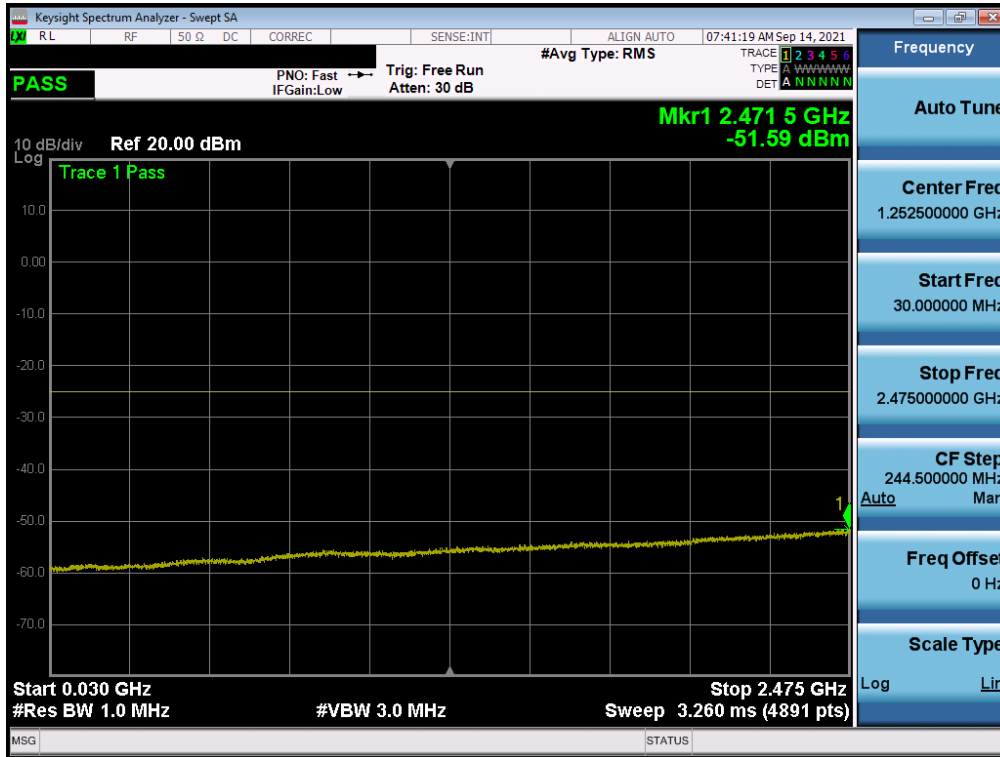


LTE Band 7

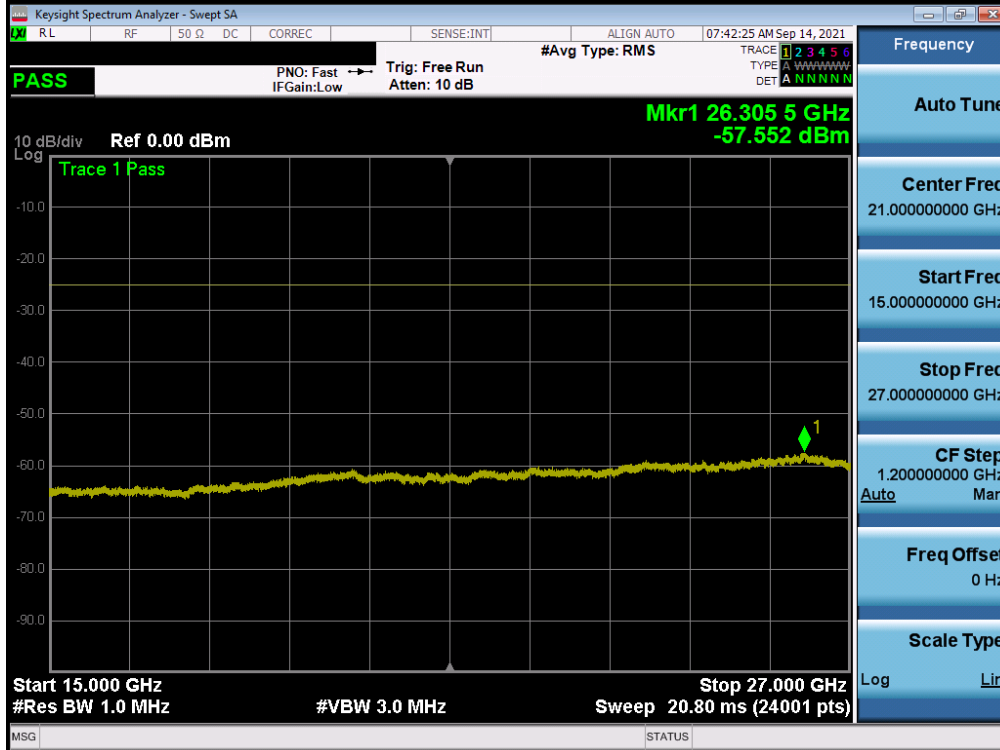


Plot 7-100. Conducted Spurious Plot (LTE Band 7 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

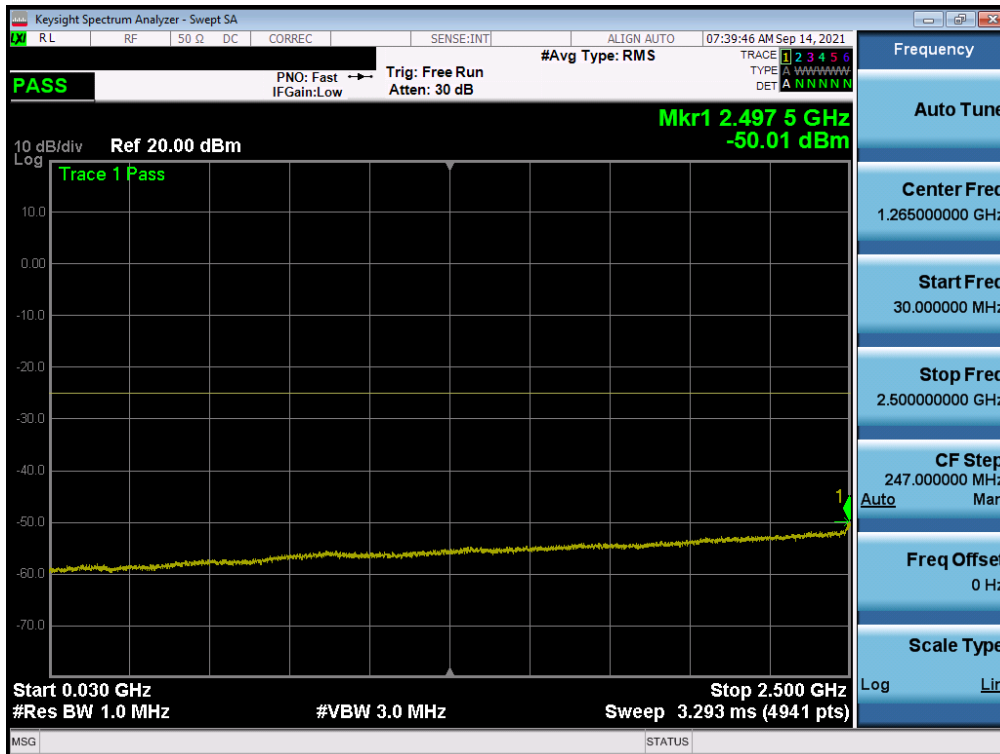


Plot 7-101. Conducted Spurious Plot (LTE Band 7 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)




FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 70 of 231



Plot 7-102. Conducted Spurious Plot (LTE Band 7 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

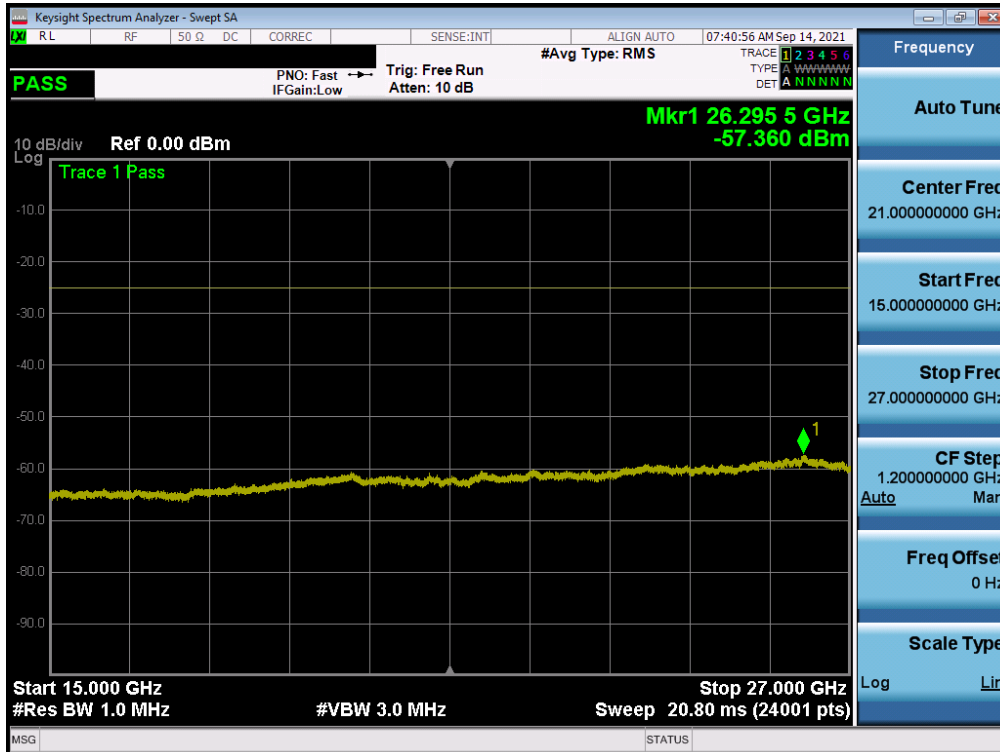


Plot 7-103. Conducted Spurious Plot (LTE Band 7 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)




FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 71 of 231

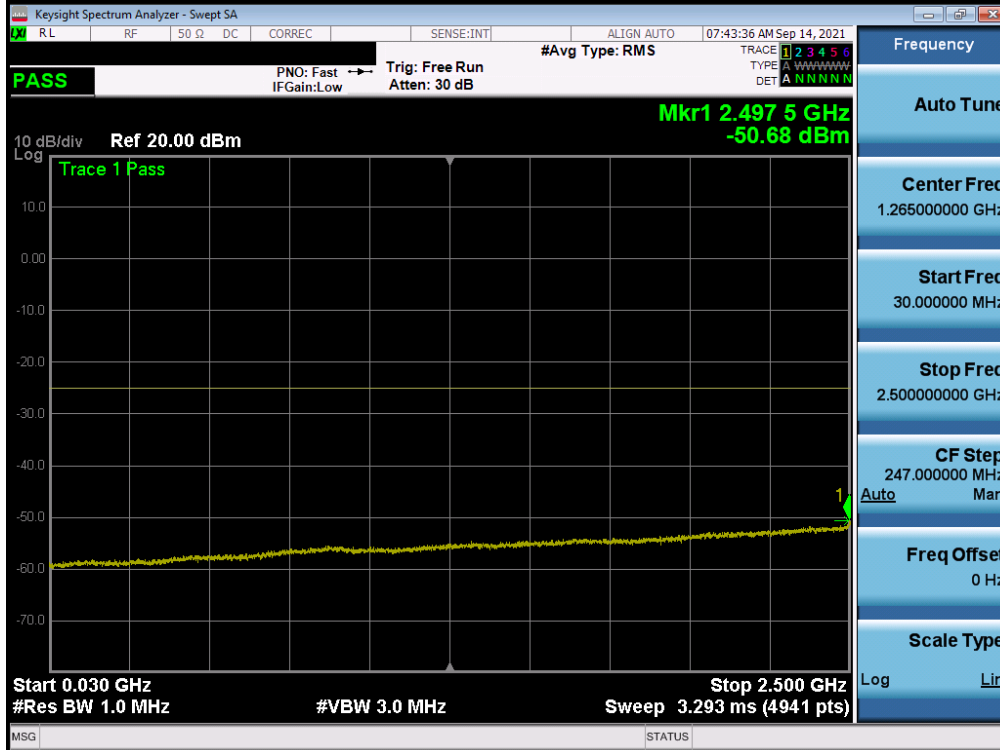


Plot 7-104. Conducted Spurious Plot (LTE Band 7 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

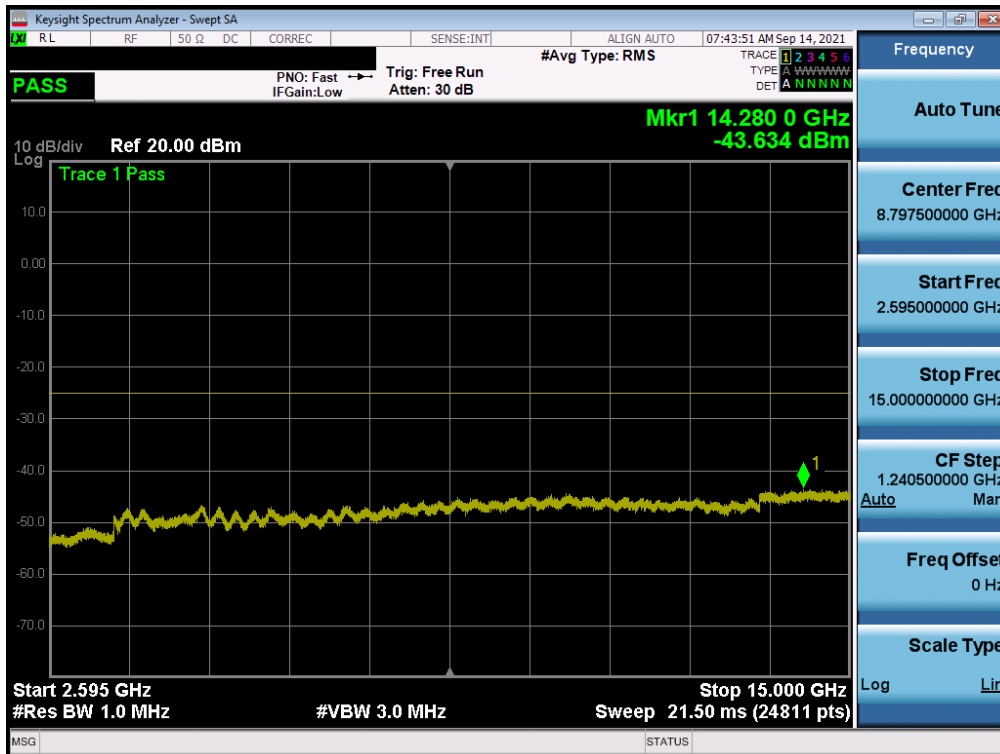


Plot 7-105. Conducted Spurious Plot (LTE Band 7 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)




FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 72 of 231

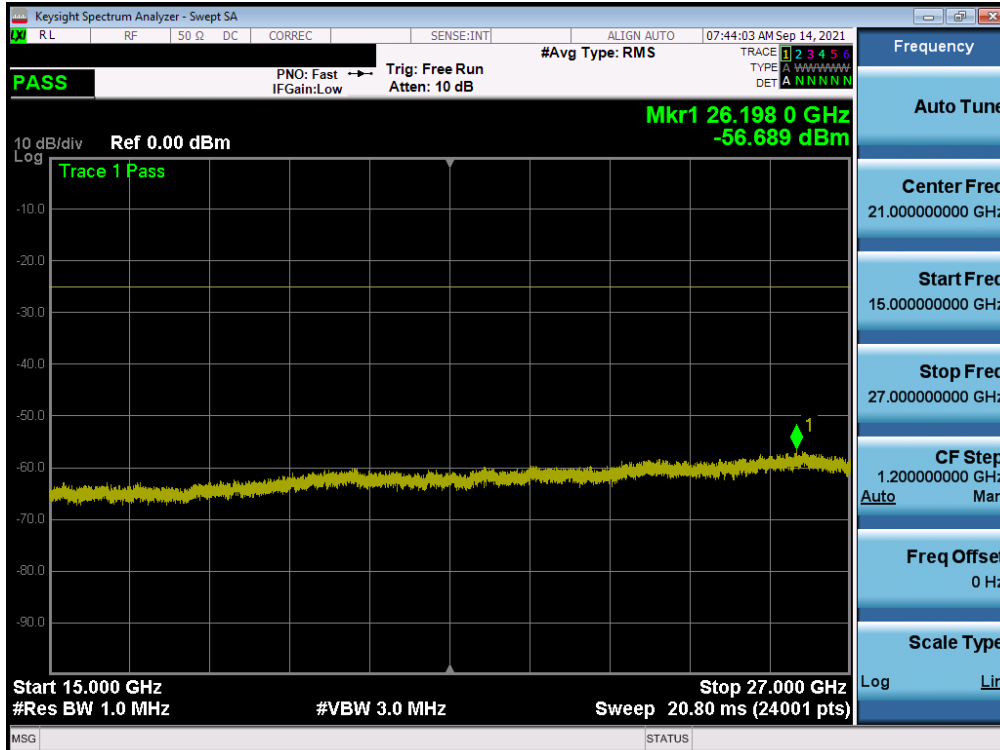


Plot 7-106. Conducted Spurious Plot (LTE Band 7 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)






Plot 7-107. Conducted Spurious Plot (LTE Band 7 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

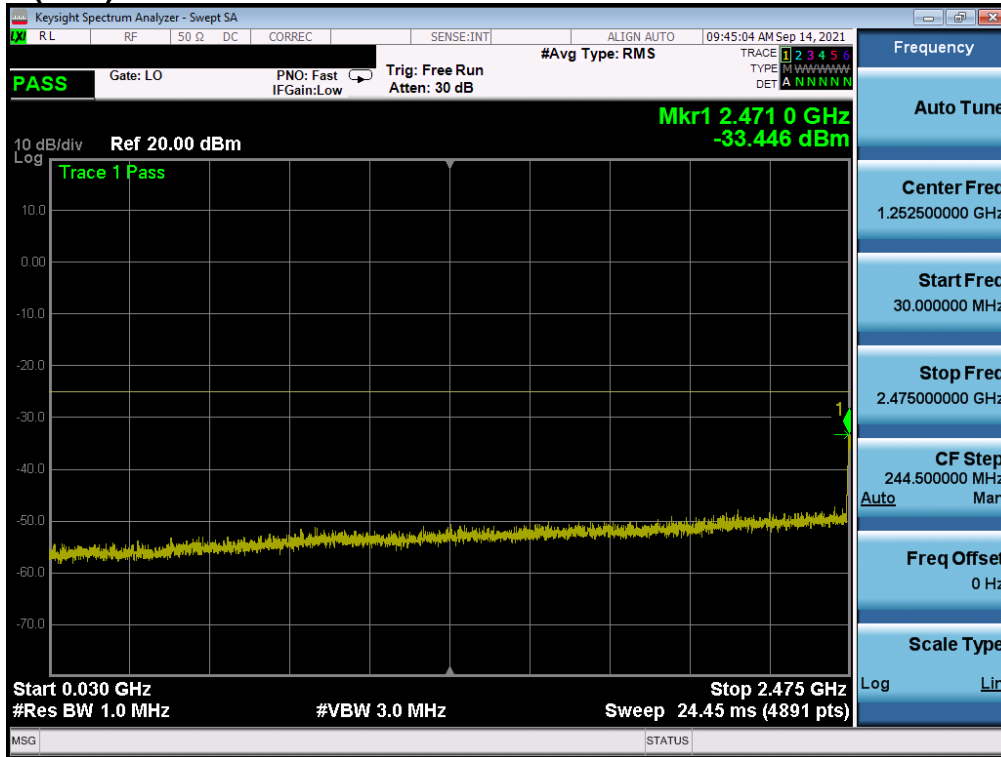
FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 73 of 231



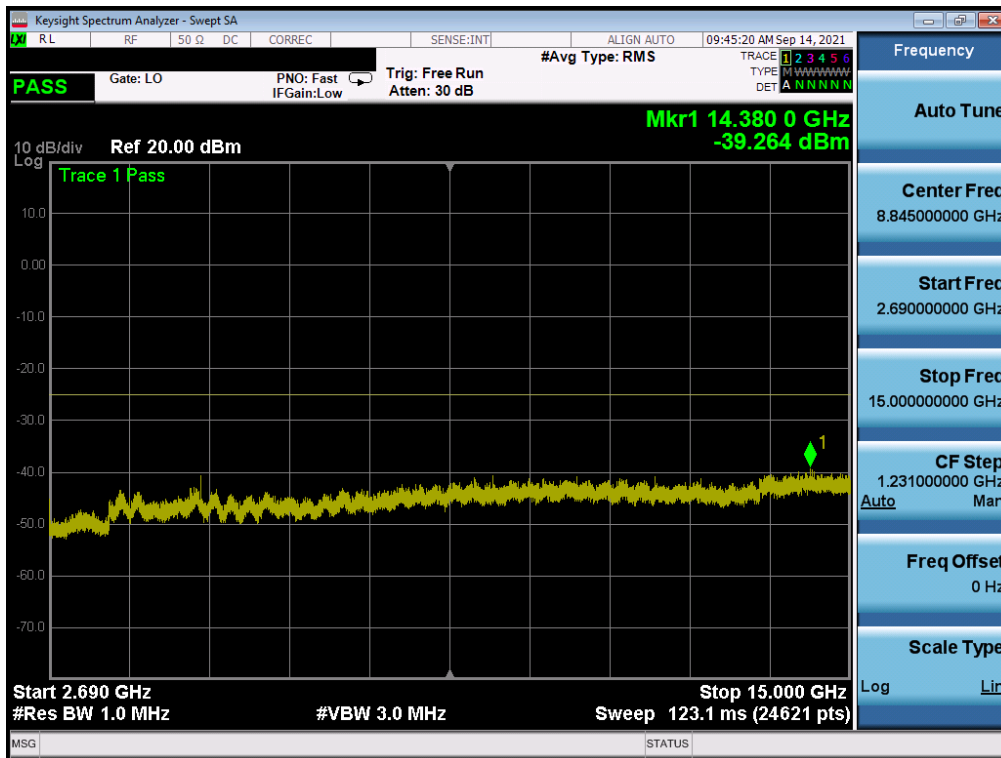
Plot 7-108. Conducted Spurious Plot (LTE Band 7 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 74 of 231

LTE Band 41(PC2)

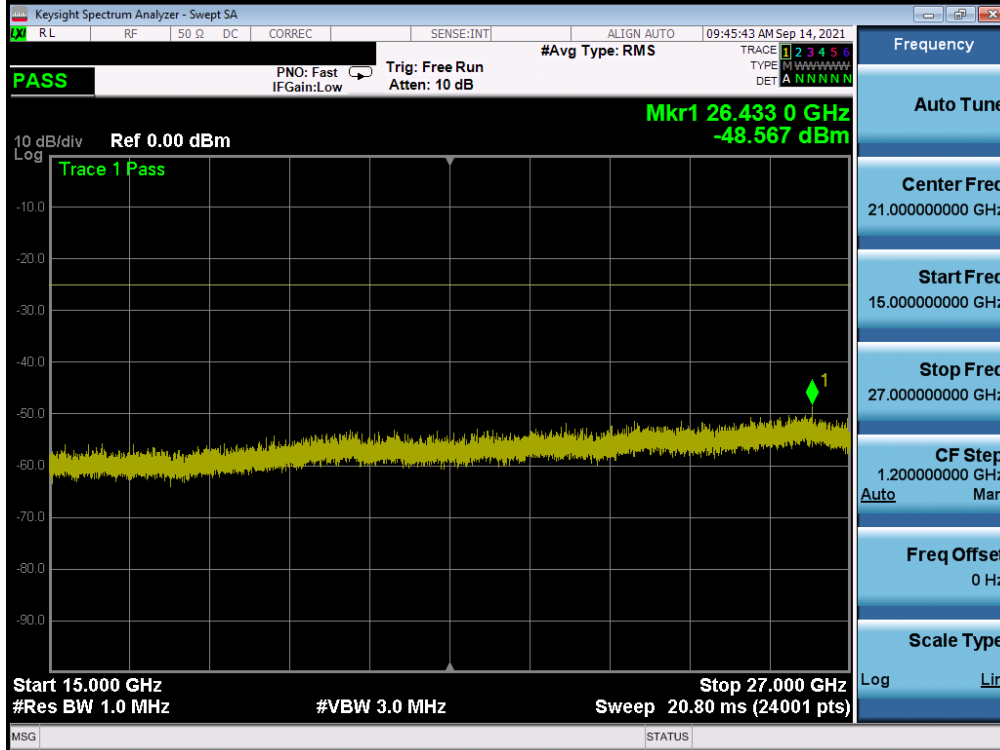


Plot 7-109. Conducted Spurious Plot (LTE Band 41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

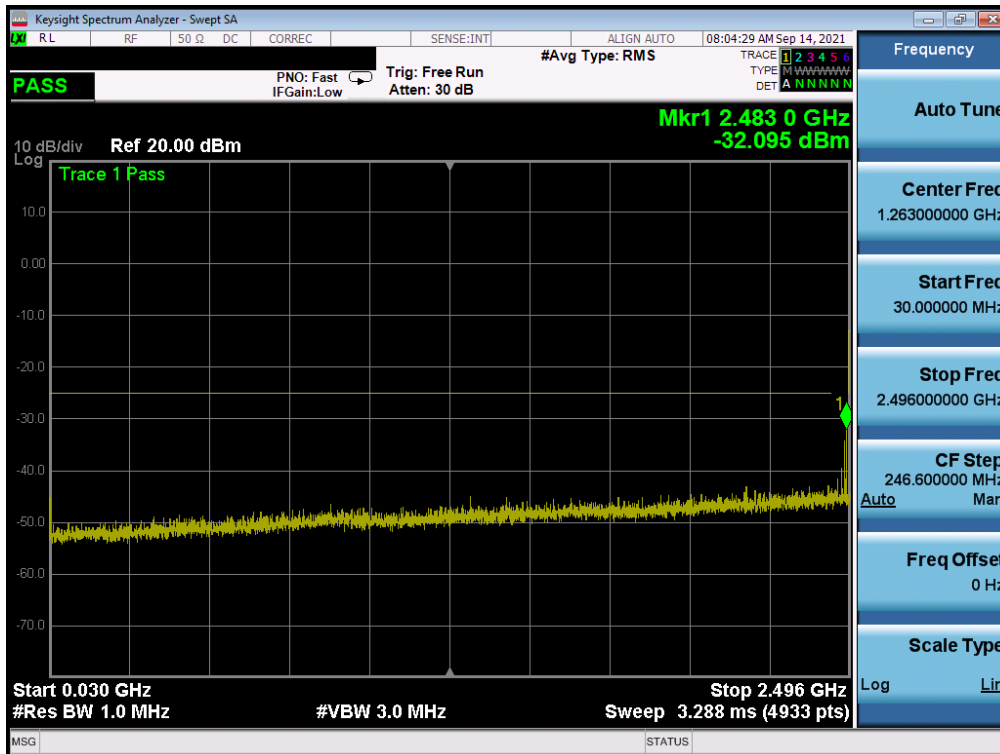


Plot 7-110. Conducted Spurious Plot (LTE Band 41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)




FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 75 of 231

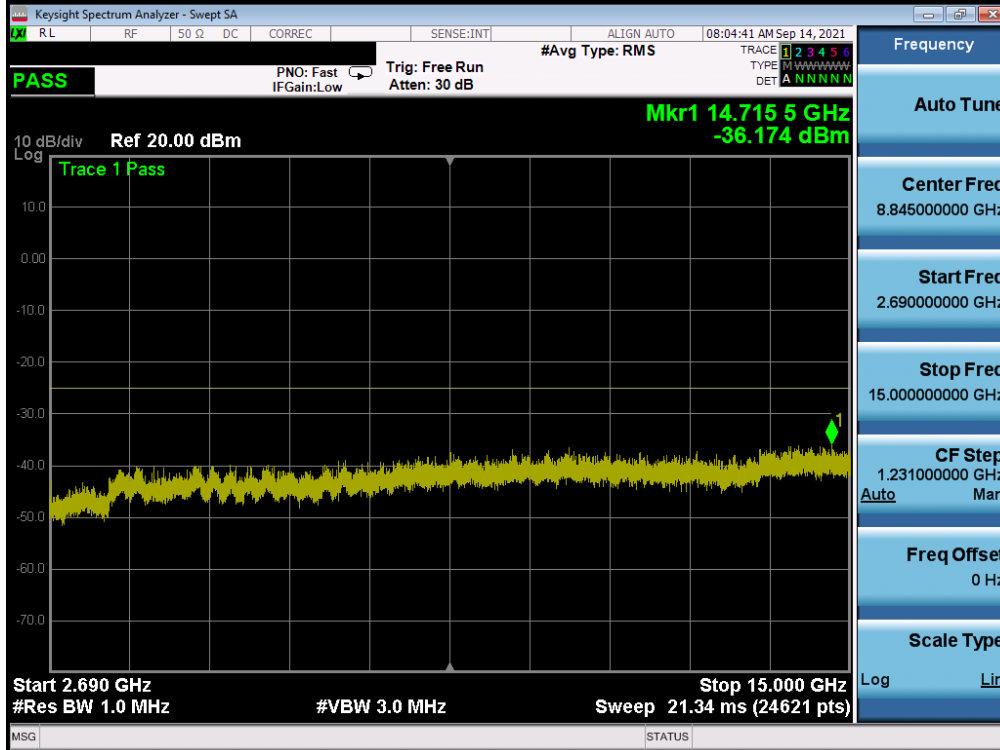


Plot 7-111. Conducted Spurious Plot (LTE Band 41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

