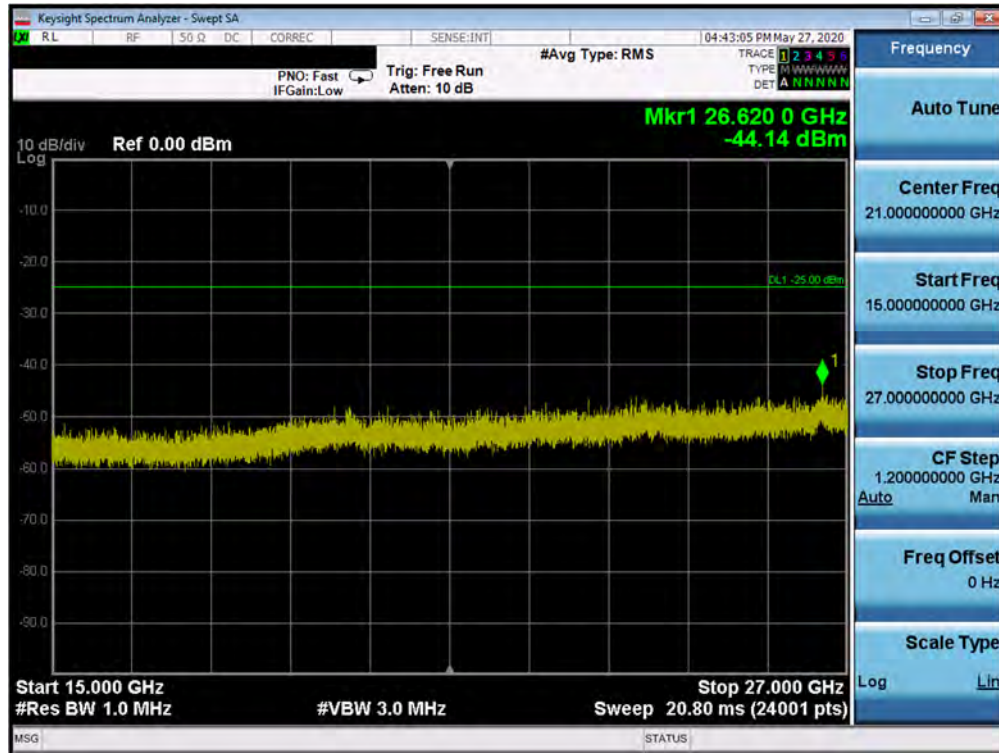
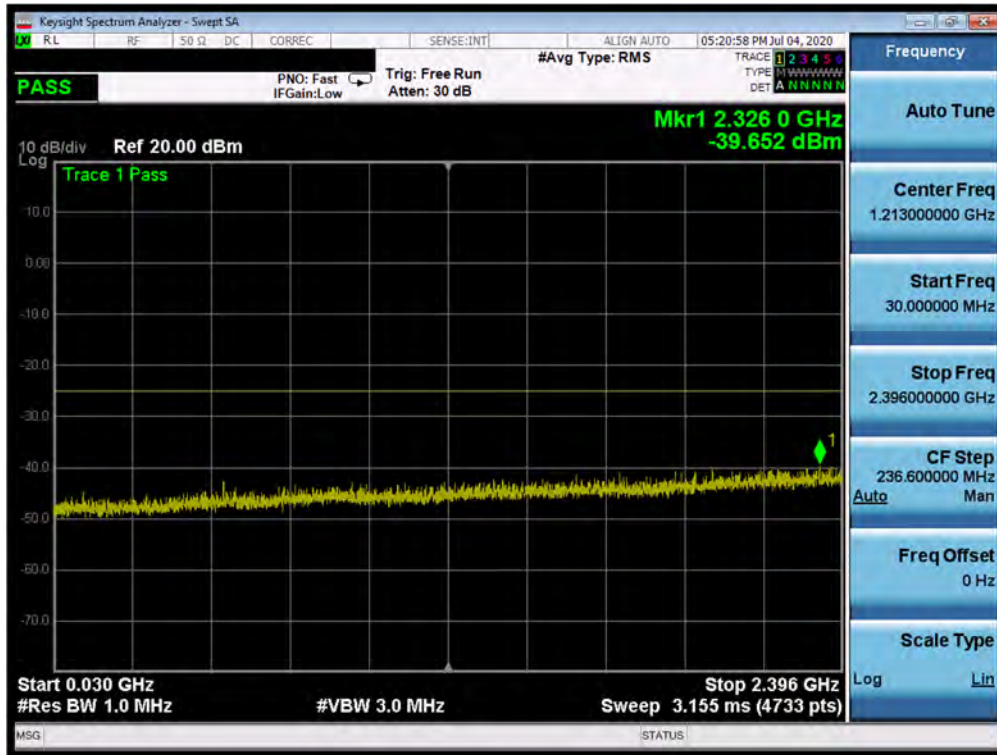




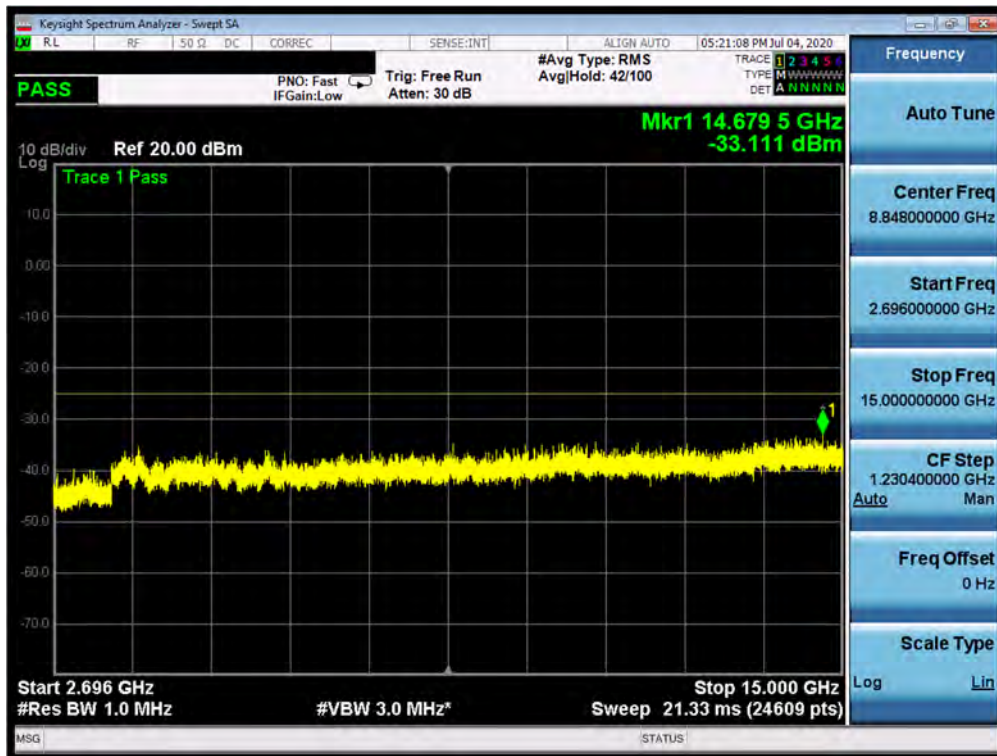
Plot 7-288. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 99 - High Channel)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 168 of 357                 |

NR Band n41

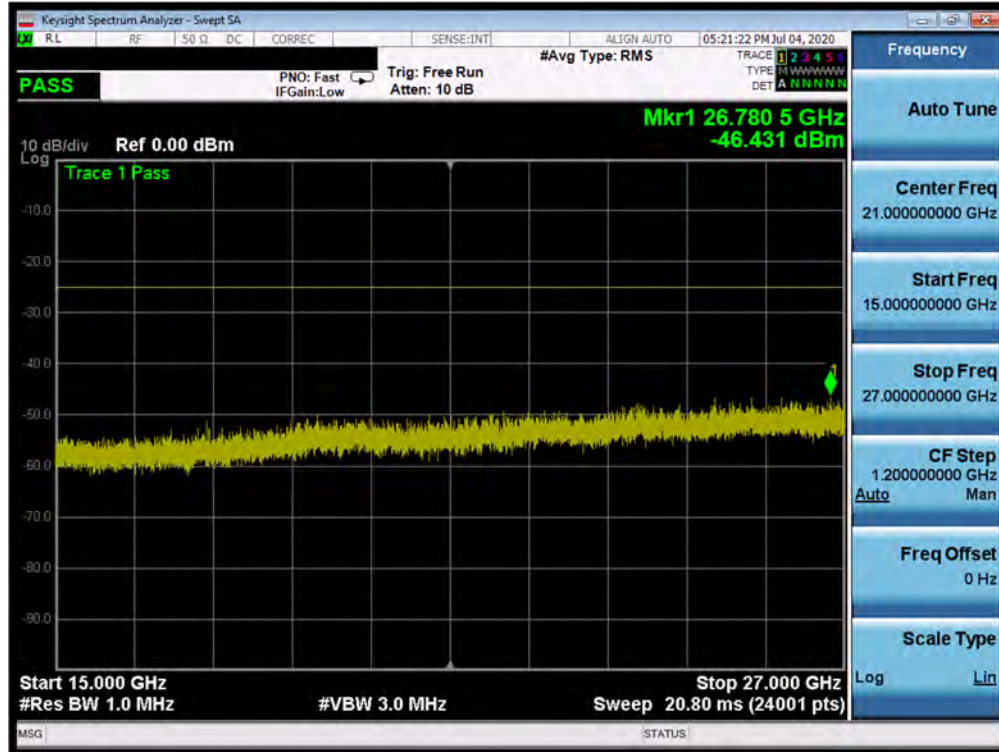


Plot 7-289. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - Low Channel)

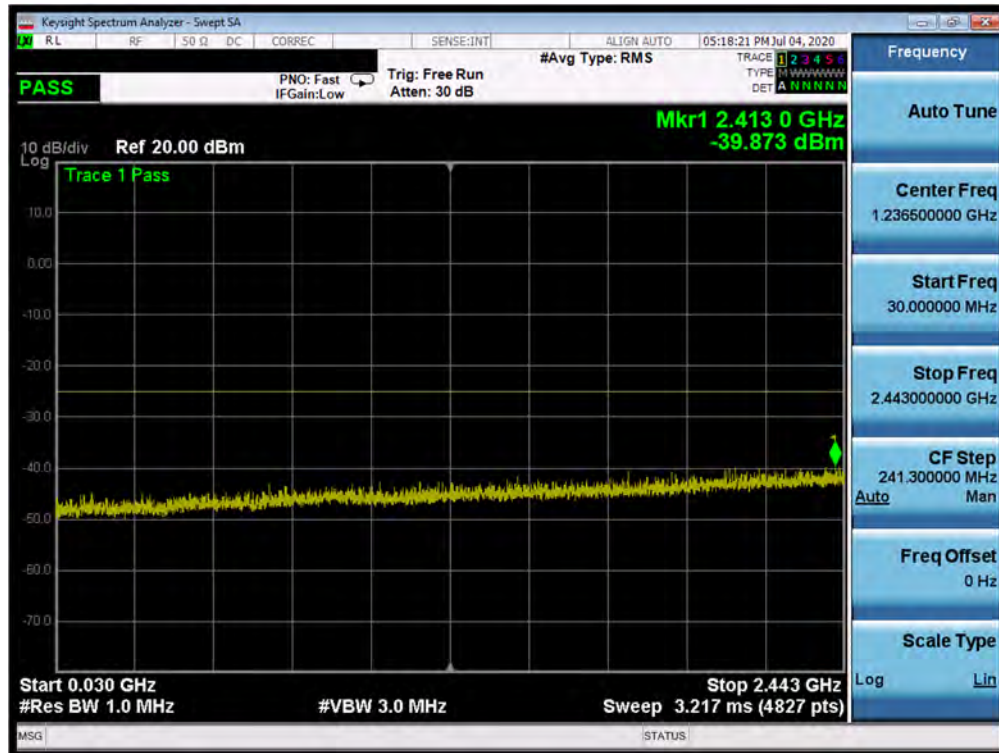


Plot 7-290. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - Low Channel)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 169 of 357                 |

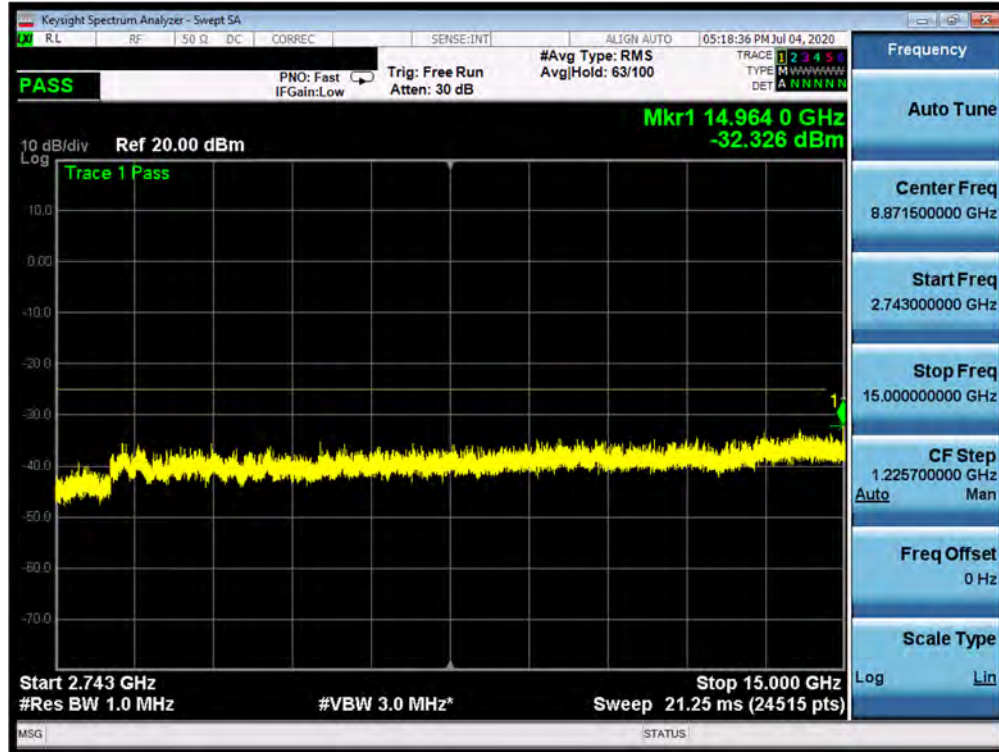


Plot 7-291. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - Low Channel)

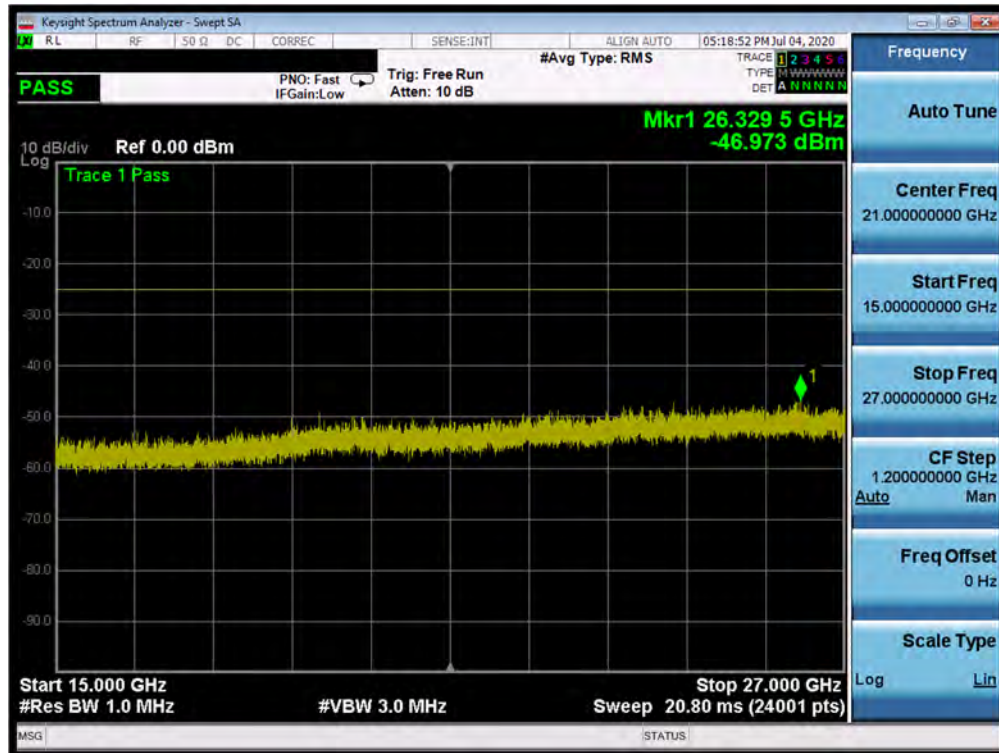


Plot 7-292. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - Mid Channel)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 170 of 357                 |

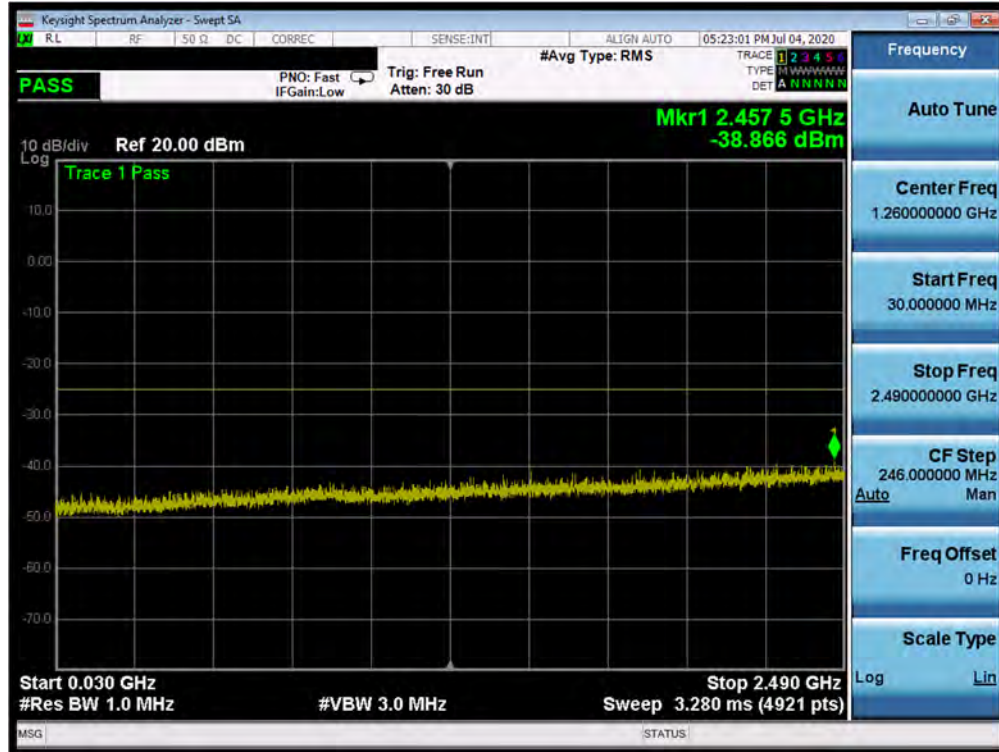


Plot 7-293. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - Mid Channel)

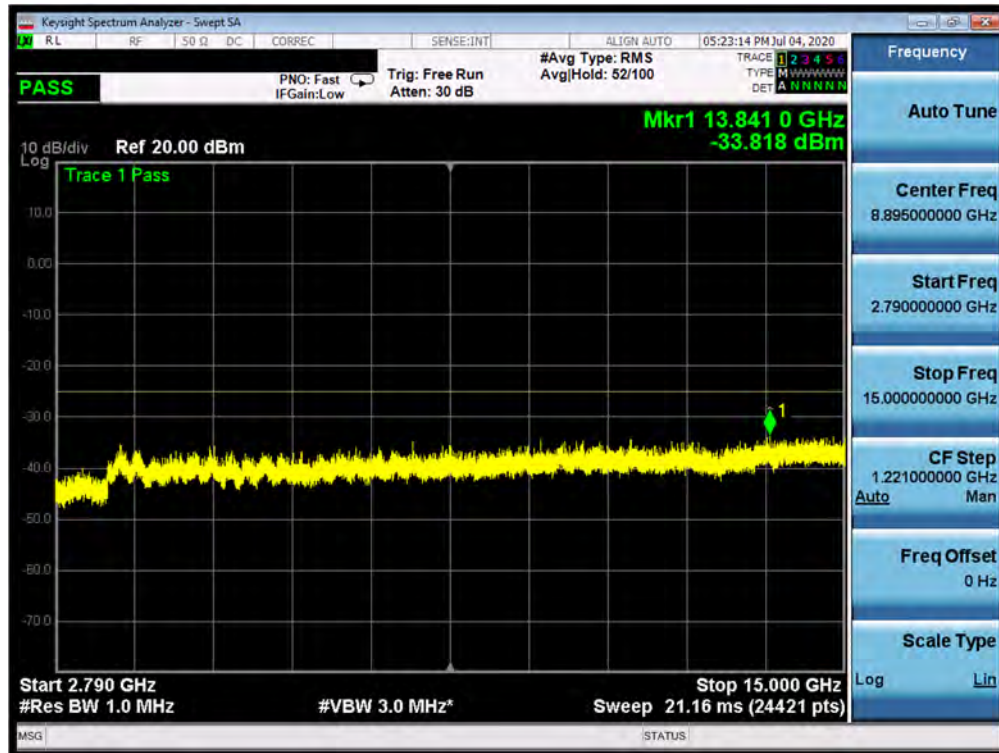


Plot 7-294. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - Mid Channel)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 171 of 357                 |

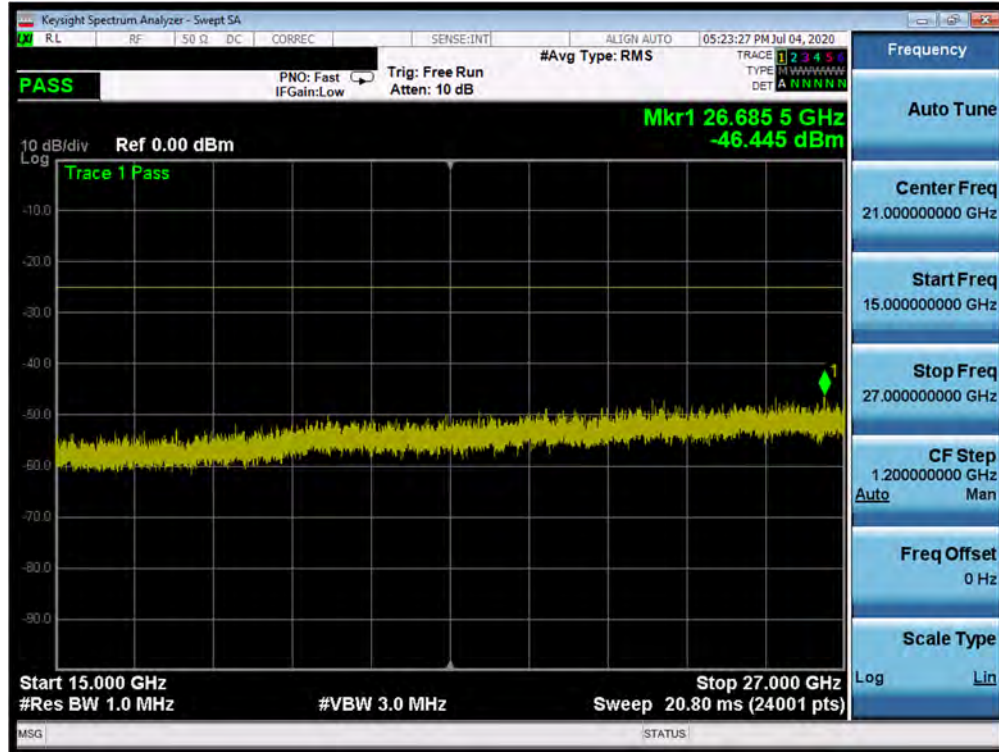


Plot 7-295. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - High Channel)



Plot 7-296. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - High Channel)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 172 of 357                 |



Plot 7-297. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - High Channel)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 173 of 357                 |

## 7.4 Band Edge Emissions at Antenna Terminal

### Test Overview

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

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

**The minimum permissible attenuation level for Band 30 is  $> 43 + 10 \log_{10}(P_{\text{Watts}})$  at 2300-2305MHz & 2345-2360MHz,  $> 55 + 10 \log_{10}(P_{\text{Watts}})$  at 2320-2324MHz & 2341-2345MHz,  $> 61 + 10 \log_{10}(P_{\text{Watts}})$  at 2324-2328MHz & 2337-2341MHz,  $> 67 + 10 \log_{10}(P_{\text{Watts}})$  at 2288-2292MHz & 2328-2337MHz, and  $> 70 + 10 \log_{10}(P_{\text{Watts}})$  at frequencies  $< 2288\text{MHz}$  &  $> 2365\text{MHz}$ .**

**The minimum permissible attenuation level for Band 7 is as noted in the Test Notes on the following page.**

### 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  $\geq 3 \times$  RBW
5. Detector = RMS
6. Number of sweep points  $\geq 2 \times$  Span/RBW
7. Trace mode = trace average for continuous emissions, max hold for pulse emissions
8. Sweep time = auto couple
9. The trace was allowed to stabilize

### Test Setup

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



**Figure 7-3. Test Instrument & Measurement Setup**

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 174 of 357                 |

## Test Notes

Per 22.917(b), 24.238(a), and 27.53(h) in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.

Per 27.53(g) for operations in the 663 - 698 MHz and 698 – 746MHz bands, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.

Per 27.53(c)(5) for operations in the 776-788 MHz band, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.

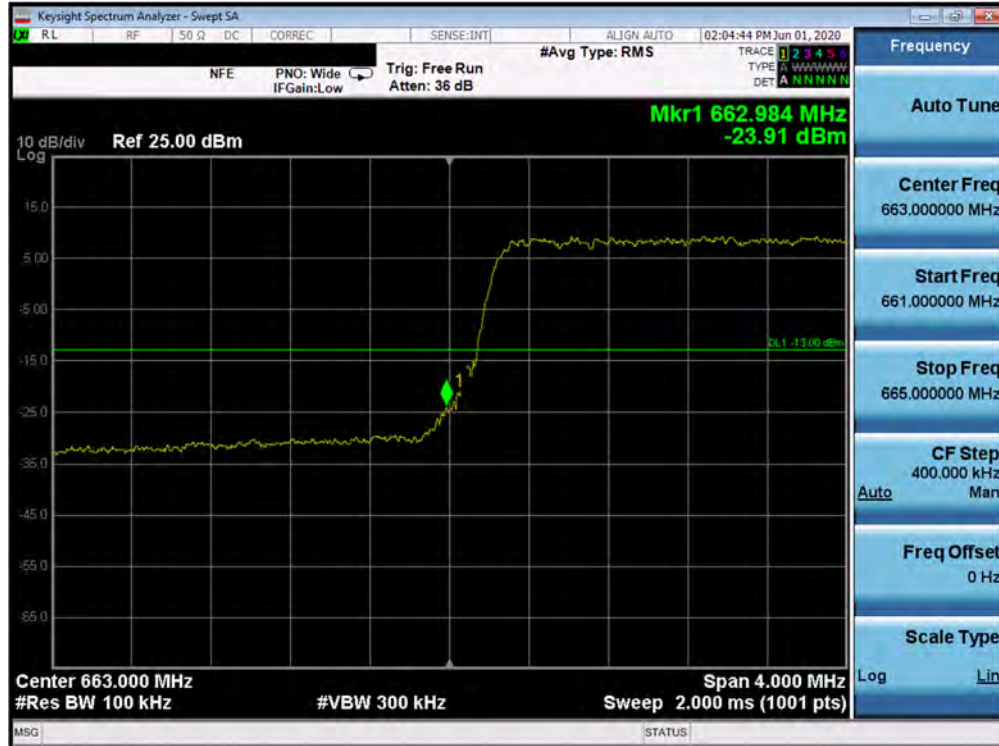
For all plots showing emissions in the 763 – 775MHz and 793 – 805MHz band, the FCC limit per 27.53(c)(4) is  $65 + 10 \log_{10}(P) = -35\text{dBm}$  in a 6.25kHz bandwidth.

Per 27.53(a)(5) in the 1 MHz bands immediately outside and adjacent to the channel blocks at 2305, 2310, 2315, 2320, 2345, 2350, 2355, and 2360 MHz, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e., 1 MHz). 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.

Per 27.53(m) for operations in the BRS/EBS bands, the attenuation factor shall be not less than  $40 + 10 \log (P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log (P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth. In addition, the attenuation factor shall not be less that  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz.

|                                                |                                                                                     |                                               |                                                                                       |                                        |
|------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------|
| <b>FCC ID:</b> A3LSMN981W                      |  | <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b> |  | <b>Approved by:</b><br>Quality Manager |
| <b>Test Report S/N:</b><br>1M2005050082-03.A3L | <b>Test Dates:</b><br>5/5 – 7/15/2020                                               | <b>EUT Type:</b><br>Portable Handset          |                                                                                       | Page 175 of 357                        |

## Band 71

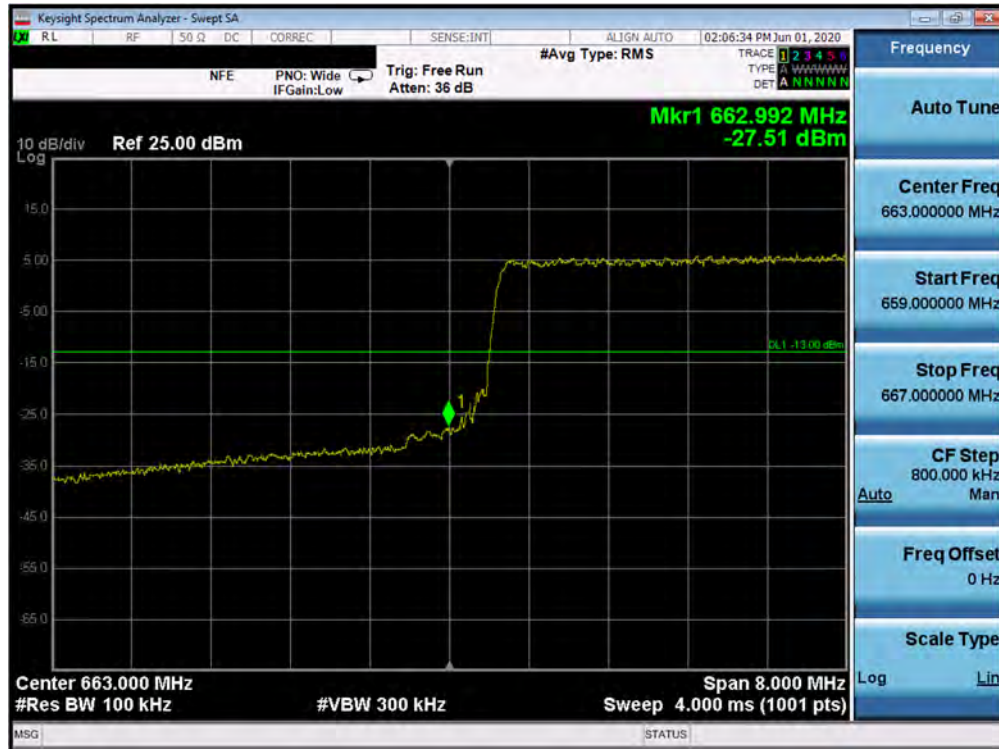


Plot 7-298. Lower Band Edge Plot (Band 71 - 5.0MHz QPSK - Full RB Configuration)

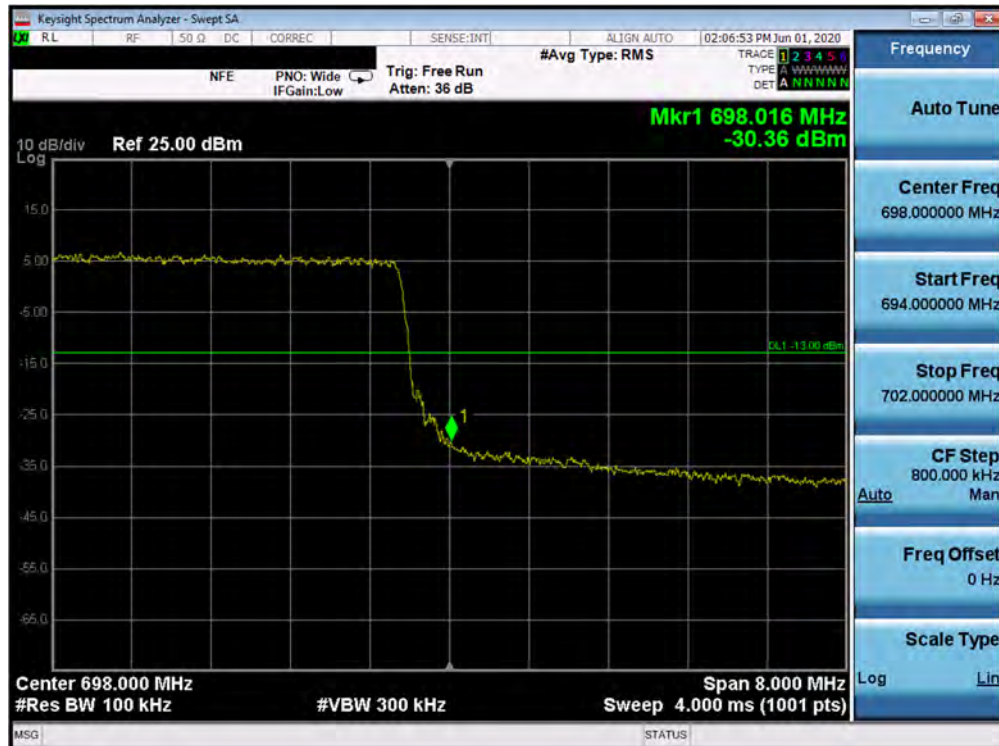


Plot 7-299. Upper Band Edge Plot (Band 71 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 176 of 357                 |

