27       |
|        | 5240            | 48          | n (20MHz)   | 6.5/7.2 (MCS0)   | 5.75                          | 7.51                          | 9.73                            | -3.89                          | 5.84                             | 10.0                                      | -4.16       |
|        | 5180            | 36          | ax (20MHz)  | 6.5/7.2 (MCS0)   | 6.71                          | 4.63                          | 8.81                            | -3.49                          | 5.32                             | 10.0                                      | -4.68       |
|        | 5200            | 40          | ax (20MHz)  | 6.5/7.2 (MCS0)   | 6.73                          | 4.90                          | 8.92                            | -3.69                          | 5.23                             | 10.0                                      | -4.77       |
|        | 5240            | 48          | ax (20MHz)  | 6.5/7.2 (MCS0)   | 6.98                          | 5.19                          | 9.18                            | -3.89                          | 5.29                             | 10.0                                      | -4.71       |
|        | 5190            | 38          | n (40MHz)   | 13.5/15 (MCS0)   | 1.40                          | 4.63                          | 6.32                            | -3.49                          | 2.83                             | 10.0                                      | -7.17       |
|        | 5230            | 46          | n (40MHz)   | 13.5/15 (MCS0)   | 1.45                          | 4.90                          | 6.52                            | -3.89                          | 2.63                             | 10.0                                      | -7.37       |
|        | 5190            | 38          | ax (40MHz)  | 13.5/15 (MCS0)   | 1.33                          | 5.19                          | 6.68                            | -3.49                          | 3.19                             | 10.0                                      | -6.81       |
|        | 5230            | 46          | ax (40MHz)  | 13.5/15 (MCS0)   | 1.90                          | 4.39                          | 6.33                            | -3.89                          | 2.44                             | 10.0                                      | -7.56       |
|        | 5210            | 42          | ac (80MHz)  | 29.3/32.5 (MCS0) | -3.02                         | 5.19                          | 5.80                            | -3.89                          | 1.91                             | 10.0                                      | -8.09       |
|        | 5210            | 42          | ax (80MHz)  | 29.3/32.5 (MCS0) | -2.44                         | 4.39                          | 5.21                            | -3.89                          | 1.32                             | 10.0                                      | -8.68       |

**Table 7-28. Band 1 MIMO e.i.r.p. Conducted Power Spectral Density Measurements (ISED)**

|        | Frequency [MHz] | Channel No. | 802.11 Mode | Data Rate [Mbps] | Antenn-1 Power Density [dBm] | Antenn-2 Power Density [dBm] | Summed MIMO Power Density [dBm] | Max Permissible Power Density [dBm/500kHz] | Margin [dB] |
|--------|-----------------|-------------|-------------|------------------|------------------------------|------------------------------|---------------------------------|--------------------------------------------|-------------|
| Band 3 | 5745            | 149         | a           | 6                | 5.96                         | -4.68                        | 6.32                            | 30.0                                       | -23.68      |
|        | 5785            | 157         | a           | 6                | 5.70                         | -4.60                        | 6.08                            | 30.0                                       | -23.92      |
|        | 5825            | 165         | a           | 6                | 5.16                         | -5.11                        | 5.55                            | 30.0                                       | -24.45      |
|        | 5745            | 149         | n (20MHz)   | 6.5/7.2 (MCS0)   | 6.10                         | -5.12                        | 6.41                            | 30.0                                       | -23.59      |
|        | 5785            | 157         | n (20MHz)   | 6.5/7.2 (MCS0)   | 5.71                         | -4.89                        | 6.07                            | 30.0                                       | -23.93      |
|        | 5825            | 165         | n (20MHz)   | 6.5/7.2 (MCS0)   | 5.33                         | -5.24                        | 5.69                            | 30.0                                       | -24.31      |
|        | 5745            | 149         | ax (20MHz)  | 6.5/7.2 (MCS0)   | 5.39                         | 4.57                         | 8.01                            | 30.0                                       | -21.99      |
|        | 5785            | 157         | ax (20MHz)  | 6.5/7.2 (MCS0)   | 5.00                         | 4.69                         | 7.86                            | 30.0                                       | -22.14      |
|        | 5825            | 165         | ax (20MHz)  | 6.5/7.2 (MCS0)   | 4.90                         | 4.53                         | 7.73                            | 30.0                                       | -22.27      |
|        | 5755            | 151         | n (40MHz)   | 13.5/15 (MCS0)   | 0.97                         | -8.61                        | 1.43                            | 30.0                                       | -28.57      |
|        | 5795            | 159         | n (40MHz)   | 13.5/15 (MCS0)   | 1.25                         | -7.95                        | 1.74                            | 30.0                                       | -28.26      |
|        | 5755            | 151         | ax (40MHz)  | 13.5/15 (MCS0)   | 0.69                         | 0.77                         | 3.74                            | 30.0                                       | -26.26      |
|        | 5795            | 159         | ax (40MHz)  | 13.5/15 (MCS0)   | 0.98                         | 0.43                         | 3.72                            | 30.0                                       | -26.28      |
|        | 5775            | 155         | ac (80MHz)  | 29.3/32.5 (MCS0) | -1.69                        | -9.15                        | -0.98                           | 30.0                                       | -30.98      |
|        | 5775            | 155         | ax (80MHz)  | 29.3/32.5 (MCS0) | -2.90                        | -3.26                        | -0.07                           | 30.0                                       | -30.07      |

**Table 7-29. Band 3 MIMO Conducted Power Spectral Density Measurements**

|                                         |                                                                                                                                                                                                              |                                       |                                                                                       |                                 |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  <b>PCTEST</b><br>Proud to be part of  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                                                                                                                                            | EUT Type:<br>Portable Handset         | Page 167 of 240                                                                       |                                 |

#### Note:

Per ANSI C63.10-2013 Section 14.3.2.2 and KDB 662911 v02r01 Section E)2), the power spectral density at Antenna 1 and Antenna 2 were first measured separately as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

#### Sample MIMO Calculation:

At 5180MHz in 802.11n (20MHz BW) mode, the average conducted power spectral density was measured to be -3.41 dBm for Antenna-1 and N/A dBm for Antenna-2.

$$\text{Antenna 1} + \text{Antenna 2} = \text{MIMO}$$

$$(-3.41 \text{ dBm} + -3.51 \text{ dBm}) = (0.46 \text{ mW} + 0.44 \text{ mW}) = 0.90 \text{ mW} = -0.45 \text{ dBm}$$

#### Sample e.i.r.p Power Spectral Density Calculation:

At 5180MHz in 802.11n (20MHz BW) mode, the average MIMO power density was calculated to be -0.45 dBm with directional gain of -2.49 dBi.

$$\text{e.i.r.p. Power Spectral Density(dBm)} = \text{Power Spectral Density (dBm)} + \text{Ant gain (dBi)}$$

$$-0.45 \text{ dBm} + -2.49 \text{ dBi} = -2.94 \text{ dBm}$$

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 168 of 240                                                                       |                                 |

## 7.6 Radiated Spurious Emission Measurements – Above 1GHz

§15.407(b) §15.205 §15.209; RSS-Gen [8.9]

### Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. All channels, modes (e.g. 802.11a, 802.11n (20MHz BW), 802.11n (40MHz BW), and 802.11ac (80MHz)), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

***For transmitters operating in the 5.15-5.25 GHz and 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.***

***For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.***

***For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.***

***All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 6 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-30 per Section 15.209 and RSS-Gen (8.9).***

| Frequency       | Field Strength<br>[ $\mu$ V/m] | Measured Distance<br>[Meters] |
|-----------------|--------------------------------|-------------------------------|
| Above 960.0 MHz | 500                            | 3                             |

Table 7-30. Radiated Limits

### Test Procedures Used

ANSI C63.10-2013 – Sections 12.7.7.2, 12.7.6, 12.7.5  
 KDB 789033 D02 v02r01 – Section G

### Test Settings

#### Average Measurements above 1GHz (Method AD)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
5. Number of measurement points = 1001 (Number of points must be  $\geq 2 \times \text{span/RBW}$ )
6. Averaging type = power (RMS)
7. Sweep time = auto couple
8. Trace was averaged over 100 sweeps

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 169 of 240                                                                       |                                 |

### Peak Measurements above 1GHz

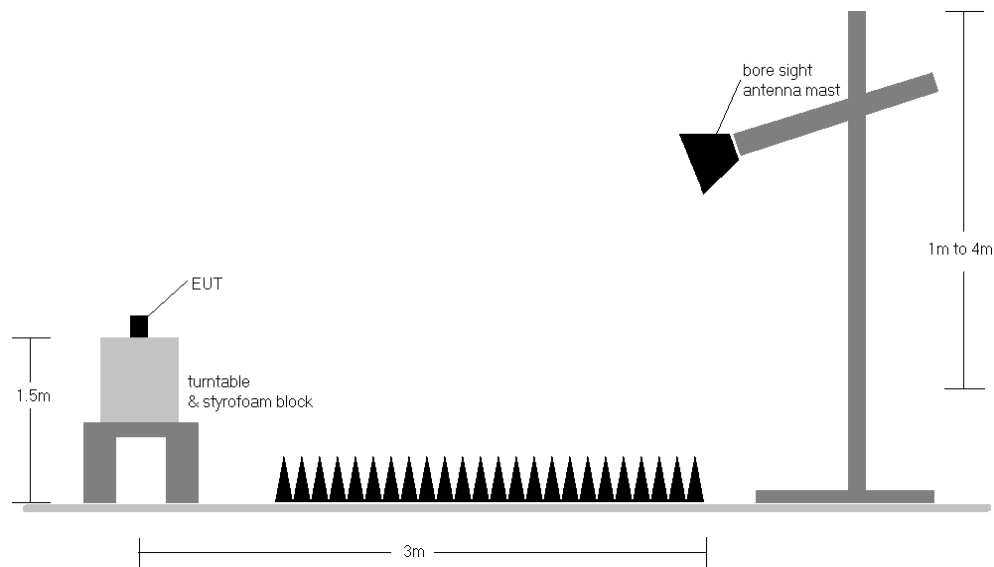
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

### Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 120kHz
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

### Test Setup

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



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

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 170 of 240                 |

### Test Notes

1. All emissions that lie in the restricted bands (denoted by a \* next to the frequency) specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-30.
2. All spurious emissions lying in restricted bands specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-30. All spurious emissions that do not lie in a restricted band are subject to a peak limit of -27dBm/MHz. At a distance of 3 meters, the field strength limit in dB $\mu$ V/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dB $\mu$ V/m.
3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.
4. This unit was tested with its standard battery.
5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
6. Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
7. Radiated spurious emissions were investigated while operating in MIMO mode, however, it was determined that single antenna operation produced the worst case emissions. Since the emissions produced from MIMO operation were found to be more than 20dB below the limit, the MIMO emissions are not reported.
8. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section.
9. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

### Sample Calculations

#### Determining Spurious Emissions Levels

- o Field Strength Level [dB $\mu$ V/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- o AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB]
- o Margin [dB] = Field Strength Level [dB $\mu$ V/m] – Limit [dB $\mu$ V/m]

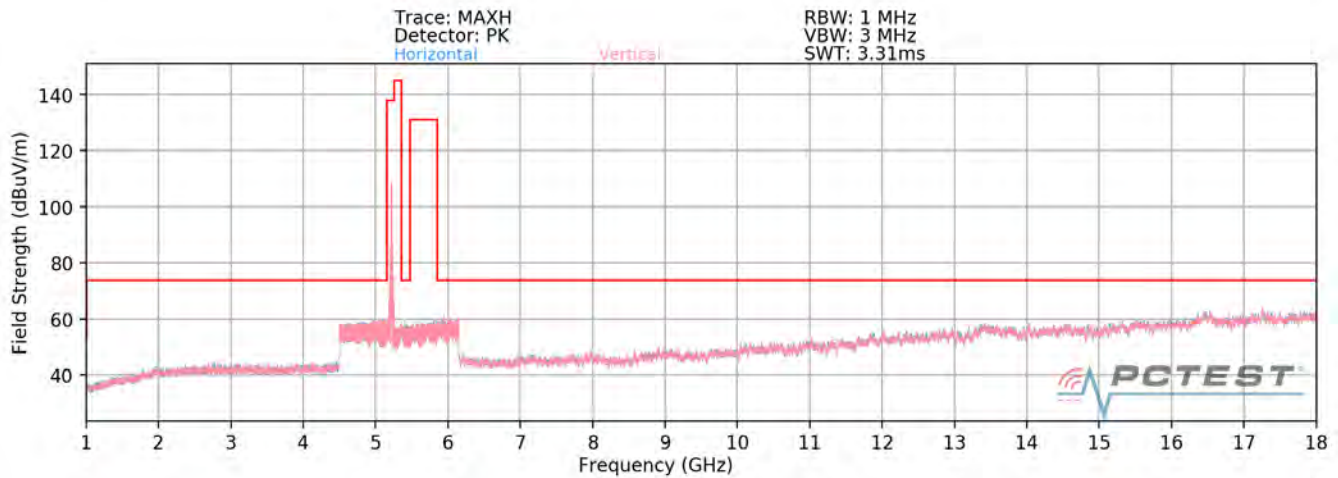
#### Radiated Band Edge Measurement Offset

- o The amplitude offset shown in the radiated restricted band edge plots was calculated using the formula:

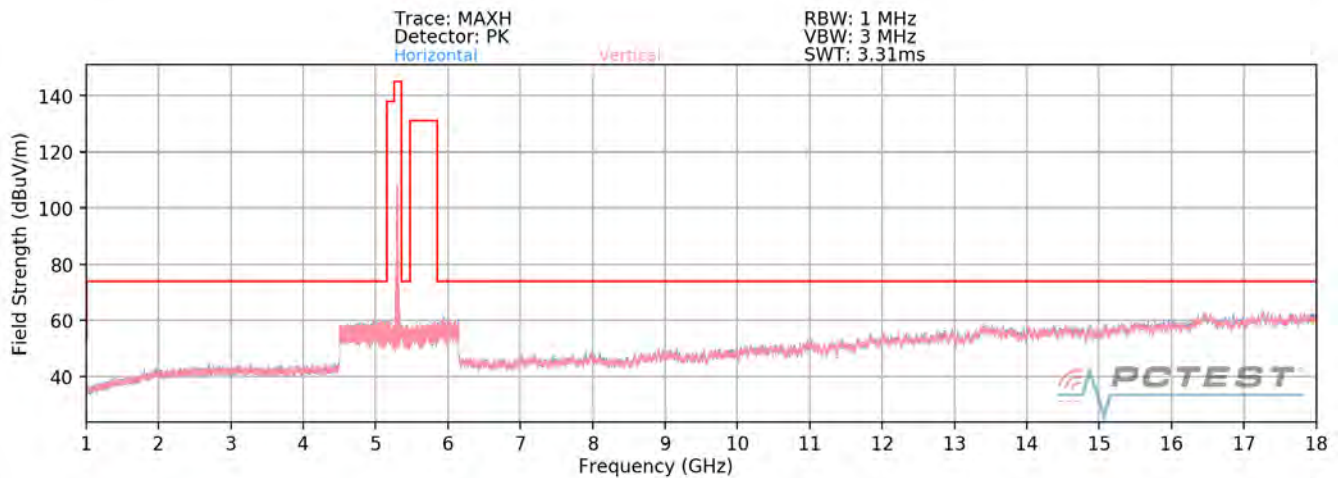
$$\text{Offset (dB)} = (\text{Antenna Factor} + \text{Cable Loss} + \text{Attenuator}) - \text{Preamplifier Gain}$$

|                                         |                                                                                                                                                                                                |                                       |                                                                                       |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      | <br>Proud to be part of  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                                                                                                                              | EUT Type:<br>Portable Handset         |                                                                                       | Page 171 of 240                 |

## 7.6.1 SISO Antenna-1 Radiated Spurious Emission Measurements

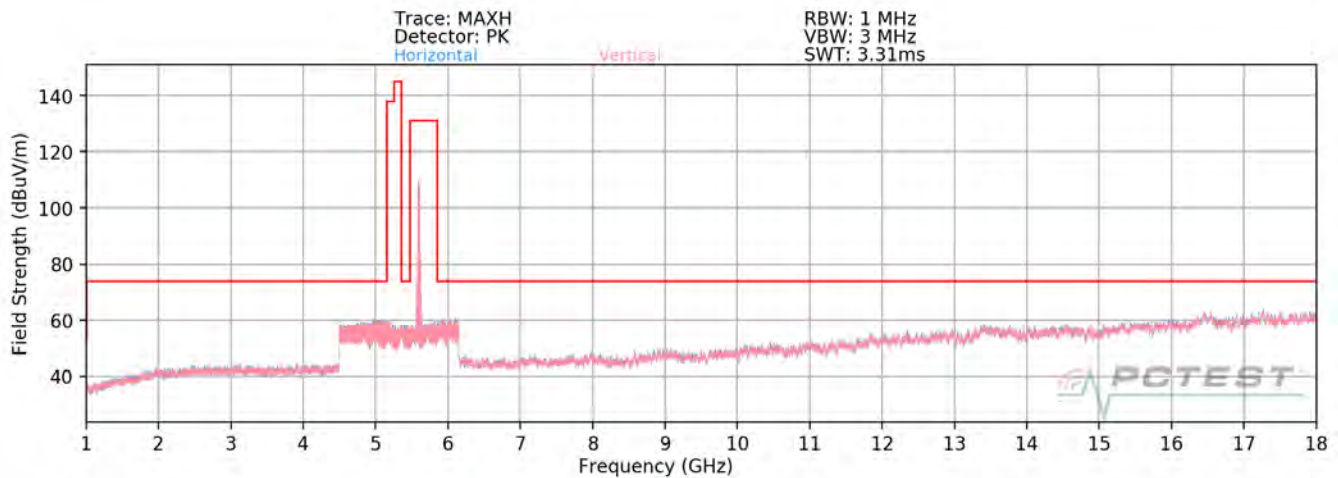


**Plot 7-265. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U1 Ch. 40)**

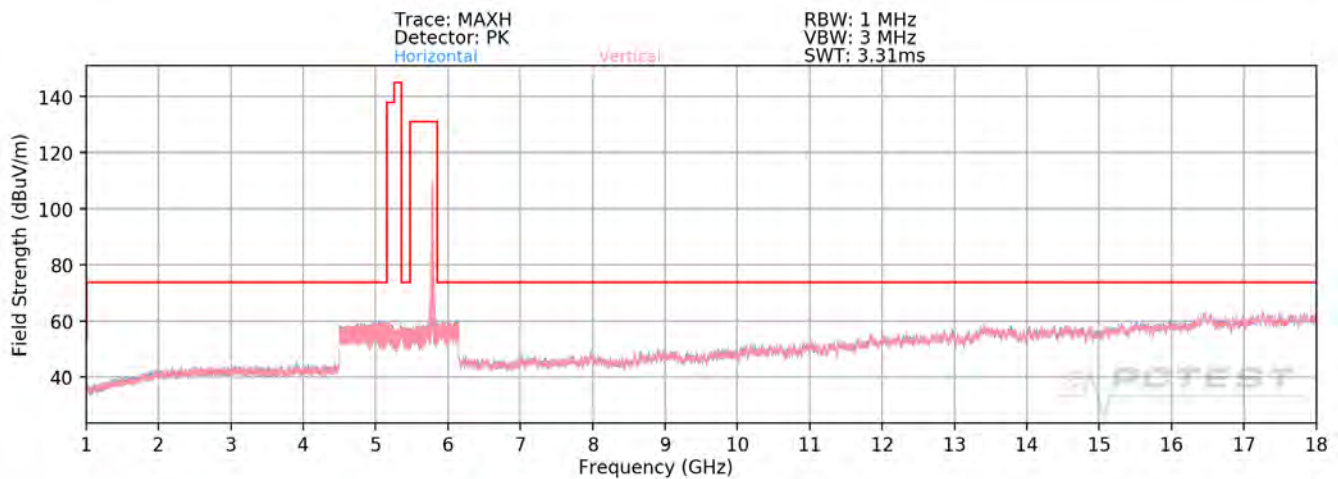


**Plot 7-266. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U2A Ch. 56)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 172 of 240                 |



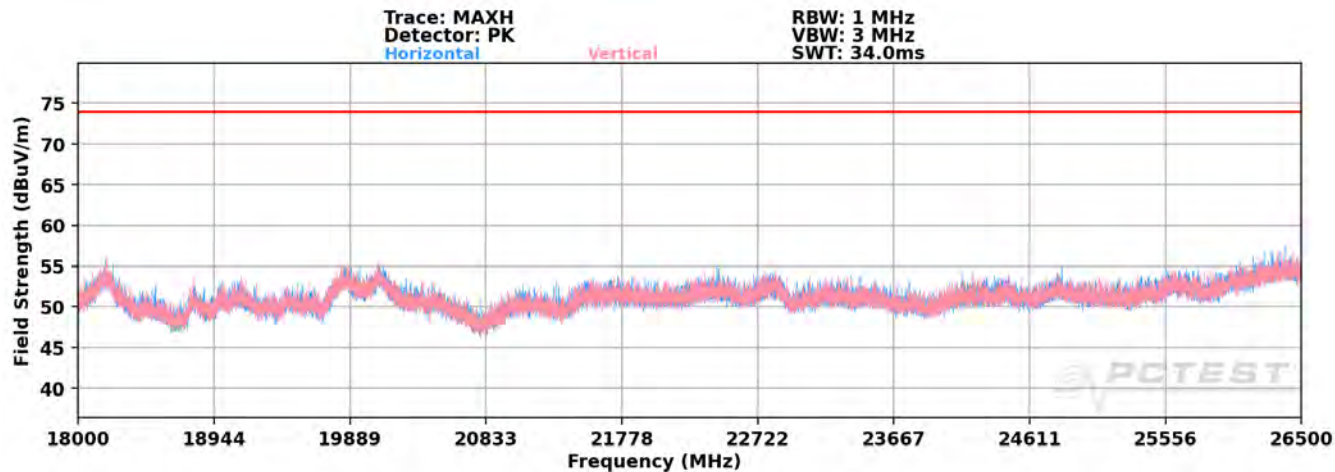
**Plot 7-267. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U2C Ch. 120)**



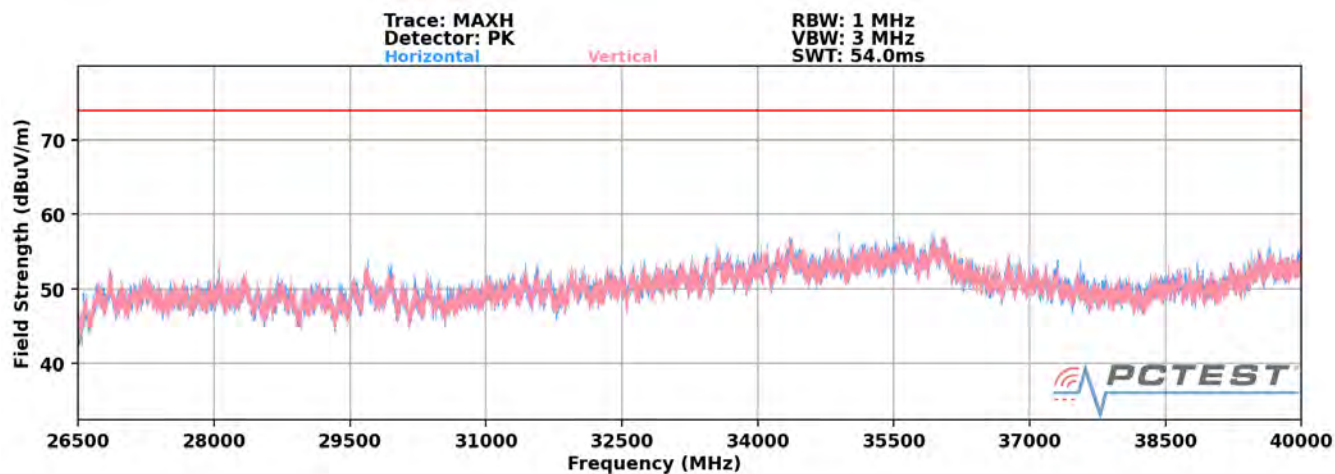
**Plot 7-268. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U3 Ch. 157)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 173 of 240                                                                       |                                 |

## SISO Antenna-1 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-269. Radiated Spurious Plot 18GHz - 26.5GHz SISO ANT1 (802.11a)



Plot 7-270. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT1 (802.11a)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 174 of 240                                                                       |                                 |

## SISO Antenna-1 Radiated Spurious Emission Measurements

§15.407(b) §15.205 & §15.209: RSS-Gen [8.9]

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5180MHz  
Channel: 36

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10360.00        | Peak     | H               | 398                 | 73                         | -67.67               | 11.62       | 0.00                            | 50.95                   | 68.20          | -17.25      |
| * 15540.00      | Average  | H               | -                   | -                          | -80.78               | 12.73       | 0.00                            | 38.95                   | 53.98          | -15.03      |
| * 15540.00      | Peak     | H               | -                   | -                          | -67.93               | 12.73       | 0.00                            | 51.80                   | 73.98          | -22.18      |
| * 20720.00      | Average  | H               | 150                 | 189                        | -75.90               | 16.92       | -9.54                           | 38.48                   | 53.98          | -15.50      |
| * 20720.00      | Peak     | H               | 150                 | 189                        | -64.81               | 16.92       | -9.54                           | 49.57                   | 73.98          | -24.41      |
| 25900.00        | Peak     | H               | -                   | -                          | -64.94               | 19.39       | -9.54                           | 51.91                   | 68.20          | -16.29      |

