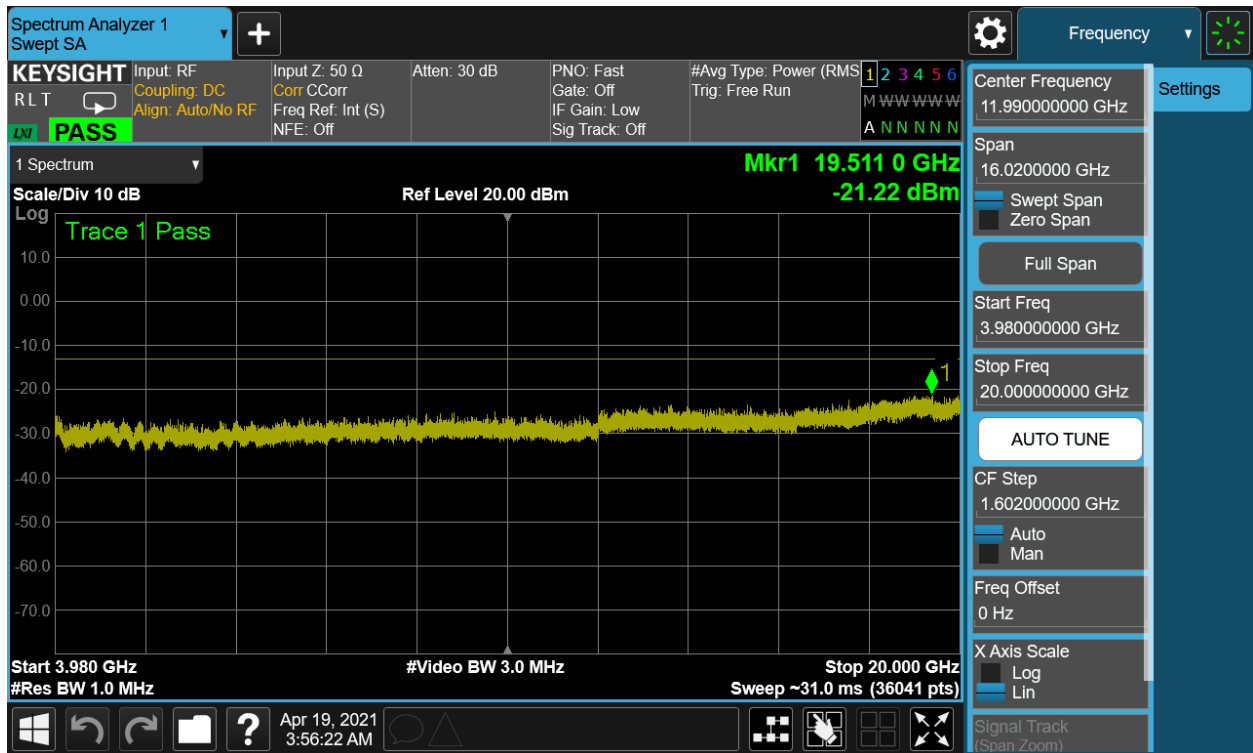
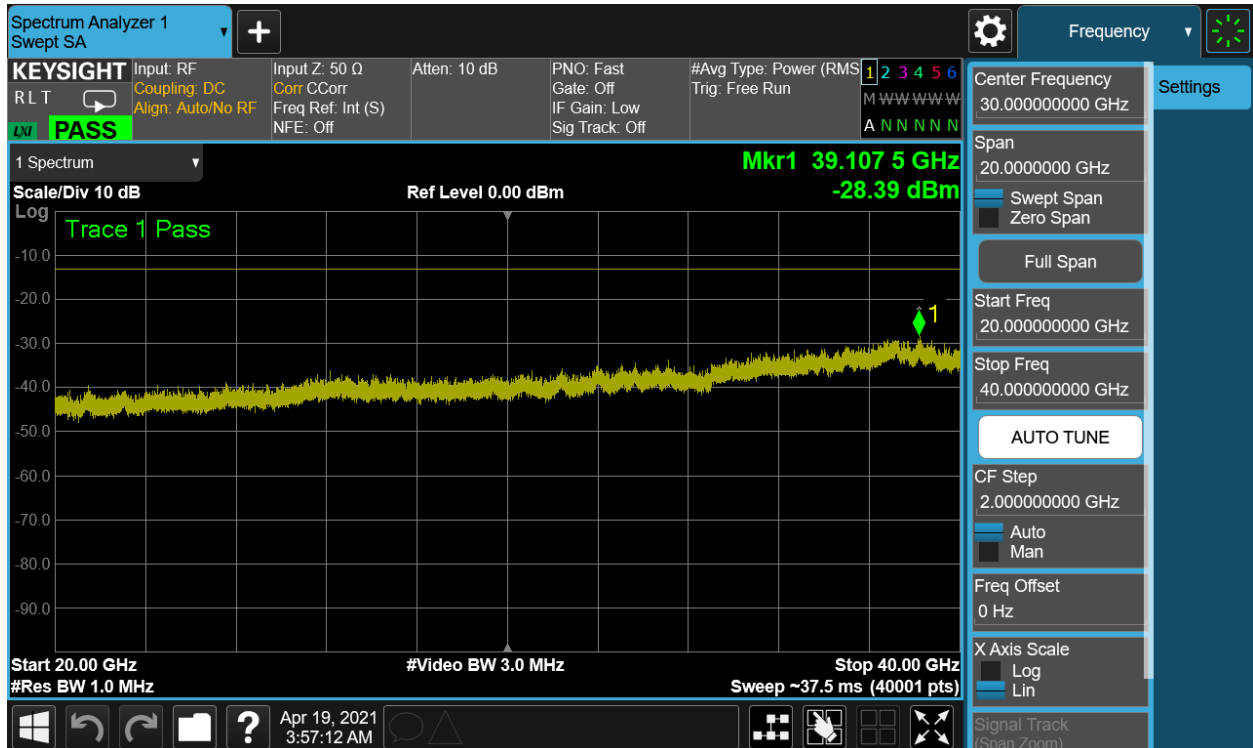


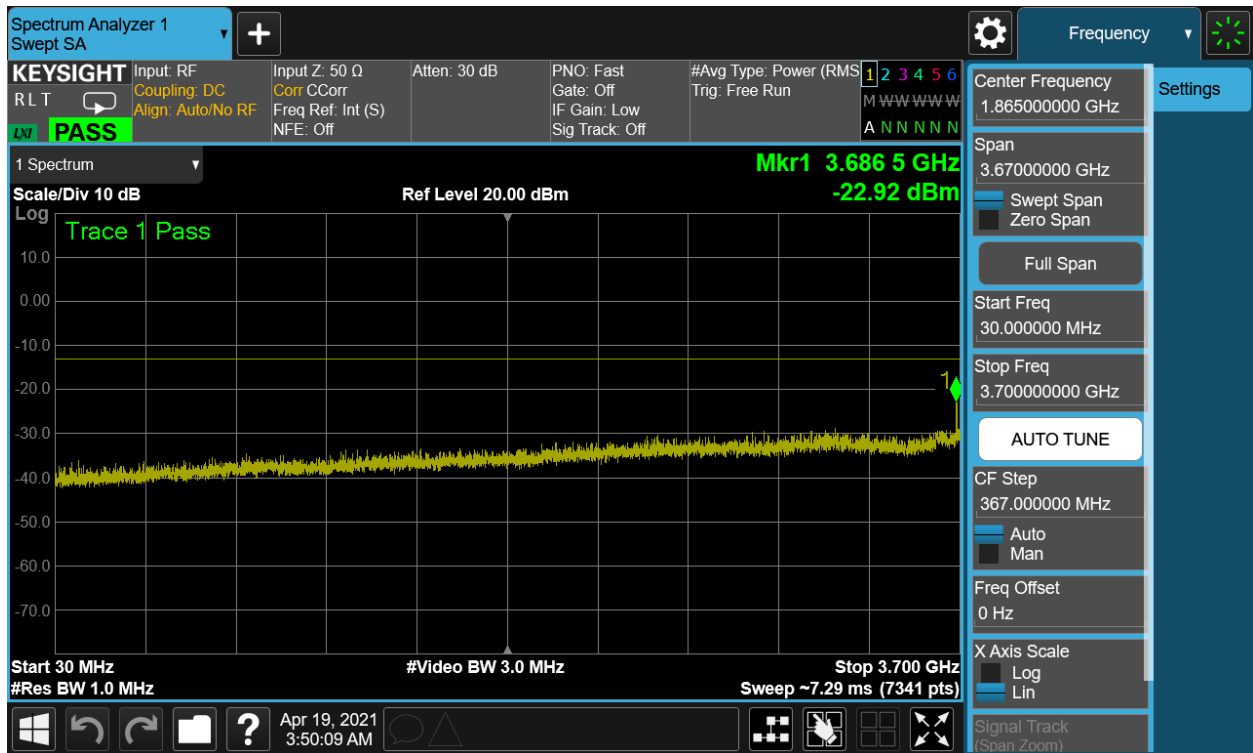


Plot 7-59 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 136 - Mid Channel)

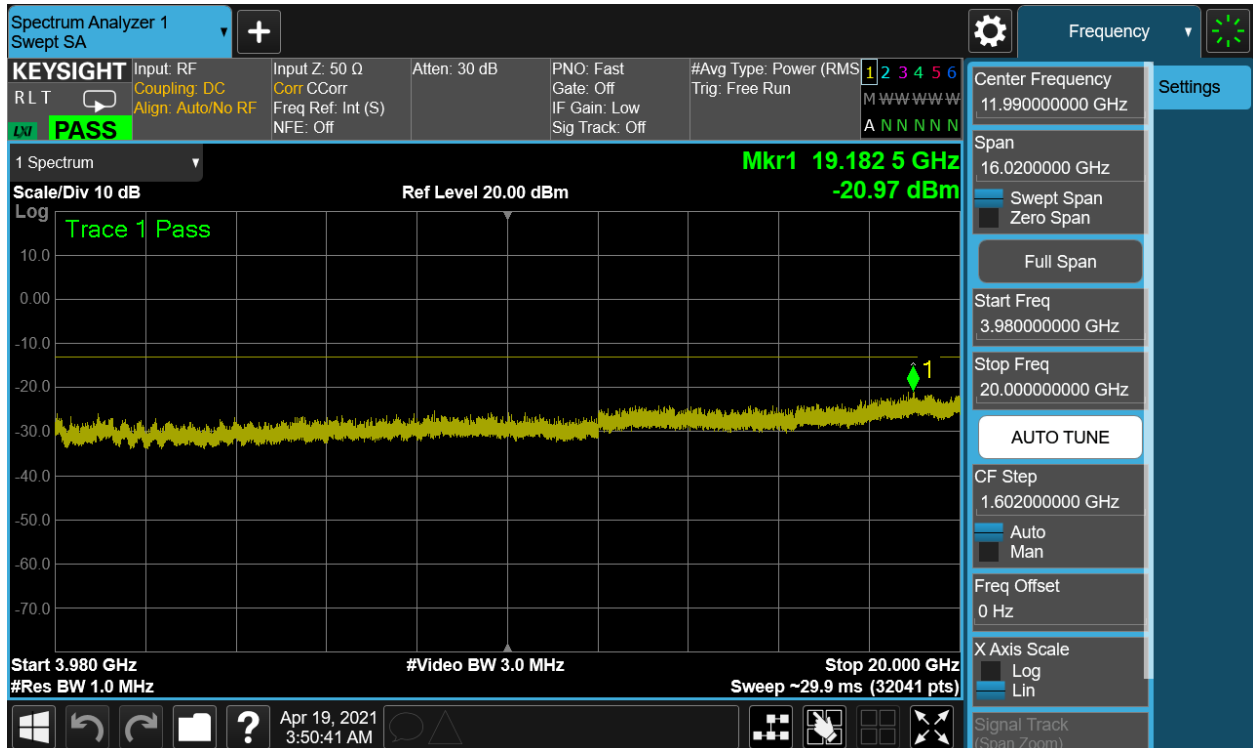


Plot 7-60 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 136 - Mid Channel)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20-A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 51 of 161                    |

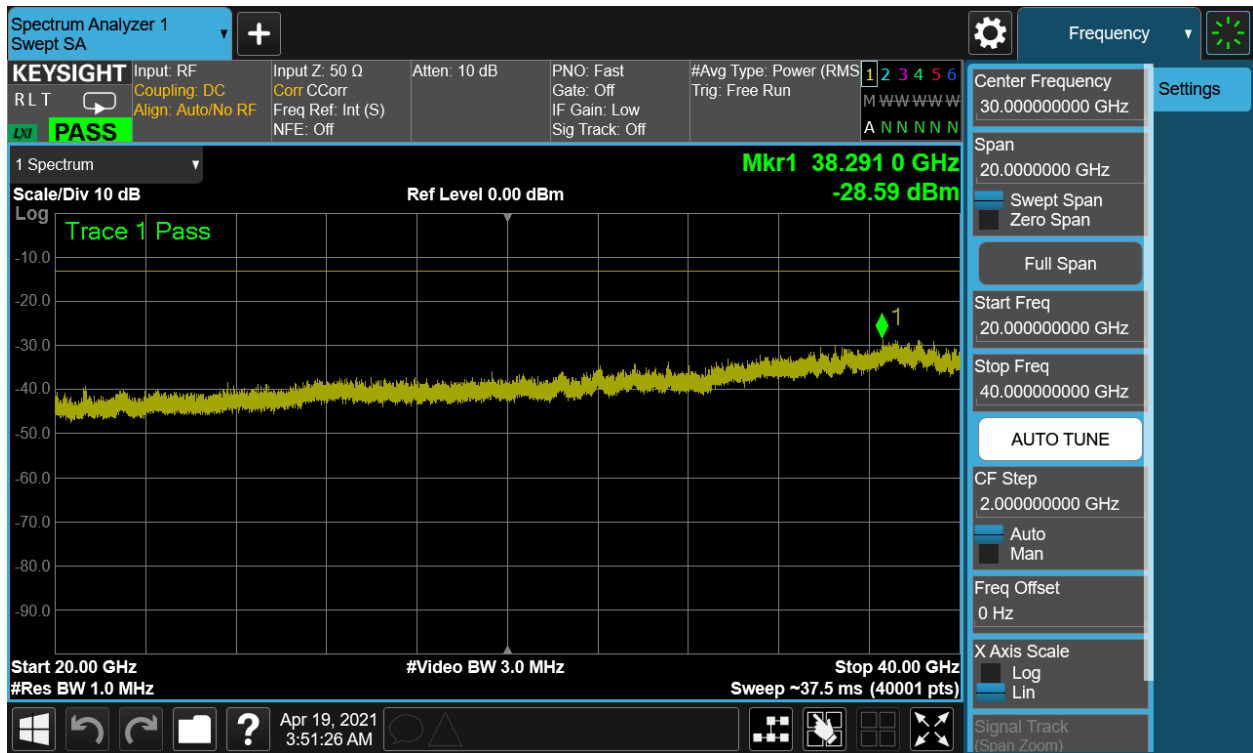


Plot 7-61 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 136 - High Channel)



Plot 7-62 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 136 - High Channel)

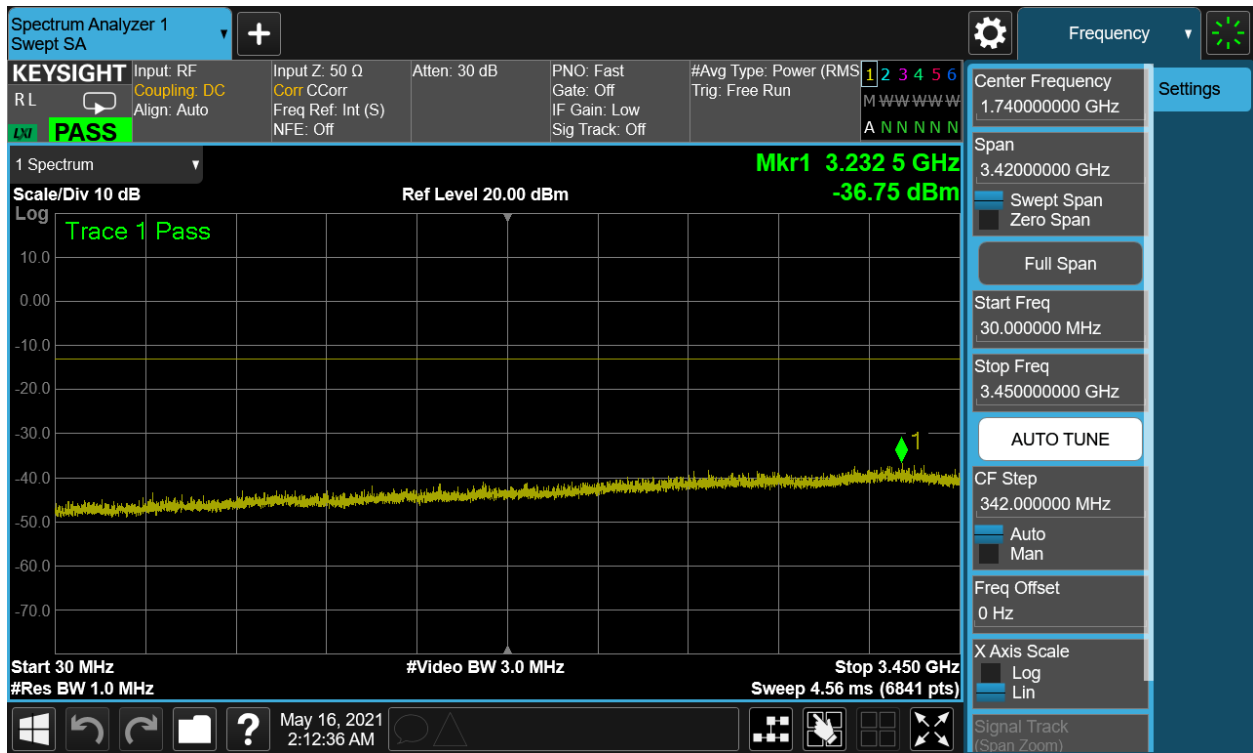
|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 52 of 161                    |



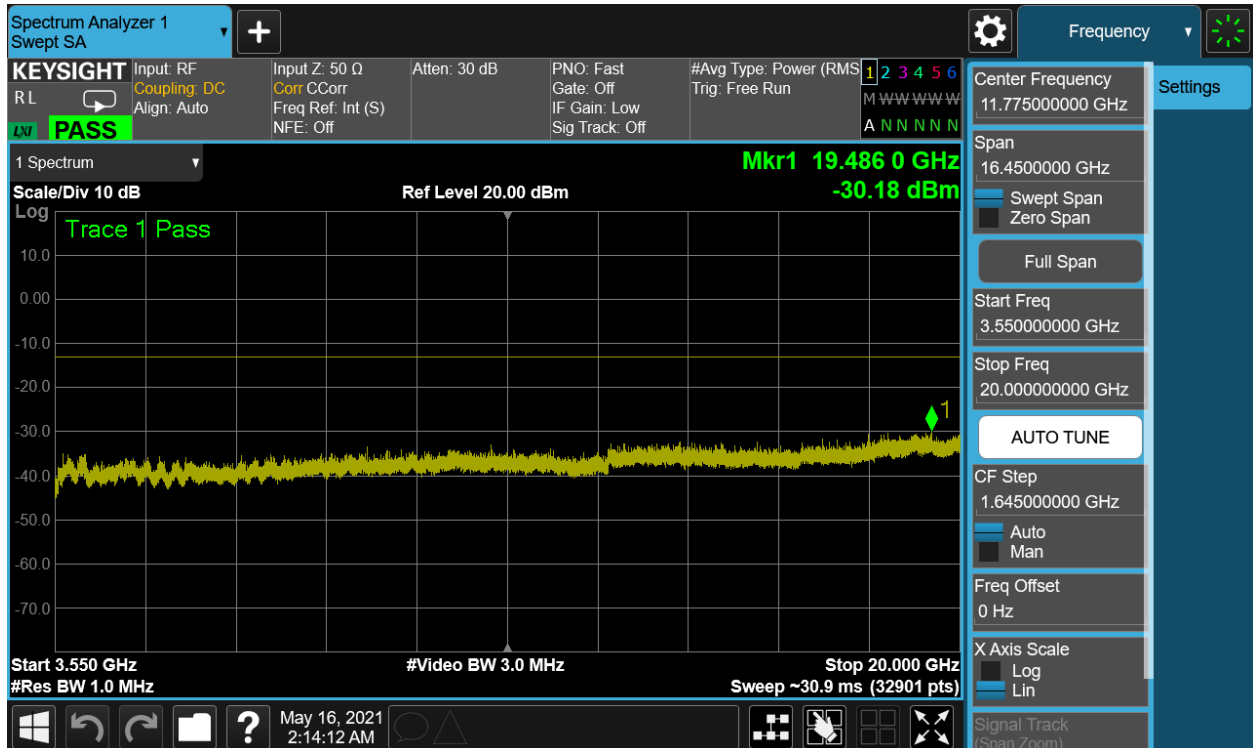
Plot 7-63 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 136 - High Channel)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20-A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 53 of 161                    |

## NR Band n77 (PC2) – DoD-Band – SRS-1

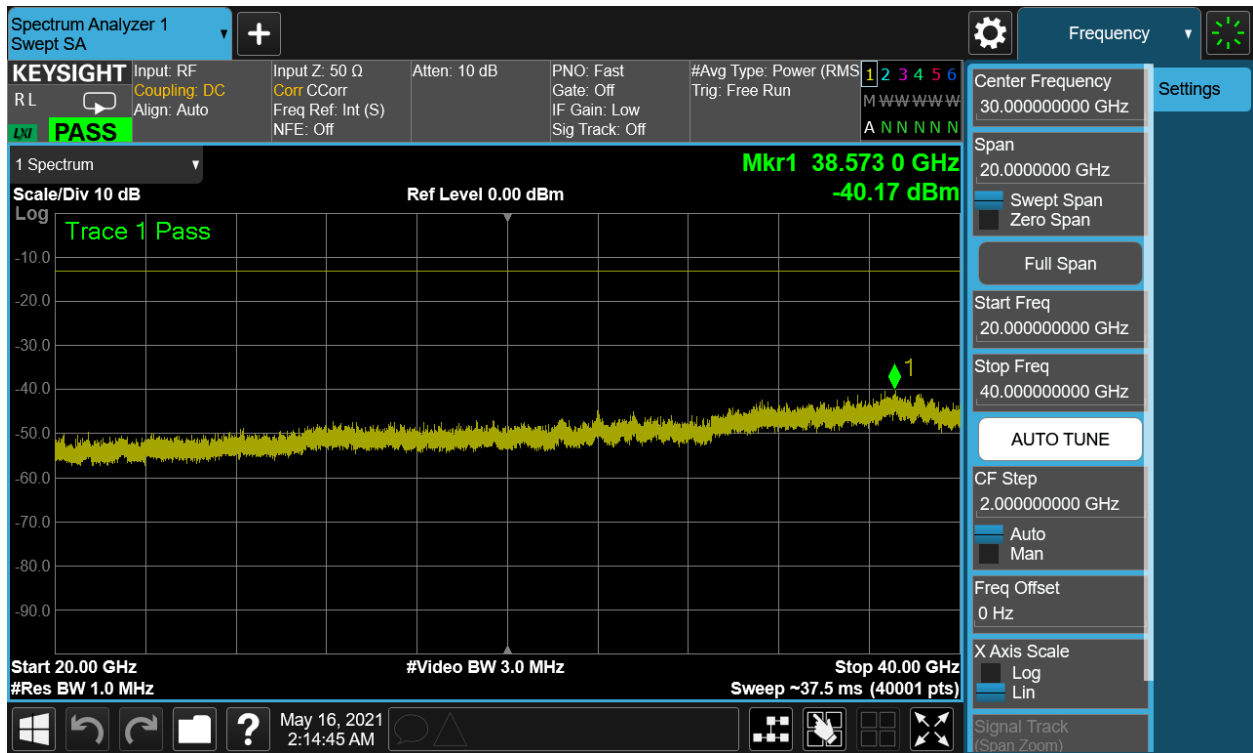


Plot 7-64 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 136 - Mid Channel)



Plot 7-65 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 136 - Mid Channel)

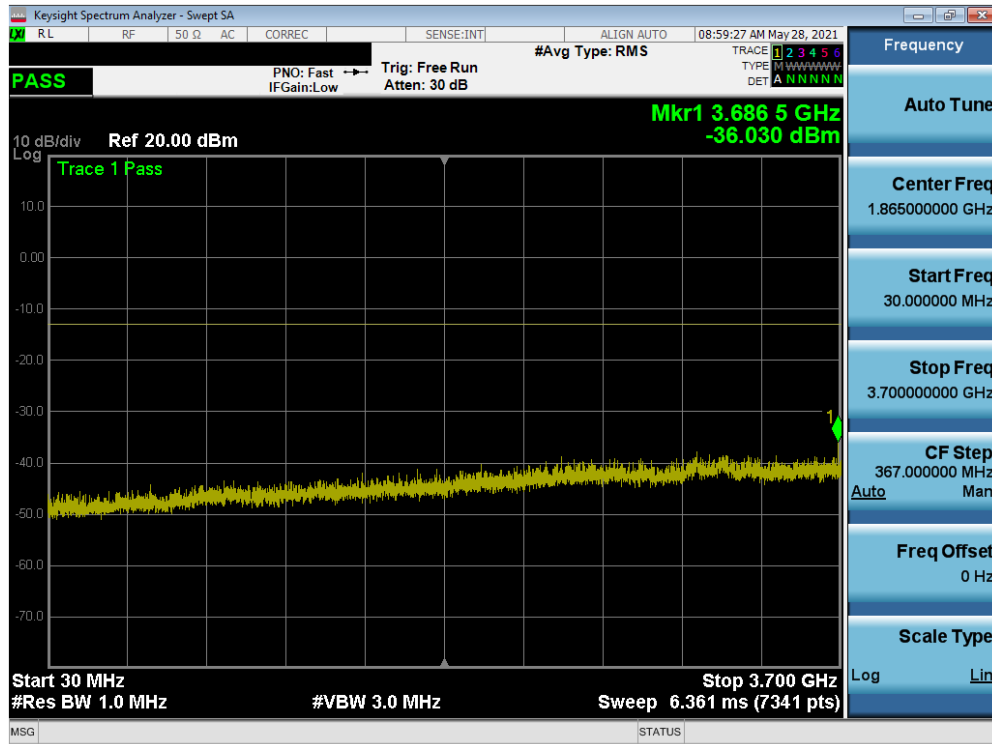
|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 54 of 161                    |