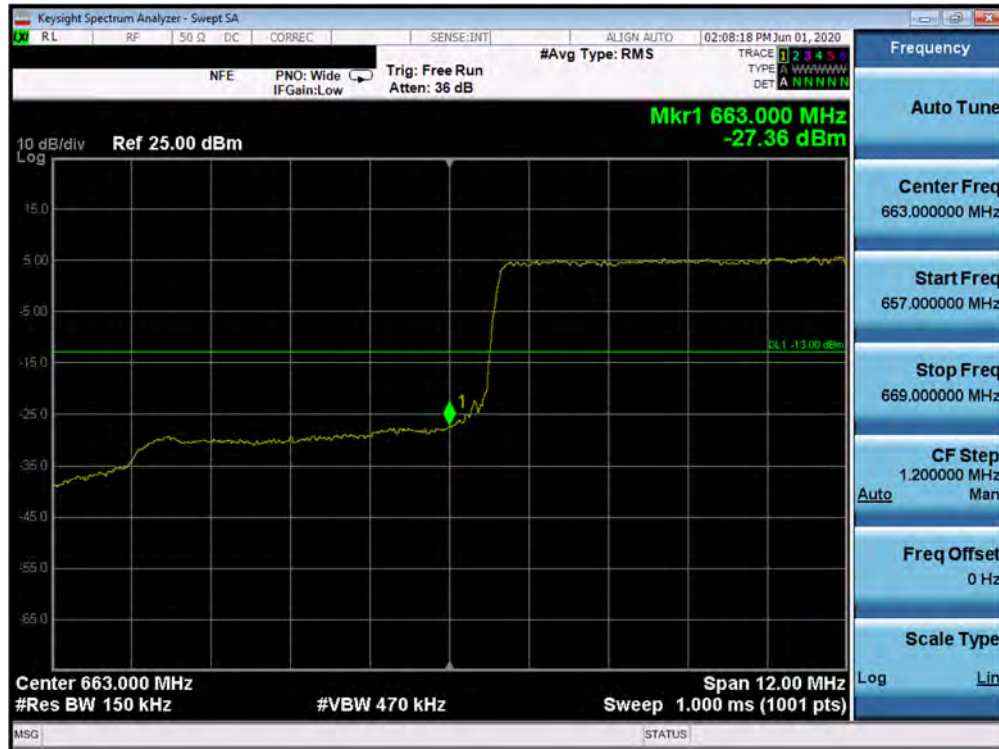


Plot 7-300. Lower Band Edge Plot (Band 71 - 10.0MHz QPSK - Full RB Configuration)

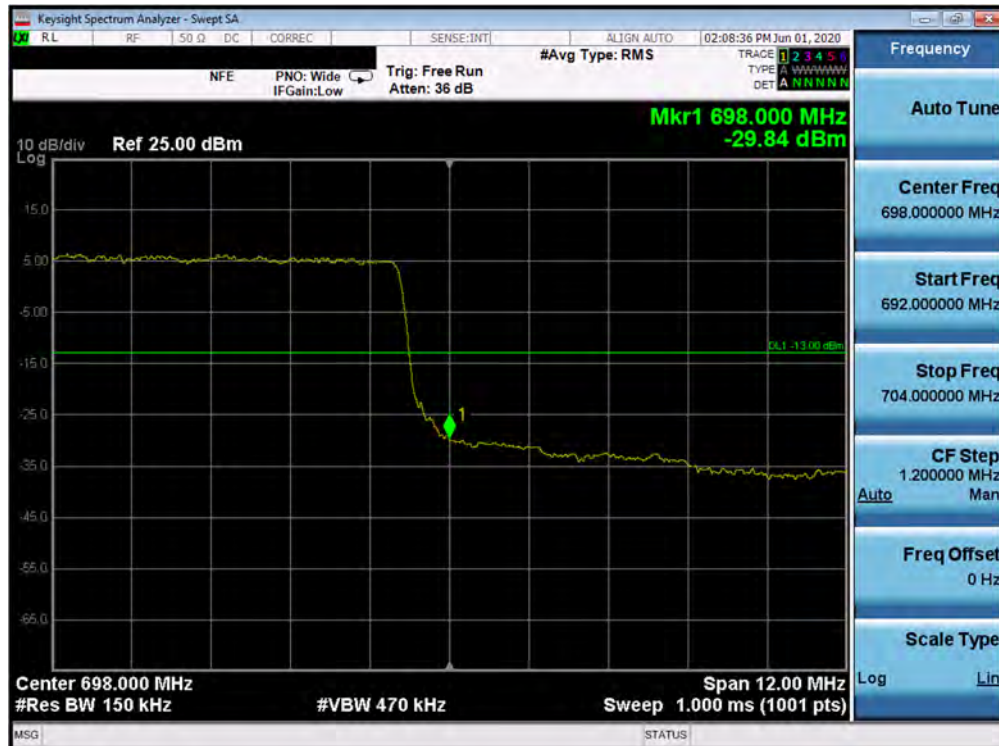


Plot 7-301. Upper Band Edge Plot (Band 71 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 177 of 357                 |

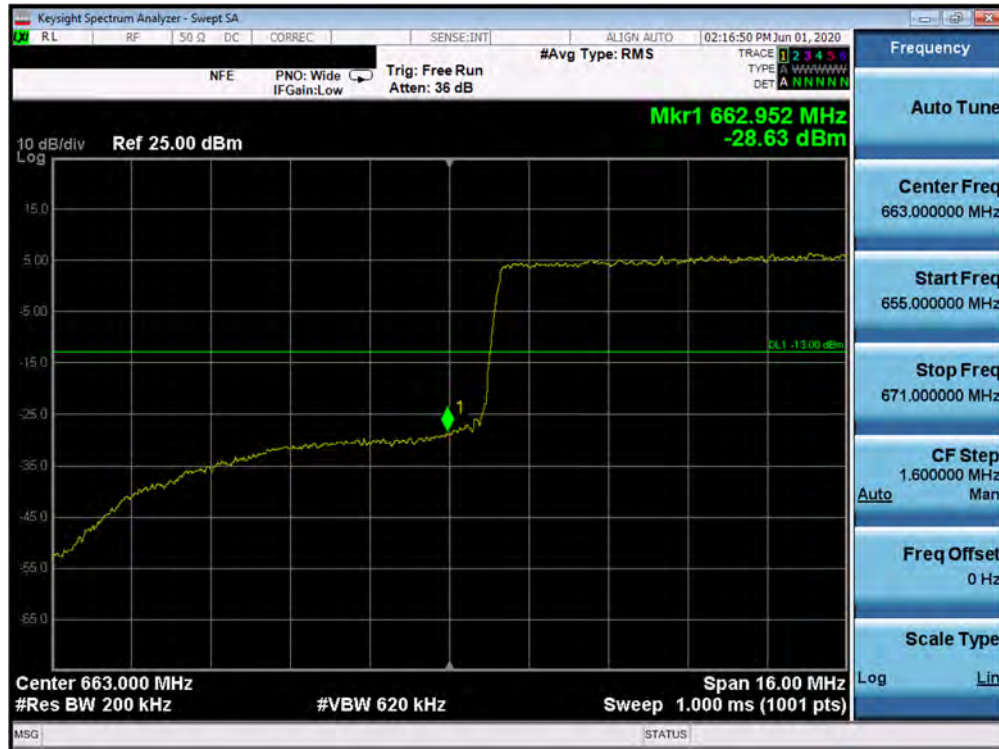


Plot 7-302. Lower Band Edge Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)

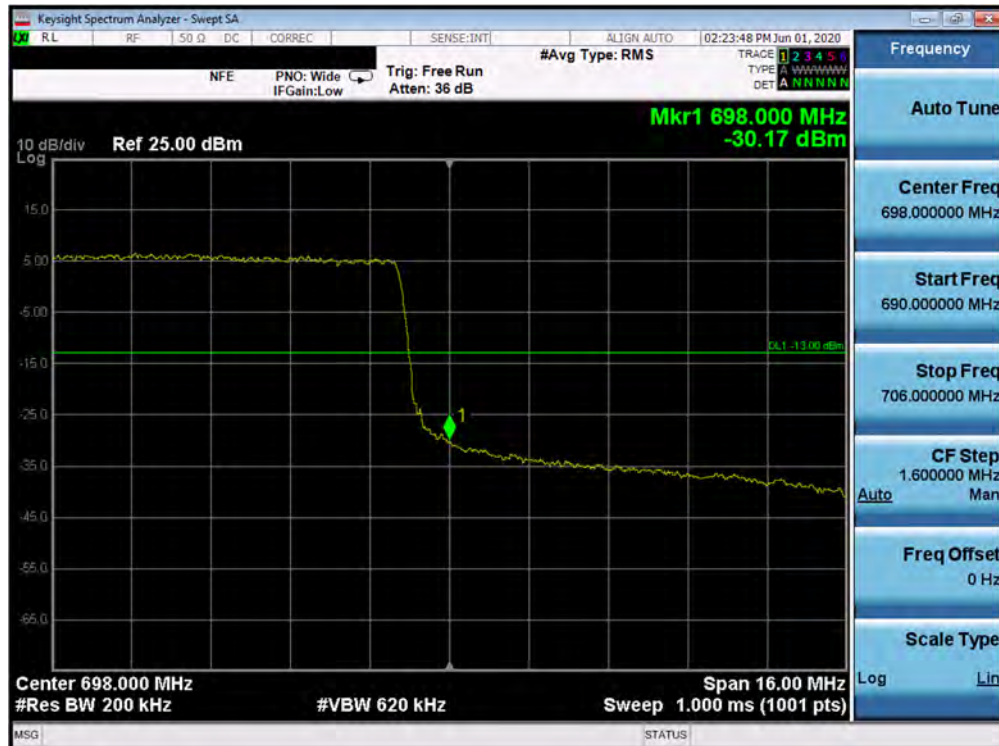


Plot 7-303. Upper Band Edge Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 178 of 357                 |



Plot 7-304. Lower Band Edge Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-305. Upper Band Edge Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 179 of 357                 |

## NR Band n71

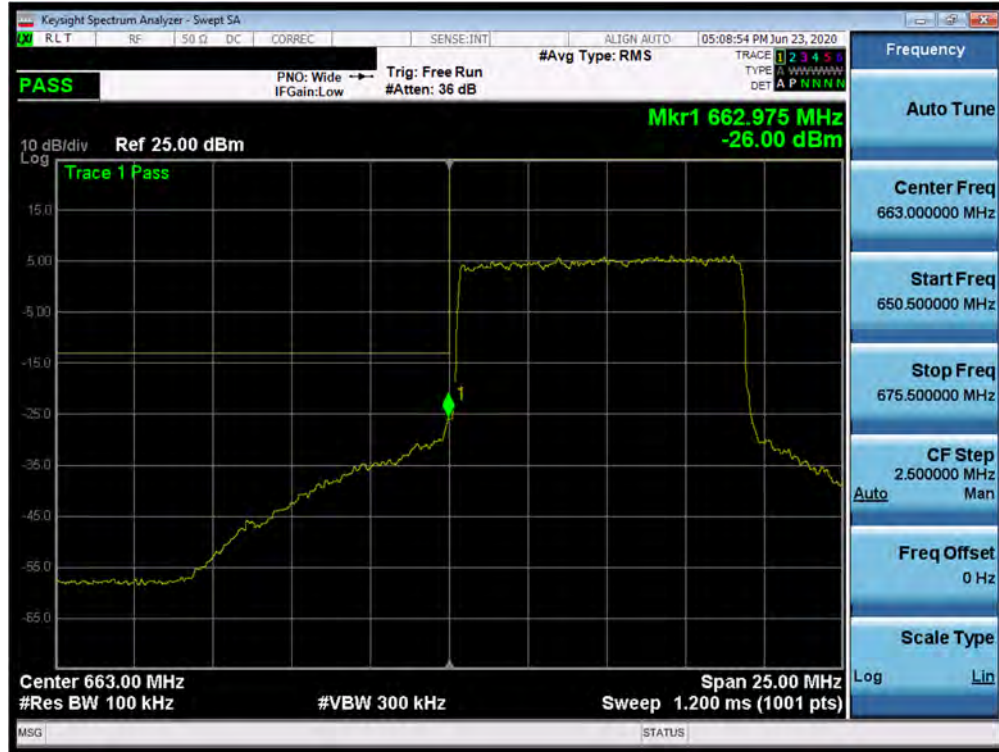


Plot 7-306. Lower Band Edge Plot (n71 - 5MHz DFT-s-OFDM-QPSK - Full RB Configuration)



Plot 7-307. Upper Band Edge Plot (n71 - 5MHz DFT-s-OFDM-QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 180 of 357                 |



Plot 7-308. Lower Band Edge Plot (n71 - 10MHz DFT-s-OFDM-QPSK - Full RB Configuration)

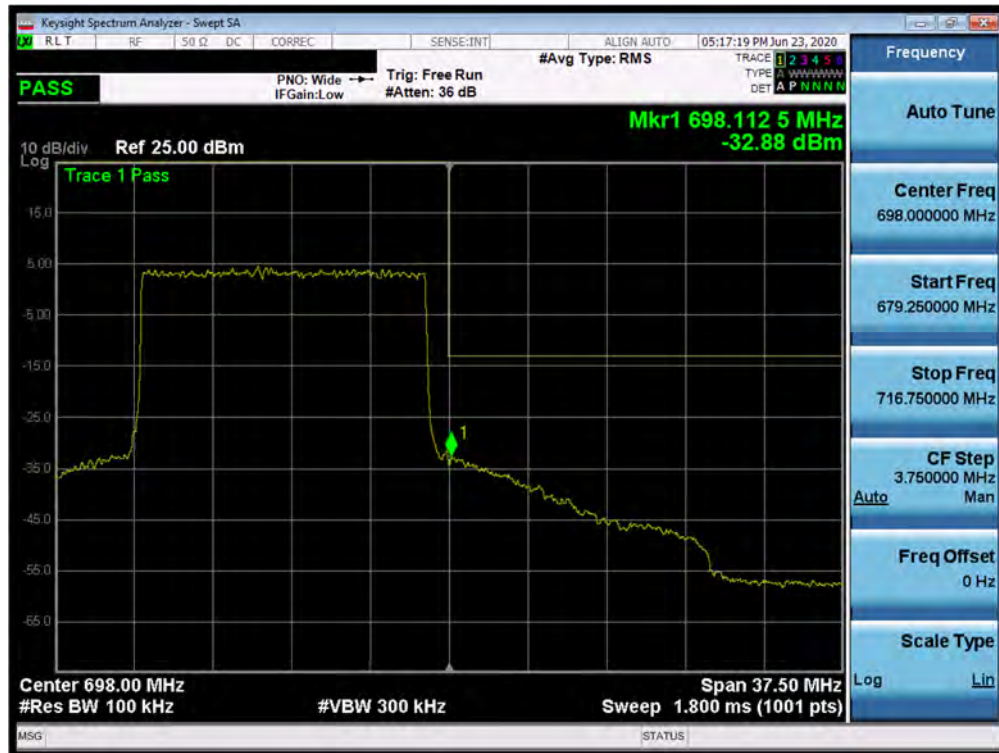


Plot 7-309. Upper Band Edge Plot (n71 - 10MHz DFT-s-OFDM-QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 181 of 357                 |

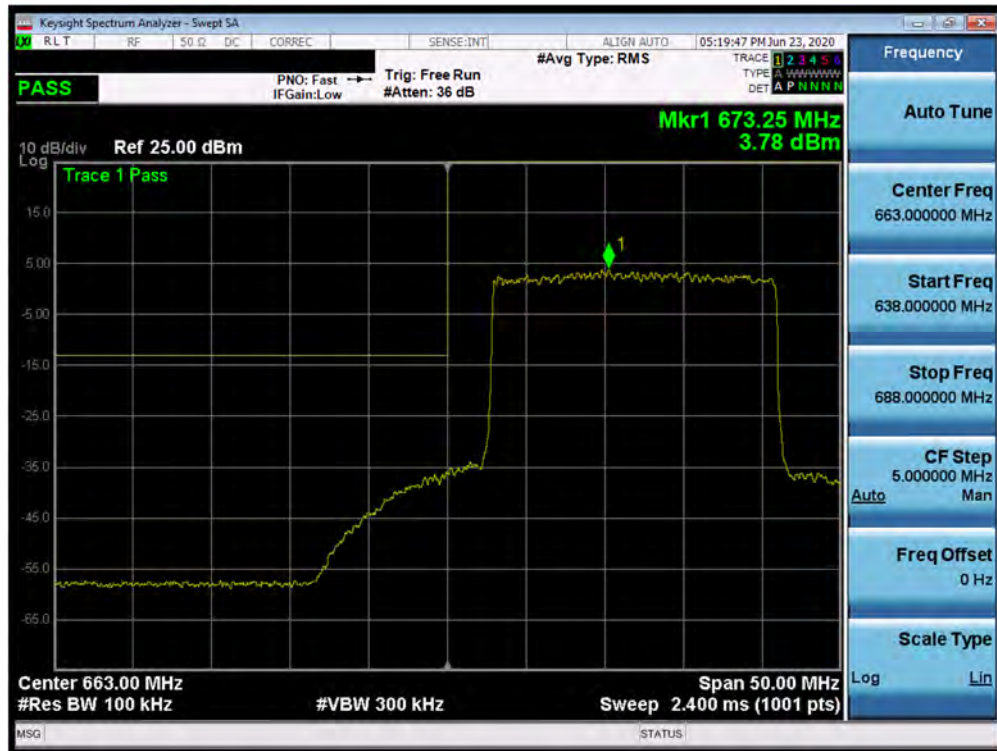


Plot 7-310. Lower Band Edge Plot (n71 - 15MHz DFT-s-OFDM-QPSK - Full RB Configuration)



Plot 7-311. Upper Band Edge Plot (n71 - 15MHz DFT-s -OFDM-QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 182 of 357                 |



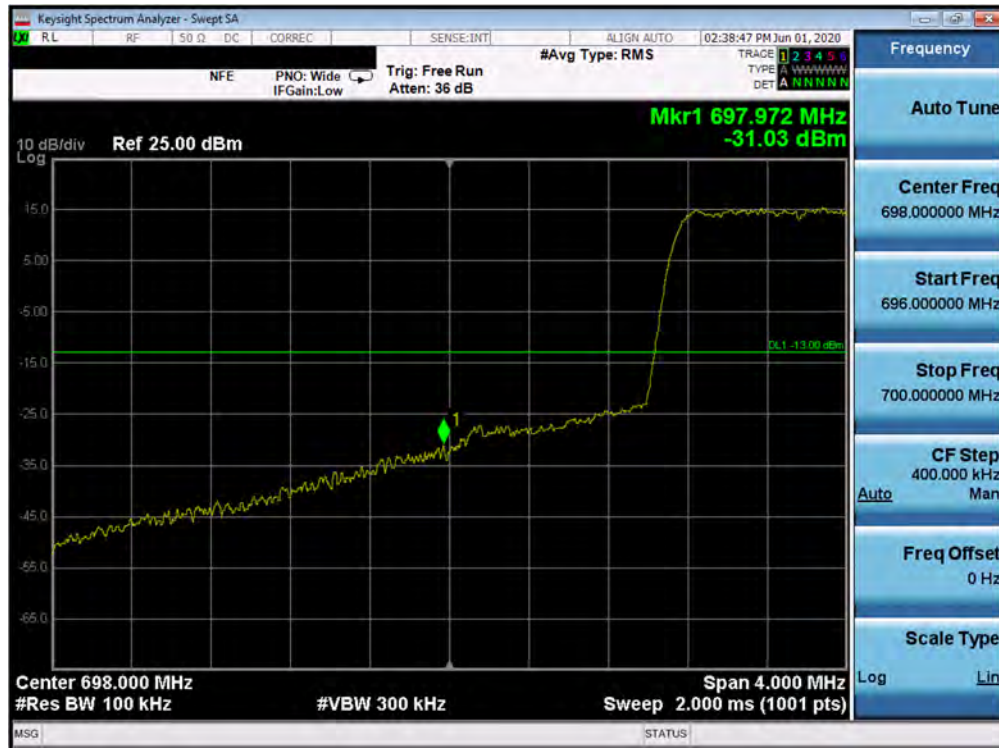
Plot 7-312. Lower Band Edge Plot (n71 - 20MHz DFT-s -OFDM-QPSK - Full RB Configuration)



Plot 7-313. Upper Band Edge Plot (n71- 20MHz DFT-s -OFDM-QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 183 of 357                 |

## Band 12

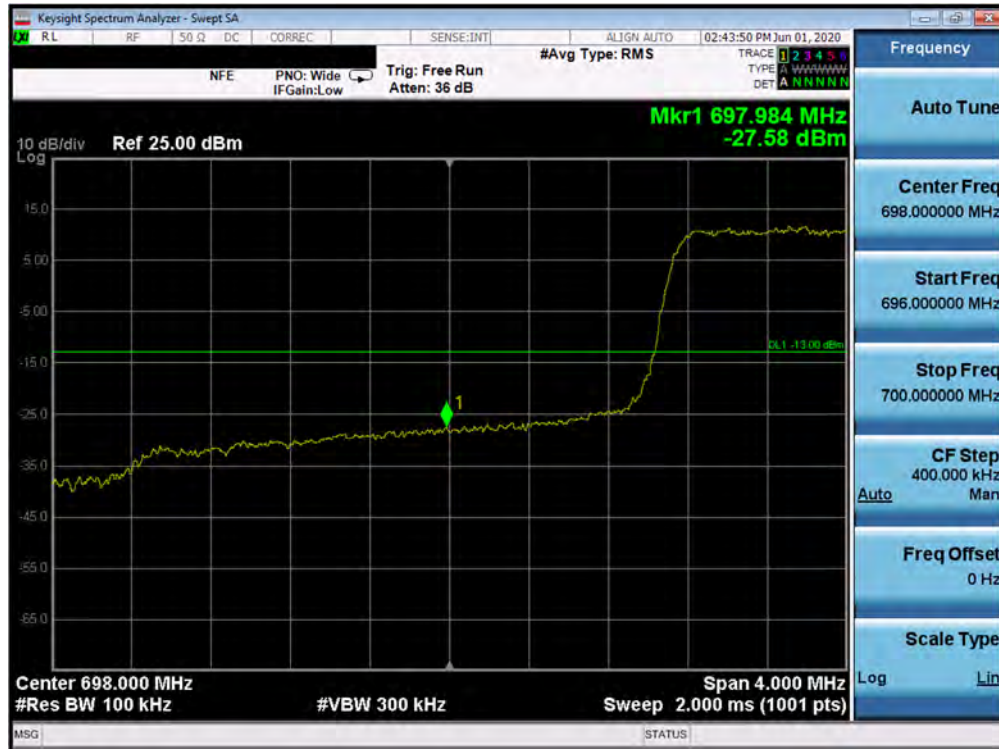


Plot 7-314. Lower Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-315. Upper Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 184 of 357                 |

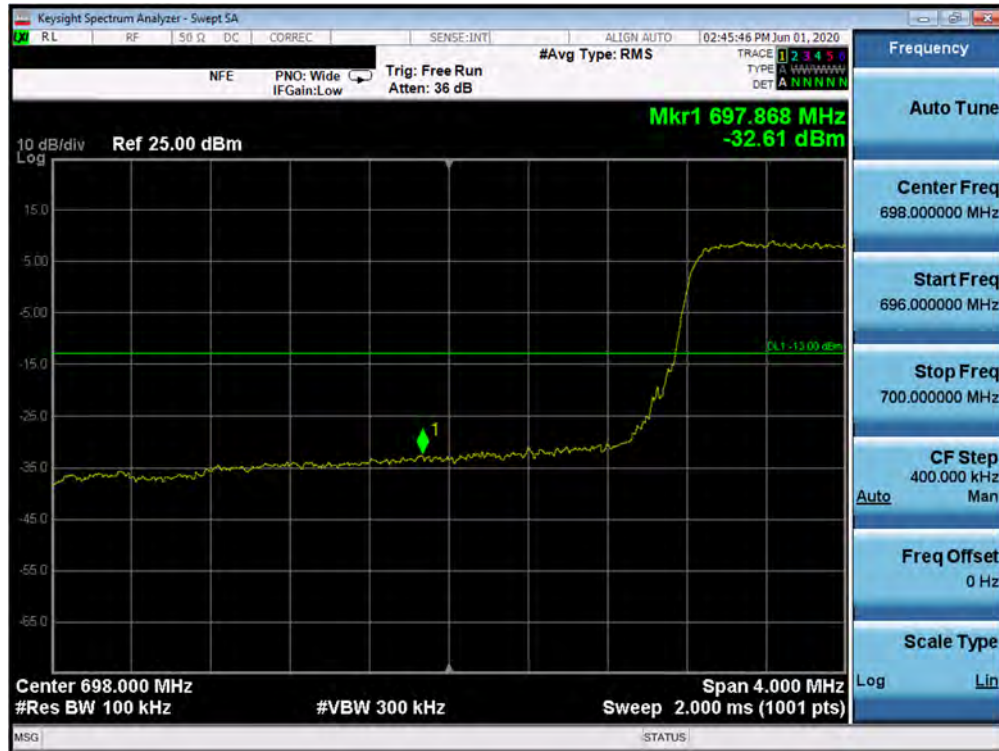


Plot 7-316. Lower Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-317. Upper Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 185 of 357                 |

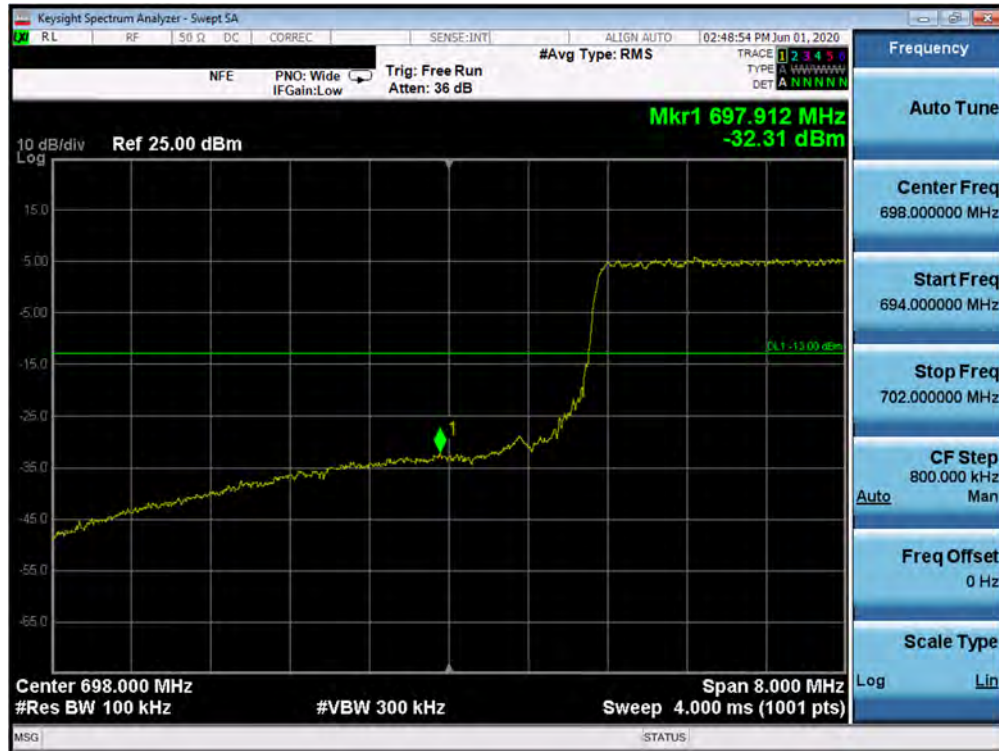


Plot 7-318. Lower Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)

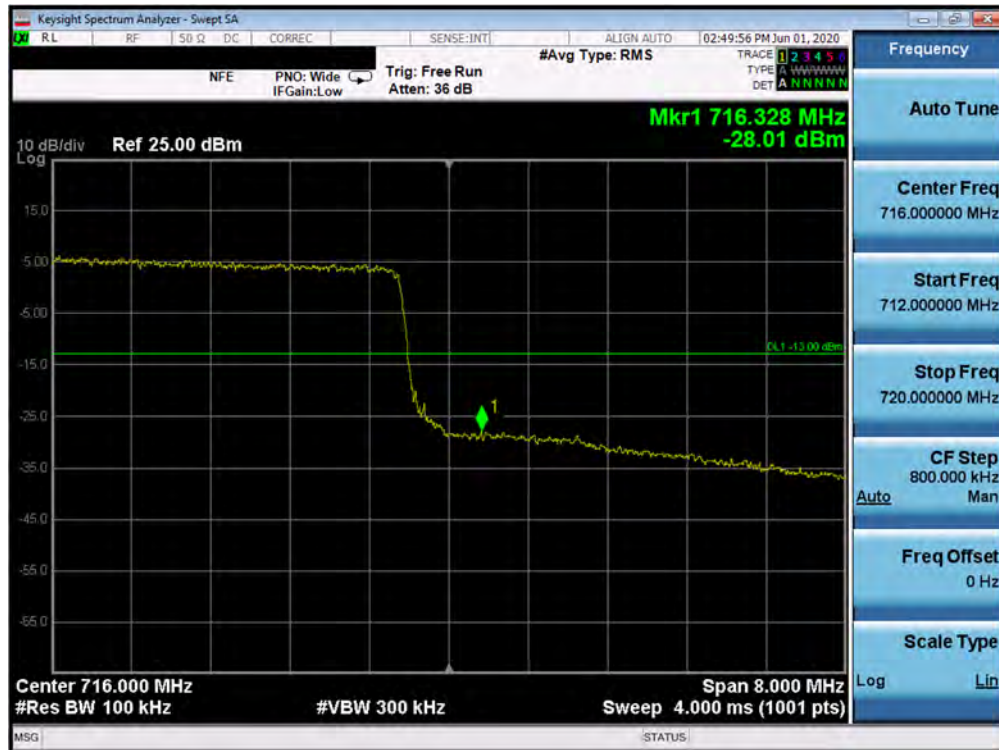


Plot 7-319. Upper Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 186 of 357                 |



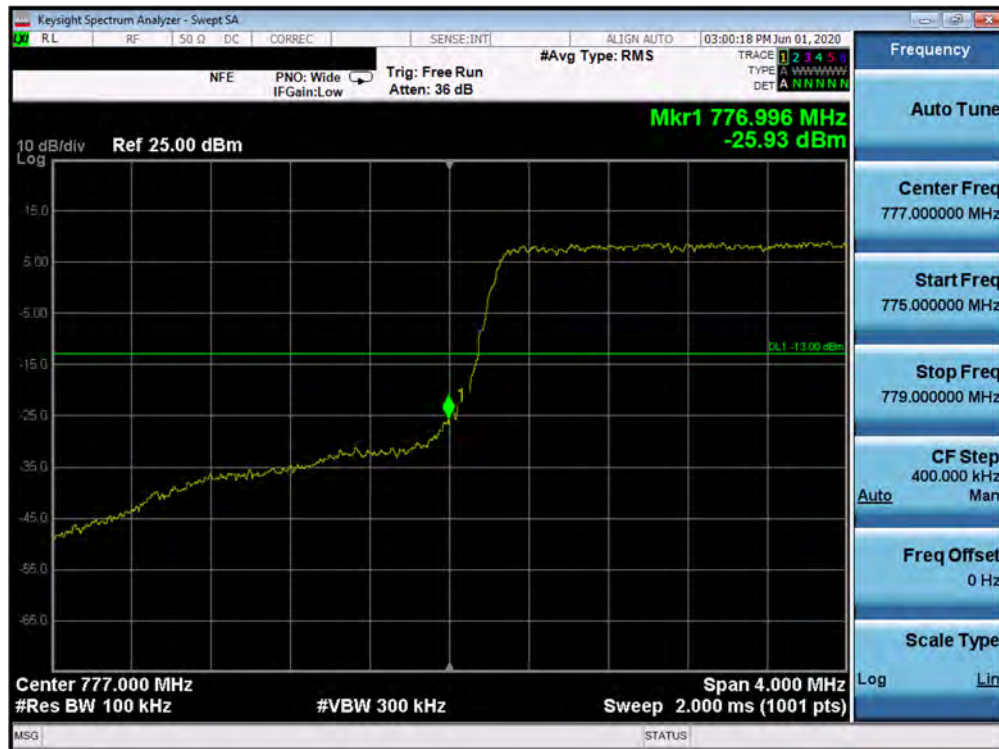
Plot 7-320. Lower Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-321. Upper Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 187 of 357                 |

## Band 13



Plot 7-322. Lower Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

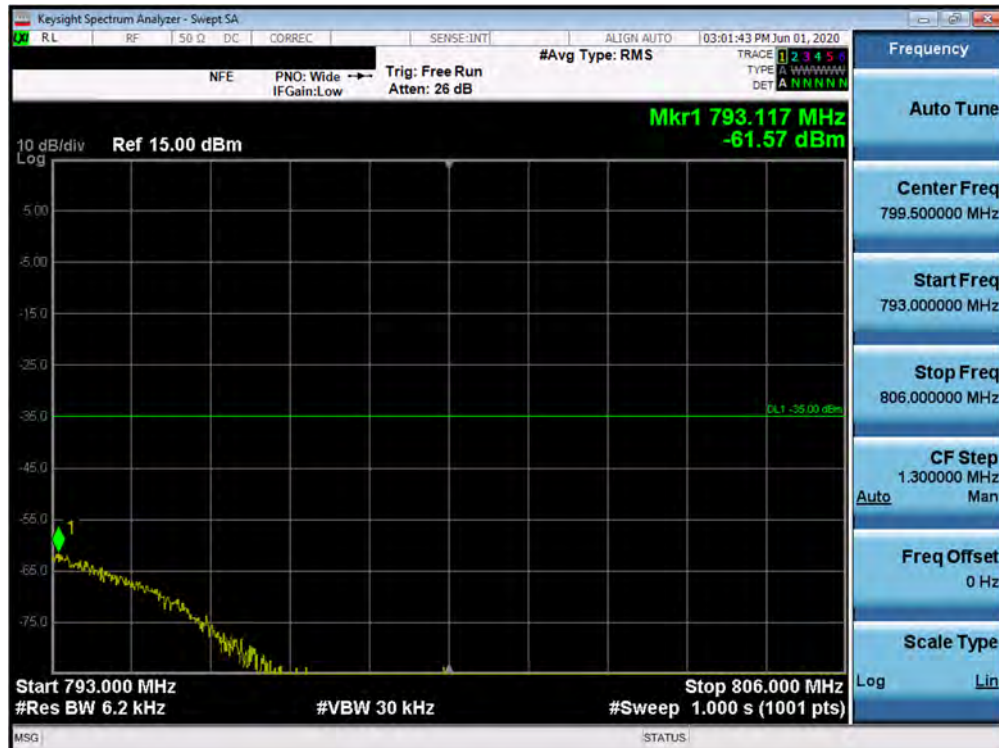


Plot 7-323. Lower Emission Mask Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 188 of 357                 |