Table 7-31. Radiated Measurements SISO ANT1

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5200MHz  
Channel: 40

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10400.00        | Peak     | H               | 398                 | 228                        | -67.65               | 11.11       | 0.00                            | 50.46                   | 68.20          | -17.74      |
| * 15600.00      | Average  | H               | -                   | -                          | -80.59               | 13.59       | 0.00                            | 40.00                   | 53.98          | -13.98      |
| * 15600.00      | Peak     | H               | -                   | -                          | -67.62               | 13.59       | 0.00                            | 52.97                   | 73.98          | -21.01      |
| * 20800.00      | Average  | H               | -                   | -                          | -77.14               | 17.39       | -9.54                           | 37.70                   | 53.98          | -16.27      |
| * 20800.00      | Peak     | H               | -                   | -                          | -66.33               | 17.39       | -9.54                           | 48.51                   | 73.98          | -25.46      |
| 26000.00        | Peak     | H               | -                   | -                          | -64.43               | 19.98       | -9.54                           | 53.00                   | 68.20          | -15.20      |

Table 7-32. Radiated Measurements SISO ANT1

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 175 of 240                                                                       |                                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5240MHz  
 Channel: 48

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10480.00        | Peak     | H               | 399                 | 244                        | -67.54               | 10.89       | 0.00                            | 50.35                   | 68.20          | -17.85      |
| * 15720.00      | Average  | H               | -                   | -                          | -80.56               | 14.74       | 0.00                            | 41.18                   | 53.98          | -12.80      |
| * 15720.00      | Peak     | H               | -                   | -                          | -67.52               | 14.74       | 0.00                            | 54.22                   | 73.98          | -19.76      |
| * 20960.00      | Average  | H               | -                   | -                          | -75.92               | 17.29       | -9.54                           | 38.83                   | 53.98          | -15.15      |
| * 20960.00      | Peak     | H               | -                   | -                          | -65.27               | 17.29       | -9.54                           | 49.48                   | 73.98          | -24.50      |
| 26200.00        | Peak     | H               | -                   | -                          | -63.64               | 19.80       | -9.54                           | 53.62                   | 68.20          | -14.58      |

**Table 7-33. Radiated Measurements SISO ANT1**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5260MHz  
 Channel: 52

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10520.00        | Peak     | H               | 398                 | 191                        | -67.53               | 11.21       | 0.00                            | 50.68                   | 68.20          | -17.52      |
| * 15780.00      | Average  | H               | -                   | -                          | -81.07               | 14.50       | 0.00                            | 40.43                   | 53.98          | -13.55      |
| * 15780.00      | Peak     | H               | -                   | -                          | -68.24               | 14.50       | 0.00                            | 53.26                   | 73.98          | -20.72      |
| * 21040.00      | Average  | H               | -                   | -                          | -75.19               | 17.32       | -9.54                           | 39.59                   | 53.98          | -14.39      |
| * 21040.00      | Peak     | H               | -                   | -                          | -64.57               | 17.32       | -9.54                           | 50.21                   | 73.98          | -23.77      |
| 26300.00        | Peak     | H               | -                   | -                          | -63.67               | 20.12       | -9.54                           | 53.91                   | 68.20          | -14.29      |

**Table 7-34. Radiated Measurements SISO ANT1**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 176 of 240                                                                       |                                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5280MHz  
 Channel: 56

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10560.00        | Peak     | H               | 400                 | 171                        | -67.31               | 12.28       | 0.00                            | 51.97                   | 68.20          | -16.23      |
| * 15840.00      | Average  | H               | -                   | -                          | -80.49               | 13.70       | 0.00                            | 40.21                   | 53.98          | -13.77      |
| * 15840.00      | Peak     | H               | -                   | -                          | -67.23               | 13.70       | 0.00                            | 53.47                   | 73.98          | -20.51      |
| * 21120.00      | Average  | H               | -                   | -                          | -75.44               | 17.26       | -9.54                           | 39.28                   | 53.98          | -14.70      |
| * 21120.00      | Peak     | H               | -                   | -                          | -65.99               | 17.26       | -9.54                           | 48.73                   | 73.98          | -25.25      |
| 26400.00        | Peak     | H               | -                   | -                          | -63.76               | 19.67       | -9.54                           | 53.37                   | 68.20          | -14.83      |

**Table 7-35. Radiated Measurements SISO ANT1**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5320MHz  
 Channel: 64

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 10640.00      | Average  | H               | 400                 | 192                        | -80.77               | 12.95       | 0.00                            | 39.18                   | 53.98          | -14.80      |
| * 10640.00      | Peak     | H               | 400                 | 192                        | -67.41               | 12.95       | 0.00                            | 52.54                   | 73.98          | -21.44      |
| * 15960.00      | Average  | H               | -                   | -                          | -81.11               | 12.93       | 0.00                            | 38.82                   | 53.98          | -15.16      |
| * 15960.00      | Peak     | H               | -                   | -                          | -68.05               | 12.93       | 0.00                            | 51.88                   | 73.98          | -22.10      |
| * 21280.00      | Average  | H               | -                   | -                          | -76.13               | 17.51       | -9.54                           | 38.84                   | 53.98          | -15.14      |
| * 21280.00      | Peak     | H               | -                   | -                          | -64.63               | 17.51       | -9.54                           | 50.34                   | 73.98          | -23.64      |
| 26600.00        | Peak     | H               | -                   | -                          | -54.37               | 1.44        | -9.54                           | 44.53                   | 68.20          | -23.67      |

**Table 7-36. Radiated Measurements SISO ANT1**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 177 of 240                                                                       |                                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11000.00      | Average  | H               | 400                 | 181                        | -80.53               | 12.49       | 0.00                            | 38.96                   | 53.98          | -15.02      |
| * 11000.00      | Peak     | H               | 400                 | 181                        | -66.75               | 12.49       | 0.00                            | 52.74                   | 73.98          | -21.24      |
| 16500.00        | Peak     | H               | -                   | -                          | -67.62               | 14.93       | 0.00                            | 54.31                   | 68.20          | -13.89      |
| 22000.00        | Peak     | H               | -                   | -                          | -63.29               | 18.25       | -9.54                           | 52.42                   | 68.20          | -15.78      |
| 27500.00        | Peak     | H               | -                   | -                          | -53.66               | 0.12        | -9.54                           | 43.92                   | 68.20          | -24.28      |

**Table 7-37. Radiated Measurements SISO ANT1**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5600MHz  
 Channel: 120

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11200.00      | Average  | H               | 389                 | 103                        | -80.62               | 12.18       | 0.00                            | 38.56                   | 53.98          | -15.42      |
| * 11200.00      | Peak     | H               | 389                 | 103                        | -67.72               | 12.18       | 0.00                            | 51.46                   | 73.98          | -22.52      |
| 16800.00        | Peak     | H               | -                   | -                          | -66.80               | 16.07       | 0.00                            | 56.27                   | 68.20          | -11.93      |
| * 22400.00      | Average  | H               | -                   | -                          | -75.33               | 19.00       | -9.54                           | 41.13                   | 53.98          | -12.85      |
| * 22400.00      | Peak     | H               | -                   | -                          | -63.98               | 19.00       | -9.54                           | 52.48                   | 73.98          | -21.50      |
| 28000.00        | Peak     | H               | -                   | -                          | -53.61               | 0.74        | -9.54                           | 44.58                   | 68.20          | -23.62      |

**Table 7-38. Radiated Measurements SISO ANT1**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 178 of 240                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5720MHz  
 Channel: 144

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11440.00      | Average  | H               | 400                 | 209                        | -80.76               | 12.82       | 0.00                            | 39.06                   | 53.98          | -14.92      |
| * 11440.00      | Peak     | H               | 400                 | 209                        | -67.28               | 12.82       | 0.00                            | 52.54                   | 73.98          | -21.44      |
| 17160.00        | Peak     | H               | -                   | -                          | -67.09               | 17.60       | 0.00                            | 57.51                   | 68.20          | -10.69      |
| * 22880.00      | Average  | H               | -                   | -                          | -75.27               | 18.40       | -9.54                           | 40.59                   | 53.98          | -13.39      |
| * 22880.00      | Peak     | H               | -                   | -                          | -64.46               | 18.40       | -9.54                           | 51.40                   | 73.98          | -22.58      |
| 28600.00        | Peak     | H               | 150                 | 9                          | -52.18               | 0.41        | -9.54                           | 45.69                   | 68.20          | -22.51      |

**Table 7-39. Radiated Measurements SISO ANT1**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5745MHz  
 Channel: 149

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11490.00      | Average  | H               | 400                 | 155                        | -80.90               | 12.52       | 0.00                            | 38.62                   | 53.98          | -15.35      |
| * 11490.00      | Peak     | H               | 400                 | 155                        | -67.77               | 12.52       | 0.00                            | 51.75                   | 73.98          | -22.22      |
| 17235.00        | Peak     | H               | -                   | -                          | -67.24               | 16.58       | 0.00                            | 56.34                   | 68.20          | -11.86      |
| * 22980.00      | Average  | H               | -                   | -                          | -75.96               | 17.92       | -9.54                           | 39.42                   | 53.98          | -14.56      |
| * 22980.00      | Peak     | H               | -                   | -                          | -64.89               | 17.92       | -9.54                           | 50.49                   | 73.98          | -23.49      |
| 28725.00        | Peak     | H               | -                   | -                          | -54.24               | 0.67        | -9.54                           | 43.89                   | 68.20          | -24.31      |

**Table 7-40. Radiated Measurements SISO ANT1**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 179 of 240                                                                       |                                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5785MHz  
 Channel: 157

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11570.00      | Average  | H               | 400                 | 86                         | -80.41               | 12.91       | 0.00                            | 39.50                   | 53.98          | -14.48      |
| * 11570.00      | Peak     | H               | 400                 | 86                         | -67.18               | 12.91       | 0.00                            | 52.73                   | 73.98          | -21.25      |
| 17355.00        | Peak     | H               | -                   | -                          | -67.42               | 19.37       | 0.00                            | 58.95                   | 68.20          | -9.25       |
| 23140.00        | Peak     | H               | -                   | -                          | -64.52               | 18.32       | -9.54                           | 51.26                   | 68.20          | -16.94      |
| 28925.00        | Peak     | H               | -                   | -                          | -53.85               | 0.75        | -9.54                           | 44.36                   | 68.20          | -23.84      |

**Table 7-41. Radiated Measurements SISO ANT1**

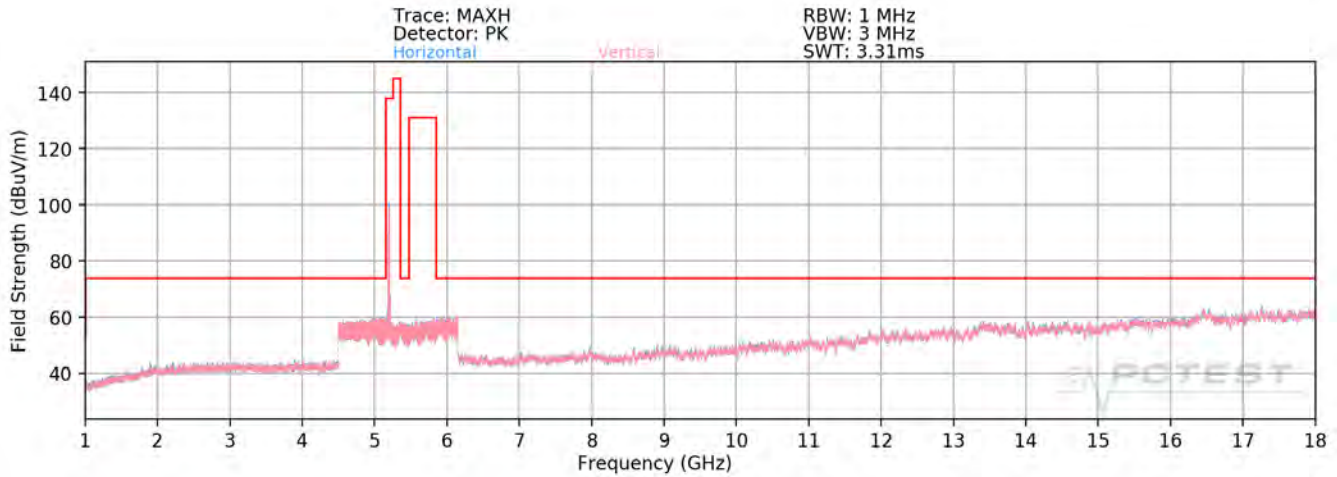
Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5825MHz  
 Channel: 165

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11650.00      | Average  | H               | 400                 | 253                        | -80.53               | 13.76       | 0.00                            | 40.23                   | 53.98          | -13.75      |
| * 11650.00      | Peak     | H               | 400                 | 253                        | -66.77               | 13.76       | 0.00                            | 53.99                   | 73.98          | -19.99      |
| 17475.00        | Peak     | H               | -                   | -                          | -67.06               | 19.15       | 0.00                            | 59.09                   | 68.20          | -9.11       |
| 23300.00        | Peak     | H               | -                   | -                          | -65.28               | 18.77       | -9.54                           | 50.95                   | 68.20          | -17.25      |
| 29125.00        | Peak     | H               | 150                 | 245                        | -52.55               | -0.12       | -9.54                           | 44.79                   | 68.20          | -23.41      |

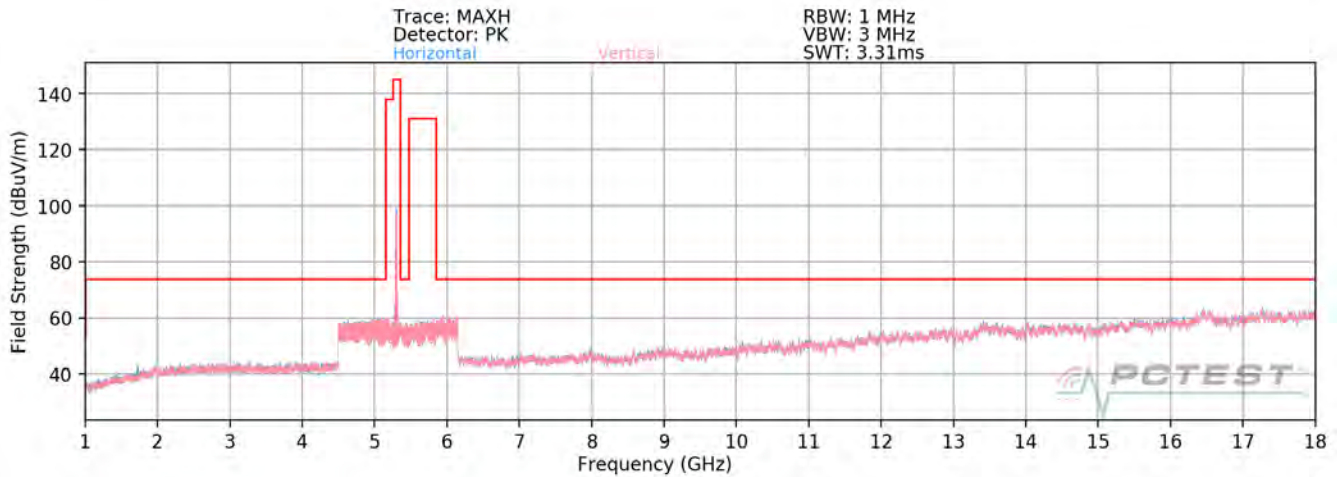
**Table 7-42. Radiated Measurements SISO ANT1**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 180 of 240                 |

## 7.6.2 SISO Antenna-2 Radiated Spurious Emission Measurements

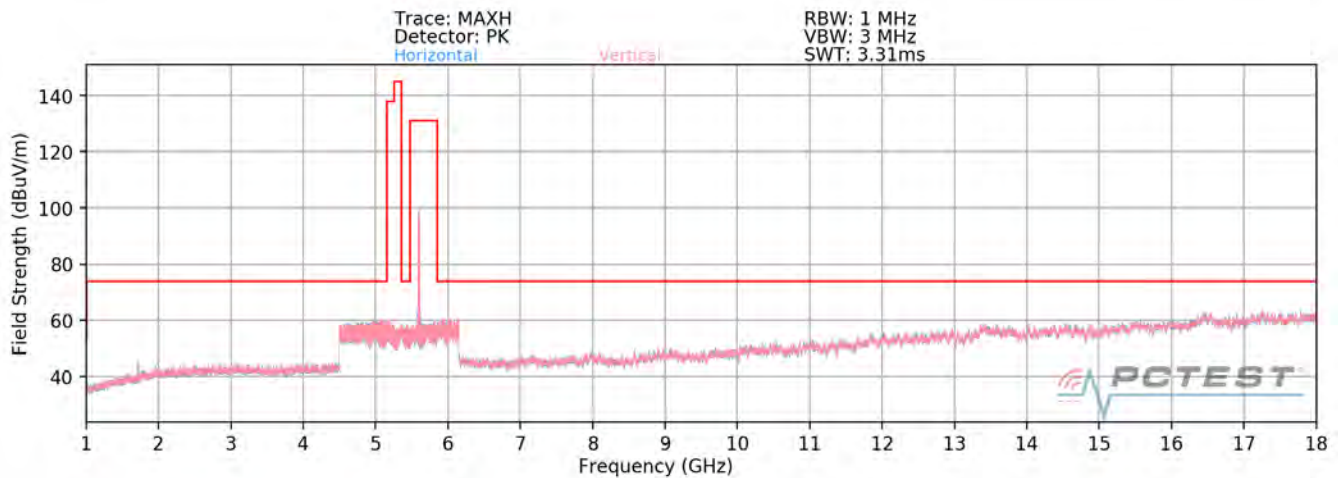


**Plot 7-271. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11a – U1 Ch. 40)**

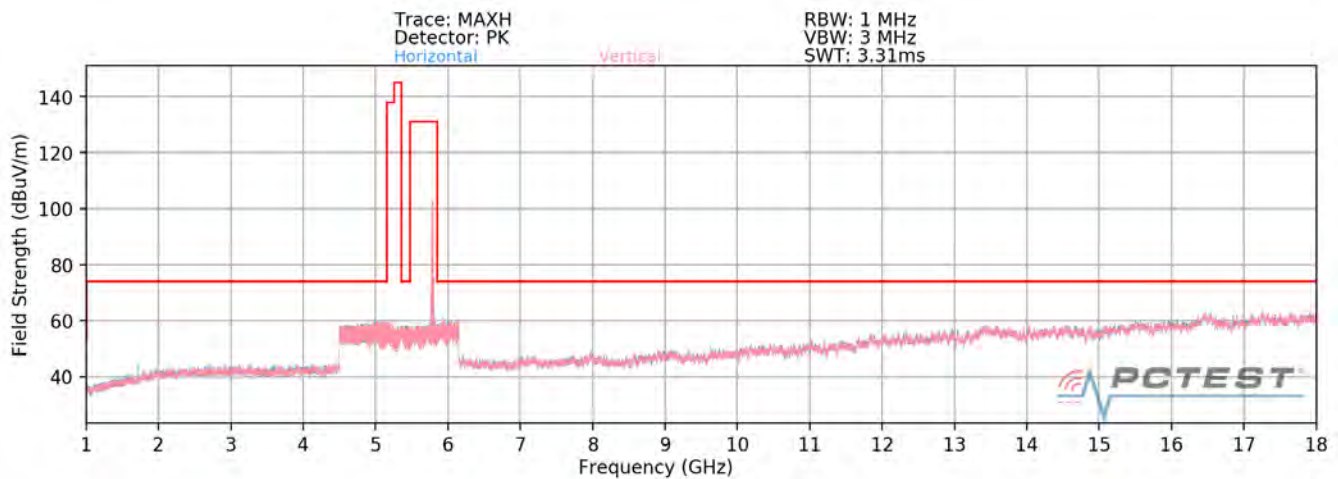


**Plot 7-272. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11a – U2A Ch. 56)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 181 of 240                 |



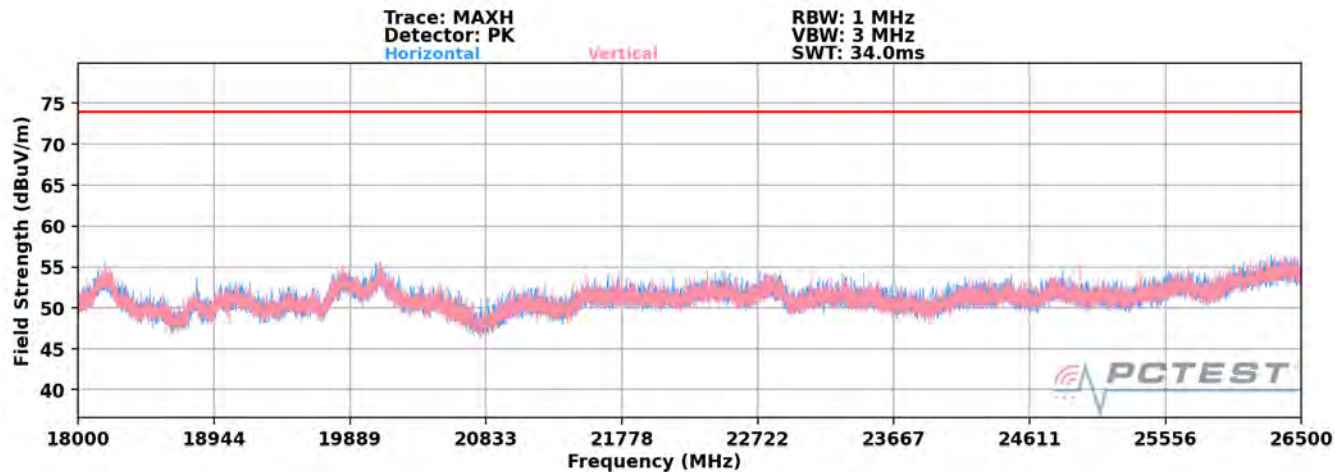
**Plot 7-273. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11a – U2C Ch. 120)**



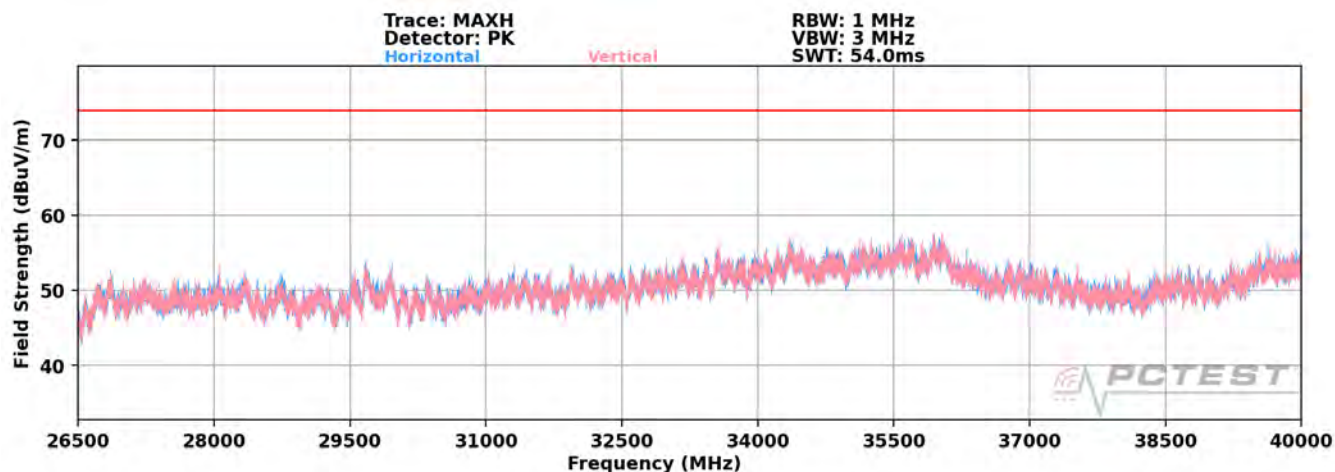
**Plot 7-274. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11a – U3 Ch. 157)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 182 of 240                                                                       |                                 |

## SISO Antenna-2 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-275. Radiated Spurious Plot above 18GHz - 26.5GHz SISO ANT2 (802.11a)



Plot 7-276. Radiated Spurious Plot 26.5GHz - 40GHz SISO ANT2 (802.11a)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 183 of 240                 |

## SISO Antenna-2 Radiated Spurious Emission Measurements

§15.407(b) §15.205 & §15.209: RSS-Gen [8.9]

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5180MHz  
Channel: 36

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10360.00        | Peak     | H               | 400                 | 297                        | -67.97               | 11.62       | 0.00                            | 50.65                   | 68.20          | -17.55      |
| * 15540.00      | Average  | H               | -                   | -                          | -80.58               | 12.73       | 0.00                            | 39.15                   | 53.98          | -14.83      |
| * 15540.00      | Peak     | H               | -                   | -                          | -67.13               | 12.73       | 0.00                            | 52.60                   | 73.98          | -21.38      |
| * 20720.00      | Average  | H               | 150                 | 302                        | -75.42               | 16.92       | -9.54                           | 38.96                   | 53.98          | -15.02      |
| * 20720.00      | Peak     | H               | 150                 | 302                        | -65.30               | 16.92       | -9.54                           | 49.08                   | 73.98          | -24.90      |
| 25900.00        | Peak     | H               | -                   | -                          | -63.69               | 19.39       | -9.54                           | 53.16                   | 68.20          | -15.04      |

Table 7-43. Radiated Measurements SISO ANT2

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5200MHz  
Channel: 40

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10400.00        | Peak     | H               | 399                 | 18                         | -67.63               | 11.11       | 0.00                            | 50.48                   | 68.20          | -17.72      |
| * 15600.00      | Average  | H               | -                   | -                          | -80.85               | 13.59       | 0.00                            | 39.74                   | 53.98          | -14.24      |
| * 15600.00      | Peak     | H               | -                   | -                          | -67.80               | 13.59       | 0.00                            | 52.79                   | 73.98          | -21.19      |
| * 20800.00      | Average  | H               | -                   | -                          | -76.91               | 17.39       | -9.54                           | 37.93                   | 53.98          | -16.04      |
| * 20800.00      | Peak     | H               | -                   | -                          | -65.81               | 17.39       | -9.54                           | 49.03                   | 73.98          | -24.94      |
| 26000.00        | Peak     | H               | -                   | -                          | -63.99               | 19.98       | -9.54                           | 53.44                   | 68.20          | -14.76      |