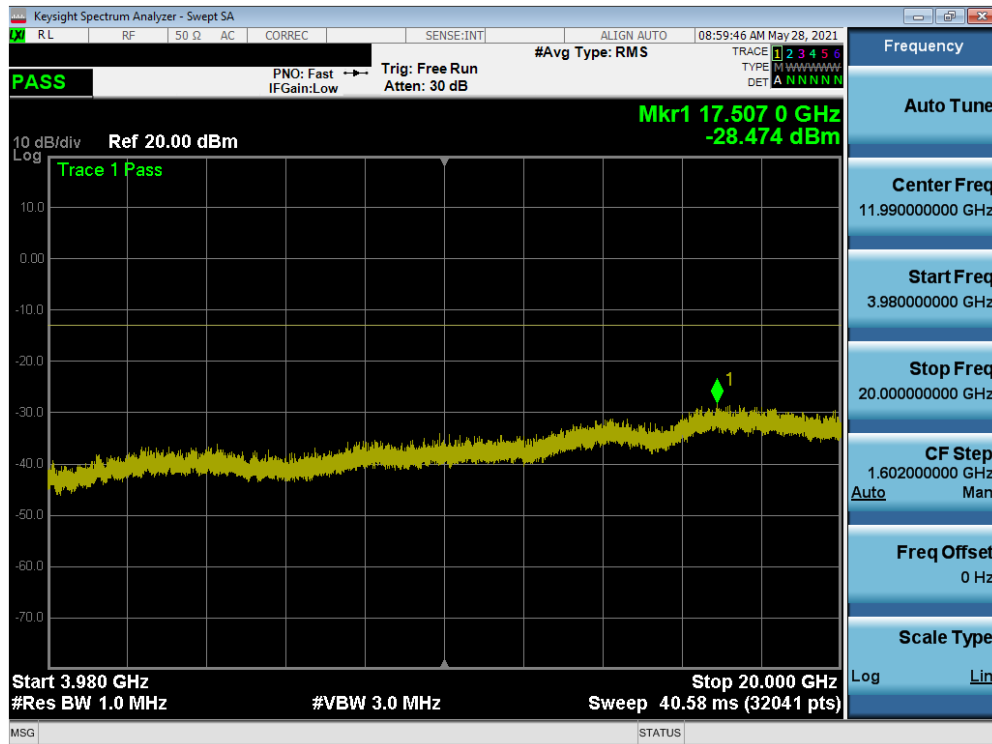
Plot 7-66 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 136 - Mid Channel)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20-A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 55 of 161                    |

## NR Band n77 (PC2) – C-Band – SRS-2

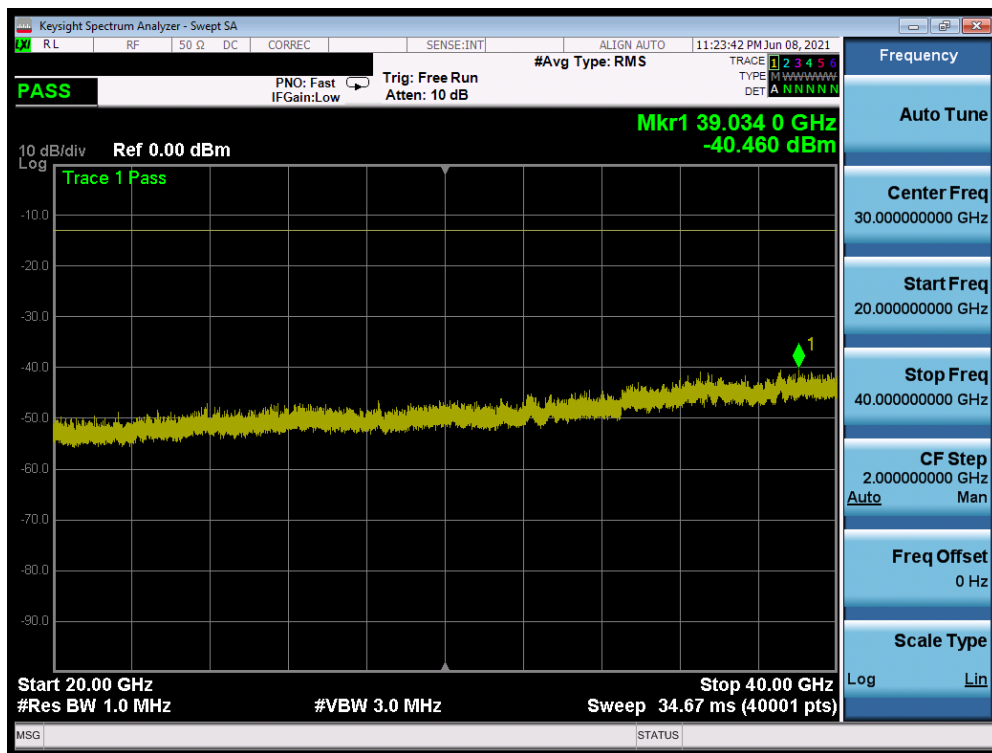


Plot 7-67. Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Low Channel)

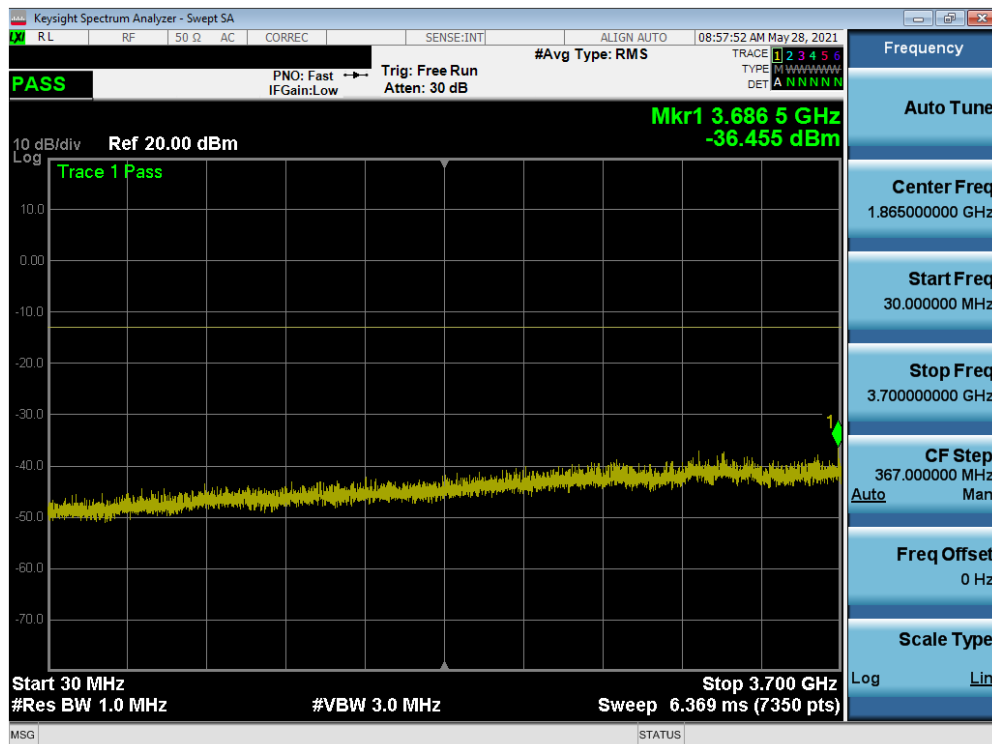


Plot 7-68 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Low Channel)

|                                         |                                              |                               |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |                | Page 56 of 161                    |

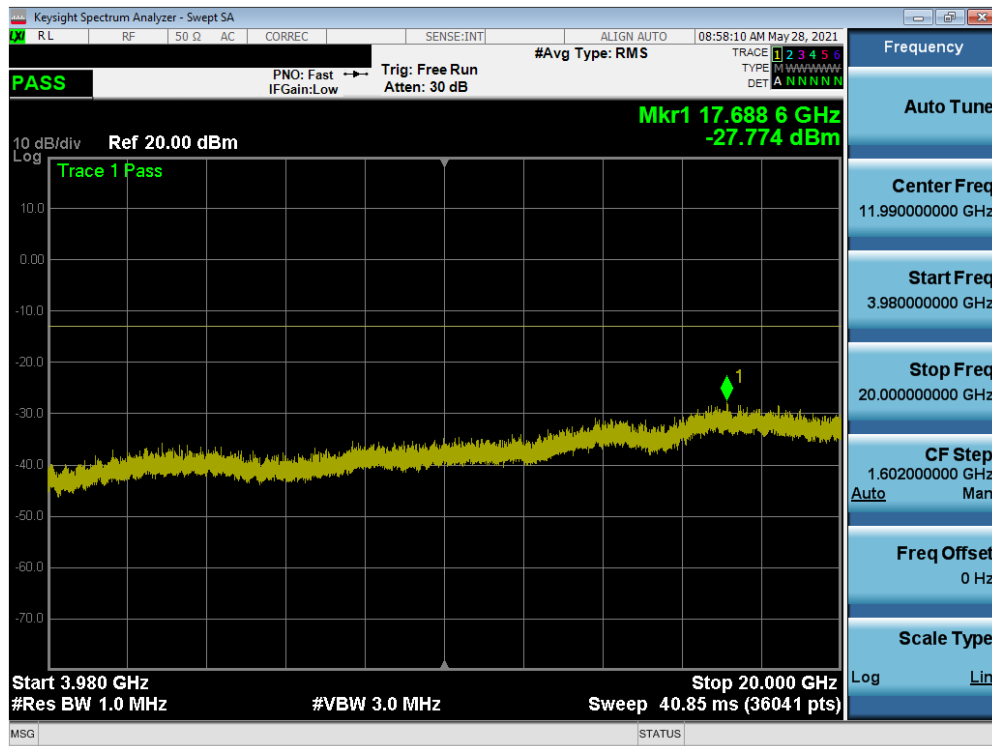


Plot 7-69 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Low Channel)

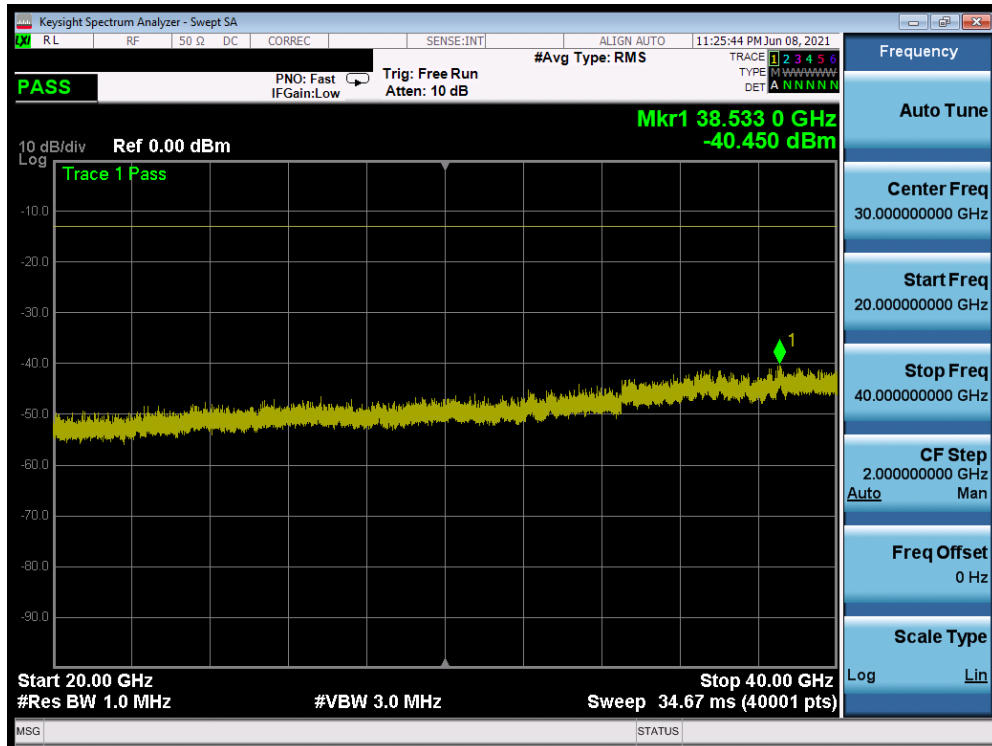


Plot 7-70 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 57 of 161                    |

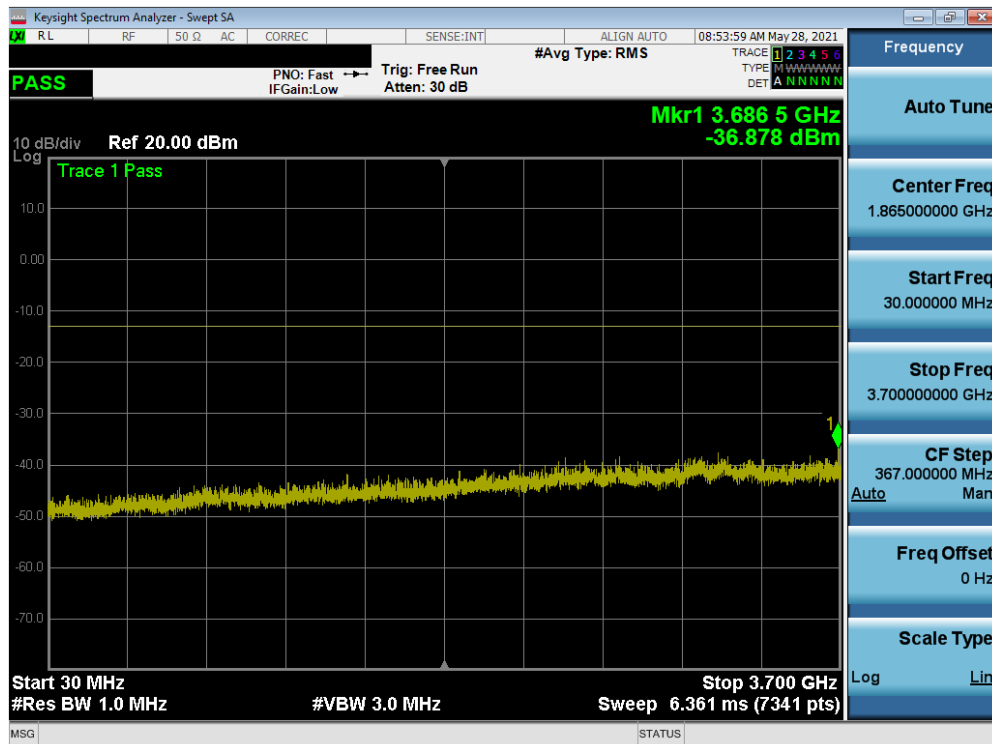


Plot 7-71 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

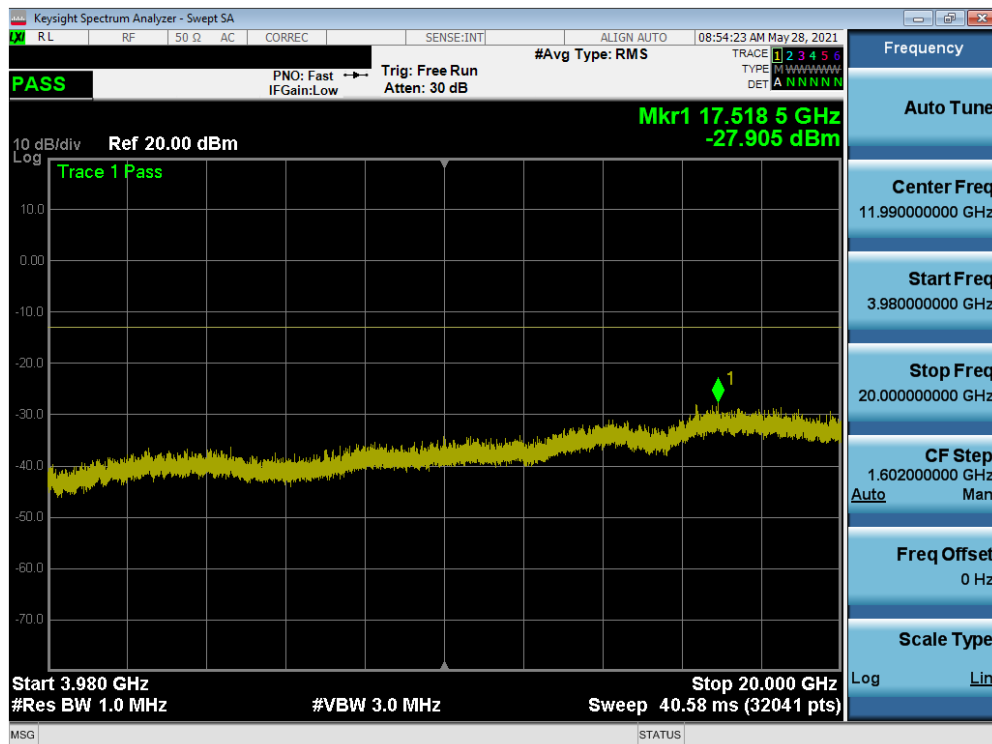


Plot 7-72 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

|                                         |                                              |                               |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |                | Page 58 of 161                    |

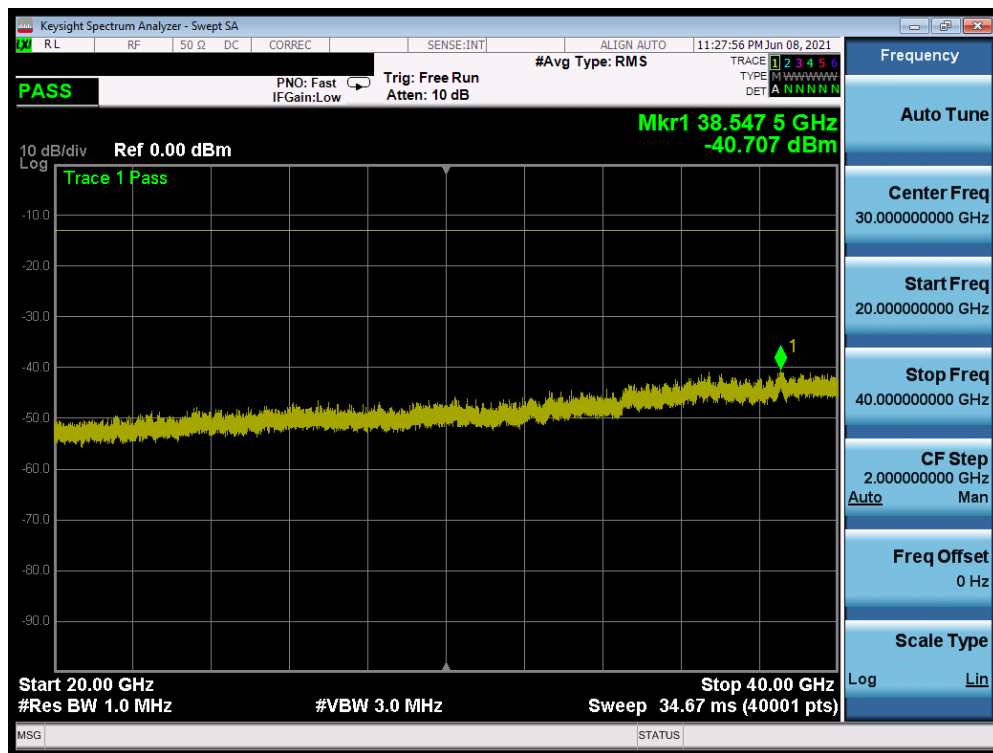


Plot 7-73 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - High Channel)



Plot 7-74 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - High Channel)

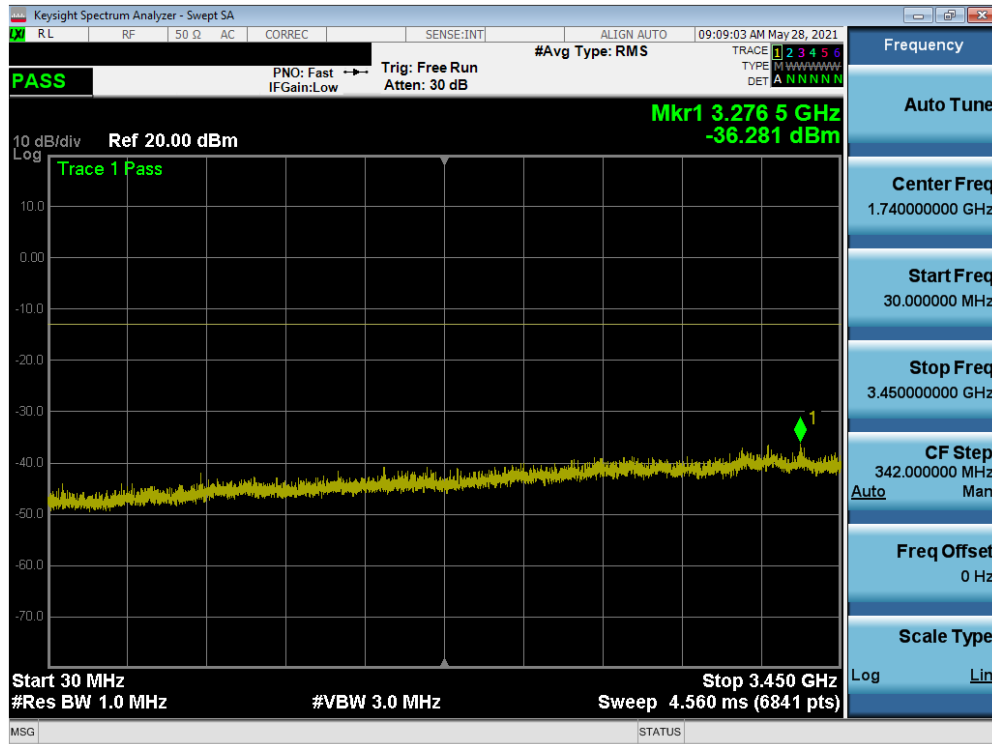
|                                         |                                              |                               |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |                | Page 59 of 161                    |



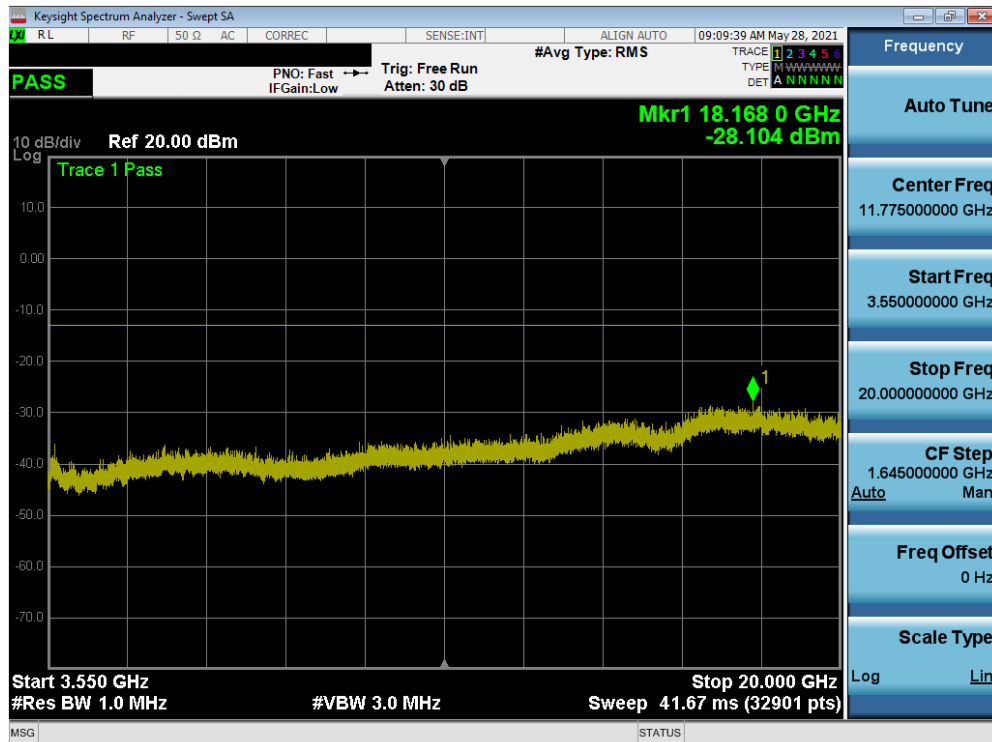
Plot 7-75 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - High Channel)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20-A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 60 of 161                    |

## NR Band n77 (PC2) – DoD-Band – SRS-2

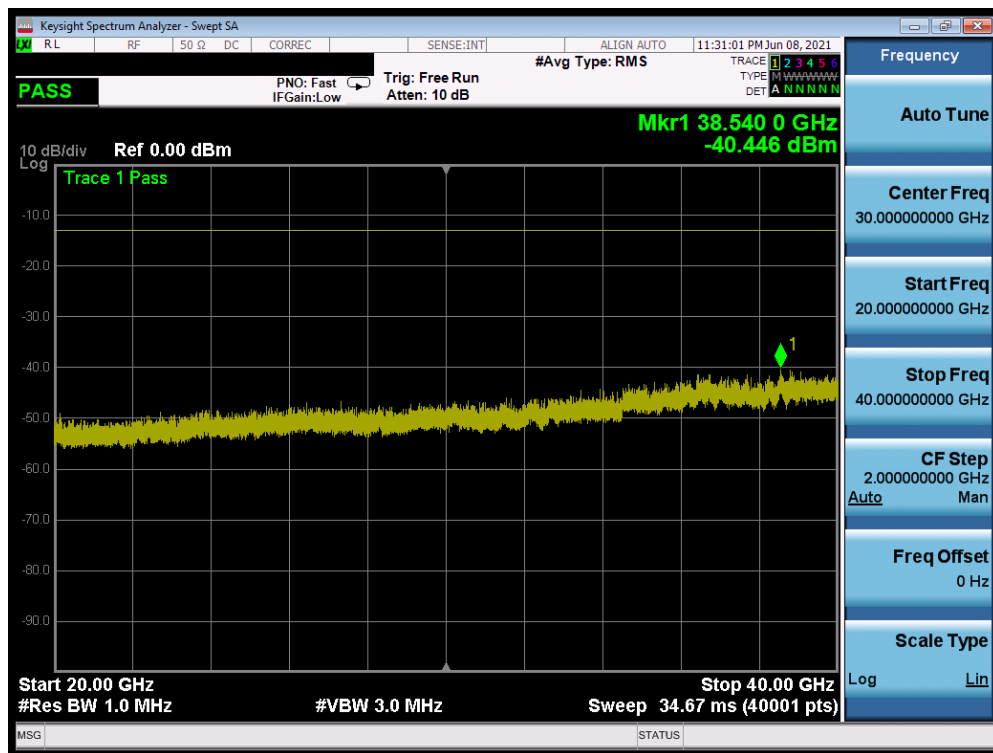


Plot 7-76 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)