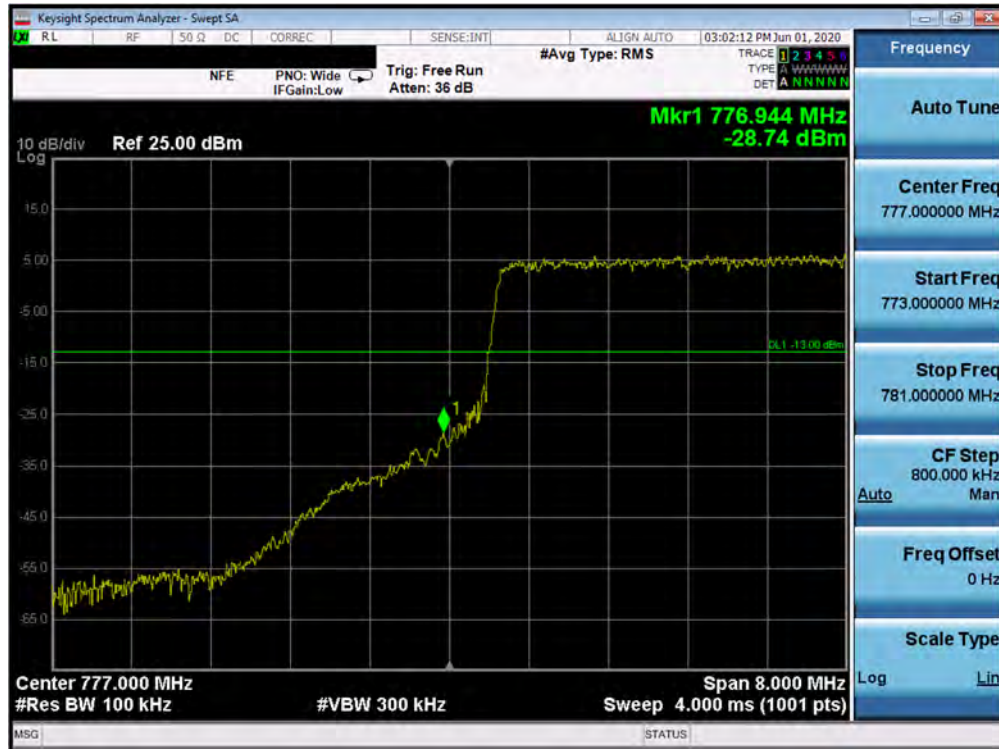


Plot 7-324. Upper Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

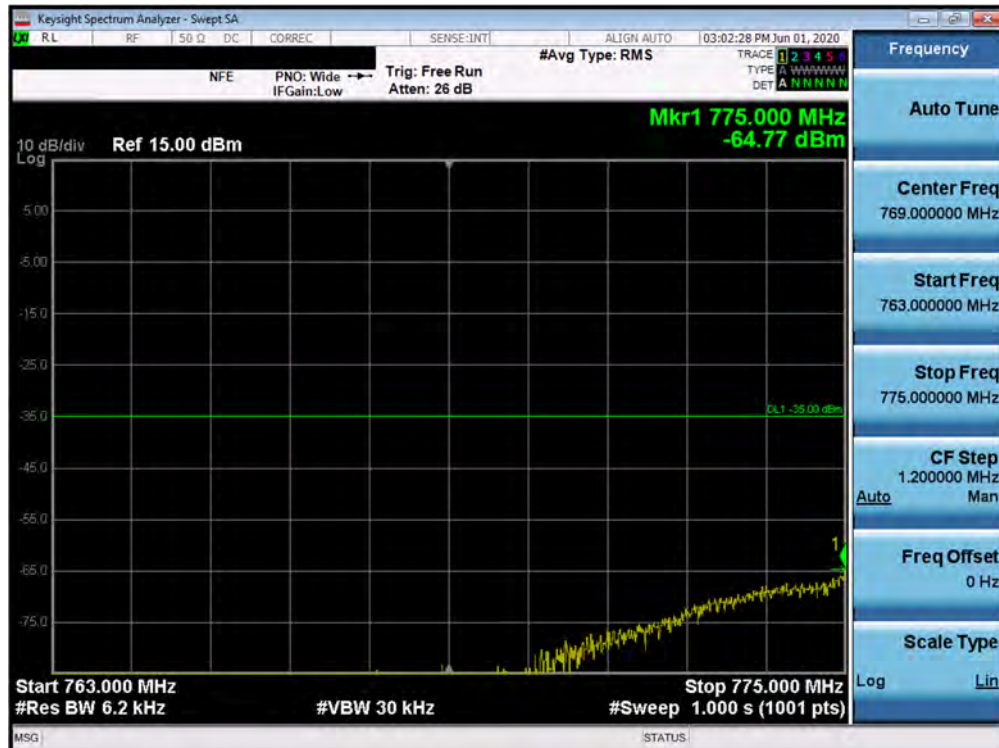


Plot 7-325. Upper Emission Mask Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 189 of 357                 |

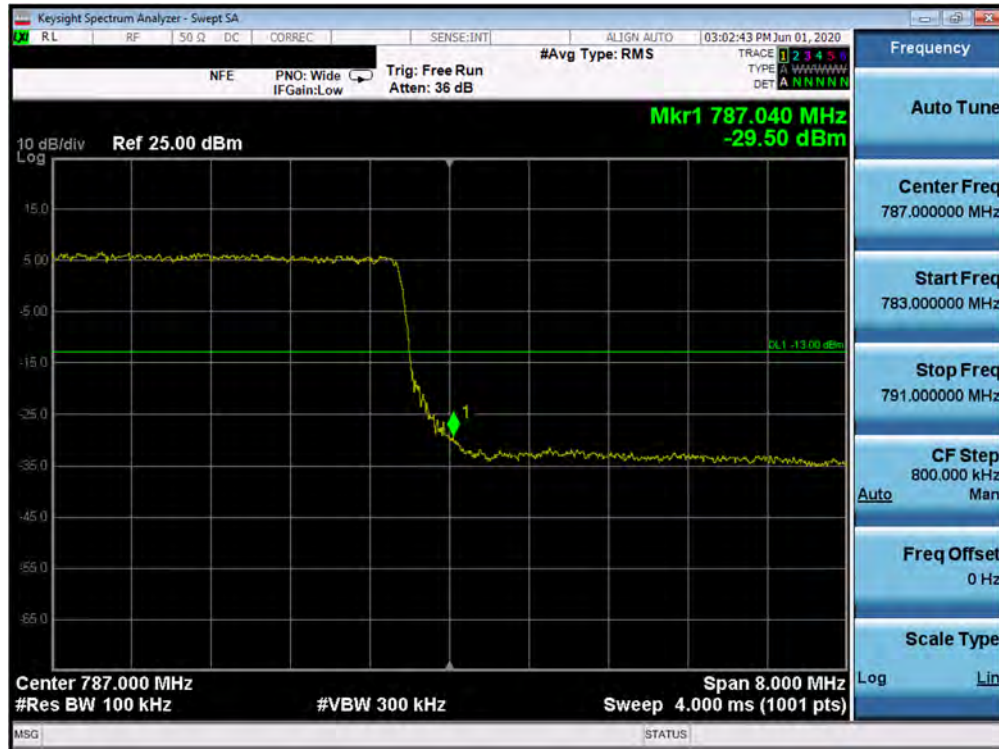


Plot 7-326. Lower Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

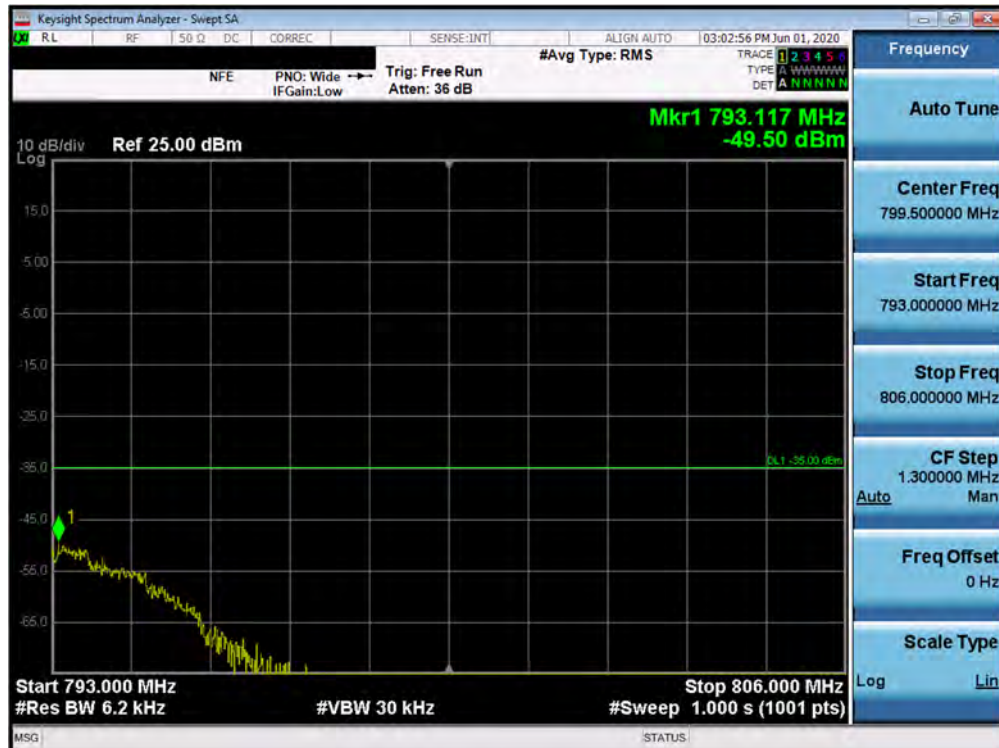


Plot 7-327. Lower Emission Mask Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 190 of 357                 |



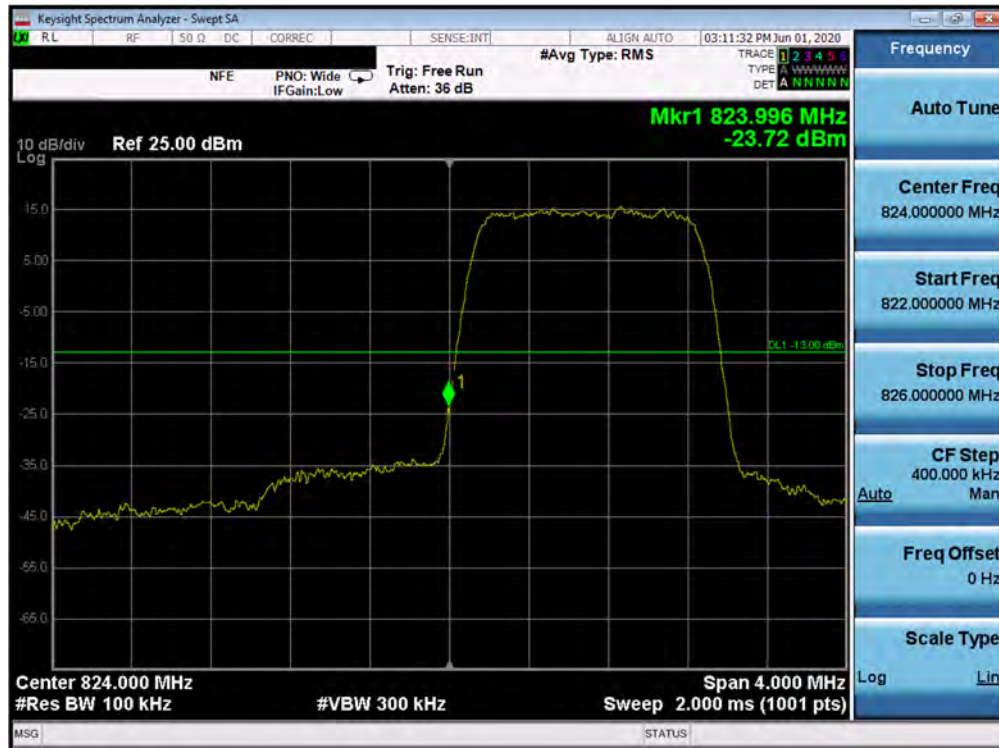
Plot 7-328. Upper Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)



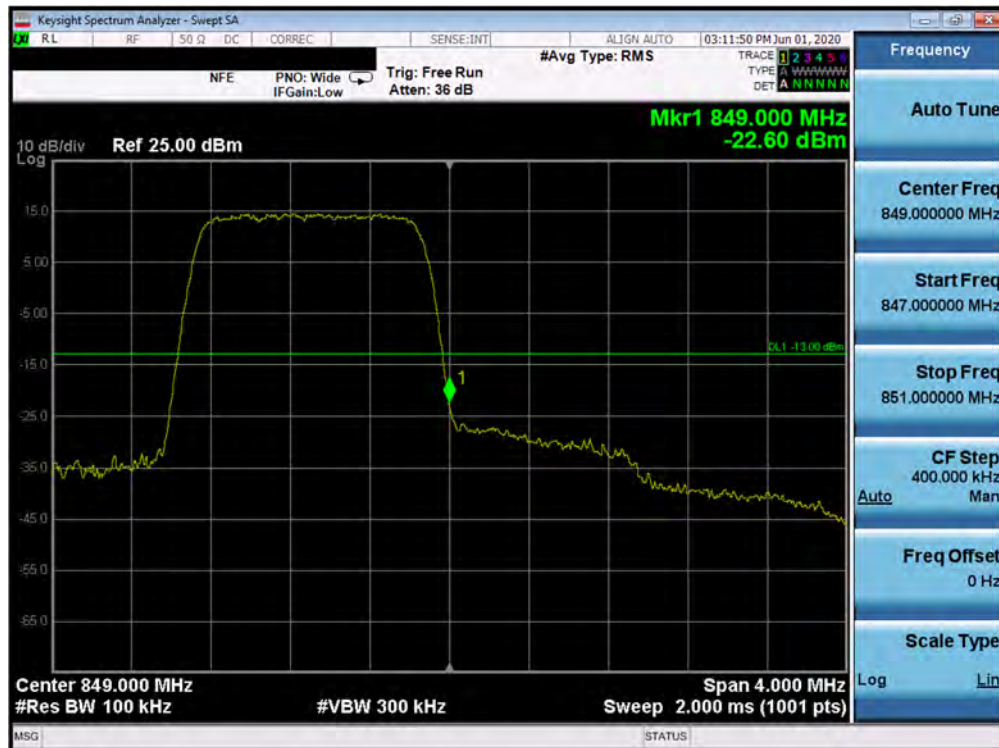
Plot 7-329. Upper Band Emission Mask Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 191 of 357                 |

## Band 5

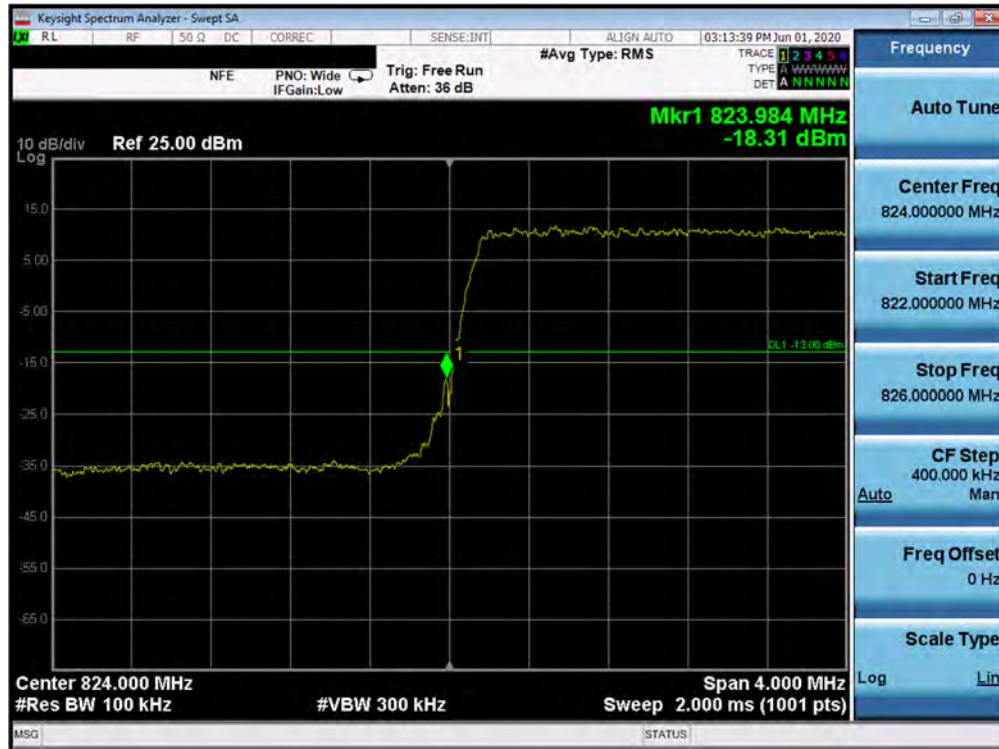


Plot 7-330. Lower Band Edge Plot (Band 5 - 1.4MHz QPSK - Full RB Configuration)

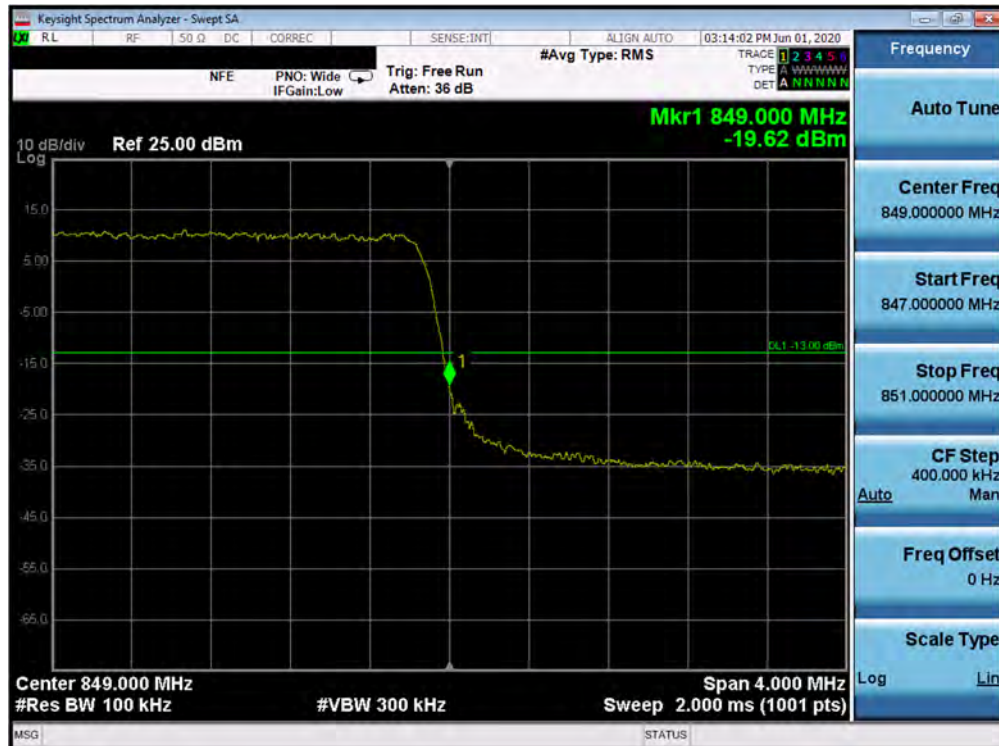


Plot 7-331. Upper Band Edge Plot (Band 5 - 1.4MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 192 of 357                 |

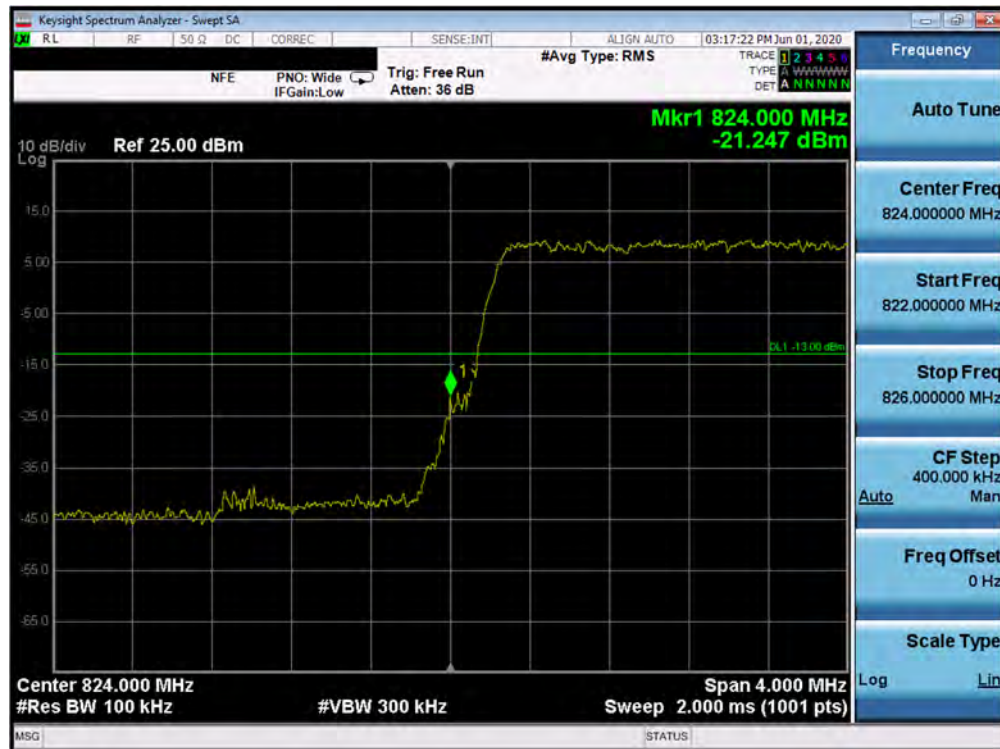


Plot 7-332. Lower Band Edge Plot (Band 5 - 3.0MHz QPSK - Full RB Configuration)

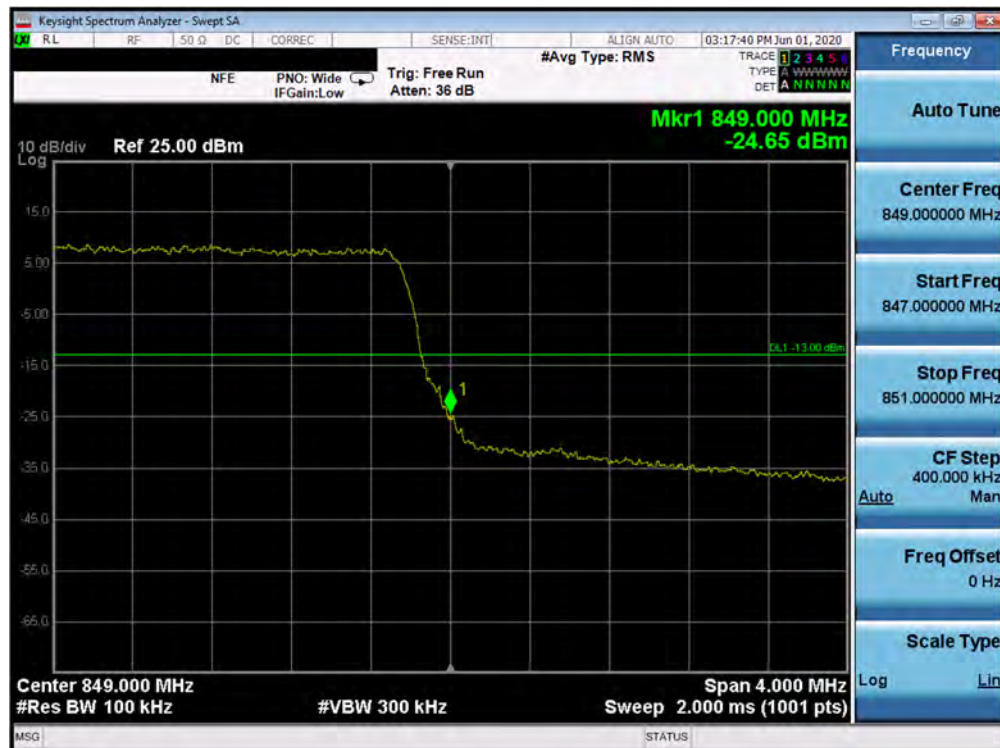


Plot 7-333. Upper Band Edge Plot (Band 5 - 3.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 193 of 357                 |

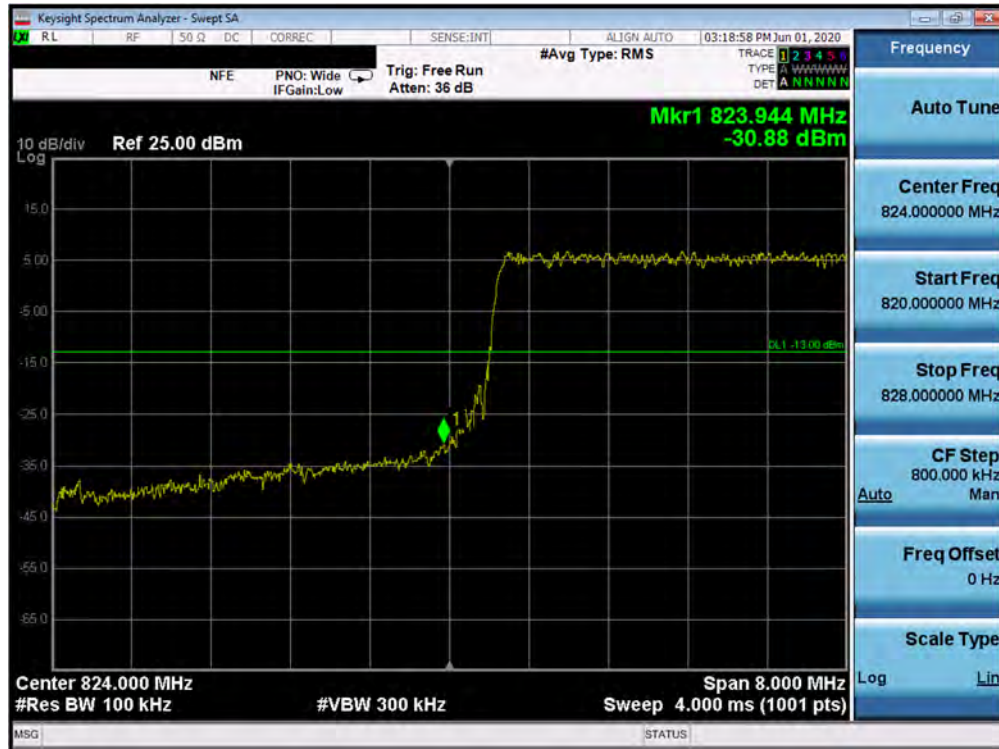


Plot 7-334. Lower Band Edge Plot (Band 5 - 5.0MHz QPSK - Full RB Configuration)

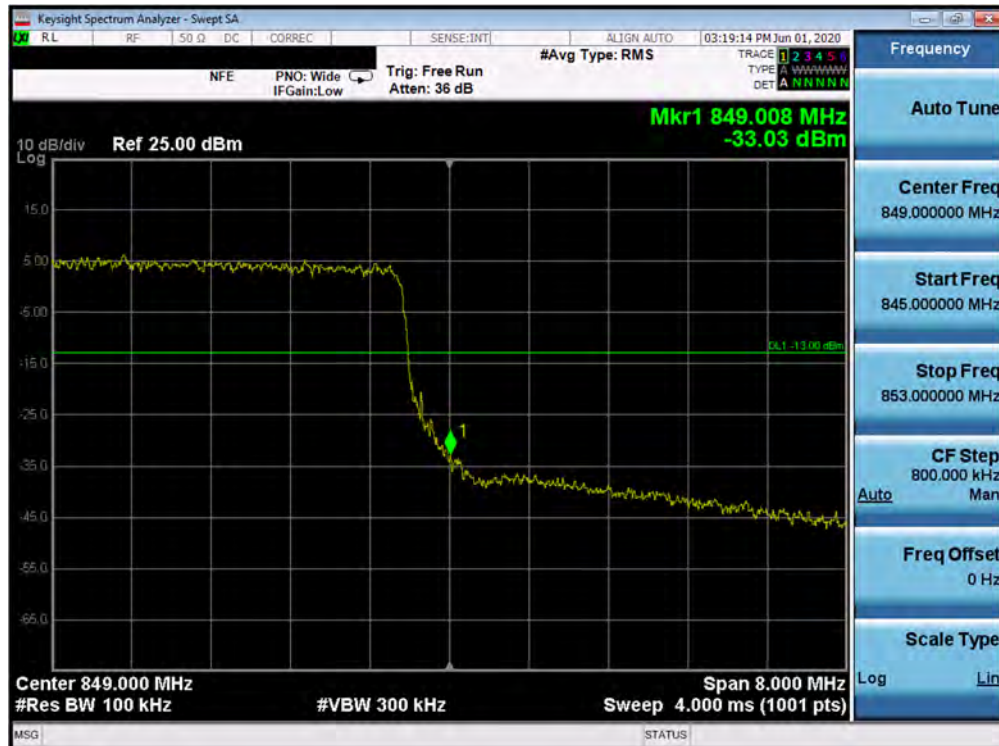


Plot 7-335. Upper Band Edge Plot (Band 5 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 194 of 357                 |



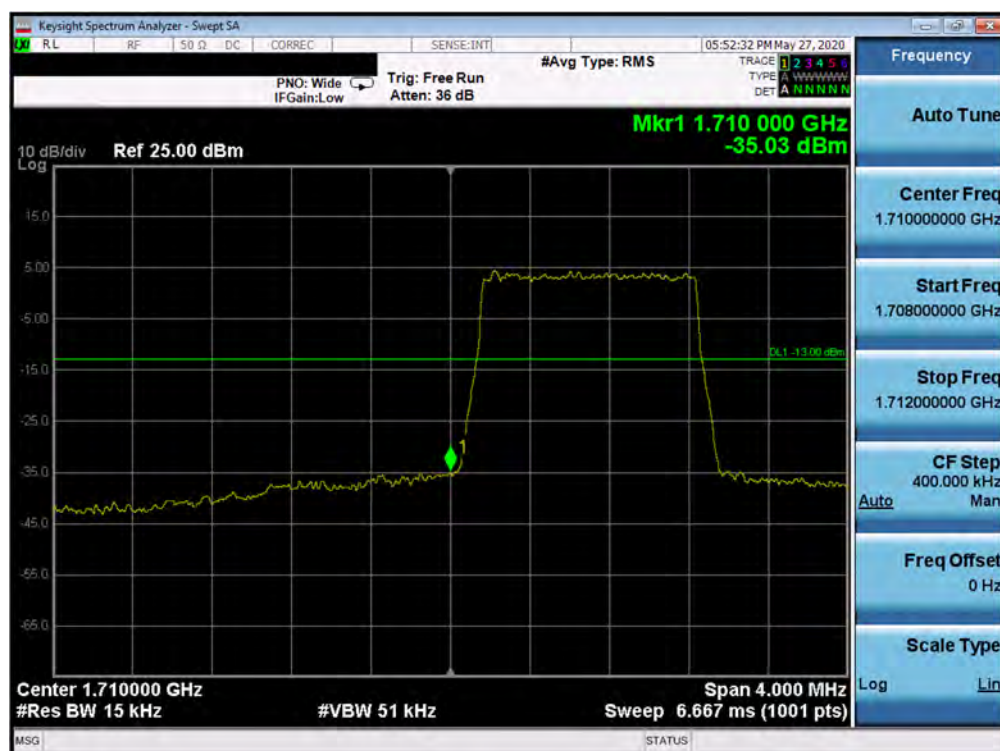
Plot 7-336. Lower Band Edge Plot (Band 5 - 10.0MHz QPSK - Full RB Configuration)



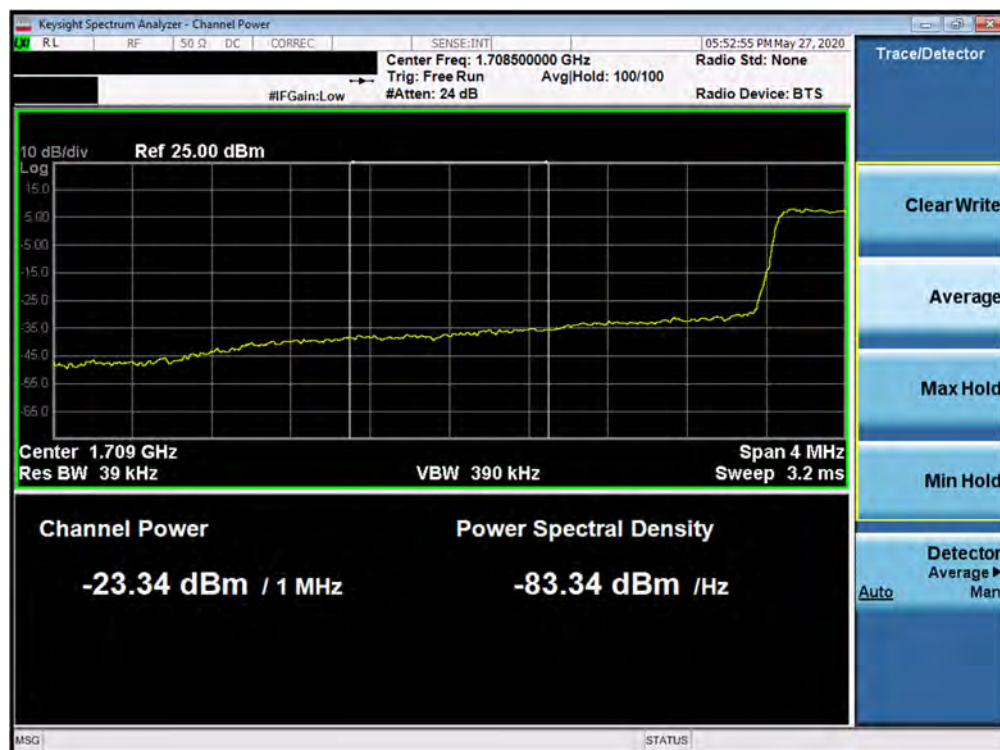
Plot 7-337. Upper Band Edge Plot (Band 5 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 195 of 357                 |