Table 7-44. Radiated Measurements SISO ANT2

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 184 of 240                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5240MHz  
 Channel: 48

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10480.00        | Peak     | H               | 395                 | 333                        | -67.07               | 10.89       | 0.00                            | 50.82                   | 68.20          | -17.38      |
| * 15720.00      | Average  | H               | -                   | -                          | -80.54               | 14.74       | 0.00                            | 41.20                   | 53.98          | -12.78      |
| * 15720.00      | Peak     | H               | -                   | -                          | -67.38               | 14.74       | 0.00                            | 54.36                   | 73.98          | -19.62      |
| * 20960.00      | Average  | H               | -                   | -                          | -75.82               | 17.29       | -9.54                           | 38.93                   | 53.98          | -15.05      |
| * 20960.00      | Peak     | H               | -                   | -                          | -65.52               | 17.29       | -9.54                           | 49.23                   | 73.98          | -24.75      |
| 26200.00        | Peak     | H               | -                   | -                          | -63.54               | 19.80       | -9.54                           | 53.72                   | 68.20          | -14.48      |

**Table 7-45. Radiated Measurements SISO ANT2**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5260MHz  
 Channel: 52

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10520.00        | Peak     | H               | 400                 | 157                        | -67.84               | 11.21       | 0.00                            | 50.37                   | 68.20          | -17.83      |
| * 15780.00      | Average  | H               | -                   | -                          | -80.83               | 14.50       | 0.00                            | 40.67                   | 53.98          | -13.31      |
| * 15780.00      | Peak     | H               | -                   | -                          | -67.63               | 14.50       | 0.00                            | 53.87                   | 73.98          | -20.11      |
| * 21040.00      | Average  | H               | -                   | -                          | -75.57               | 17.32       | -9.54                           | 39.21                   | 53.98          | -14.77      |
| * 21040.00      | Peak     | H               | -                   | -                          | -64.70               | 17.32       | -9.54                           | 50.08                   | 73.98          | -23.90      |
| 26300.00        | Peak     | H               | -                   | -                          | -65.72               | 20.12       | -9.54                           | 51.86                   | 68.20          | -16.34      |

**Table 7-46. Radiated Measurements SISO ANT2**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 185 of 240                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5280MHz  
 Channel: 56

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10560.00        | Peak     | H               | 400                 | 128                        | -66.95               | 12.28       | 0.00                            | 52.33                   | 68.20          | -15.87      |
| * 15840.00      | Average  | H               | -                   | -                          | -80.59               | 13.70       | 0.00                            | 40.11                   | 53.98          | -13.87      |
| * 15840.00      | Peak     | H               | -                   | -                          | -67.18               | 13.70       | 0.00                            | 53.52                   | 73.98          | -20.46      |
| * 21120.00      | Average  | H               | -                   | -                          | -75.56               | 17.26       | -9.54                           | 39.16                   | 53.98          | -14.82      |
| * 21120.00      | Peak     | H               | -                   | -                          | -65.63               | 17.26       | -9.54                           | 49.09                   | 73.98          | -24.89      |
| 26400.00        | Peak     | H               | -                   | -                          | -63.72               | 19.67       | -9.54                           | 53.41                   | 68.20          | -14.79      |

**Table 7-47. Radiated Measurements SISO ANT2**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5320MHz  
 Channel: 64

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 10640.00      | Average  | H               | 400                 | 327                        | -80.84               | 12.95       | 0.00                            | 39.11                   | 53.98          | -14.87      |
| * 10640.00      | Peak     | H               | 400                 | 327                        | -67.61               | 12.95       | 0.00                            | 52.34                   | 73.98          | -21.64      |
| * 15960.00      | Average  | H               | -                   | -                          | -81.00               | 12.93       | 0.00                            | 38.93                   | 53.98          | -15.05      |
| * 15960.00      | Peak     | H               | -                   | -                          | -67.94               | 12.93       | 0.00                            | 51.99                   | 73.98          | -21.99      |
| * 21280.00      | Average  | H               | -                   | -                          | -75.72               | 17.51       | -9.54                           | 39.25                   | 53.98          | -14.73      |
| * 21280.00      | Peak     | H               | -                   | -                          | -64.92               | 17.51       | -9.54                           | 50.05                   | 73.98          | -23.93      |
| 26600.00        | Peak     | H               | 150                 | 82                         | -52.72               | 1.44        | -9.54                           | 46.18                   | 68.20          | -22.02      |

**Table 7-48. Radiated Measurements SISO ANT2**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 186 of 240                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11000.00      | Average  | H               | 400                 | 245                        | -80.35               | 12.49       | 0.00                            | 39.14                   | 53.98          | -14.84      |
| * 11000.00      | Peak     | H               | 400                 | 245                        | -67.87               | 12.49       | 0.00                            | 51.62                   | 73.98          | -22.36      |
| 16500.00        | Peak     | H               | -                   | -                          | -67.41               | 14.93       | 0.00                            | 54.52                   | 68.20          | -13.68      |
| 22000.00        | Peak     | H               | -                   | -                          | -64.62               | 18.25       | -9.54                           | 51.09                   | 68.20          | -17.11      |
| 27500.00        | Peak     | H               | -                   | -                          | -53.03               | 0.12        | -9.54                           | 44.55                   | 68.20          | -23.65      |

**Table 7-49. Radiated Measurements SISO ANT2**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5600MHz  
 Channel: 120

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11200.00      | Average  | H               | 400                 | 298                        | -80.48               | 12.18       | 0.00                            | 38.70                   | 53.98          | -15.28      |
| * 11200.00      | Peak     | H               | 400                 | 298                        | -67.52               | 12.18       | 0.00                            | 51.66                   | 73.98          | -22.32      |
| 16800.00        | Peak     | H               | -                   | -                          | -67.31               | 16.07       | 0.00                            | 55.76                   | 68.20          | -12.44      |
| * 22400.00      | Average  | H               | -                   | -                          | -68.52               | 19.00       | -9.54                           | 47.94                   | 53.98          | -6.04       |
| * 22400.00      | Peak     | H               | -                   | -                          | -64.72               | 19.00       | -9.54                           | 51.74                   | 73.98          | -22.24      |
| 28000.00        | Peak     | H               | -                   | -                          | -55.09               | 0.74        | -9.54                           | 43.10                   | 68.20          | -25.10      |

**Table 7-50. Radiated Measurements SISO ANT2**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08-A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 187 of 240                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5720MHz  
 Channel: 144

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11440.00      | Average  | H               | 400                 | 23                         | -80.43               | 12.82       | 0.00                            | 39.39                   | 53.98          | -14.59      |
| * 11440.00      | Peak     | H               | 400                 | 23                         | -67.89               | 12.82       | 0.00                            | 51.93                   | 73.98          | -22.05      |
| 17160.00        | Peak     | H               | -                   | -                          | -67.26               | 17.60       | 0.00                            | 57.34                   | 68.20          | -10.86      |
| * 22880.00      | Average  | H               | -                   | -                          | -68.77               | 18.40       | -9.54                           | 47.09                   | 53.98          | -6.89       |
| * 22880.00      | Peak     | H               | -                   | -                          | -65.59               | 18.40       | -9.54                           | 50.27                   | 73.98          | -23.71      |
| 28600.00        | Peak     | H               | -                   | -                          | -54.29               | 0.41        | -9.54                           | 43.58                   | 68.20          | -24.62      |

**Table 7-51. Radiated Measurements SISO ANT2**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5745MHz  
 Channel: 149

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11490.00      | Average  | H               | 400                 | 330                        | -80.97               | 12.52       | 0.00                            | 38.55                   | 53.98          | -15.42      |
| * 11490.00      | Peak     | H               | 400                 | 330                        | -67.74               | 12.52       | 0.00                            | 51.78                   | 73.98          | -22.19      |
| 17235.00        | Peak     | H               | -                   | -                          | -67.02               | 16.58       | 0.00                            | 56.56                   | 68.20          | -11.64      |
| * 22980.00      | Average  | H               | -                   | -                          | -68.22               | 17.92       | -9.54                           | 47.16                   | 53.98          | -6.82       |
| * 22980.00      | Peak     | H               | -                   | -                          | -65.59               | 17.92       | -9.54                           | 49.79                   | 73.98          | -24.19      |
| 28725.00        | Peak     | H               | -                   | -                          | -54.29               | 0.67        | -9.54                           | 43.84                   | 68.20          | -24.36      |

**Table 7-52. Radiated Measurements SISO ANT2**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 188 of 240                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5785MHz  
 Channel: 157

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11570.00      | Average  | H               | 400                 | 125                        | -80.63               | 12.91       | 0.00                            | 39.28                   | 53.98          | -14.70      |
| * 11570.00      | Peak     | H               | 400                 | 125                        | -67.77               | 12.91       | 0.00                            | 52.14                   | 73.98          | -21.84      |
| 17355.00        | Peak     | H               | -                   | -                          | -66.99               | 19.37       | 0.00                            | 59.38                   | 68.20          | -8.82       |
| 23140.00        | Peak     | H               | -                   | -                          | -64.77               | 18.32       | -9.54                           | 51.01                   | 68.20          | -17.19      |
| 28925.00        | Peak     | H               | 150                 | 323                        | -54.54               | 0.75        | -9.54                           | 43.67                   | 68.20          | -24.53      |

**Table 7-53. Radiated Measurements SISO ANT2**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5825MHz  
 Channel: 165

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11650.00      | Average  | H               | 400                 | 42                         | -80.72               | 13.76       | 0.00                            | 40.04                   | 53.98          | -13.94      |
| * 11650.00      | Peak     | H               | 400                 | 42                         | -67.71               | 13.76       | 0.00                            | 53.05                   | 73.98          | -20.93      |
| 17475.00        | Peak     | H               | -                   | -                          | -67.32               | 19.15       | 0.00                            | 58.83                   | 68.20          | -9.37       |
| 23300.00        | Peak     | H               | -                   | -                          | -64.48               | 18.77       | -9.54                           | 51.75                   | 68.20          | -16.45      |
| 29125.00        | Peak     | H               | -                   | -                          | -51.39               | -0.12       | -9.54                           | 45.95                   | 68.20          | -22.25      |

**Table 7-54. Radiated Measurements SISO ANT2**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 189 of 240                 |

### 7.6.3 MIMO Radiated Spurious Emission Measurements

§15.407(b) §15.205 & §15.209: RSS-Gen [8.9]

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5180MHz  
 Channel: 36

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10360.00        | Peak     | H               | 400                 | 366                        | -67.39               | 11.62       | 0.00                            | 51.23                   | 68.20          | -16.97      |
| * 15540.00      | Average  | H               | -                   | -                          | -80.77               | 12.73       | 0.00                            | 38.96                   | 53.98          | -15.02      |
| * 15540.00      | Peak     | H               | -                   | -                          | -67.45               | 12.73       | 0.00                            | 52.28                   | 73.98          | -21.70      |
| * 20720.00      | Average  | H               | -                   | -                          | -71.75               | 17.88       | -9.54                           | 43.59                   | 53.98          | -10.39      |
| * 20720.00      | Peak     | H               | -                   | -                          | -63.04               | 17.88       | -9.54                           | 52.30                   | 73.98          | -21.68      |
| 25900.00        | Peak     | H               | -                   | -                          | -62.74               | 20.40       | -9.54                           | 55.12                   | 68.20          | -13.08      |

Table 7-55. Radiated Measurements MIMO

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5200MHz  
 Channel: 40

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 190 of 240                 |

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10400.00        | Peak     | H               | 400                 | 26                         | -67.46               | 11.11       | 0.00                            | 50.65                   | 68.20          | -17.55      |
| * 15600.00      | Average  | H               | -                   | -                          | -80.71               | 13.59       | 0.00                            | 39.88                   | 53.98          | -14.10      |
| * 15600.00      | Peak     | H               | -                   | -                          | -67.56               | 13.59       | 0.00                            | 53.03                   | 73.98          | -20.95      |
| * 20800.00      | Average  | H               | -                   | -                          | -73.00               | 18.08       | -9.54                           | 42.54                   | 53.98          | -11.44      |
| * 20800.00      | Peak     | H               | -                   | -                          | -63.99               | 18.08       | -9.54                           | 51.55                   | 73.98          | -22.43      |
| 26000.00        | Peak     | H               | -                   | -                          | -61.38               | 20.68       | -9.54                           | 56.75                   | 68.20          | -11.45      |

**Table 7-56. Radiated Measurements MIMO**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5240MHz  
 Channel: 48

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10480.00        | Peak     | H               | 400                 | 222                        | -67.70               | 10.89       | 0.00                            | 50.19                   | 68.20          | -18.01      |
| * 15720.00      | Average  | H               | -                   | -                          | -80.69               | 14.74       | 0.00                            | 41.05                   | 53.98          | -12.93      |
| * 15720.00      | Peak     | H               | -                   | -                          | -67.39               | 14.74       | 0.00                            | 54.35                   | 73.98          | -19.63      |
| * 20960.00      | Average  | H               | -                   | -                          | -71.57               | 18.46       | -9.54                           | 44.35                   | 53.98          | -9.63       |
| * 20960.00      | Peak     | H               | -                   | -                          | -62.75               | 18.46       | -9.54                           | 53.17                   | 73.98          | -20.81      |
| 26200.00        | Peak     | H               | -                   | -                          | -60.98               | 20.96       | -9.54                           | 57.44                   | 68.20          | -10.76      |

**Table 7-57. Radiated Measurements MIMO**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5260MHz  
 Channel: 52

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 191 of 240                 |

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10520.00        | Peak     | H               | 397                 | 12                         | -68.09               | 11.21       | 0.00                            | 50.12                   | 68.20          | -18.08      |
| * 15780.00      | Average  | H               | -                   | -                          | -81.05               | 14.50       | 0.00                            | 40.45                   | 53.98          | -13.53      |
| * 15780.00      | Peak     | H               | -                   | -                          | -67.43               | 14.50       | 0.00                            | 54.07                   | 73.98          | -19.91      |
| * 21040.00      | Average  | H               | -                   | -                          | -71.26               | 18.63       | -9.54                           | 44.83                   | 53.98          | -9.15       |
| * 21040.00      | Peak     | H               | -                   | -                          | -62.35               | 18.63       | -9.54                           | 53.74                   | 73.98          | -20.24      |
| 26300.00        | Peak     | H               | -                   | -                          | -60.86               | 21.23       | -9.54                           | 57.83                   | 68.20          | -10.37      |

**Table 7-58. Radiated Measurements MIMO**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 192 of 240                                                                       |                                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5280MHz  
 Channel: 56

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| 10560.00        | Peak     | H               | 399                 | 142                        | -67.33               | 12.28       | 0.00                            | 51.95                   | 68.20          | -16.25      |
| * 15840.00      | Average  | H               | -                   | -                          | -80.70               | 13.70       | 0.00                            | 40.00                   | 53.98          | -13.98      |
| * 15840.00      | Peak     | H               | -                   | -                          | -66.05               | 13.70       | 0.00                            | 54.65                   | 73.98          | -19.33      |
| * 21120.00      | Average  | H               | -                   | -                          | -71.32               | 18.80       | -9.54                           | 44.94                   | 53.98          | -9.04       |
| * 21120.00      | Peak     | H               | -                   | -                          | -62.22               | 18.80       | -9.54                           | 54.04                   | 73.98          | -19.94      |
| 26400.00        | Peak     | H               | -                   | -                          | -61.06               | 21.49       | -9.54                           | 57.88                   | 68.20          | -10.32      |

**Table 7-59. Radiated Measurements MIMO**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5320MHz  
 Channel: 64

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 10640.00      | Average  | H               | 400                 | 348                        | -80.64               | 12.95       | 0.00                            | 39.31                   | 53.98          | -14.67      |
| * 10640.00      | Peak     | H               | 400                 | 348                        | -67.61               | 12.95       | 0.00                            | 52.34                   | 73.98          | -21.64      |
| * 15960.00      | Average  | H               | -                   | -                          | -81.17               | 12.93       | 0.00                            | 38.76                   | 53.98          | -15.22      |
| * 15960.00      | Peak     | H               | -                   | -                          | -67.21               | 12.93       | 0.00                            | 52.72                   | 73.98          | -21.26      |
| * 21280.00      | Average  | H               | -                   | -                          | -70.87               | 18.76       | -9.54                           | 45.35                   | 53.98          | -8.63       |
| * 21280.00      | Peak     | H               | -                   | -                          | -62.89               | 18.76       | -9.54                           | 53.33                   | 73.98          | -20.65      |
| 26600.00        | Peak     | H               | -                   | -                          | -51.52               | 6.35        | -9.54                           | 52.28                   | 68.20          | -15.92      |

**Table 7-60. Radiated Measurements MIMO**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 193 of 240                                                                       |                                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11000.00      | Average  | H               | 399                 | 62                         | -80.47               | 12.49       | 0.00                            | 39.02                   | 53.98          | -14.96      |
| * 11000.00      | Peak     | H               | 399                 | 62                         | -67.49               | 12.49       | 0.00                            | 52.00                   | 73.98          | -21.98      |
| 16500.00        | Peak     | H               | -                   | -                          | -67.76               | 14.93       | 0.00                            | 54.17                   | 68.20          | -14.03      |
| 22000.00        | Peak     | H               | -                   | -                          | -62.40               | 19.37       | -9.54                           | 54.43                   | 68.20          | -13.77      |
| 27500.00        | Peak     | H               | -                   | -                          | -50.20               | 5.07        | -9.54                           | 52.33                   | 68.20          | -15.87      |

**Table 7-61. Radiated Measurements MIMO**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5600MHz  
 Channel: 120

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11200.00      | Average  | H               | 400                 | 73                         | -80.51               | 12.18       | 0.00                            | 38.67                   | 53.98          | -15.31      |
| * 11200.00      | Peak     | H               | 400                 | 73                         | -67.51               | 12.18       | 0.00                            | 51.67                   | 73.98          | -22.31      |
| 16800.00        | Peak     | H               | -                   | -                          | -66.42               | 16.07       | 0.00                            | 56.65                   | 68.20          | -11.55      |
| * 22400.00      | Average  | H               | -                   | -                          | -70.59               | 19.81       | -9.54                           | 46.68                   | 53.98          | -7.30       |
| * 22400.00      | Peak     | H               | -                   | -                          | -61.74               | 19.81       | -9.54                           | 55.53                   | 73.98          | -18.45      |
| 28000.00        | Peak     | H               | -                   | -                          | -51.79               | 5.83        | -9.54                           | 51.49                   | 68.20          | -16.71      |

**Table 7-62. Radiated Measurements MIMO**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 194 of 240                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5720MHz  
 Channel: 144

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11440.00      | Average  | H               | 131                 | 103                        | -81.09               | 12.82       | 0.00                            | 38.73                   | 53.98          | -15.25      |
| * 11440.00      | Peak     | H               | 131                 | 103                        | -68.27               | 12.82       | 0.00                            | 51.55                   | 73.98          | -22.43      |
| 17160.00        | Peak     | H               | -                   | -                          | -67.08               | 17.60       | 0.00                            | 57.52                   | 68.20          | -10.68      |
| * 22880.00      | Average  | H               | -                   | -                          | -70.43               | 19.64       | -9.54                           | 46.67                   | 53.98          | -7.31       |
| * 22880.00      | Peak     | H               | -                   | -                          | -62.09               | 19.64       | -9.54                           | 55.01                   | 73.98          | -18.97      |
| 28600.00        | Peak     | H               | -                   | -                          | -50.65               | 5.12        | -9.54                           | 51.92                   | 68.20          | -16.28      |

**Table 7-63. Radiated Measurements MIMO**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5745MHz  
 Channel: 149

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11490.00      | Average  | H               | 120                 | 256                        | -81.25               | 12.52       | 0.00                            | 38.27                   | 53.98          | -15.70      |
| * 11490.00      | Peak     | H               | 120                 | 256                        | -68.32               | 12.52       | 0.00                            | 51.20                   | 73.98          | -22.77      |
| 17235.00        | Peak     | H               | -                   | -                          | -67.72               | 16.58       | 0.00                            | 55.86                   | 68.20          | -12.34      |
| * 22980.00      | Average  | H               | -                   | -                          | -71.91               | 19.39       | -9.54                           | 44.94                   | 53.98          | -9.04       |
| * 22980.00      | Peak     | H               | -                   | -                          | -62.86               | 19.39       | -9.54                           | 53.99                   | 73.98          | -19.99      |
| 28725.00        | Peak     | H               | -                   | -                          | -50.35               | 6.24        | -9.54                           | 53.35                   | 69.20          | -15.85      |

**Table 7-64. Radiated Measurements MIMO**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 195 of 240                 |

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5785MHz  
 Channel: 157

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11570.00      | Average  | H               | 144                 | 210                        | -80.94               | 12.91       | 0.00                            | 38.97                   | 53.98          | -15.01      |
| * 11570.00      | Peak     | H               | 144                 | 210                        | -68.20               | 12.91       | 0.00                            | 51.71                   | 73.98          | -22.27      |
| 17355.00        | Peak     | H               | -                   | -                          | -67.43               | 19.37       | 0.00                            | 58.94                   | 68.20          | -9.26       |
| 23140.00        | Peak     | H               | -                   | -                          | -62.49               | 19.78       | -9.54                           | 54.74                   | 68.20          | -13.46      |
| 28925.00        | Peak     | H               | -                   | -                          | -52.58               | 5.18        | -9.54                           | 50.06                   | 68.20          | -18.14      |

**Table 7-65. Radiated Measurements MIMO**

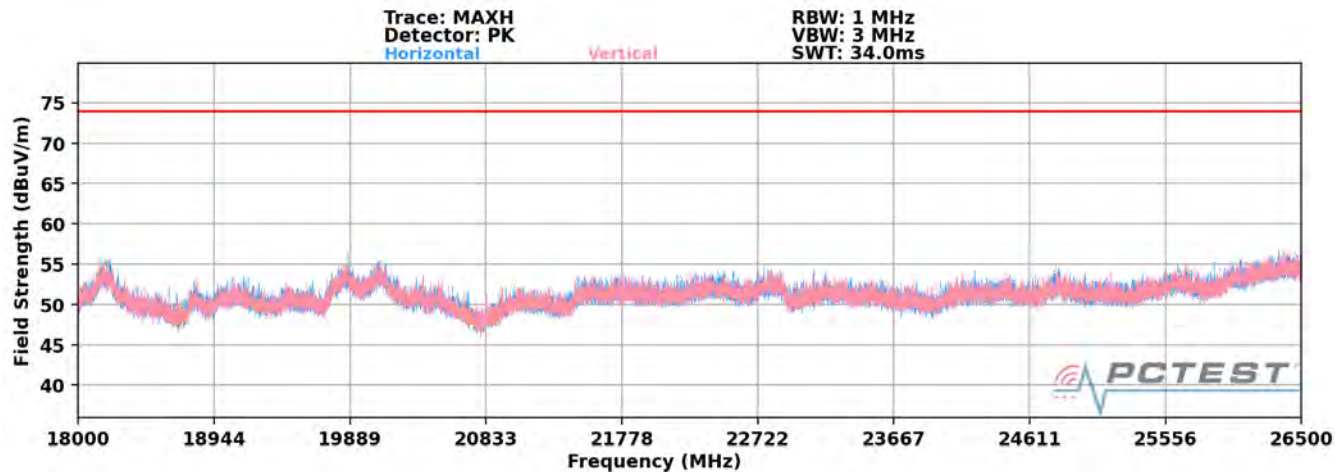
Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5825MHz  
 Channel: 165

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|---------------------------------|-------------------------|----------------|-------------|
| * 11650.00      | Average  | H               | 133                 | 171                        | -80.89               | 13.76       | 0.00                            | 39.87                   | 53.98          | -14.11      |
| * 11650.00      | Peak     | H               | 133                 | 171                        | -67.96               | 13.76       | 0.00                            | 52.80                   | 73.98          | -21.18      |
| 17475.00        | Peak     | H               | -                   | -                          | -67.50               | 19.15       | 0.00                            | 58.65                   | 68.20          | -9.55       |
| 23300.00        | Peak     | H               | -                   | -                          | -63.20               | 20.06       | -9.54                           | 54.32                   | 68.20          | -13.88      |
| 29125.00        | Peak     | H               | -                   | -                          | -49.75               | 4.94        | -9.54                           | 52.65                   | 68.20          | -15.55      |

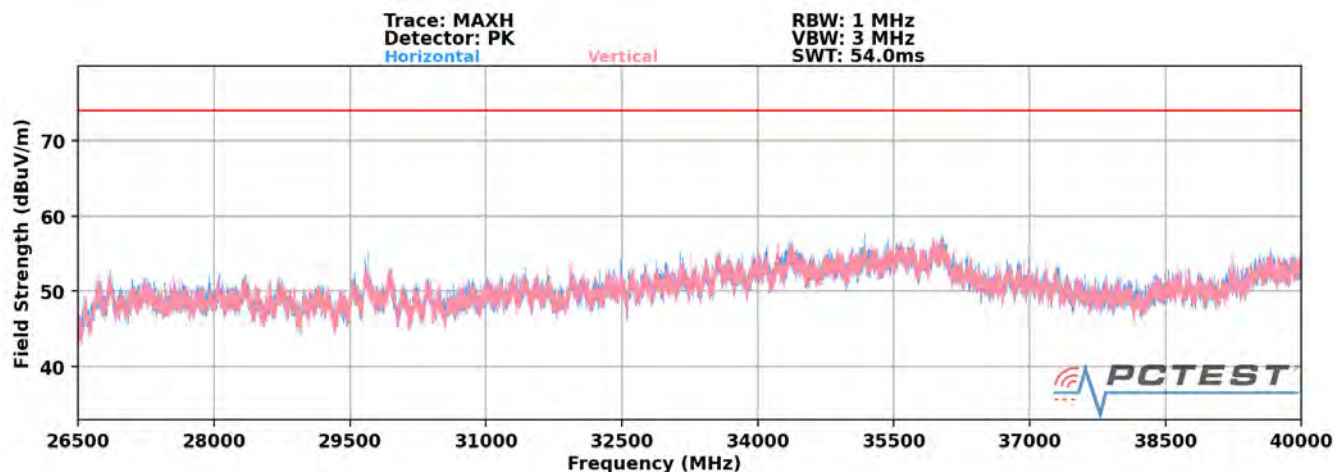
**Table 7-66. Radiated Measurements MIMO**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 196 of 240                 |