Plot 7-77 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

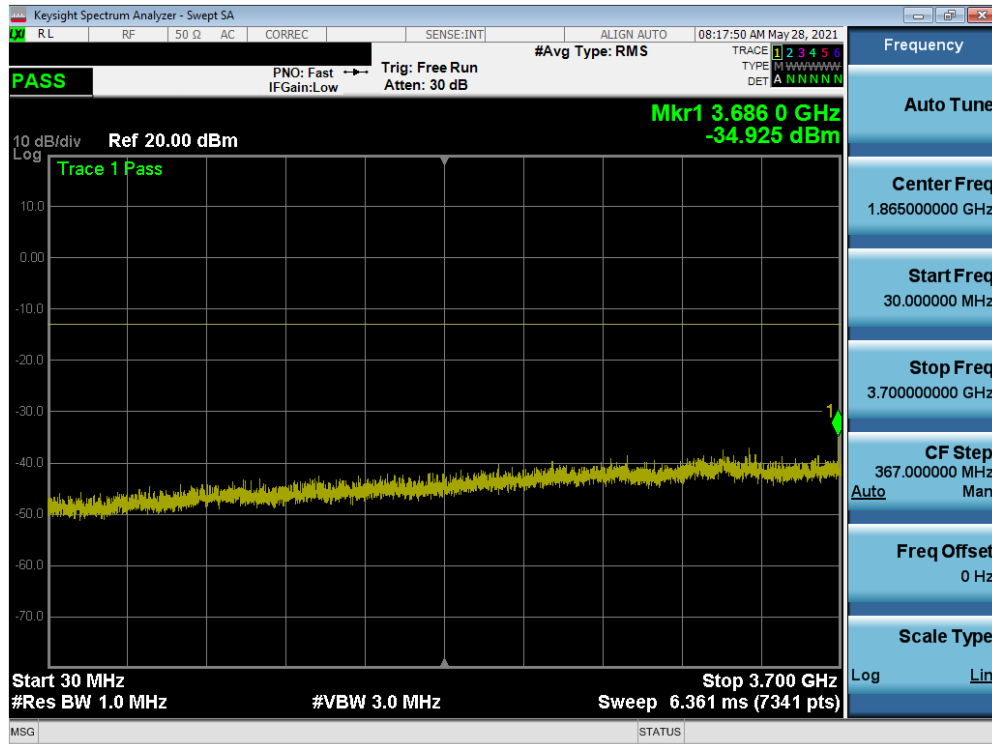
|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 61 of 161                    |



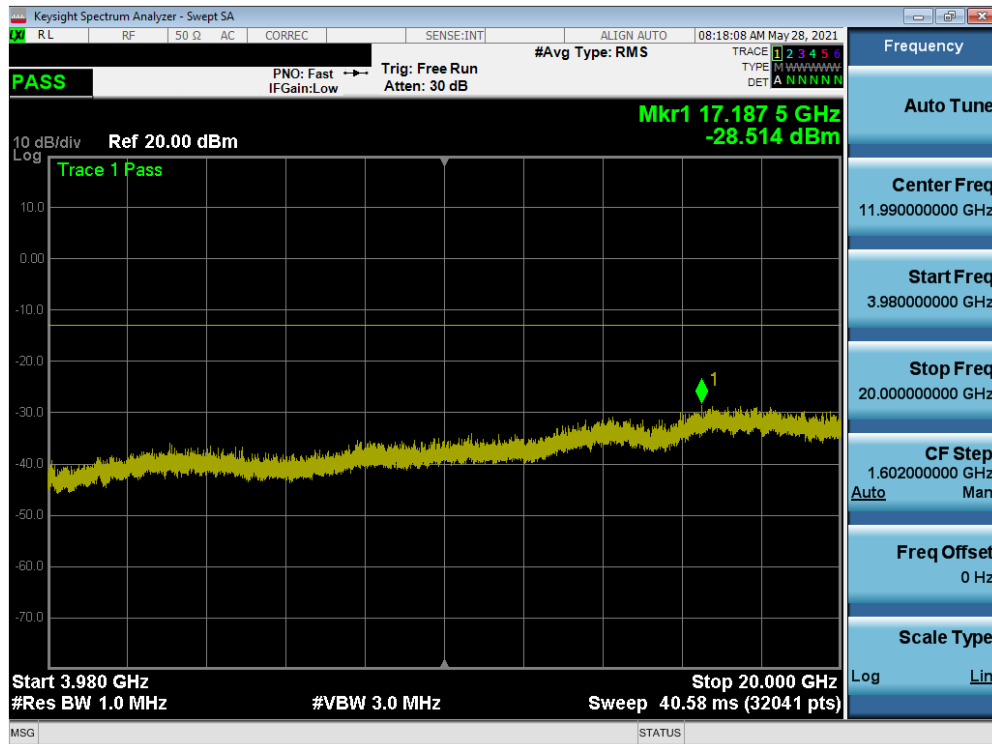
Plot 7-78 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20-A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 62 of 161                    |

## NR Band n77 (PC2) – C-Band – SRS-3

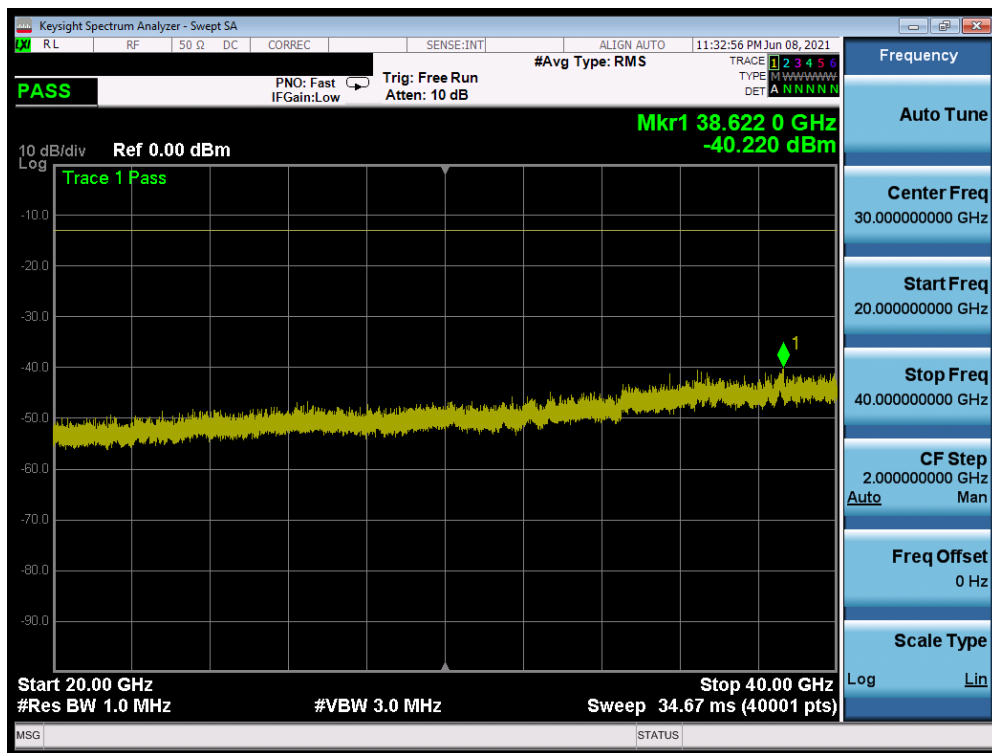


Plot 7-79. Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Low Channel)

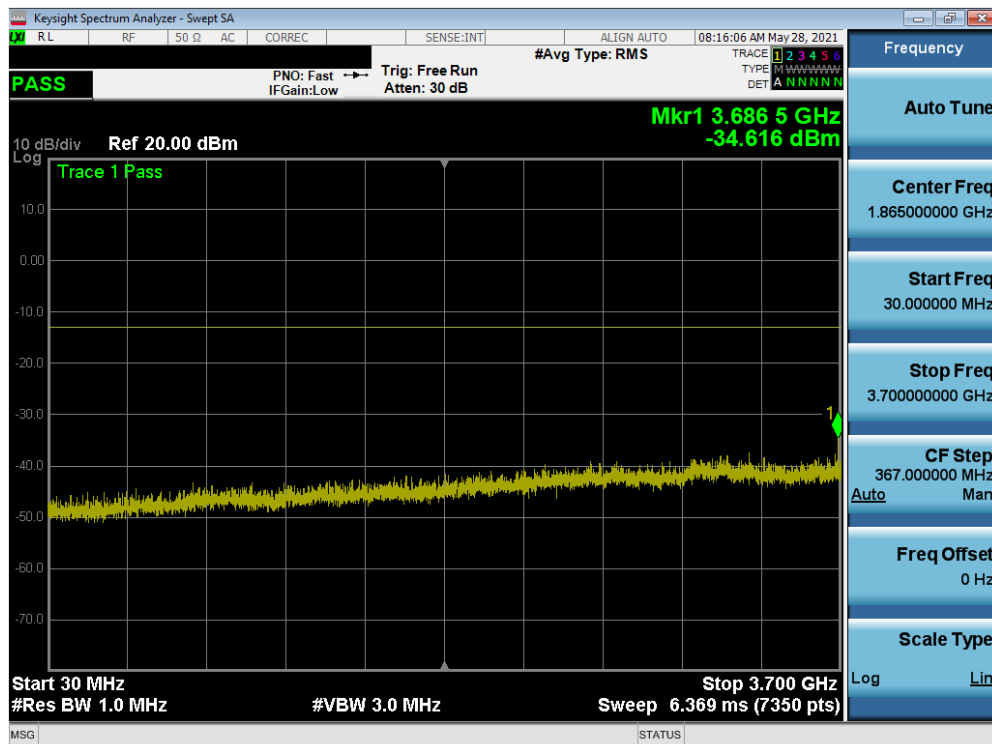


Plot 7-80 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Low Channel)

|                                         |                                              |                               |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |                | Page 63 of 161                    |

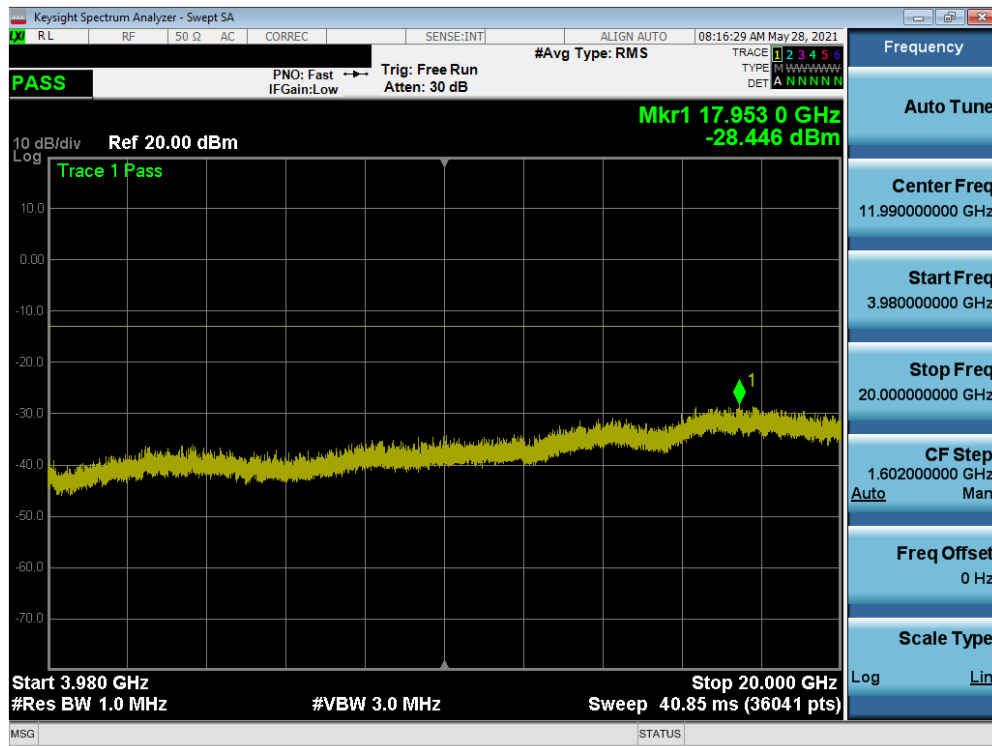


Plot 7-81 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Low Channel)

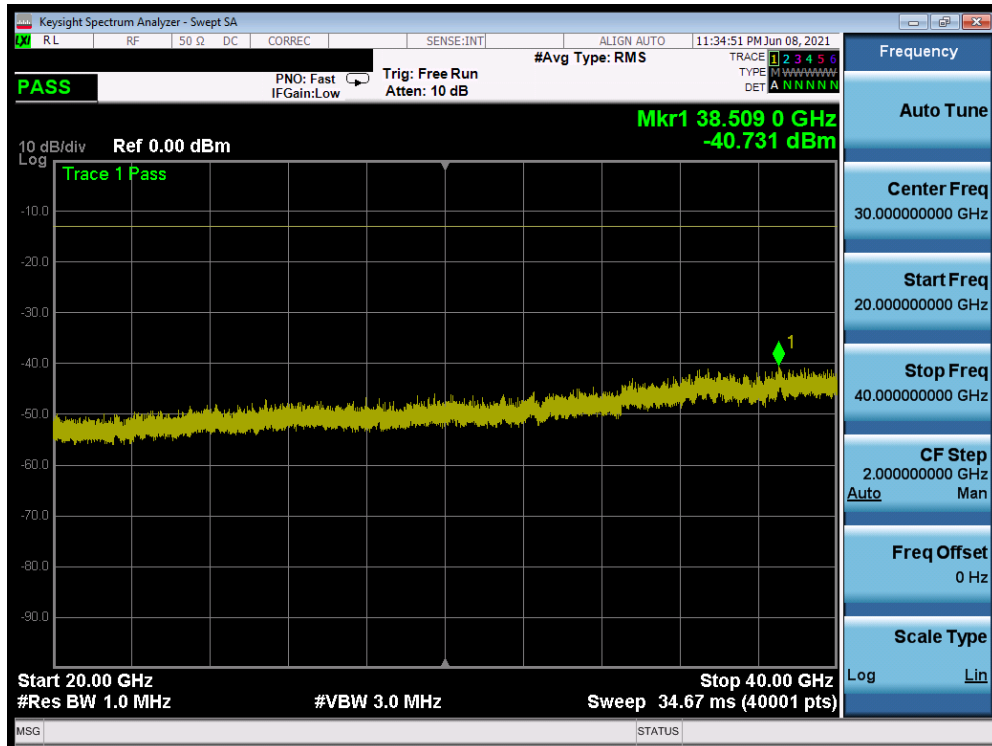


Plot 7-82 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 64 of 161                    |

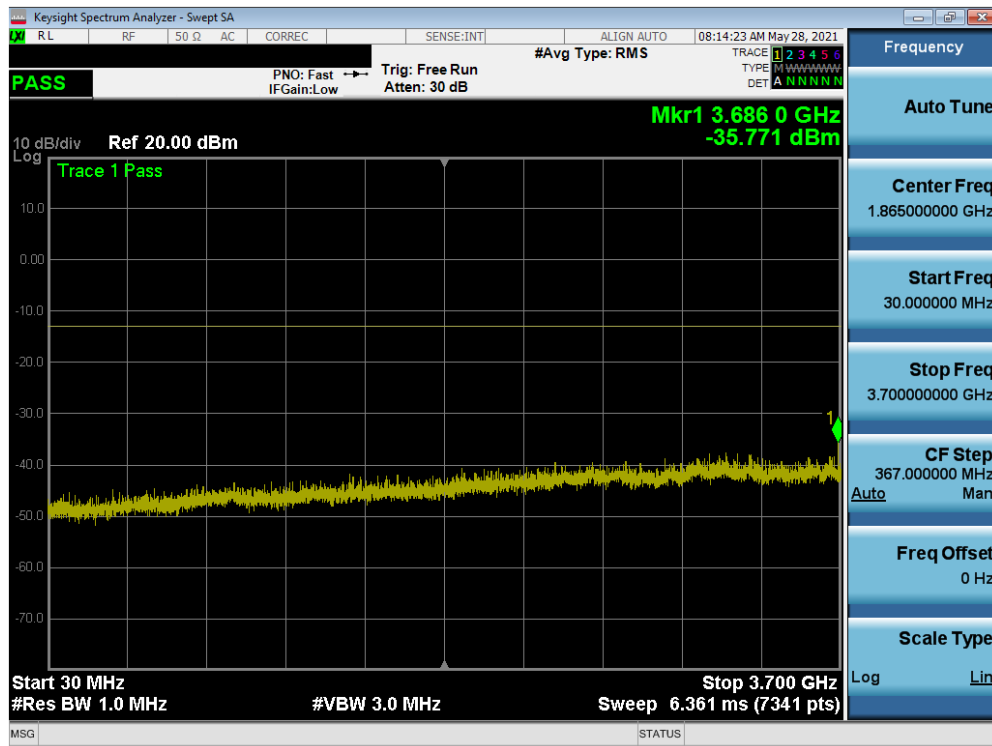


Plot 7-83 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

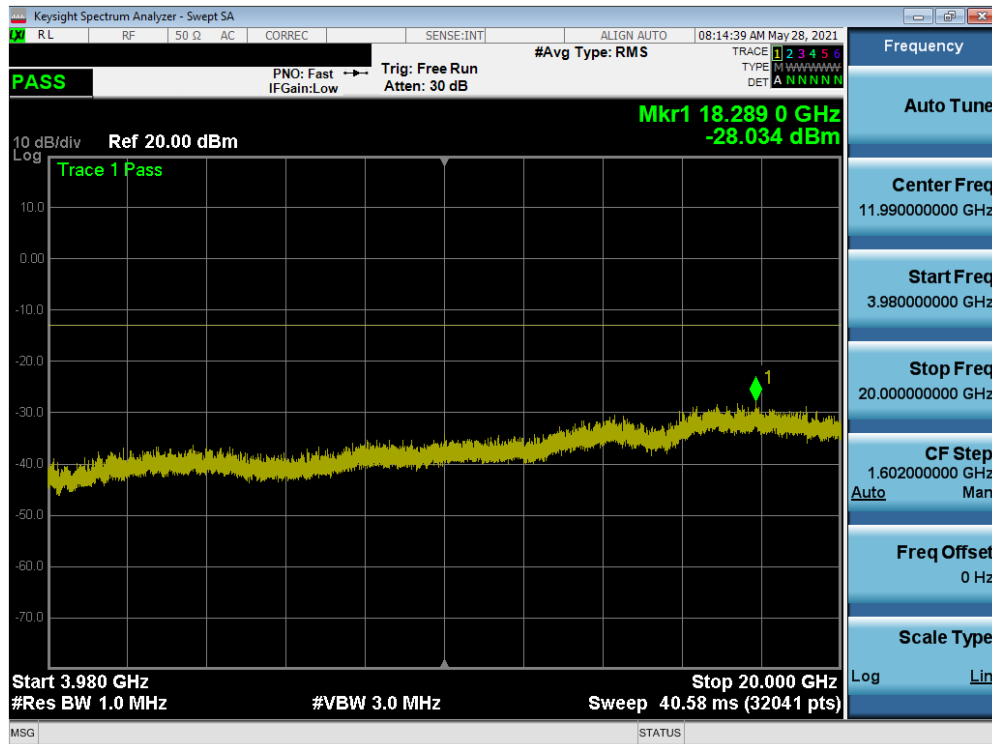


Plot 7-84 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

|                                         |                                              |                               |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |                | Page 65 of 161                    |

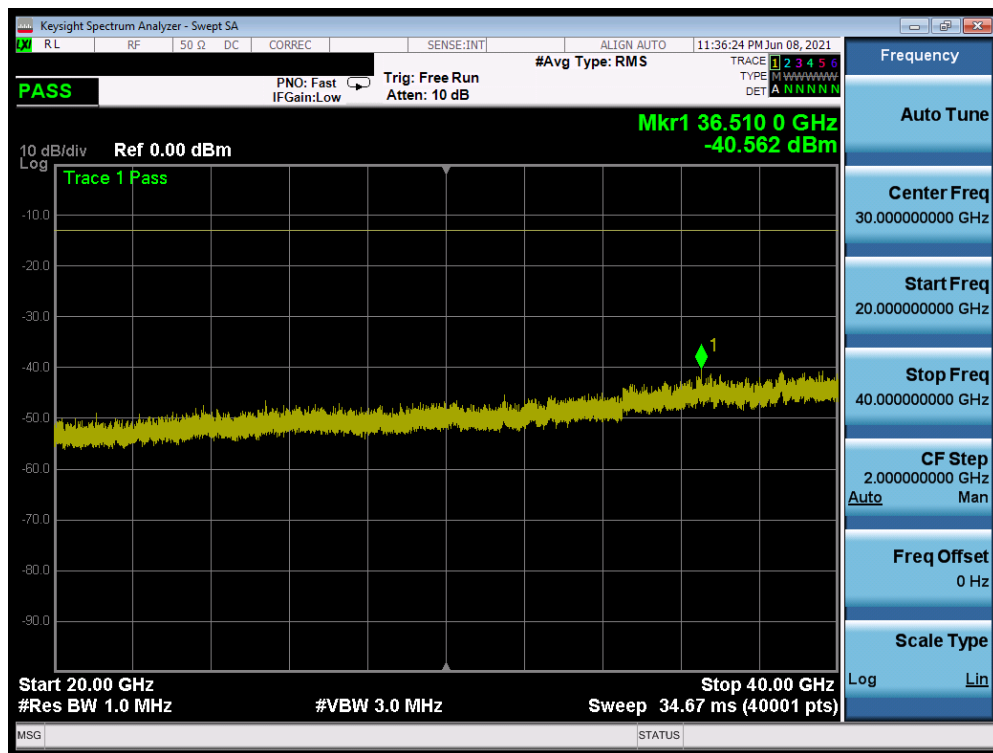


Plot 7-85 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - High Channel)



Plot 7-86 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - High Channel)

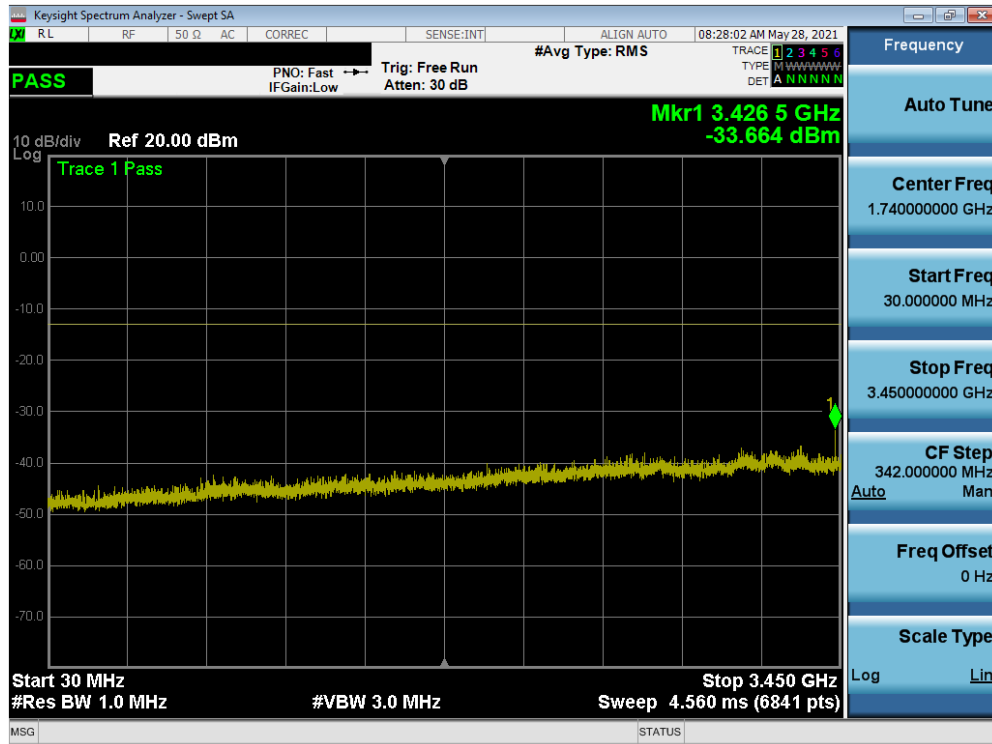
|                                         |                                              |                               |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |                | Page 66 of 161                    |