**Band 66/4**

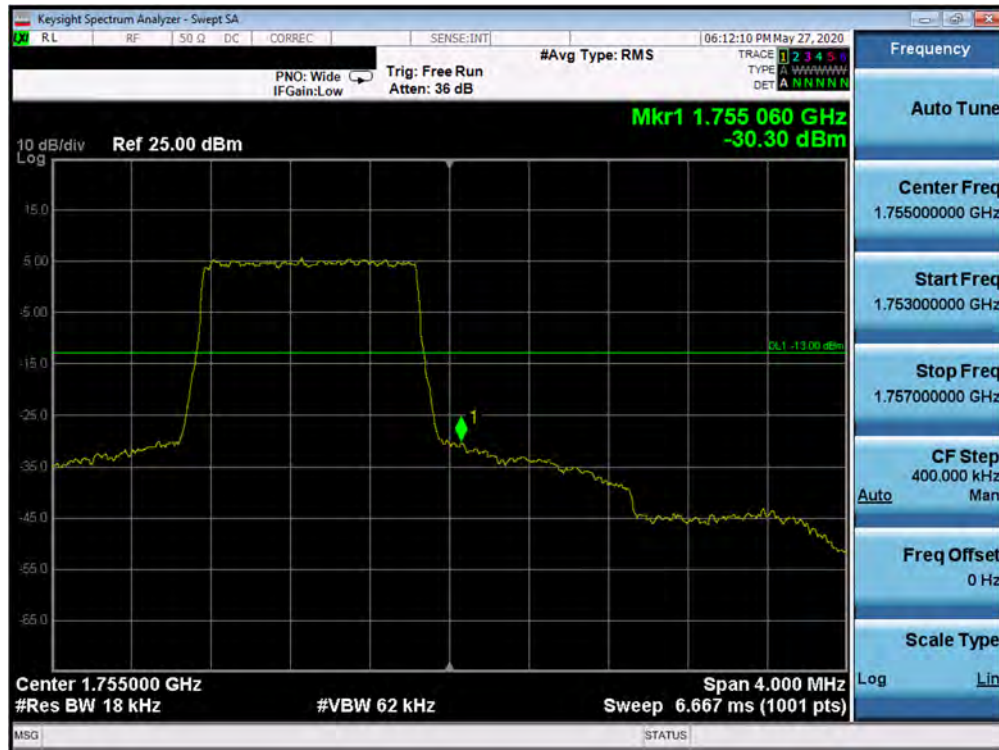


**Plot 7-338. Lower Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)**

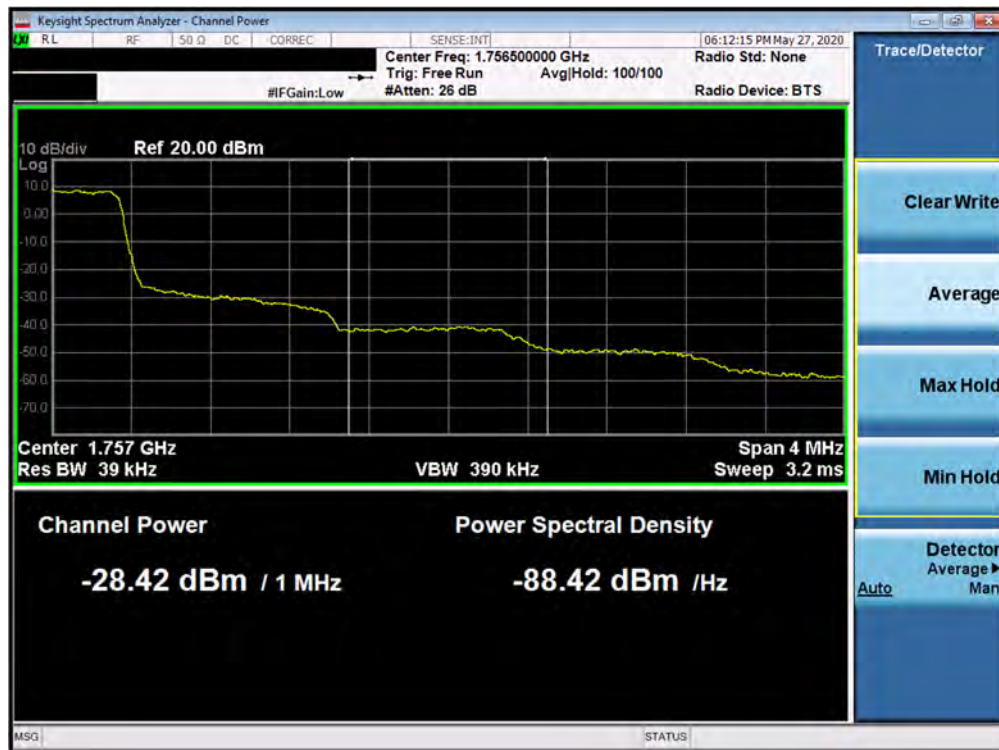


**Plot 7-339. Lower Extended Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)**

|                                                |                                                                                                                                                                                                                         |                                      |                                        |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------|
| FCC ID: A3LSMN981W                             |  <b>MEASUREMENT REPORT<br/>(CERTIFICATION)</b>  |                                      | <b>Approved by:</b><br>Quality Manager |
| <b>Test Report S/N:</b><br>1M2005050082-03.A3L | <b>Test Dates:</b><br>5/5 – 7/15/2020                                                                                                                                                                                   | <b>EUT Type:</b><br>Portable Handset | Page 196 of 357                        |



Plot 7-340. Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

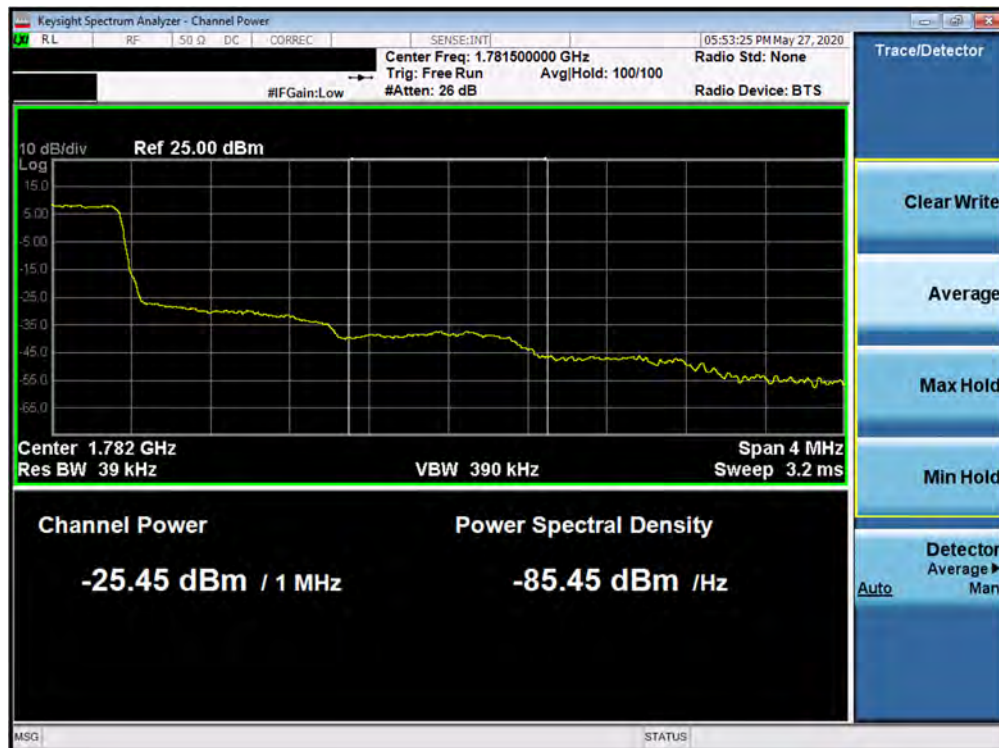


Plot 7-341. Upper Extended Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 197 of 357                 |

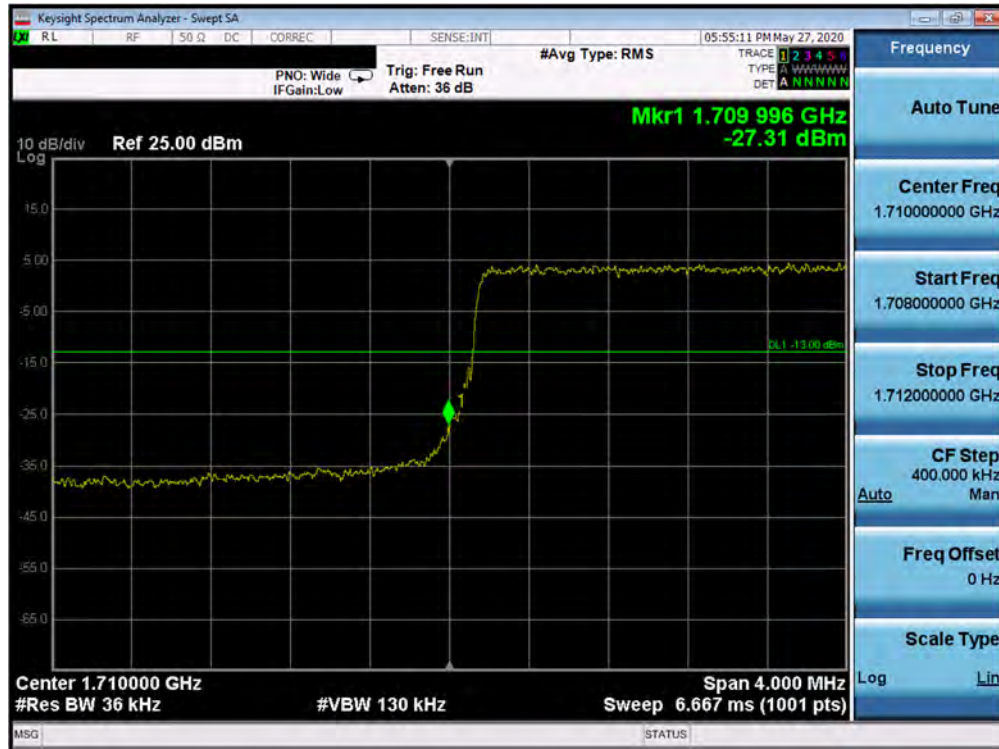


Plot 7-342. Upper Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

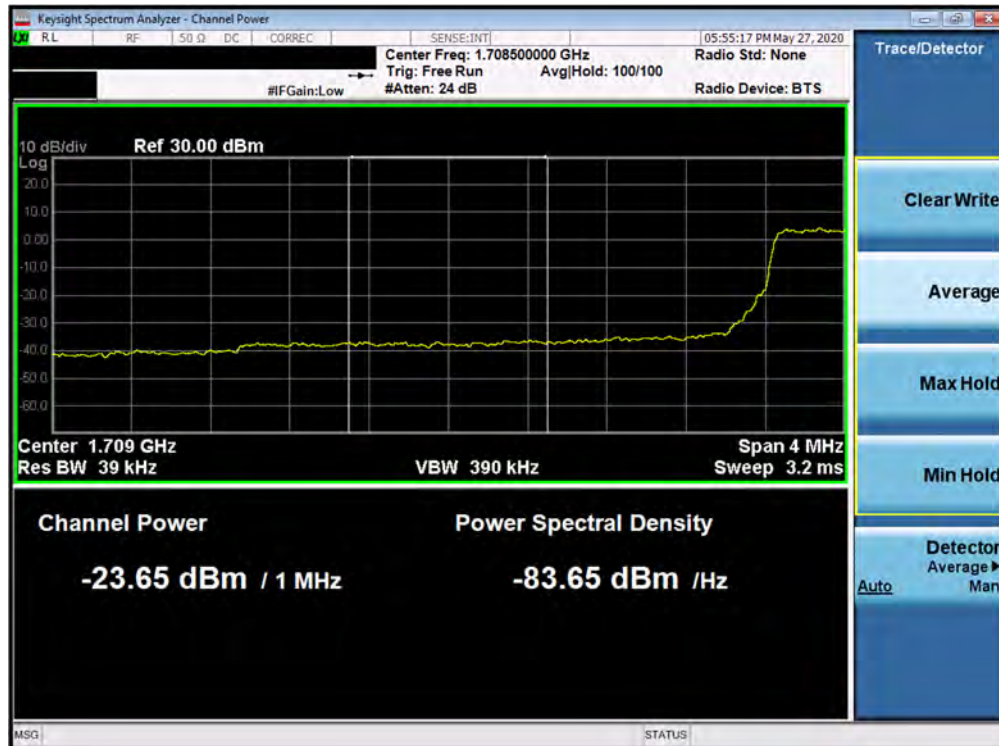


Plot 7-343. Upper Extended Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 198 of 357                 |



Plot 7-344. Lower Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

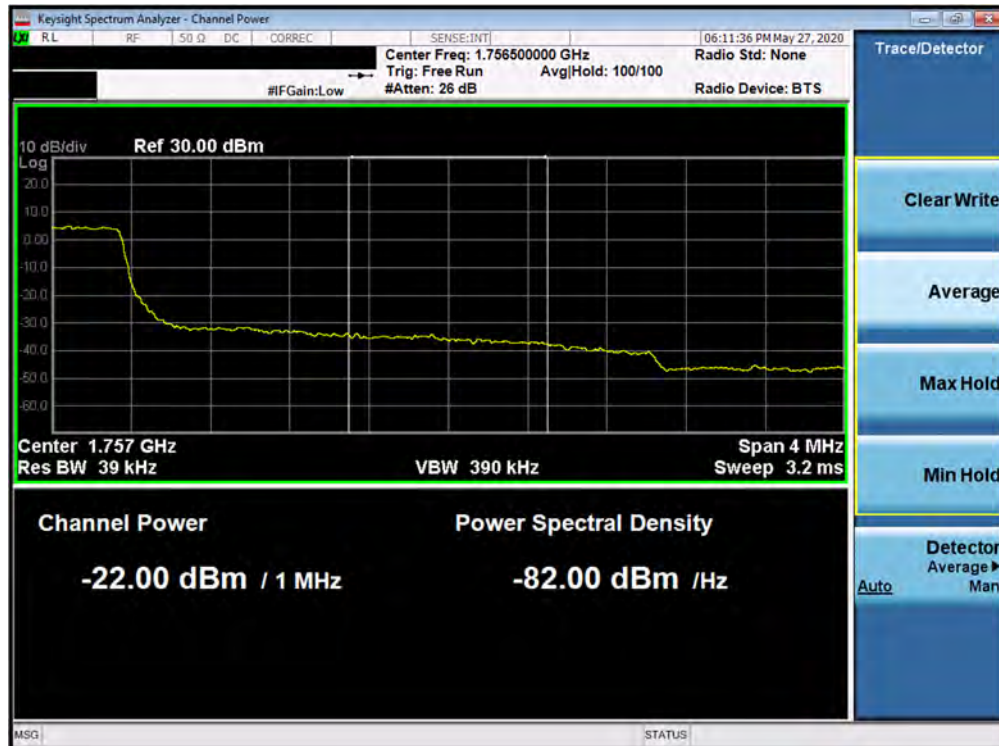


Plot 7-345. Lower Extended Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 199 of 357                 |



Plot 7-346. Upper Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

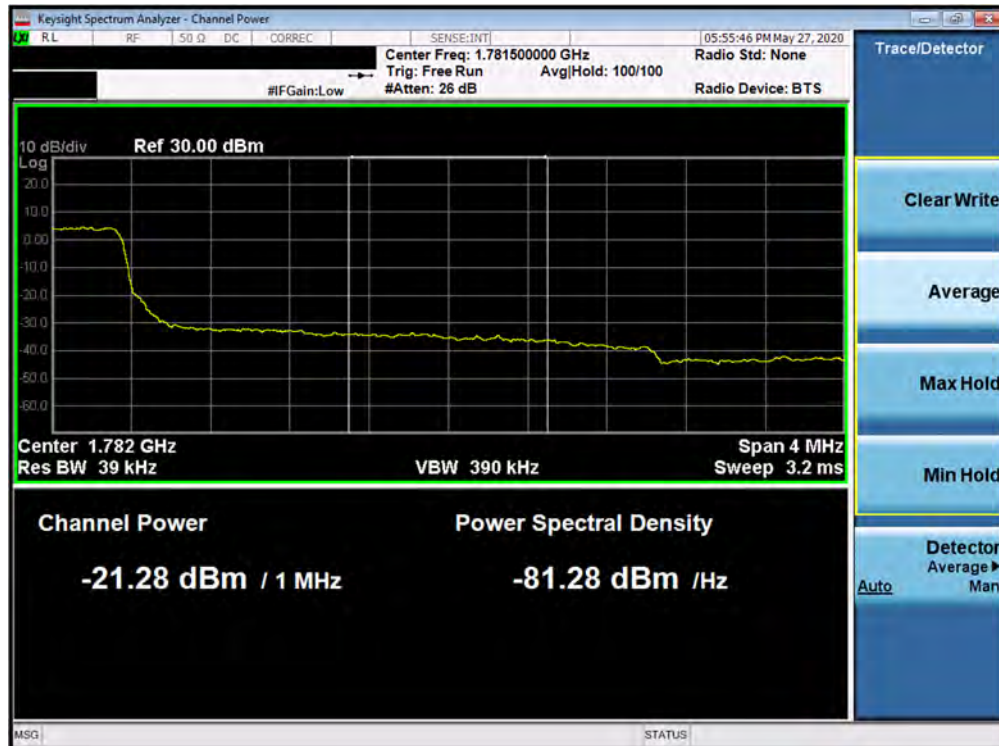


Plot 7-347. Upper Extended Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 200 of 357                 |

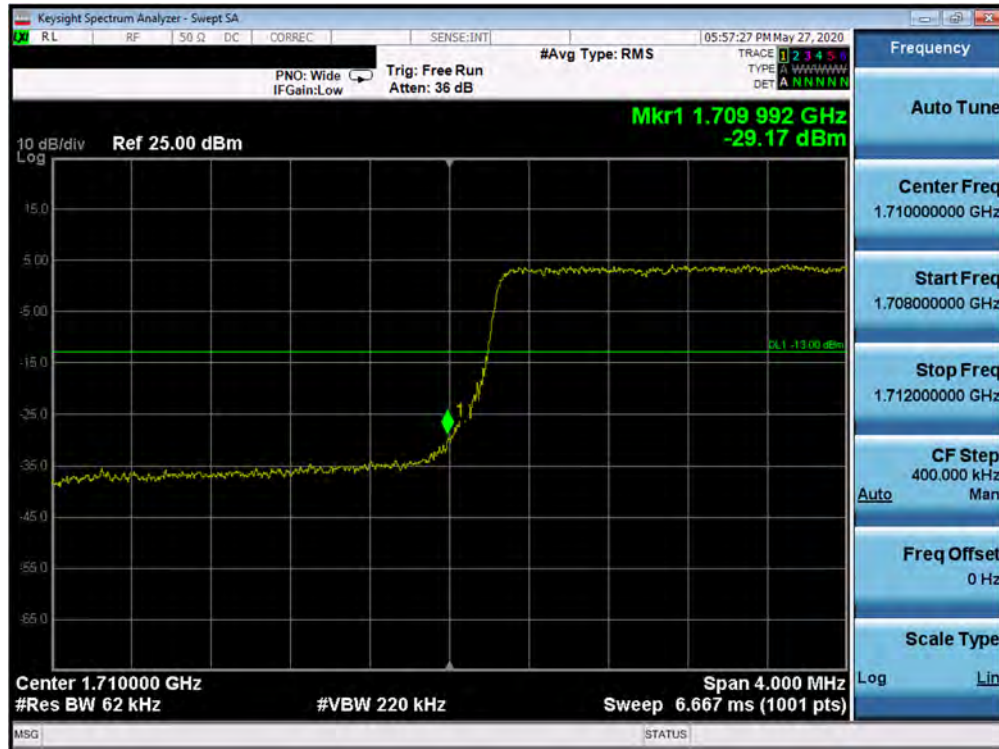


Plot 7-348. Upper Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

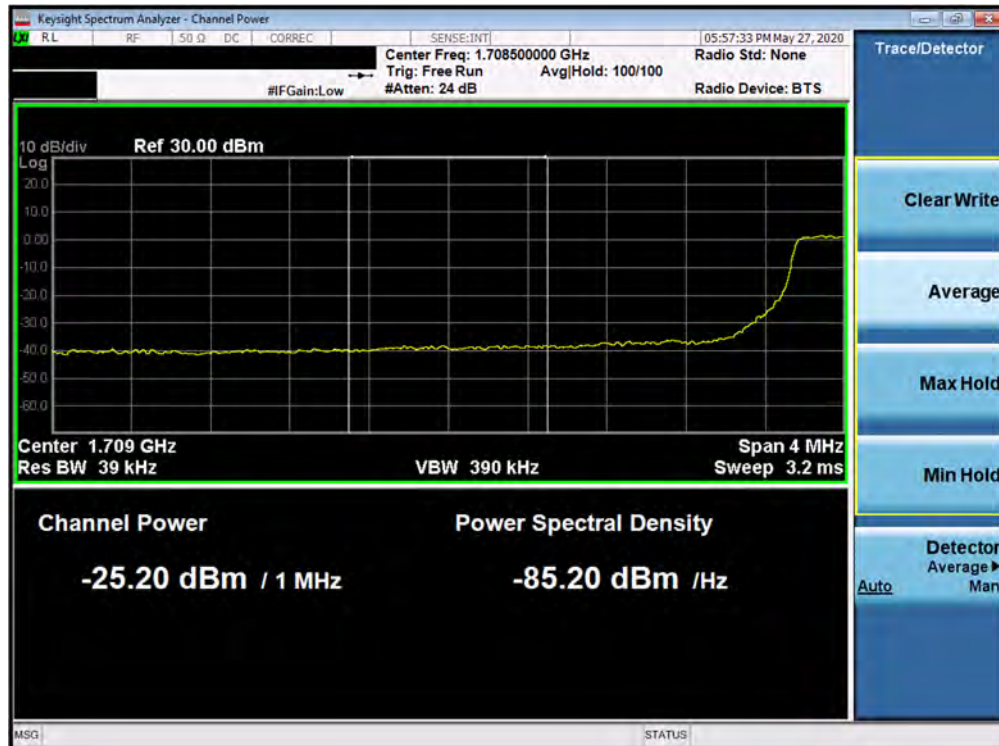


Plot 7-349. Upper Extended Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 201 of 357                 |



Plot 7-350. Lower Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

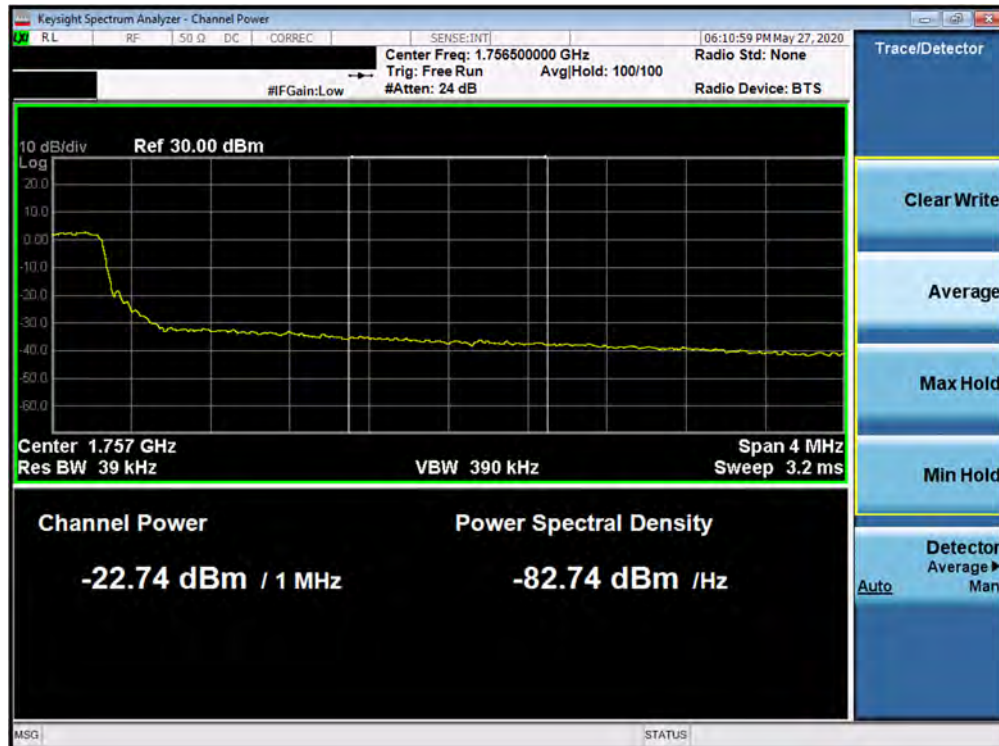


Plot 7-351. Lower Extended Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 202 of 357                 |

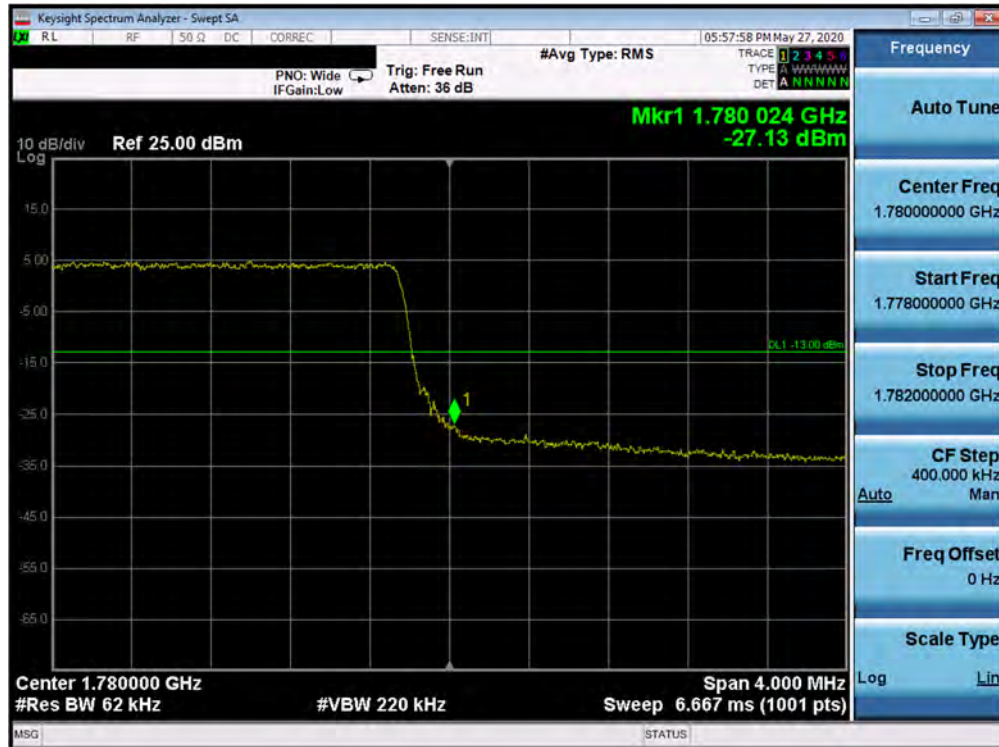


Plot 7-352. Upper Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

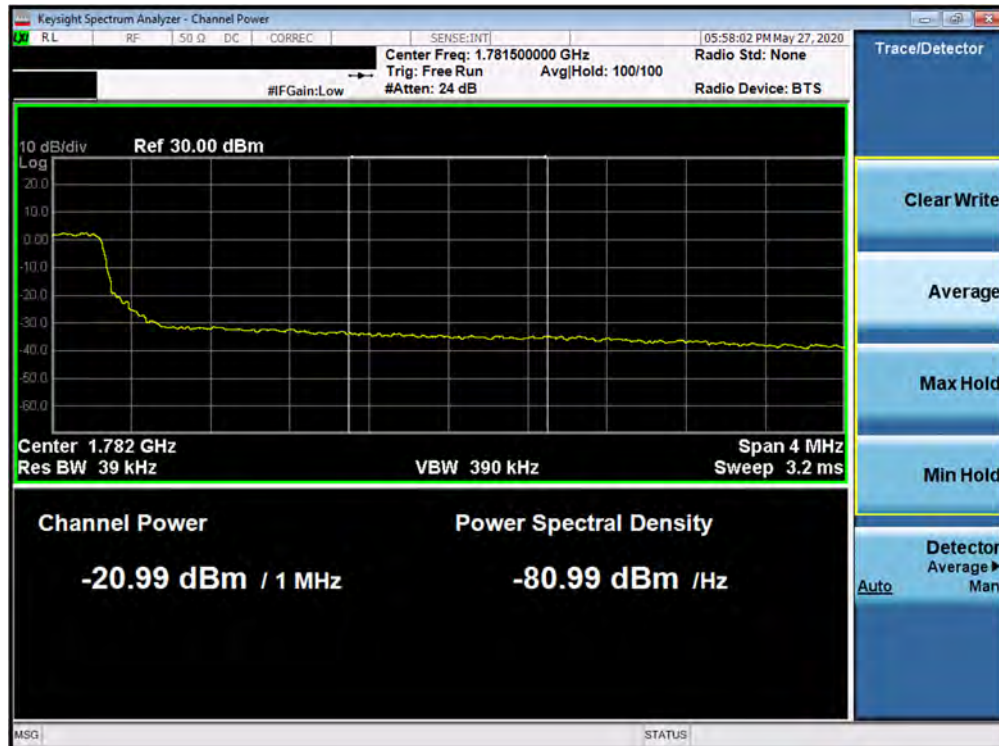


Plot 7-353. Upper Extended Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 203 of 357                 |

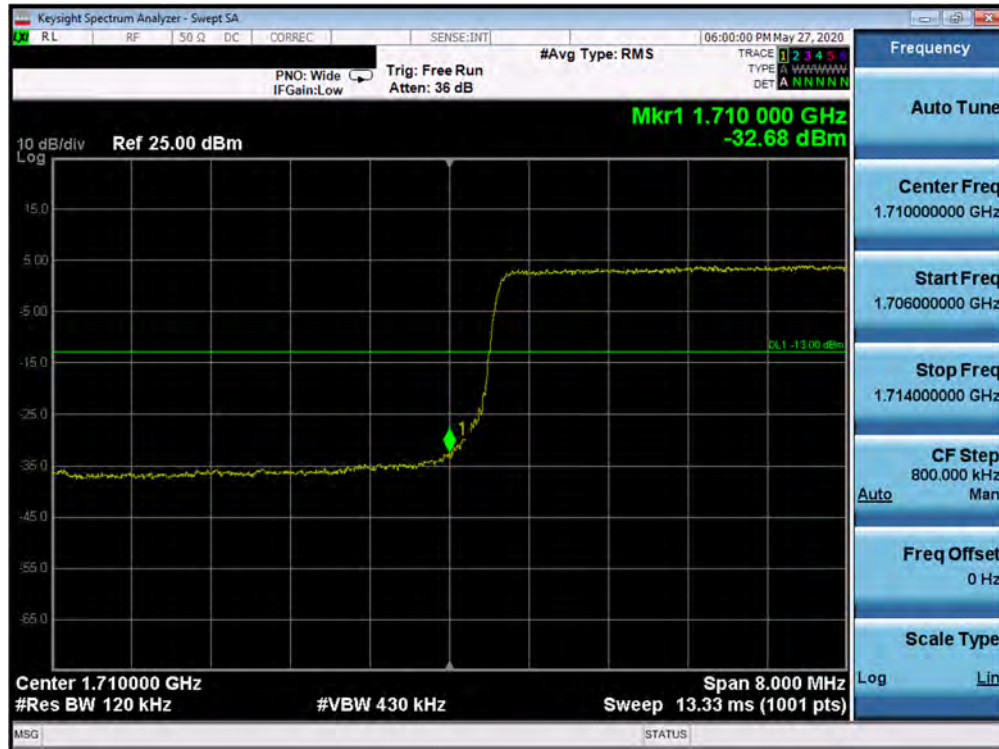


Plot 7-354. Upper Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

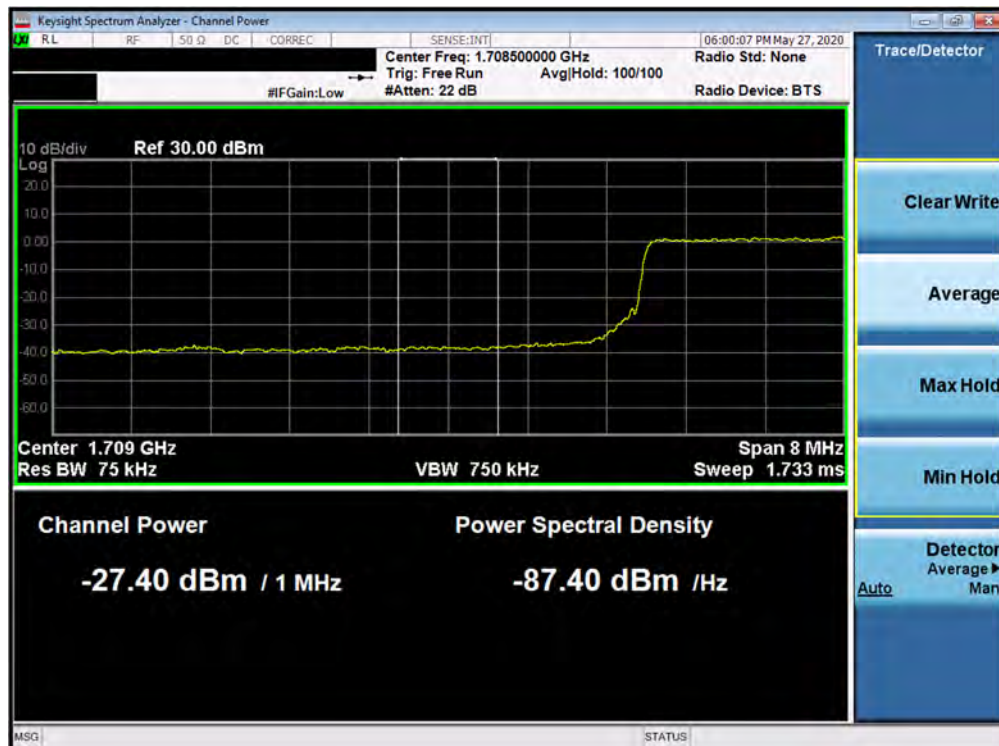


Plot 7-355. Upper Extended Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 204 of 357                 |



Plot 7-356. Lower Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

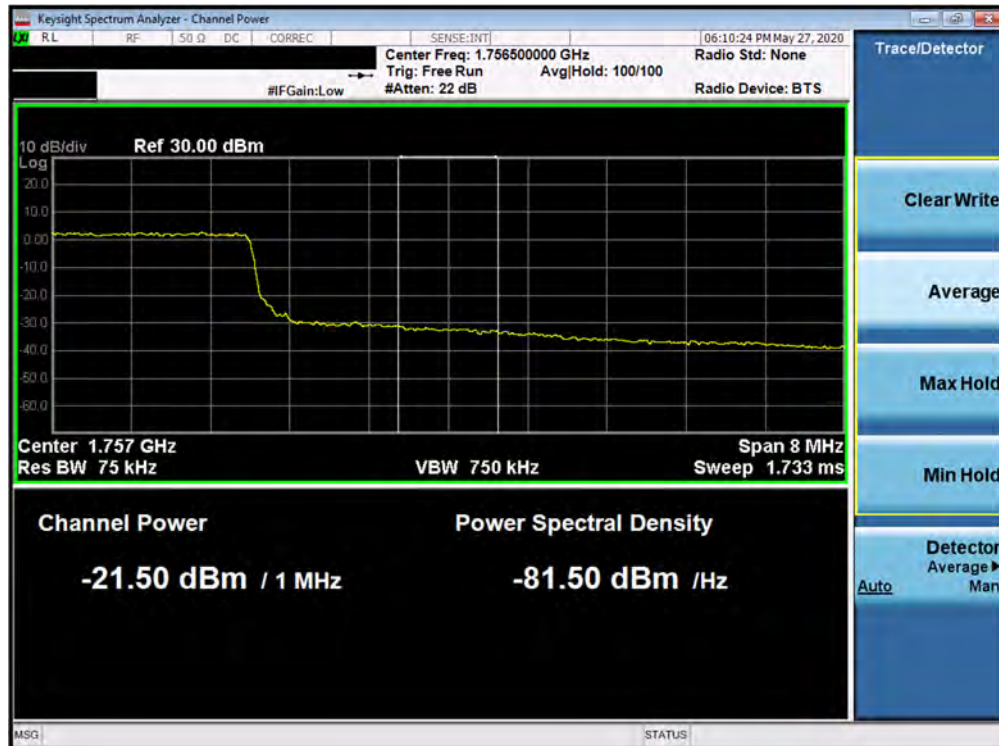


Plot 7-357. Lower Extended Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 205 of 357                 |