## MIMO Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-277. Radiated Spurious Plot above 18GHz - 26.5GHz MIMO (802.11a)



Plot 7-278. Radiated Spurious Plot 26.5GHz - 40GHz MIMO (802.11a)

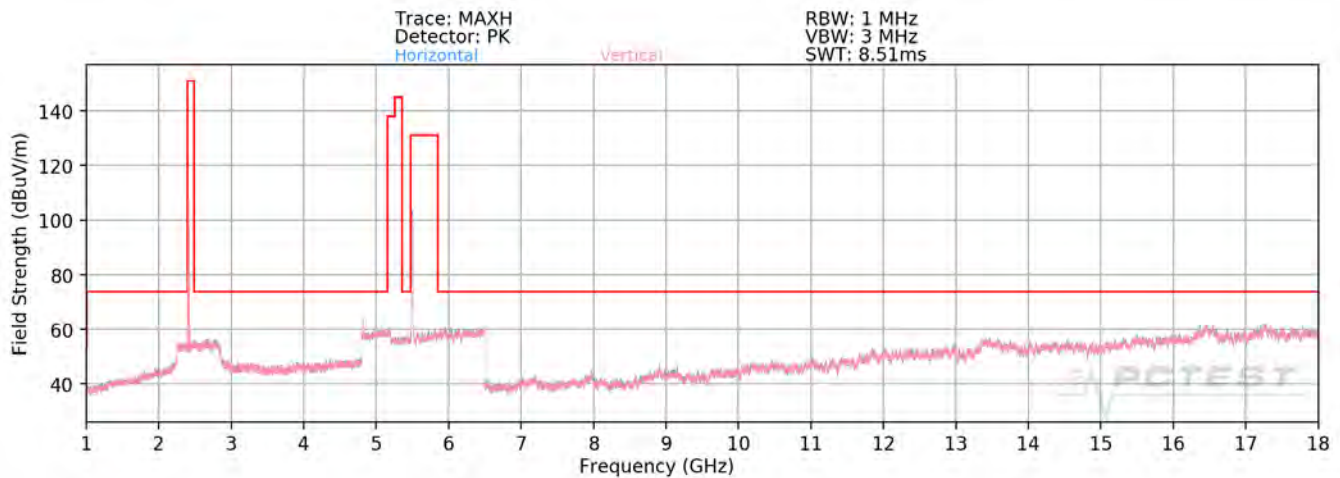
|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 197 of 240                                                                       |                                 |

## 7.6.4 Simultaneous Tx Radiated Spurious Emissions Measurements

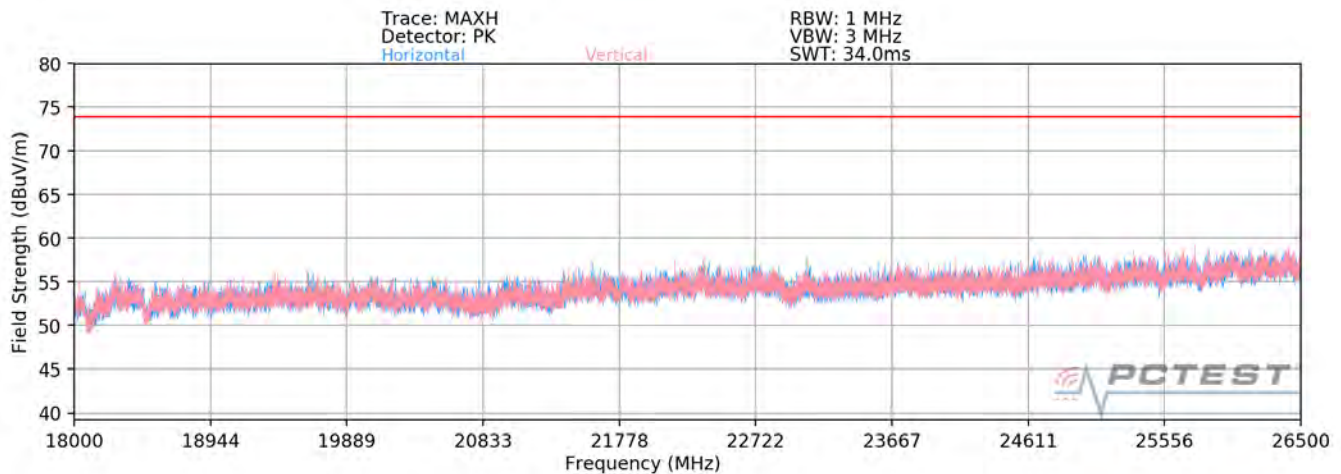
§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

| Description               | 2.4 GHz Emission | 5 GHz Emission |
|---------------------------|------------------|----------------|
| Antenna                   | 1                | 2              |
| Channel                   | 1                | 153            |
| Operating Frequency (MHz) | 2412             | 5765           |
| Data Rate (Mbps)          | 1M               | 6M             |
| Mode                      | B                | a              |

Table 7-67. Simultaneous Transmission Config-1

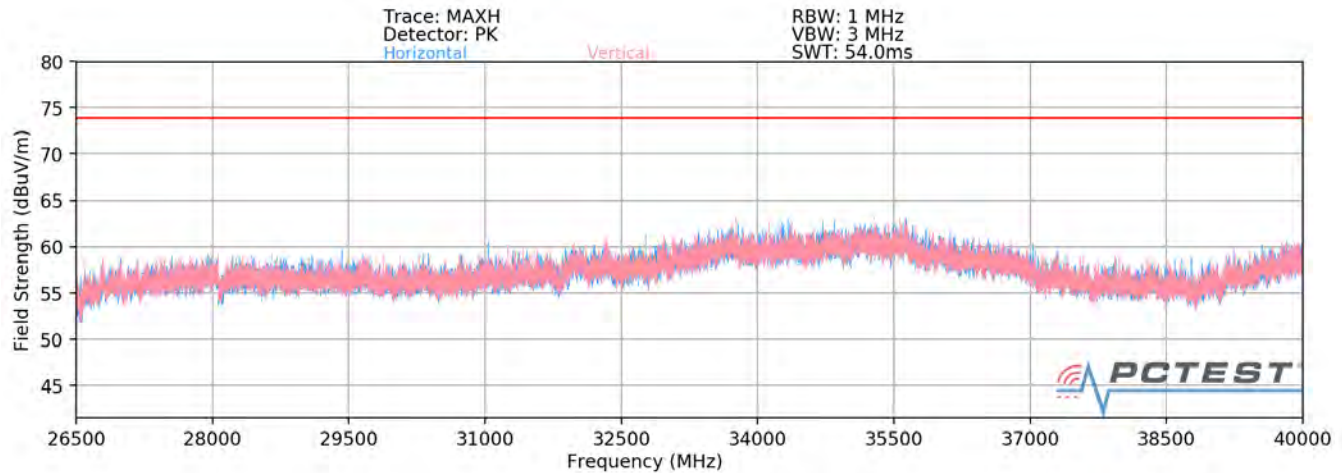


Plot 7-279. Radiated Spurious Plot above 1GHz (2.4GHz – 5GHz)



Plot 7-280. Radiated Spurious Plot 18GHz – 26.5GHz (2.4GHz – 5GHz)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 198 of 240                 |



**Plot 7-281. Radiated Spurious Plot above 26.5GHz (2.4GHz – 5GHz)**

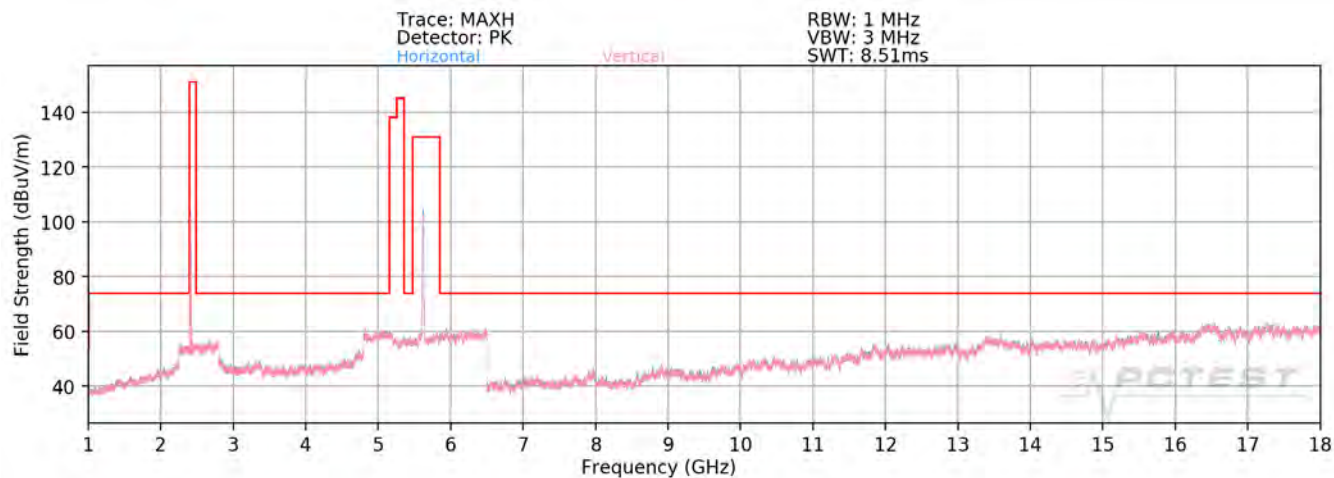
| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|----------------|-------------|
| 941.00          | Peak     | H               | -                   | -                          | -72.28               | -3.18       | 31.54                   | 53.98          | -22.44      |
| 4294.00         | Peak     | H               | -                   | -                          | -66.47               | 6.61        | 47.14                   | 73.98          | -26.84      |
| 4294.00         | Average  | H               | -                   | -                          | -77.62               | 6.61        | 35.99                   | 53.98          | -17.99      |
| 7647.00         | Peak     | H               | -                   | -                          | -68.33               | 13.59       | 52.26                   | 73.98          | -21.72      |
| 7647.00         | Average  | H               | -                   | -                          | -79.64               | 13.59       | 40.95                   | 53.98          | -13.03      |
| 9118.00         | Peak     | H               | -                   | -                          | -69.07               | 16.16       | 54.09                   | 73.98          | -19.89      |
| 9118.00         | Average  | H               | -                   | -                          | -79.92               | 16.16       | 43.24                   | 53.98          | -10.74      |
| 12471.00        | Peak     | H               | -                   | -                          | -67.77               | 22.71       | 61.94                   | 73.98          | -12.04      |
| 12471.00        | Average  | H               | -                   | -                          | -83.50               | 22.71       | 46.21                   | 73.98          | -27.77      |
| 15824.00        | Peak     | H               | -                   | -                          | -67.24               | 26.93       | 66.69                   | 73.98          | -7.29       |
| 15824.00        | Average  | H               | -                   | -                          | -84.49               | 26.93       | 49.44                   | 53.98          | -4.54       |

**Table 7-68. Radiated Measurements (ANT1 2.4GHz – ANT2 5GHz)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 199 of 240                                                                       |                                 |

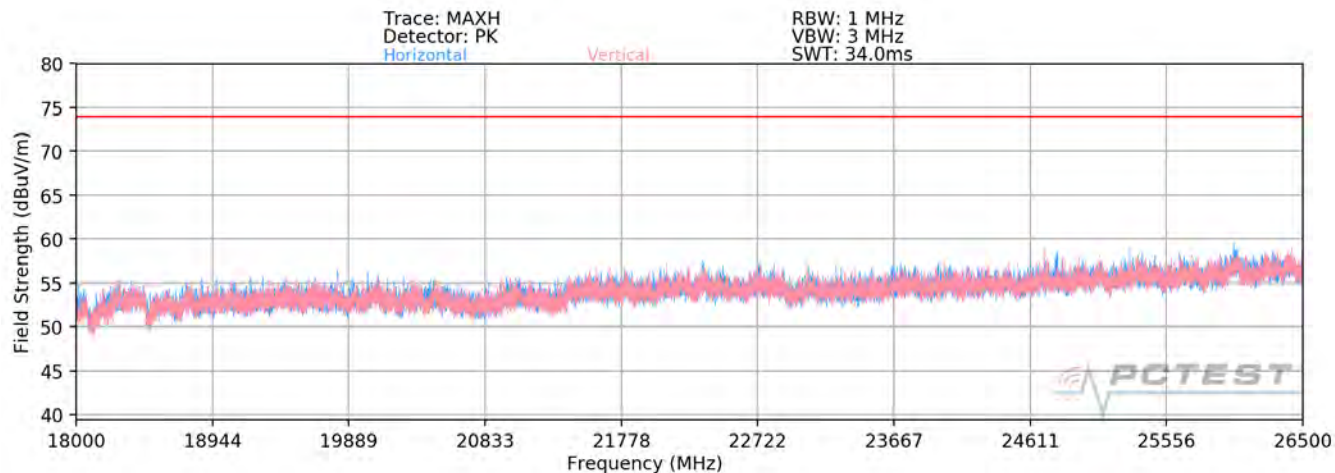
| Description               | 2.4 GHz Emission | 5 GHz Emission |
|---------------------------|------------------|----------------|
| Antenna                   | 2                | 1              |
| Channel                   | 1                | 124            |
| Operating Frequency (MHz) | 2412             | 5620           |
| Data Rate (Mbps)          | 1M               | 6M             |
| Mode                      | b                | a              |

**Table 7-69. Simultaneous Transmission Config-2**

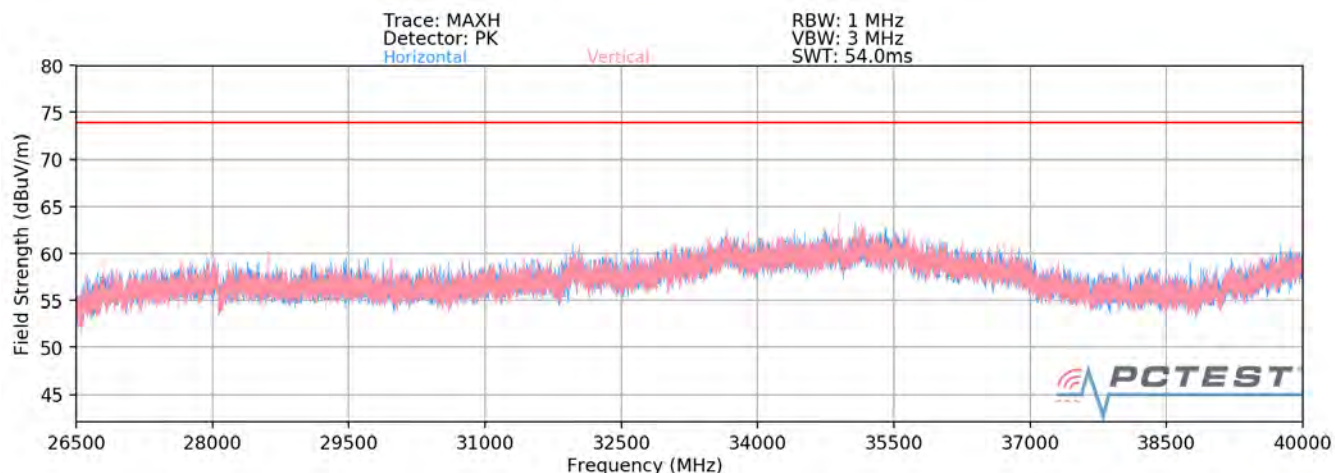


**Plot 7-282. Radiated Spurious Plot above 1GHz (5GHz – 2.4 GHz)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 200 of 240                 |



**Plot 7-283. Radiated Spurious Plot 18GHz – 26.5GHz (5GHz – 2.4 GHz)**



**Plot 7-284. Radiated Spurious Plot above 26.5GHz (5GHz – 2.4 GHz)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 201 of 240                 |

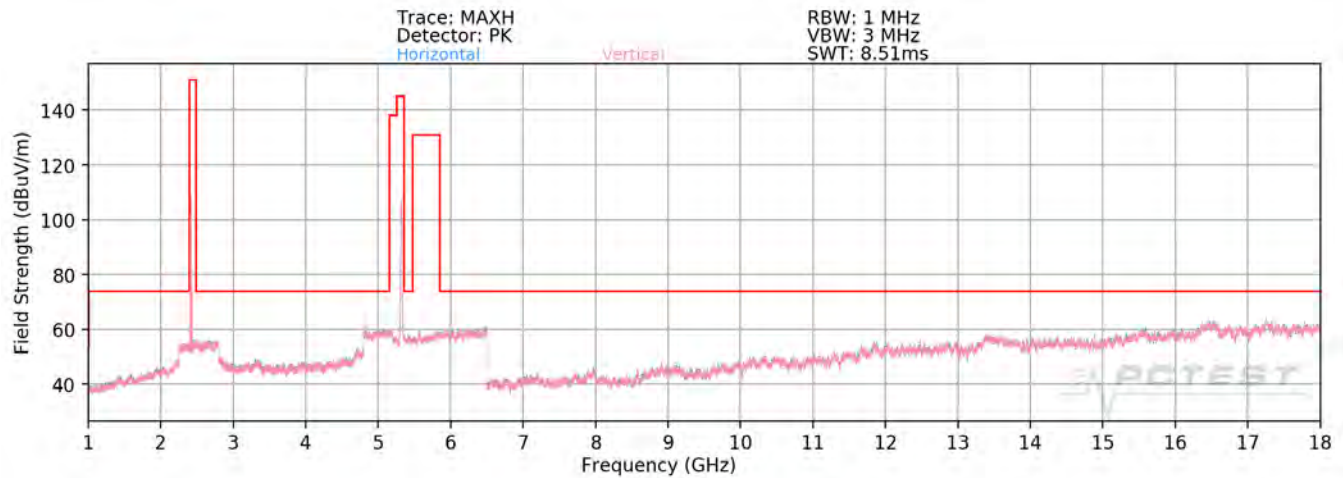
| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|----------------|-------------|
| 796.00          | Peak     | H               | -                   | -                          | -76.32               | -4.75       | 25.93                   | 53.98          | -28.05      |
| 4004.00         | Peak     | H               | -                   | -                          | -66.56               | 6.60        | 47.04                   | 73.98          | -26.94      |
| 4004.00         | Average  | H               | -                   | -                          | -77.81               | 6.60        | 35.79                   | 53.98          | -18.19      |
| 7212.00         | Peak     | H               | -                   | -                          | -67.55               | 13.38       | 52.83                   | 73.98          | -21.15      |
| 8828.00         | Peak     | H               | -                   | -                          | -71.28               | 14.84       | 50.56                   | 53.98          | -3.42       |
| 12036.00        | Peak     | H               | -                   | -                          | -66.85               | 22.30       | 62.45                   | 73.98          | -11.53      |
| 12036.00        | Average  | H               | -                   | -                          | -83.38               | 22.30       | 45.92                   | 53.98          | -8.06       |
| 15244.00        | Peak     | H               | -                   | -                          | -73.87               | 26.99       | 60.12                   | 73.98          | -13.86      |

**Table 7-70. Radiated Measurements (ANT1 5GHz – ANT2 2.4GHz)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 202 of 240                 |

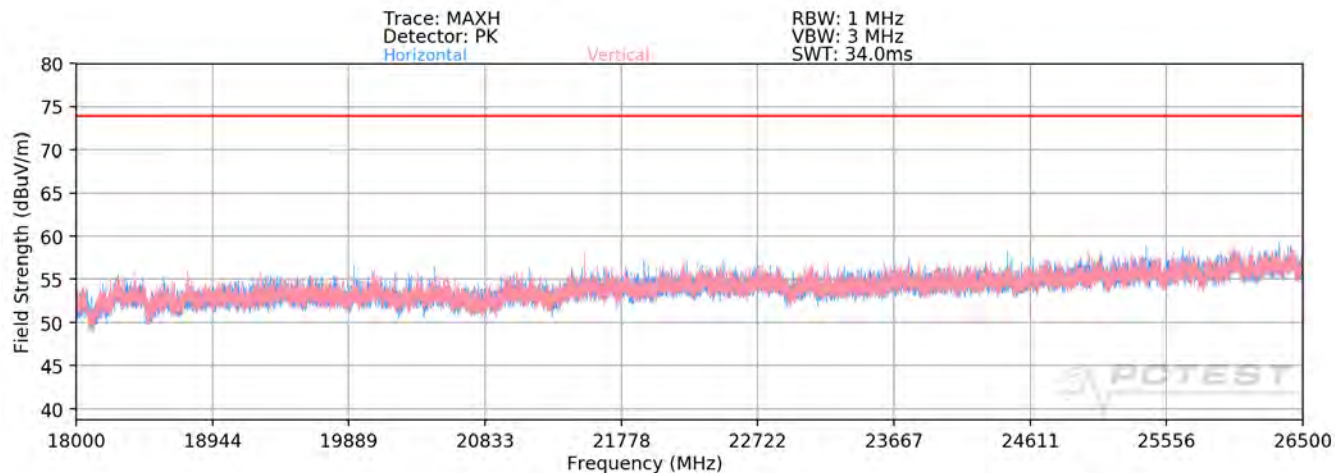
| Description               | 2.4 GHz Emission | 5 GHz Emission |
|---------------------------|------------------|----------------|
| Antenna                   | 1, 2             | 1, 2           |
| Channel                   | 2                | 64             |
| Operating Frequency (MHz) | 2417             | 5320           |
| Data Rate (Mbps)          | MCS0             | MCS0           |
| Mode                      | N                | n              |

**Table 7-71. Dual Band Simultaneous Transmission**

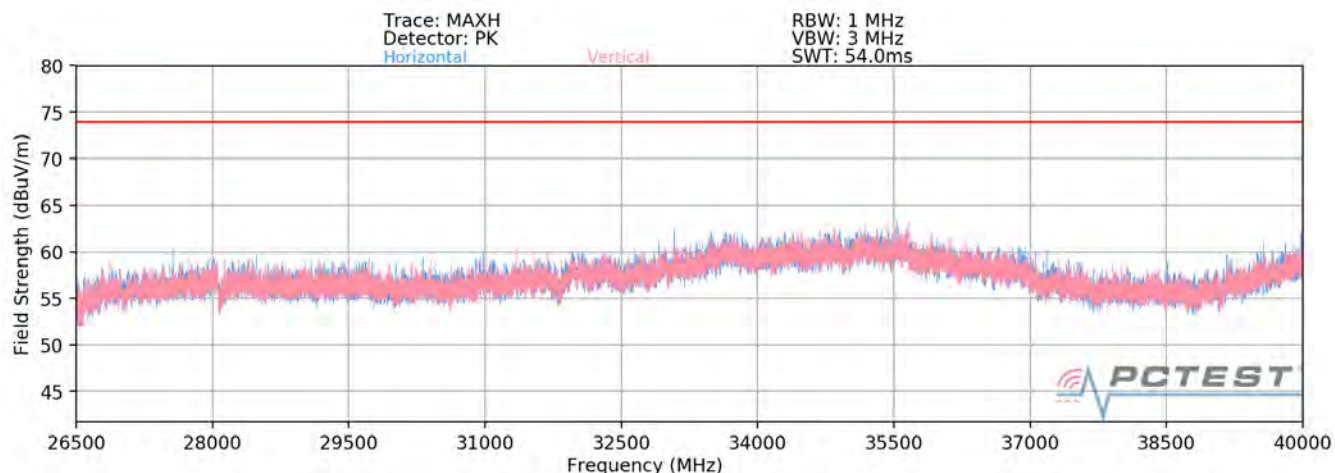


**Plot 7-285. Radiated Spurious Plot above 1GHz (Dual Band Simult. Tx)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 203 of 240                 |



**Plot 7-286. Radiated Spurious Plot 18GHz – 26.5GHz (Dual Band Simult. Tx)**



**Plot 7-287. Radiated Spurious Plot above 26.5GHz (Dual Band Simult. Tx)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 204 of 240                                                                       |                                 |

| Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Field Strength [dBμV/m] | Limit [dBμV/m] | Margin [dB] |
|-----------------|----------|-----------------|---------------------|----------------------------|----------------------|-------------|-------------------------|----------------|-------------|
| 486.00          | Peak     | H               | -                   | -                          | -63.27               | -9.86       | 33.87                   | 68.20          | -34.33      |
| 3389.00         | Average  | H               | -                   | -                          | -73.67               | 7.19        | 40.52                   | 53.98          | -13.46      |
| 3389.00         | Peak     | H               | -                   | -                          | -61.57               | 7.19        | 52.62                   | 73.98          | -21.36      |
| 6292.00         | Peak     | H               | -                   | -                          | -63.95               | 12.38       | 55.43                   | 68.20          | -12.77      |
| 8223.00         | Average  | H               | -                   | -                          | -75.84               | 13.57       | 44.73                   | 53.98          | -9.25       |
| 8223.00         | Peak     | H               | -                   | -                          | -64.30               | 13.57       | 56.27                   | 73.98          | -17.71      |
| 11126.00        | Average  | H               | -                   | -                          | -78.97               | 18.74       | 46.77                   | 53.98          | -7.21       |
| 11126.00        | Peak     | H               | -                   | -                          | -62.73               | 18.74       | 63.01                   | 73.98          | -10.97      |
| 14029.00        | Peak     | H               | -                   | -                          | -69.38               | 27.48       | 66.10                   | 68.20          | -3.10       |

**Table 7-72. Radiated Measurements (Dual Band Simult. Tx)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 205 of 240                 |

