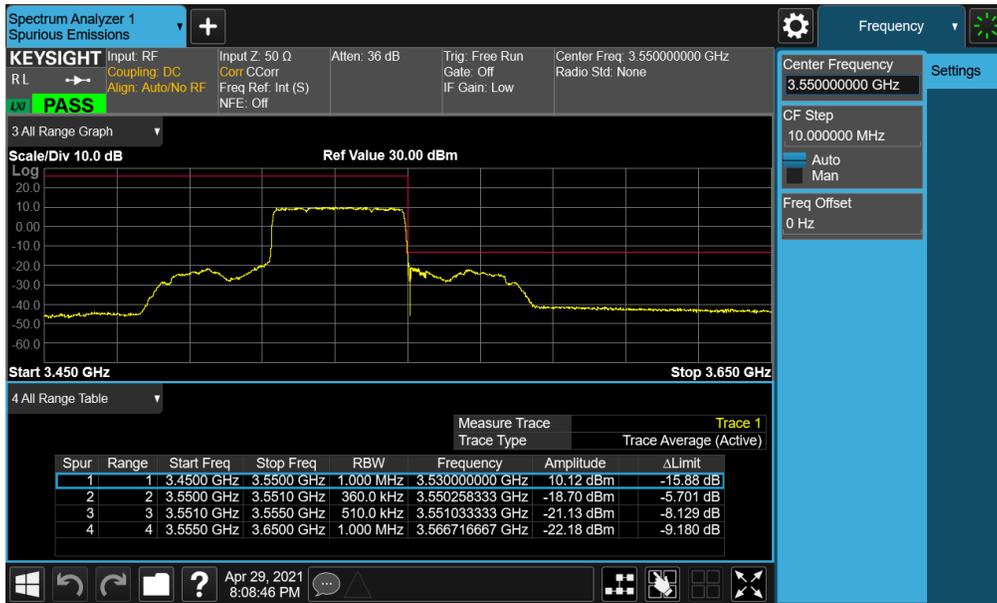
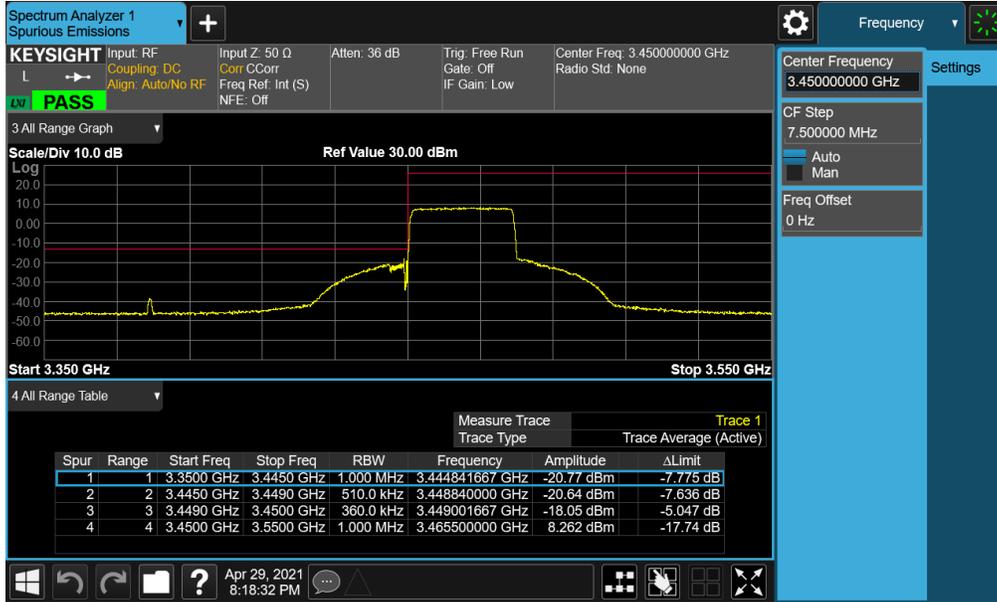


Plot 7-139. Lower ACP Plot (NR Band n77 - 40MHz CP-OFDM-QPSK - Full RB - SRS-1)



Plot 7-140. Upper ACP Plot (NR Band n77 - 40MHz CP-OFDM-QPSK - Full RB - SRS-1)

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 96 of 152

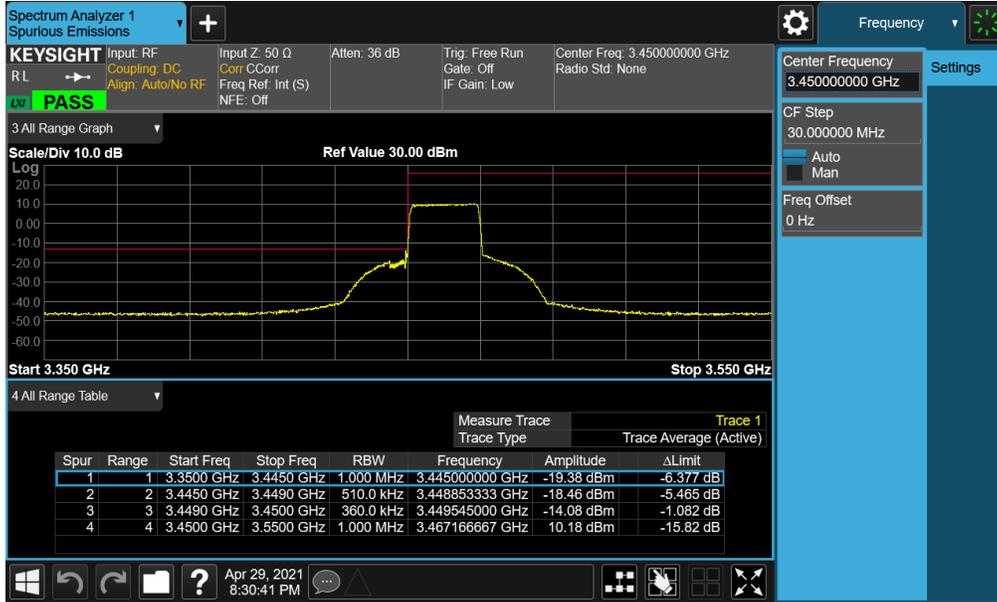


Plot 7-141. Lower ACP Plot (NR Band n77 - 30MHz CP-OFDM-QPSK – Full RB - SRS-1)