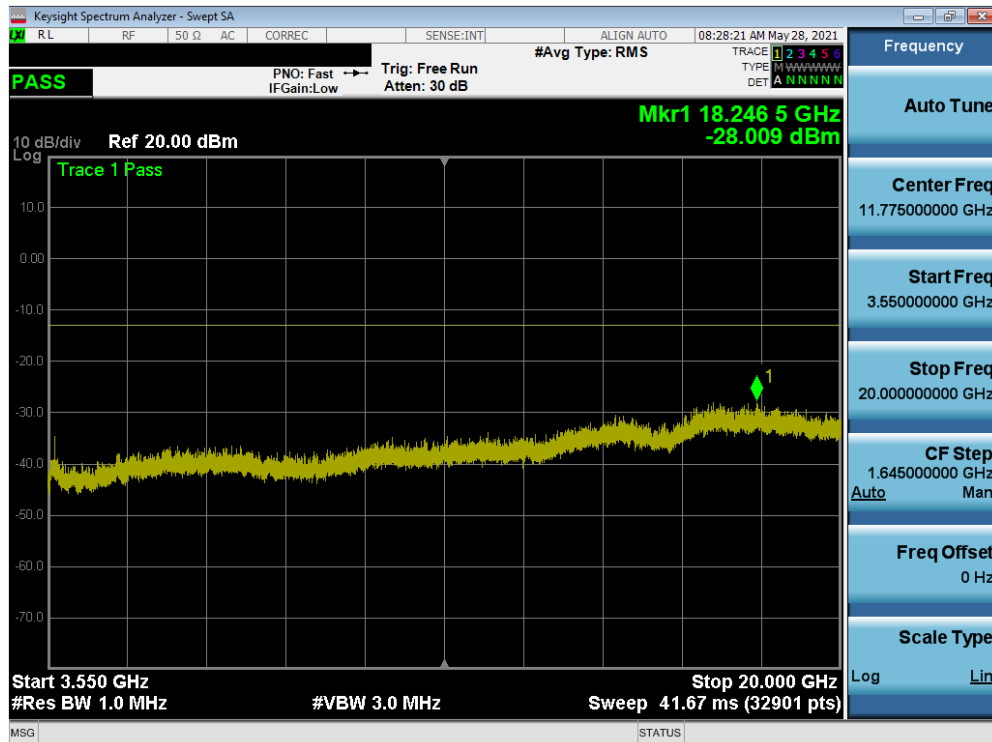
Plot 7-87 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - High Channel)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 67 of 161                    |

## NR Band n77 (PC2) – DoD-Band – SRS-3

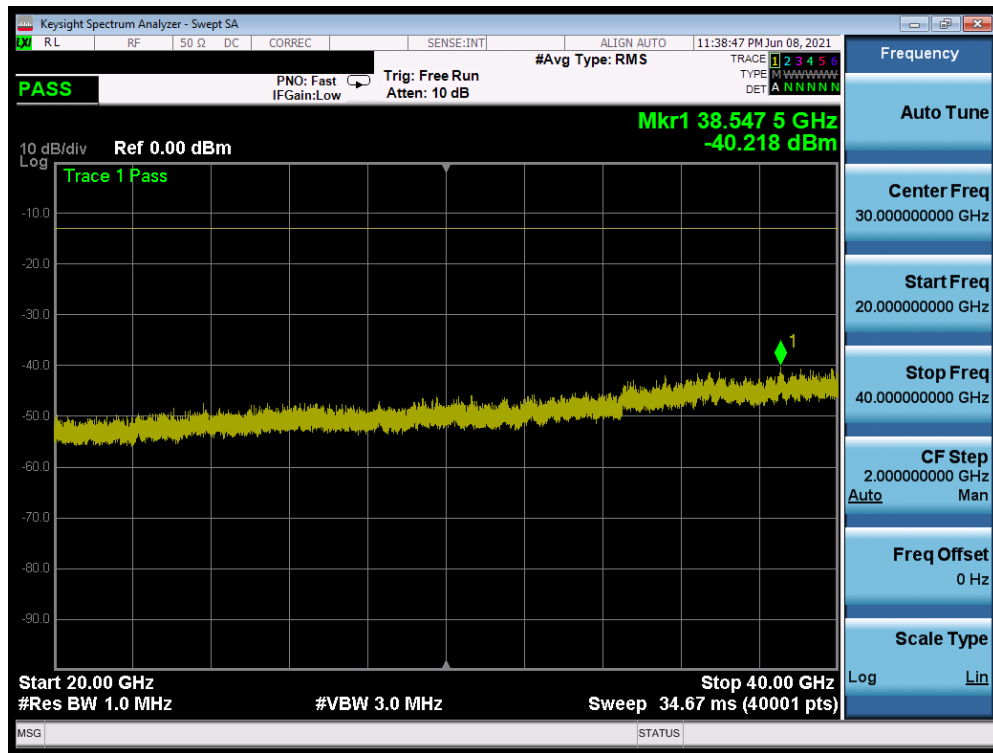


Plot 7-88 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)



Plot 7-89 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

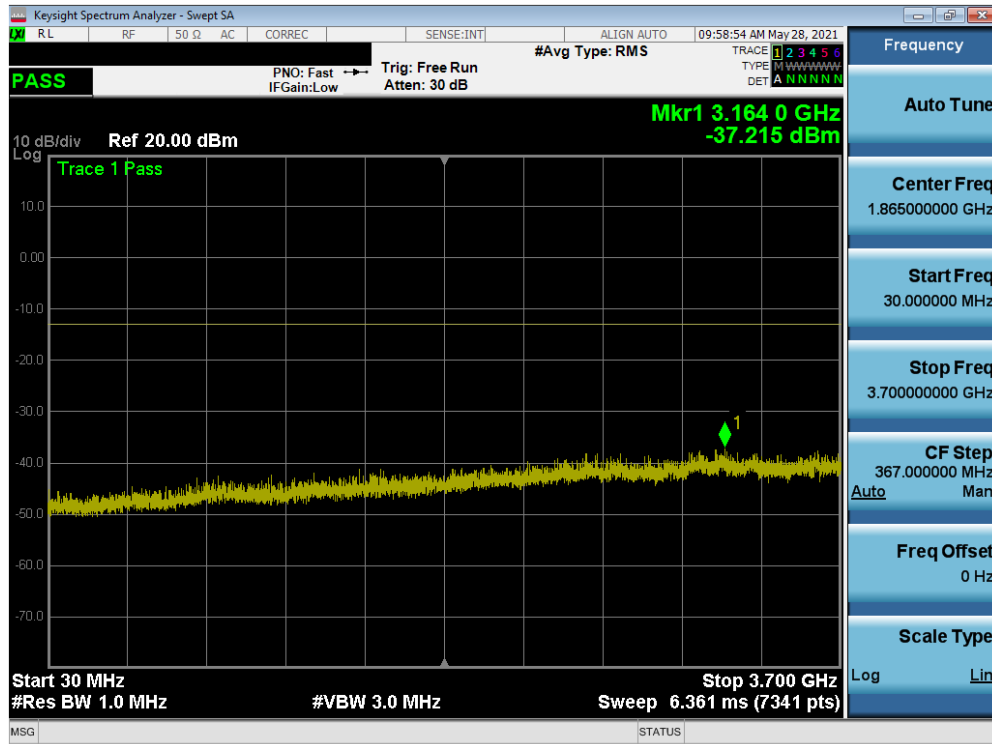
|                                         |                                              |                               |  |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|--|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    |  | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |  |                | Page 68 of 161                    |



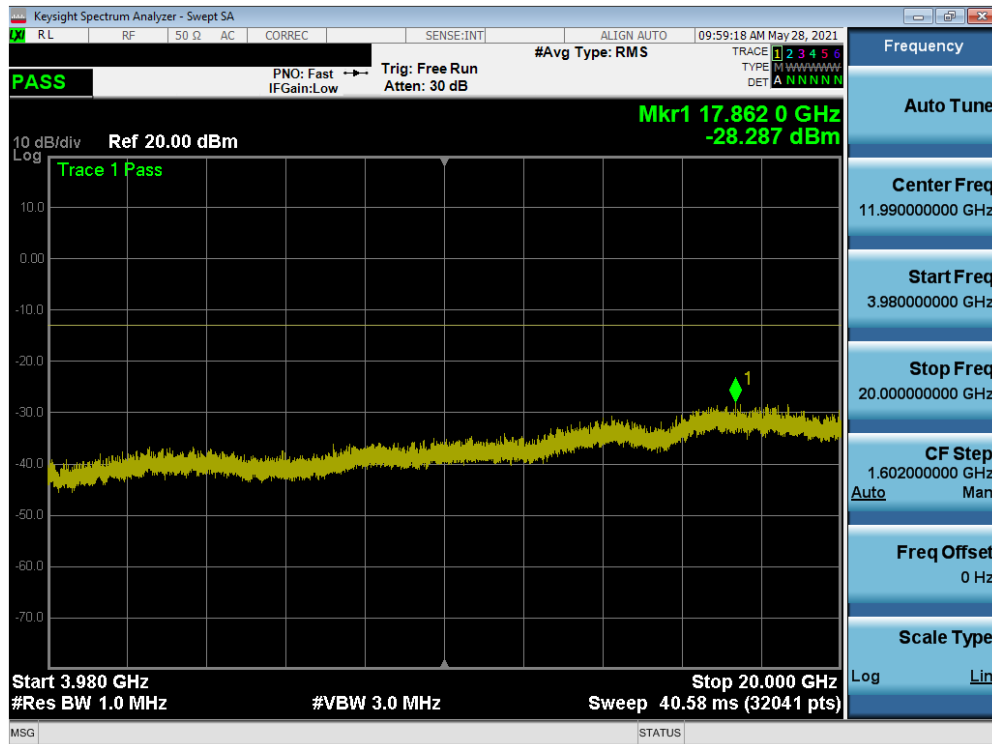
Plot 7-90 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 69 of 161                    |

## NR Band n77 (PC2) – C-Band – SRS-4

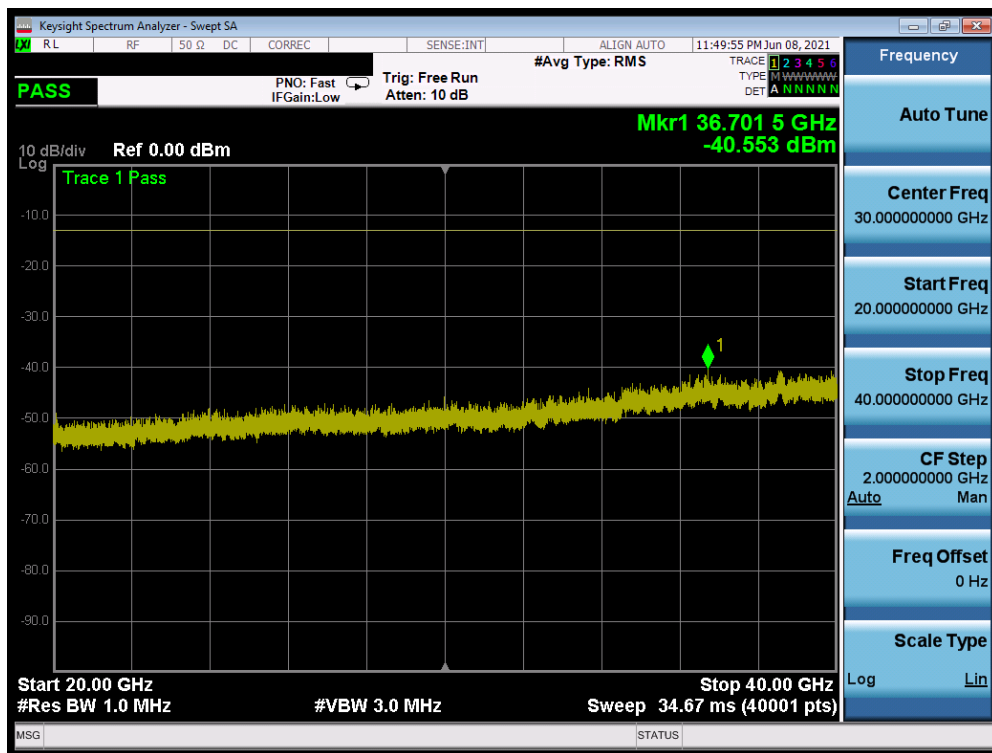


Plot 7-91. Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Low Channel)

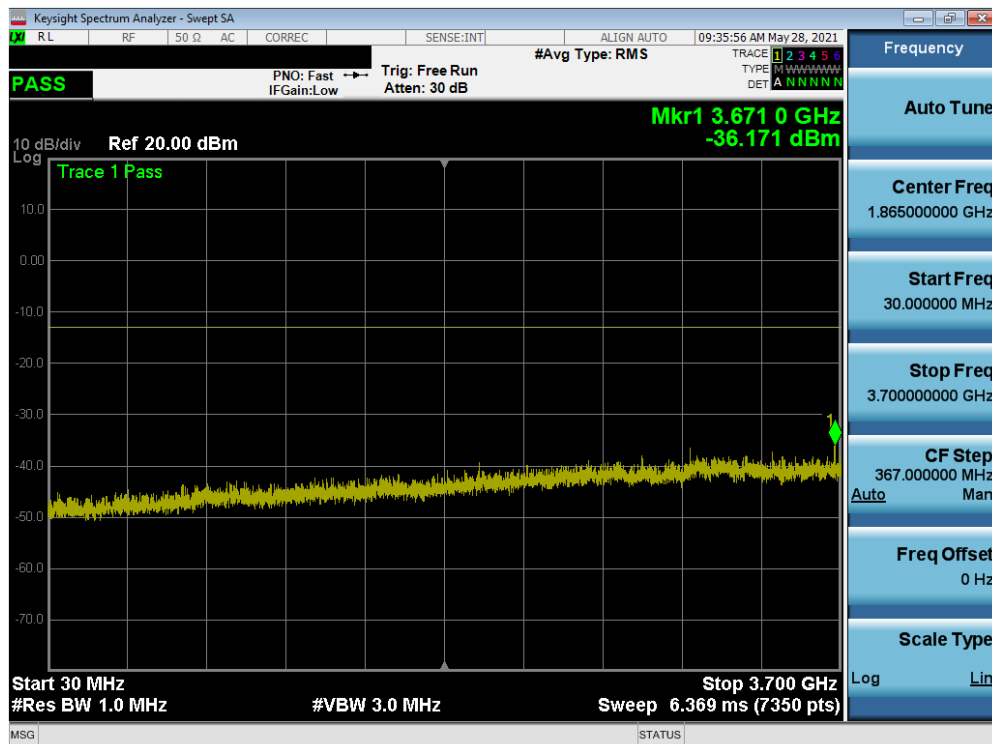


Plot 7-92 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Low Channel)

|                                         |                                              |                               |  |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|--|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    |  | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |  |                | Page 70 of 161                    |

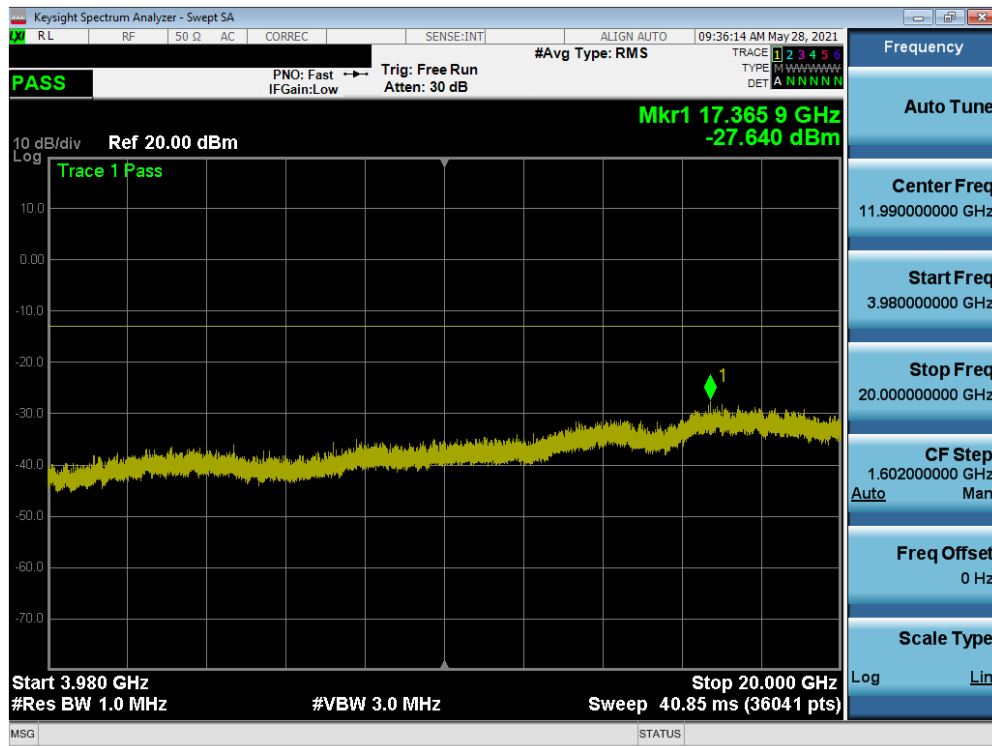


Plot 7-93 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Low Channel)

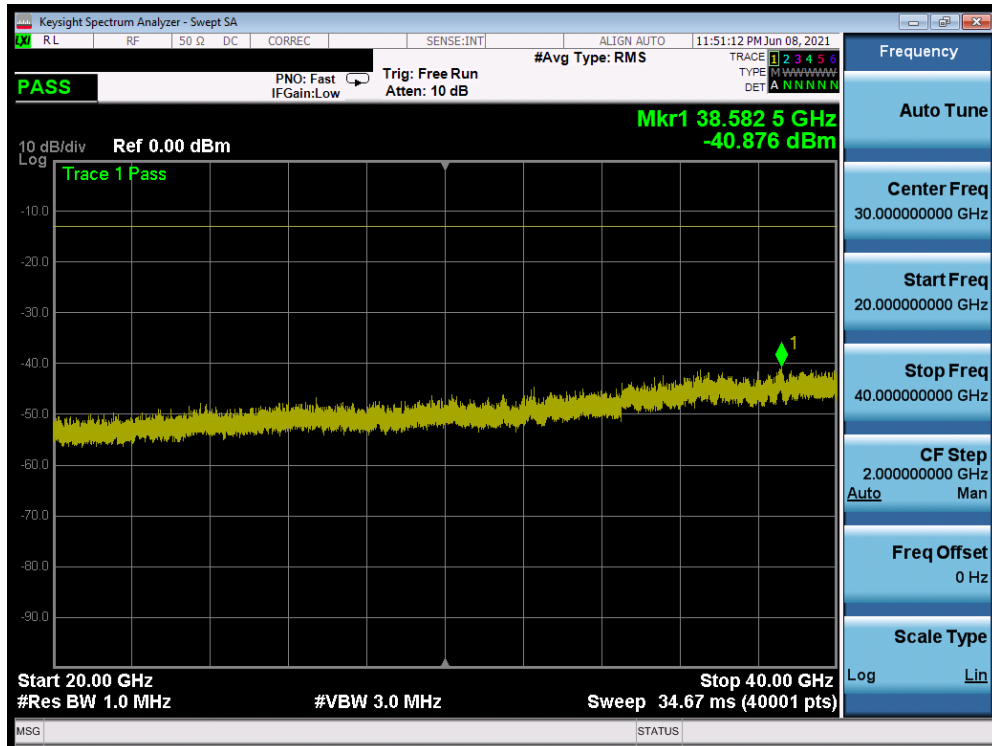


Plot 7-94 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

|                                         |                                              |                               |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |                | Page 71 of 161                    |

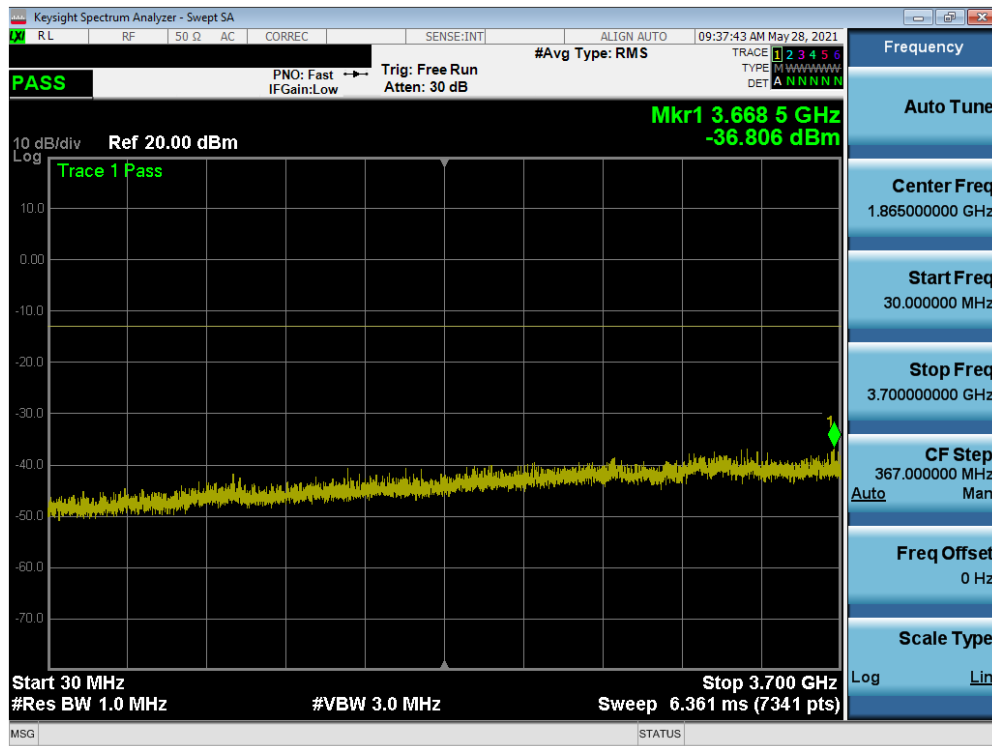


Plot 7-95 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

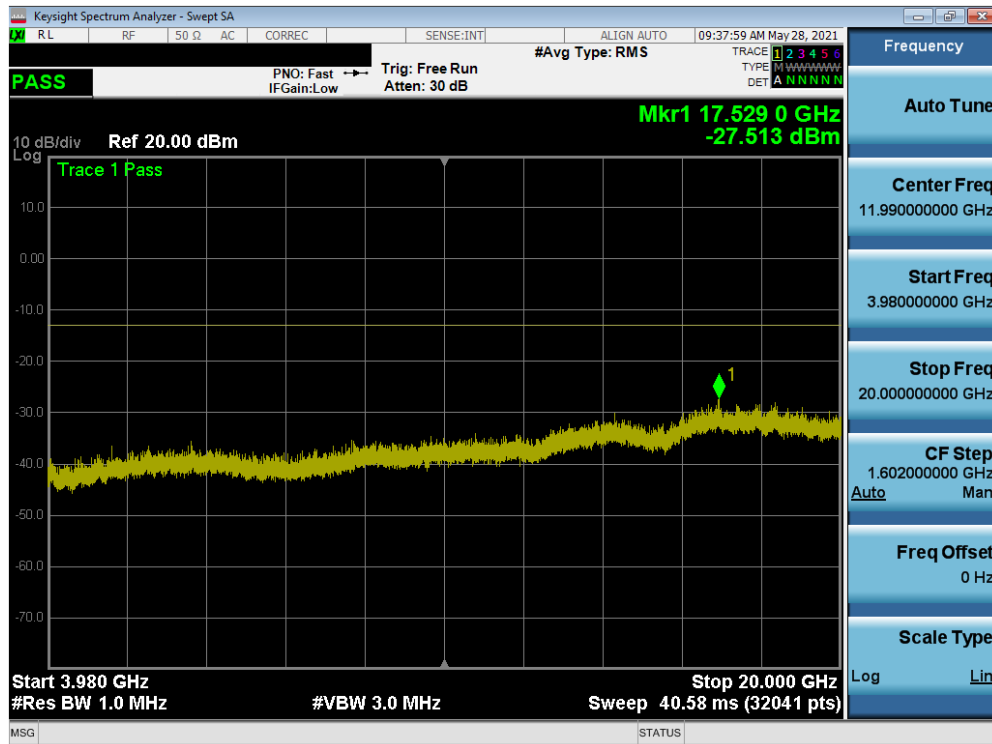


Plot 7-96 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

|                                         |                                              |                               |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |                | Page 72 of 161                    |

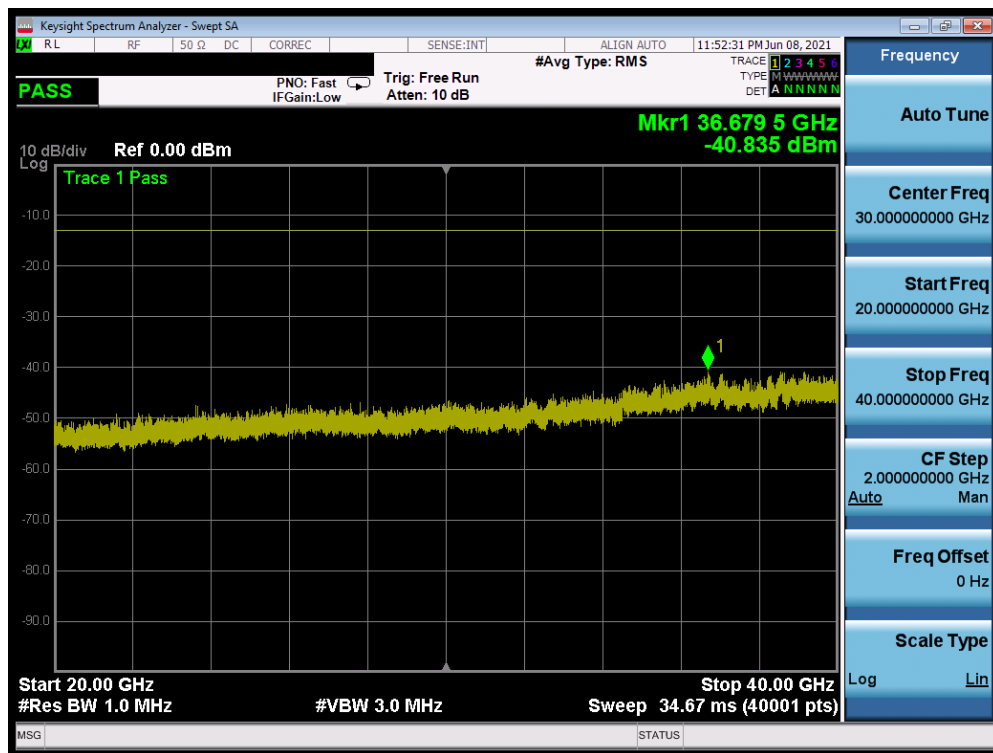


Plot 7-97 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - High Channel)



Plot 7-98 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - High Channel)