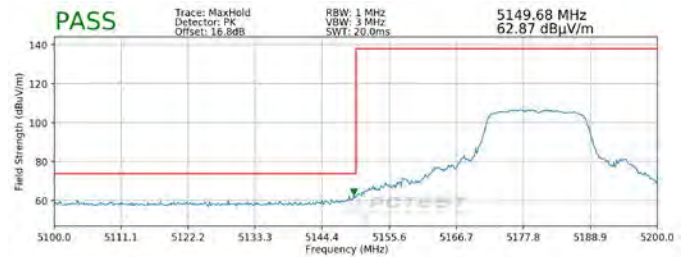
## 7.6.5 SISO Antenna-1 Radiated Band Edge Measurements (20MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]; RSS-Gen [8.9]

|                           |          |
|---------------------------|----------|
| Worst Case Mode:          | 802.11a  |
| Worst Case Transfer Rate: | 6Mbps    |
| Distance of Measurements: | 3 Meters |
| Operating Frequency:      | 5180MHz  |
| Channel:                  | 36       |

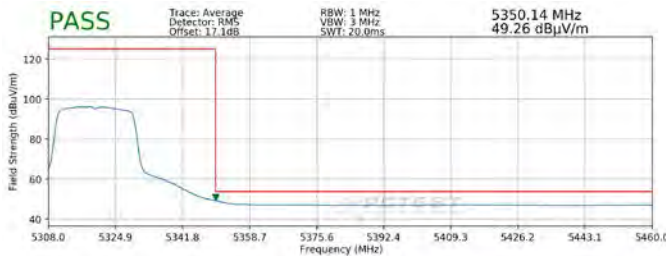


**Plot 7-288. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1)**

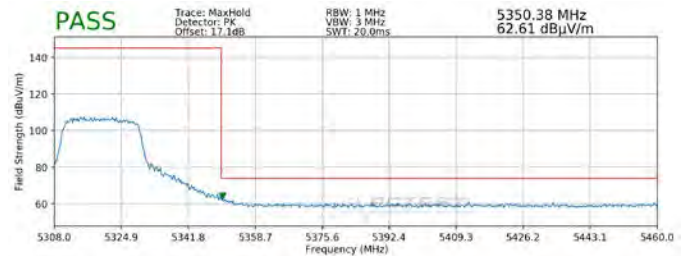


**Plot 7-289. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1)**

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | 6Mbps       |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5320MHz     |
| Channel:                  | 64          |



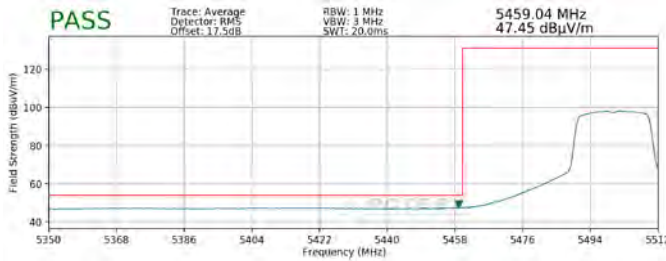
**Plot 7-290. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A)**



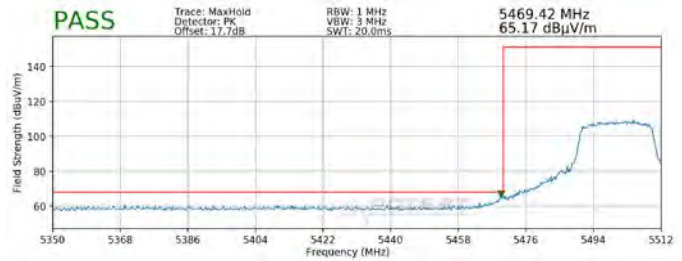
**Plot 7-291. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 206 of 240                                                                       |                                 |

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5500MHz     |
| Channel:                  | 100         |

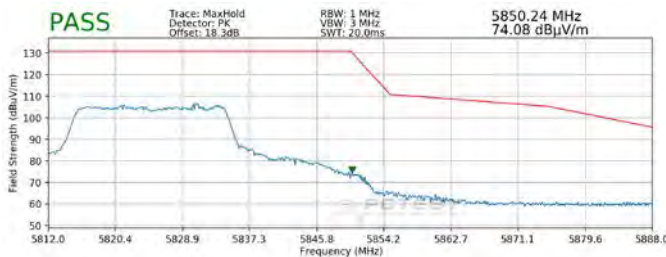


**Plot 7-292. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C)**



**Plot 7-293. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C)**

|                           |          |
|---------------------------|----------|
| Worst Case Mode:          | 802.11a  |
| Worst Case Transfer Rate: | 6Mbps    |
| Distance of Measurements: | 3 Meters |
| Operating Frequency:      | 5825MHz  |
| Channel:                  | 165      |



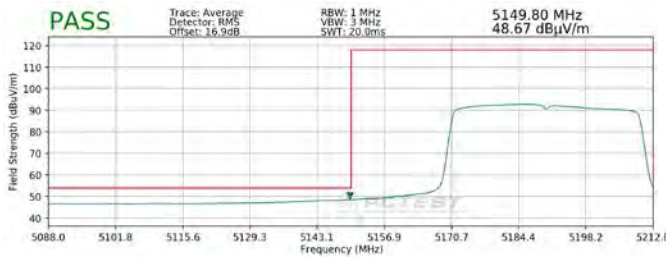
**Plot 7-294. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 207 of 240                 |

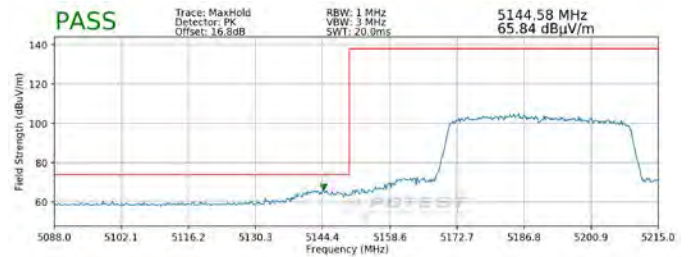
## 7.6.6 SISO Antenna-1 Radiated Band Edge Measurements (40MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5190MHz     |
| Channel:                  | 38          |

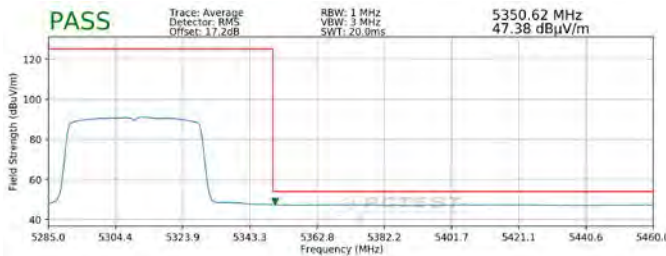


**Plot 7-295. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1)**

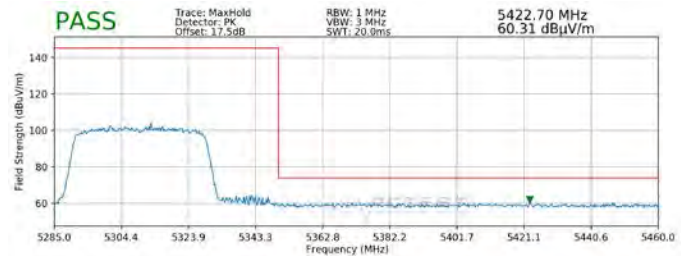


**Plot 7-296. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1)**

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5310MHz     |
| Channel:                  | 62          |



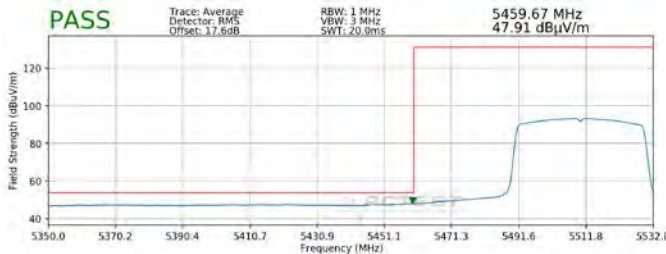
**Plot 7-297. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A)**



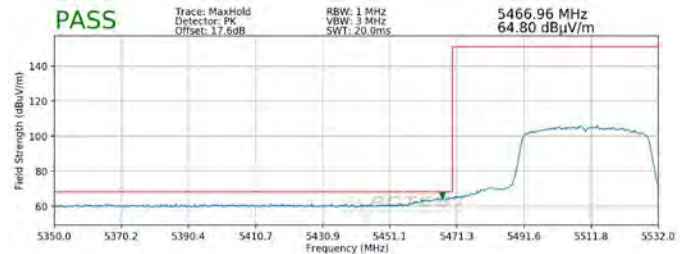
**Plot 7-298. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 208 of 240                 |

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5510MHz  
Channel: 102

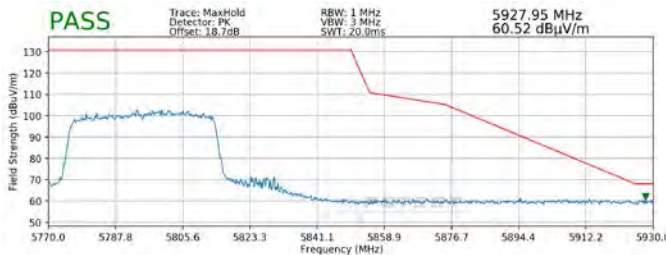


**Plot 7-299. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C)**



**Plot 7-300. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C)**

Worst Case Mode: 802.11n  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5795MHz  
Channel: 159



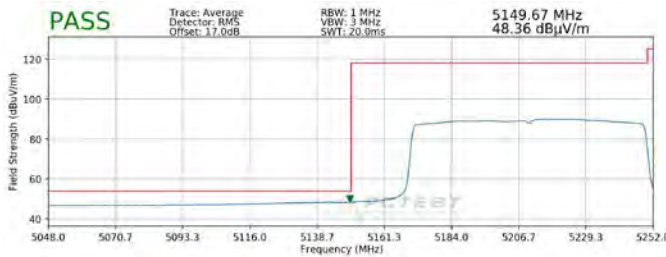
**Plot 7-301. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 209 of 240                 |

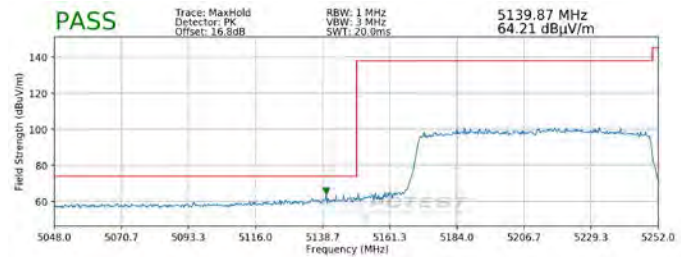
## 7.6.7 SISO Antenna-1 Radiated Band Edge Measurements (80MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5210MHz     |
| Channel:                  | 42          |

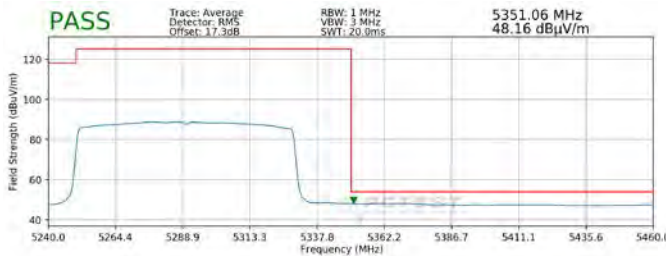


**Plot 7-302. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1)**

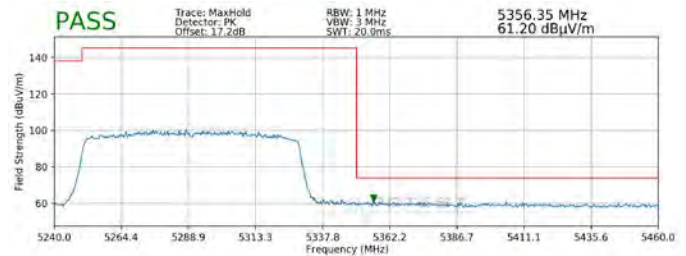


**Plot 7-303. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1)**

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5290MHz     |
| Channel:                  | 58          |



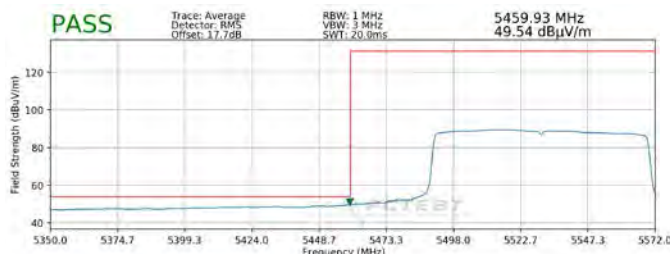
**Plot 7-304. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A)**



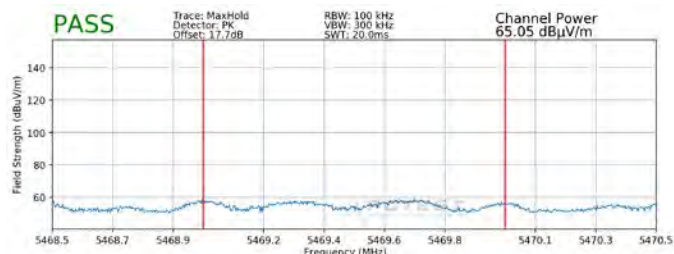
**Plot 7-305. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 210 of 240                 |

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5530MHz     |
| Channel:                  | 106         |

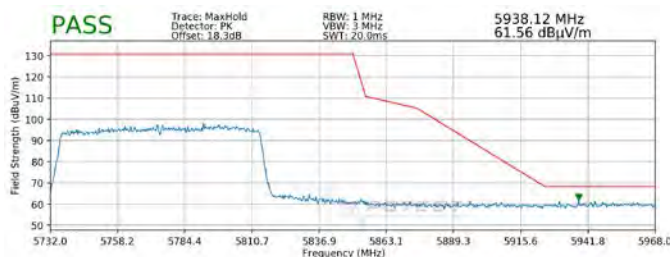


**Plot 7-306. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C)**



**Plot 7-307. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C)**

|                           |          |
|---------------------------|----------|
| Worst Case Mode:          | 802.11ac |
| Worst Case Transfer Rate: | MCS0     |
| Distance of Measurements: | 3 Meters |
| Operating Frequency:      | 5775MHz  |
| Channel:                  | 155      |

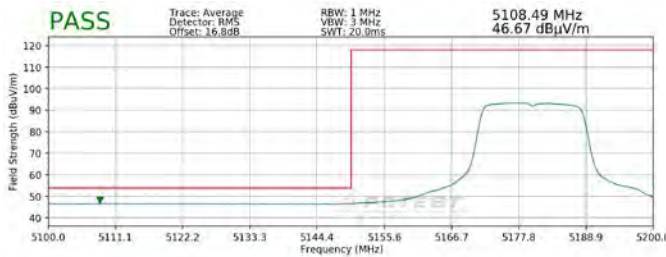


**Plot 7-308. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3)**

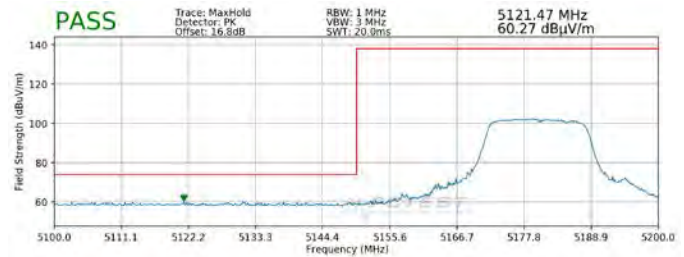
|                                                |                                                                                     |                                      |                                              |                                                                                                                              |
|------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| FCC ID: A3LSMF707U                             |  |                                      | <b>MEASUREMENT REPORT</b><br>(CERTIFICATION) |  <b>Approved by:</b><br>Quality Manager |
| <b>Test Report S/N:</b><br>1M2005040080-08.A3L | <b>Test Dates:</b><br>05/04 - 07/06/2020                                            | <b>EUT Type:</b><br>Portable Handset | Page 211 of 240                              |                                                                                                                              |

## 7.6.8 SISO Antenna-2 Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

|                           |          |
|---------------------------|----------|
| Worst Case Mode:          | 802.11a  |
| Worst Case Transfer Rate: | 6Mbps    |
| Distance of Measurements: | 3 Meters |
| Operating Frequency:      | 5180MHz  |
| Channel:                  | 36       |

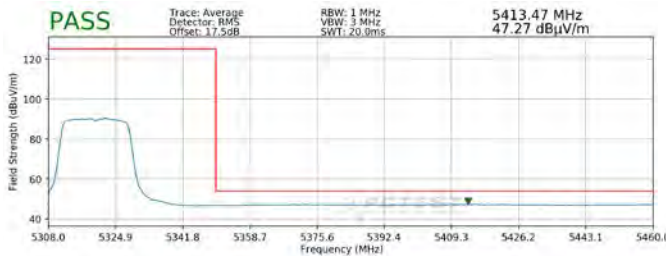


**Plot 7-309. Radiated Lower Band Edge Plot SISO  
ANT2 (Average – UNII Band 1)**

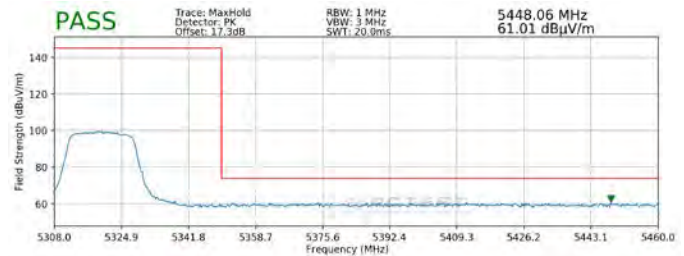


**Plot 7-310. Radiated Lower Band Edge Plot SISO  
ANT2 (Peak – UNII Band 1)**

|                           |          |
|---------------------------|----------|
| Worst Case Mode:          | 802.11a  |
| Worst Case Transfer Rate: | 6Mbps    |
| Distance of Measurements: | 3 Meters |
| Operating Frequency:      | 5320MHz  |
| Channel:                  | 64       |



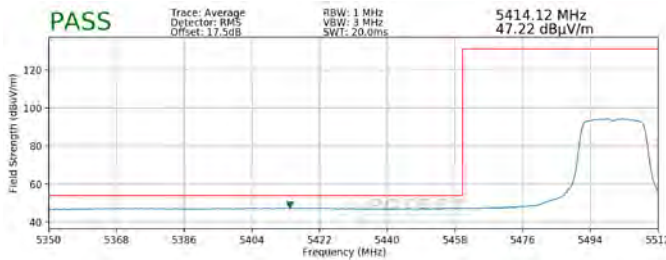
**Plot 7-311. Radiated Upper Band Edge Plot SISO  
ANT2 (Average – UNII Band 2A)**



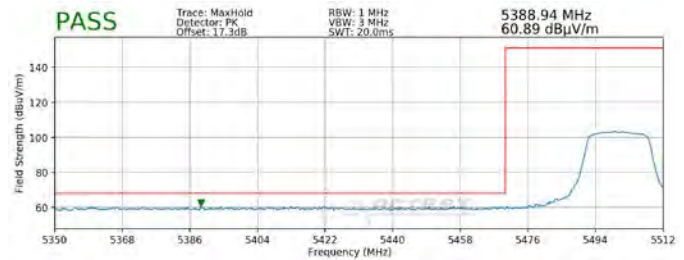
**Plot 7-312. Radiated Upper Band Edge Plot SISO  
ANT2 (Peak – UNII Band 2A)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 212 of 240                 |

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 3 Meters  
Operating Frequency: 5500MHz  
Channel: 100

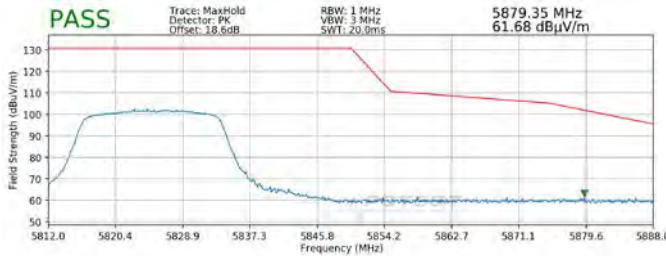


**Plot 7-313. Radiated Lower Band Edge Plot SISO  
ANT2 (Average – UNII Band 2C)**



**Plot 7-314. Radiated Lower Band Edge Plot SISO  
ANT2 (Peak – UNII Band 2C)**

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 3 Meters  
Operating Frequency: 5825MHz  
Channel: 165

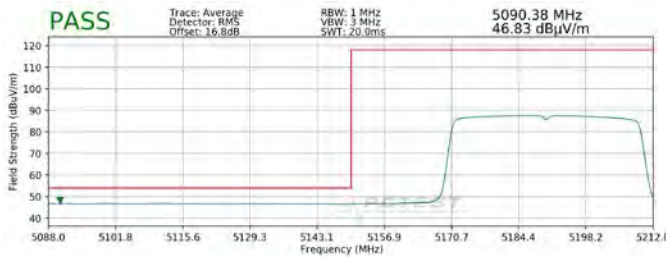


**Plot 7-315. Radiated Upper Band Edge Plot SISO  
ANT2 (Peak – UNII Band 3)**

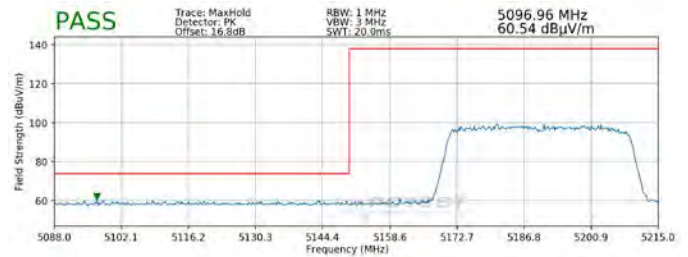
|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 213 of 240                 |

## 7.6.9 SISO Antenna-2 Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5190MHz     |
| Channel:                  | 38          |

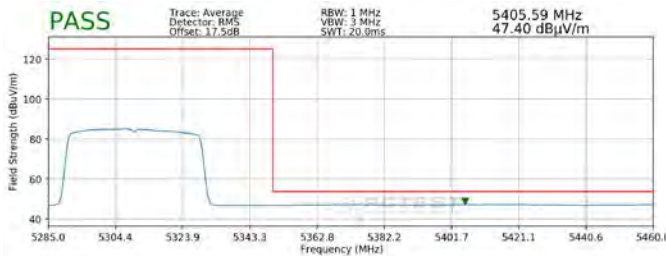


**Plot 7-316. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1)**

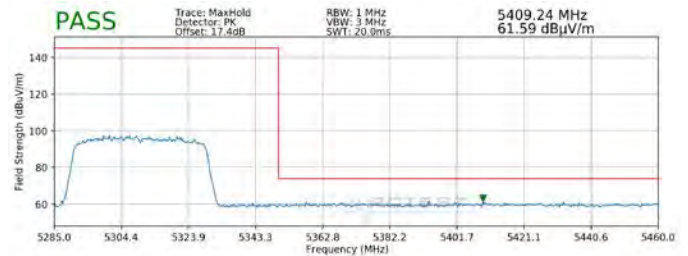


**Plot 7-317. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1)**

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5310MHz     |
| Channel:                  | 62          |



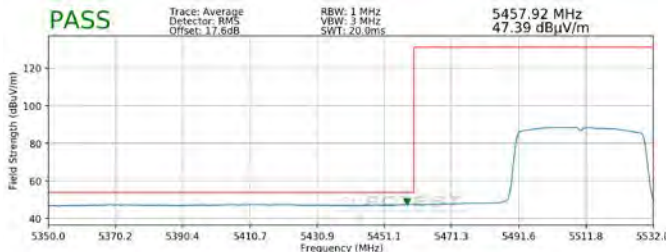
**Plot 7-318. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A)**



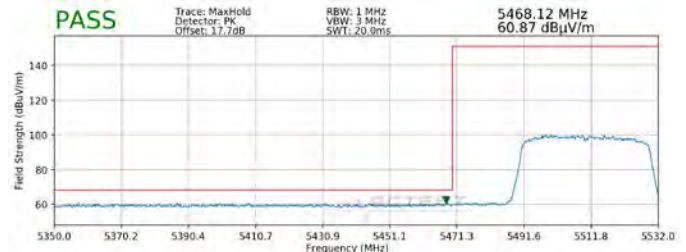
**Plot 7-319. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 214 of 240                 |

Worst Case Mode: 802.11n  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5510MHz  
Channel: 102

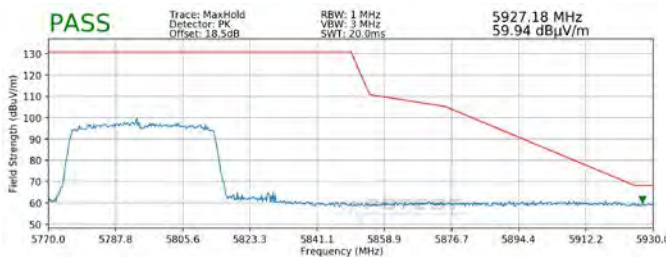


**Plot 7-320. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C)**



**Plot 7-321. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C)**

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5795MHz  
Channel: 159



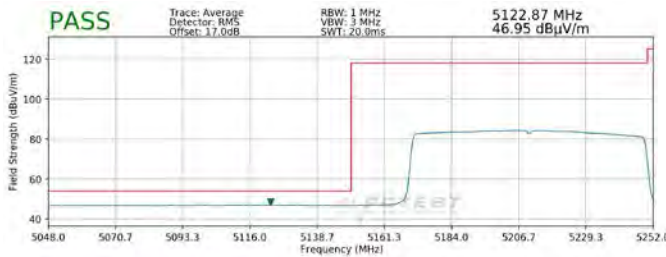
**Plot 7-322. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 215 of 240                 |