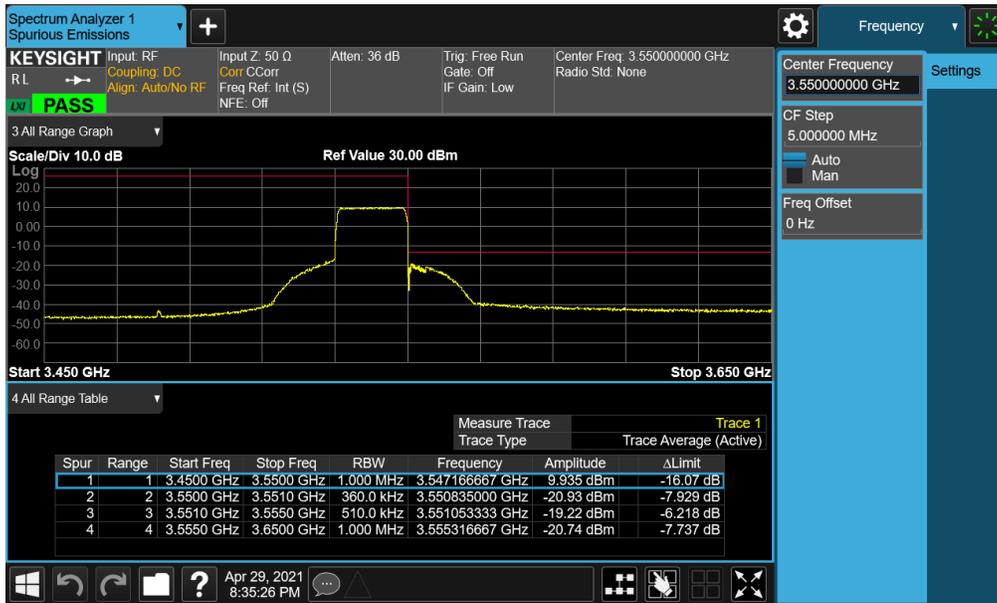


Plot 7-142. Upper ACP Plot (NR Band n77 - 30MHz CP-OFDM-QPSK – Full RB - SRS-1)

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 97 of 152



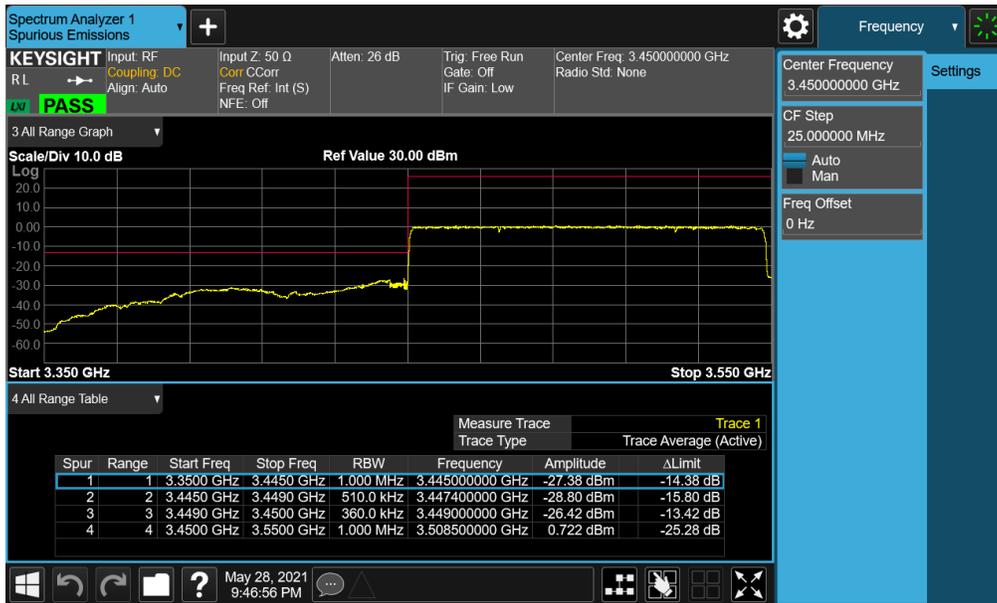
Plot 7-143. Lower ACP Plot (NR Band n77 - 20MHz CP-OFDM-QPSK – Full RB - SRS-1)



Plot 7-144. Upper ACP Plot (NR Band n77 - 20MHz CP-OFDM-QPSK – Full RB - SRS-1)

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 98 of 152

## NR Band n77 – DoD Band – SRS-2



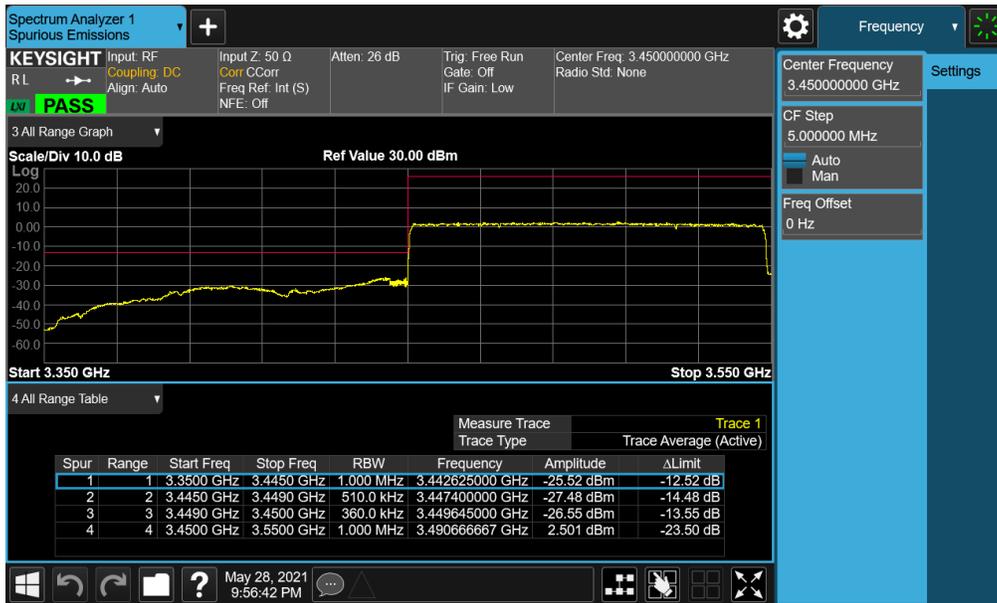
Plot 7-145. Lower ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB - SRS-2)