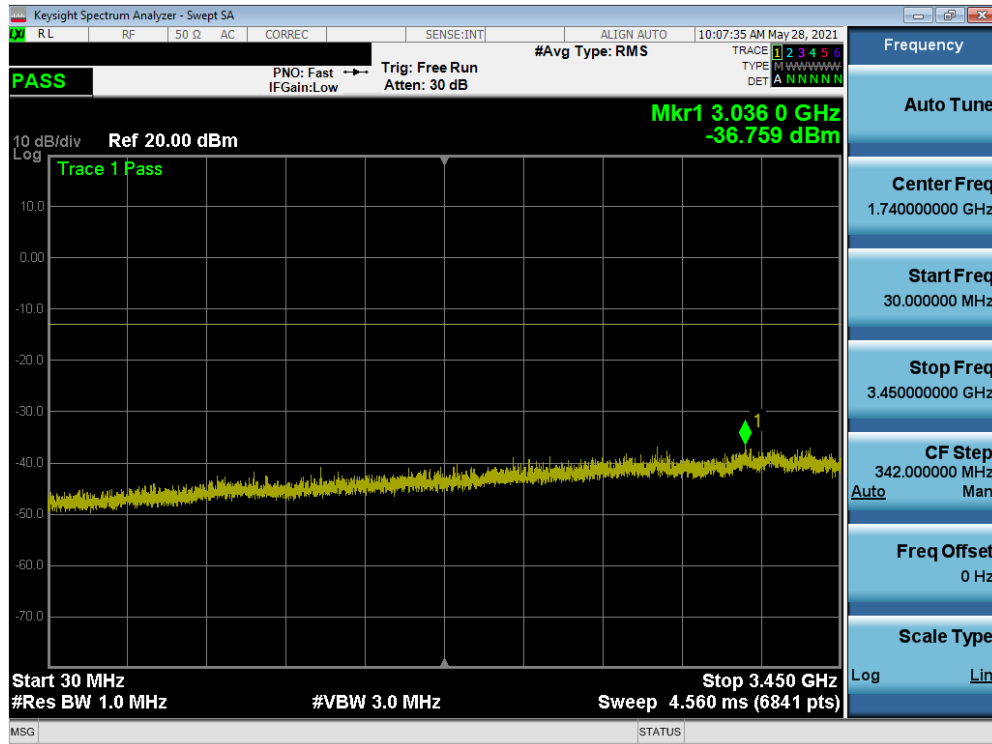
|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 73 of 161                    |



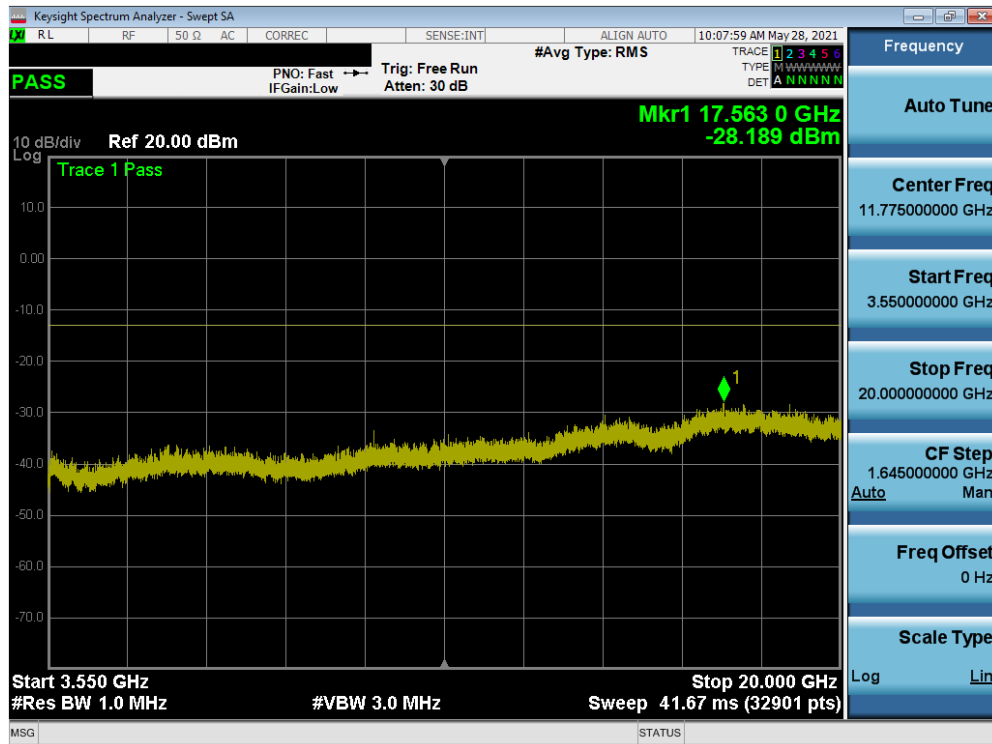
Plot 7-99 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - High Channel)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20-A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 74 of 161                    |

## NR Band n77 (PC2) – DoD-Band – SRS-4

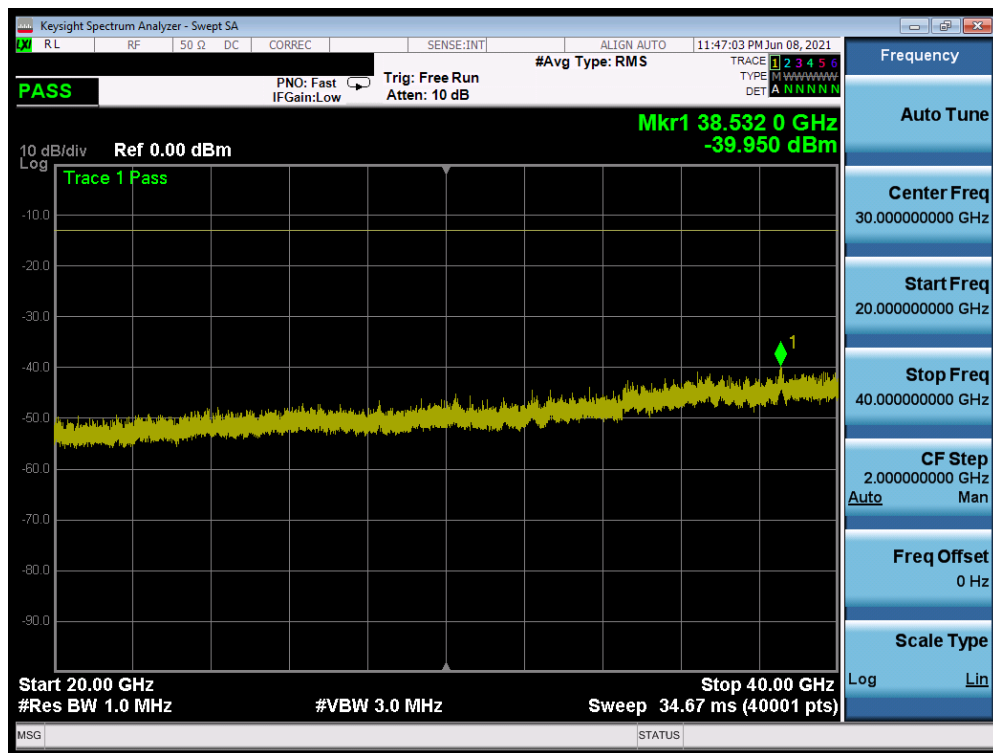


Plot 7-100 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)



Plot 7-101 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

|                                         |                                              |                               |  |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|--|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    |  | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |  |                | Page 75 of 161                    |



Plot 7-102 Conducted Spurious Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 136 - Mid Channel)

|                                         |                                                                                                                                                                                                             |                               |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     |  <b>PART 27 MEASUREMENT REPORT</b>  |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021                                                                                                                                                                         | EUT Type:<br>Portable Handset | Page 76 of 161                    |

## 7.5 Band Edge Emissions at Antenna Terminal

### Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

***The conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz.***

### Test Procedure Used

KDB 971168 D01 v03r01 – Section 6.0

### Test Settings

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

### Test Setup

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



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

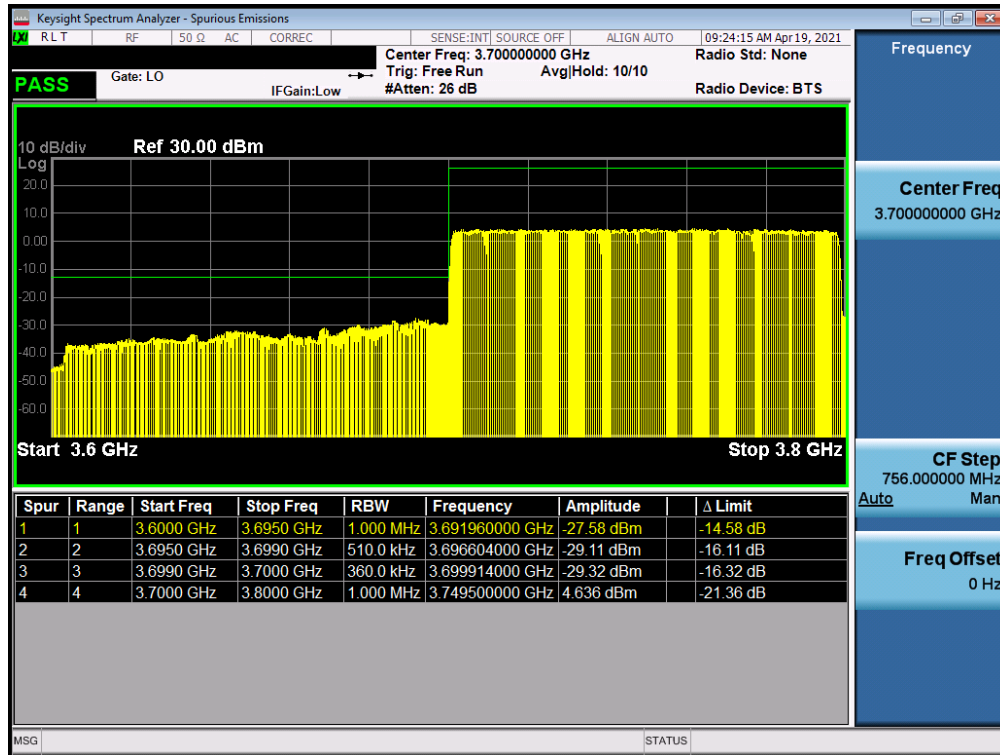
|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 77 of 161                    |

## Test Notes

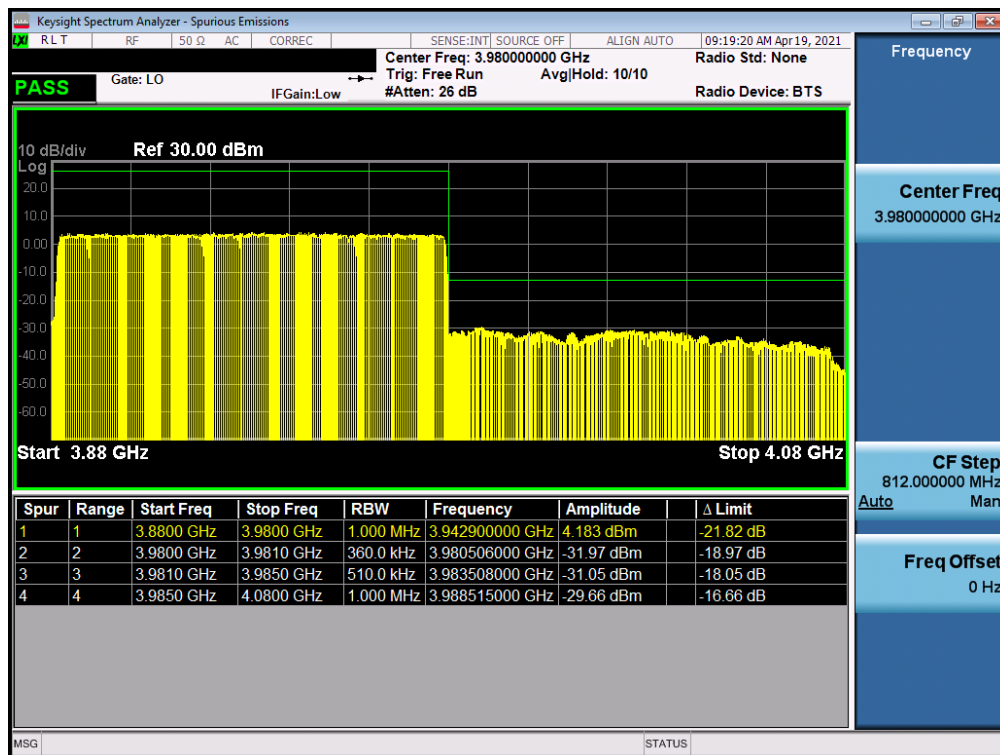
1. For 3700-3980 MHz operation, per 27.53(l)(2), in the 1 MHz bands immediately outside and adjacent to the frequency block, a minimum resolution bandwidth of either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz may be employed to demonstrate compliance with the out-of-band emissions limit. In the bands between 1 and 5 MHz removed from the frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
2. For 3450-3550 MHz operation, per 27.53(n)(2), in the 1 MHz bands immediately outside and adjacent to the frequency block, a minimum resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter, but limited to a maximum of 200 kHz, may be employed to demonstrate compliance with the out-of-band emissions limit. In the bands between 1 and 5 MHz removed from the frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as in Test Note #1 above.
3. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results were determined to occur with the CP-OFDM transmission scheme. These results from this worst case configuration are reported in this section.

|                                         |                                                                                                                                                                                                             |                               |                                   |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     |  <b>PART 27 MEASUREMENT REPORT</b>  |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021                                                                                                                                                                         | EUT Type:<br>Portable Handset | Page 78 of 161                    |

## NR Band n77 (PC2) – C-Band – SRS-1

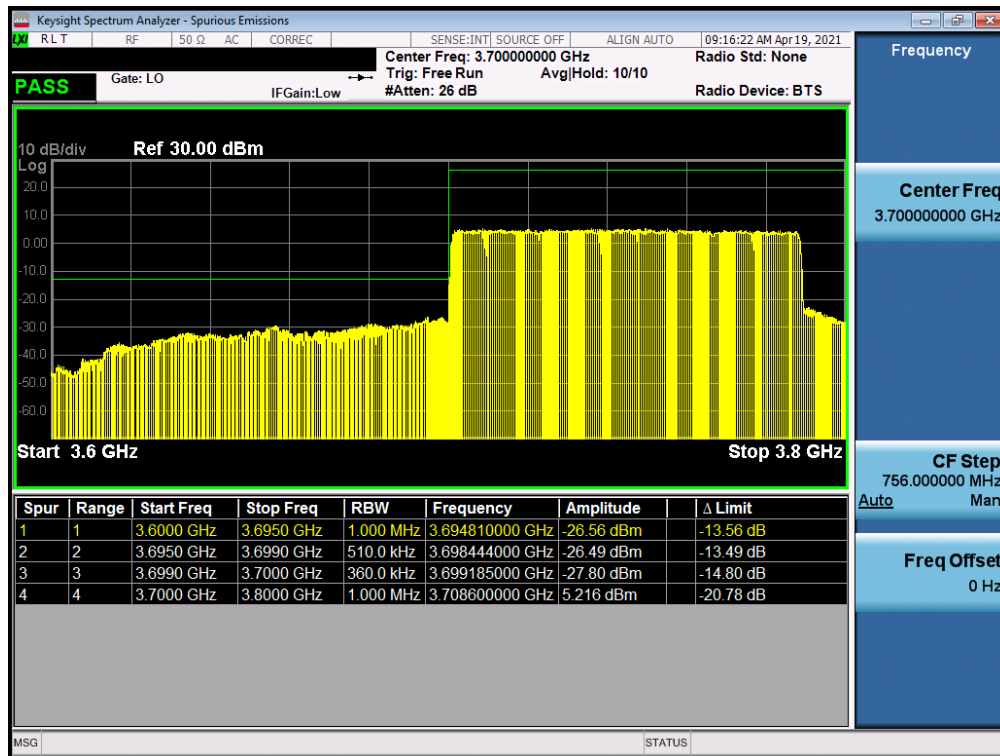


Plot 7-103. Lower Band Edge Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

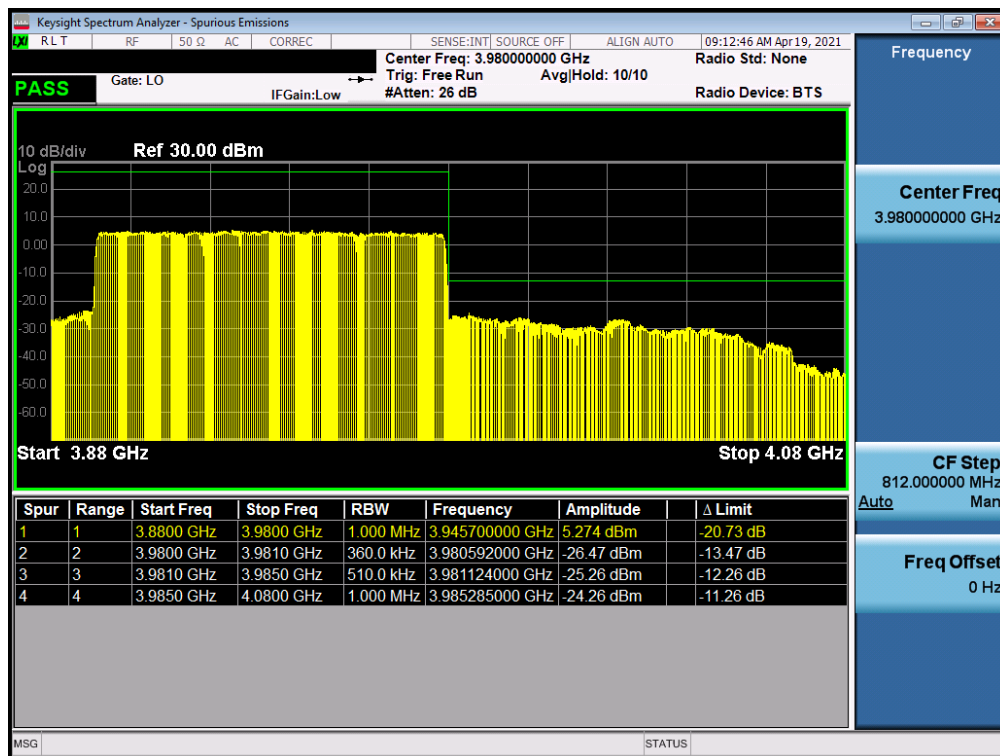


Plot 7-104. Upper Band Edge Plot (NR Band n77 PC2 - 100MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

|                                         |                                                                                                                                                                                                                                 |                               |                                   |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <div><b>PART 27 MEASUREMENT REPORT</b><div></div></div> |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021                                                                                                                                                                                             | EUT Type:<br>Portable Handset | Page 79 of 161                    |

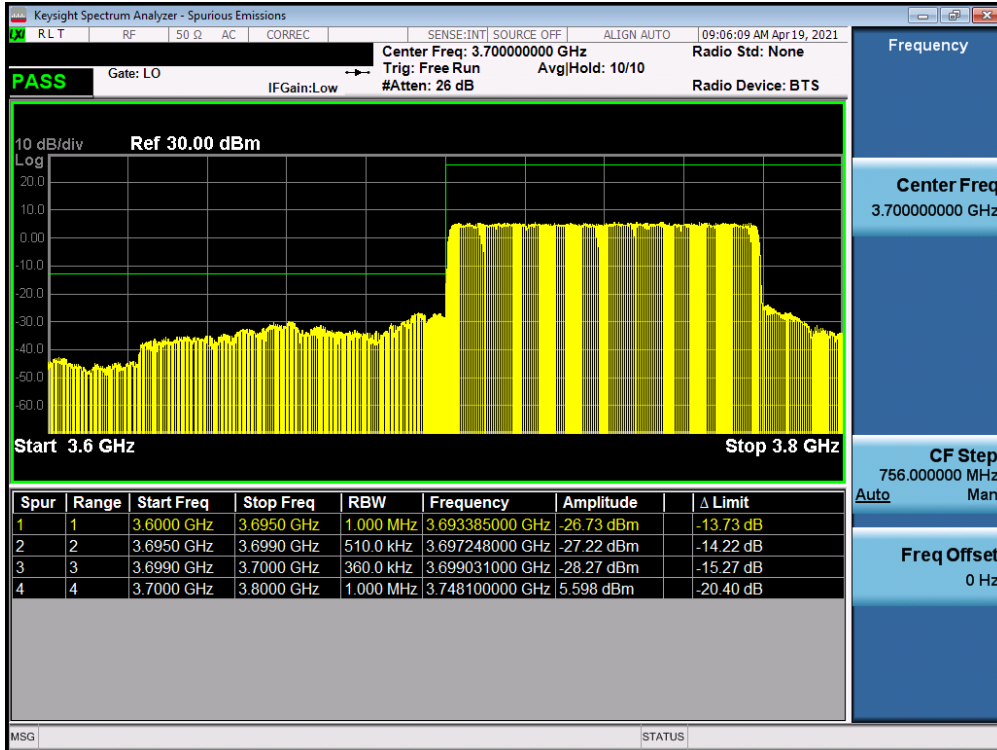


Plot 7-105. Lower Band Edge Plot (NR Band n77 PC2 - 90MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

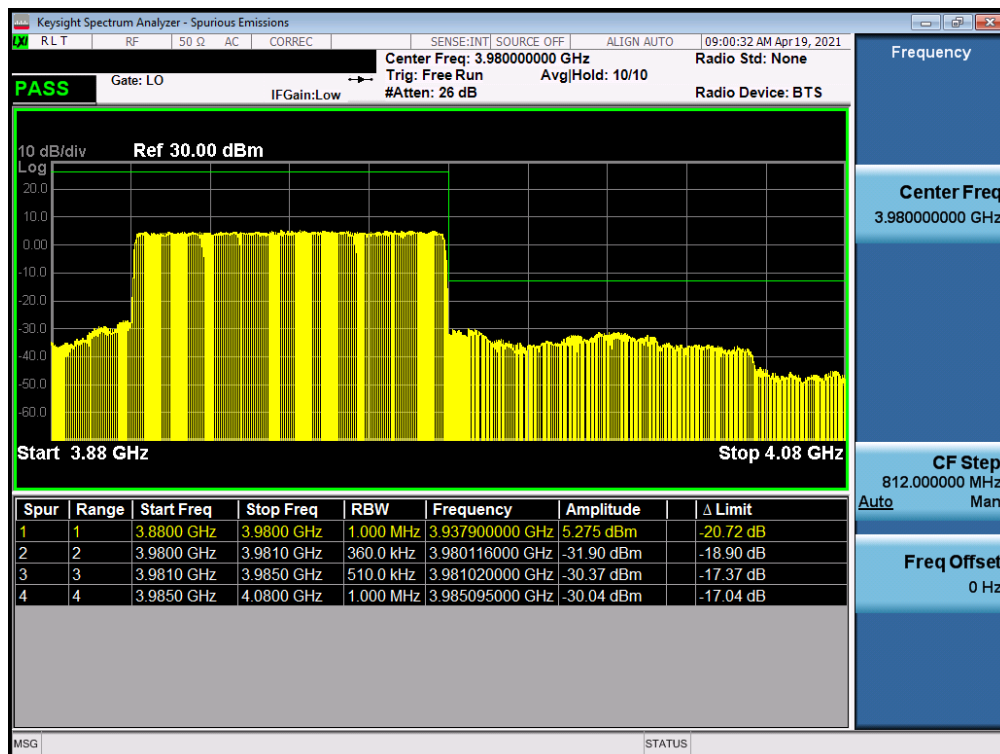


Plot 7-106. Upper Band Edge Plot (NR Band n77 PC2 - 90MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

|                                         |                                              |                               |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |                | Page 80 of 161                    |

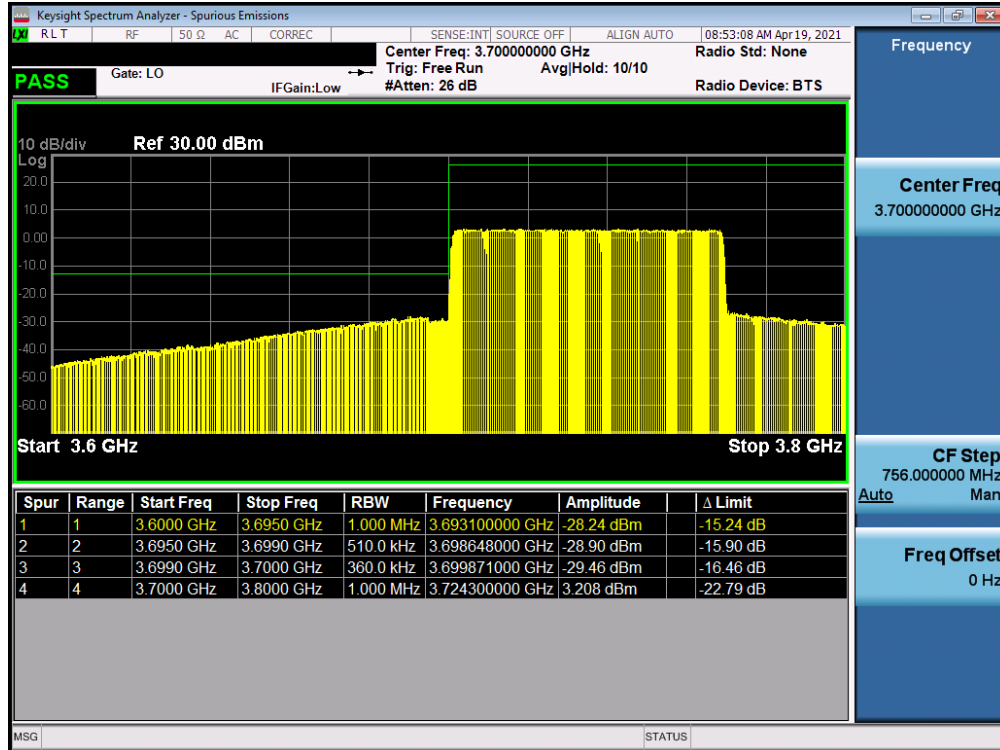


**Plot 7-107. Lower Band Edge Plot (NR Band n77 PC2 - 80MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)**

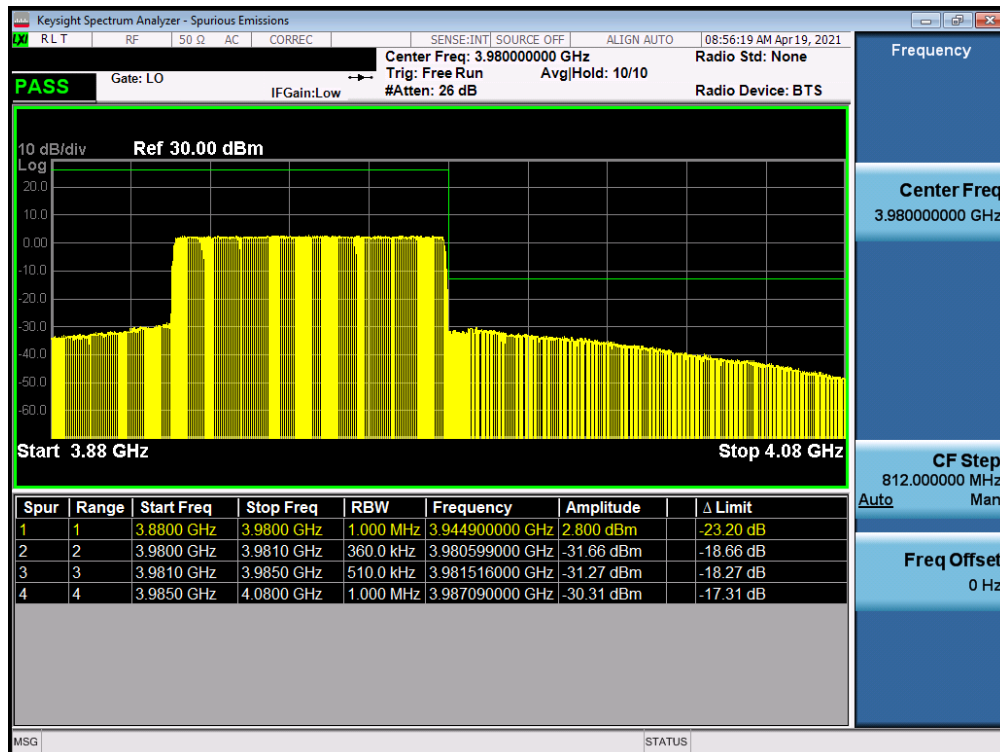


**Plot 7-108. Upper Band Edge Plot (NR Band n77 PC2 - 80MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)**

|                                                |                                                                                                                                                                                                             |                                      |                                          |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------|
| FCC ID: A3LSMF711U1                            |  <b>PART 27 MEASUREMENT REPORT</b>  |                                      | <b>Approved by:</b><br>Technical Manager |
| <b>Test Report S/N:</b><br>1M2107290086-20.A3L | <b>Test Dates:</b><br>4/16/2021 - 6/9/2021                                                                                                                                                                  | <b>EUT Type:</b><br>Portable Handset | Page 81 of 161                           |