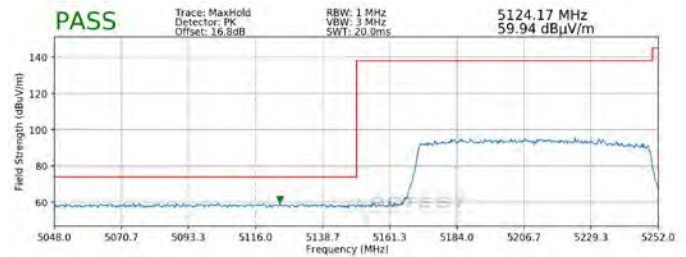
## 7.6.10 SISO Antenna-2 Radiated Band Edge Measurements (80MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

|                           |          |
|---------------------------|----------|
| Worst Case Mode:          | 802.11ac |
| Worst Case Transfer Rate: | MCS0     |
| Distance of Measurements: | 3 Meters |
| Operating Frequency:      | 5210MHz  |
| Channel:                  | 42       |

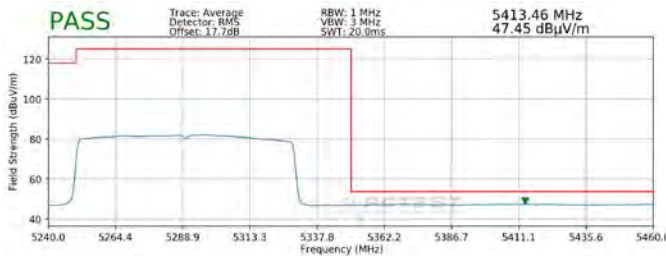


**Plot 7-323. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1)**

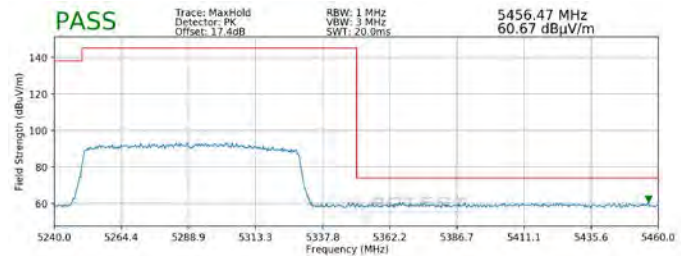


**Plot 7-324. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1)**

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5290MHz     |
| Channel:                  | 58          |



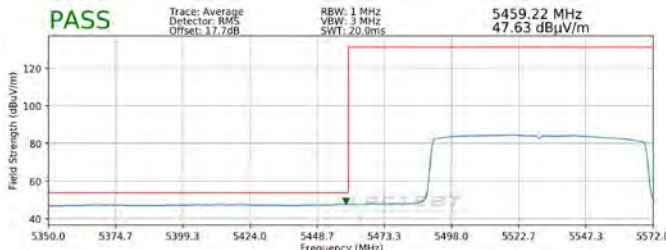
**Plot 7-325. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A)**



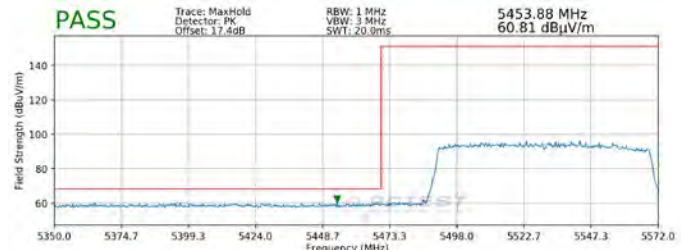
**Plot 7-326. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 216 of 240                 |

|                           |          |
|---------------------------|----------|
| Worst Case Mode:          | 802.11ac |
| Worst Case Transfer Rate: | MCS0     |
| Distance of Measurements: | 3 Meters |
| Operating Frequency:      | 5530MHz  |
| Channel:                  | 106      |

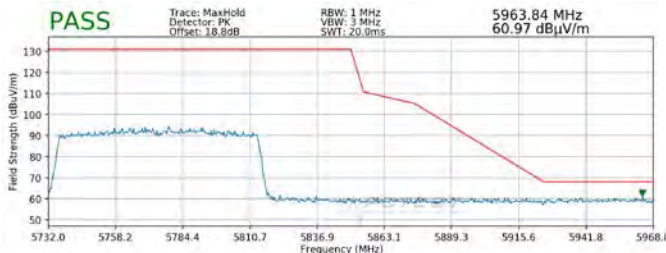


**Plot 7-327. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C)**



**Plot 7-328. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C)**

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5775MHz     |
| Channel:                  | 155         |



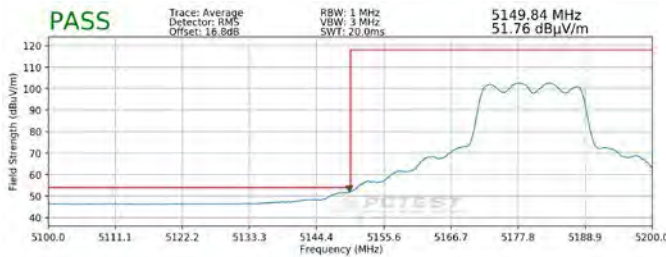
**Plot 7-329. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 217 of 240                 |

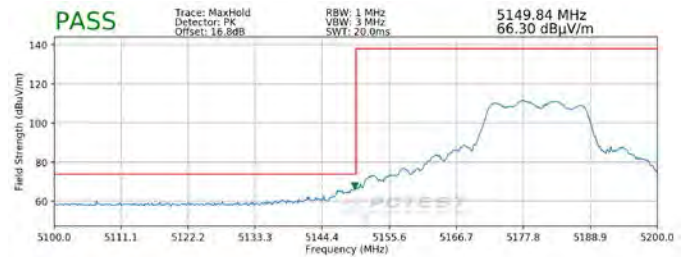
## 7.6.11 MIMO Radiated Band Edge Measurements (20MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

|                           |          |
|---------------------------|----------|
| Worst Case Mode:          | 802.11a  |
| Worst Case Transfer Rate: | 6M       |
| Distance of Measurements: | 3 Meters |
| Operating Frequency:      | 5180MHz  |
| Channel:                  | 36       |



**Plot 7-330. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1)**

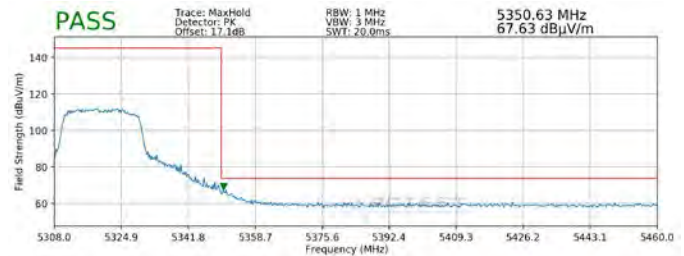


**Plot 7-331. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1)**

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5320MHz     |
| Channel:                  | 64          |



**Plot 7-332. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A)**



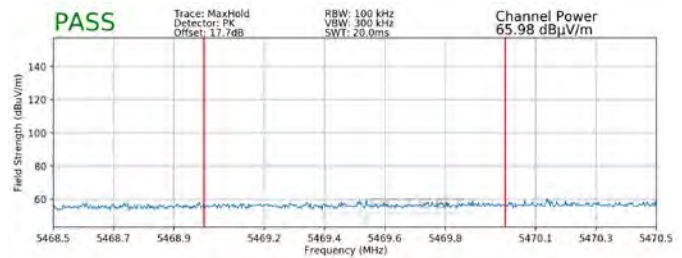
**Plot 7-333. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 218 of 240                 |

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5500MHz     |
| Channel:                  | 100         |

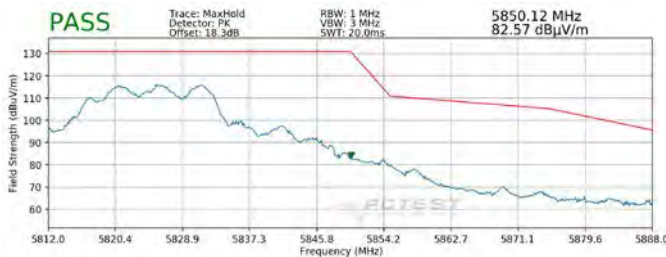


**Plot 7-334. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)**



**Plot 7-335. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)**

|                           |          |
|---------------------------|----------|
| Worst Case Mode:          | 802.11a  |
| Worst Case Transfer Rate: | 6M       |
| Distance of Measurements: | 3 Meters |
| Operating Frequency:      | 5825MHz  |
| Channel:                  | 165      |



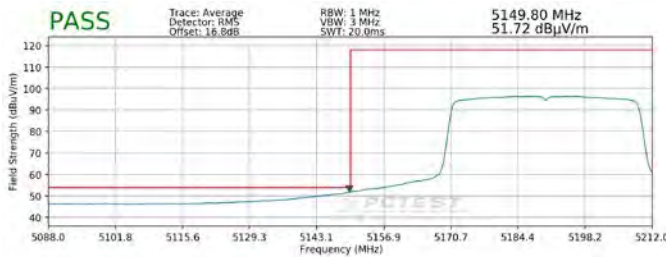
**Plot 7-336. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 219 of 240                 |

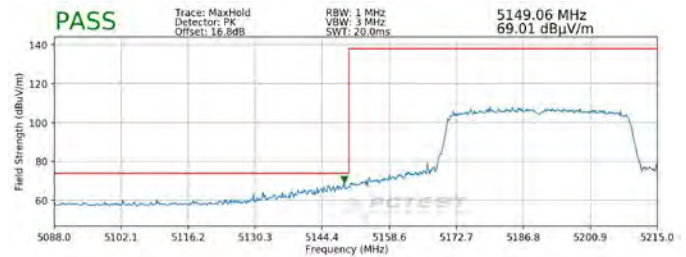
## 7.6.12 MIMO Radiated Band Edge Measurements (40MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5190MHz     |
| Channel:                  | 38          |

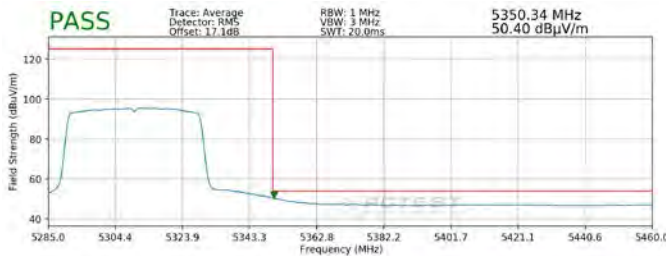


**Plot 7-337. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1)**

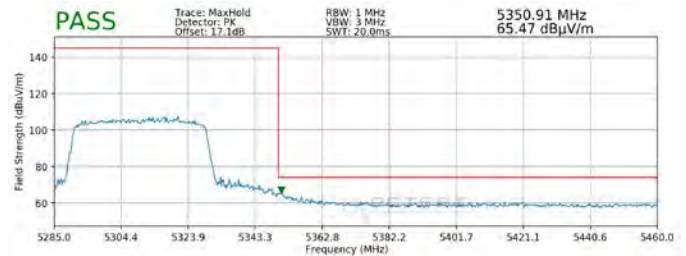


**Plot 7-338. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1)**

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5310MHz     |
| Channel:                  | 62          |



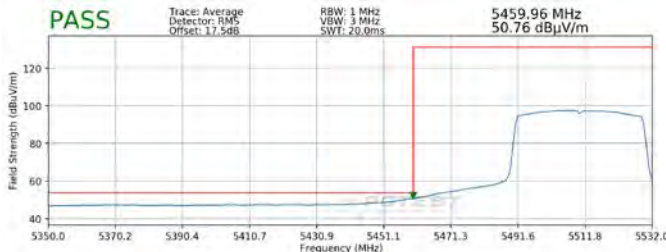
**Plot 7-339. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A)**



**Plot 7-340. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 220 of 240                 |

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5510MHz  
Channel: 102

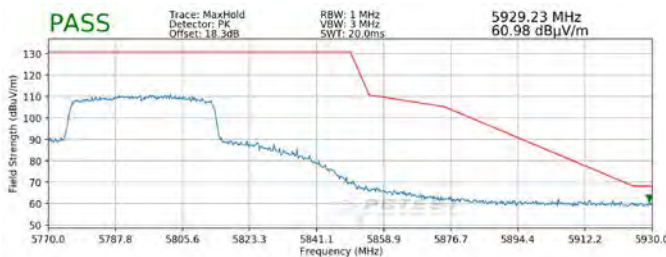


**Plot 7-341. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)**



**Plot 7-342. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)**

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5795MHz  
Channel: 159



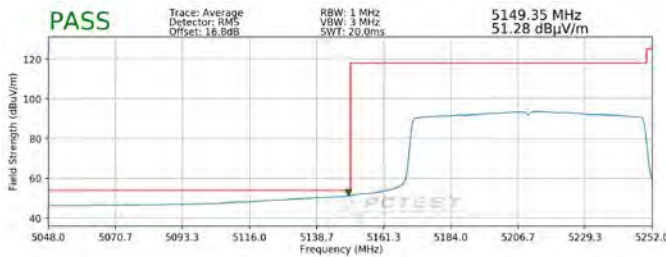
**Plot 7-343. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 221 of 240                 |

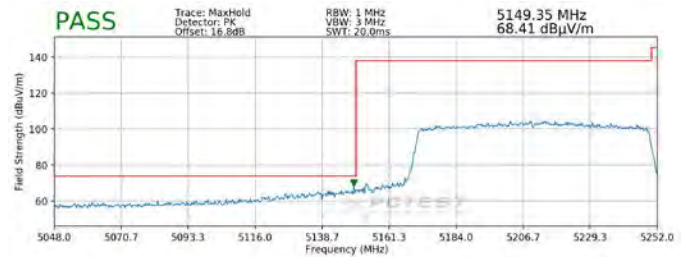
### 7.6.13 MIMO Radiated Band Edge Measurements (80MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5210MHz     |
| Channel:                  | 42          |

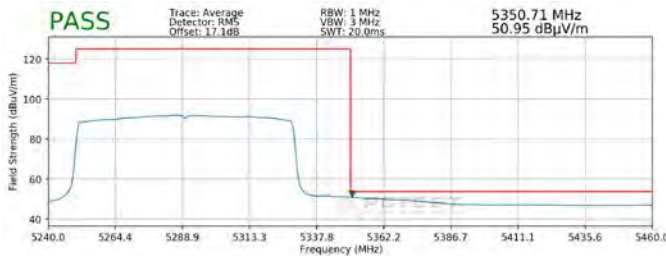


**Plot 7-344. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1)**

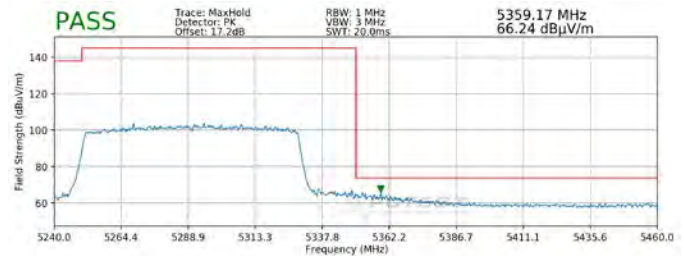


**Plot 7-345. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1)**

|                           |             |
|---------------------------|-------------|
| Worst Case Mode:          | 802.11ax SU |
| Worst Case Transfer Rate: | MCS0        |
| Distance of Measurements: | 3 Meters    |
| Operating Frequency:      | 5290MHz     |
| Channel:                  | 58          |



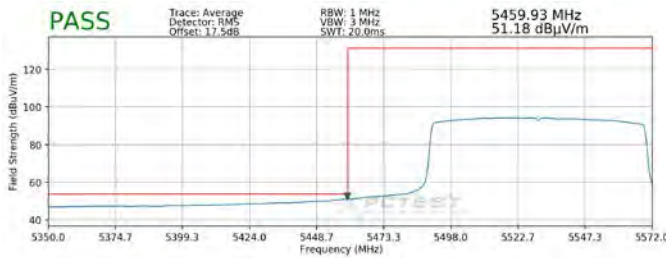
**Plot 7-346. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A)**



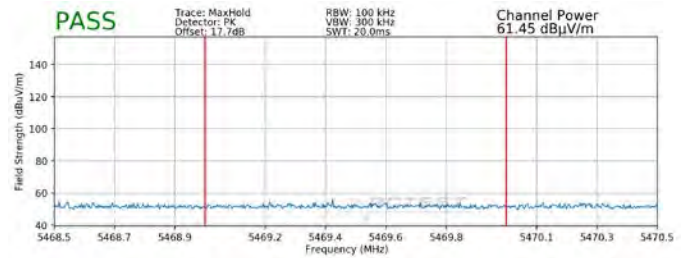
**Plot 7-347. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 222 of 240                 |

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5530MHz  
Channel: 106

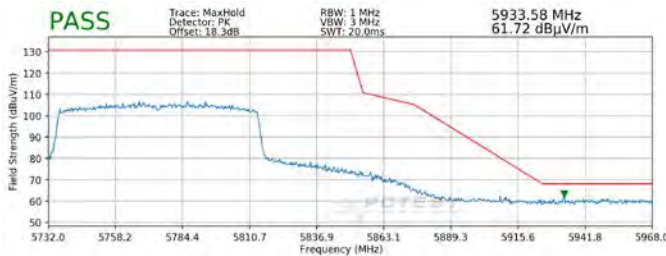


**Plot 7-348. Radiated Lower Band Edge Plot MIMO (Average - UNII Band 2C)**



**Plot 7-349. Radiated Lower Band Edge Plot MIMO (Peak - UNII Band 2C)**

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5775MHz  
Channel: 155



**Plot 7-350. Radiated Upper Band Edge Plot MIMO (Peak - UNII Band 3)**

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 223 of 240                 |

## 7.7 Radiated Spurious Emissions Measurements – Below 1GHz

§15.209; RSS-Gen [8.9]

### Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for radiated spurious emissions. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

***All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 6 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-73 per Section 15.209 and RSS-Gen (8.9).***

| Frequency         | Field Strength<br>[μV/m] | Measured Distance<br>[Meters] |
|-------------------|--------------------------|-------------------------------|
| 0.009 – 0.490 MHz | 2400/F (kHz)             | 300                           |
| 0.490 – 1.705 MHz | 24000/F (kHz)            | 30                            |
| 1.705 – 30.00 MHz | 30                       | 30                            |
| 30.00 – 88.00 MHz | 100                      | 3                             |
| 88.00 – 216.0 MHz | 150                      | 3                             |
| 216.0 – 960.0 MHz | 200                      | 3                             |
| Above 960.0 MHz   | 500                      | 3                             |

**Table 7-73. Radiated Limits**

### Test Procedures Used

ANSI C63.10-2013

### Test Settings

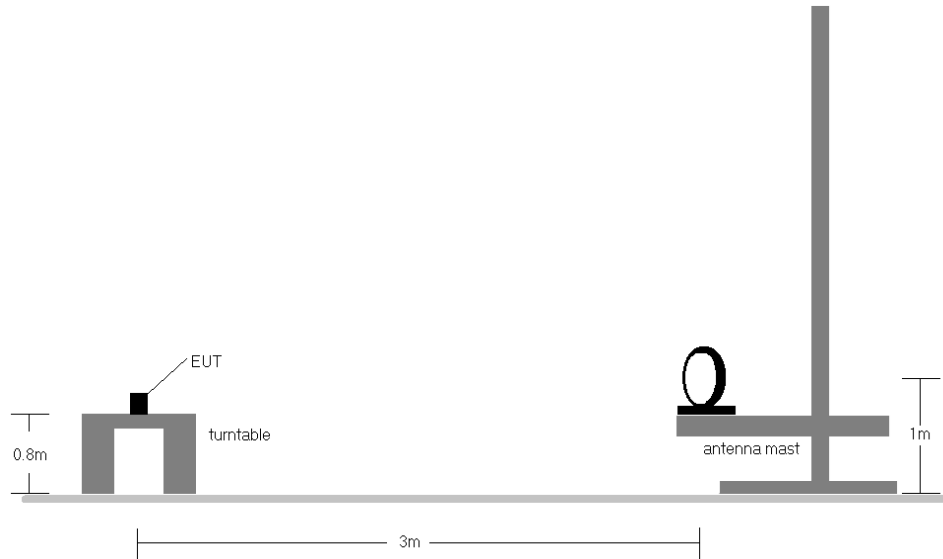
#### Quasi-Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 120kHz (for emissions from 30MHz – 1GHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

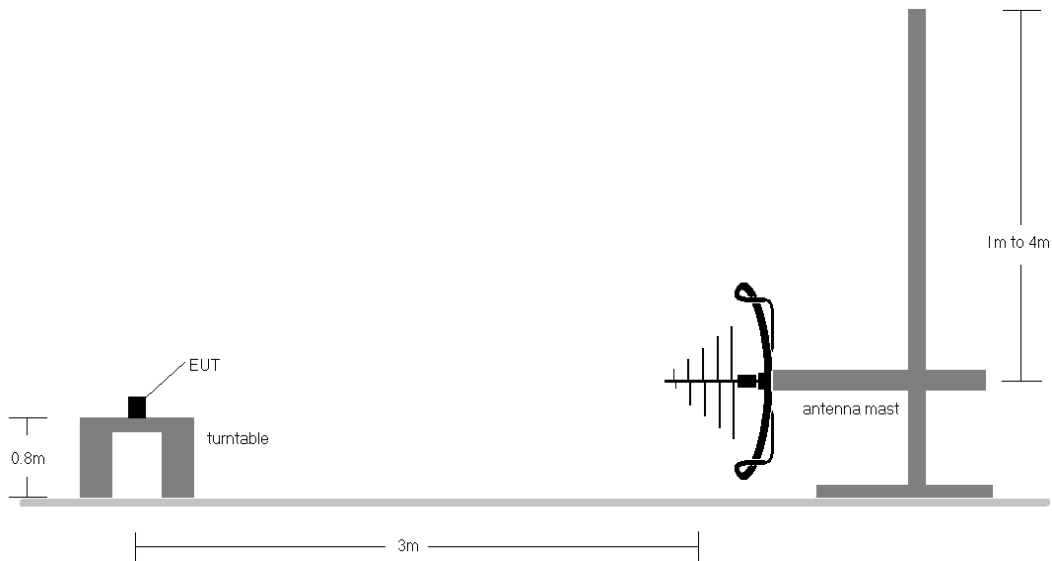
|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 224 of 240                                                                       |                                 |

## Test Setup

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



**Figure 7-6. Radiated Test Setup < 30MHz**



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

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 225 of 240                 |

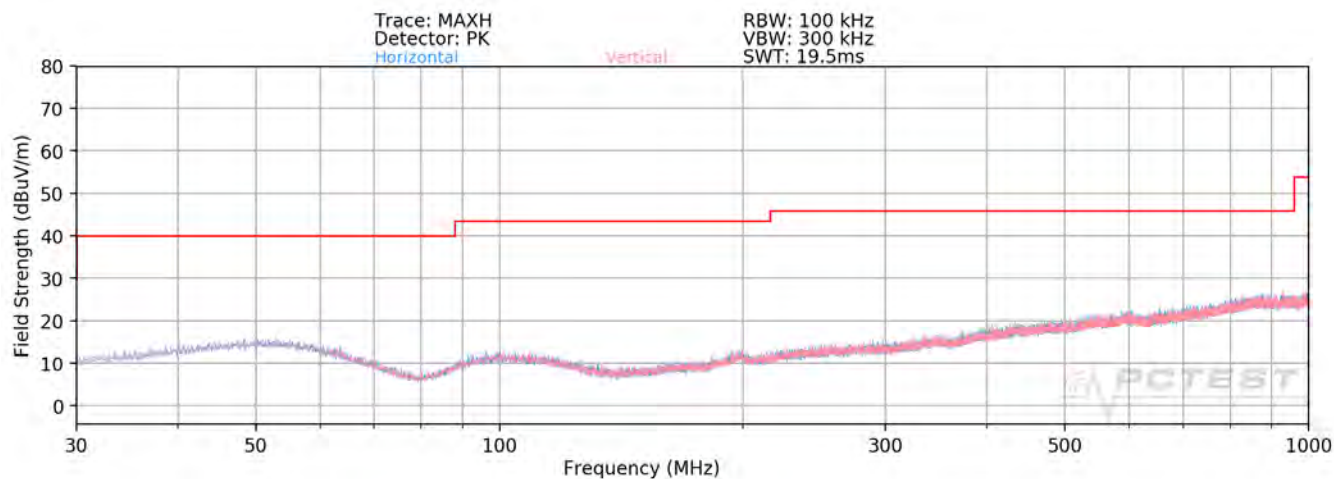
## Test Notes

1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen (8.10) are below the limit shown in Table 7-73.
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes.
3. This unit was tested with its standard battery.
4. The spectrum is investigated using a peak detector and final measurements are recorded using CISPR quasi peak detector. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
5. Emissions were measured at a 3 meter test distance.
6. Emissions are investigated while operating on the center channel of the mode, band, and modulation that produced the worst case results during the transmitter spurious emissions testing.
7. No spurious emissions were detected within 20dB of the limit below 30MHz.
8. The results recorded using the broadband antenna is known to correlate with the results obtained by using a tuned dipole with an acceptable degree of accuracy. The VSWR for the measurement antenna was found to be less than 2:1.
9. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. There were no emissions detected in the 30MHz – 1GHz frequency range, as shown in the subsequent plots.

|                                                |                                                                                                                                                                                                              |                                               |                                                                                       |                                        |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------|
| <b>FCC ID:</b> A3LSMF707U                      |  <b>PCTEST</b><br>Proud to be part of  | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |  | <b>Approved by:</b><br>Quality Manager |
| <b>Test Report S/N:</b><br>1M2005040080-08.A3L | <b>Test Dates:</b><br>05/04 - 07/06/2020                                                                                                                                                                     | <b>EUT Type:</b><br>Portable Handset          | Page 226 of 240                                                                       |                                        |