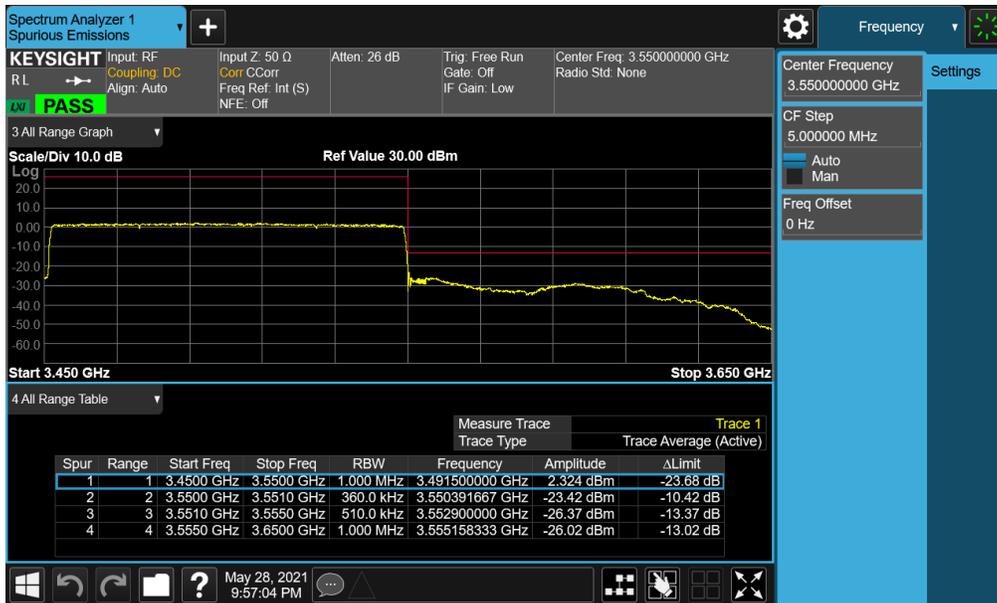
Plot 7-146. Upper ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB - SRS-2)

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 99 of 152

## NR Band n77 – DoD Band – SRS-3



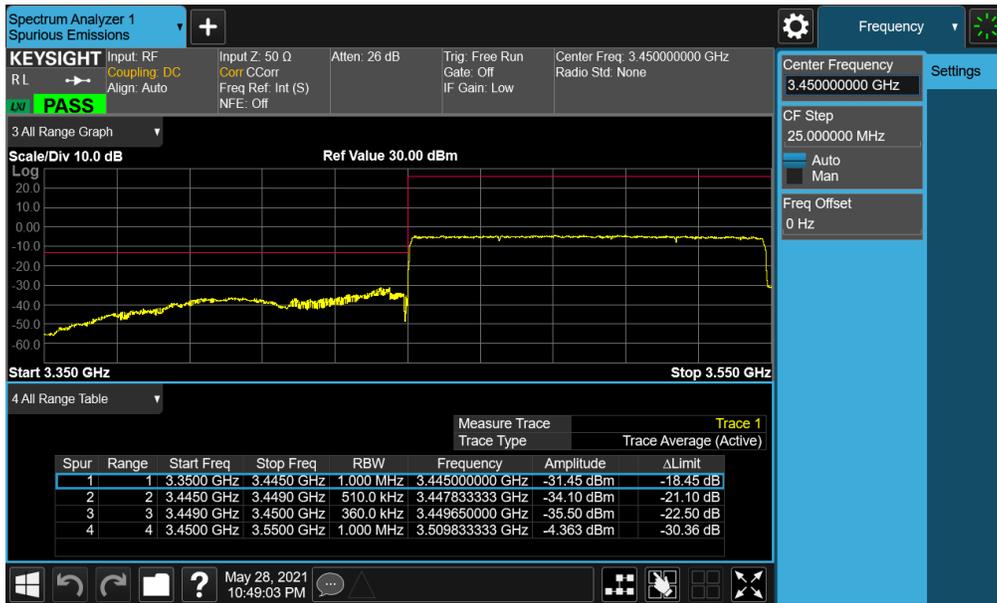
Plot 7-147. Lower ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB - SRS-3)



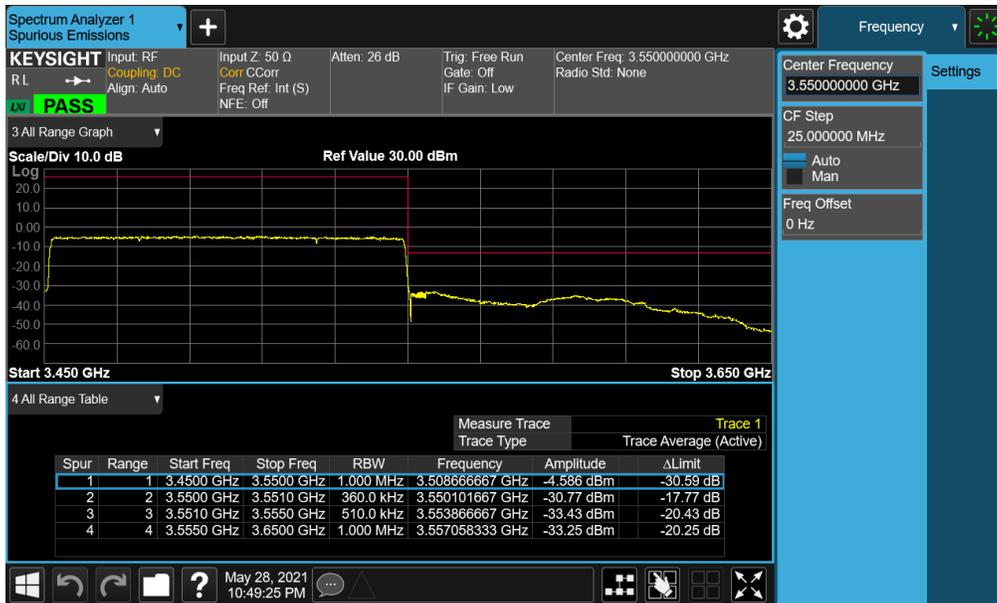
Plot 7-148. Upper ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB - SRS-3)

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 100 of 152

# NR Band n77 – DoD Band – SRS-4



Plot 7-149. Lower ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB - SRS-4)



Plot 7-150. Upper ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB - SRS-4)

FCC ID: A3LSMF926U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 101 of 152

## 7.6 Peak-Average Ratio

### Test Overview

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

### Test Procedure Used

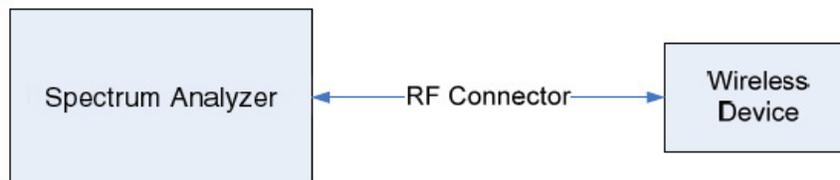
KDB 971168 D01 v03r01 – Section 5.7.1

### Test Settings

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

### Test Setup

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



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

### Test Notes

- 1) The Peak to Average Ratio was only measured on the antenna with the highest conducted power for each band (SRS-1).