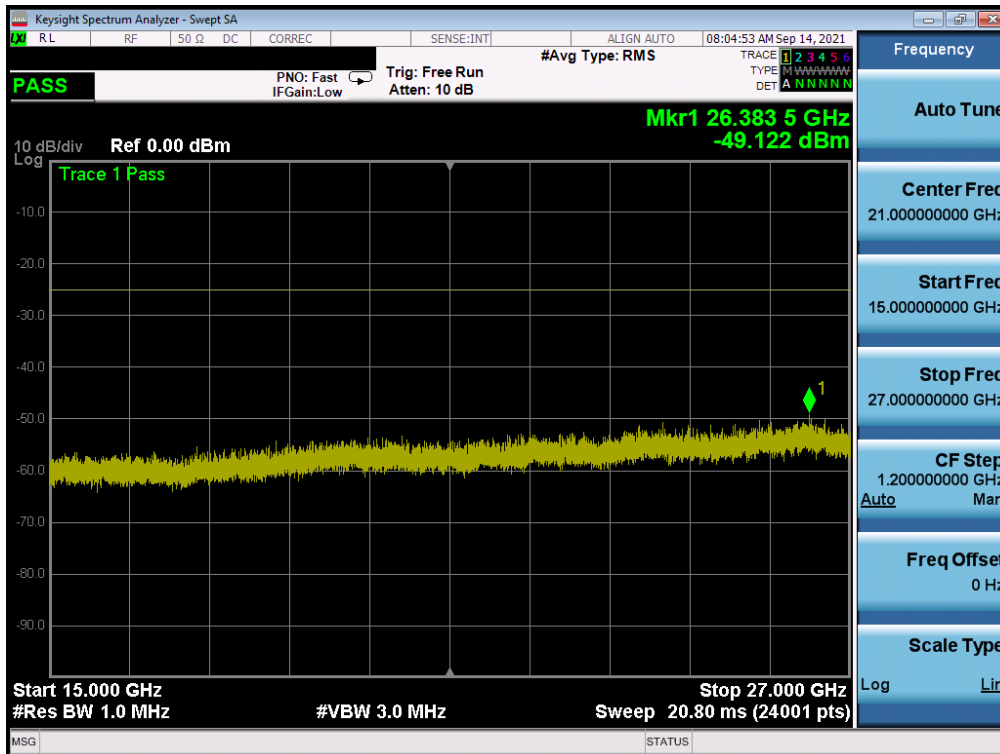


Plot 7-112. Conducted Spurious Plot (LTE Band 41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 76 of 231

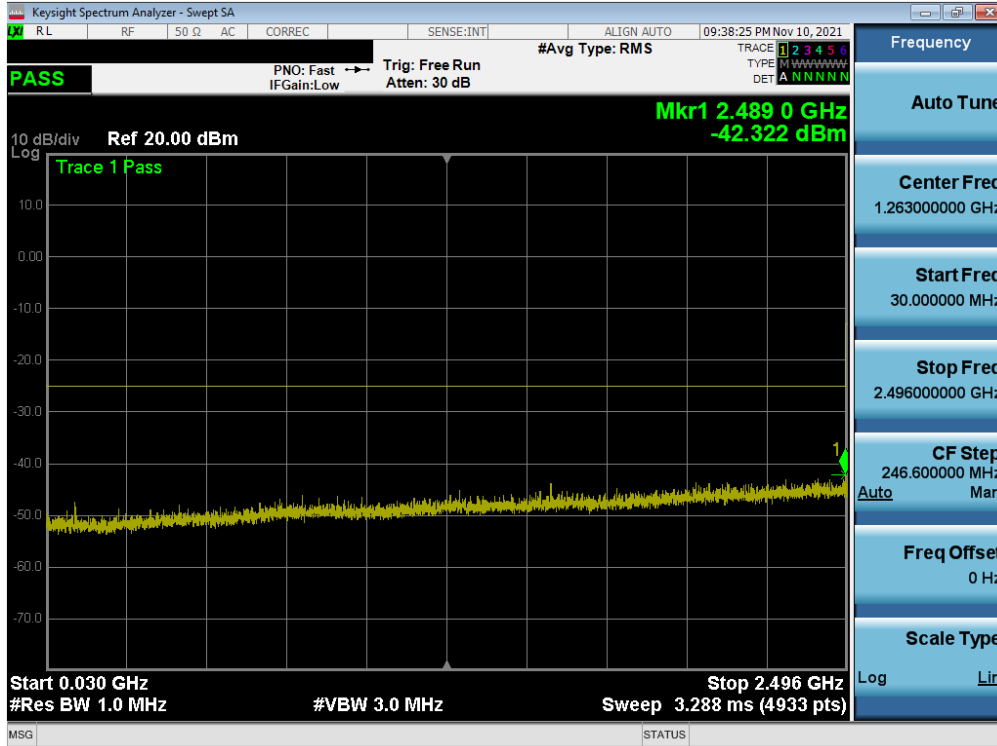


Plot 7-113. Conducted Spurious Plot (LTE Band 41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

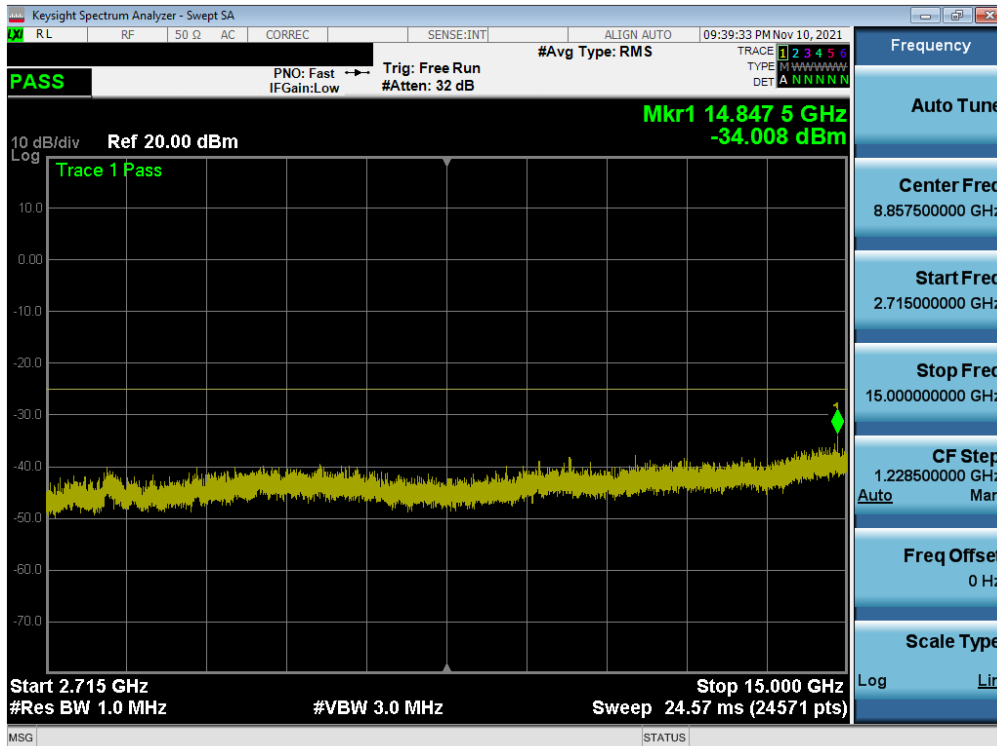


Plot 7-114. Conducted Spurious Plot (LTE Band 41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)




FCC ID: A3LSMS908U	Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 77 of 231

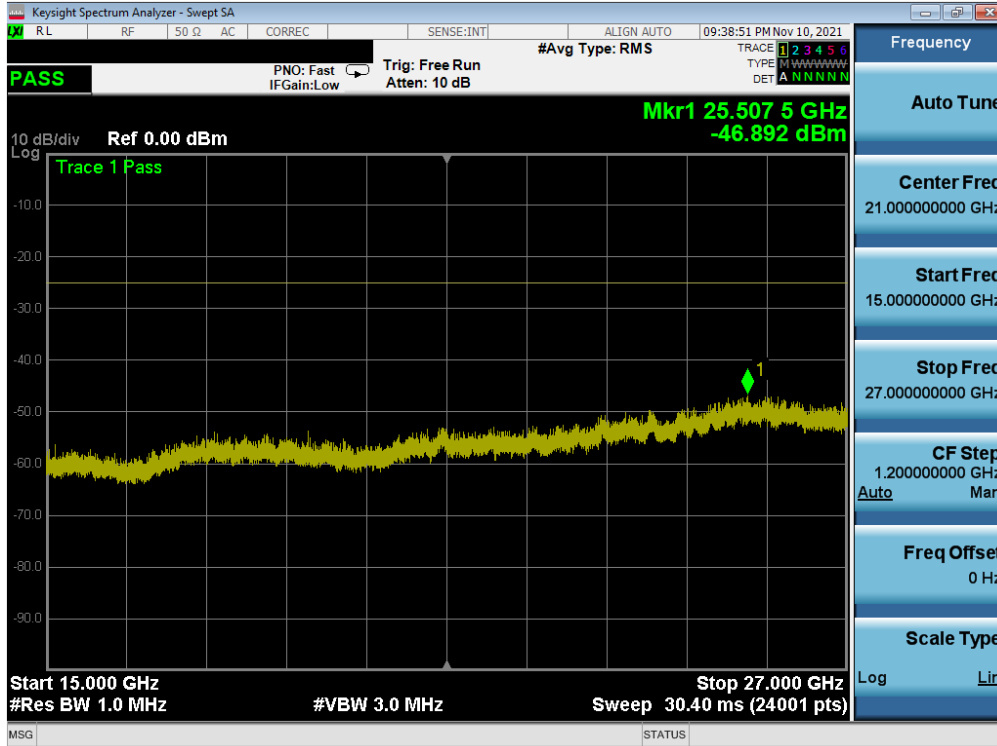


Plot 7-115. Conducted Spurious Plot (LTE Band 41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)






Plot 7-116. Conducted Spurious Plot (LTE Band 41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

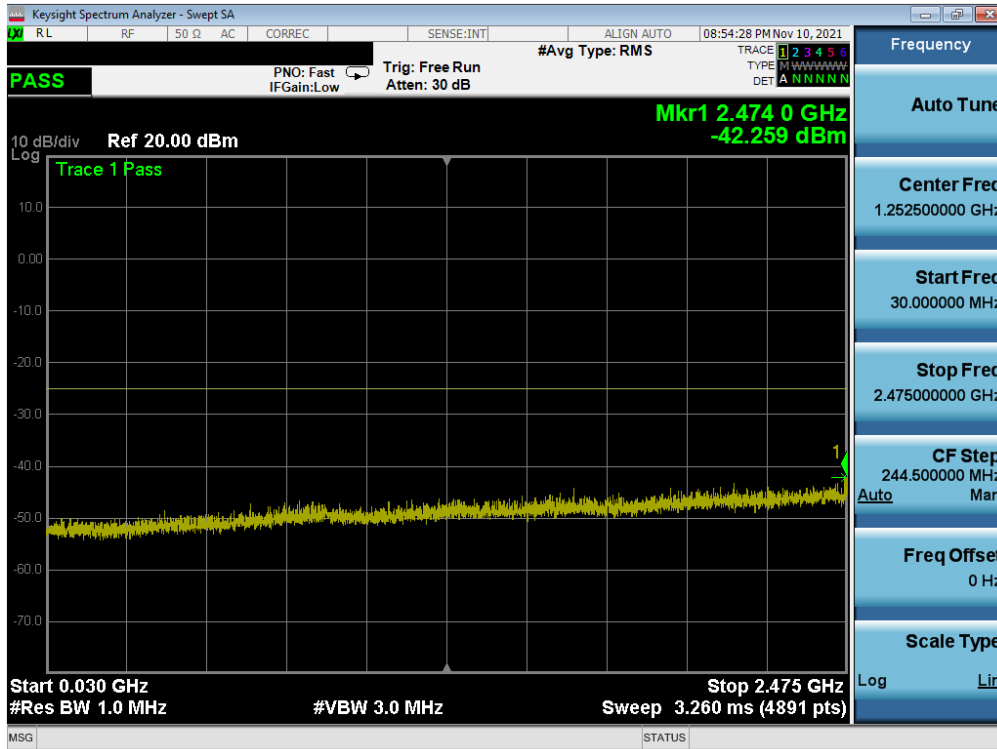
FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 78 of 231



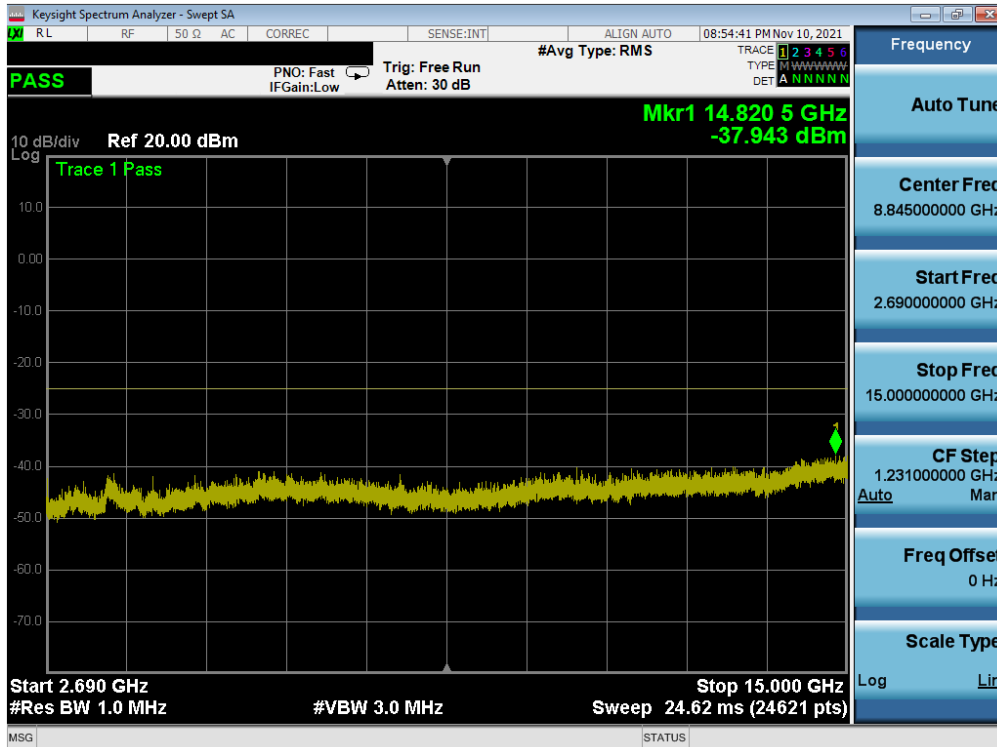
Plot 7-117. Conducted Spurious Plot (LTE Band 41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 79 of 231