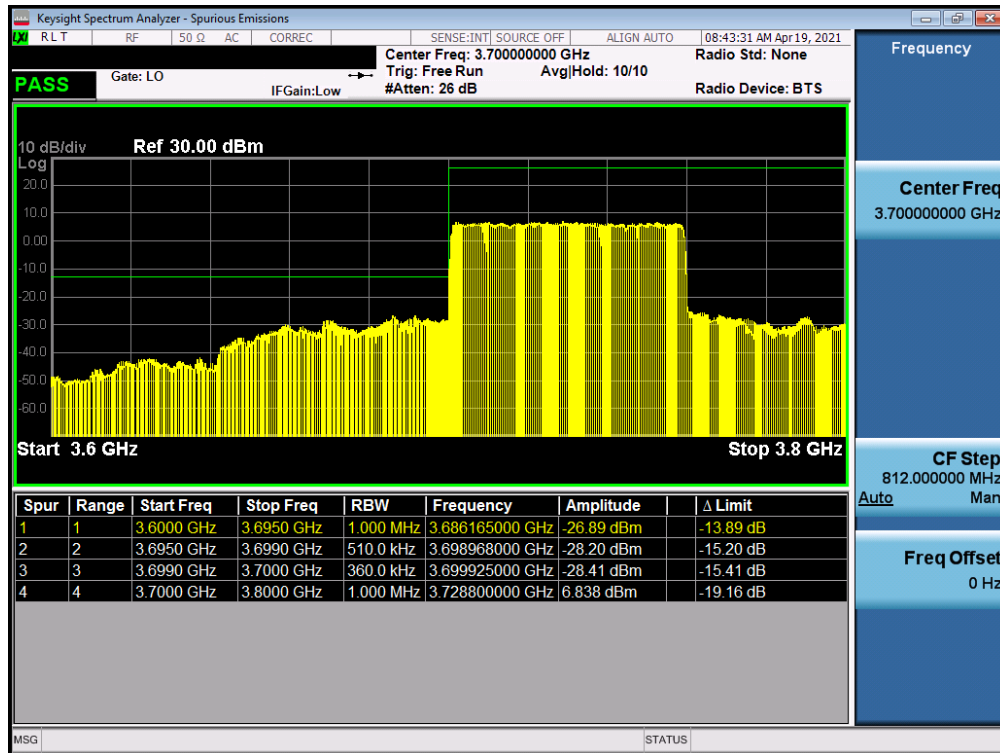


Plot 7-109. Lower Band Edge Plot (NR Band n77 PC2 - 70MHz CP-OFDM QPSK – Full RB Configuration)

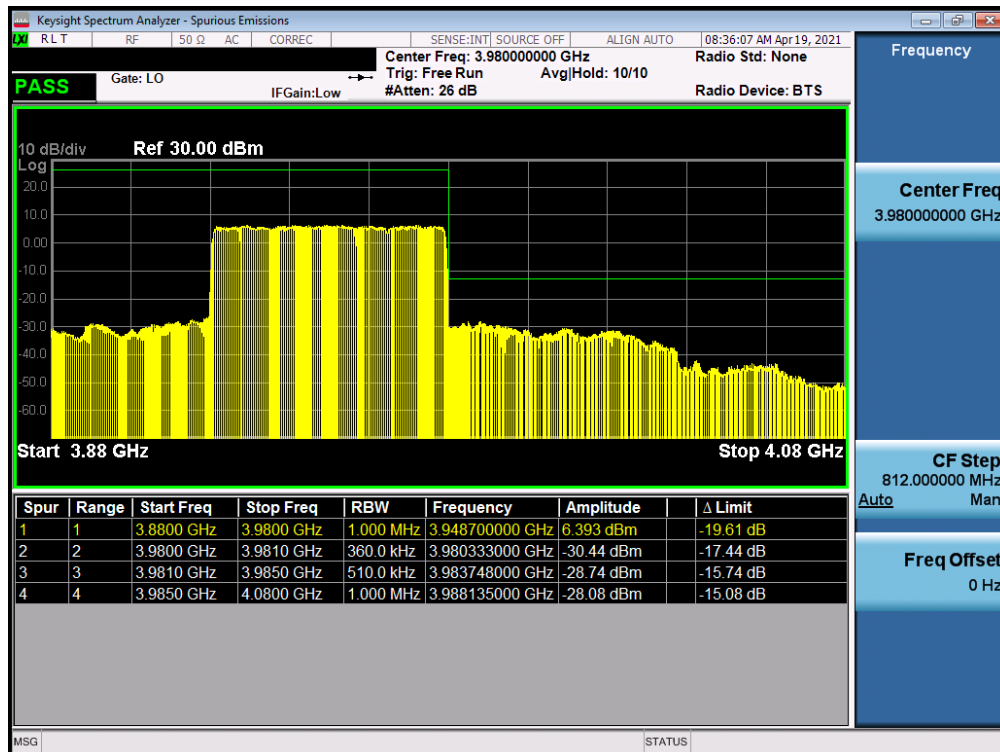


Plot 7-110. Upper Band Edge Plot (NR Band n77 PC2 - 70MHz CP-OFDM QPSK – Full RB Configuration)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 82 of 161                    |

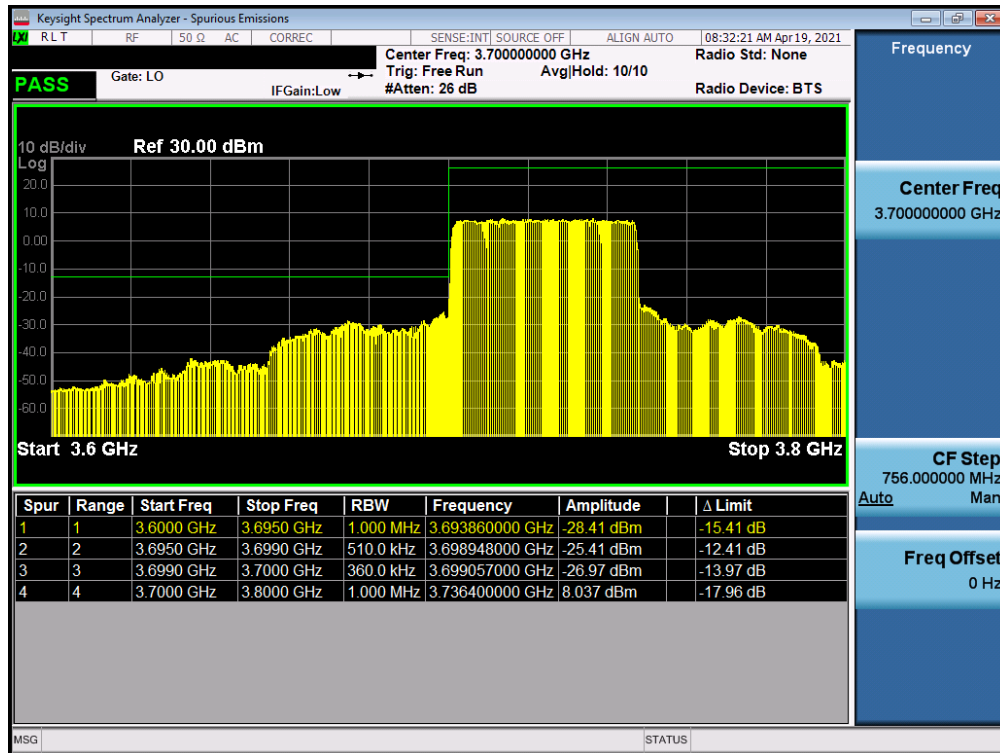


Plot 7-111. Lower Band Edge Plot (NR Band n77 PC2 - 60MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

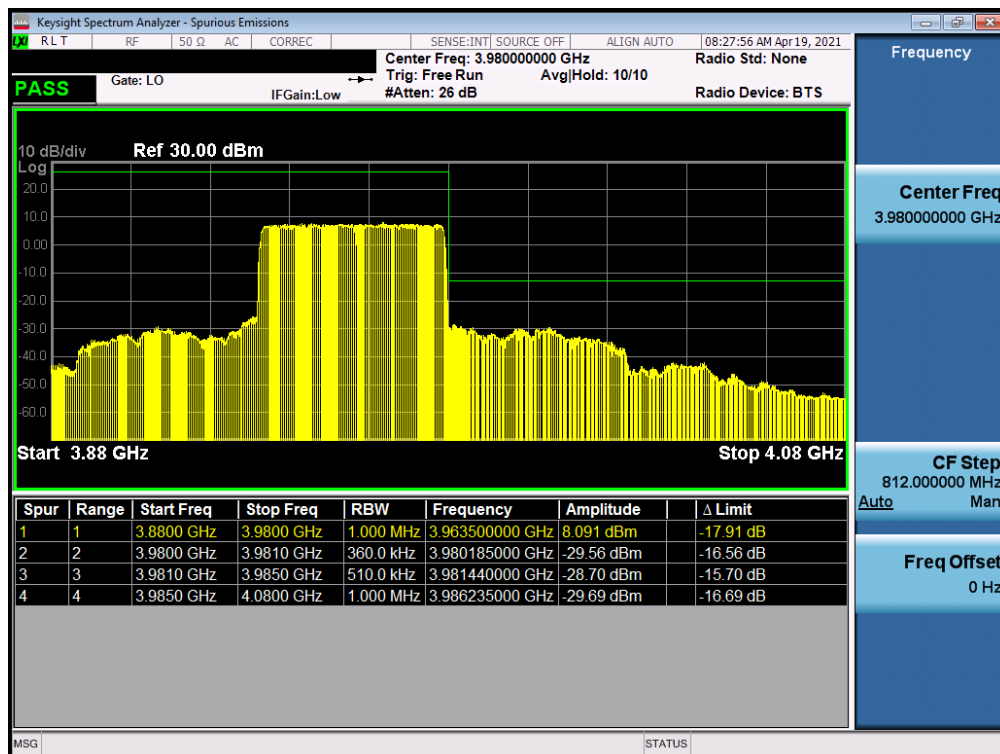


Plot 7-112. Upper Band Edge Plot (NR Band n77 PC2 - 60MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

|                                         |                                              |                               |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |                | Page 83 of 161                    |

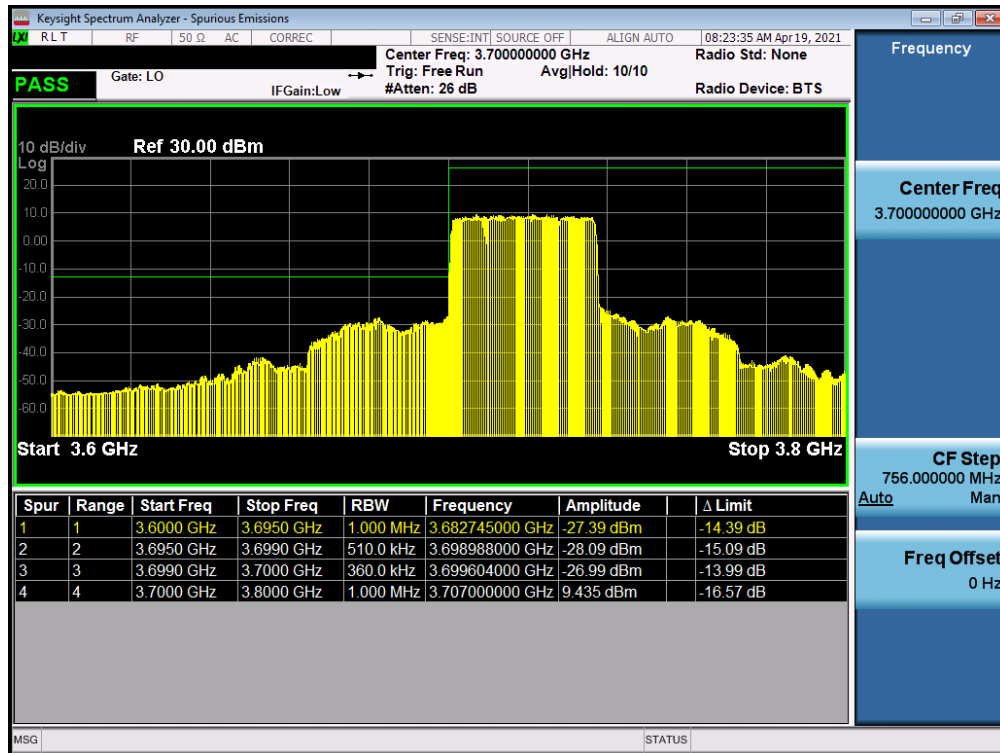


Plot 7-113. Lower Band Edge Plot (NR Band n77 PC2 - 50MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

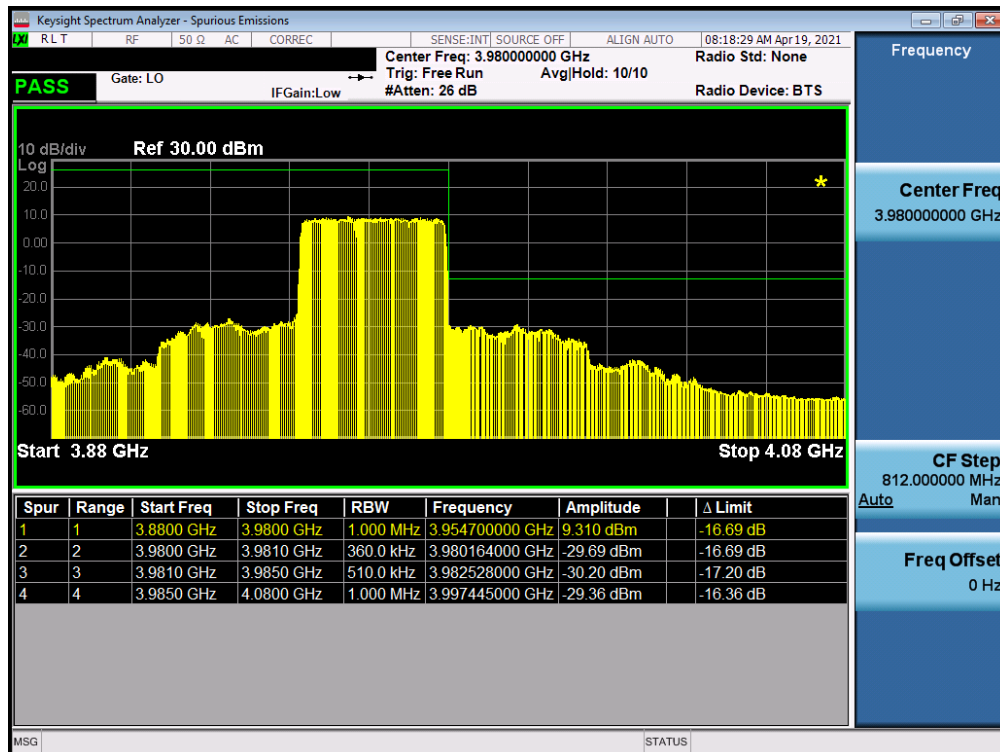


Plot 7-114. Upper Band Edge Plot (NR Band n77 PC2 - 50MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 84 of 161                    |

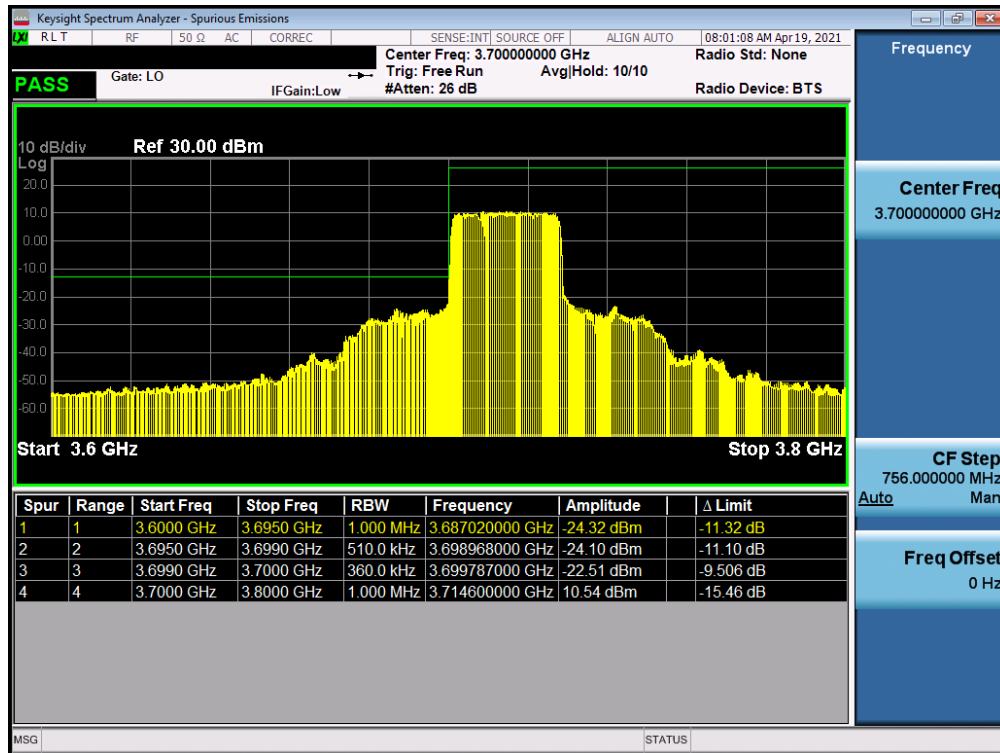


Plot 7-115. Lower Band Edge Plot (NR Band n77 PC2 - 40MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

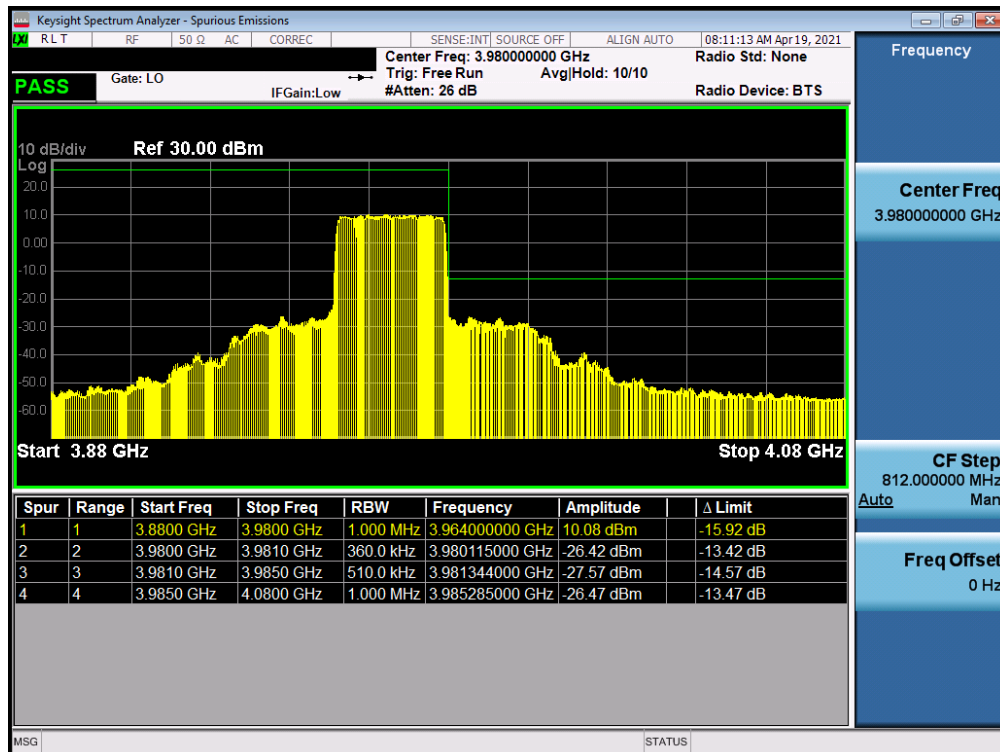


Plot 7-116. Upper Band Edge Plot (NR Band n77 PC2 - 40MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 85 of 161                    |

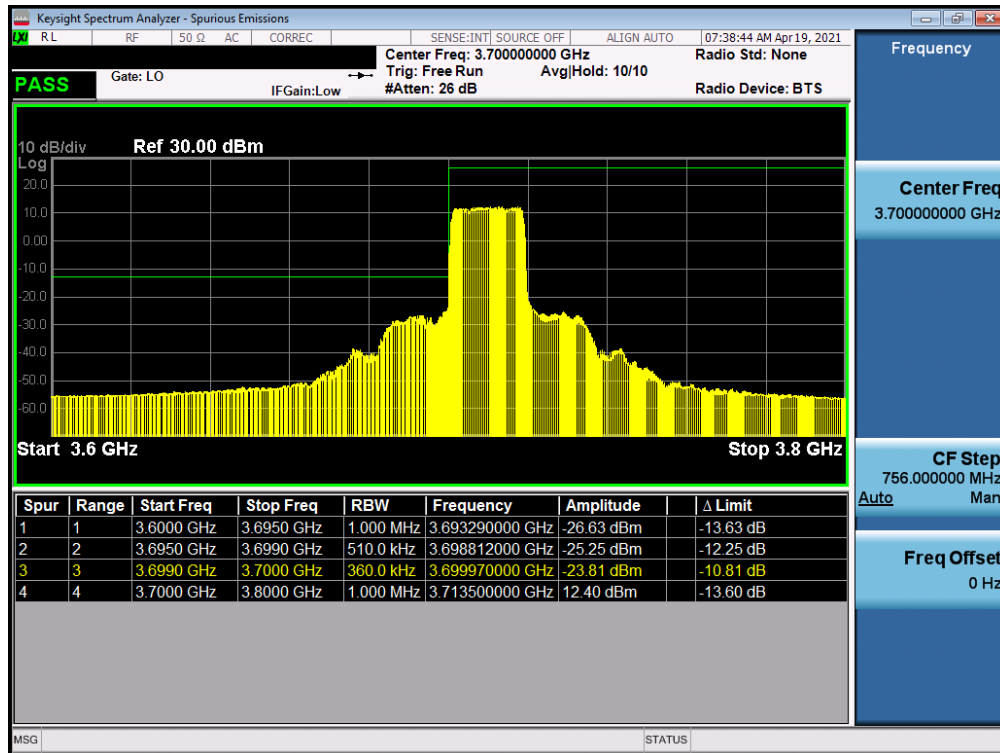


Plot 7-117. Lower Band Edge Plot (NR Band n77 PC2 - 30MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

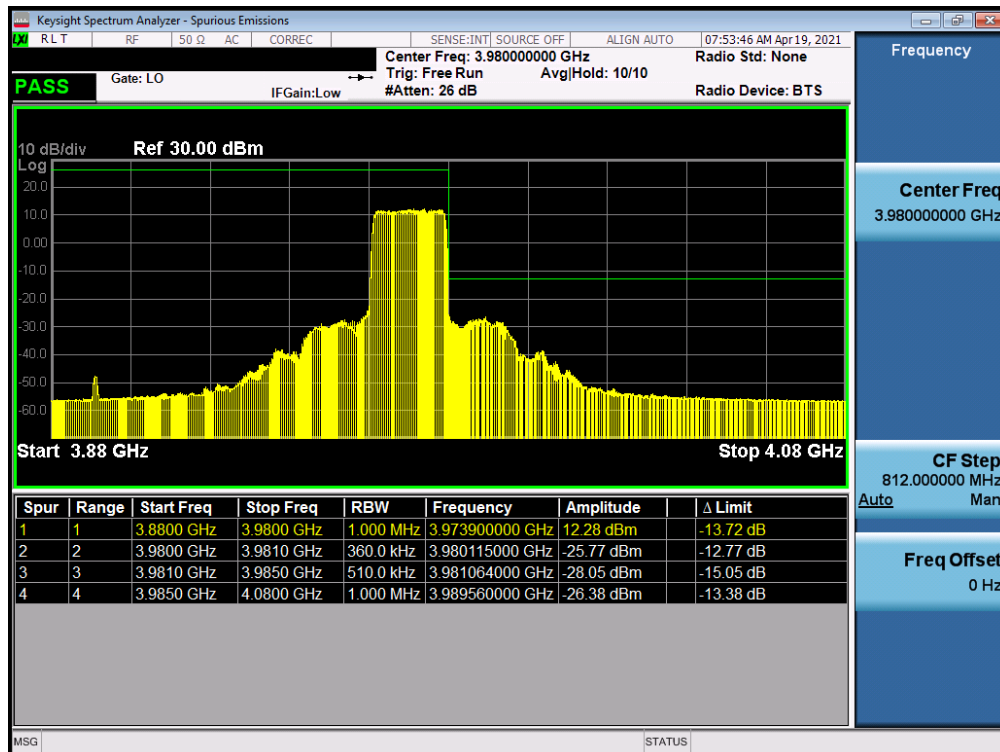


Plot 7-118. Upper Band Edge Plot (NR Band n77 PC2 - 30MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 86 of 161                    |