## MIMO Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]

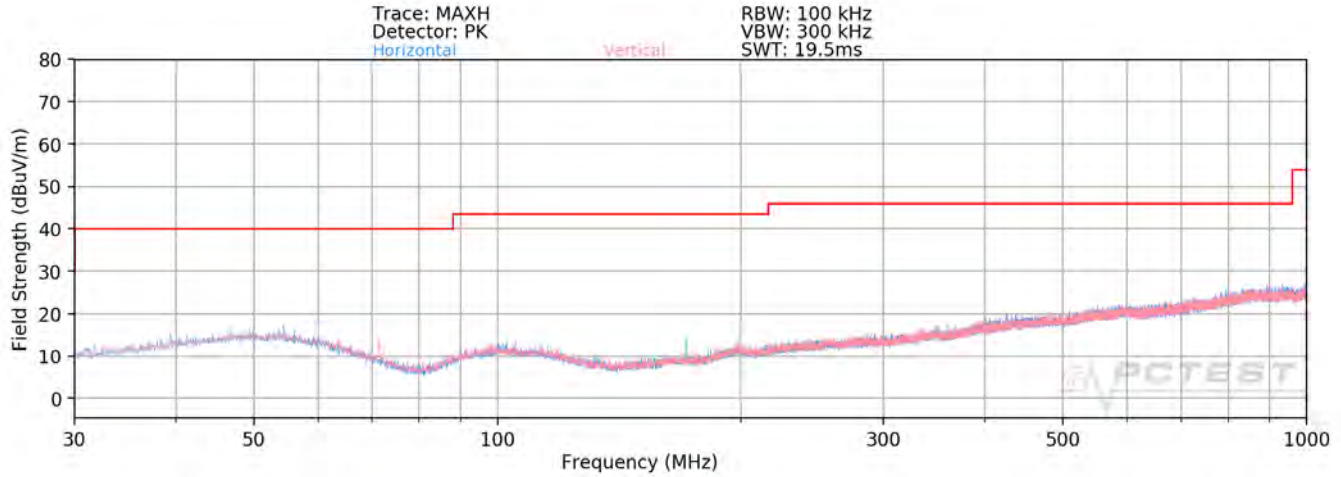


**Plot 7-351. Radiated Spurious Plot below 1GHz MIMO ANT1 (802.11a – U3 Ch. 157)**

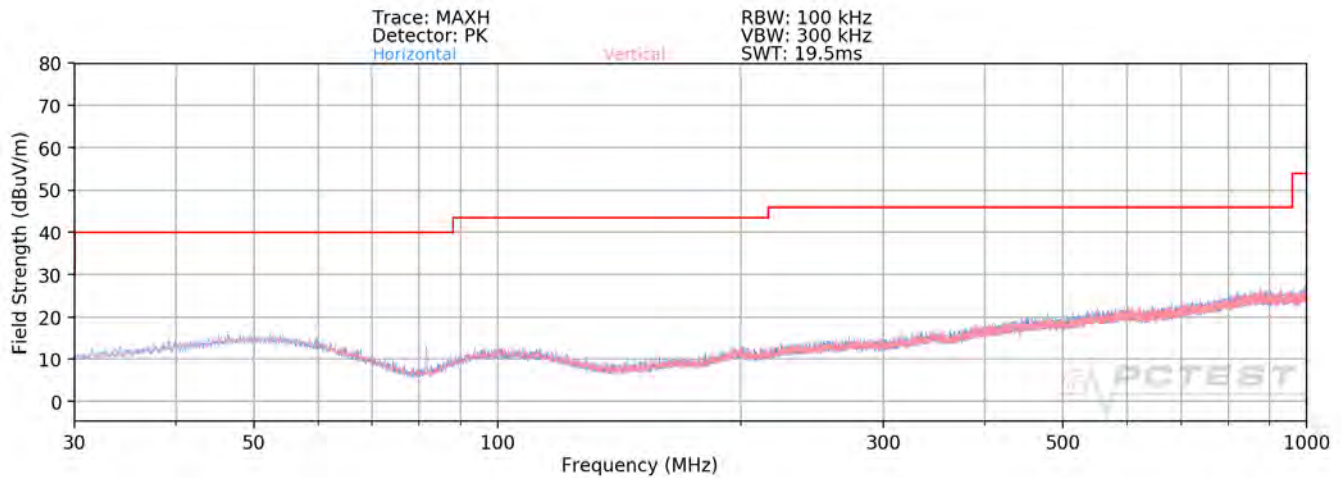
|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 227 of 240                                                                       |                                 |

## Simultaneous Tx Radiated Spurious Emissions Measurements (Below 1GHz)

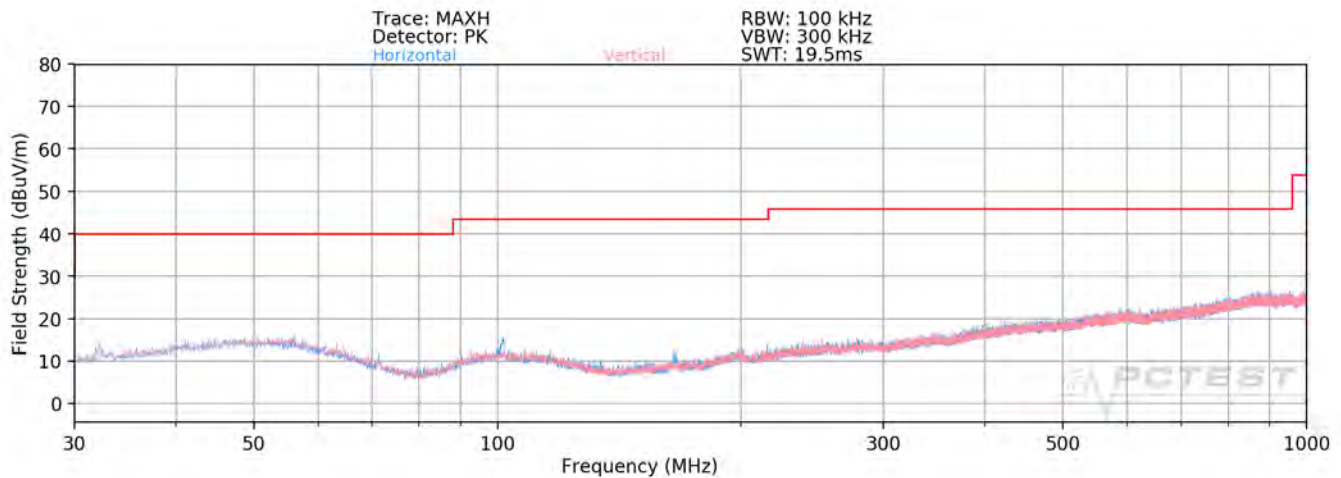
§15.209; RSS-Gen [8.9]



Plot 7-352. Radiated Spurious Plot be 1GHz (2.4GHz – 5GHz)



Plot 7-353. Radiated Spurious Plot below 1GHz (2.4GHz – 5GHz)



|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 228 of 240                 |

## Plot 7-354. Radiated Spurious Plot below 1GHz (Dual Band Simult. Tx)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 229 of 240                                                                       |                                 |

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V 9.0 02/01/2019

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## 7.8 Line-Conducted Test Data

§15.407; RSS-Gen [8.8]

### Test Overview and Limit

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section.

**All conducted emissions must not exceed the limits shown in the table below, per Section 15.207 and RSS-Gen (8.8).**

| Frequency of emission (MHz) | Conducted Limit (dBμV) |           |
|-----------------------------|------------------------|-----------|
|                             | Quasi-peak             | Average   |
| 0.15 – 0.5                  | 66 to 56*              | 56 to 46* |
| 0.5 – 5                     | 56                     | 46        |
| 5 – 30                      | 60                     | 50        |

Table 7-74. Conducted Limits

\*Decreases with the logarithm of the frequency.

### Test Procedures Used

ANSI C63.10-2013, Section 6.2

### Test Settings

#### Quasi-Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

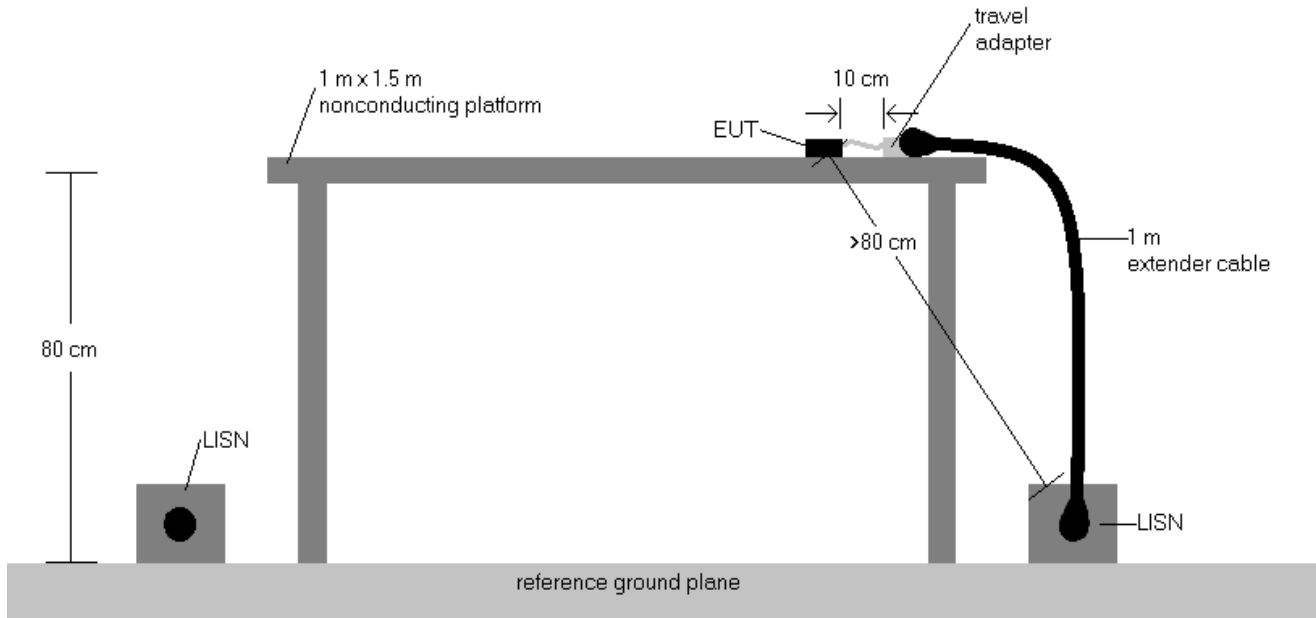
#### Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = RMS
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         | Page 230 of 240                                                                       |                                 |

## Test Setup

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

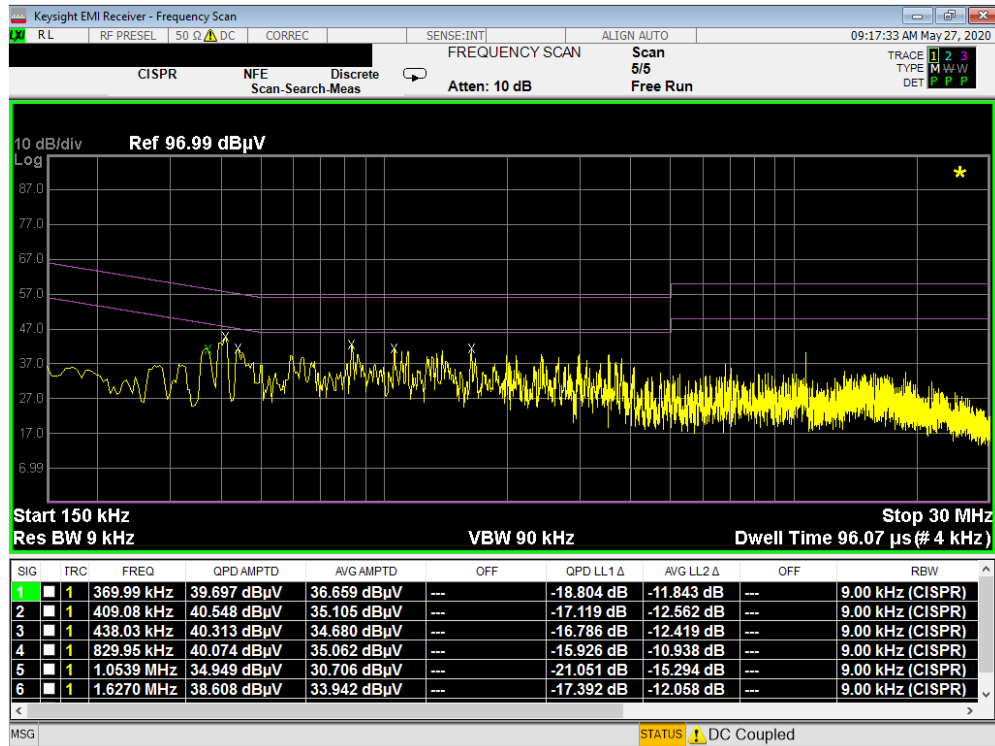


**Figure 7-8. Test Instrument & Measurement Setup**

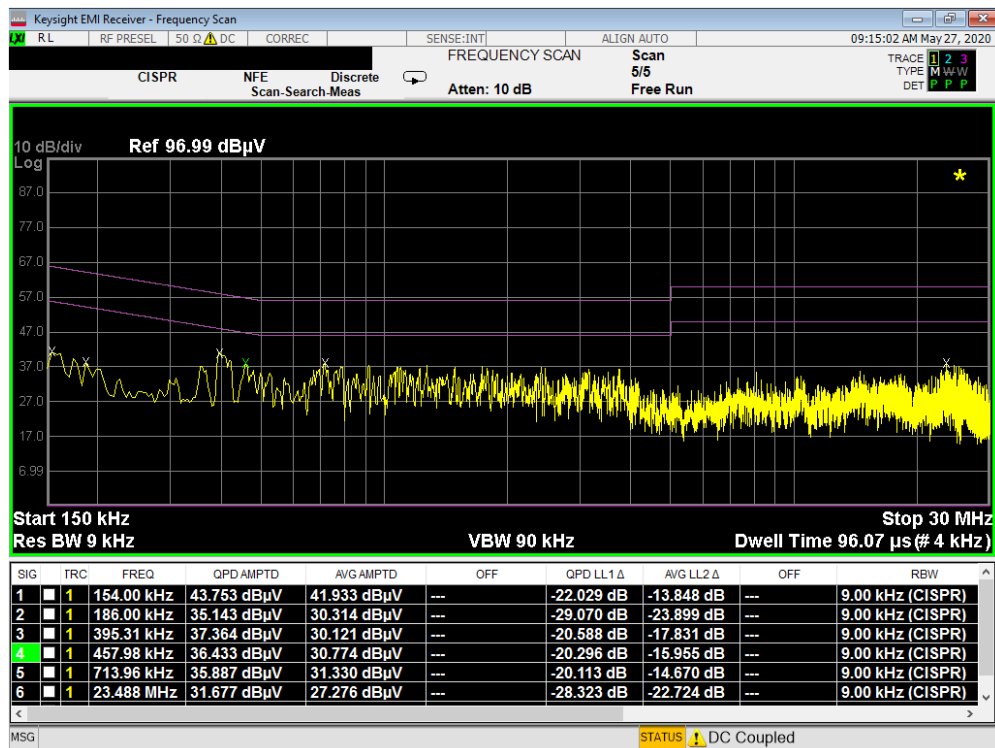
## Test Notes

1. All modes of operation were investigated and the worst-case emissions are reported using mid channel. The emissions found were not affected by the choice of channel used during testing.
2. The limit for an intentional radiator from 150kHz to 30MHz are specified in 15.207 and RSS-Gen (8.8).
3.  $\text{Corr. (dB)} = \text{Cable loss (dB)} + \text{LISN insertion factor (dB)}$
4.  $\text{QP/AV Level (dB}\mu\text{V)} = \text{QP/AV Analyzer/Receiver Level (dB}\mu\text{V)} + \text{Corr. (dB)}$
5.  $\text{Margin (dB)} = \text{QP/AV Limit (dB}\mu\text{V)} - \text{QP/AV Level (dB}\mu\text{V)}$
6. Traces shown in plot are made using a peak detector.
7. Deviations to the Specifications: None.

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 231 of 240                 |

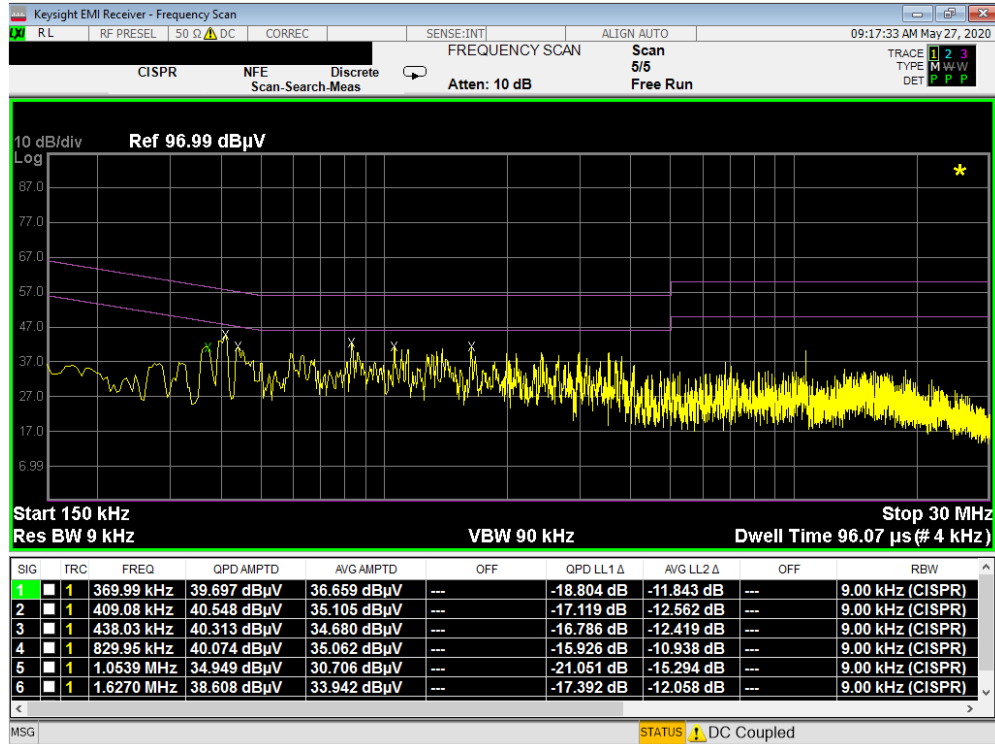


Plot 7-355. Line Conducted Plot with 802.11a UNII Band 1 (L1)

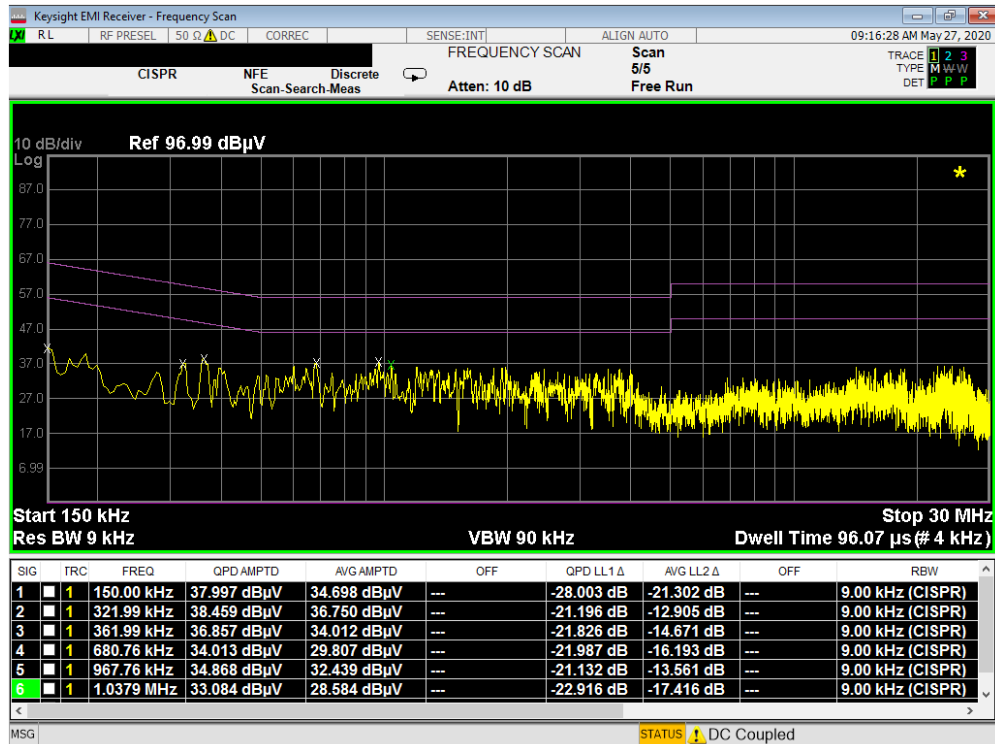


Plot 7-356. Line Conducted Plot with 802.11a UNII Band 1 (N)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 232 of 240                 |

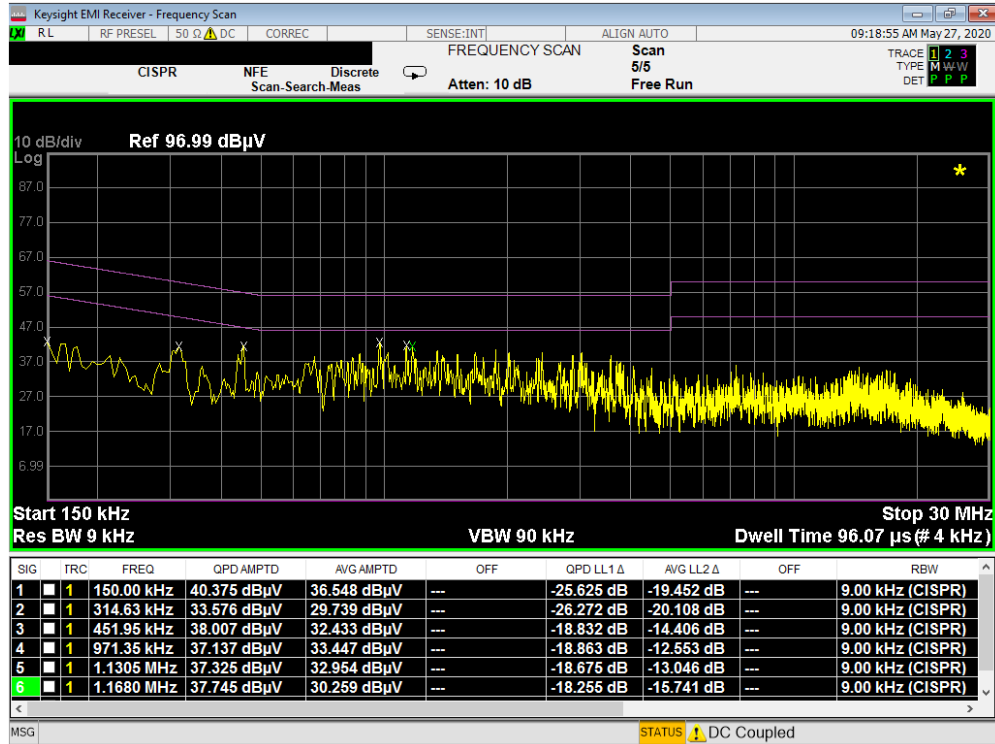


Plot 7-357. Line Conducted Plot with 802.11a UNII Band 2A (L1)

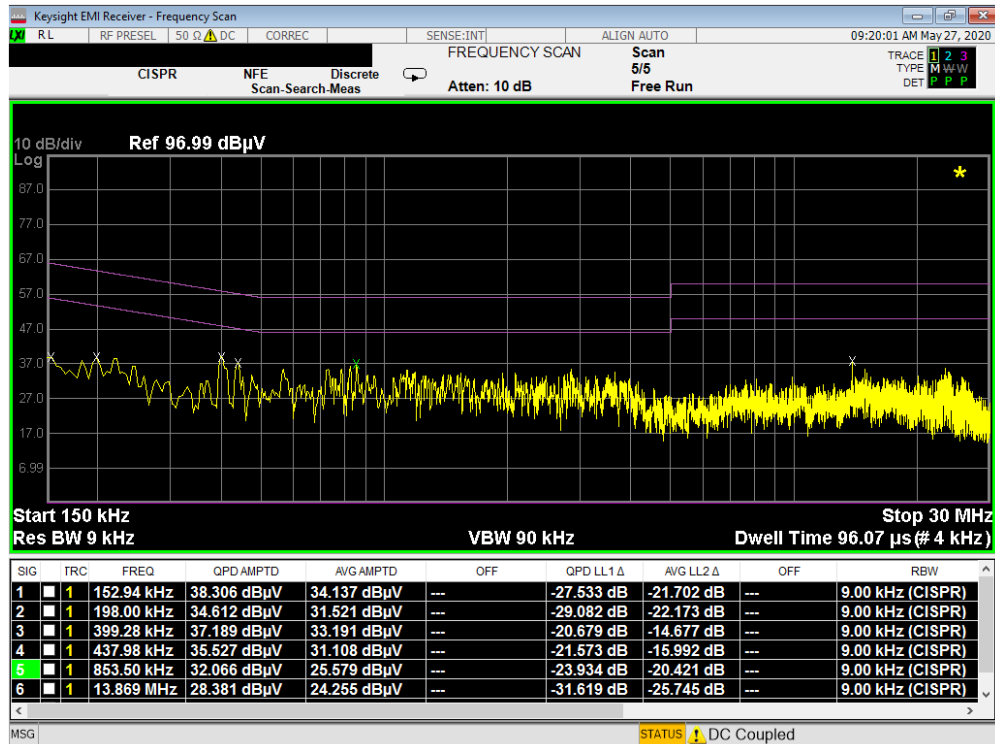


Plot 7-358. Line Conducted Plot with 802.11a UNII Band 2A (N)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 233 of 240                 |