LTE Band 41(PC3)/38

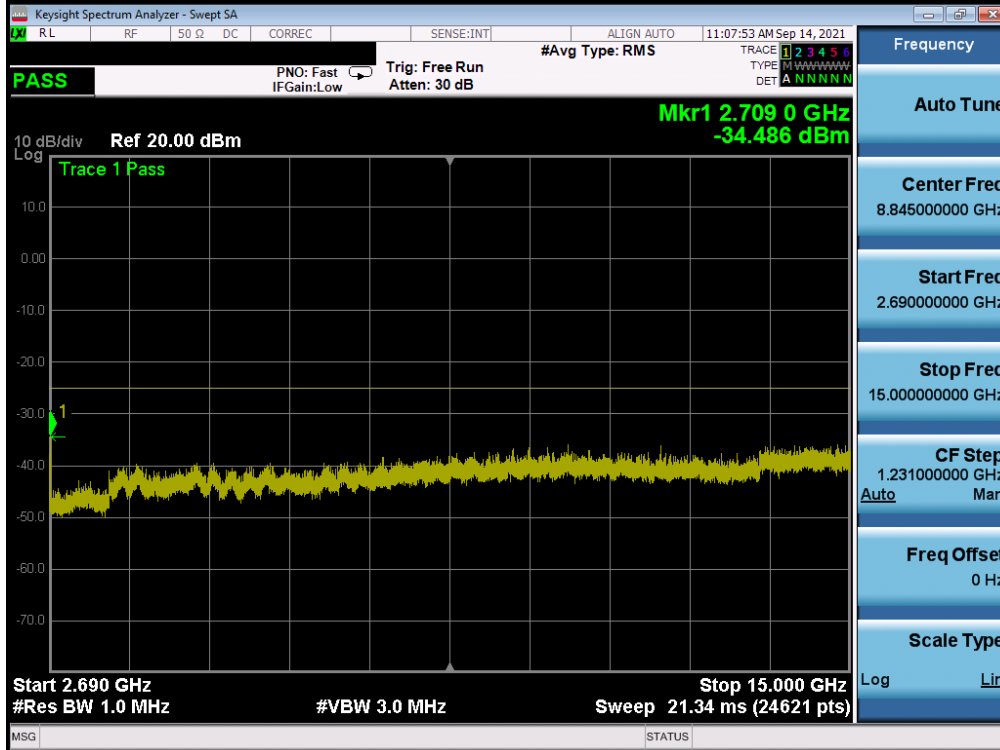


Plot 7-118. Conducted Spurious Plot (LTE Band 41(PC3)/38 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

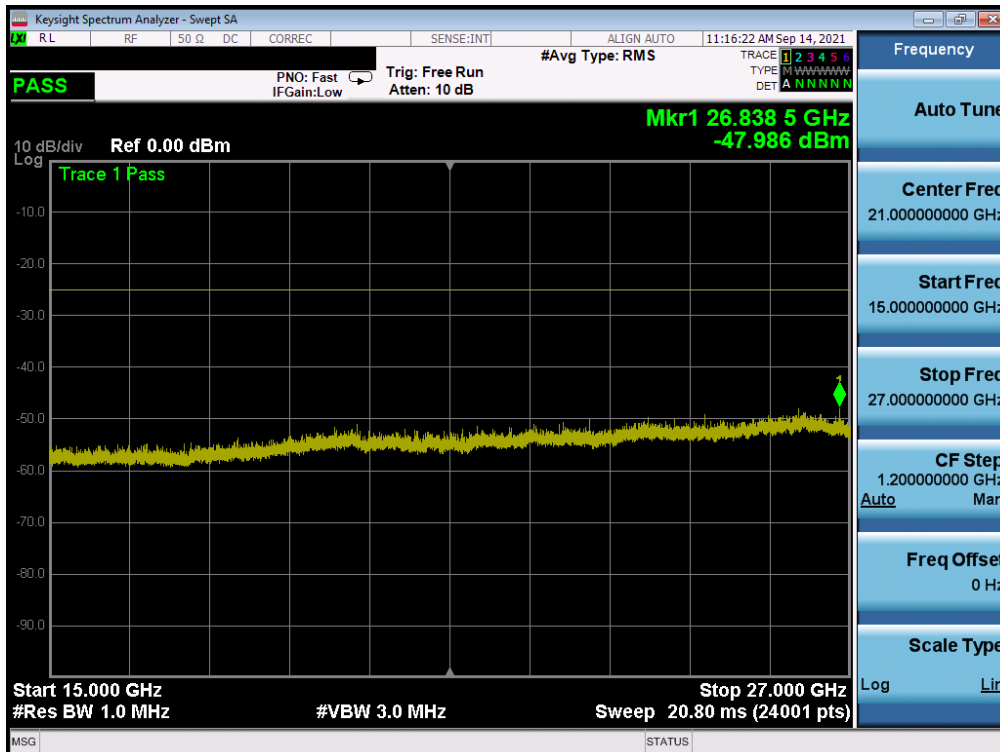


Plot 7-119. Conducted Spurious Plot (LTE Band 41(PC3)/38 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)




FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 80 of 231

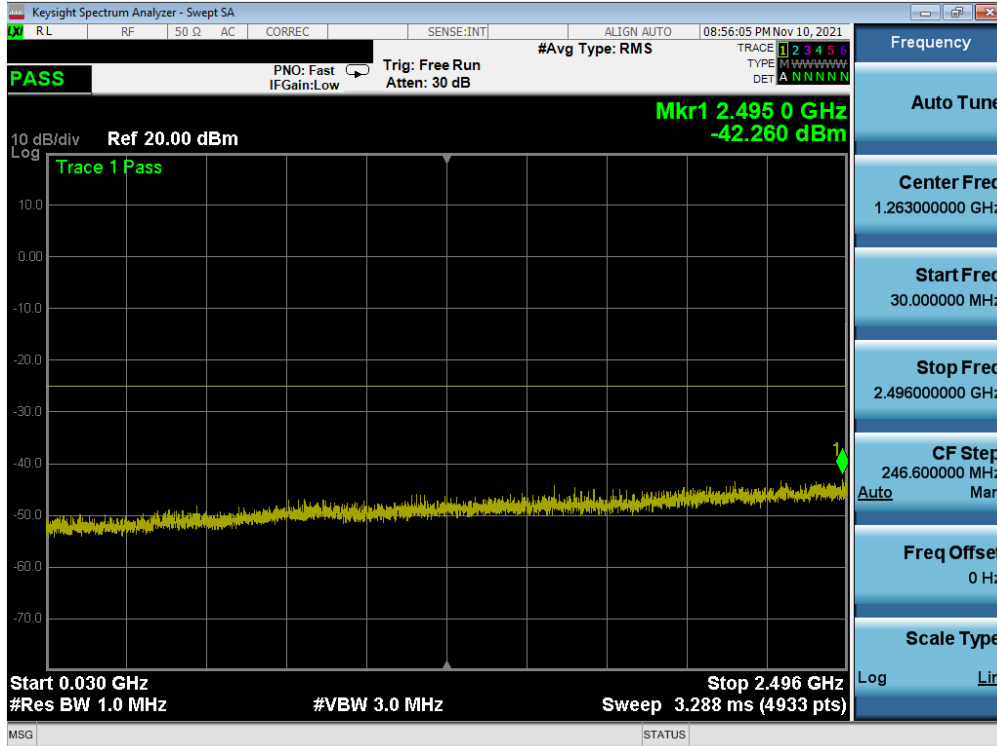


Plot 7-122. Conducted Spurious Plot (LTE Band 41(PC3)/38 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

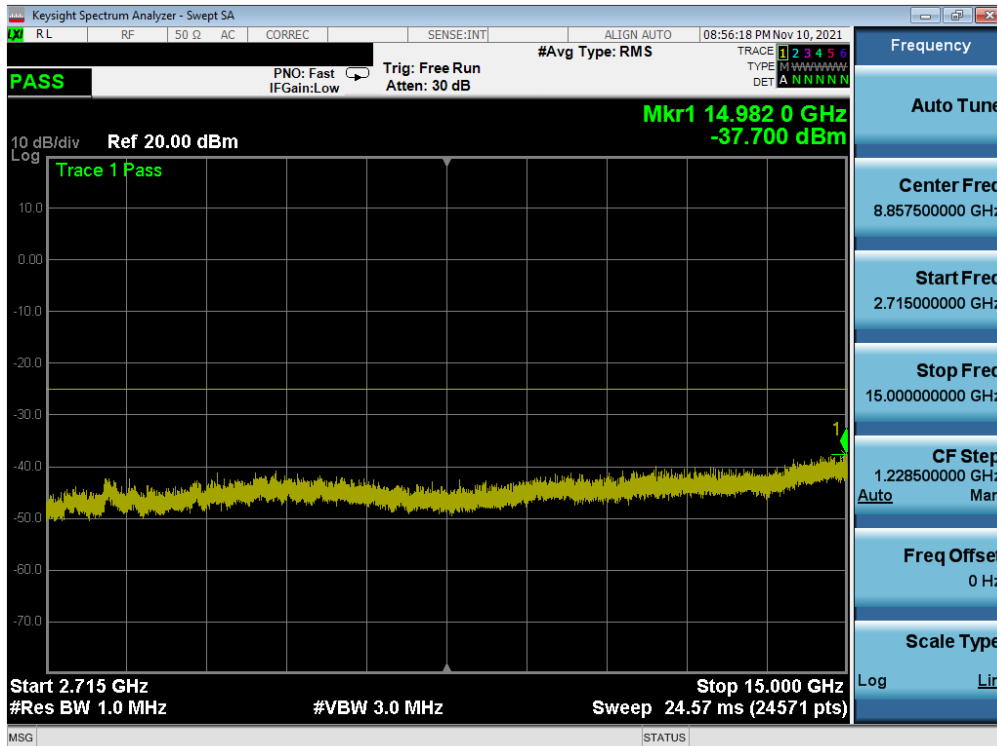


Plot 7-123. Conducted Spurious Plot (LTE Band 41(PC3)/38 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)




FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 82 of 231



Plot 7-124. Conducted Spurious Plot (LTE Band 41(PC3)/38 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



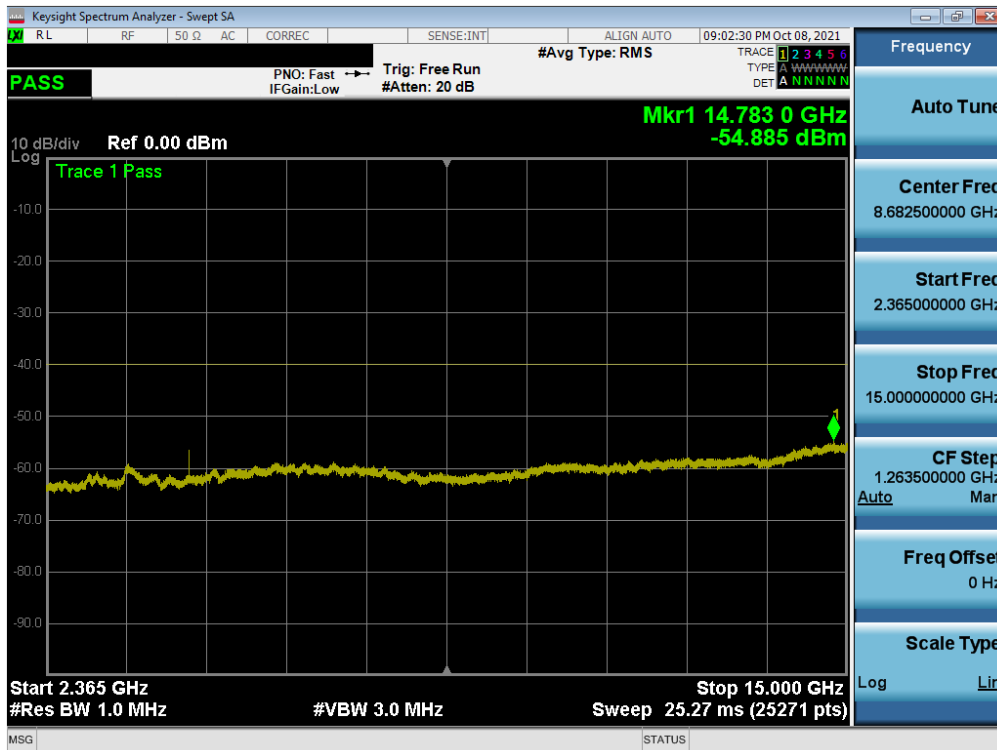
Plot 7-125. Conducted Spurious Plot (LTE Band 41(PC3)/38 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 83 of 231

NR Band n30- Ant A

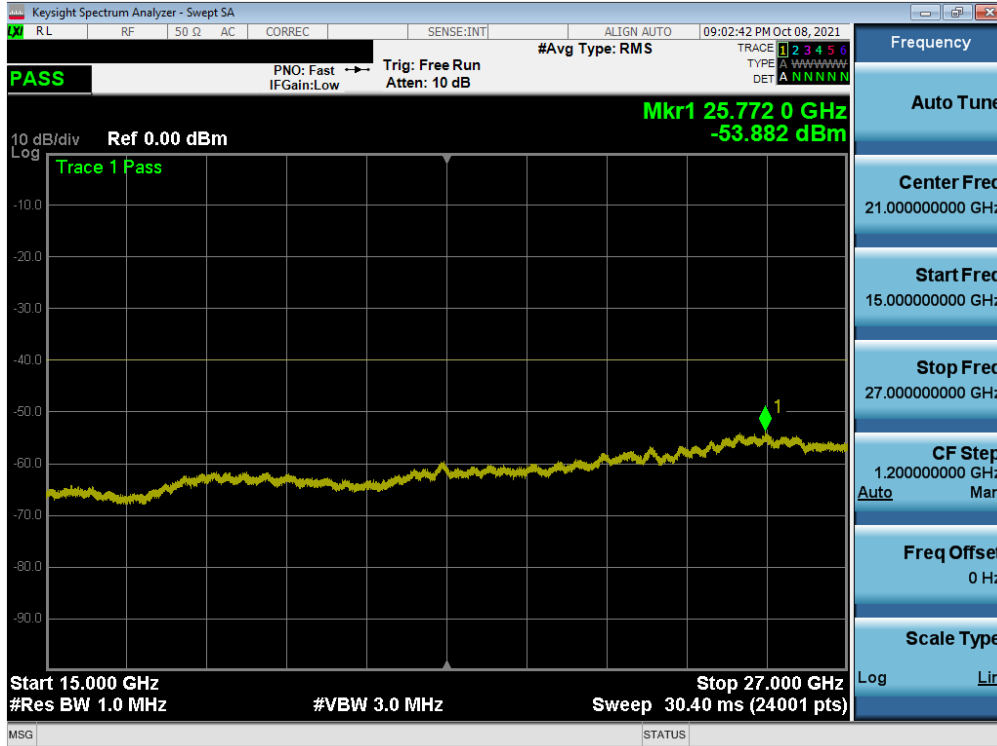


Plot 7-126. Conducted Spurious Plot (NR Band n30 - 10MHz QPSK - RB Size 1, RB Offset 0 – Ant A)