Plot 7-358. Upper Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

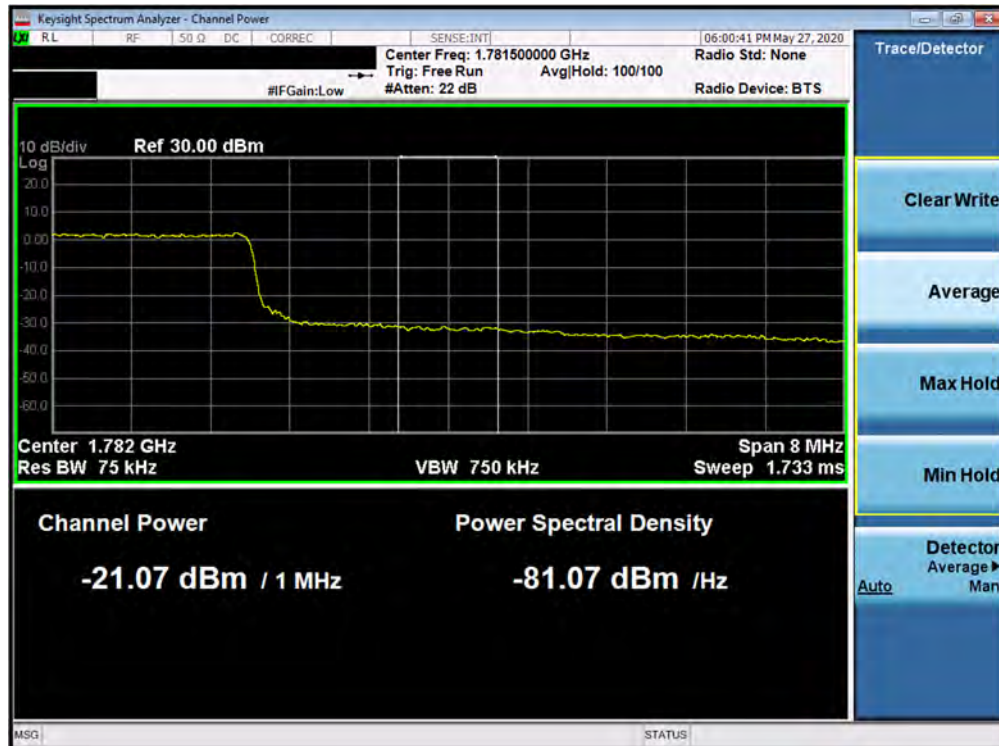


Plot 7-359. Upper Extended Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 206 of 357                 |

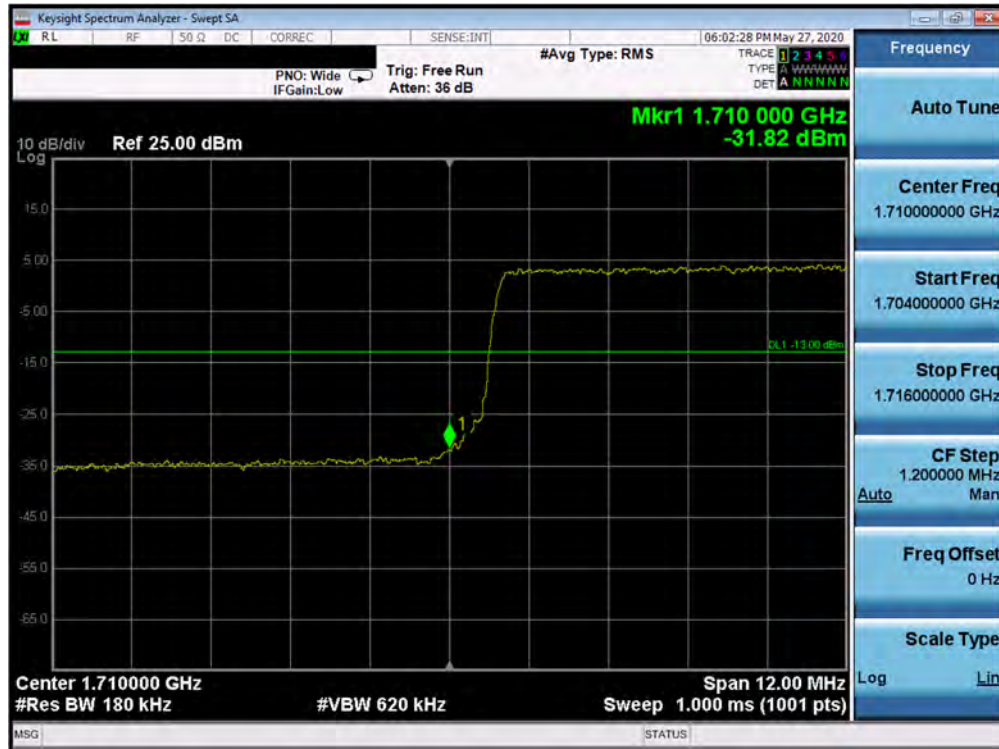


Plot 7-360. Upper Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

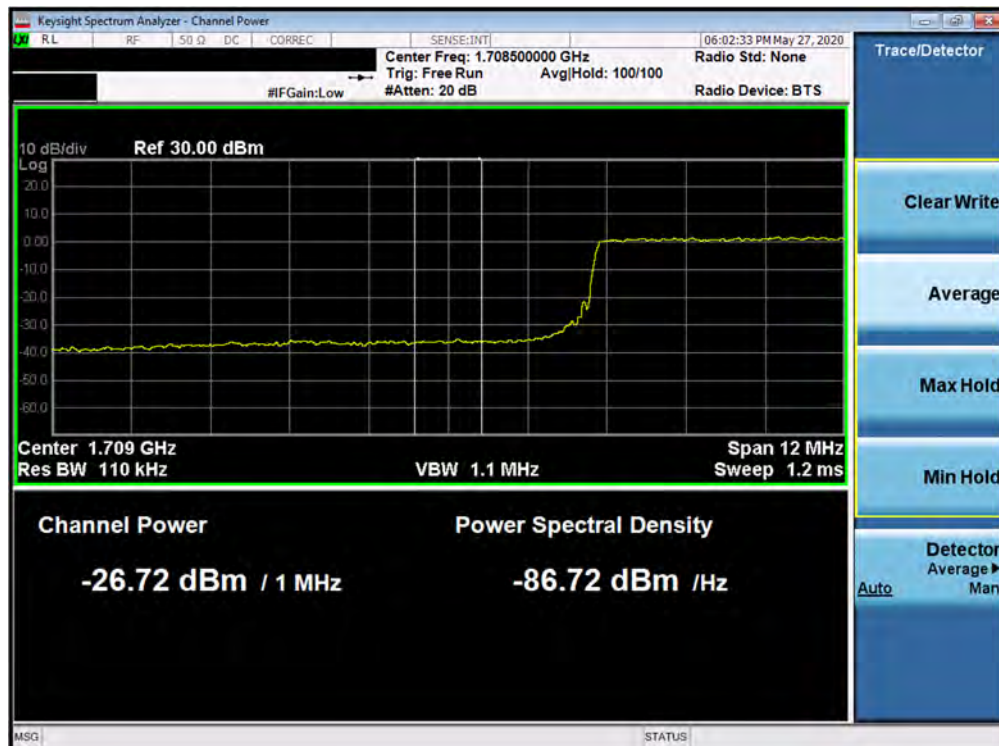


Plot 7-361. Upper Extended Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 207 of 357                 |



Plot 7-362. Lower Band Edge Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)

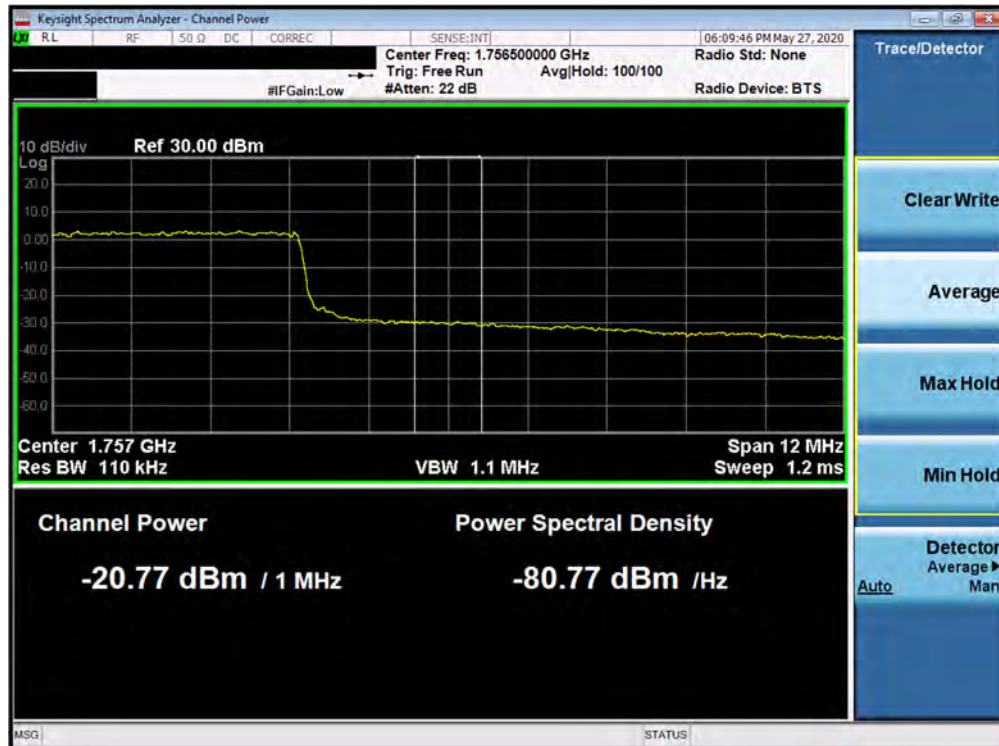


Plot 7-363. Lower Extended Band Edge Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 208 of 357                 |

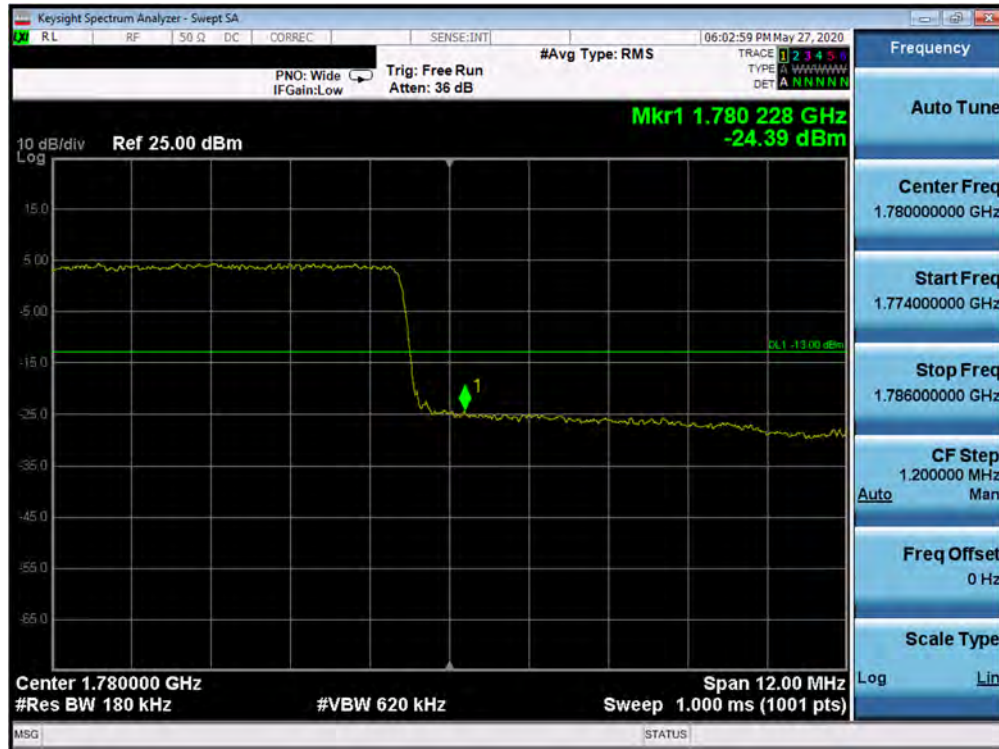


Plot 7-364. Upper Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

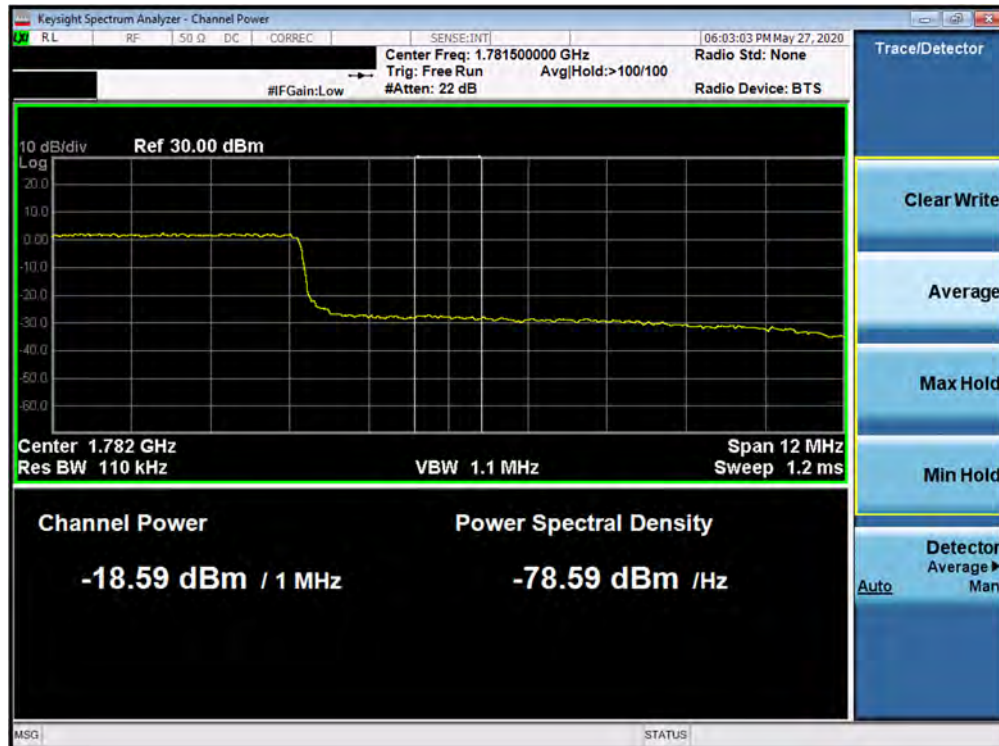


Plot 7-365. Upper Extended Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 209 of 357                 |

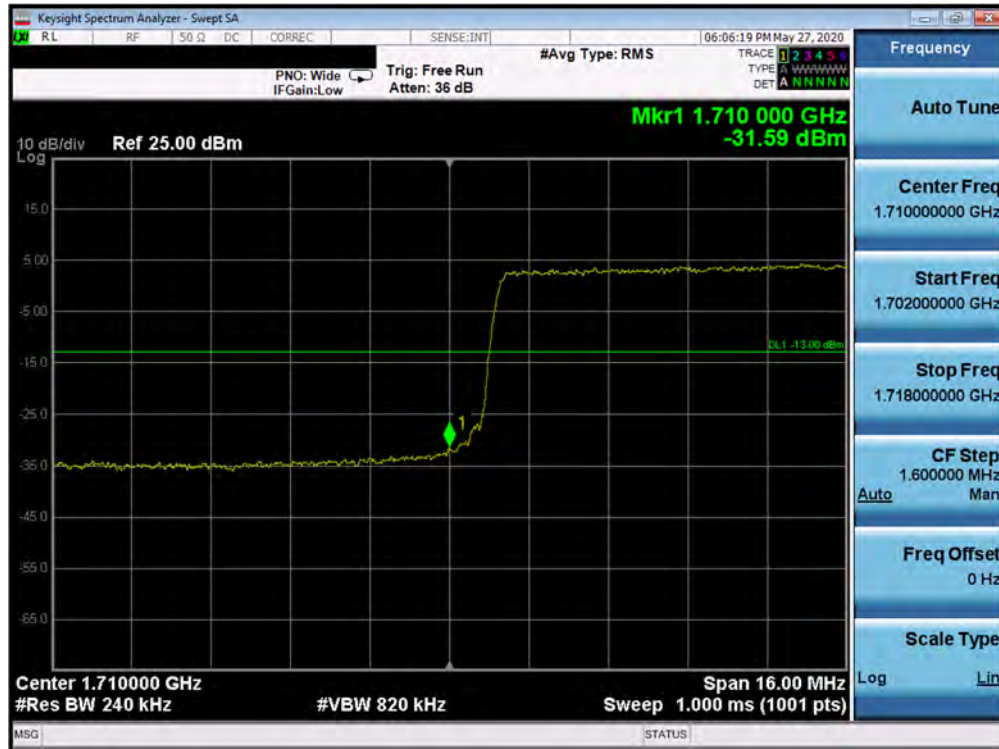


Plot 7-366. Upper Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

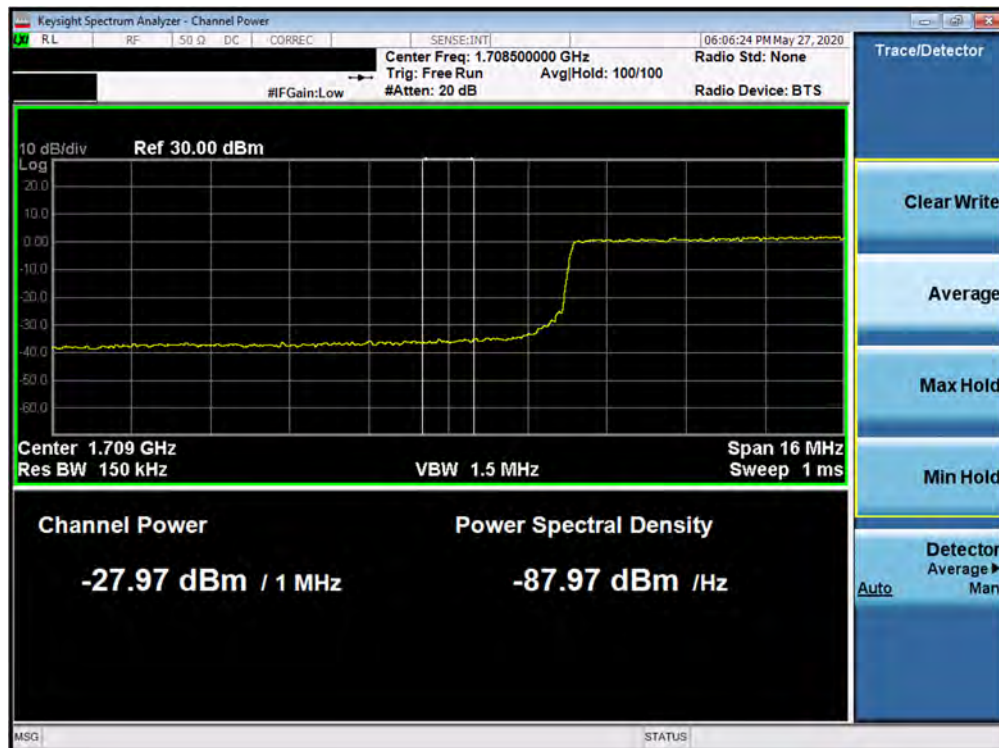


Plot 7-367. Upper Extended Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 210 of 357                 |



Plot 7-368. Lower Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

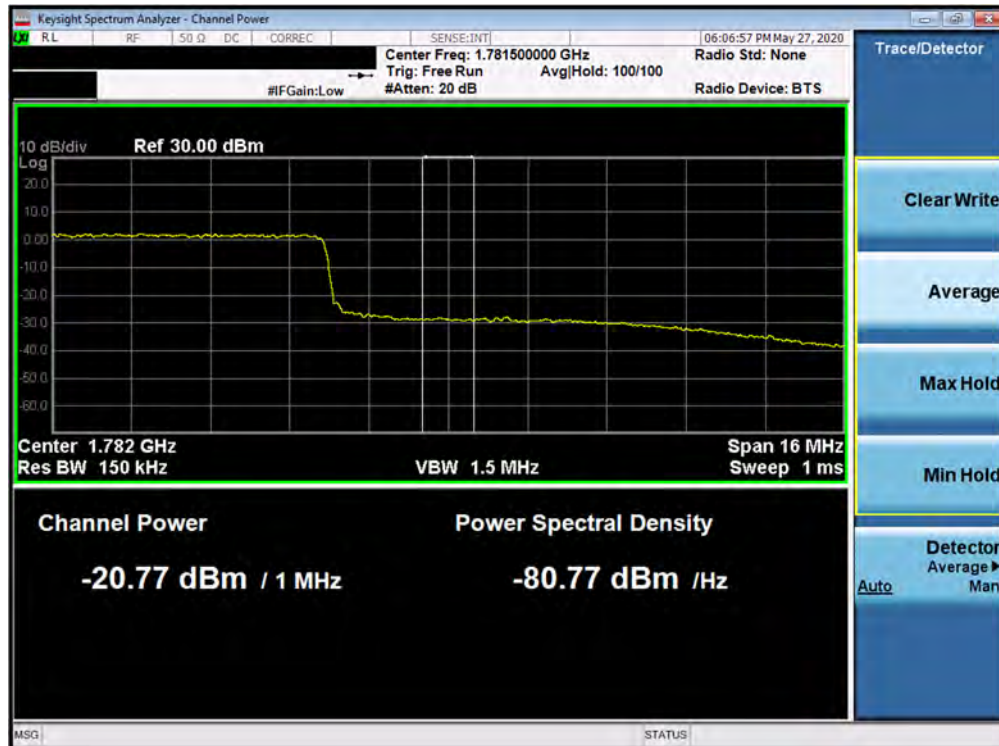


Plot 7-369. Lower Extended Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 211 of 357                 |



Plot 7-370. Upper Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)



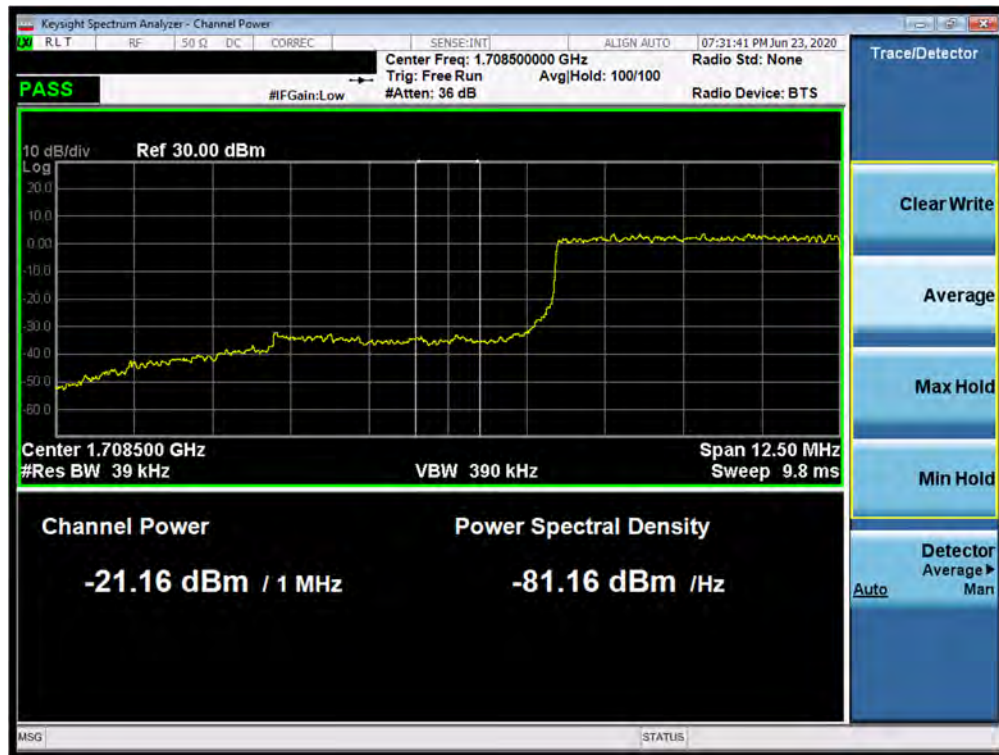
Plot 7-371. Upper Extended Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 212 of 357                 |

## NR Band n66



Plot 7-372. Lower Band Edge Plot (n66 - 5MHz DFT-s-OFDM-QPSK - Full RB Configuration)

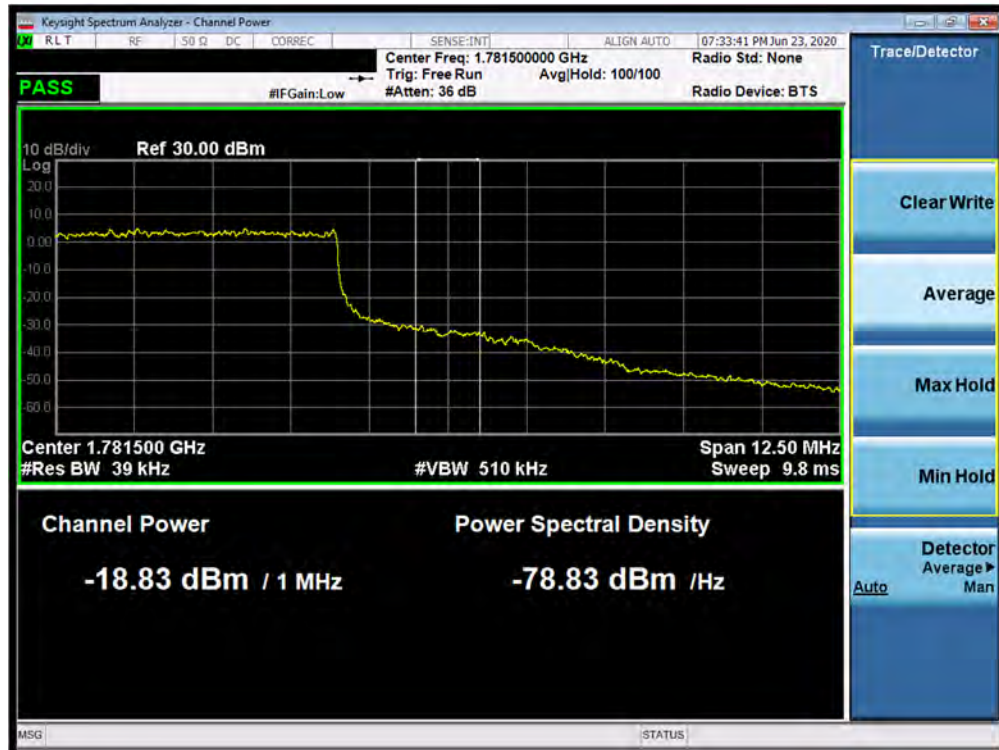


Plot 7-373. Lower Extended Band Edge Plot (n66 - 5MHz DFT-s-OFDM-QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 213 of 357                 |

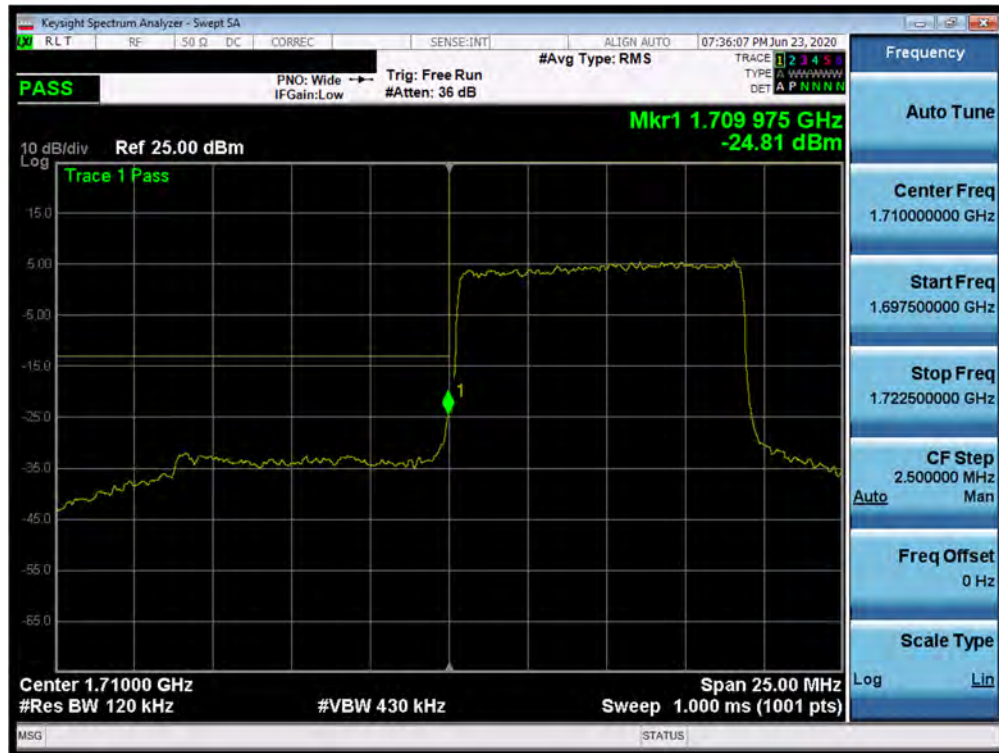


Plot 7-374. Upper Band Edge Plot (n66 - 5MHz DFT-s-OFDM-QPSK - Full RB Configuration)

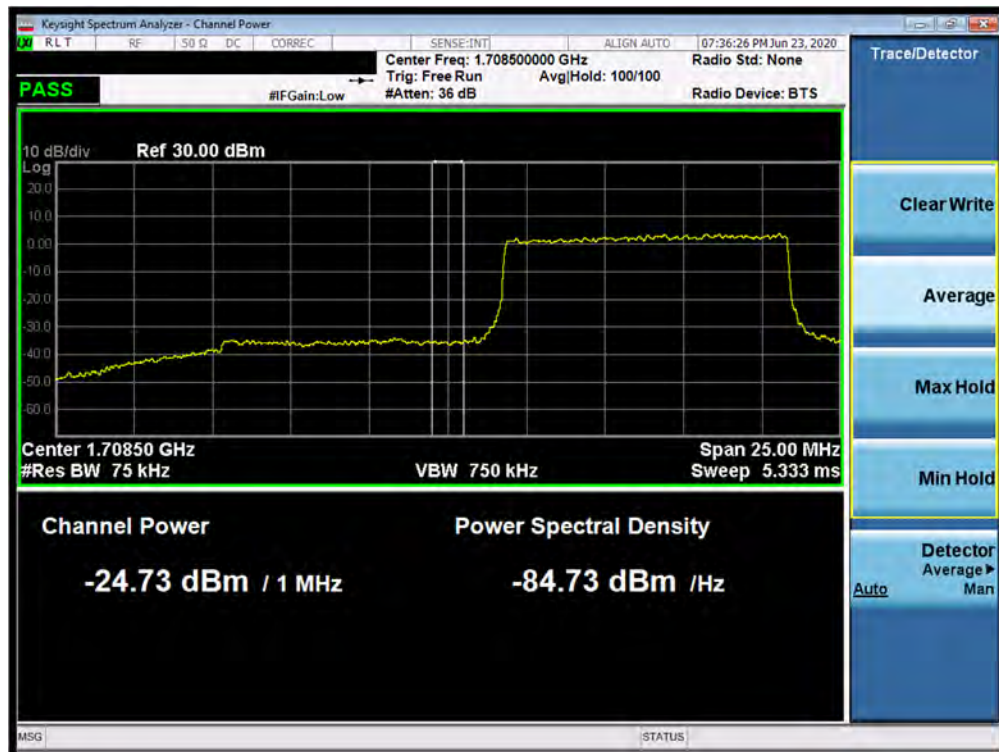


Plot 7-375. Upper Extended Band Edge Plot (n66 - 5MHz DFT-s-OFDM-QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 214 of 357                 |



Plot 7-376. Lower Band Edge Plot (n66 - 10MHz DFT-s-OFDM-QPSK - Full RB Configuration)

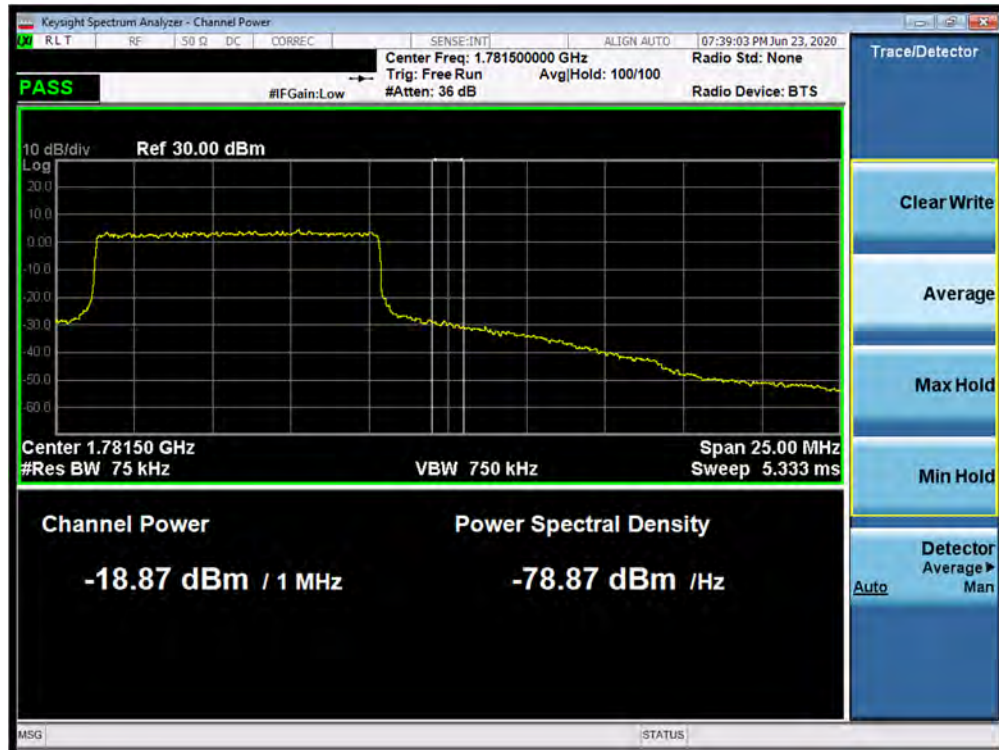


Plot 7-377. Lower Extended Band Edge Plot (n66 - 10MHz DFT-s-OFDM-QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 215 of 357                 |