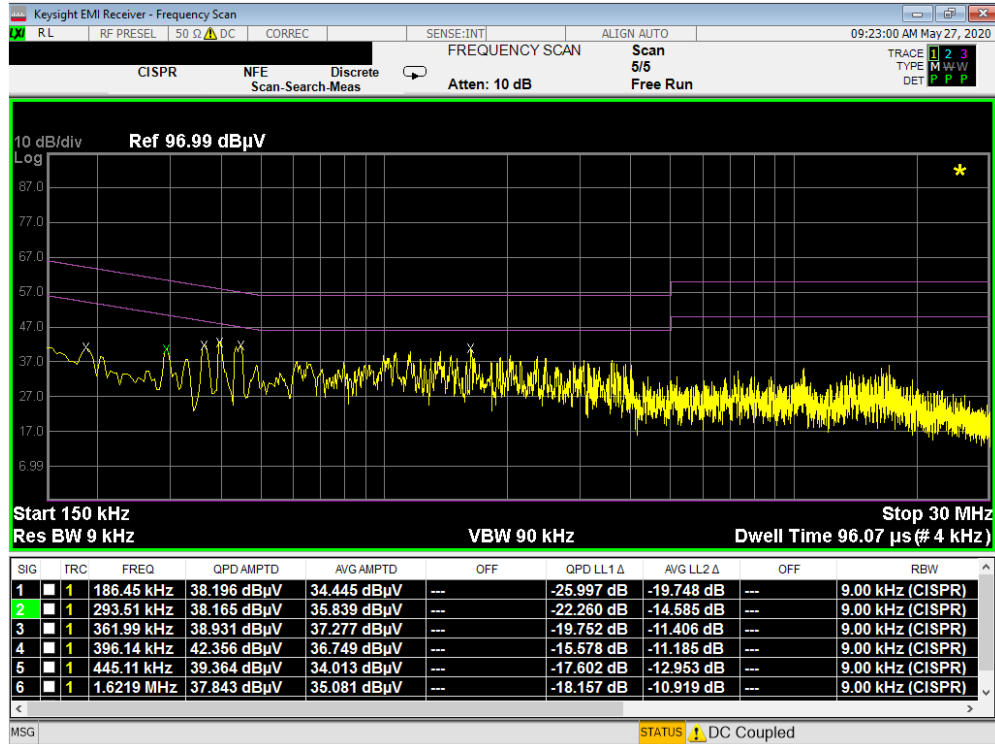


Plot 7-359. Line Conducted Plot with 802.11a UNII Band 2C (L1)

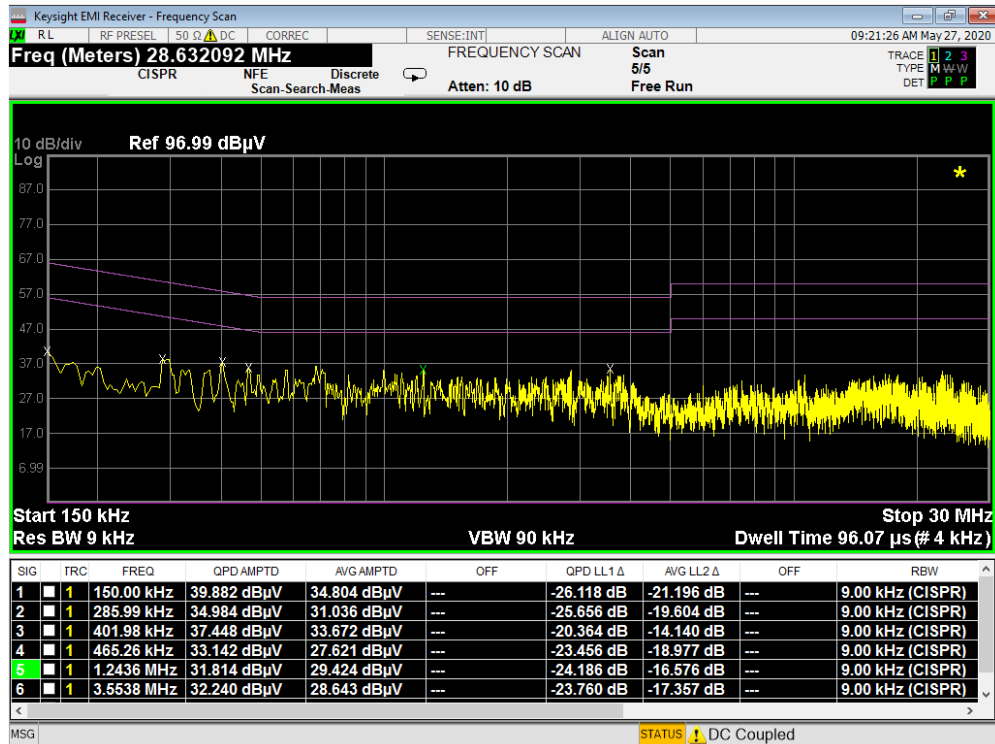


Plot 7-360. Line Conducted Plot with 802.11a UNII Band 2C (N)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 234 of 240                 |

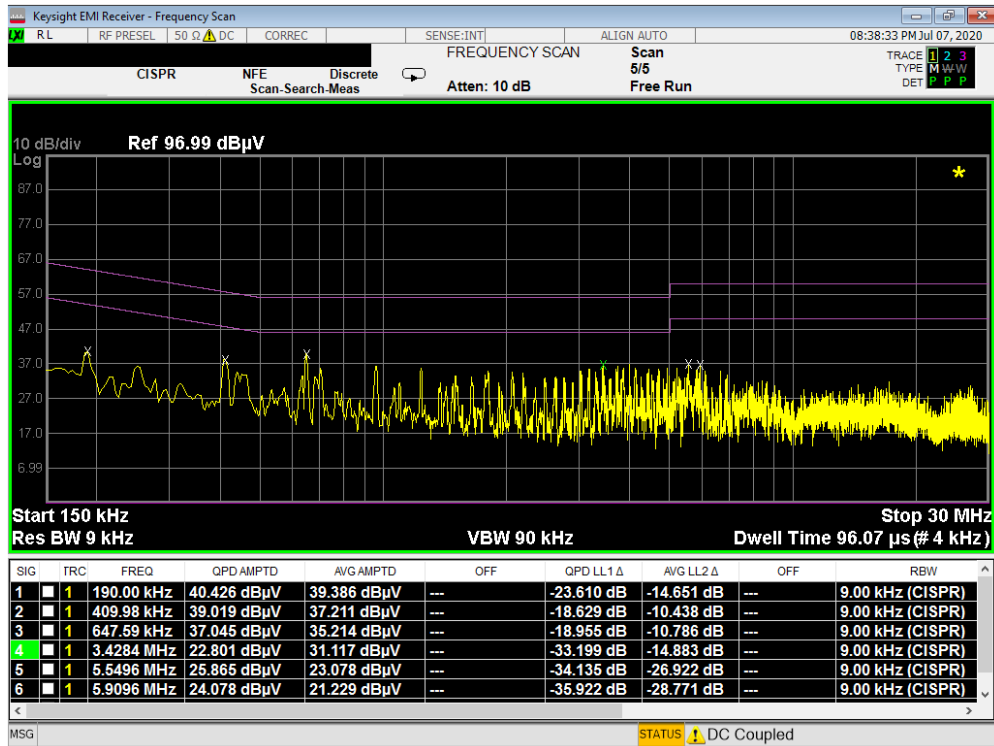


Plot 7-361. Line Conducted Plot with 802.11a UNII Band 3 (L1)

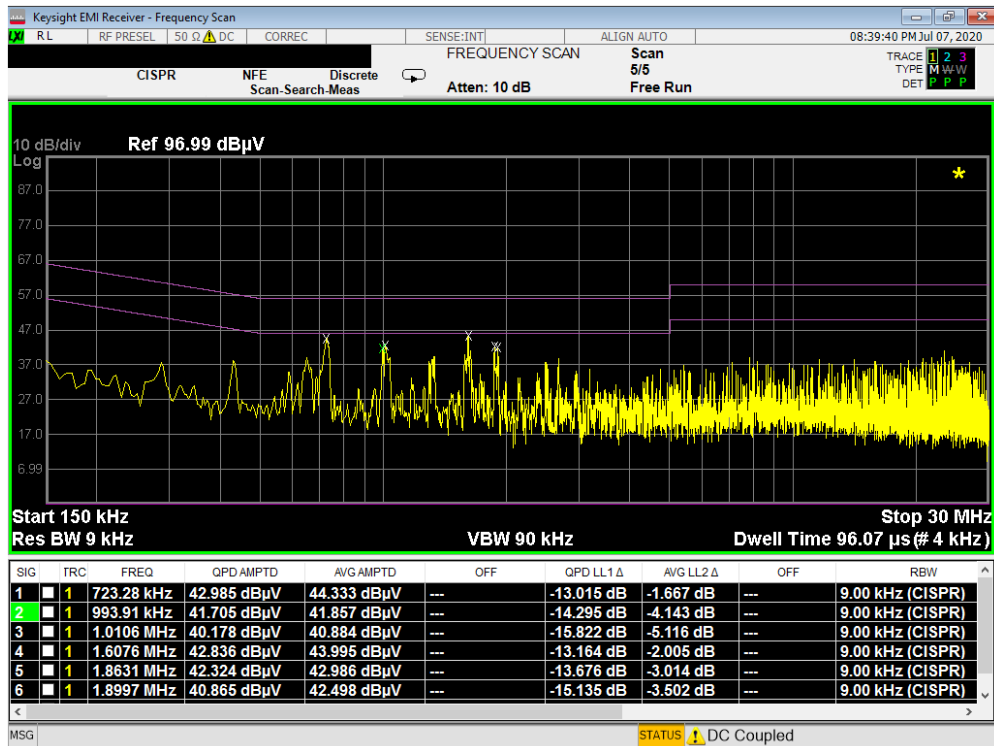


Plot 7-362. Line Conducted Plot with 802.11a UNII Band 3 (N)

|                                         |                                                                                     |                                       |                                                                                       |                                 |
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| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 235 of 240                 |

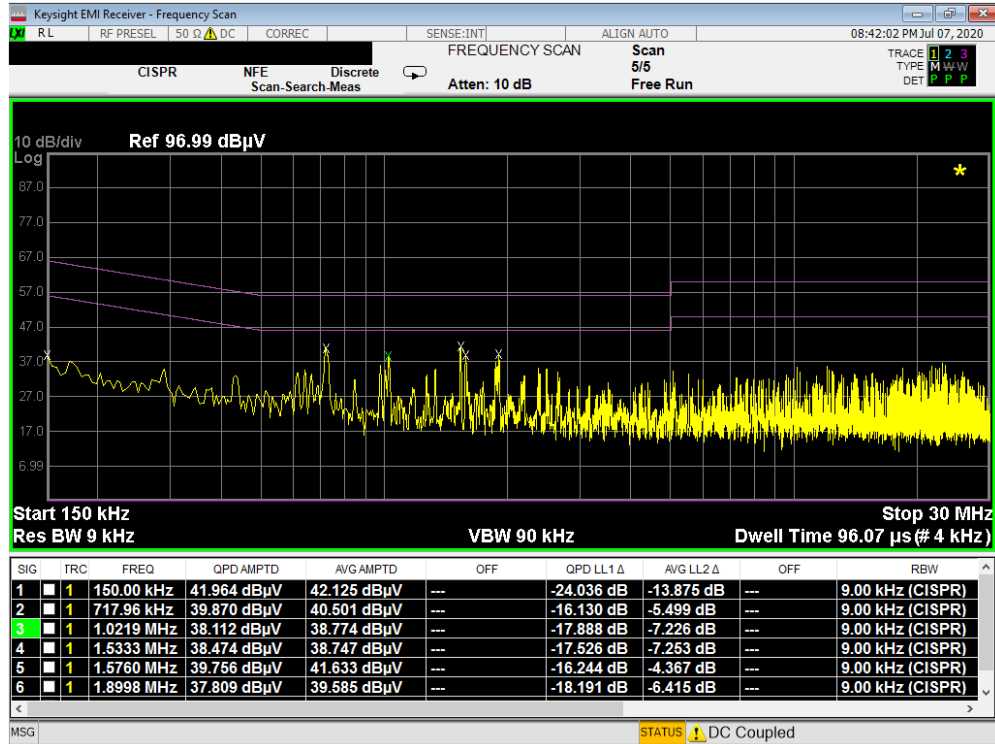


Plot 7-363. Line Conducted Plot with 802.11a UNII Band 1 (L1) - WCP

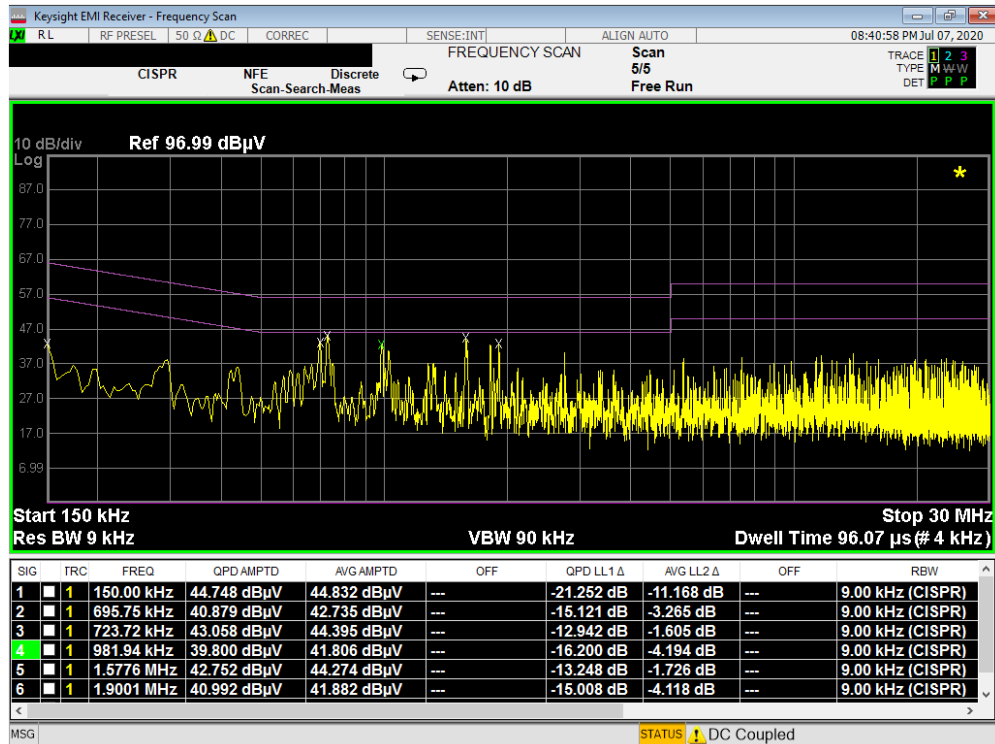


Plot 7-364. Line Conducted Plot with 802.11a UNII Band 1 (N) - WCP

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 236 of 240                 |

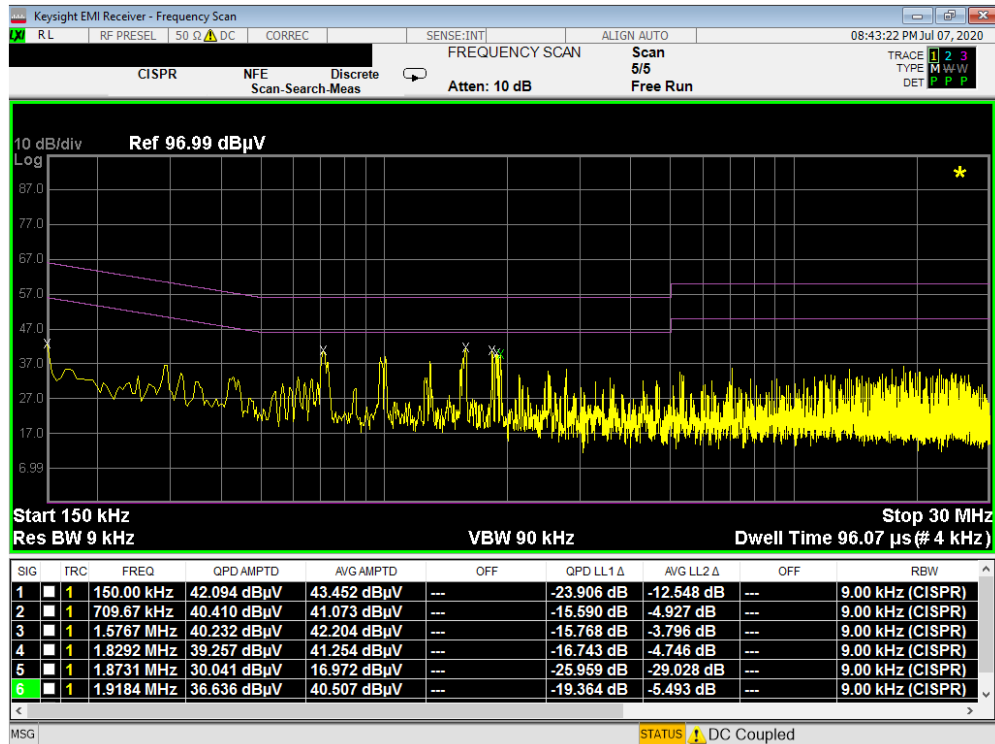


Plot 7-365. Line Conducted Plot with 802.11a UNII Band 2A (L1) - WCP

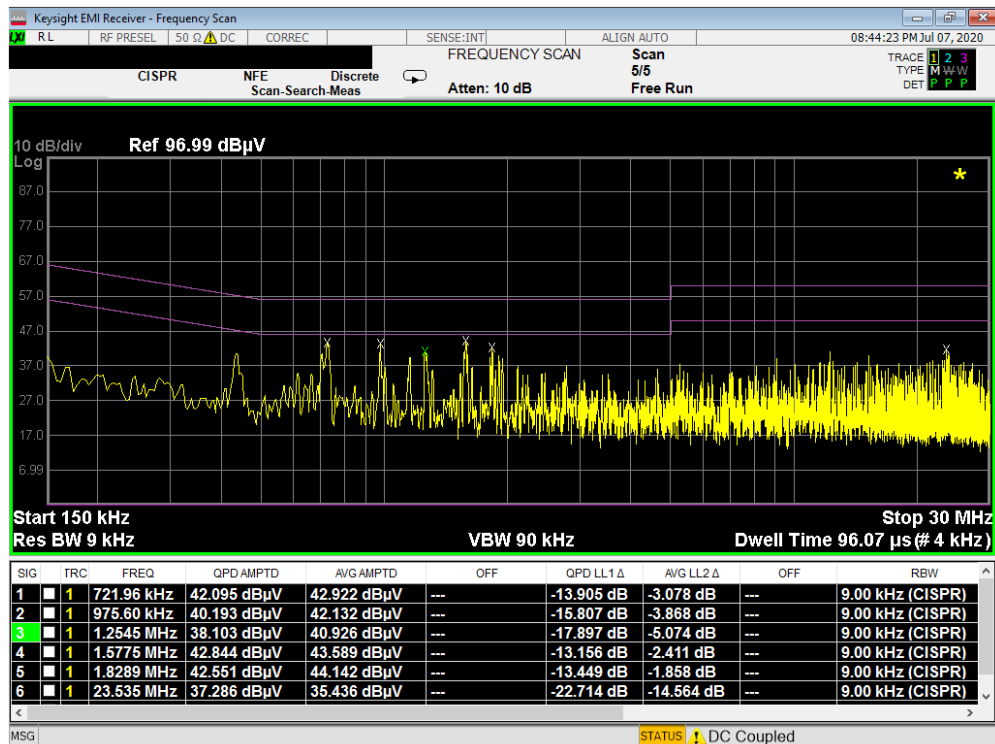


Plot 7-366. Line Conducted Plot with 802.11a UNII Band 2A (N) - WCP

|                                         |                                                                                     |                                       |                                                                                       |                                 |
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| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 237 of 240                 |

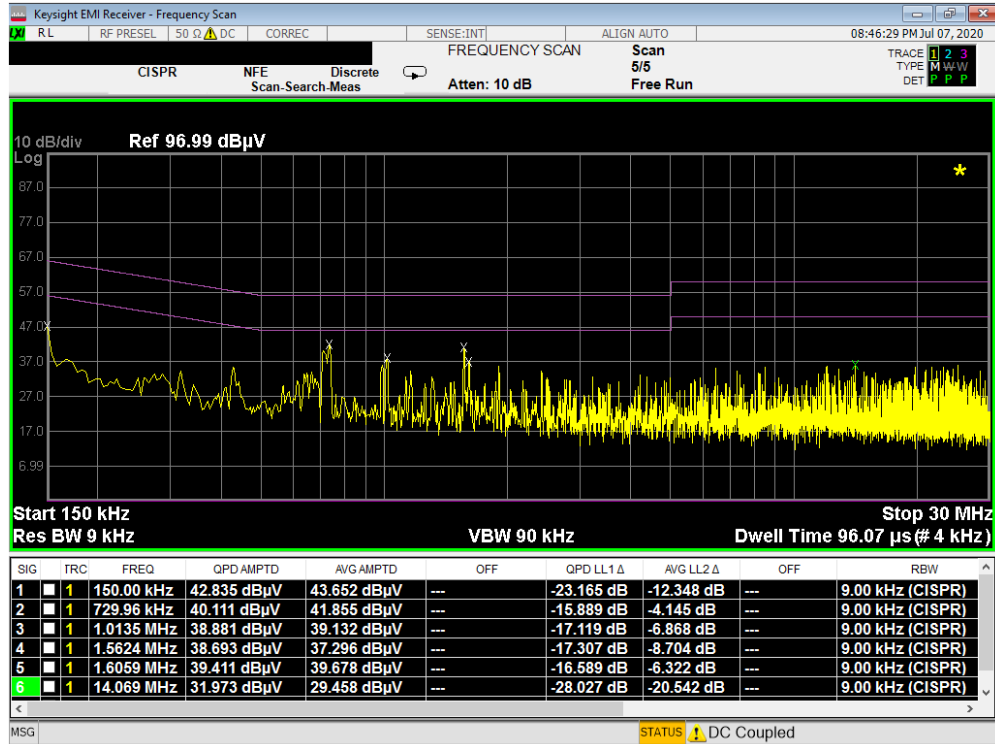


Plot 7-367. Line Conducted Plot with 802.11a UNII Band 2C (L1) - WCP

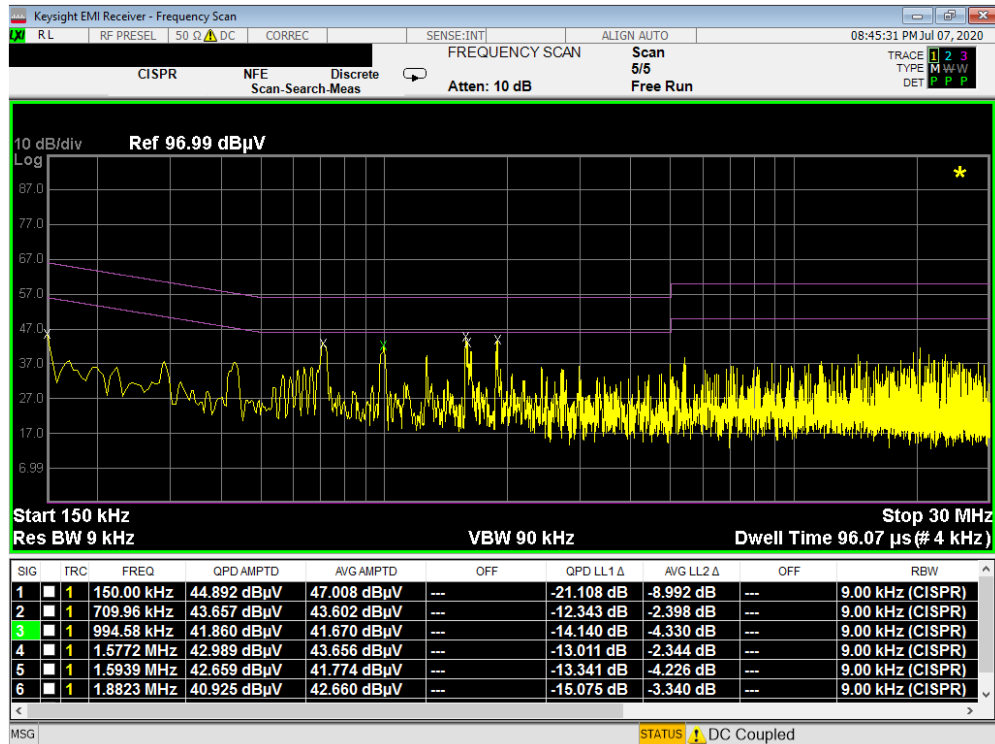


Plot 7-368. Line Conducted Plot with 802.11a UNII Band 2C (N) - WCP

|                                         |                                                                                     |                                       |                                                                                       |                                 |
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| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 238 of 240                 |



Plot 7-369. Line Conducted Plot with 802.11a UNII Band 3 (L1) - WCP



Plot 7-370. Line Conducted Plot with 802.11a UNII Band 3 (N) - WCP

|                                         |                                                                                     |                                       |                                                                                       |                                 |
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| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 239 of 240                 |

## 8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMF707U** is in compliance with Part 15 Subpart E (15.407) of the FCC Rules and RSS-247 of the Innovation, Science and Economic Development Canada Rules.

|                                         |                                                                                     |                                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMF707U                      |  | MEASUREMENT REPORT<br>(CERTIFICATION) |  | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005040080-08.A3L | Test Dates:<br>05/04 - 07/06/2020                                                   | EUT Type:<br>Portable Handset         |                                                                                       | Page 240 of 240                 |