FCC ID: A3LSMF926U	 PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 102 of 152

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



FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 103 of 152

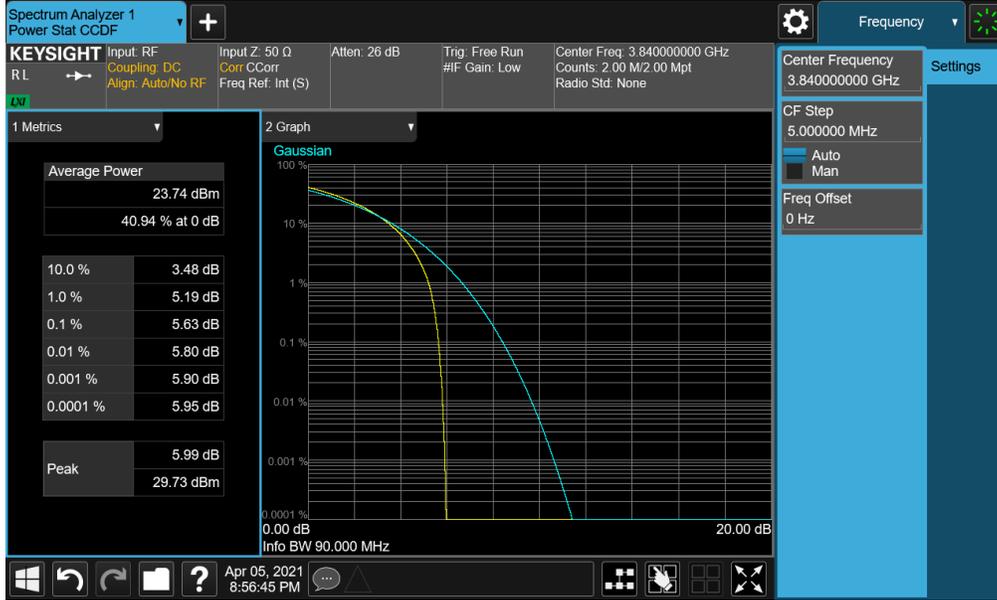


**Plot 7-153. PAR Plot (NR Band n77 PC2 - 100MHz CP-OFDM 256-QAM - Full RB)**

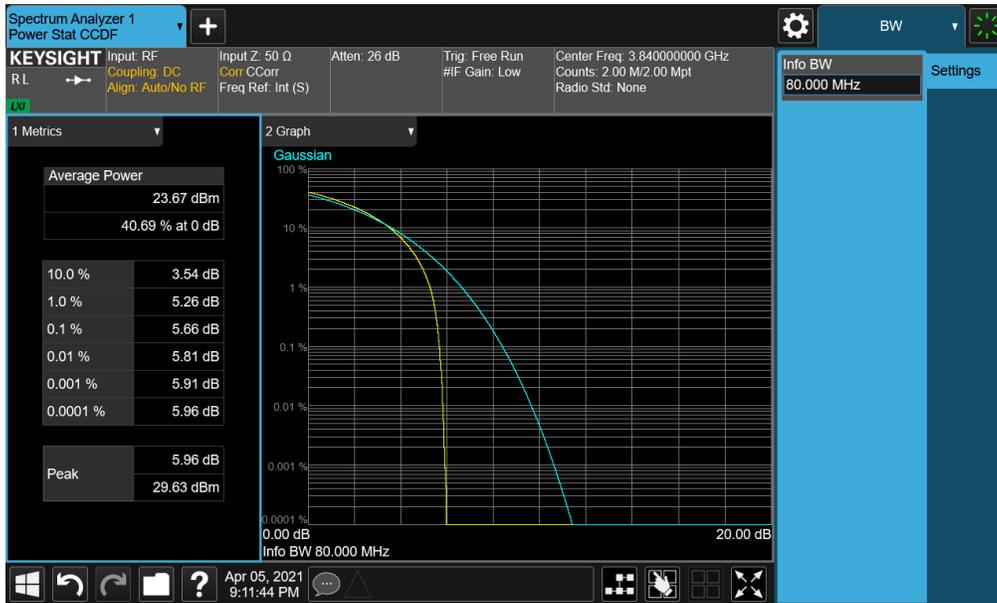


**Plot 7-154. PAR Plot (NR Band n77 PC2 - 90MHz π/2 BPSK - Full RB)**

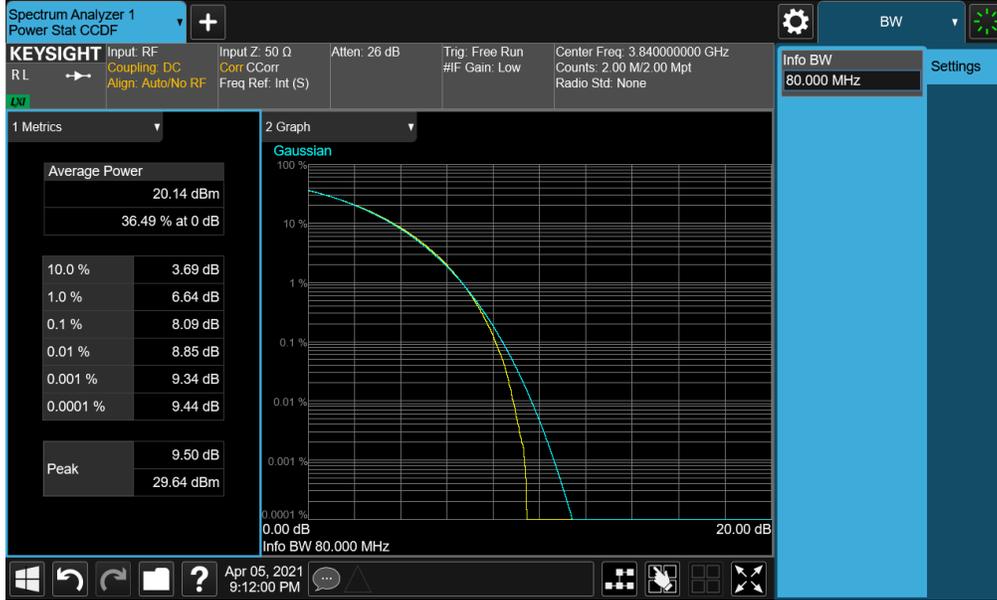
FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 104 of 152



FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 105 of 152



FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 106 of 152

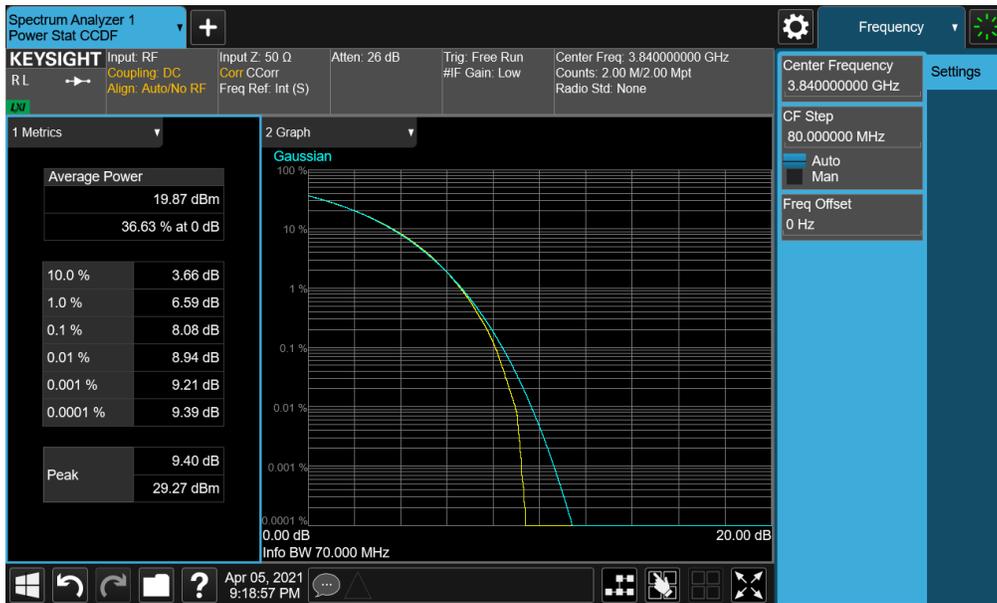
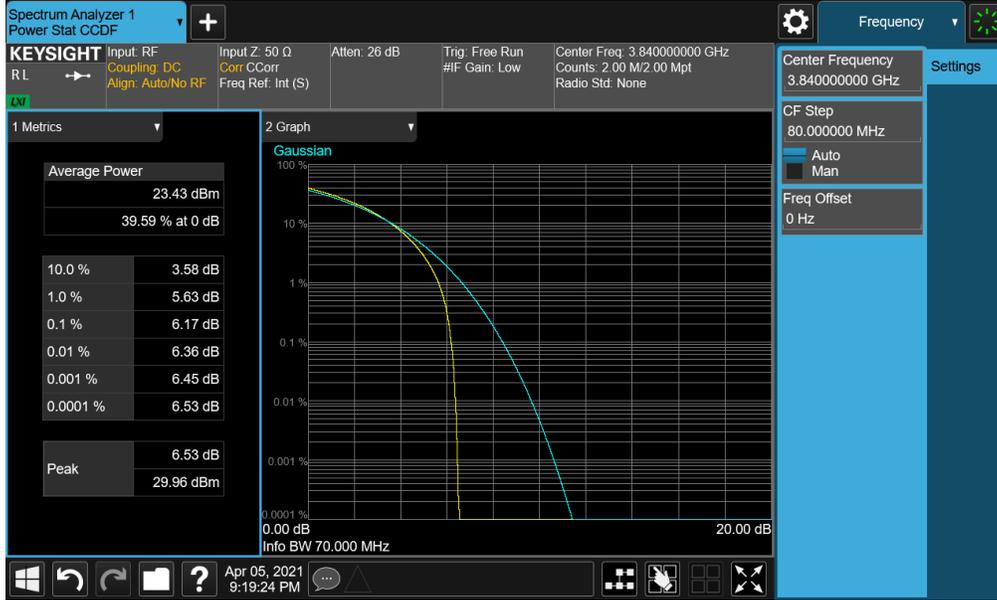


**Plot 7-159. PAR Plot (NR Band n77 PC2 - 80MHz CP-OFDM 256-QAM - Full RB)**



**Plot 7-160. PAR Plot (NR Band n77 PC2 - 70MHz  $\pi/2$  BPSK - Full RB)**

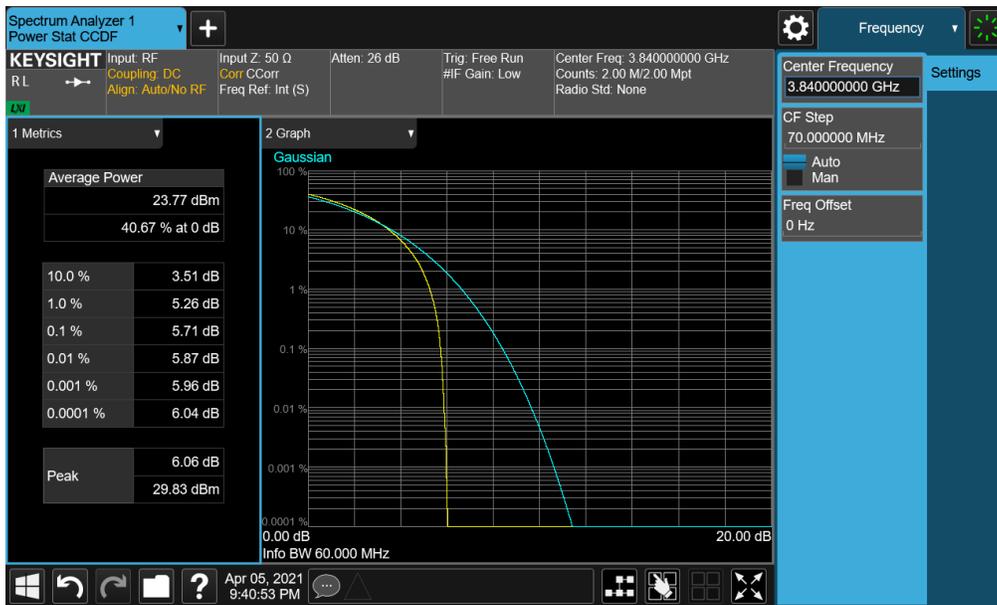
FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 107 of 152



FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 108 of 152



**Plot 7-163. PAR Plot (NR Band n77 PC2 - 60MHz  $\pi/2$  BPSK - Full RB)**

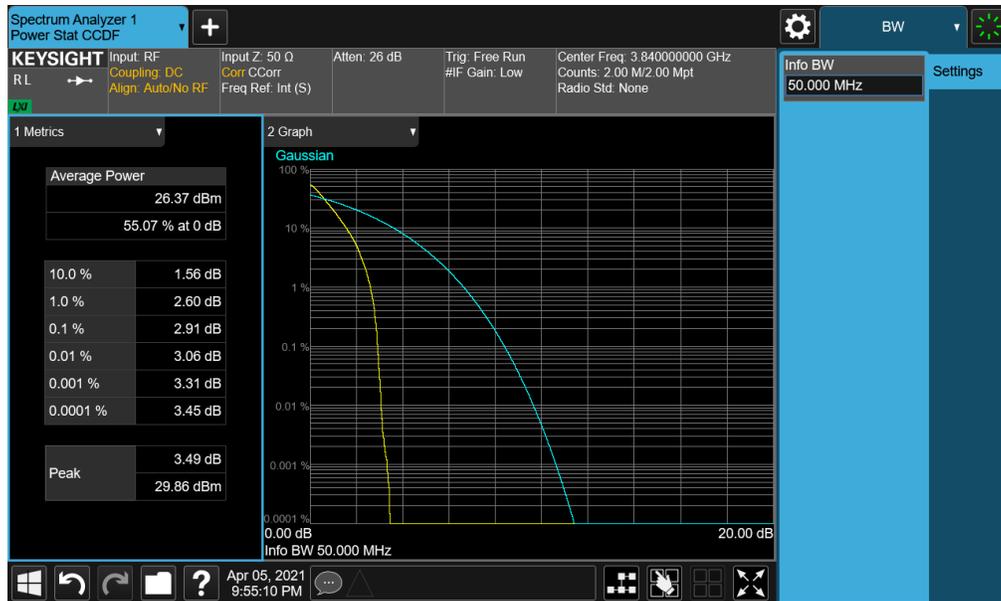


**Plot 7-164. PAR Plot (NR Band n77 PC2 - 60MHz CP-OFDM QPSK - Full RB)**

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 109 of 152

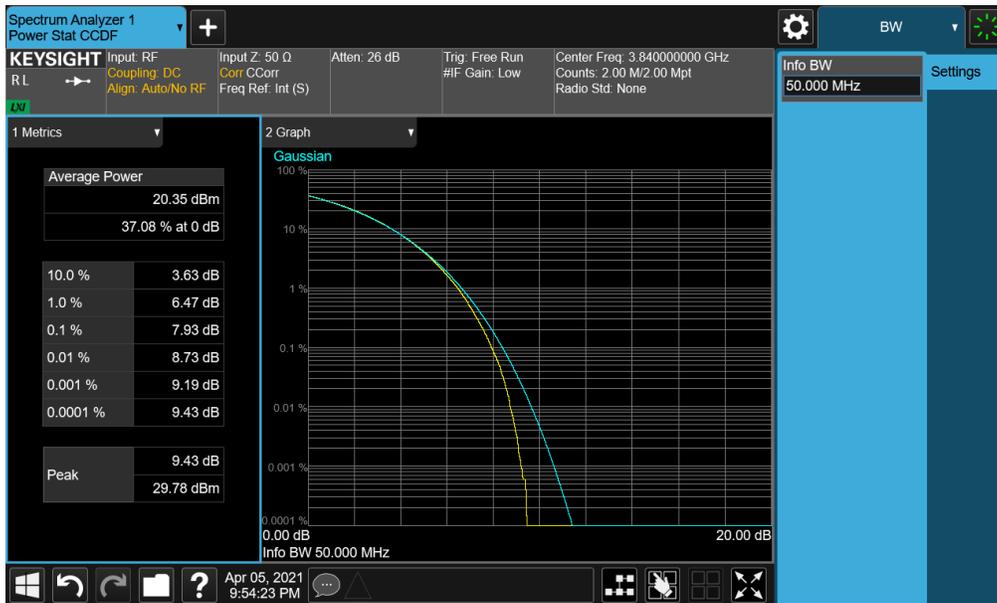
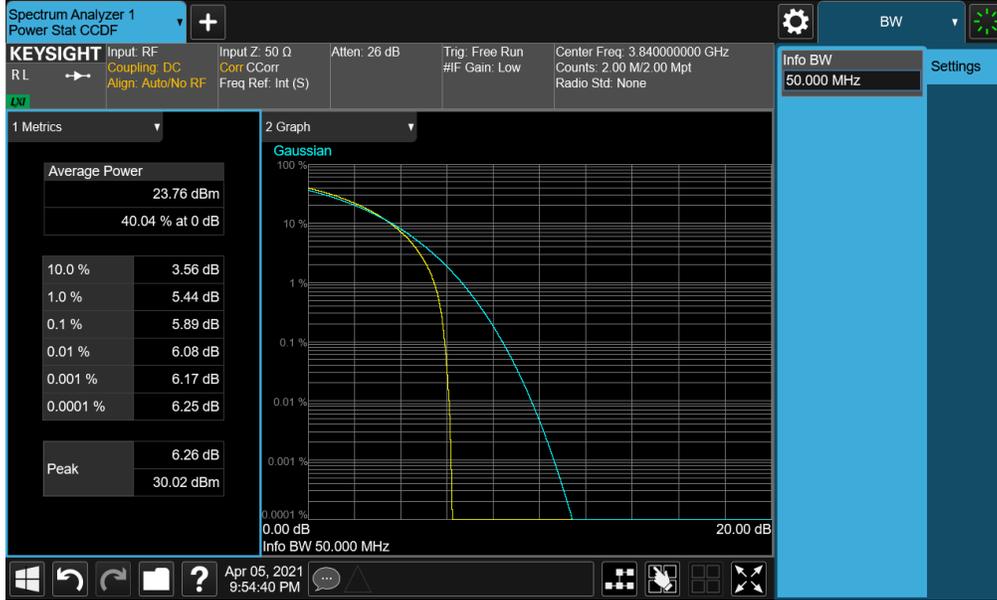


**Plot 7-165. PAR Plot (NR Band n77 PC2 - 60MHz CP-OFDM 256-QAM - Full RB)**



**Plot 7-166. PAR Plot (NR Band n77 PC2 - 50MHz  $\pi/2$  BPSK - Full RB)**

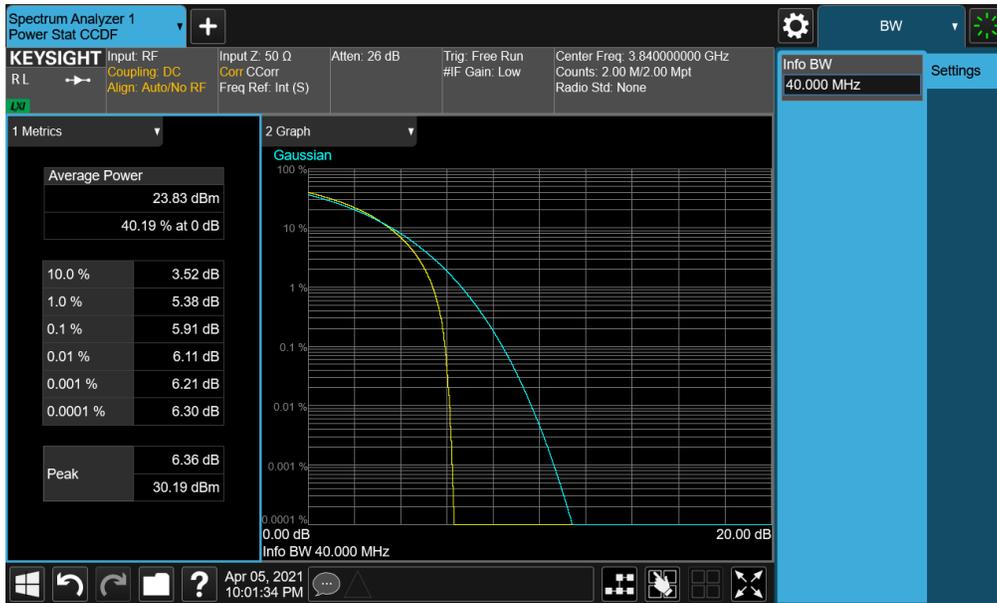
FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 110 of 152



FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 111 of 152



**Plot 7-169. PAR Plot (NR Band n77 PC2 - 40MHz  $\pi/2$  BPSK - Full RB)**



**Plot 7-170. PAR Plot (NR Band n77 PC2 - 40MHz CP-OFDM QPSK - Full RB)**

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 112 of 152



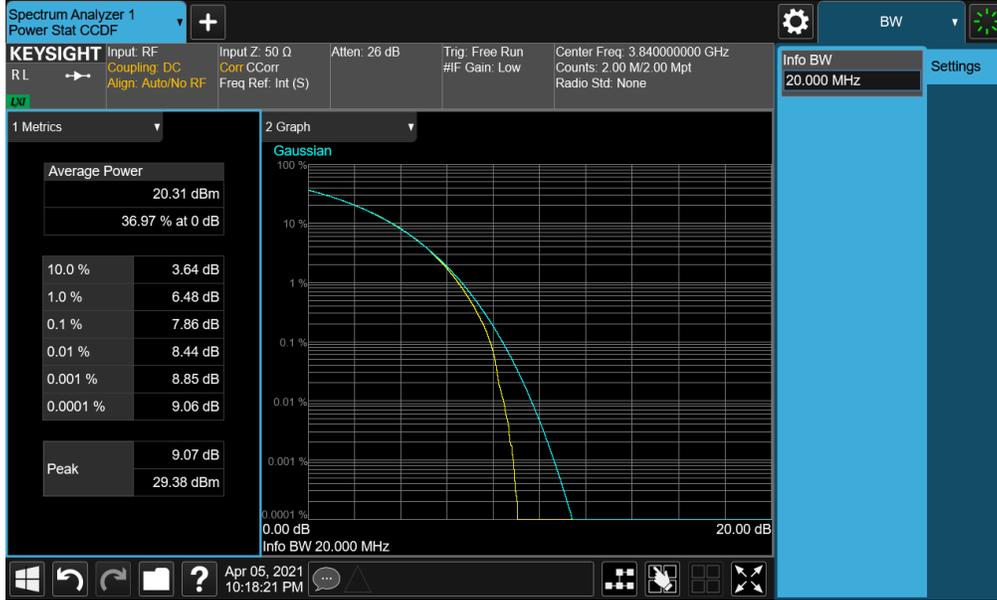
FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 113 of 152



FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 114 of 152



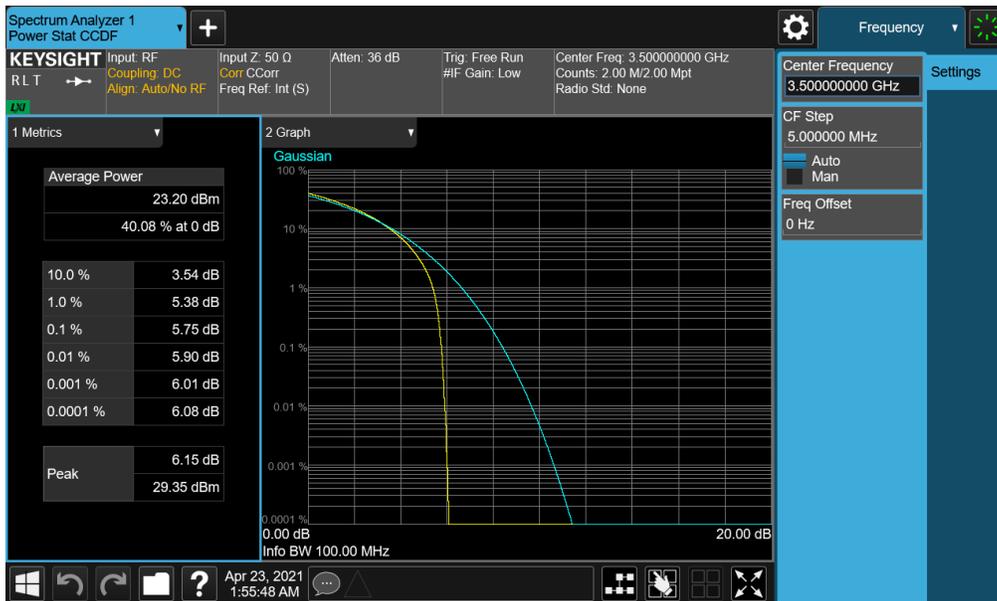
FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 115 of 152



**Plot 7-177. PAR Plot (NR Band n77 PC2 - 20MHz CP-OFDM 16-QAM - Full RB)**

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 116 of 152

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



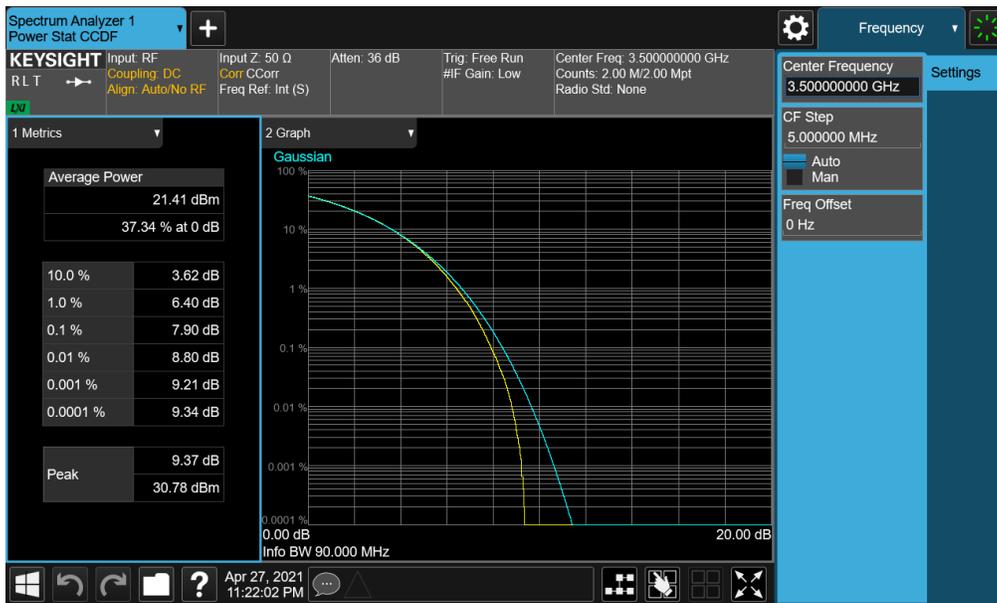
FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 117 of 152



FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 118 of 152



**Plot 7-182. PAR Plot (NR Band n77 PC2 - 90MHz CP-OFDM QPSK - Full RB)**

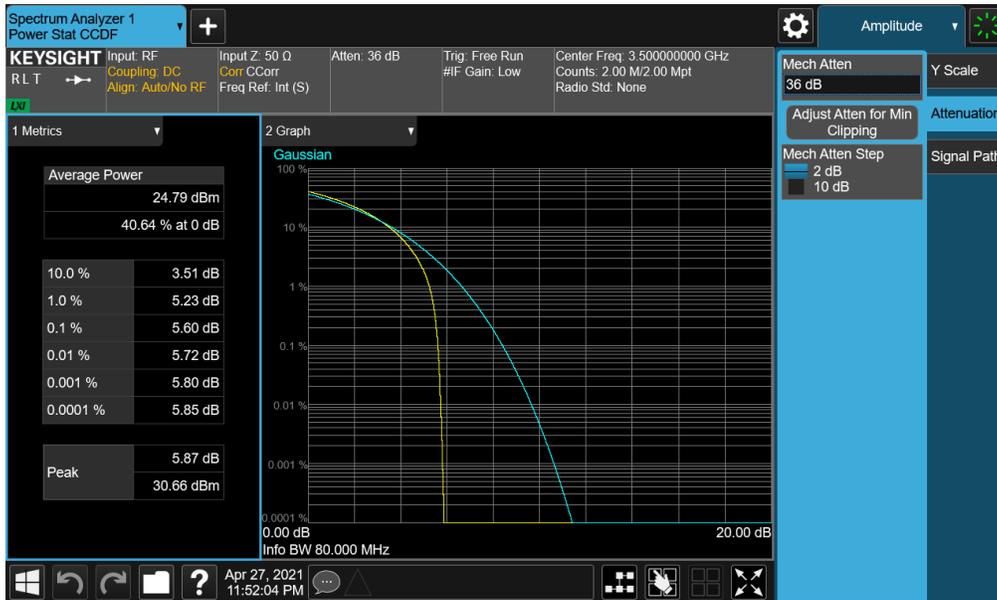


**Plot 7-183. PAR Plot (NR Band n77 PC2 - 90MHz CP-OFDM 256-QAM - Full RB)**

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 119 of 152



**Plot 7-184. PAR Plot (NR Band n77 PC2 - 80MHz  $\pi/2$  BPSK - Full RB)**

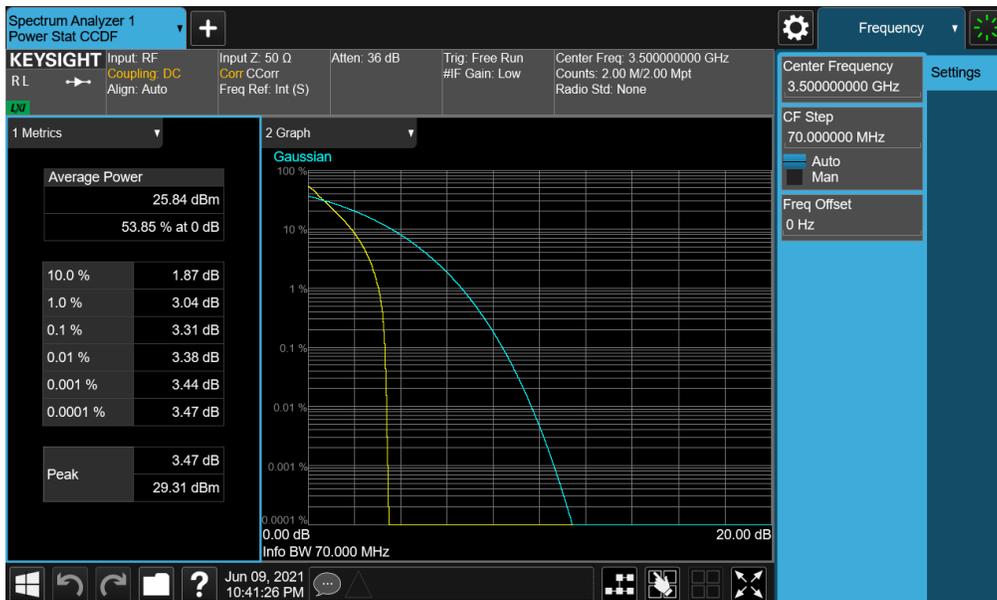


**Plot 7-185. PAR Plot (NR Band n77 PC2 - 80MHz CP-OFDM QPSK - Full RB)**

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 120 of 152



**Plot 7-186. PAR Plot (NR Band n77 PC2 - 80MHz CP-OFDM 256-QAM - Full RB)**



**Plot 7-187. PAR Plot (NR Band n77 PC2 - 70MHz  $\pi/2$  BPSK - Full RB)**

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 121 of 152



FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 122 of 152



**Plot 7-190. PAR Plot (NR Band n77 PC2 - 60MHz  $\pi/2$  BPSK - Full RB)**



**Plot 7-191. PAR Plot (NR Band n77 PC2 - 60MHz CP-OFDM QPSK - Full RB)**

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 123 of 152



Plot 7-192. PAR Plot (NR Band n77 PC2 - 60MHz CP-OFDM 256-QAM - Full RB)



Plot 7-193. PAR Plot (NR Band n77 PC2 - 50MHz  $\pi/2$  BPSK - Full RB)

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 124 of 152



**Plot 7-194. PAR Plot (NR Band n77 PC2 - 50MHz CP-OFDM QPSK - Full RB)**



**Plot 7-195. PAR Plot (NR Band n77 PC2 - 50MHz CP-OFDM 256-QAM - Full RB)**

FCC ID: A3LSMF926U	 <b>PCTEST</b> Proud to be part of 	<b>PART 27 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2104020031-26.A3L	<b>Test Dates:</b> 3/26/2021 - 6/11/2021	<b>EUT Type:</b> Portable Handset		Page 125 of 152



**Plot 7-196. PAR Plot (NR Band n77 PC2 - 40MHz  $\pi/2$  BPSK - Full RB)**



**Plot 7-197. PAR Plot (NR Band n77 PC2 - 40MHz CP-OFDM QPSK - Full RB)**

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 126 of 152



Plot 7-198. PAR Plot (NR Band n77 PC2 - 40MHz CP-OFDM 256-QAM - Full RB)



Plot 7-199. PAR Plot (NR Band n77 PC2 - 30MHz  $\pi/2$  BPSK - Full RB)

FCC ID: A3LSMF926U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104020031-26.A3L	Test Dates: 3/26/2021 - 6/11/2021	EUT Type: Portable Handset		Page 127 of 152