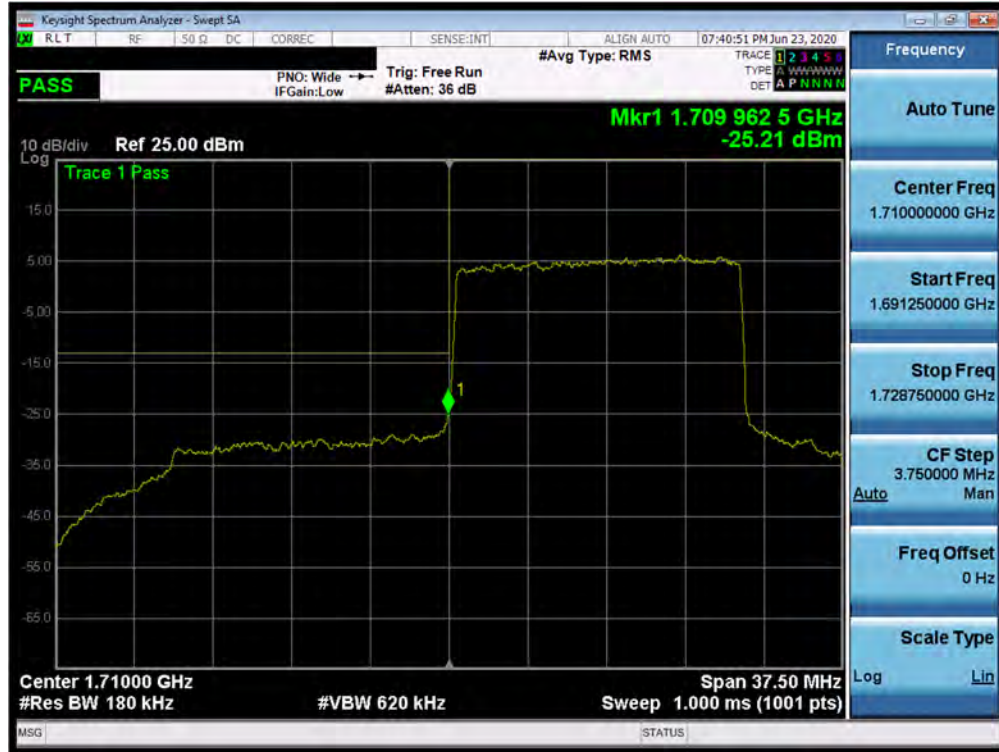


Plot 7-378. Upper Band Edge Plot (n66 - 10MHz DFT-s-OFDM-QPSK - Full RB Configuration)

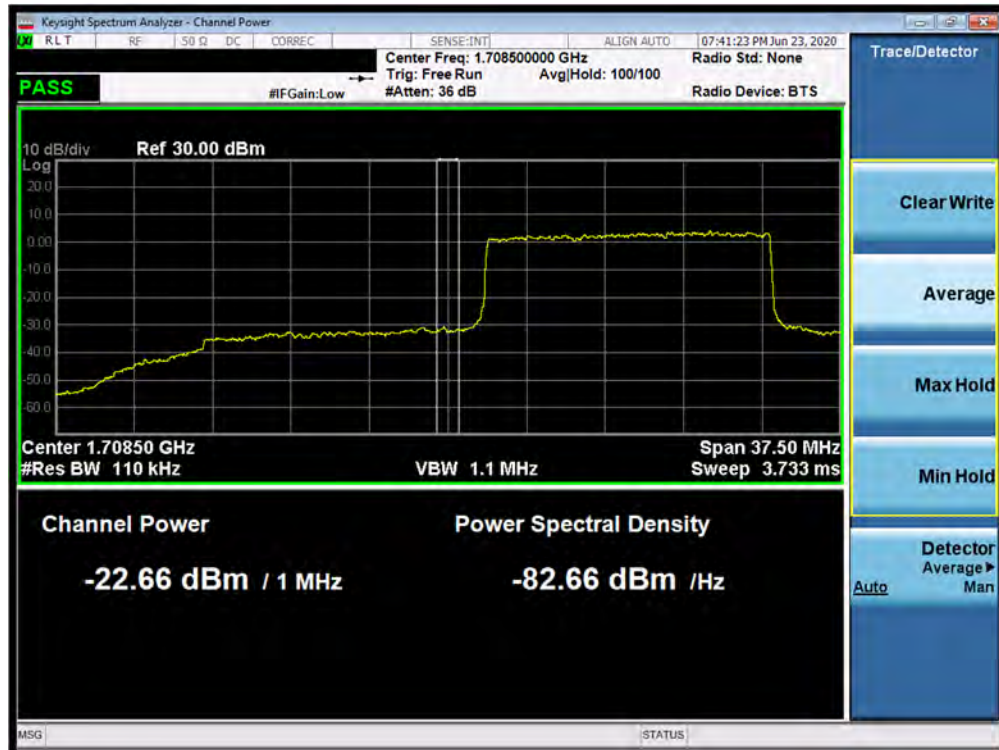


Plot 7-379. Upper Extended Band Edge Plot (n66 - 10MHz DFT-s-OFDM-QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 216 of 357                 |



Plot 7-380. Lower Band Edge Plot (n66 - 15MHz DFT-s-OFDM-QPSK - Full RB Configuration)

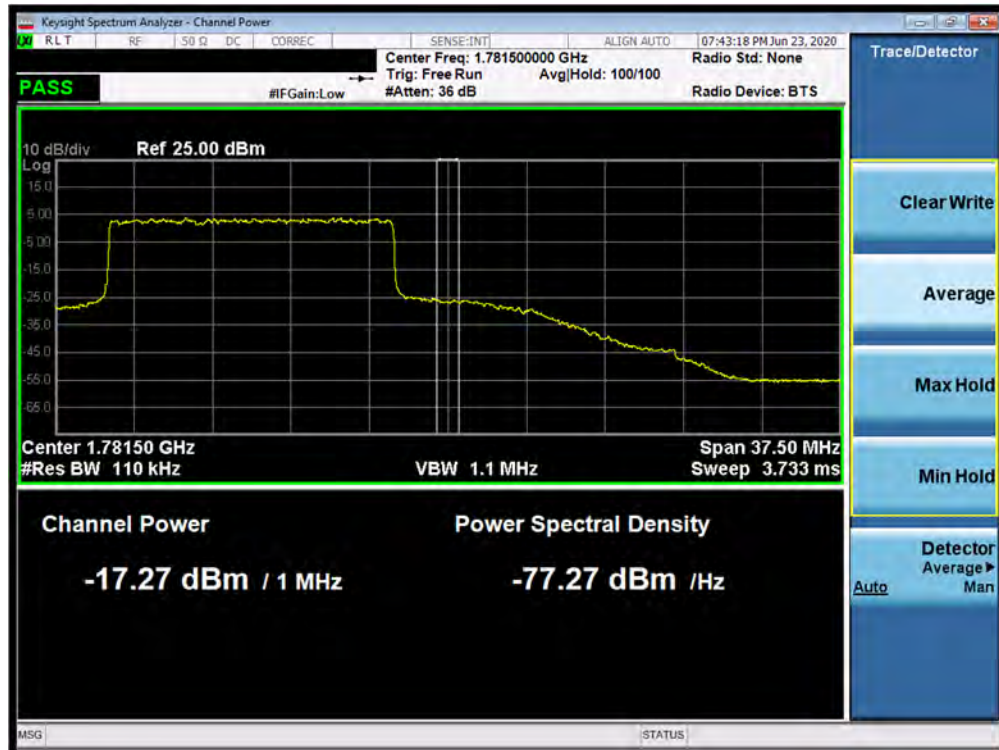


Plot 7-381. Lower Extended Band Edge Plot (n66 - 15MHz DFT-s-OFDM-QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 217 of 357                 |



Plot 7-382. Upper Band Edge Plot (n66 - 15MHz DFT-s-OFDM-QPSK - Full RB Configuration)

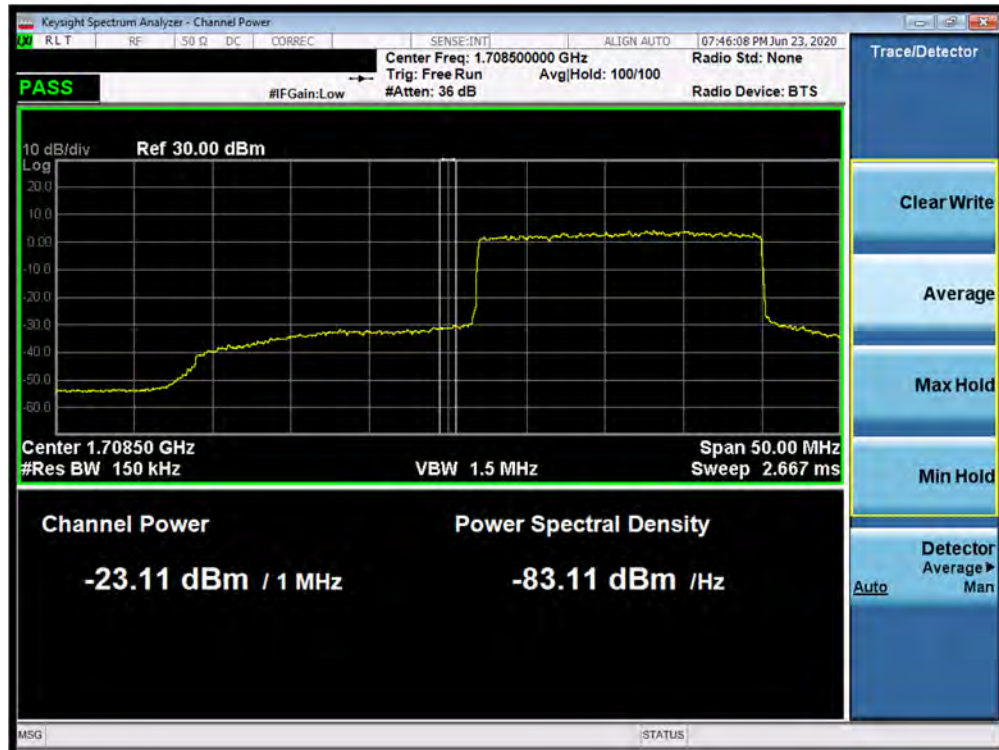


Plot 7-383. Upper Extended Band Edge Plot (n66 - 15MHz DFT-s-OFDM-QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 218 of 357                 |



Plot 7-384. Lower Band Edge Plot (n66 - 20MHz DFT-s-OFDM-QPSK - Full RB Configuration)

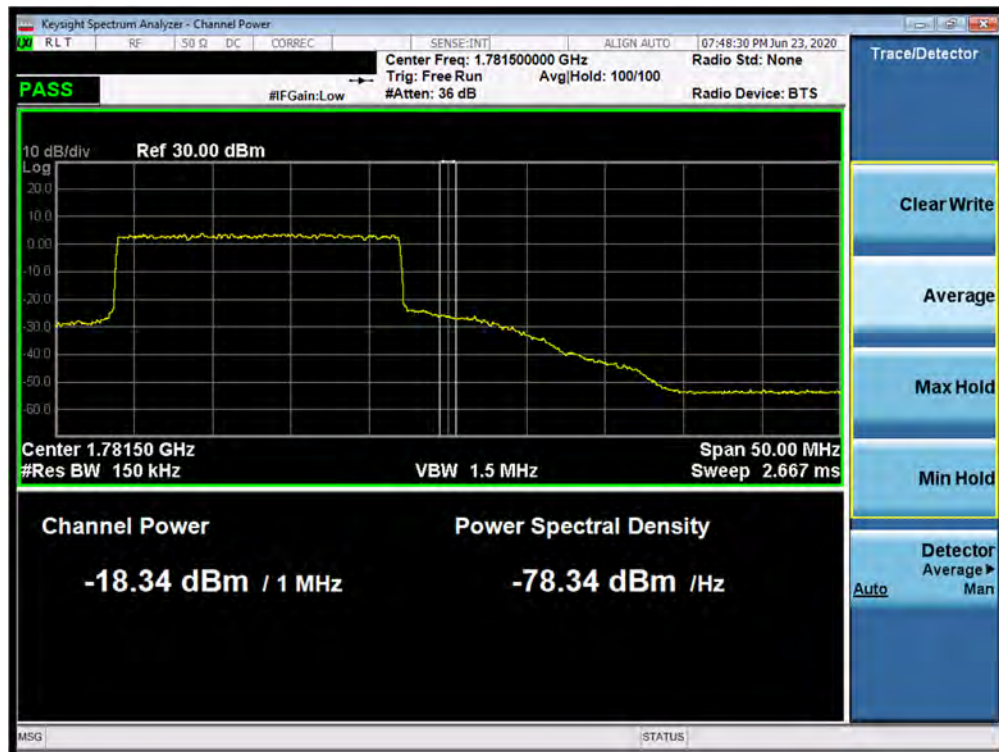


Plot 7-385. Lower Extended Band Edge Plot (n66 - 20MHz DFT-s-OFDM-QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 219 of 357                 |



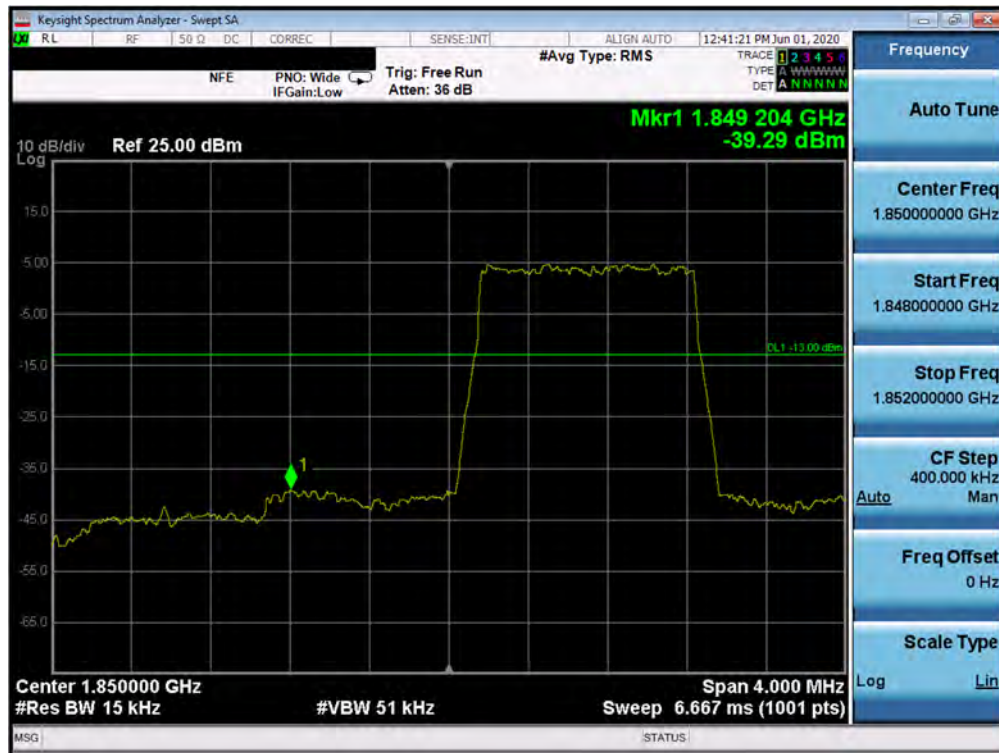
Plot 7-386. Upper Band Edge Plot (n66 - 20MHz DFT-s-OFDM-QPSK - Full RB Configuration)



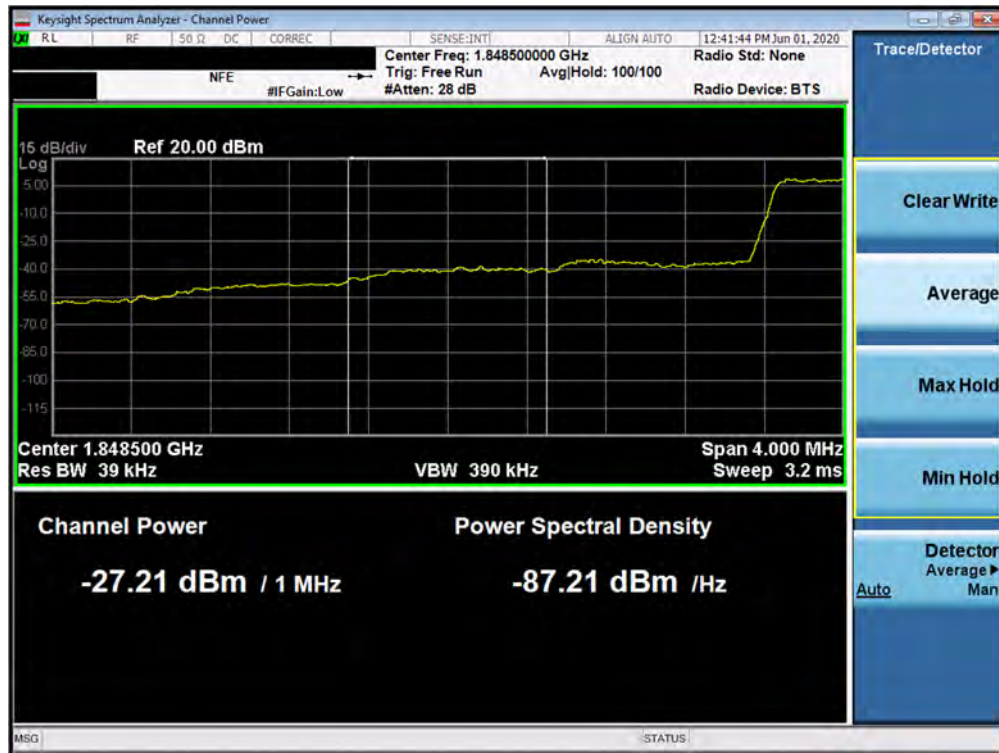
Plot 7-387. Upper Extended Band Edge Plot (n66 - 20MHz DFT-s-OFDM-QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 220 of 357                 |

## Band 25/2

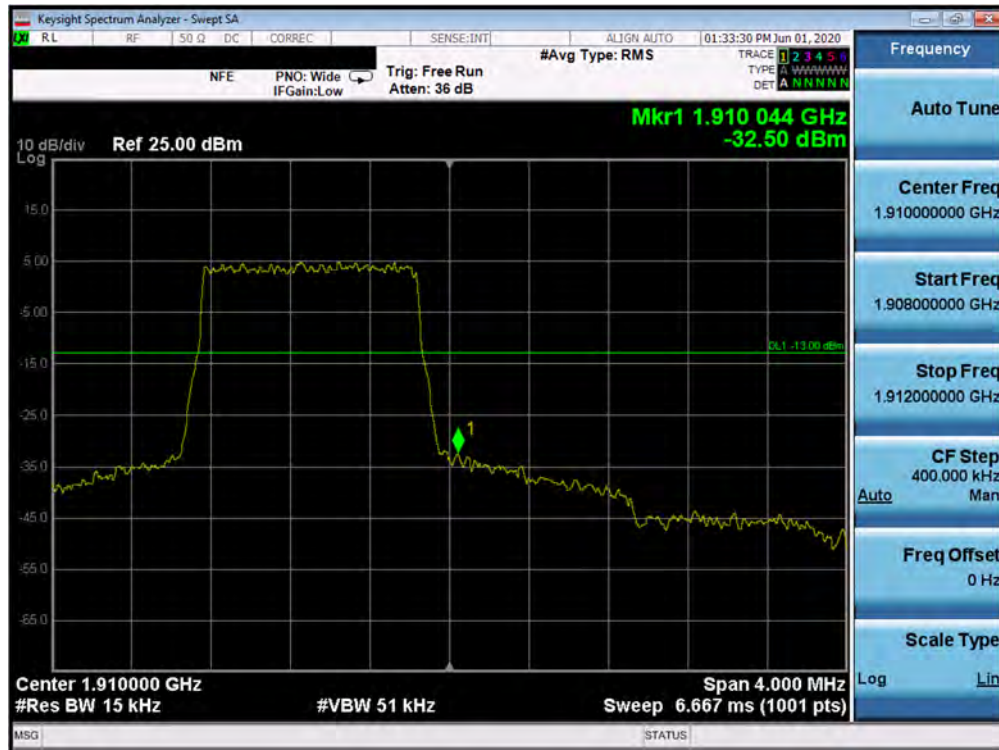


Plot 7-388. Lower Band Edge Plot (Band 25/2 - 1.4MHz QPSK - Full RB Configuration)

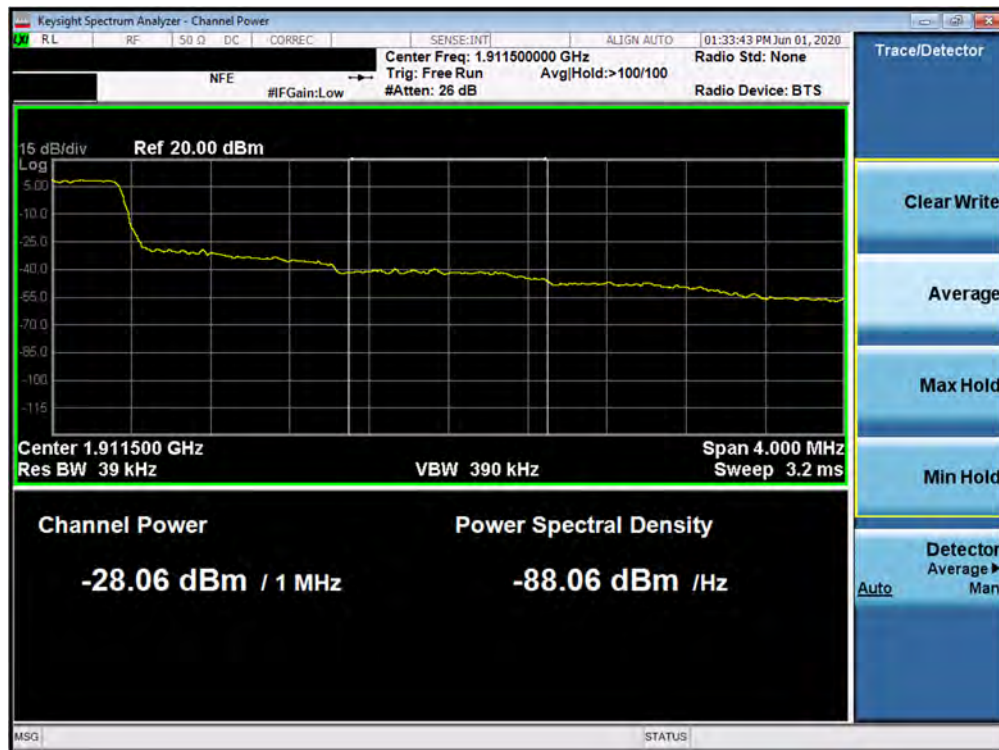


Plot 7-389. Lower Extended Band Edge Plot (Band 25/2 - 1.4MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 221 of 357                 |

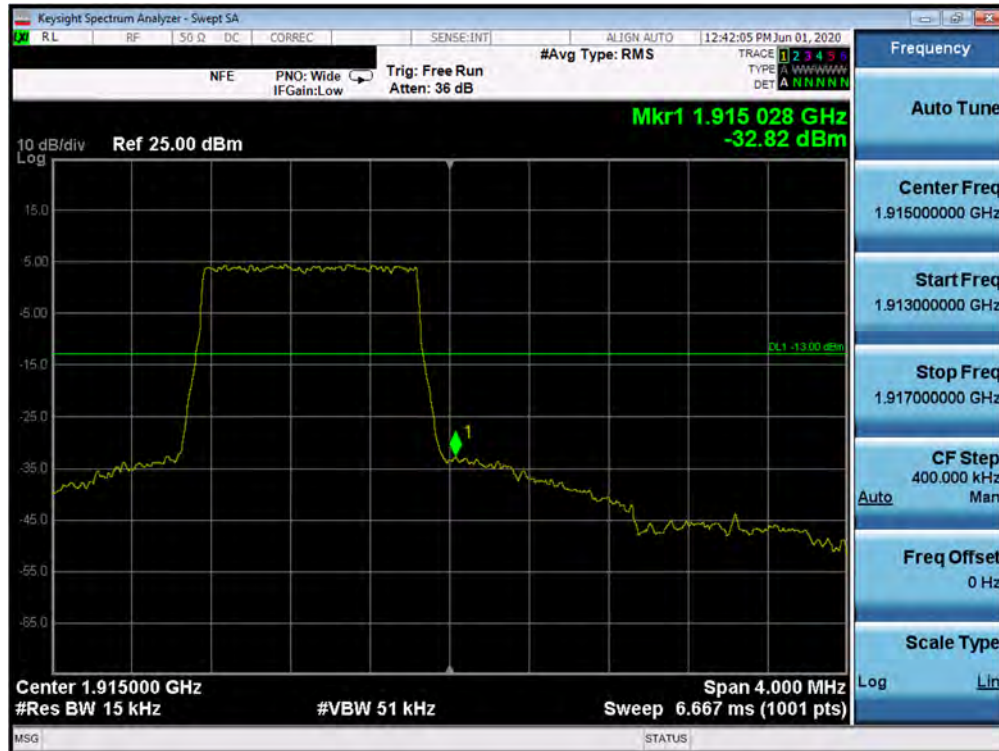


Plot 7-390. Upper Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

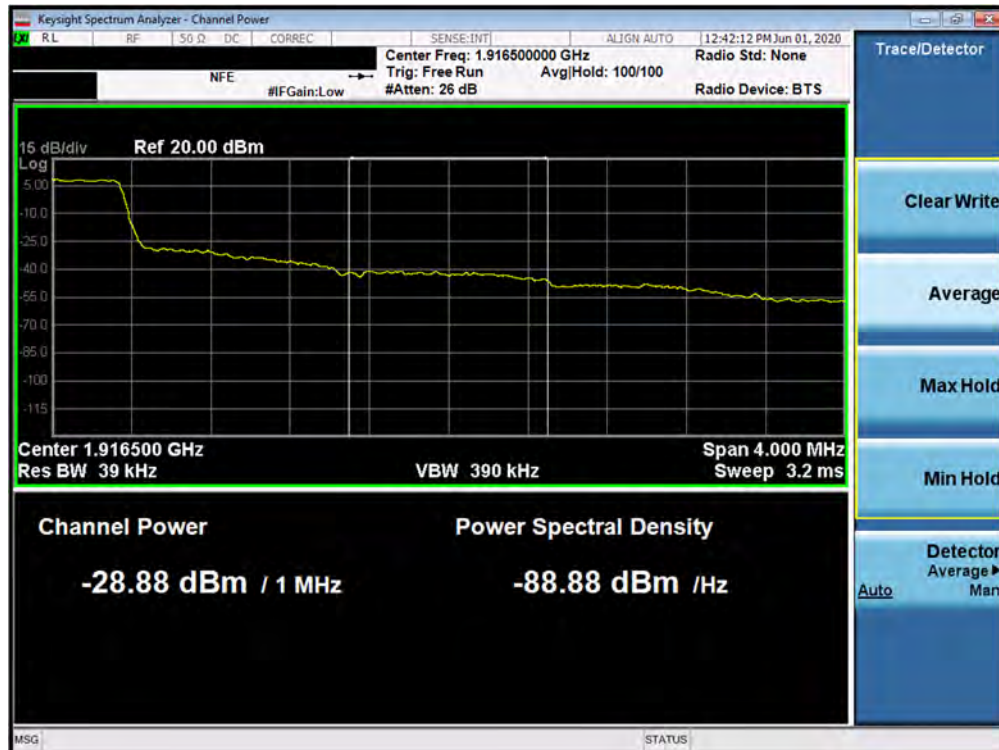


Plot 7-391. Upper Extended Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 222 of 357                 |

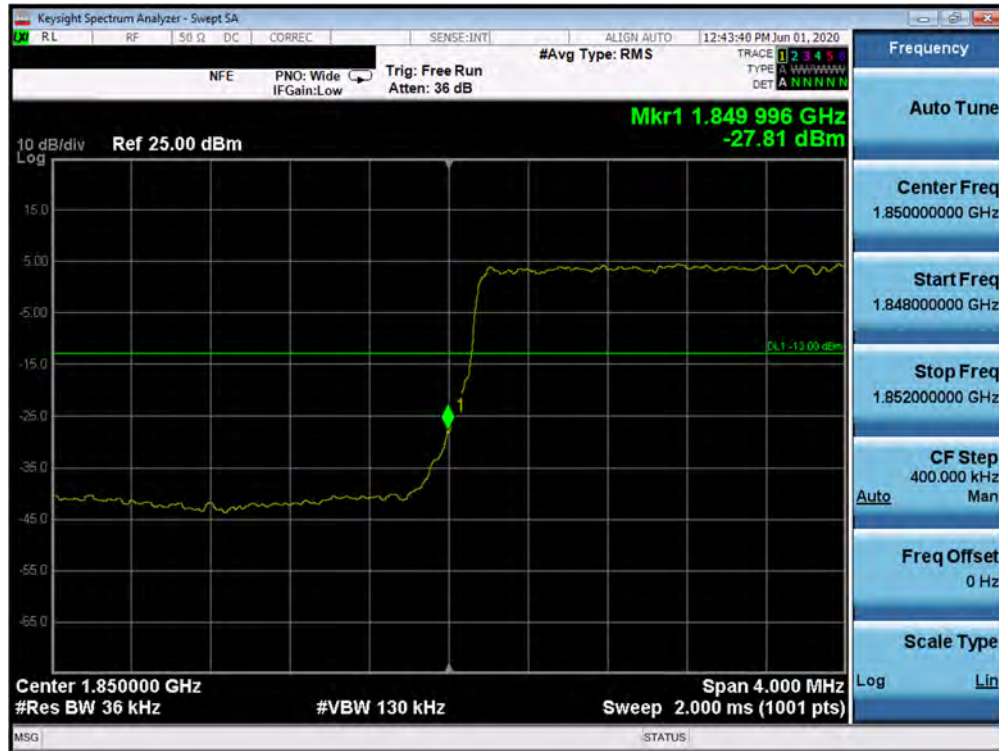


Plot 7-392. Upper Band Edge Plot (Band 25 - 1.4MHz QPSK - Full RB Configuration)

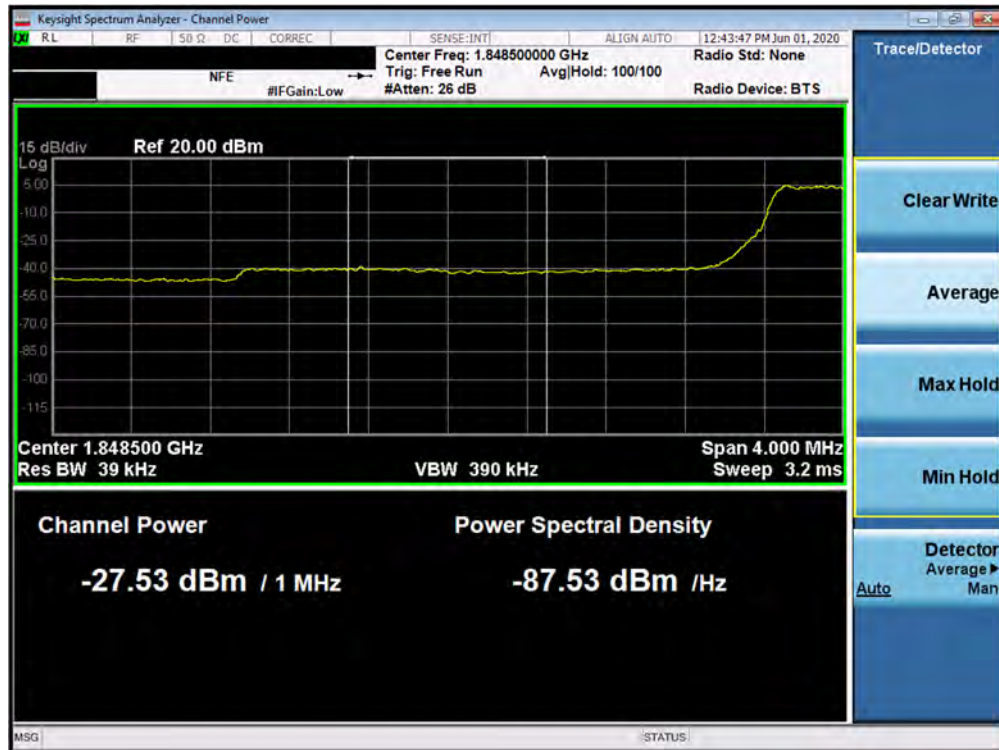


Plot 7-393. Upper Extended Band Edge Plot (Band 25 - 1.4MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 223 of 357                 |



Plot 7-394. Lower Band Edge Plot (Band 25/2 - 3.0MHz QPSK - Full RB Configuration)

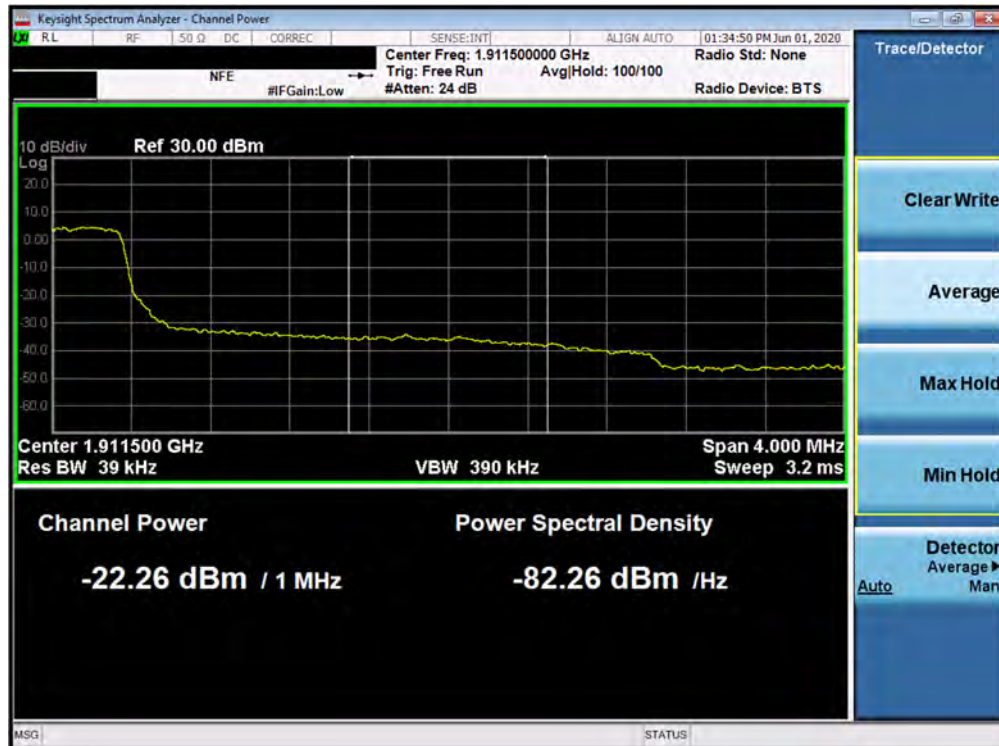


Plot 7-395. Lower Extended Band Edge Plot (Band 25/2 - 3.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 224 of 357                 |



Plot 7-396. Upper Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-397. Upper Extended Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 225 of 357                 |