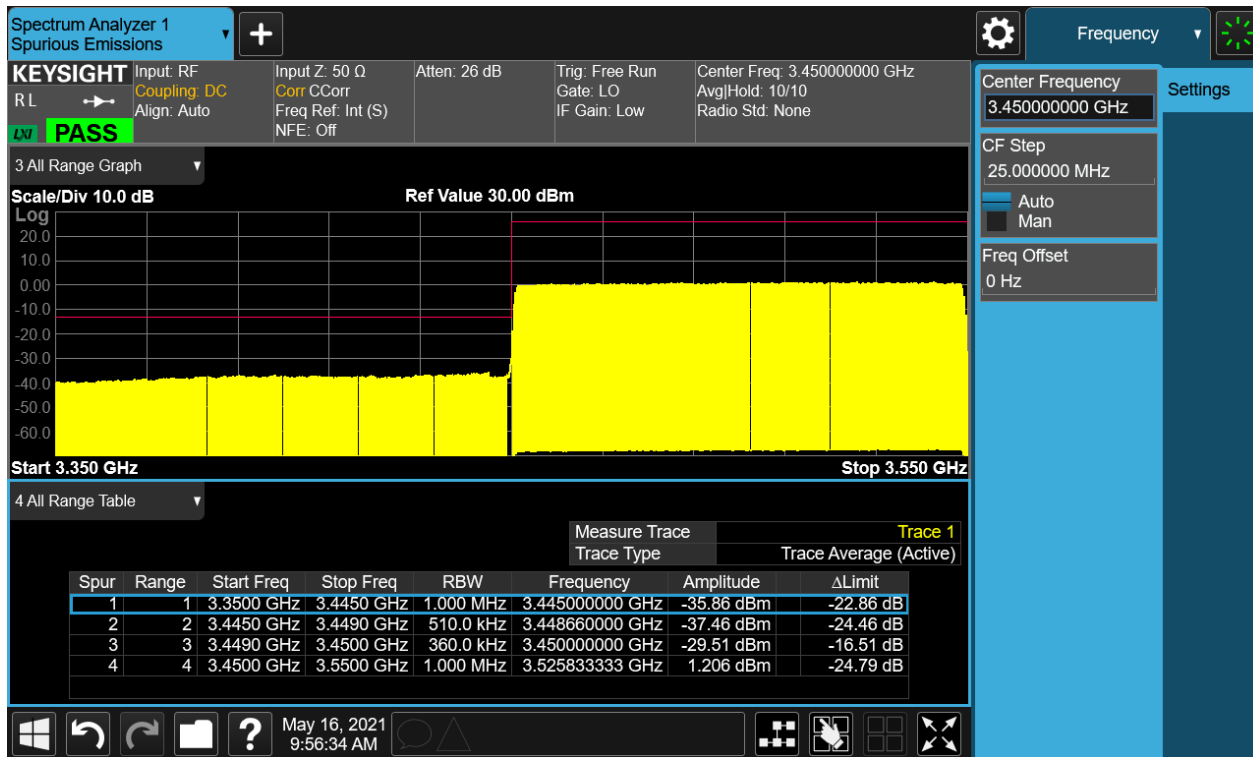
Plot 7-119. Lower Band Edge Plot (NR Band n77 PC2 - 20MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)



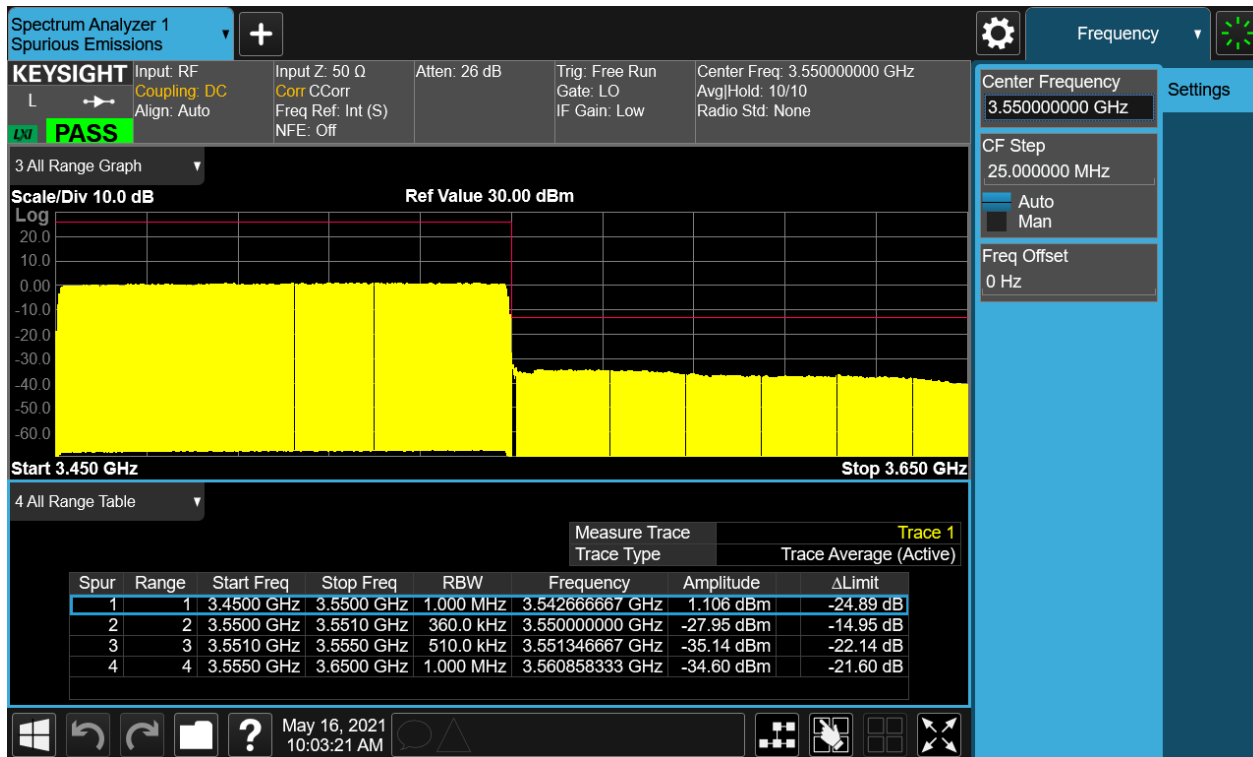
Plot 7-120. Upper Band Edge Plot (NR Band n77 PC2 - 20MHz DFT-s-OFDM  $\pi/2$  BPSK – Full RB Configuration)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 87 of 161                    |

## NR Band n77 (PC2) – DoD-Band – SRS-1

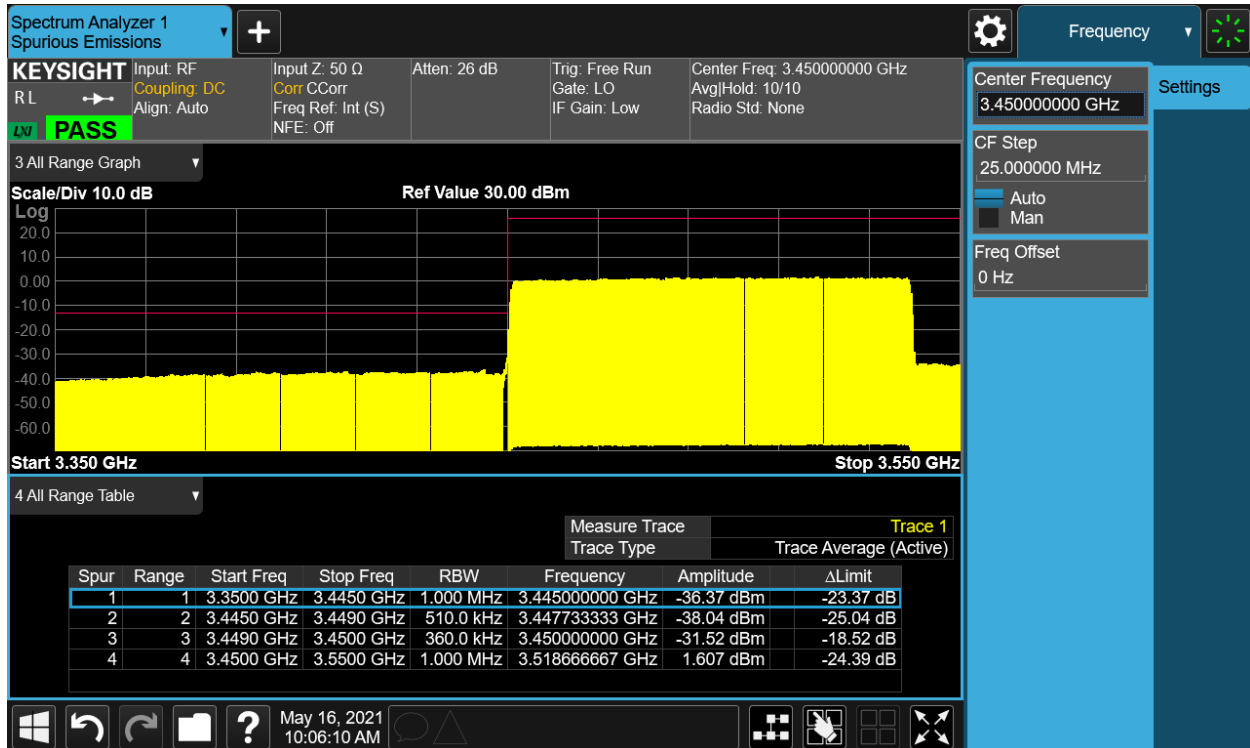


Plot 7-121. Lower Band Edge Plot (NR Band n77 PC2 - 100MHz CP-OFDM QPSK – Full RB Configuration)

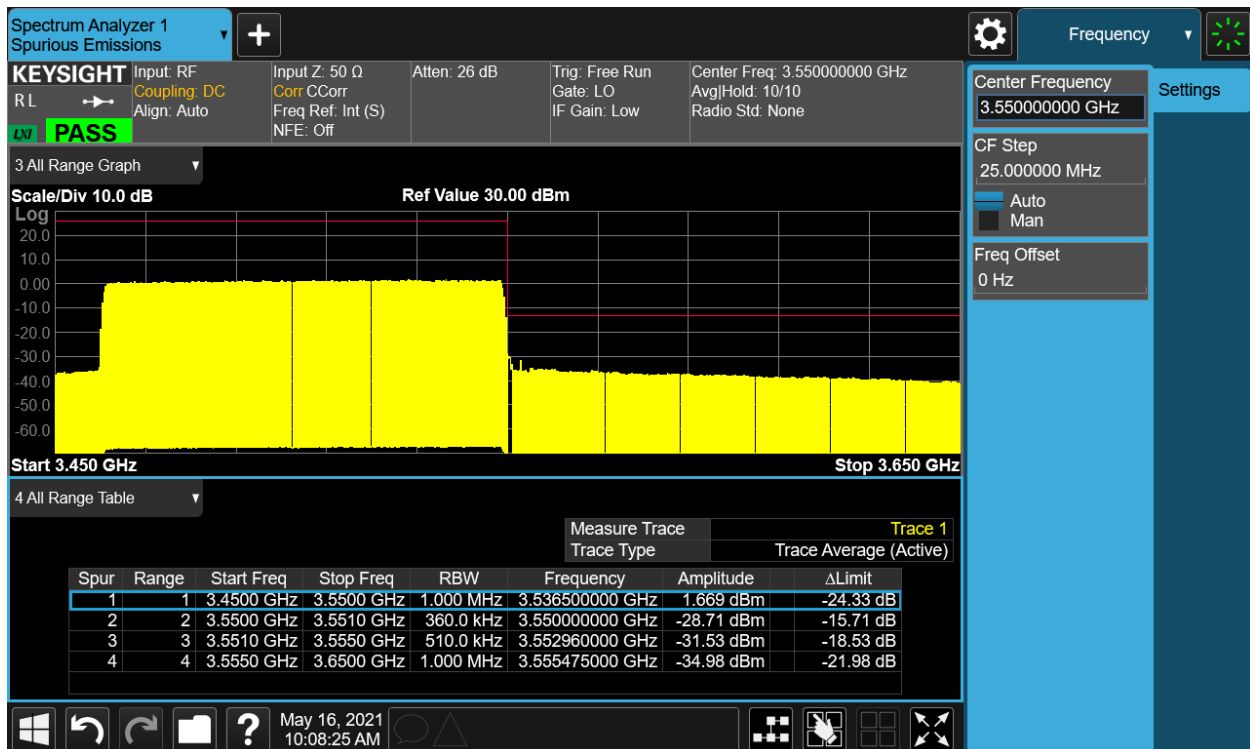


Plot 7-122. Upper Band Edge Plot (NR Band n77 PC2 - 100MHz CP-OFDM QPSK – Full RB Configuration)

|                                         |                                              |                               |                |                                   |
|-----------------------------------------|----------------------------------------------|-------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | PART 27 MEASUREMENT REPORT    | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset |                | Page 88 of 161                    |

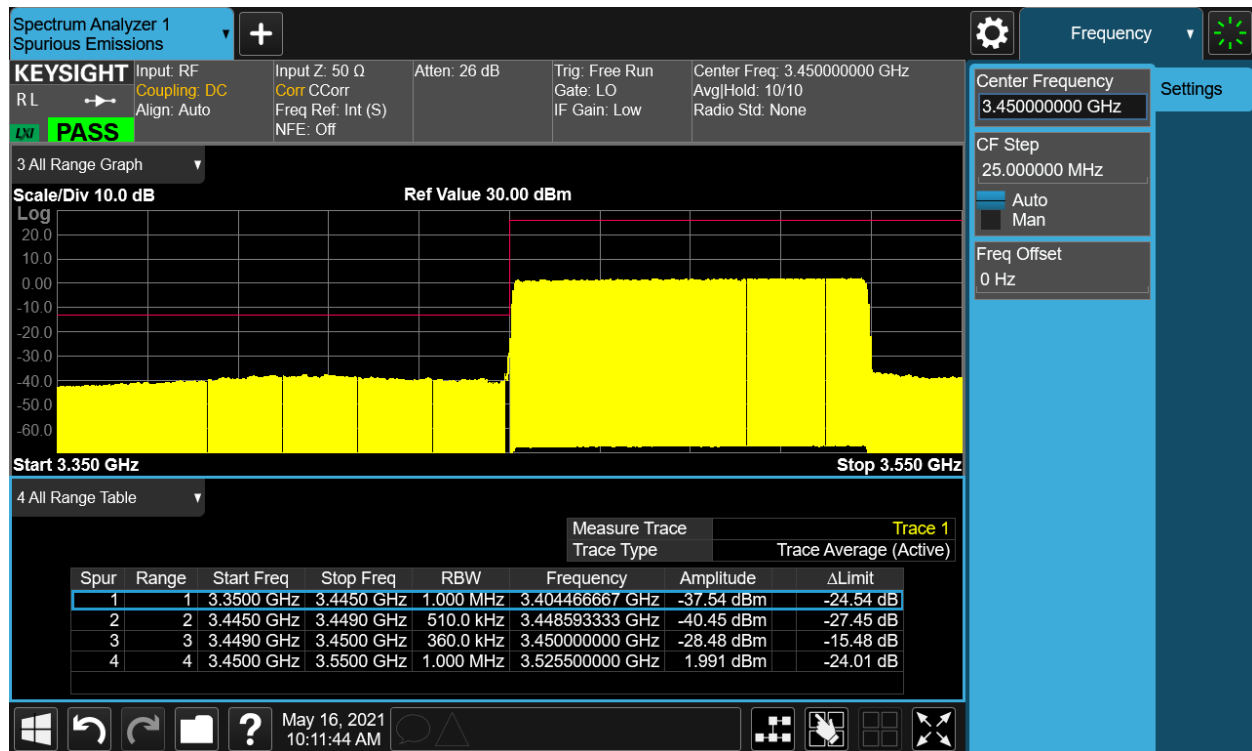


Plot 7-123. Lower Band Edge Plot (NR Band n77 PC2 - 90MHz CP-OFDM QPSK – Full RB Configuration)

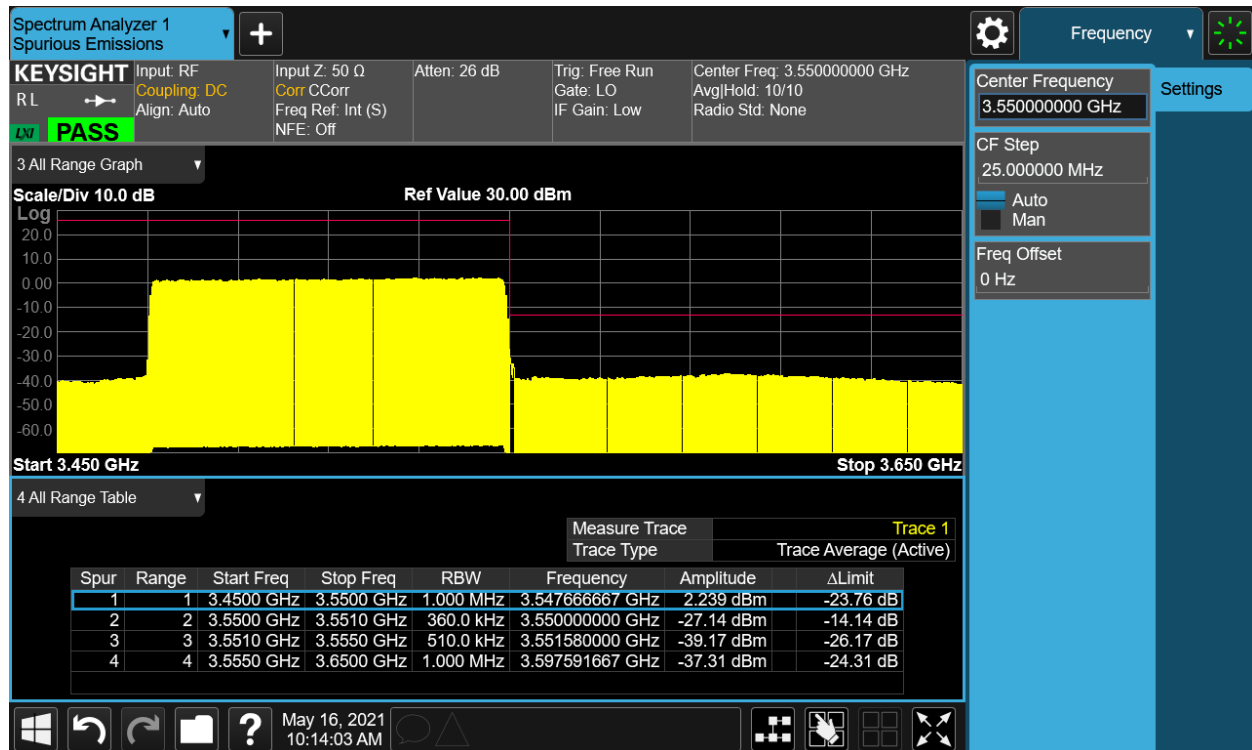


Plot 7-124. Upper Band Edge Plot (NR Band n77 PC2 - 90MHz CP-OFDM QPSK – Full RB Configuration)

|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 89 of 161                    |

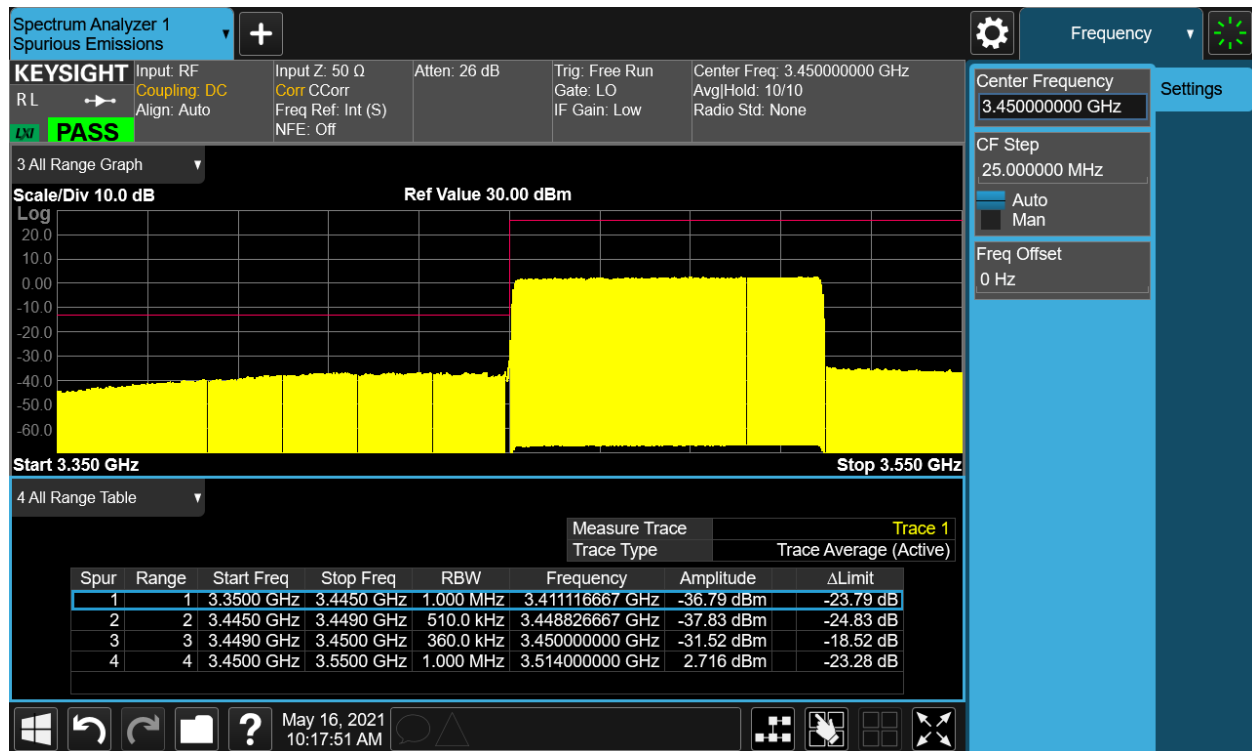


Plot 7-125. Lower Band Edge Plot (NR Band n77 PC2 - 80MHz CP-OFDM QPSK – Full RB Configuration)

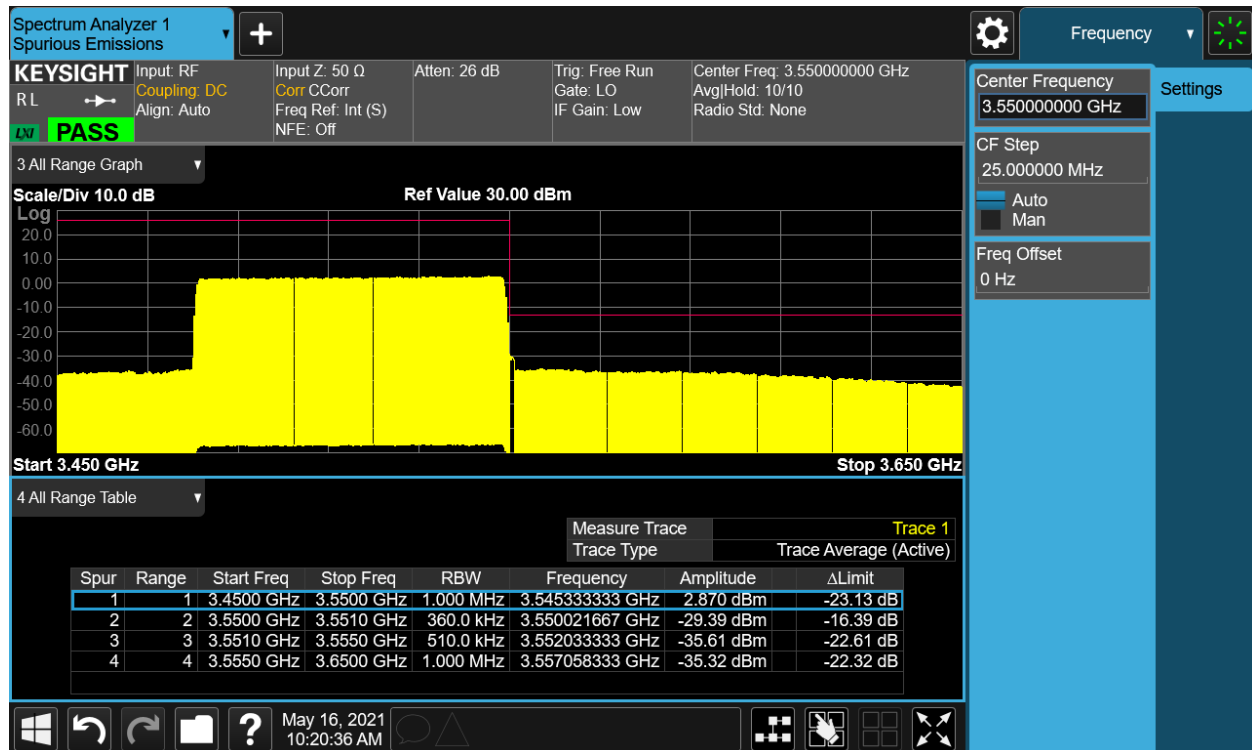


Plot 7-126. Upper Band Edge Plot (NR Band n77 PC2 - 80MHz CP-OFDM QPSK – Full RB Configuration)