Plot 7-127. Conducted Spurious Plot (NR Band n30 - 10MHz QPSK - RB Size 1, RB Offset 0 – Ant A)

FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 84 of 231



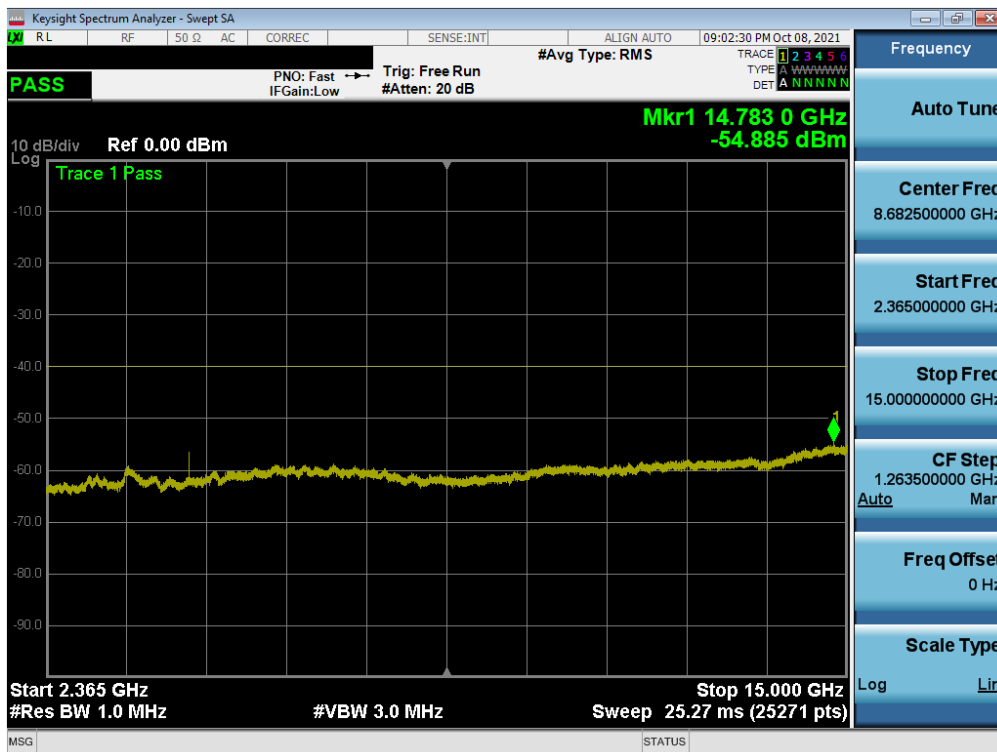
Plot 7-128. Conducted Spurious Plot (NR Band n30 - 10MHz QPSK - RB Size 1, RB Offset 0 – Ant A)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 85 of 231

NR Band n30- Ant J

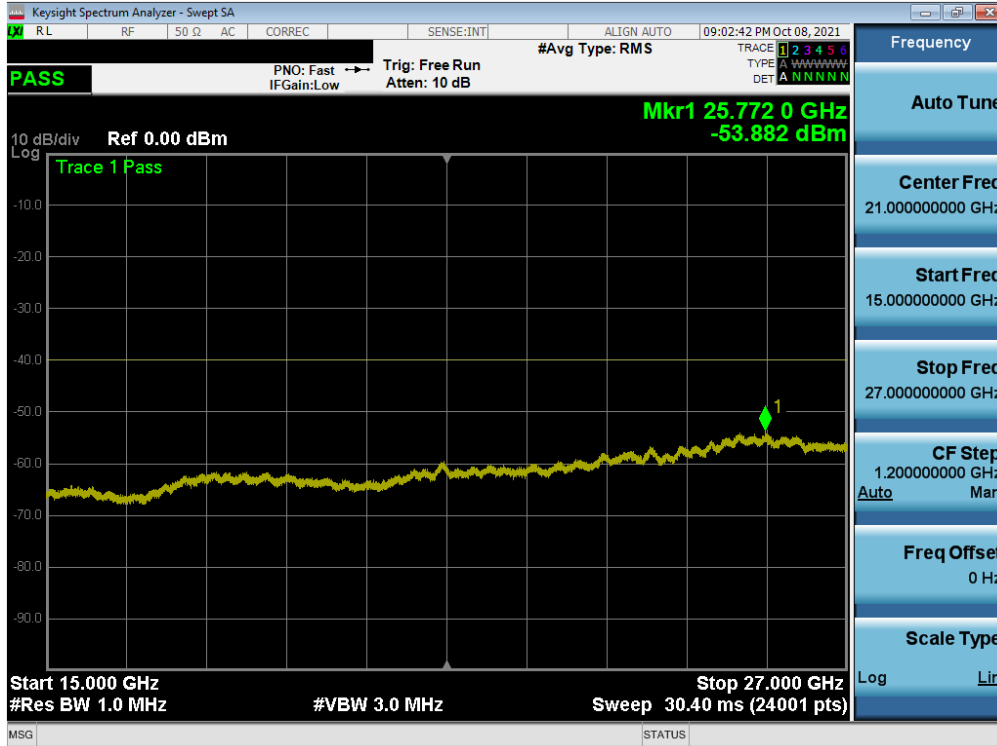


Plot 7-129. Conducted Spurious Plot (NR Band n30 - 10MHz QPSK - RB Size 1, RB Offset 0 – Ant J)






Plot 7-130. Conducted Spurious Plot (NR Band n30 - 10MHz QPSK - RB Size 1, RB Offset 0 – Ant J)

FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 86 of 231



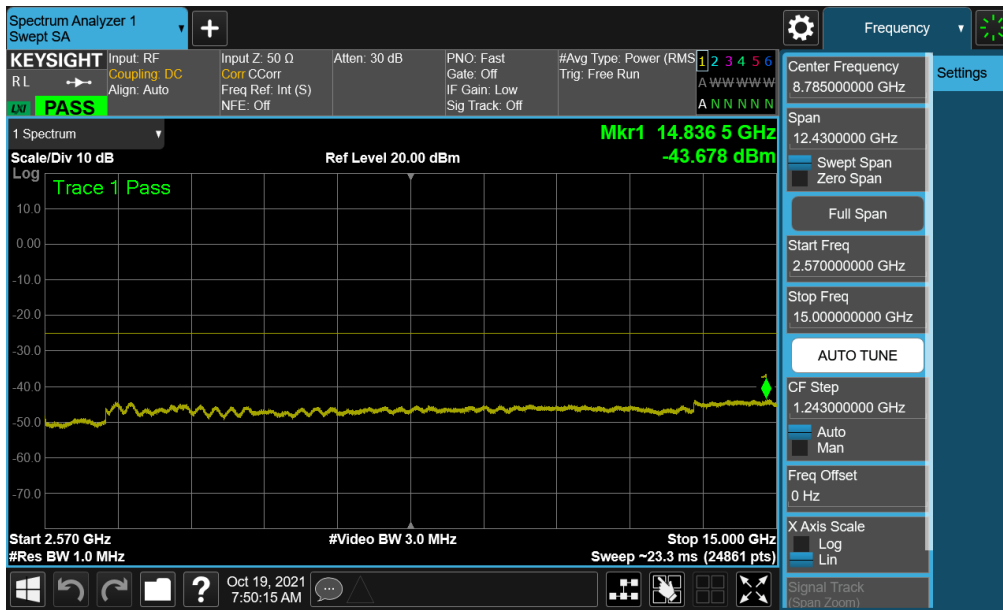
Plot 7-131. Conducted Spurious Plot (NR Band n30 - 10MHz QPSK - RB Size 1, RB Offset 0 – Ant J)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 87 of 231

NR Band n7- Ant B

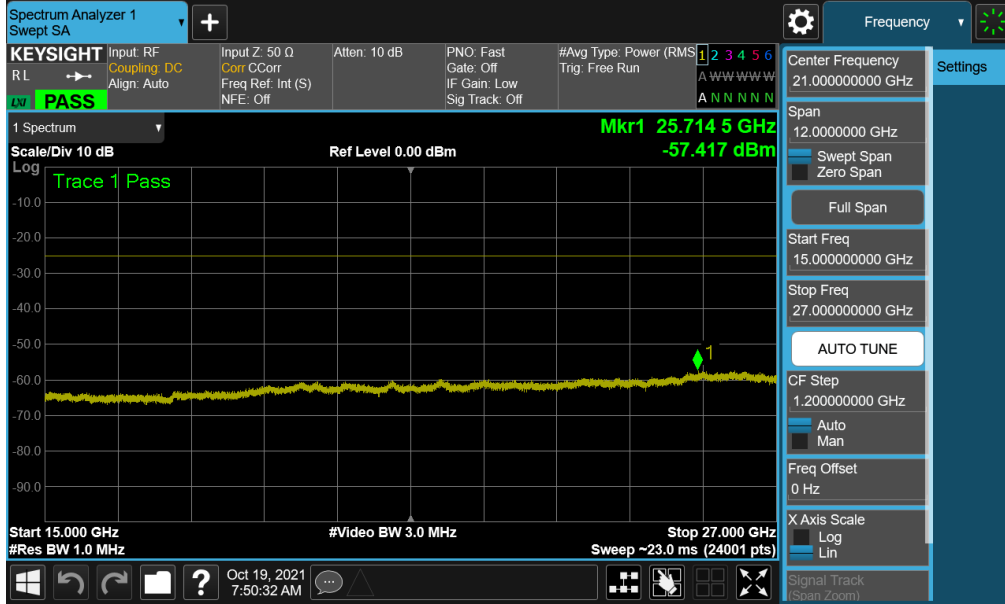


Plot 7-132. Conducted Spurious Plot (NR Band n7 - 40MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant B)

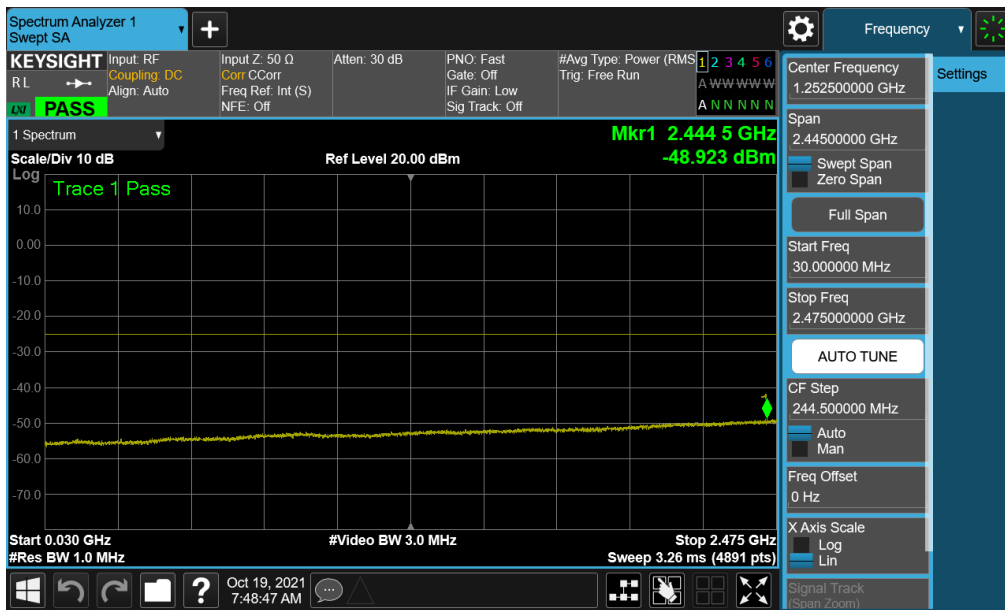


Plot 7-133. Conducted Spurious Plot (NR Band n7 - 40MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant B)




FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 88 of 231

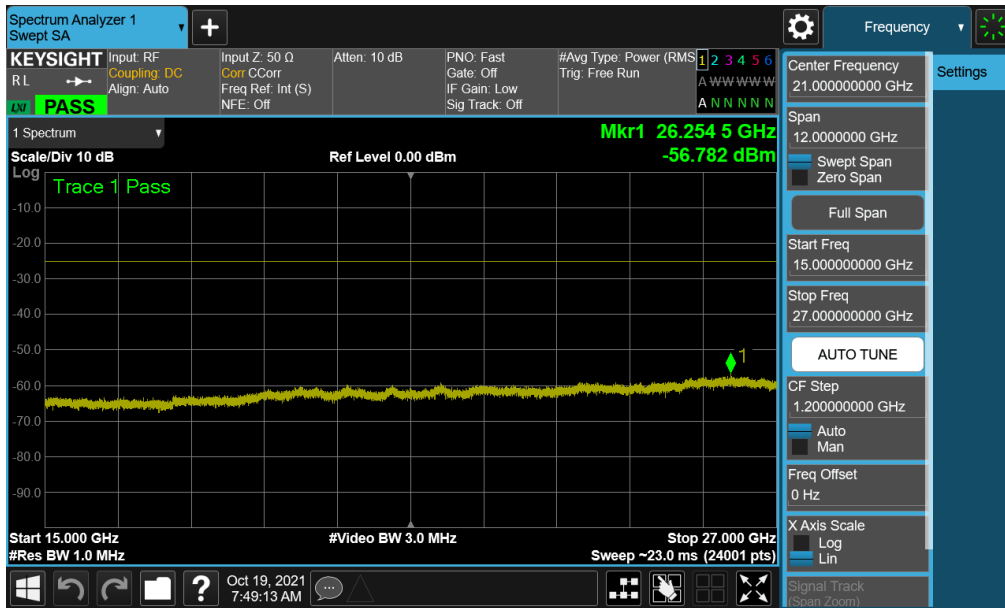
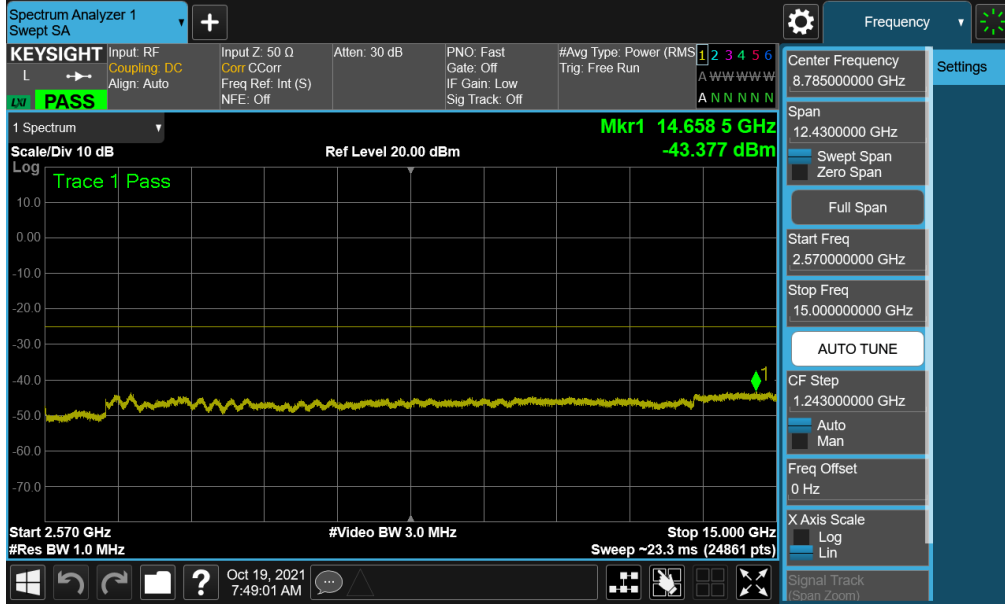