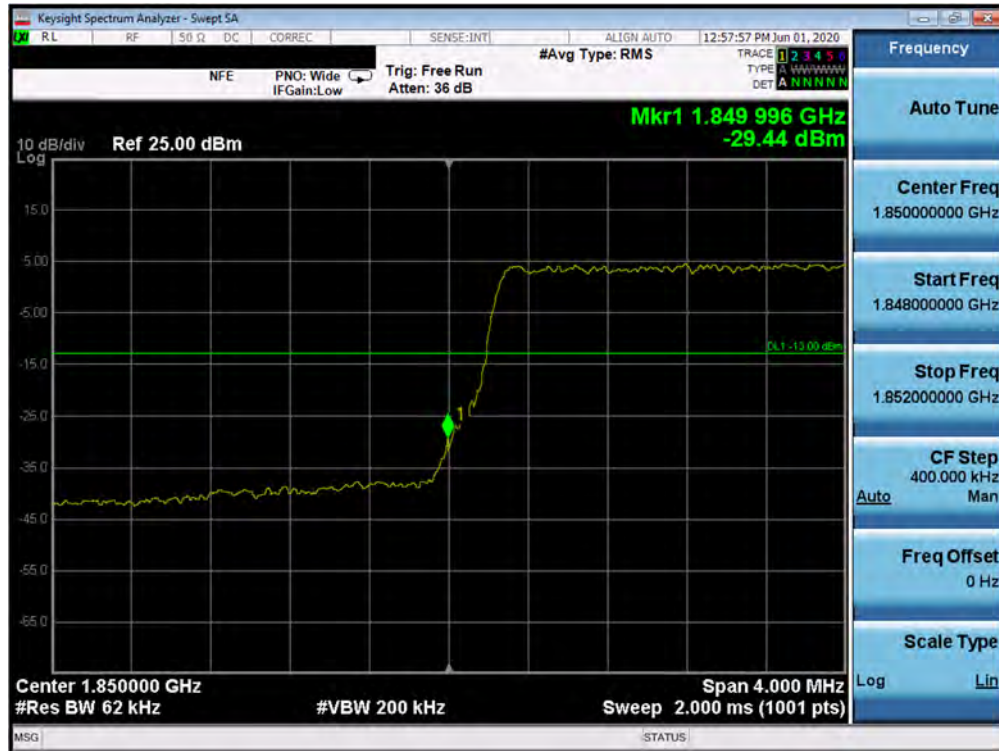


Plot 7-398. Upper Band Edge Plot (Band 25 - 3.0MHz QPSK - Full RB Configuration)

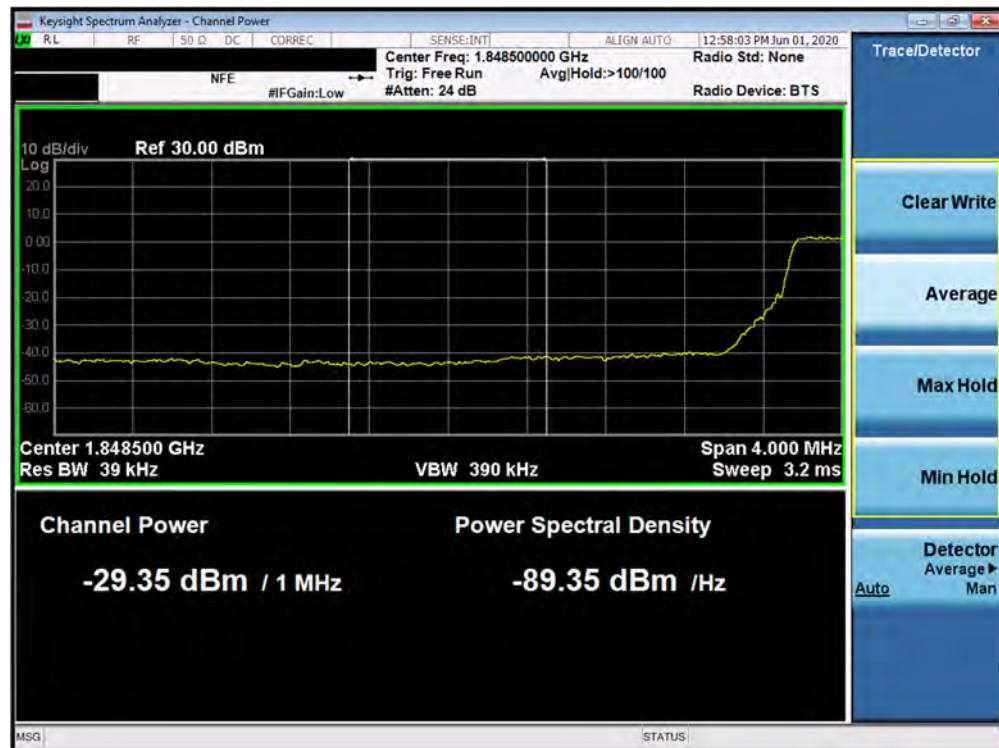


Plot 7-399. Upper Extended Band Edge Plot (Band 25 - 3.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 226 of 357                 |

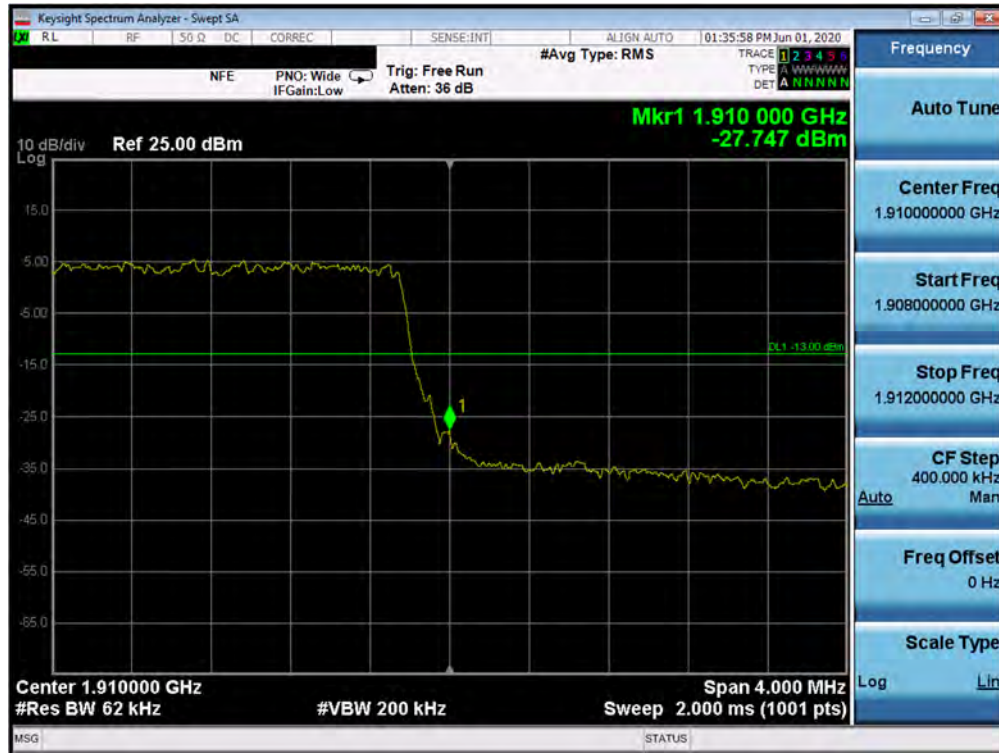


Plot 7-400. Lower Band Edge Plot (Band 25/2 - 5.0MHz QPSK - Full RB Configuration)

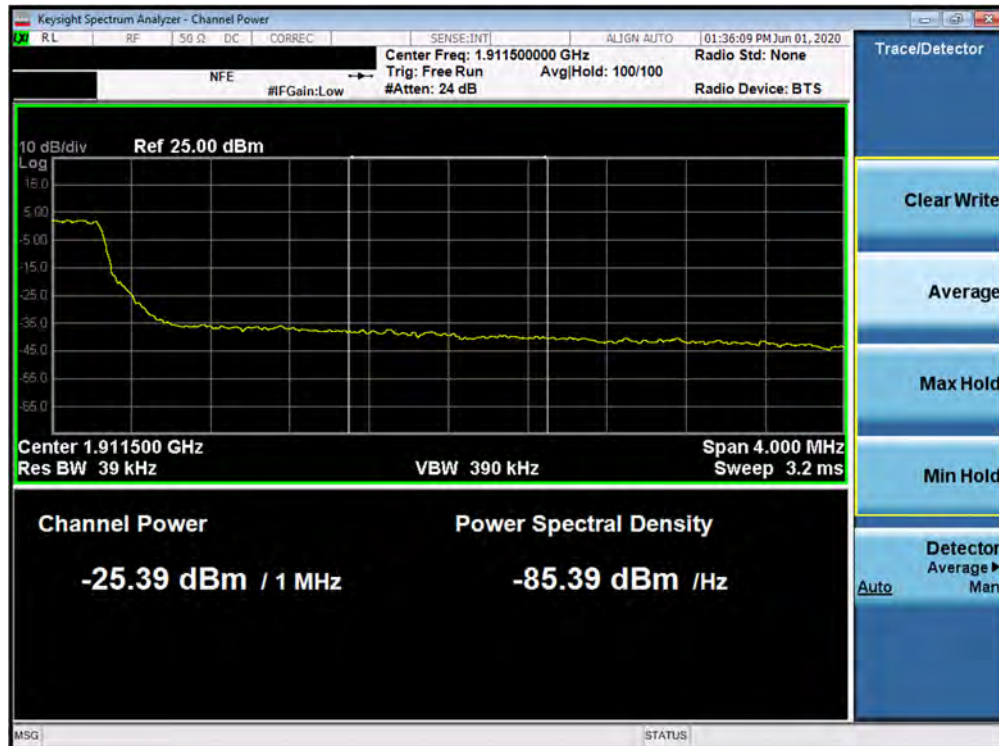


Plot 7-401. Lower Extended Band Edge Plot (Band 25/2 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 227 of 357                 |



Plot 7-402. Upper Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

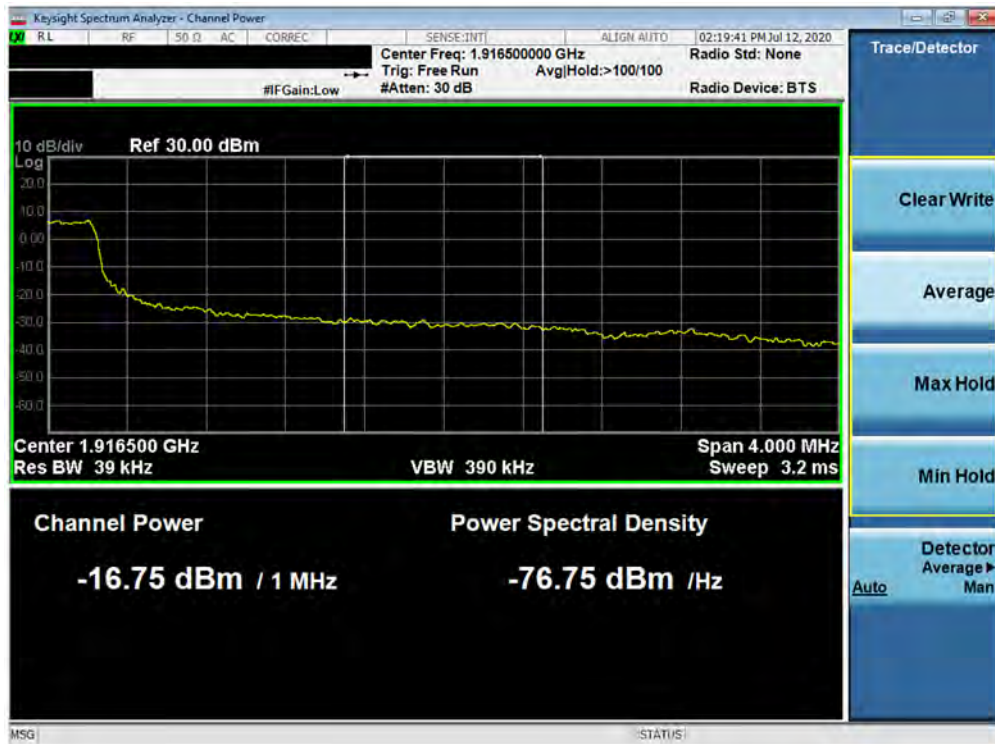


Plot 7-403. Upper Extended Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 228 of 357                 |

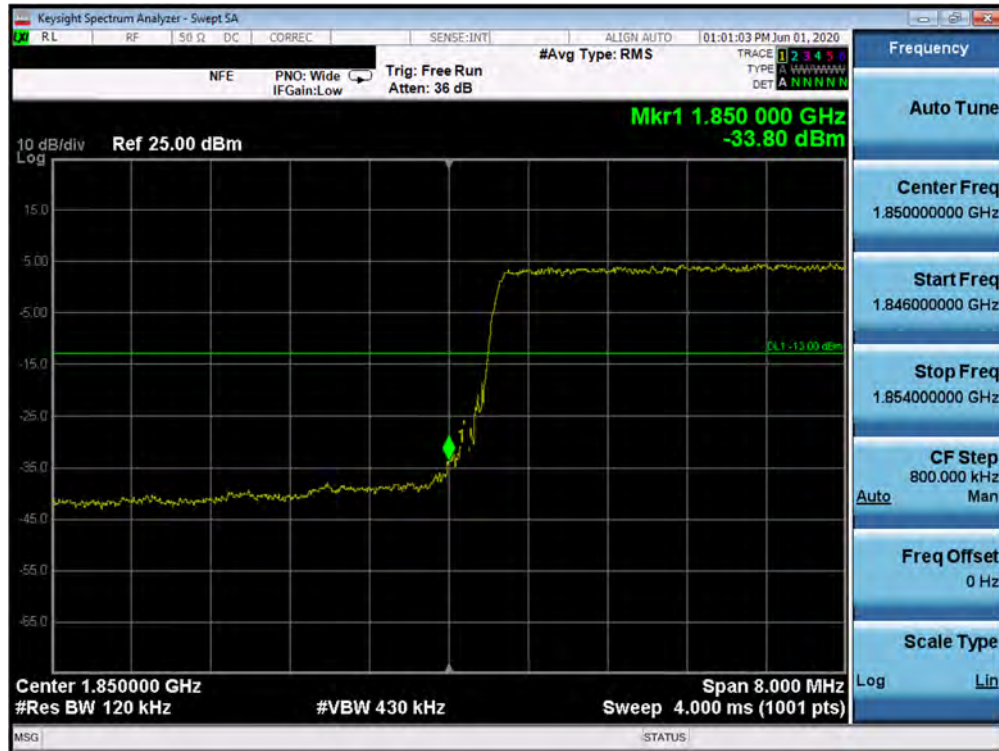


Plot 7-404. Upper Band Edge Plot (Band 25 - 5.0MHz QPSK - Full RB Configuration)

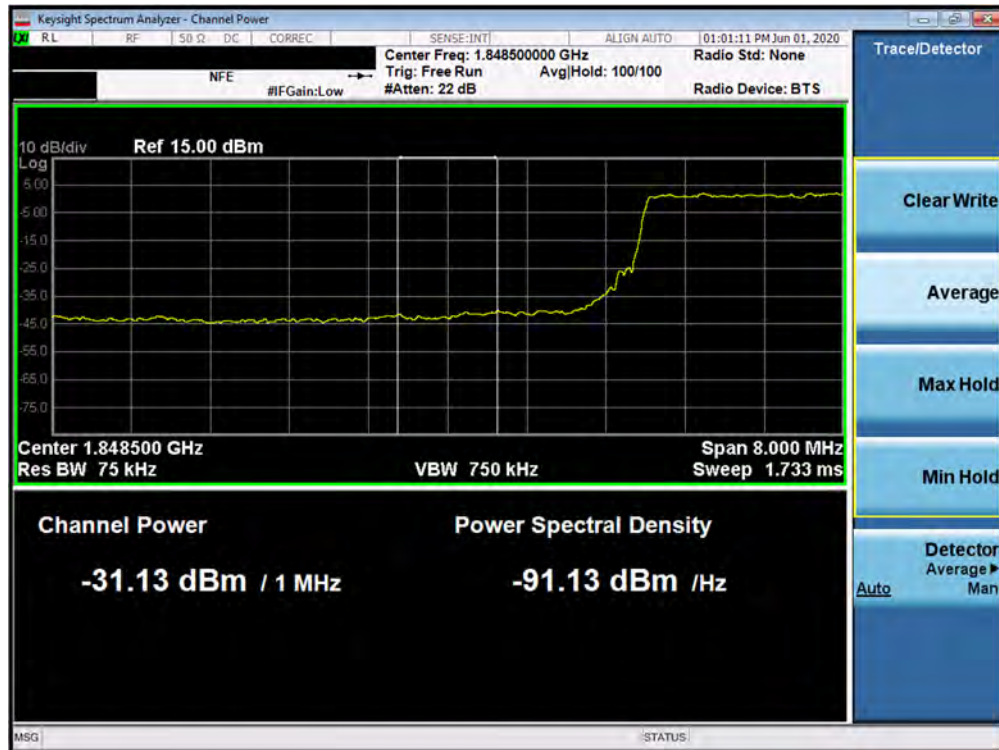


Plot 7-405. Upper Extended Band Edge Plot (Band 25 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         | Page 229 of 357                 |



Plot 7-406. Lower Band Edge Plot (Band 25/2 - 10.0MHz QPSK - Full RB Configuration)

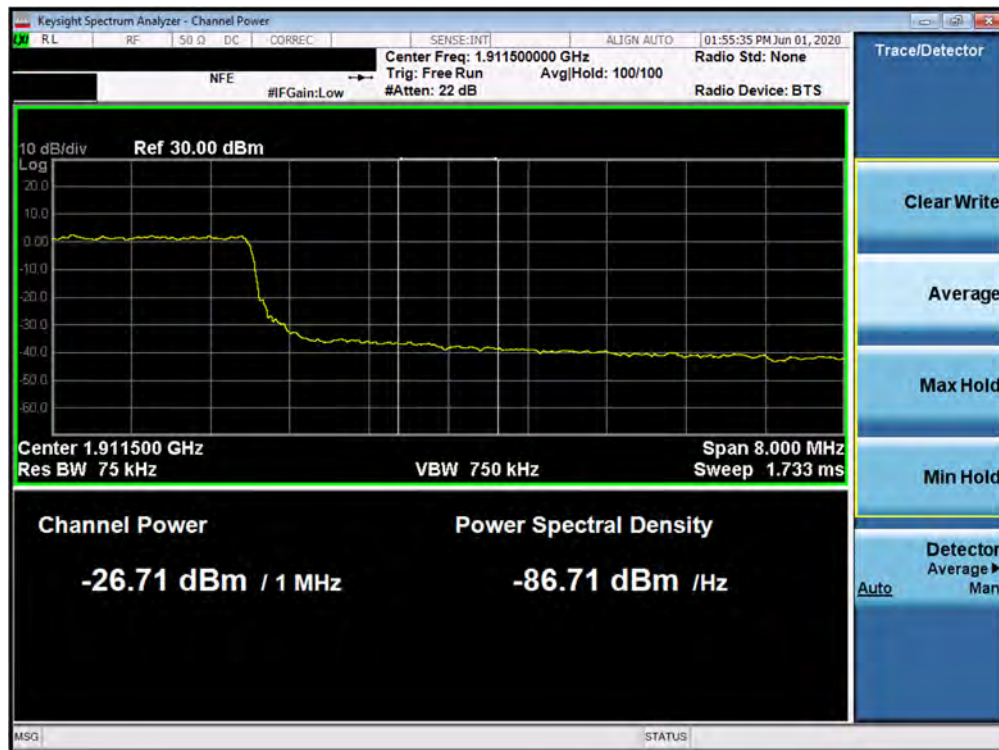


Plot 7-407. Lower Extended Band Edge Plot (Band 25/2 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 230 of 357                 |



Plot 7-408. Upper Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

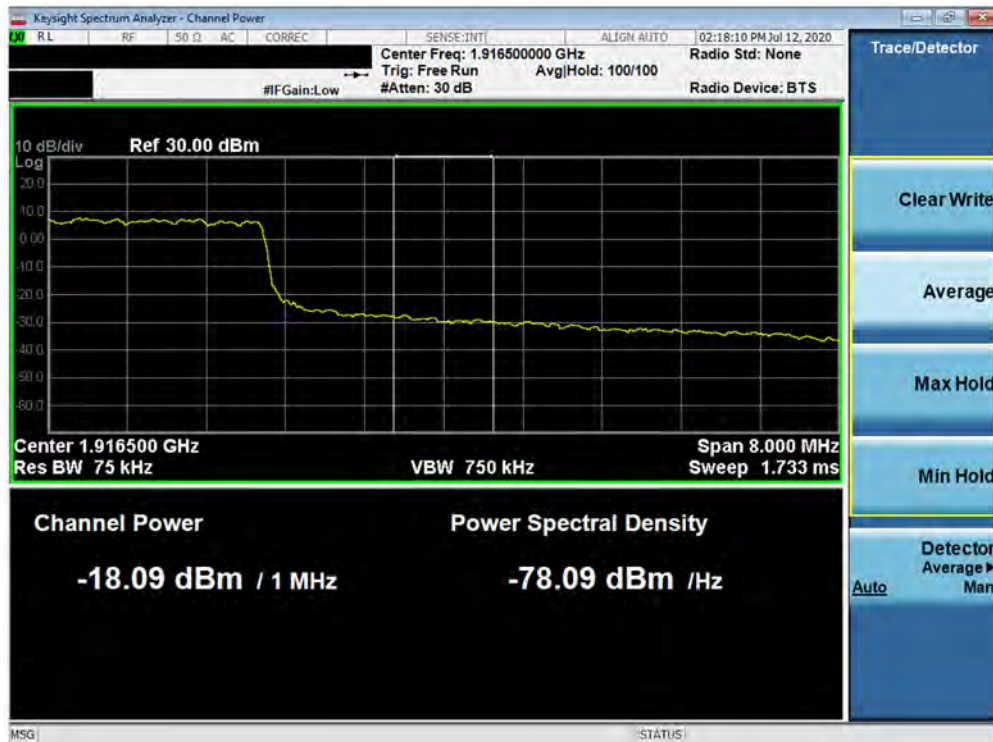


Plot 7-409. Upper Extended Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 231 of 357                 |

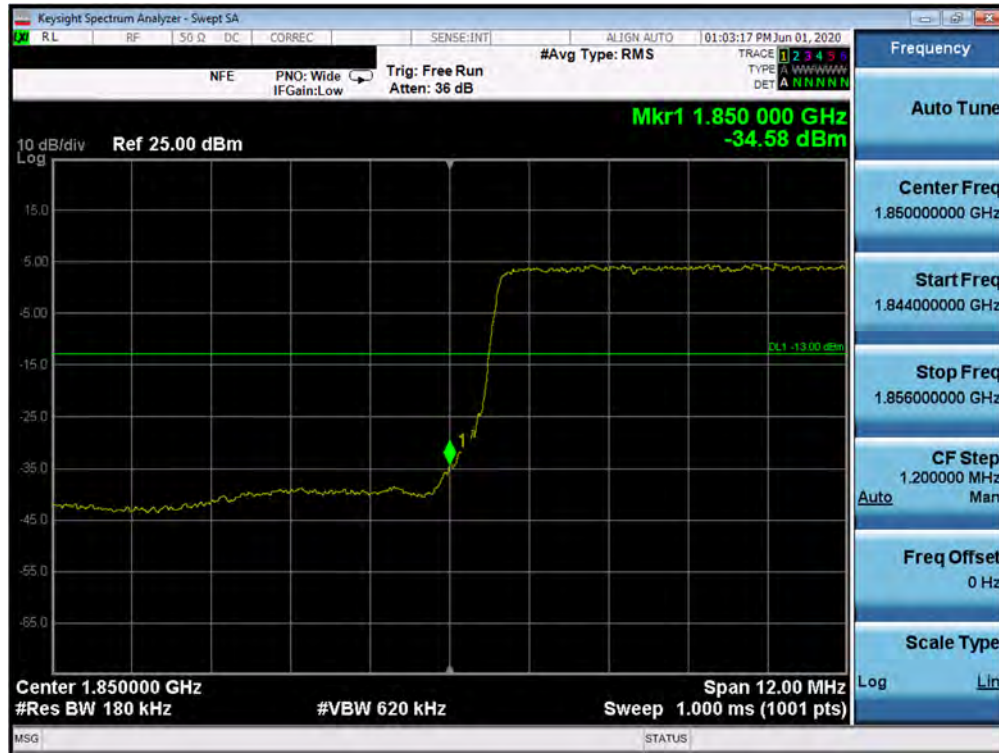


Plot 7-410. Upper Band Edge Plot (Band 25 - 10.0MHz QPSK - Full RB Configuration)

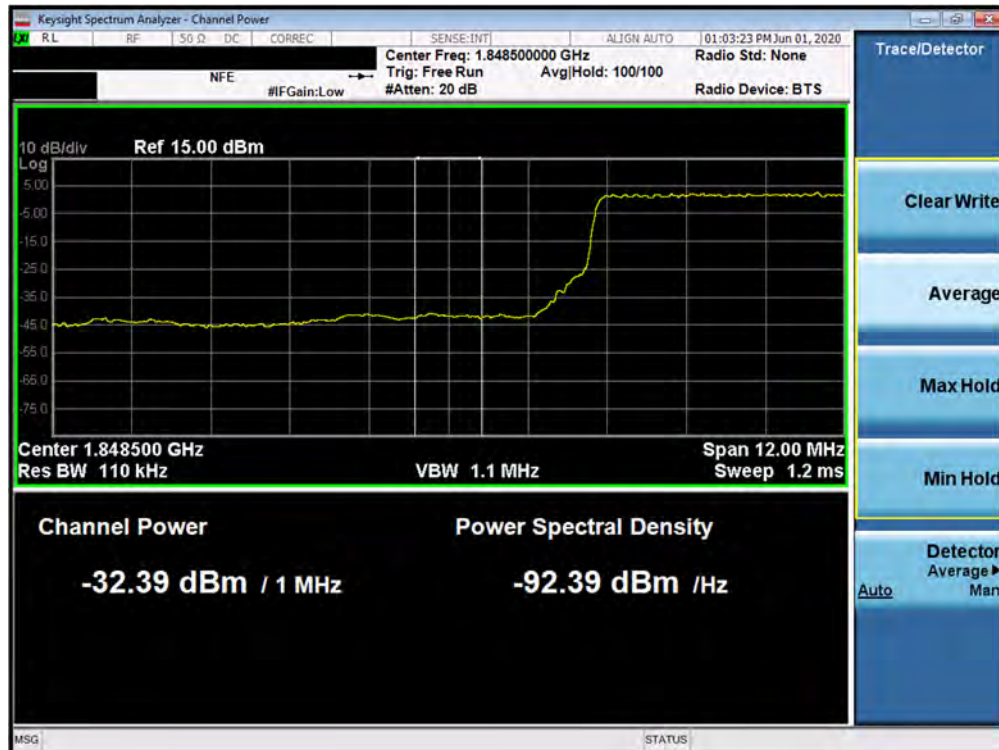


Plot 7-411. Upper Extended Band Edge Plot (Band 25 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 232 of 357                 |

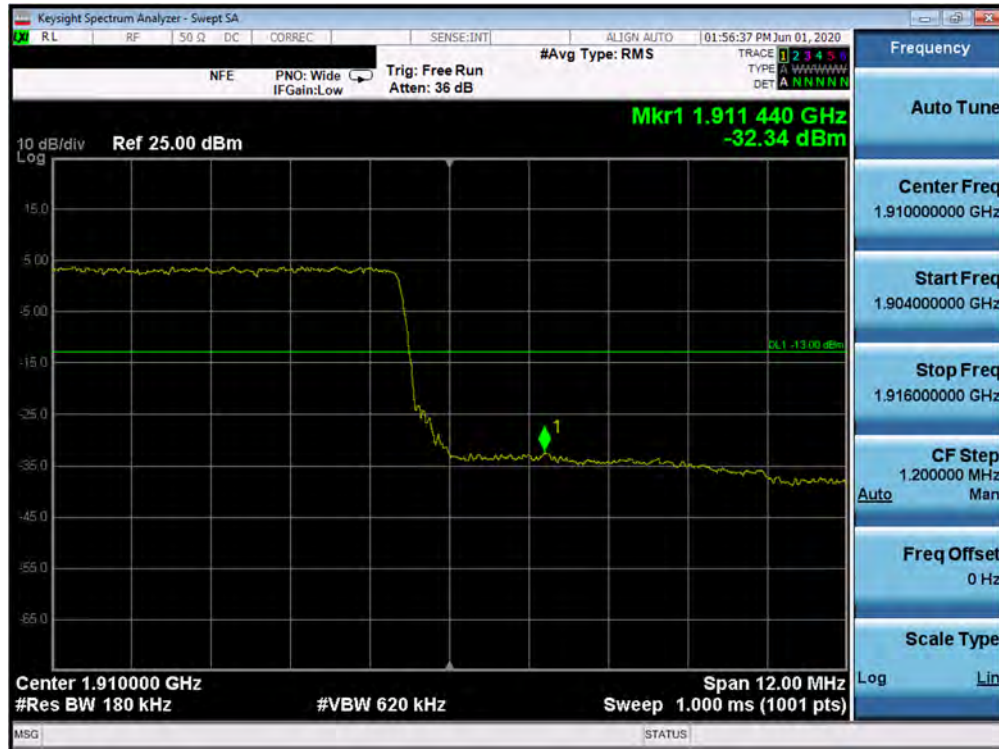


Plot 7-412. Lower Band Edge Plot (Band 25/2 - 15.0MHz QPSK - Full RB Configuration)

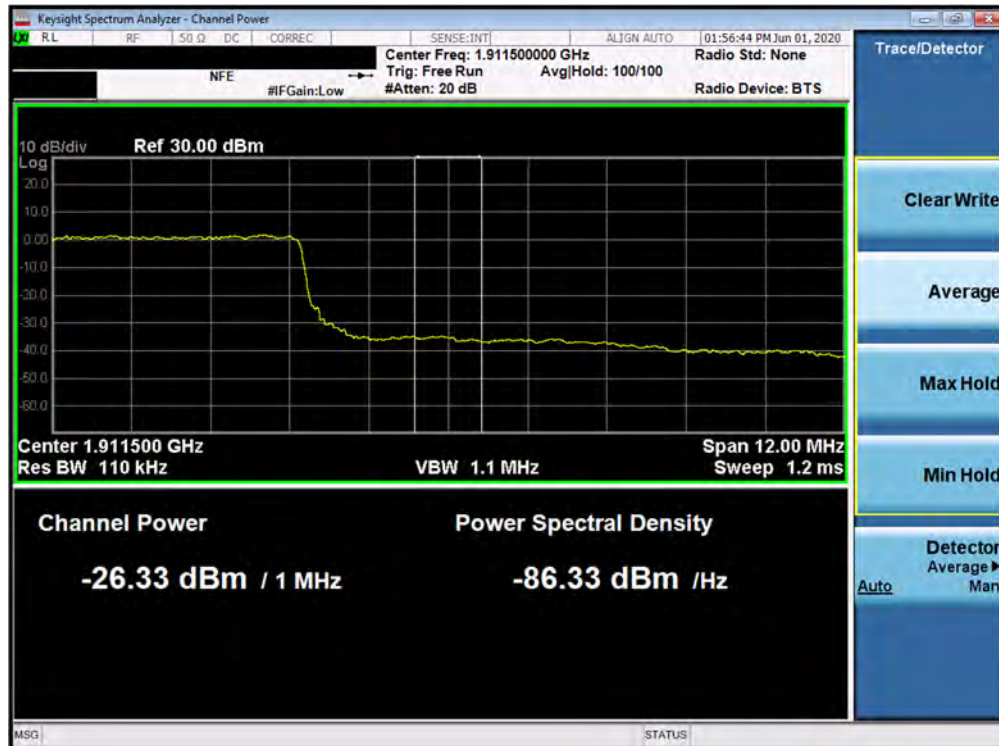


Plot 7-413. Lower Extended Band Edge Plot (Band 25/2 - 15.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 233 of 357                 |



Plot 7-414. Upper Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-415. Upper Extended Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 234 of 357                 |

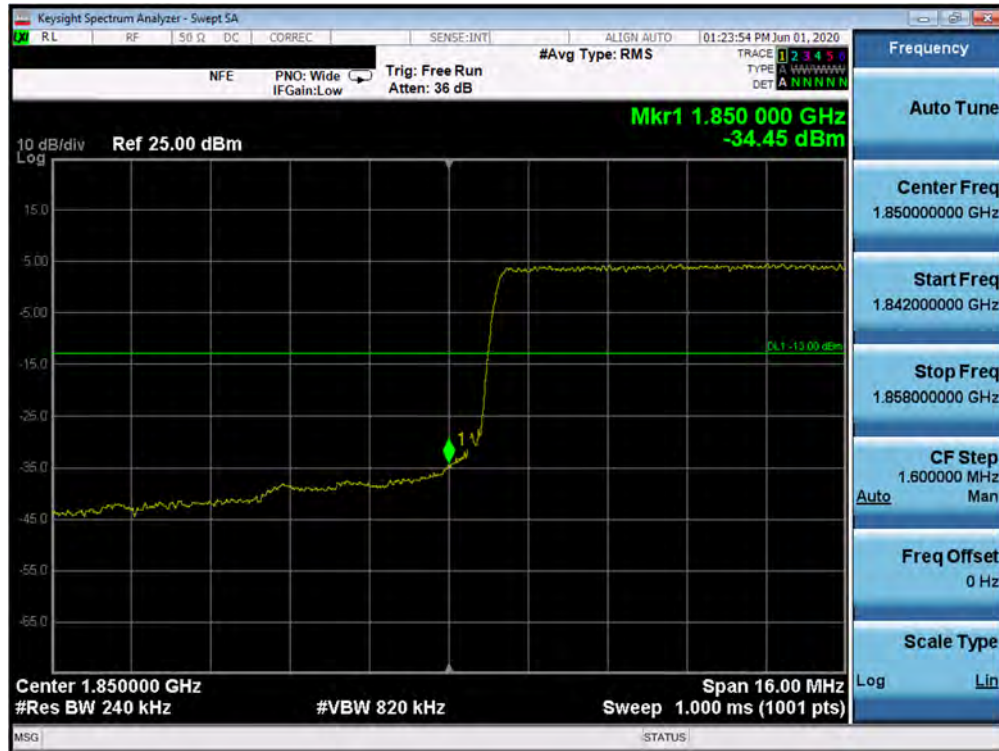


Plot 7-416. Upper Band Edge Plot (Band 25 - 15.0MHz QPSK - Full RB Configuration)