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PART 27 MEASUREMENT REPORT</b>   |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021 | EUT Type:<br>Portable Handset | Page 90 of 161                    |

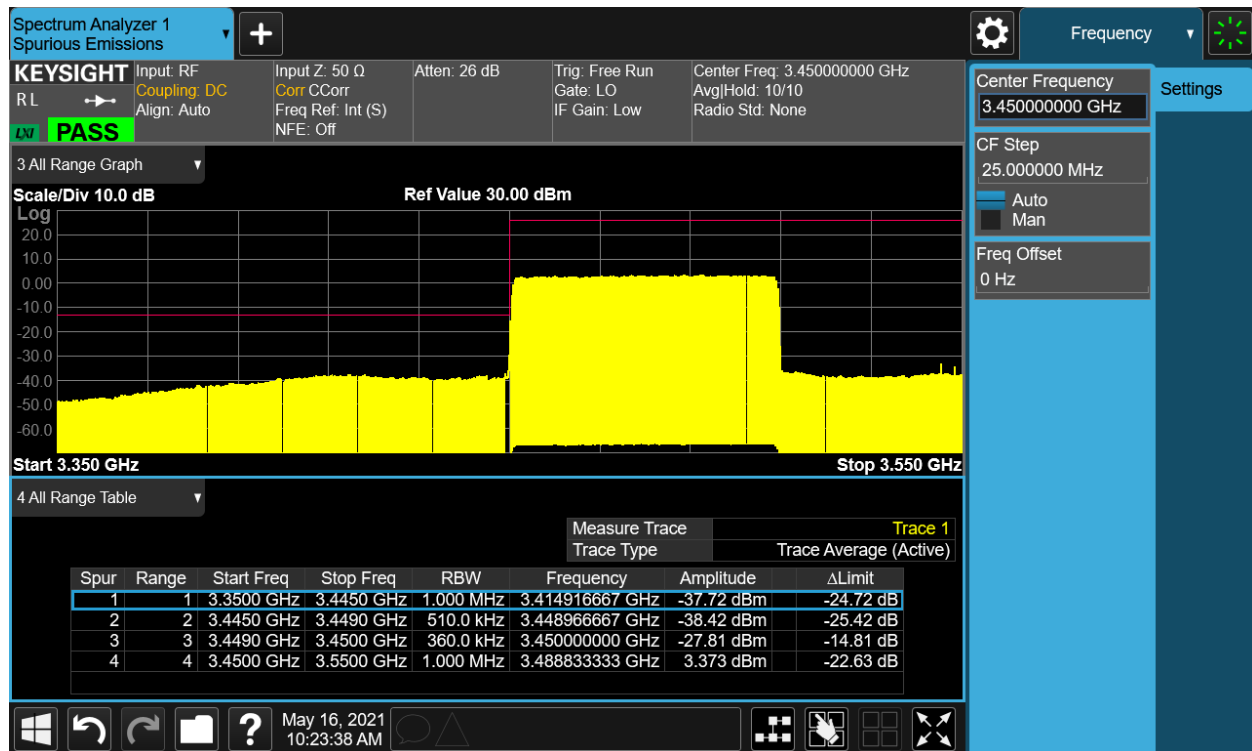


Plot 7-127. Lower Band Edge Plot (NR Band n77 PC2 - 70MHz CP-OFDM QPSK – Full RB Configuration)

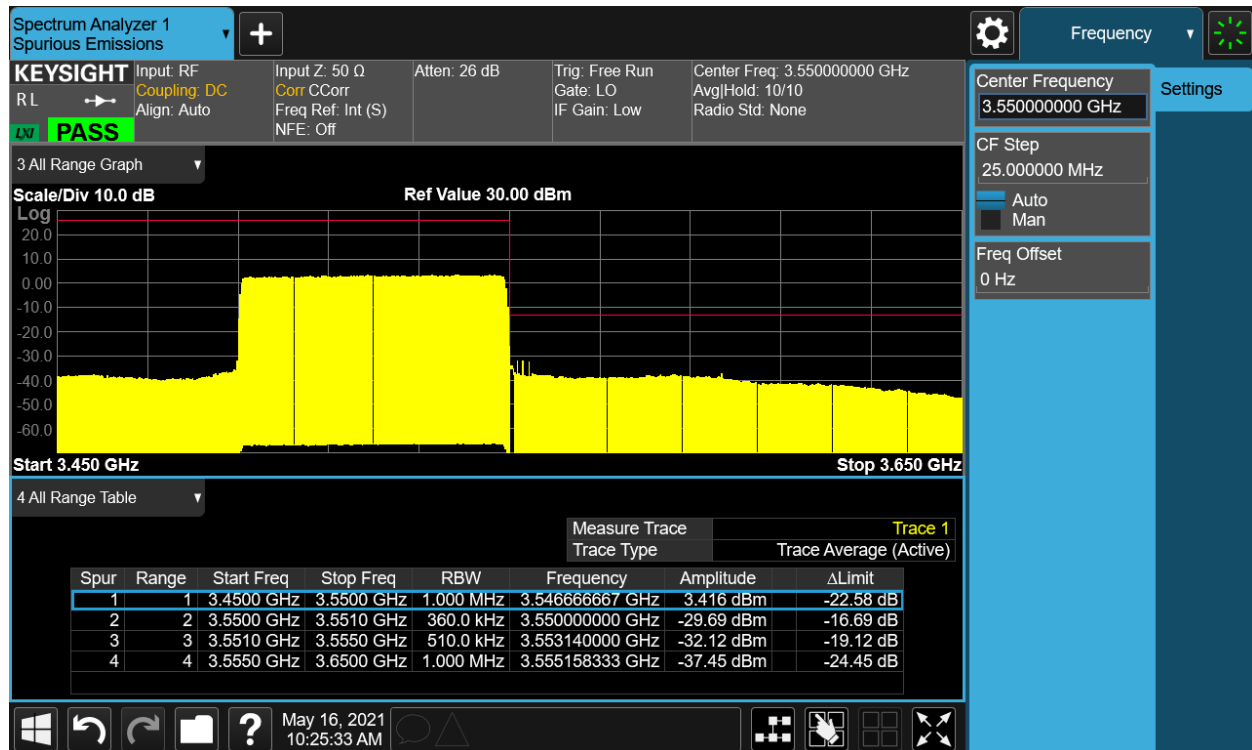


Plot 7-128. Upper Band Edge Plot (NR Band n77 PC2 - 70MHz CP-OFDM-QPSK – Full RB Configuration)

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PART 27 MEASUREMENT REPORT</b>   |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021 | EUT Type:<br>Portable Handset | Page 91 of 161                    |

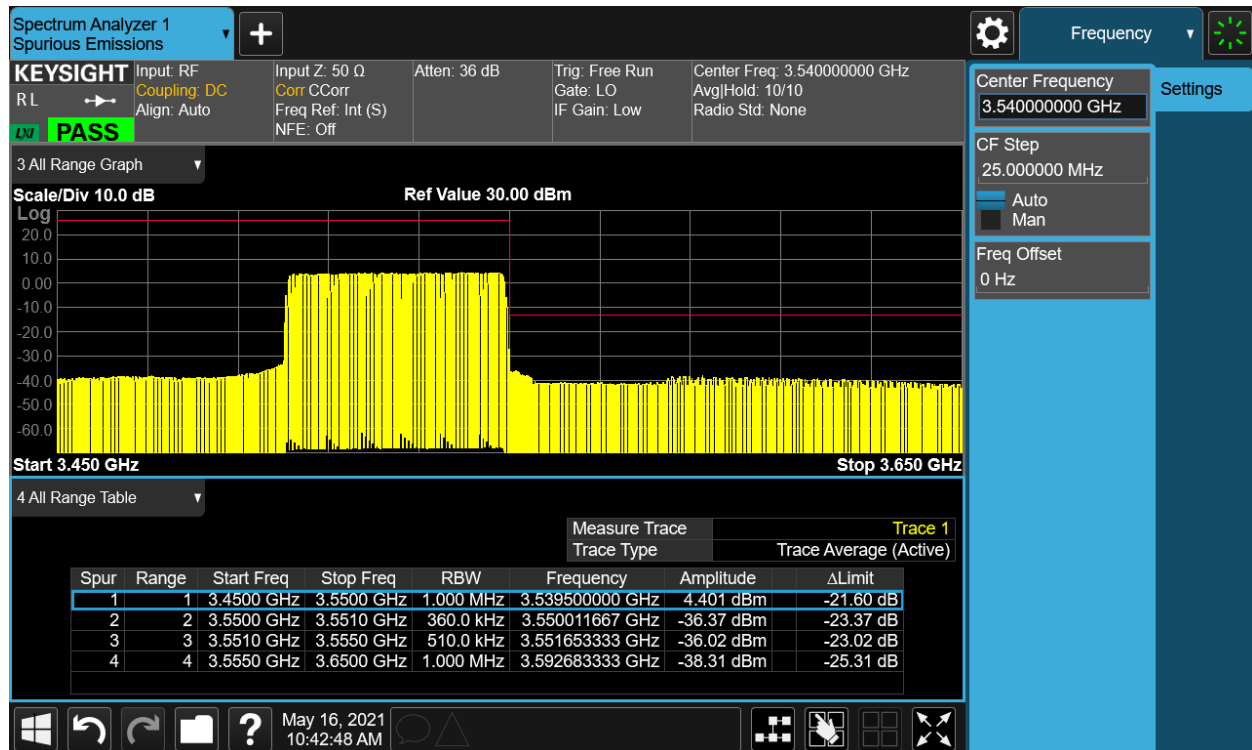
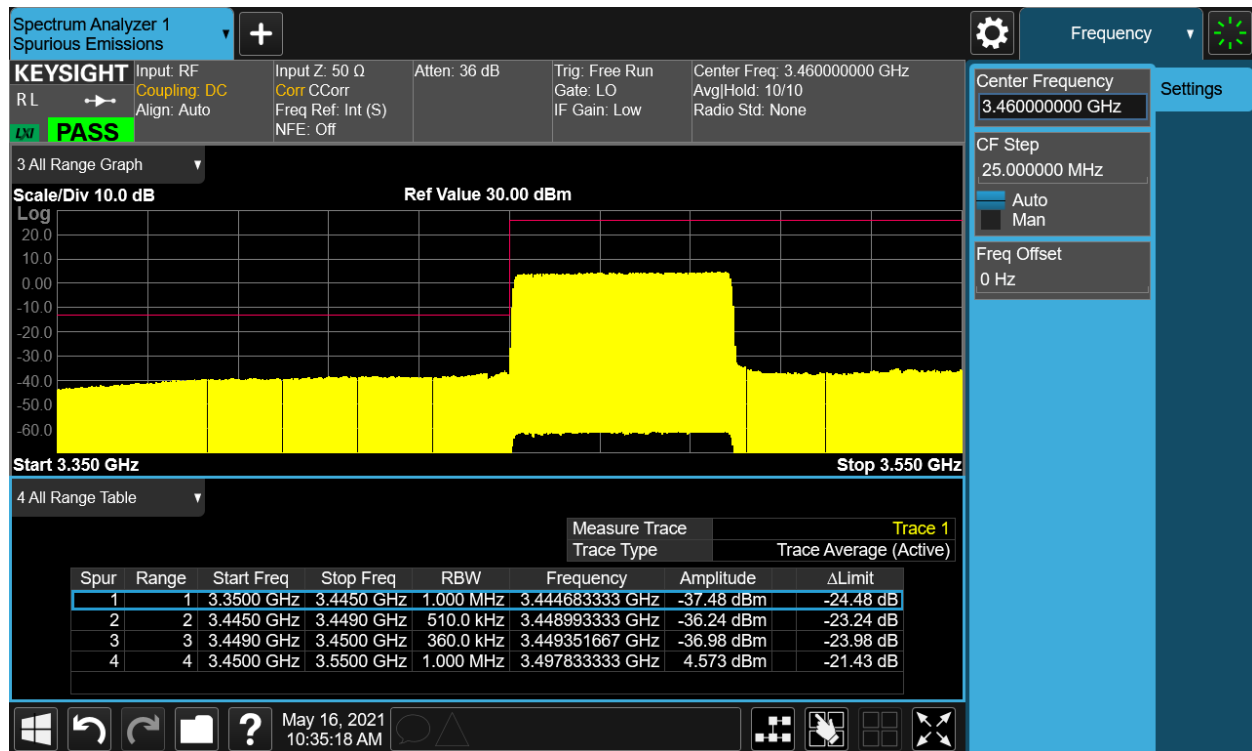


Plot 7-129. Lower Band Edge Plot (NR Band n77 PC2 - 60MHz CP-OFDM QPSK – Full RB Configuration)

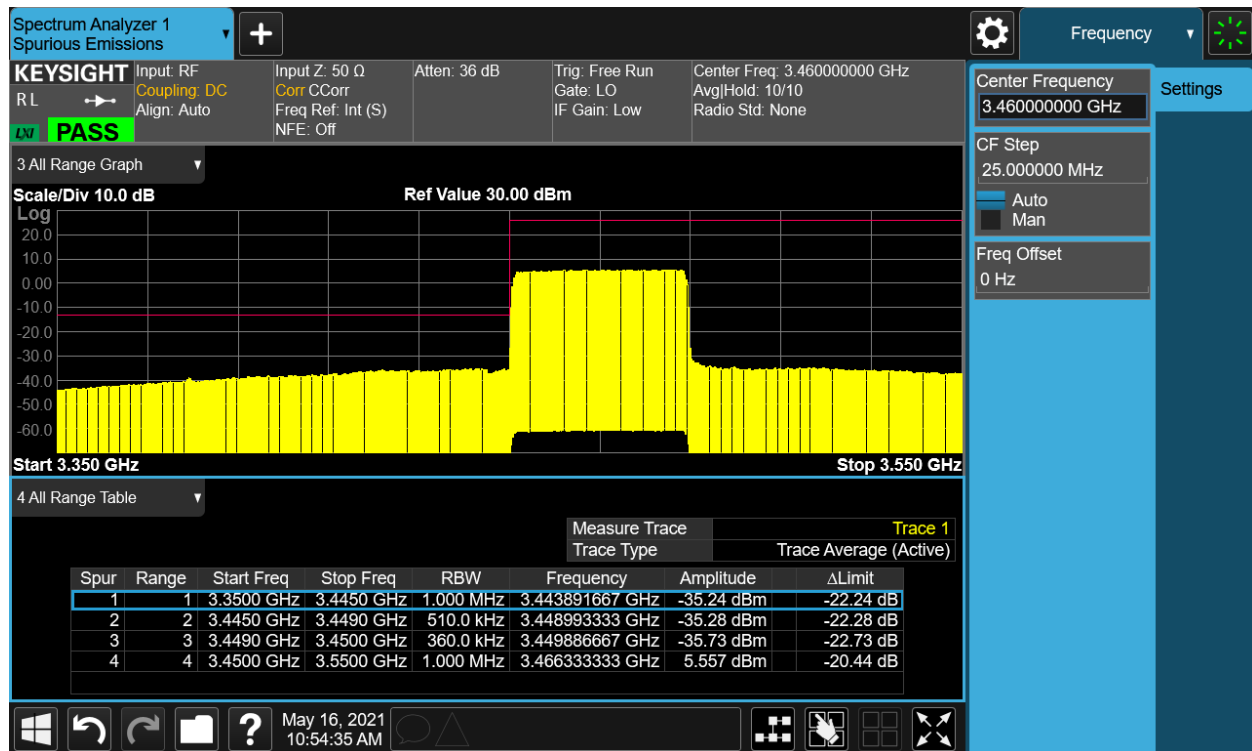


Plot 7-130. Upper Band Edge Plot (NR Band n77 PC2 - 60MHz CP-OFDM QPSK – Full RB Configuration)

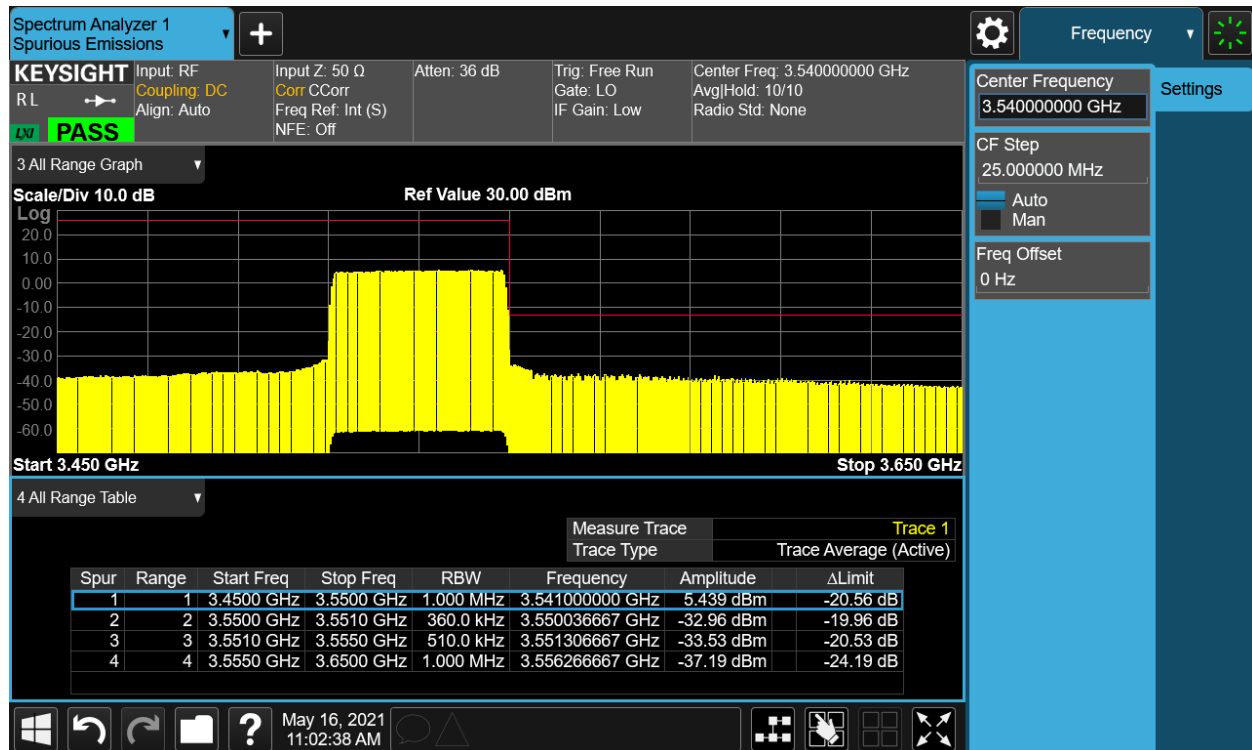
|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PART 27 MEASUREMENT REPORT</b>   |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021 | EUT Type:<br>Portable Handset | Page 92 of 161                    |



|                                         |                                              |                                   |                |                                   |
|-----------------------------------------|----------------------------------------------|-----------------------------------|----------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PCTEST</b><br>Proud to be part of element | <b>PART 27 MEASUREMENT REPORT</b> | <b>SAMSUNG</b> | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021          | EUT Type:<br>Portable Handset     |                | Page 93 of 161                    |

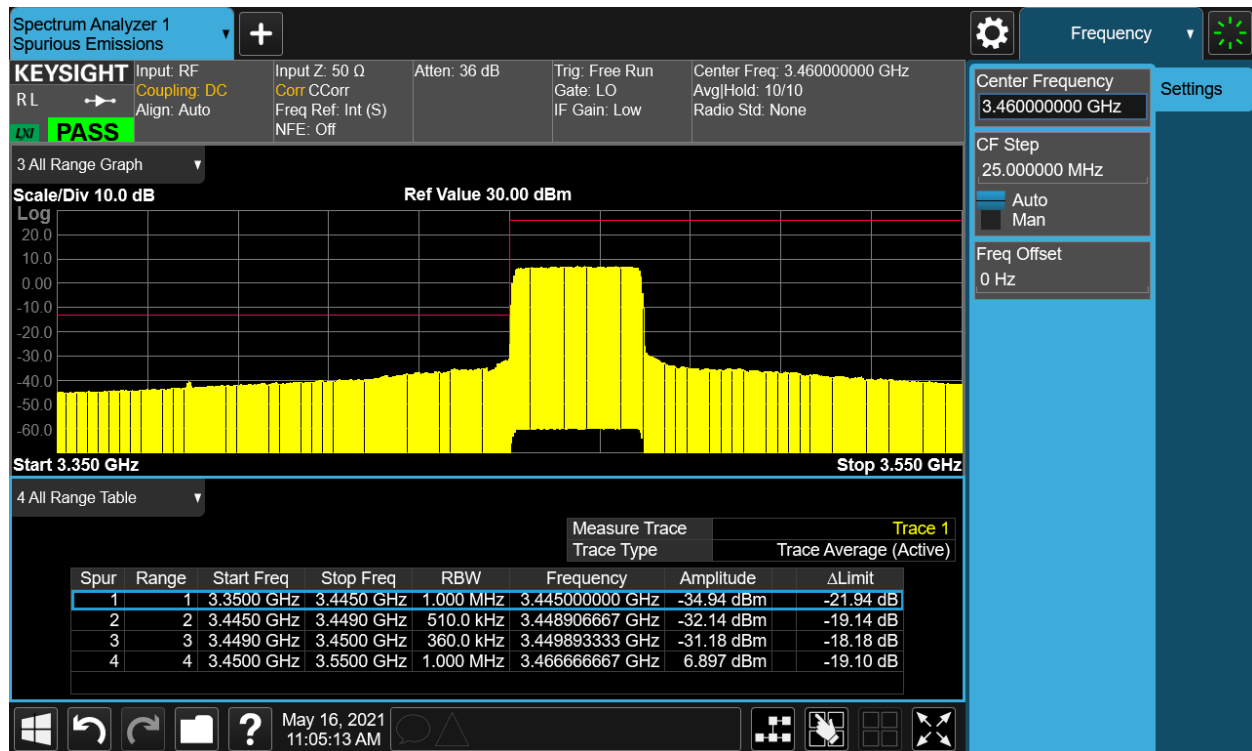


Plot 7-133. Lower Band Edge Plot (NR Band n77 PC2 - 40MHz CP-OFDM QPSK – Full RB Configuration)

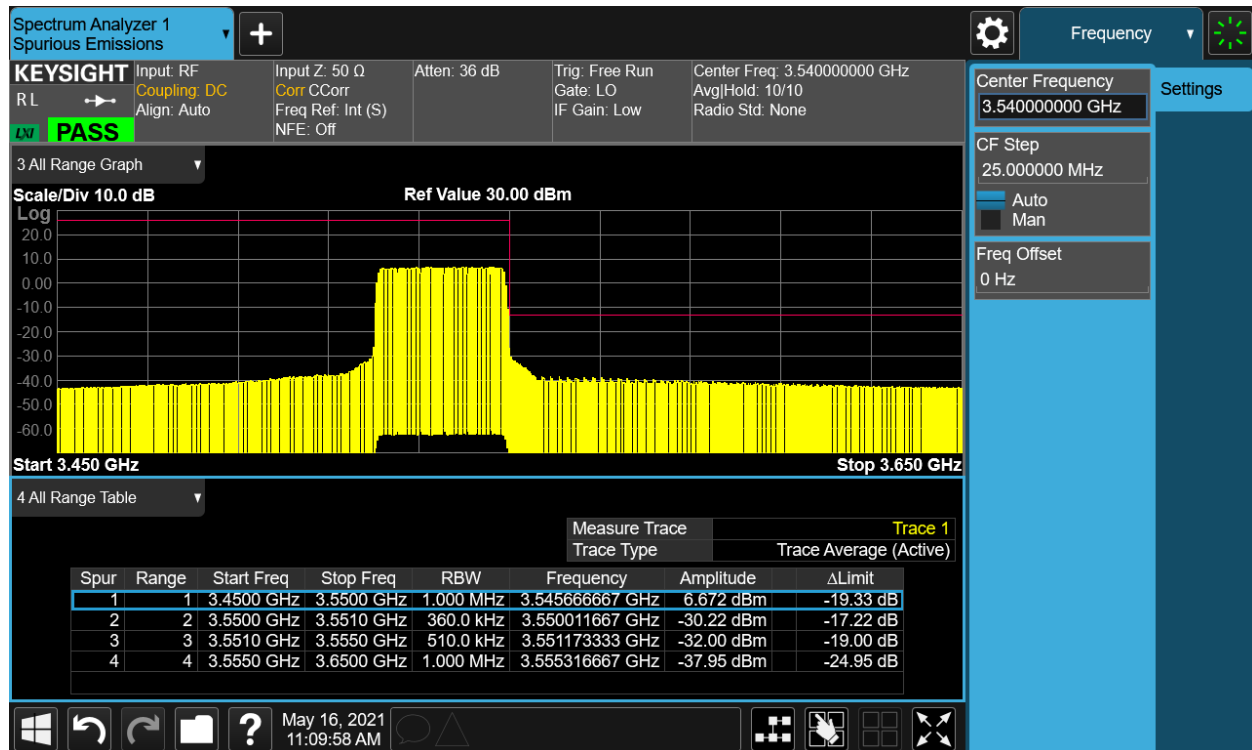


Plot 7-134. Upper Band Edge Plot (NR Band n77 PC2 - 40MHz CP-OFDM QPSK – Full RB Configuration)

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PART 27 MEASUREMENT REPORT</b>   |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021 | EUT Type:<br>Portable Handset | Page 94 of 161                    |



Plot 7-135. Lower Band Edge Plot (NR Band n77 PC2 - 30MHz CP-OFDM QPSK – Full RB Configuration)



Plot 7-136. Upper Band Edge Plot (NR Band n77 PC2 - 30MHz CP-OFDM QPSK – Full RB Configuration)

|                                         |                                     |                               |                                   |
|-----------------------------------------|-------------------------------------|-------------------------------|-----------------------------------|
| FCC ID: A3LSMF711U1                     | <b>PART 27 MEASUREMENT REPORT</b>   |                               | Approved by:<br>Technical Manager |
| Test Report S/N:<br>1M2107290086-20.A3L | Test Dates:<br>4/16/2021 - 6/9/2021 | EUT Type:<br>Portable Handset | Page 95 of 161                    |