Plot 7-134. Conducted Spurious Plot (NR Band n7 - 40MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant B)



Plot 7-135. Conducted Spurious Plot (NR Band n7 - 40MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant B)

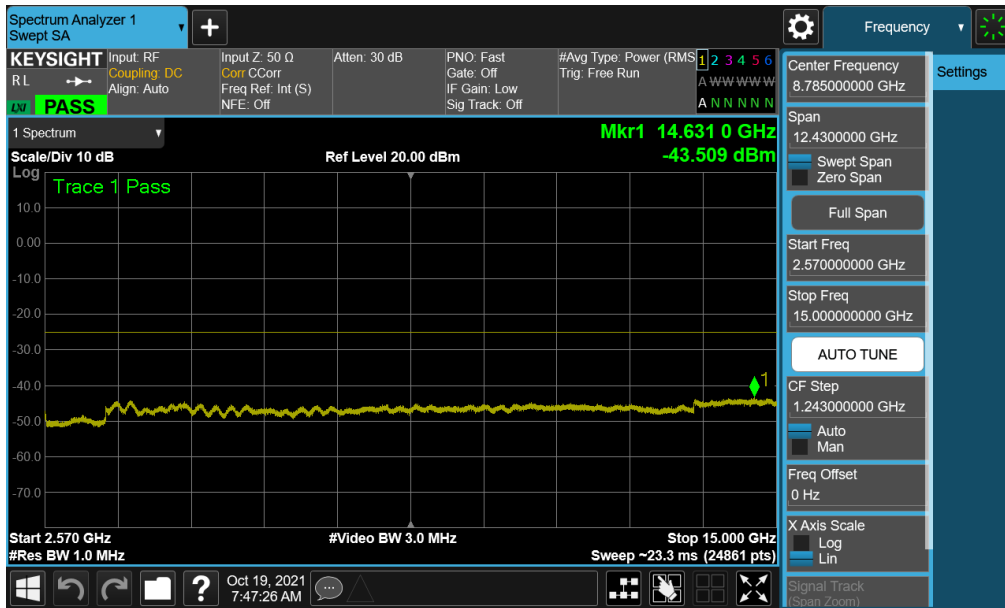
FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 89 of 231



FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 90 of 231

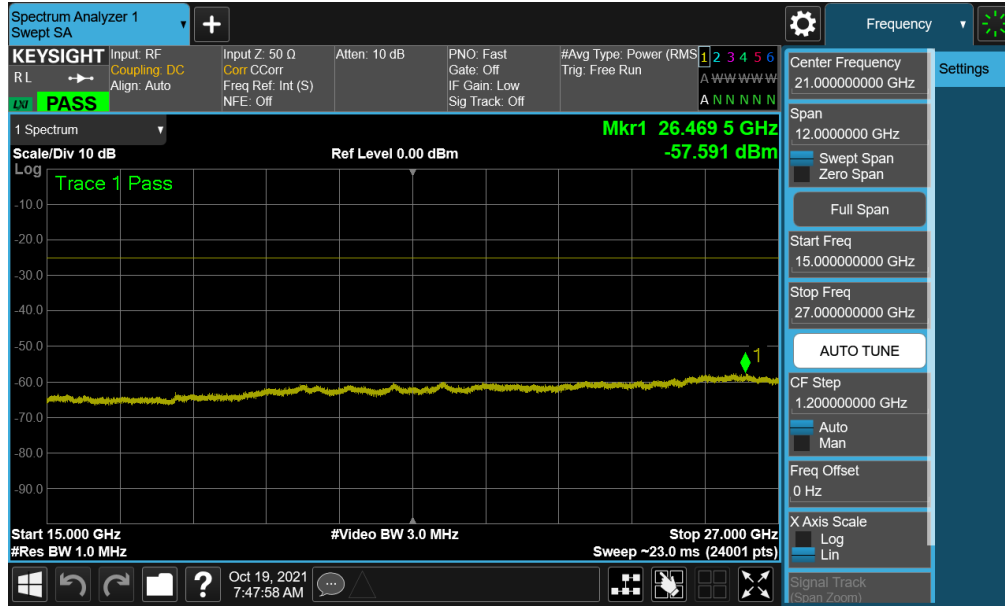


Plot 7-138. Conducted Spurious Plot (NR Band n7 - 40MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant B)






Plot 7-139. Conducted Spurious Plot (NR Band n7 - 40MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant B)

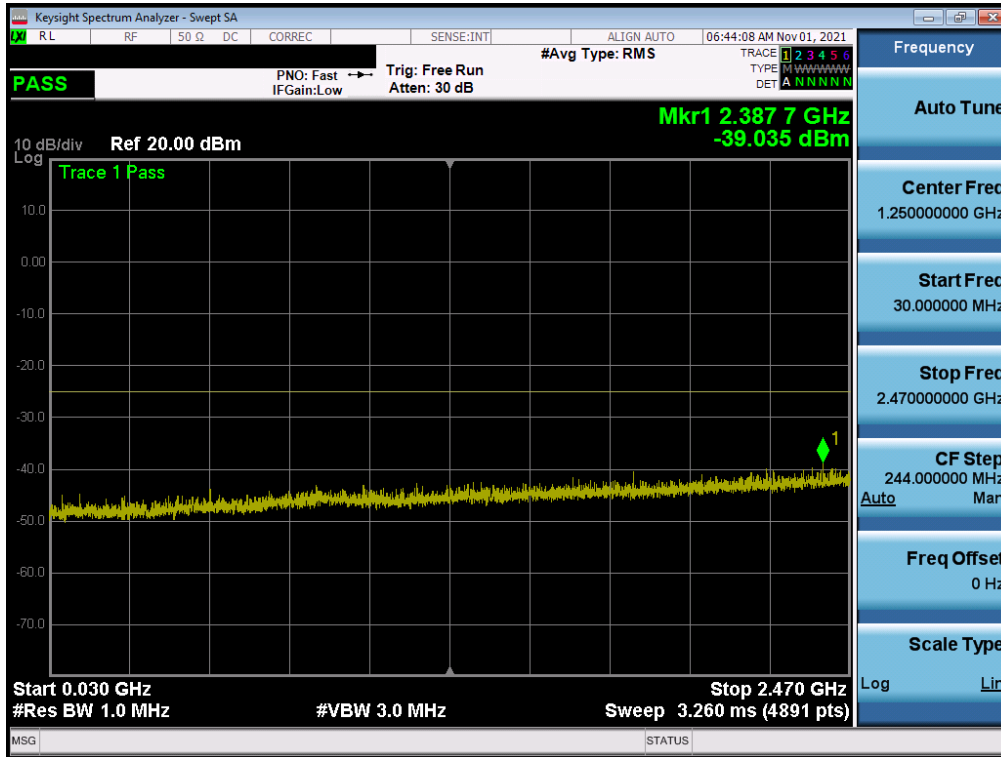
FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 91 of 231



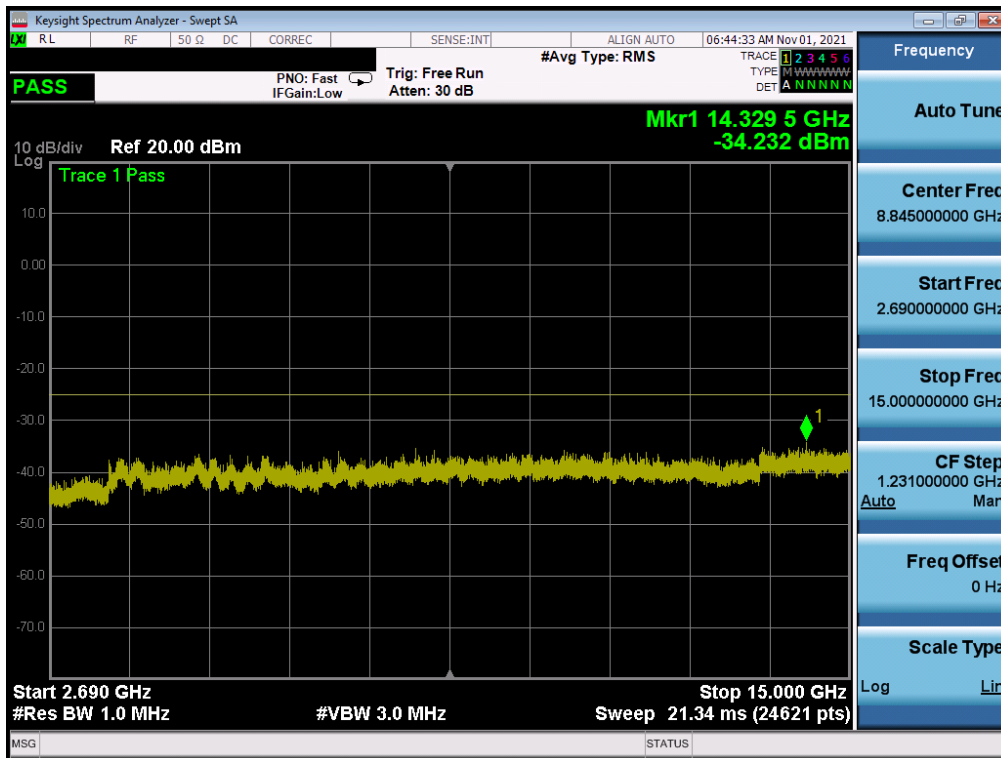
Plot 7-140. Conducted Spurious Plot (NR Band n7 - 40MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant B)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 92 of 231

NR Band n41 - Ant J

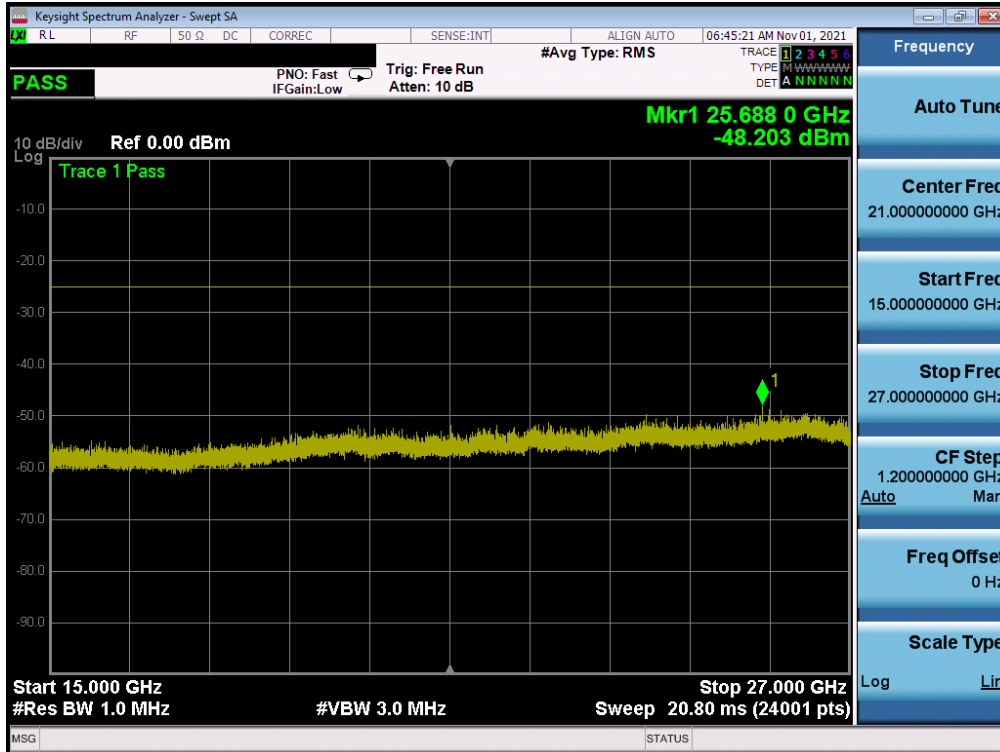


Plot 7-141. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant J)