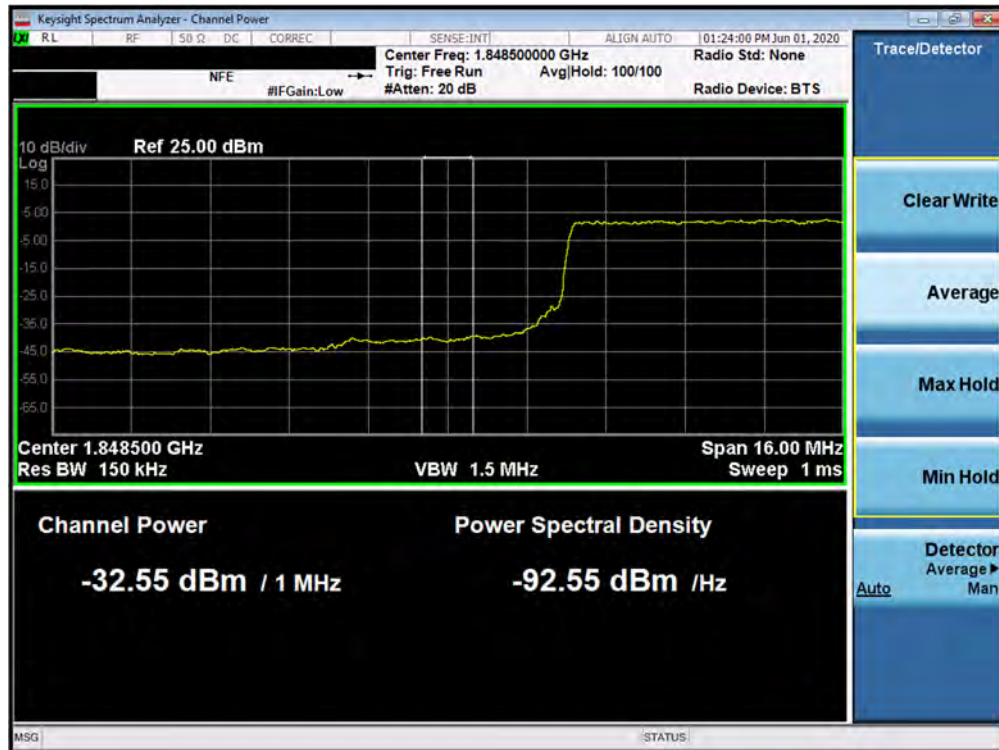


Plot 7-417. Upper Extended Band Edge Plot (Band 25 - 15.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 235 of 357                 |

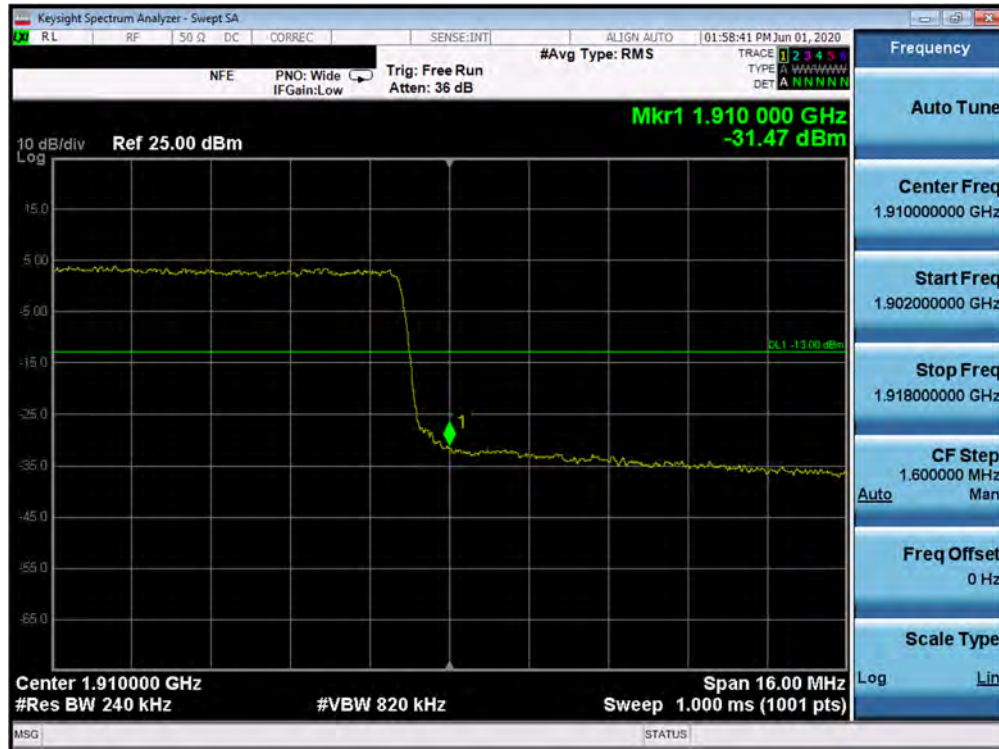


Plot 7-418. Lower Band Edge Plot (Band 25/2 - 20.0MHz QPSK - Full RB Configuration)

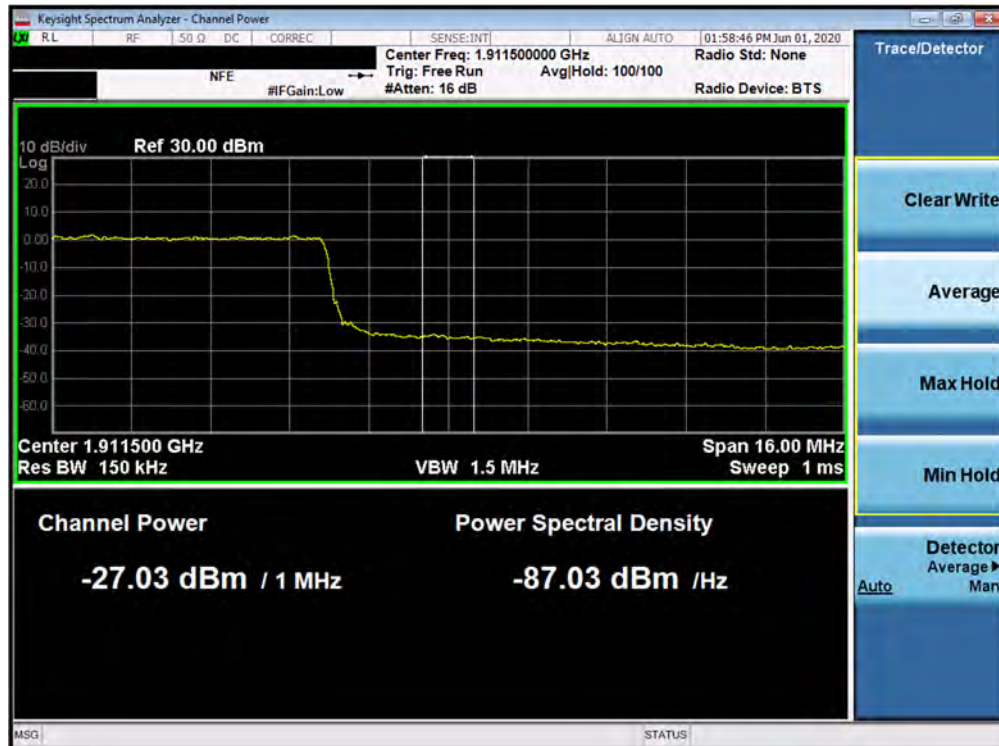


Plot 7-419. Lower Extended Band Edge Plot (Band 25/2 - 20.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 236 of 357                 |



Plot 7-420. Upper Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)

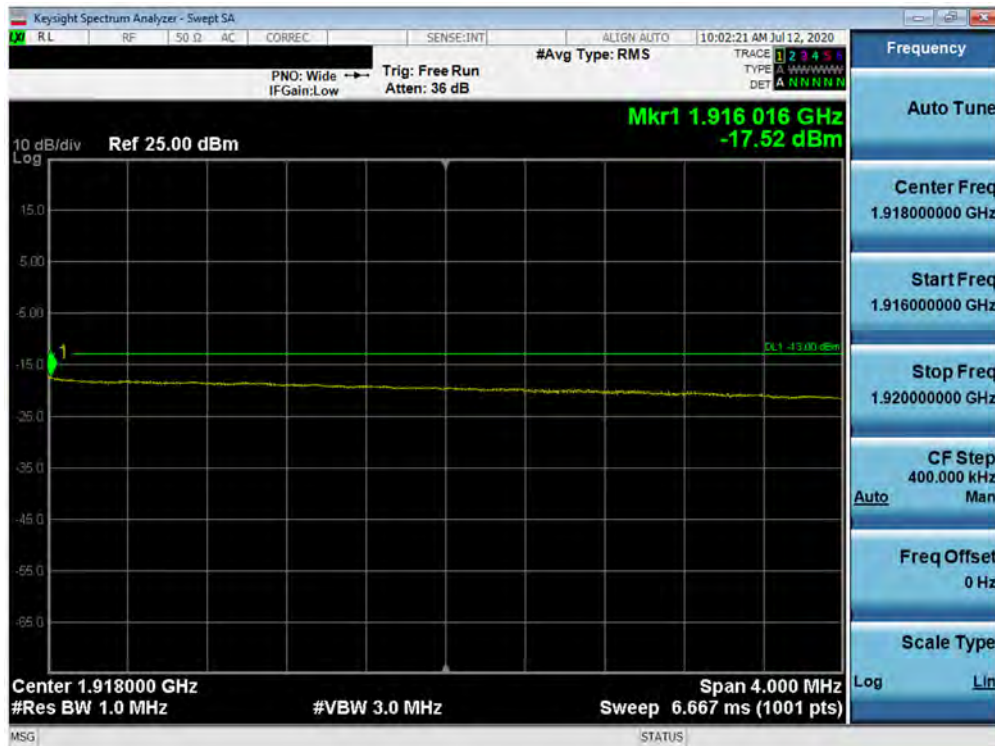


Plot 7-421. Upper Extended Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 237 of 357                 |



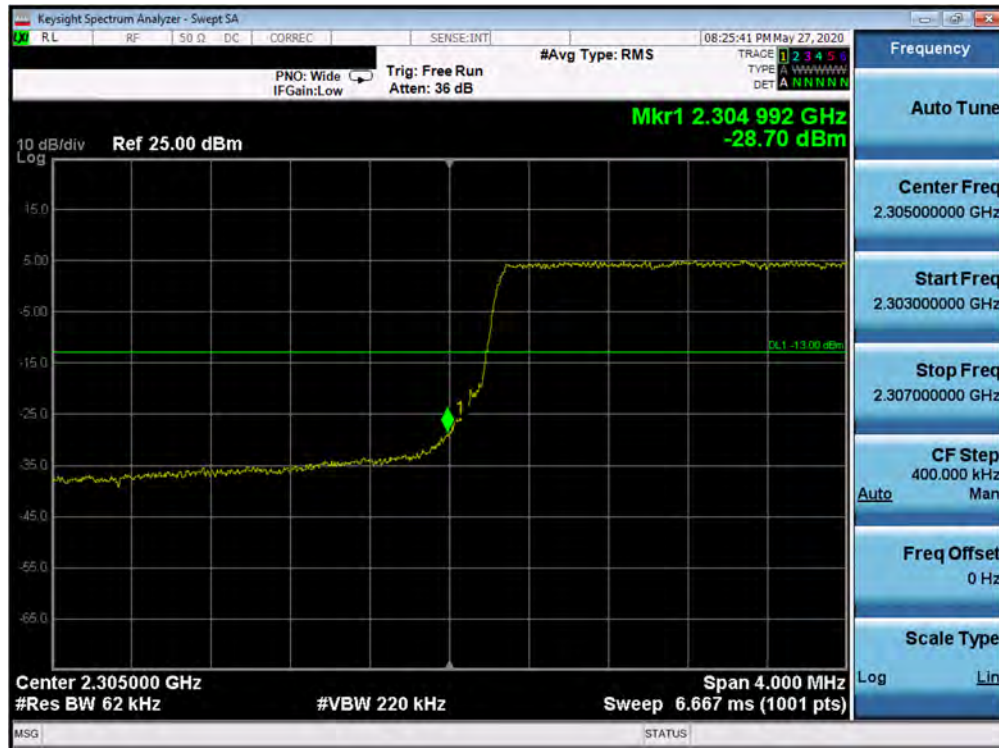
Plot 7-422. Upper Band Edge Plot (Band 25 - 20.0MHz QPSK - Full RB Configuration)



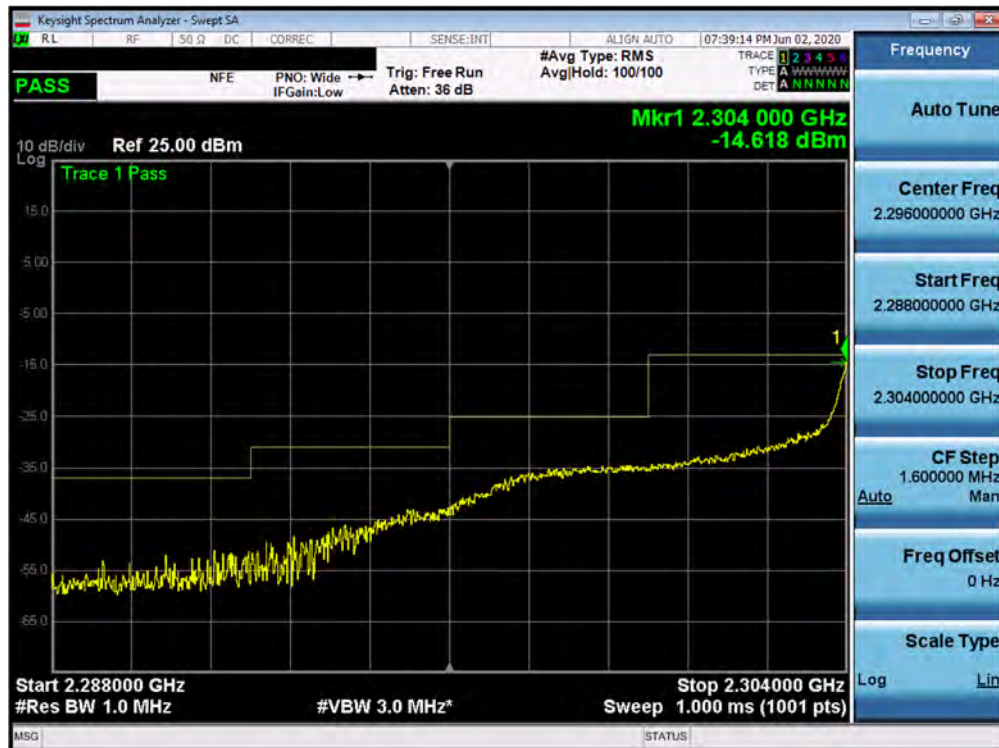
Plot 7-423. Upper Extended Band Edge Plot (Band 25 - 20.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 238 of 357                 |

## Band 30

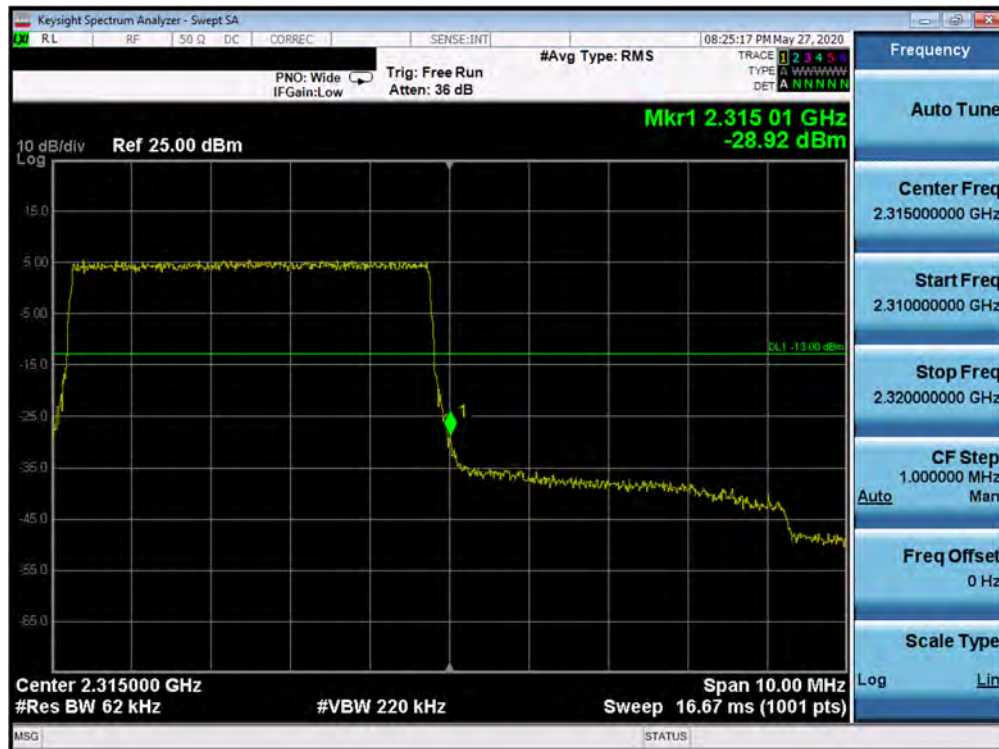


Plot 7-424. Lower Band Edge Plot (Band 30 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-425. Lower Extended Band Edge Plot (Band 30 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 239 of 357                 |

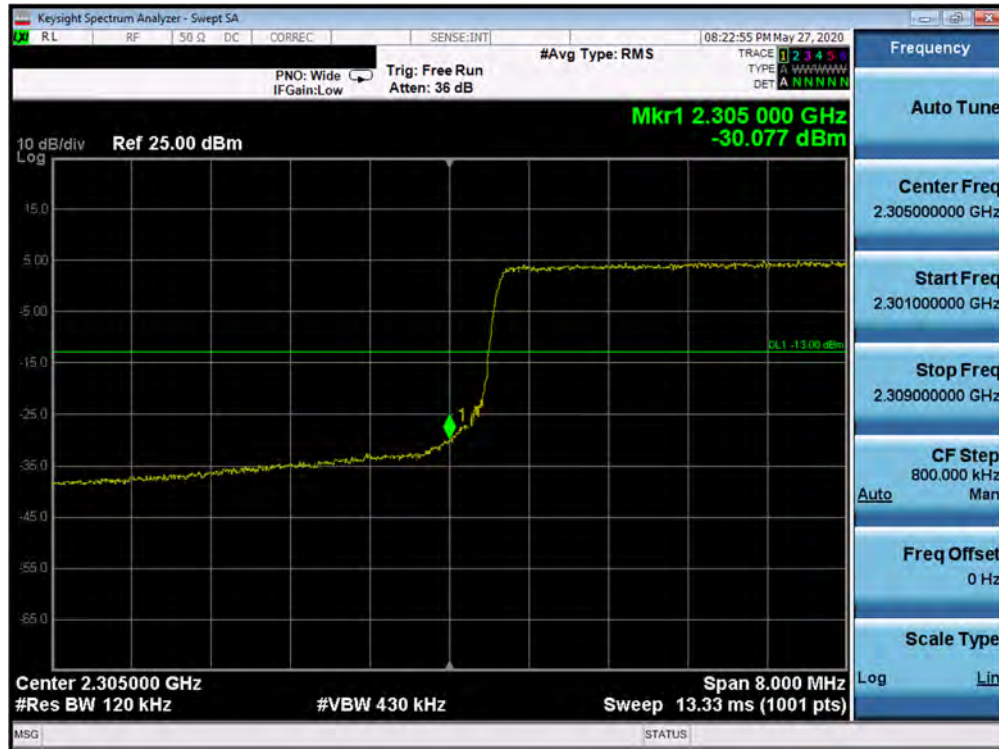


Plot 7-426. Upper Band Edge Plot (Band 30 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-427. Upper Extended Band Edge Plot (Band 30 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 240 of 357                 |



Plot 7-428. Lower Band Edge Plot (Band 30 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-429. Lower Extended Band Edge Plot (Band 30 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 241 of 357                 |



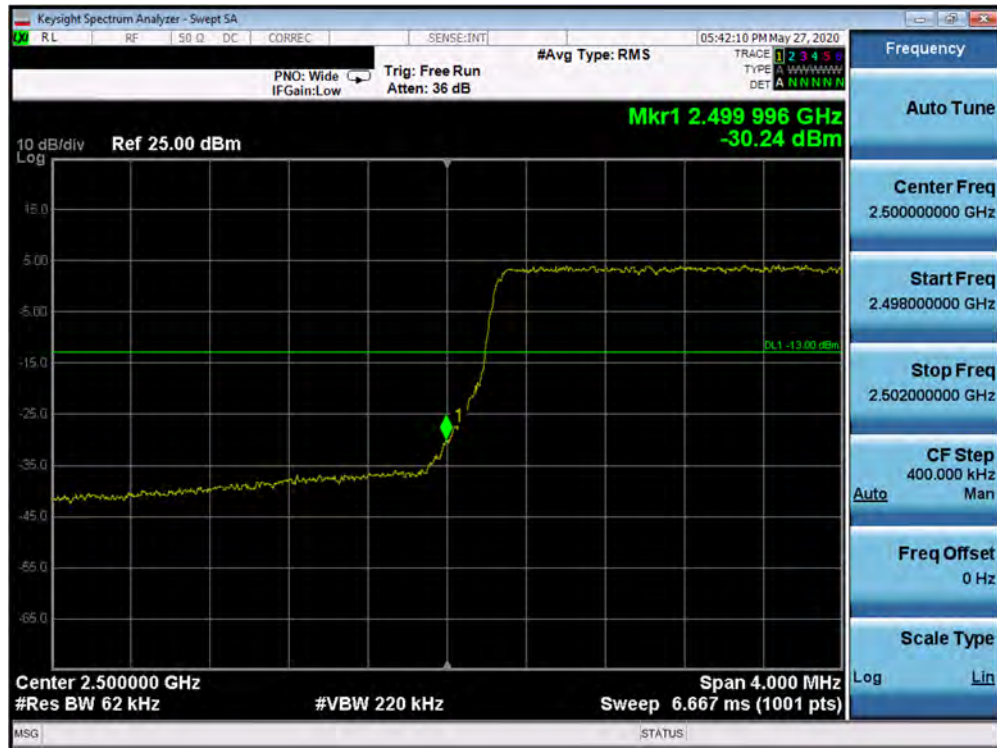
Plot 7-430. Upper Band Edge Plot (Band 30 - 10.0MHz QPSK - Full RB Configuration)



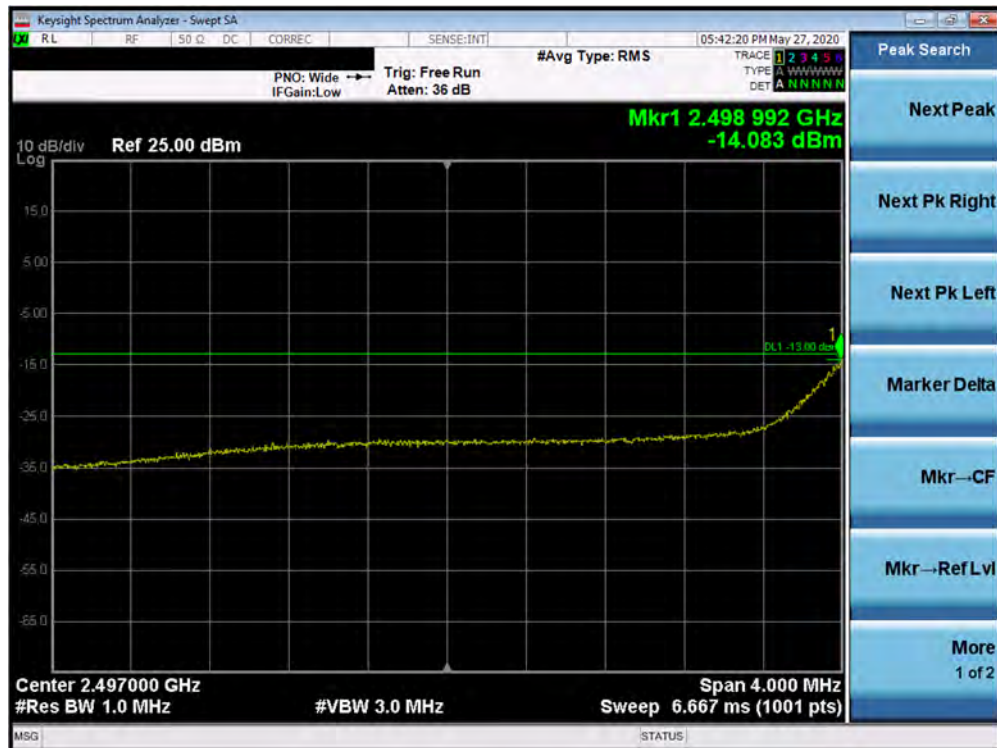
Plot 7-431. Upper Extended Band Edge Plot (Band 30 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 242 of 357                 |

## Band 7



Plot 7-432. Lower Band Edge Plot (Band 7 - 5.0MHz QPSK - Full RB Configuration)

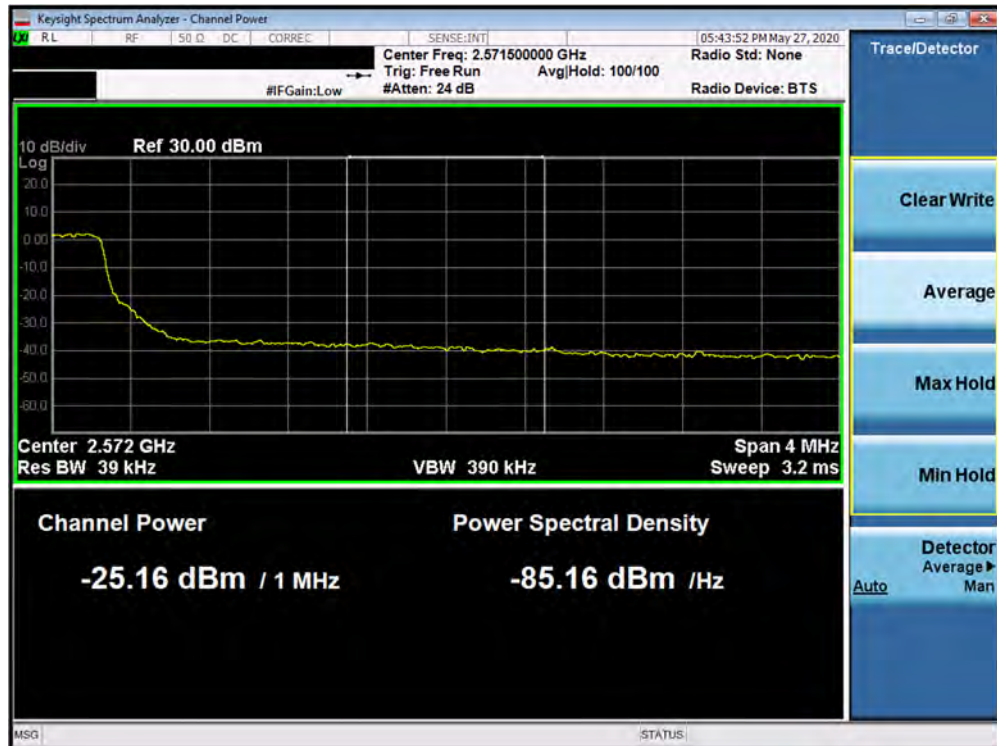


Plot 7-433. Lower Extended Band Edge Plot (Band 7 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 243 of 357                 |

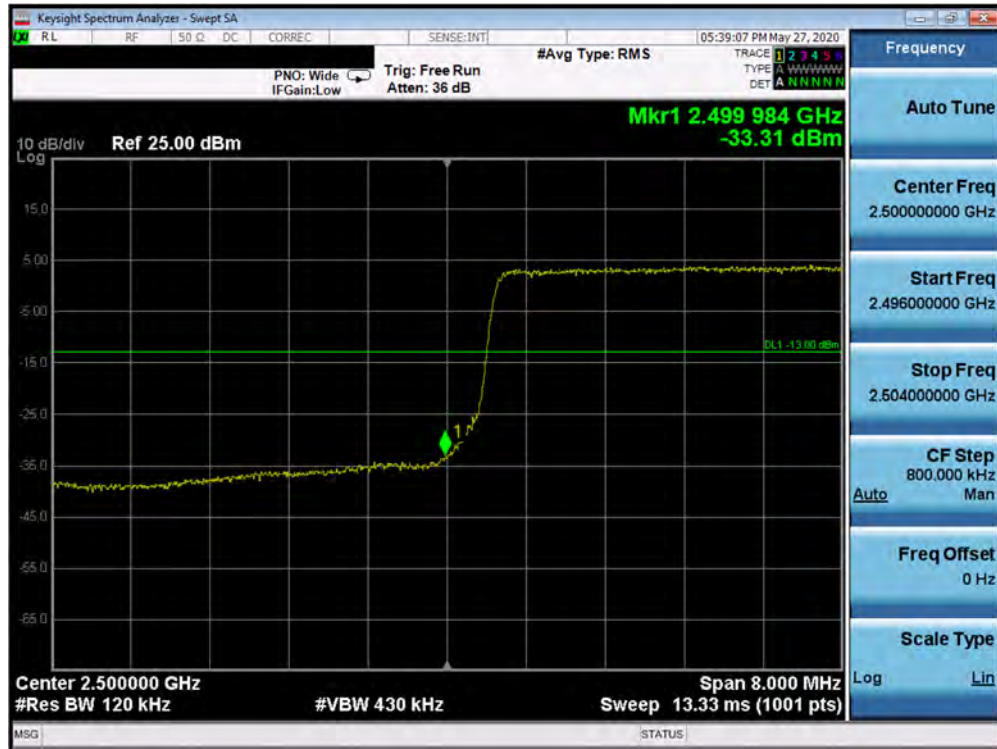


Plot 7-434. Upper Band Edge Plot (Band 7 - 5.0MHz QPSK - Full RB Configuration)

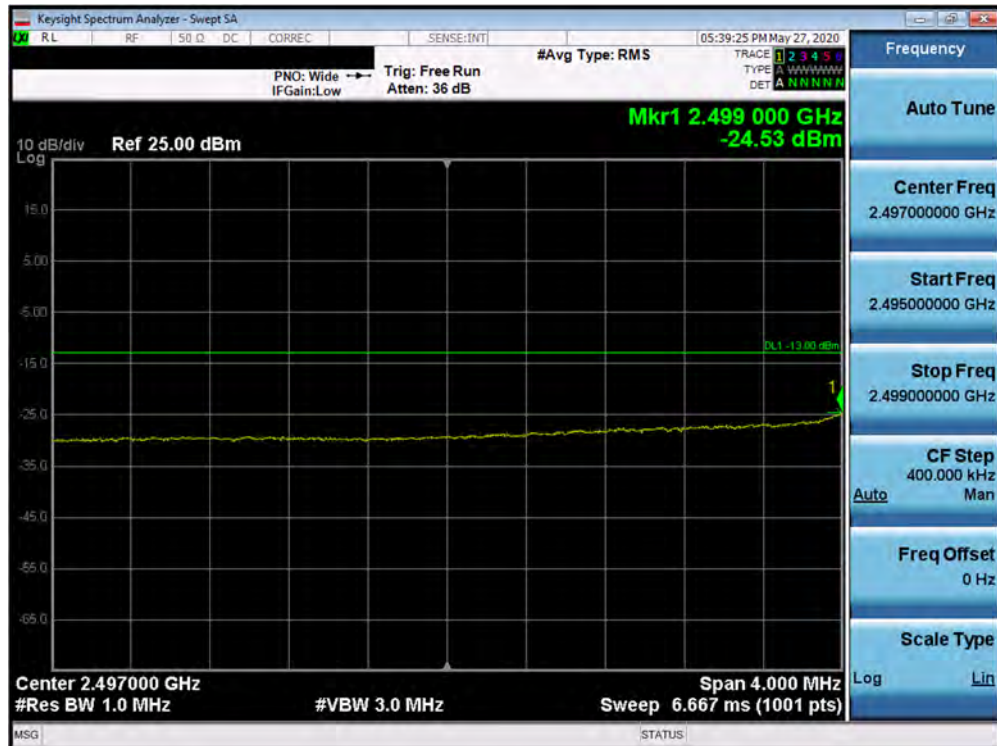


Plot 7-435. Upper Extended Band Edge Plot (Band 7 - 5.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 244 of 357                 |



Plot 7-436. Lower Band Edge Plot (Band 7 - 10.0MHz QPSK - Full RB Configuration)

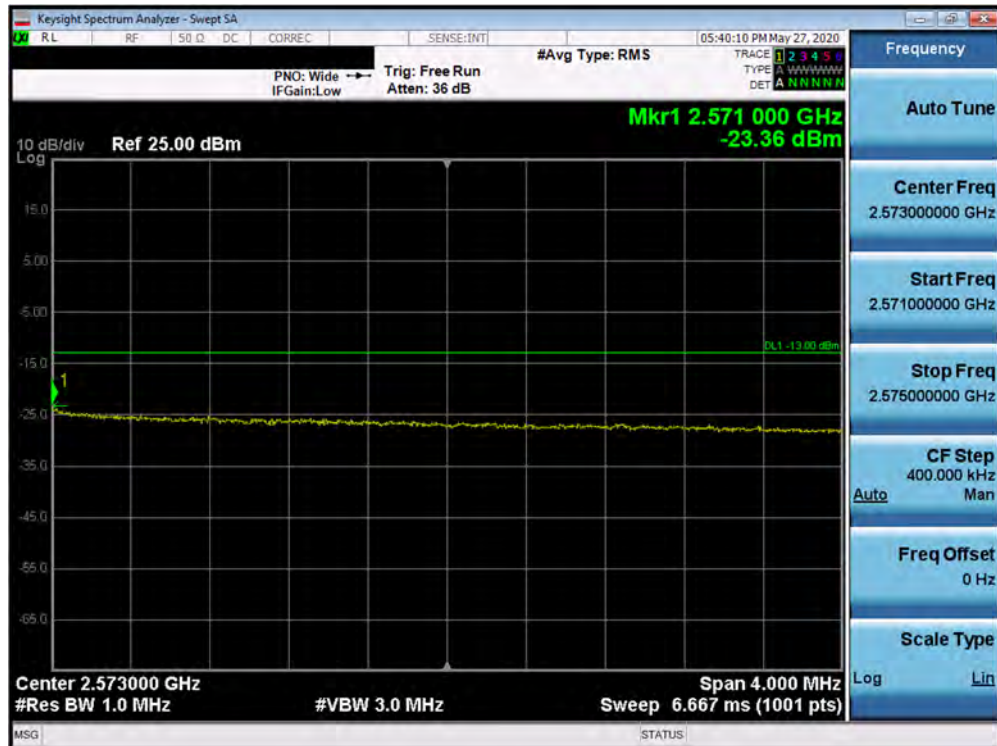


Plot 7-437. Lower Extended Band Edge Plot (Band 7 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 – 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 245 of 357                 |



Plot 7-438. Upper Band Edge Plot (Band 7 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-439. Upper Extended Band Edge Plot (Band 7 - 10.0MHz QPSK - Full RB Configuration)

|                                         |                                              |                                       |                |                                 |
|-----------------------------------------|----------------------------------------------|---------------------------------------|----------------|---------------------------------|
| FCC ID: A3LSMN981W                      | <b>PCTEST</b><br>Proud to be part of element | MEASUREMENT REPORT<br>(CERTIFICATION) | <b>SAMSUNG</b> | Approved by:<br>Quality Manager |
| Test Report S/N:<br>1M2005050082-03.A3L | Test Dates:<br>5/5 - 7/15/2020               | EUT Type:<br>Portable Handset         |                | Page 246 of 357                 |