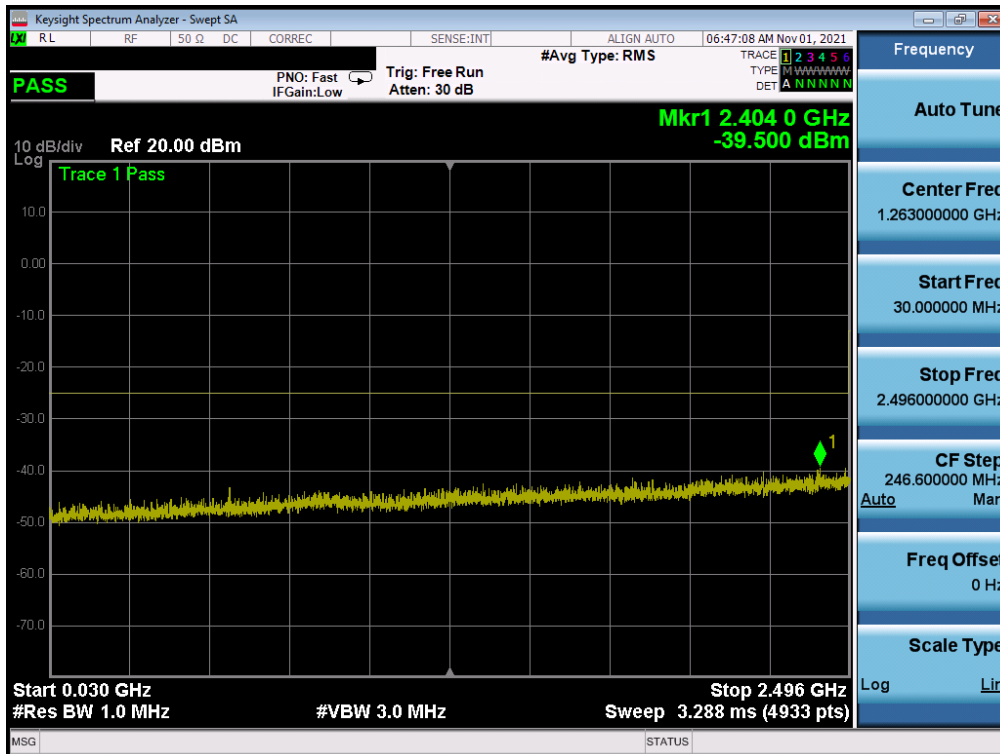


Plot 7-142. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant J)




FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 93 of 231

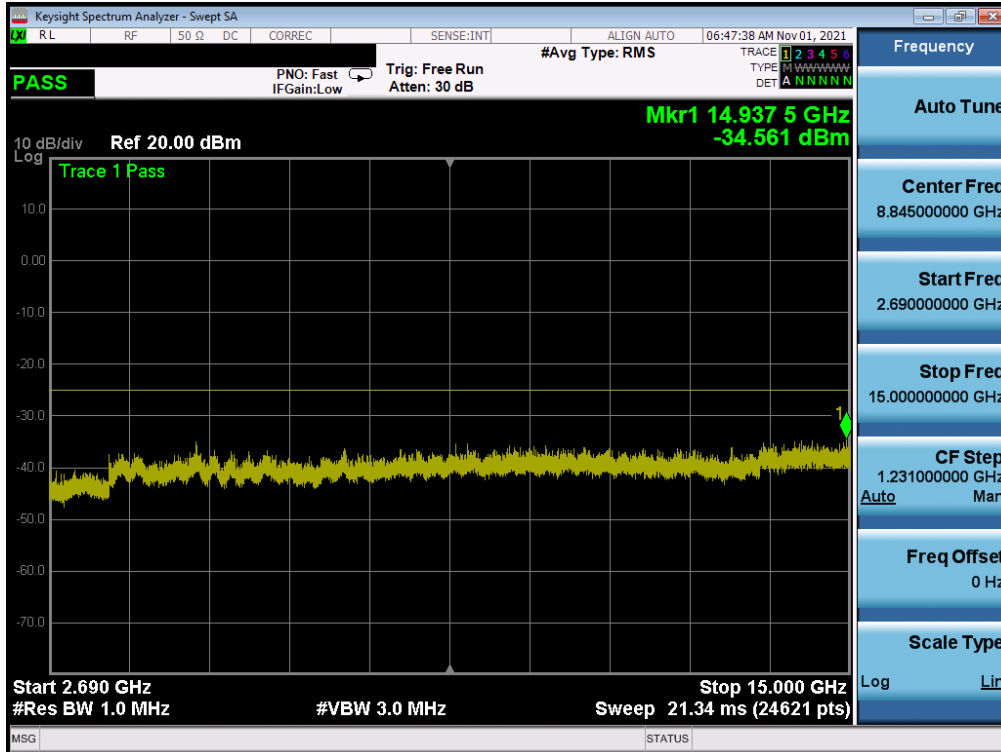


Plot 7-143. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant J)

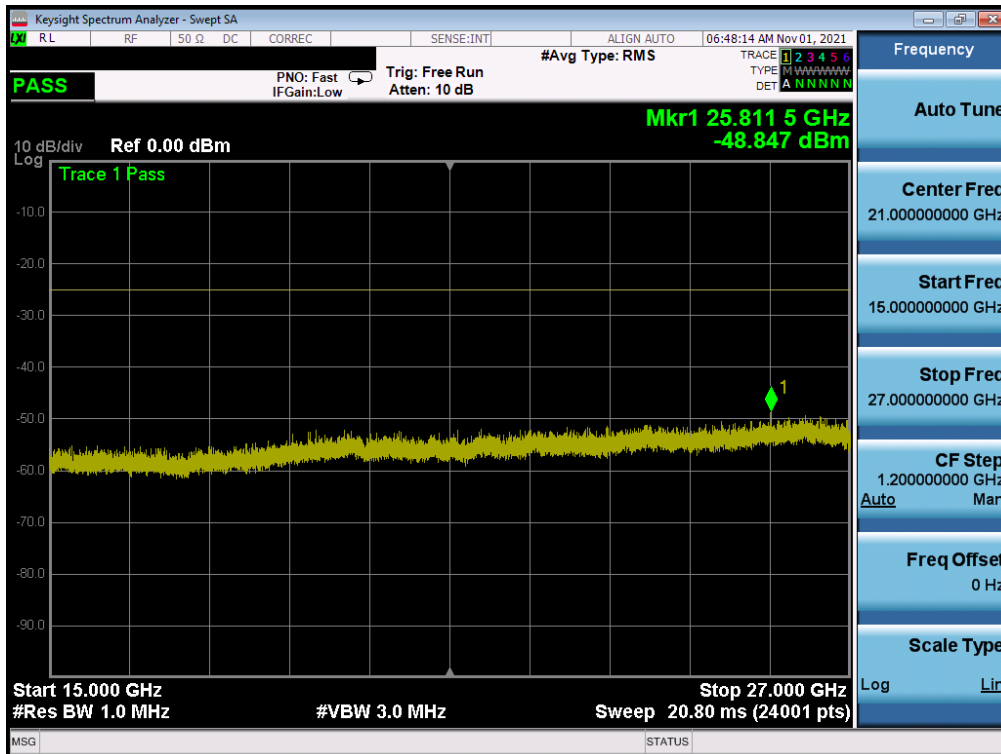


Plot 7-144. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant J)




FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 94 of 231

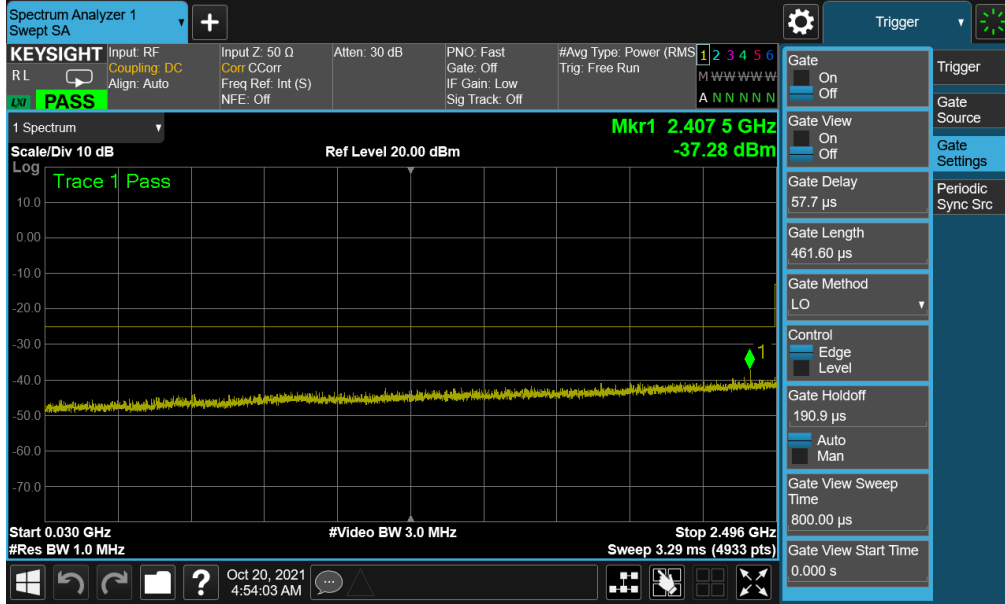


Plot 7-145. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant J)

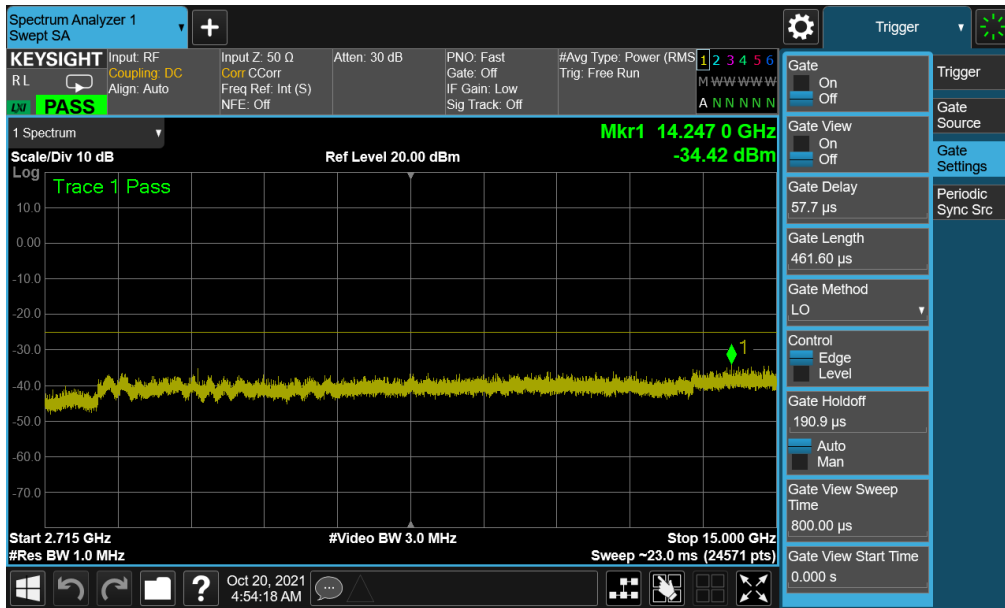


Plot 7-146. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant J)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 95 of 231

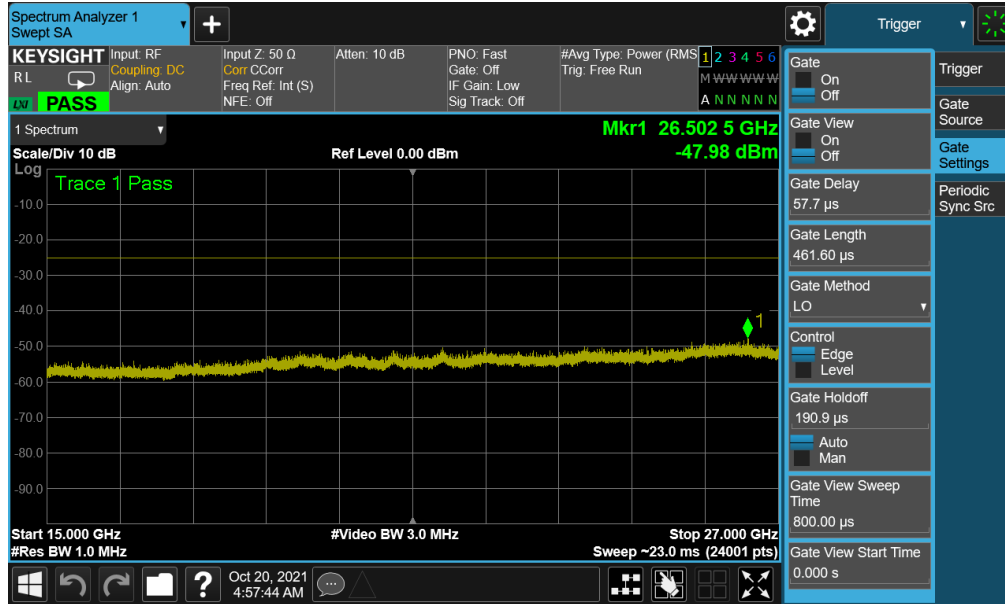


Plot 7-147. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant J)





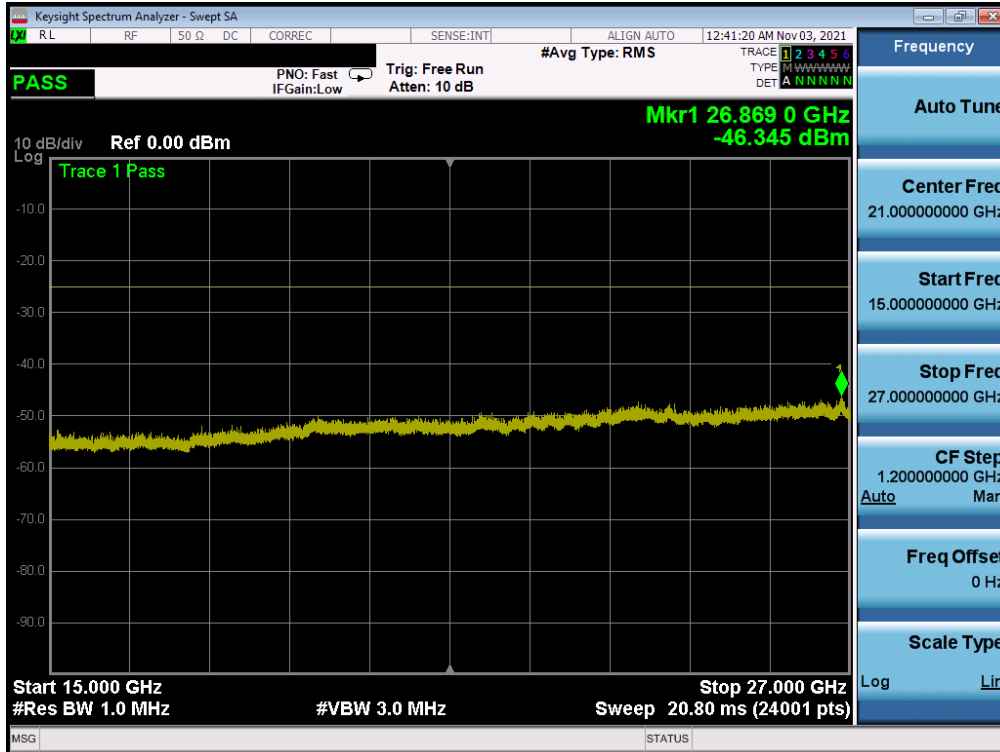
Plot 7-148. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant J)

FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 96 of 231

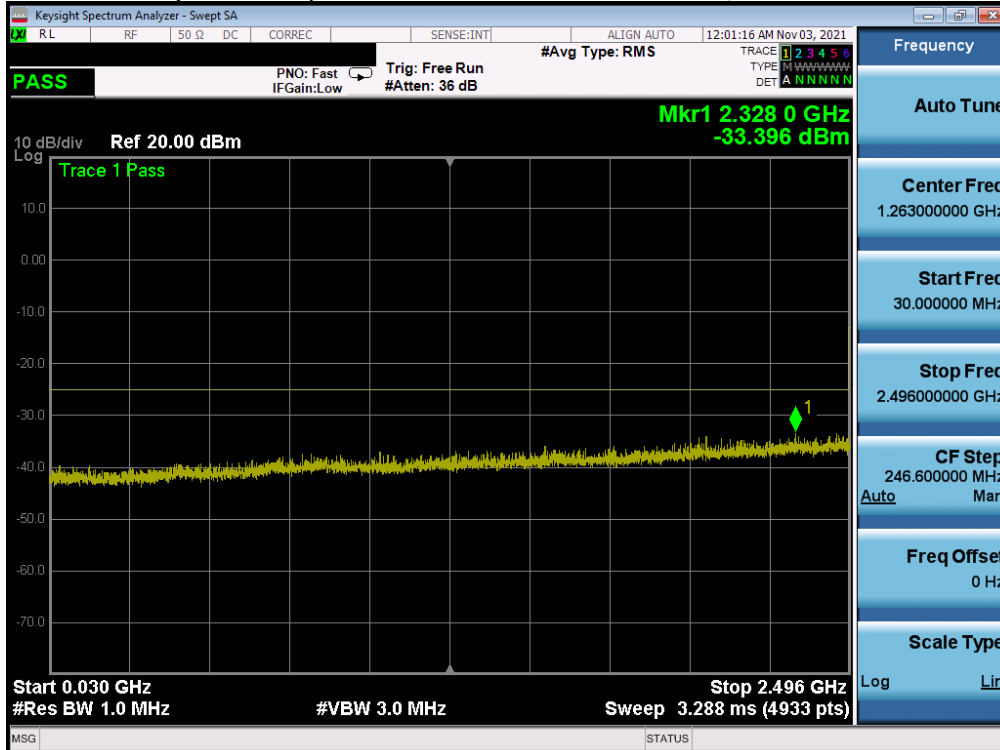


Plot 7-149. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant J)




FCC ID: A3LSMS908U	 PART 27 MEASUREMENT REPORT 	Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset
Page 97 of 231		

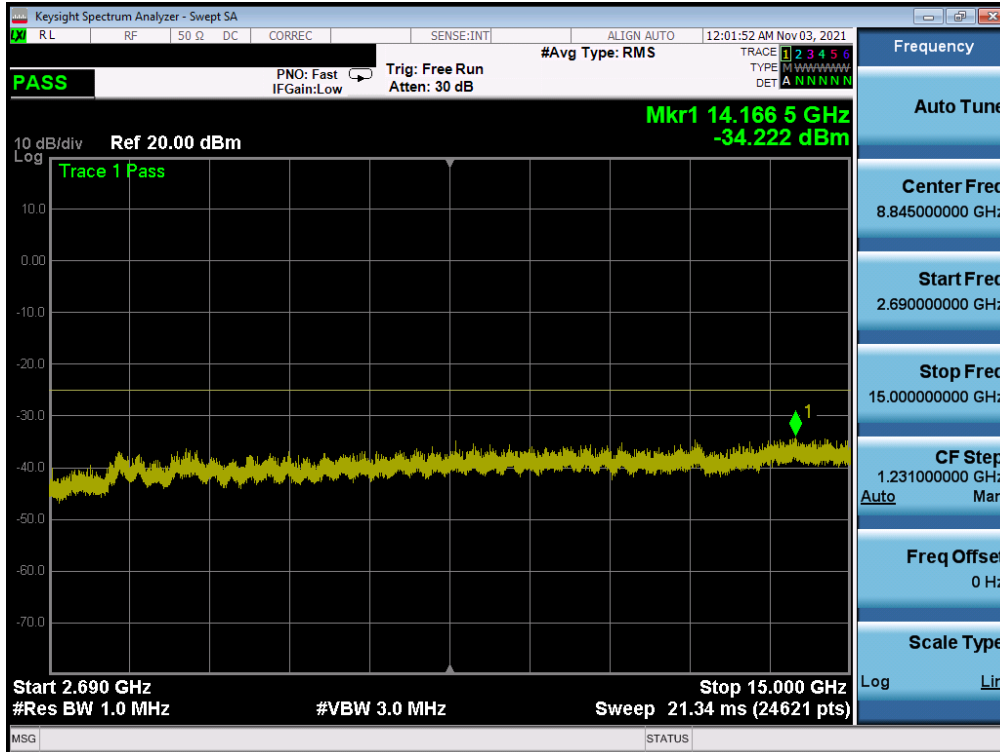


Plot 7-152. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant E)

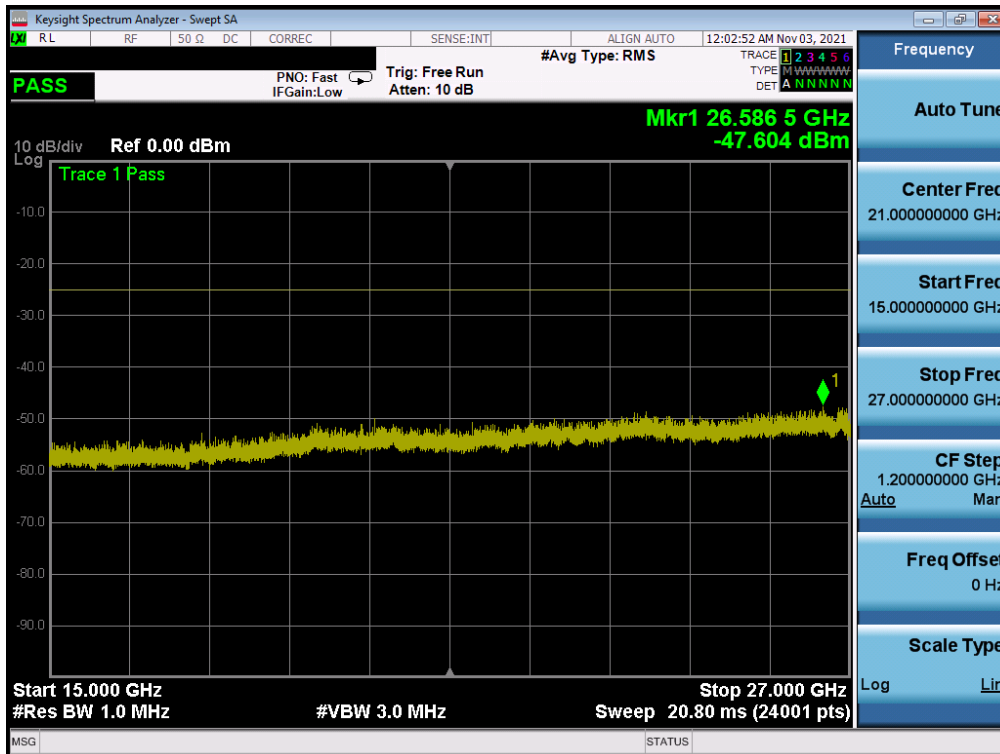


Plot 7-153. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant E)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 99 of 231

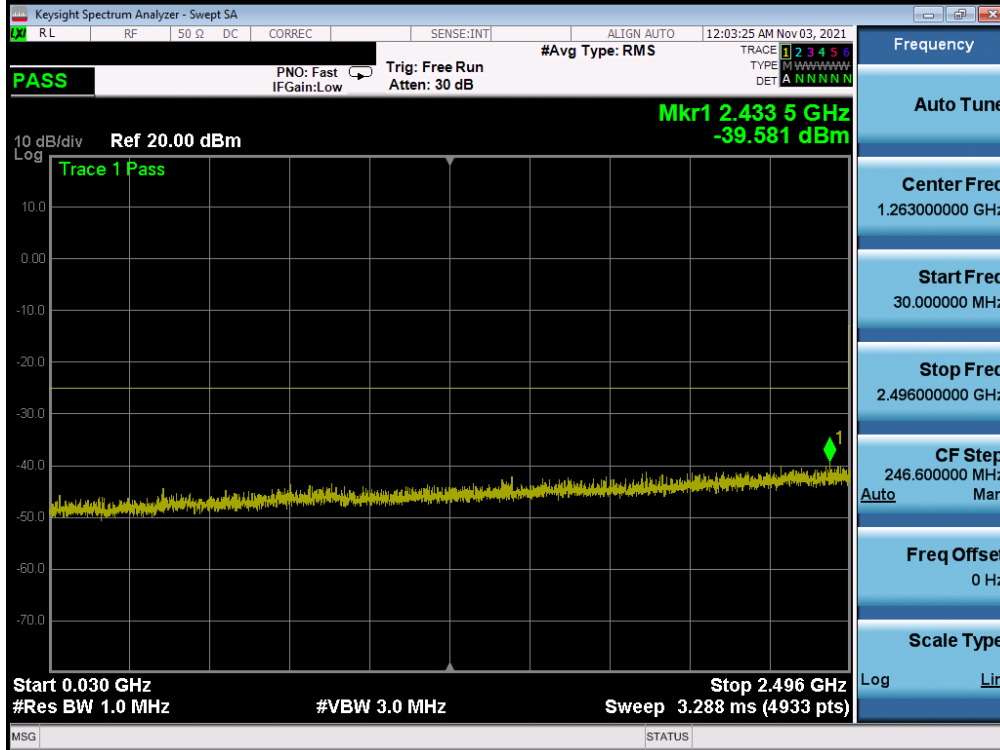


Plot 7-154. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant E)

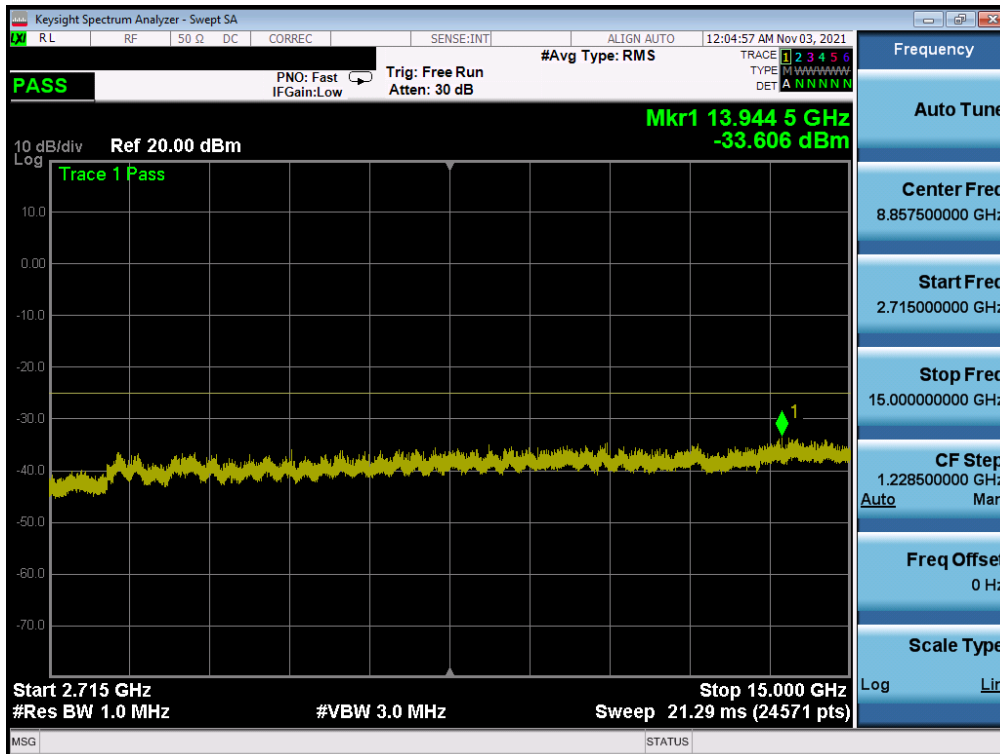


Plot 7-155. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant E)




FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 100 of 231

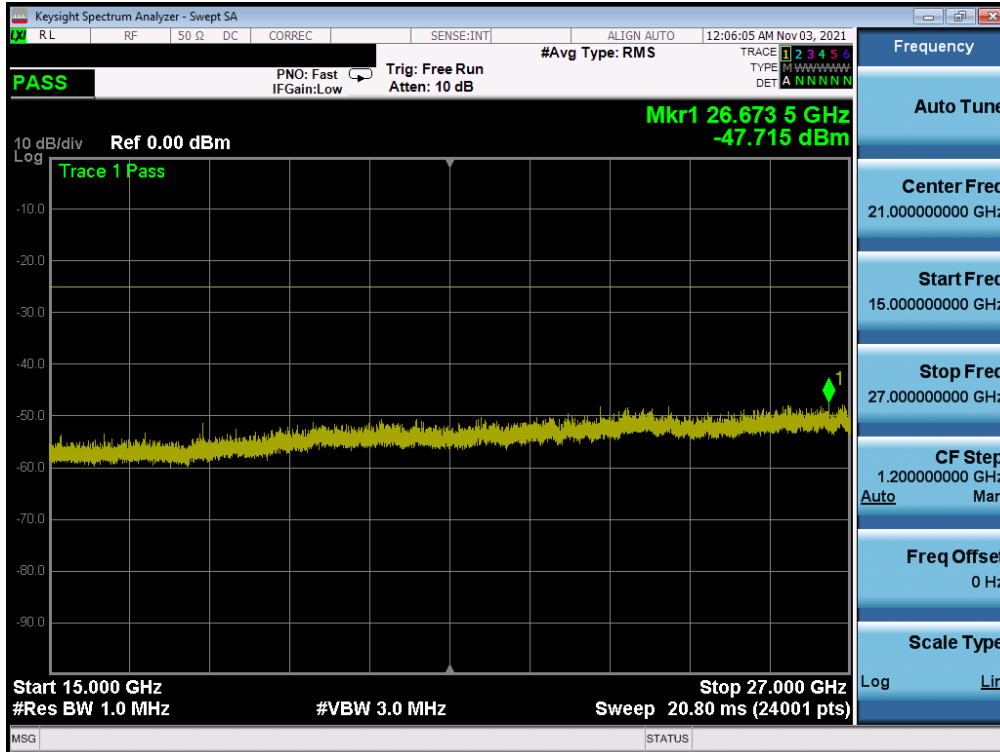


Plot 7-156. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant E)






Plot 7-157. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant E)

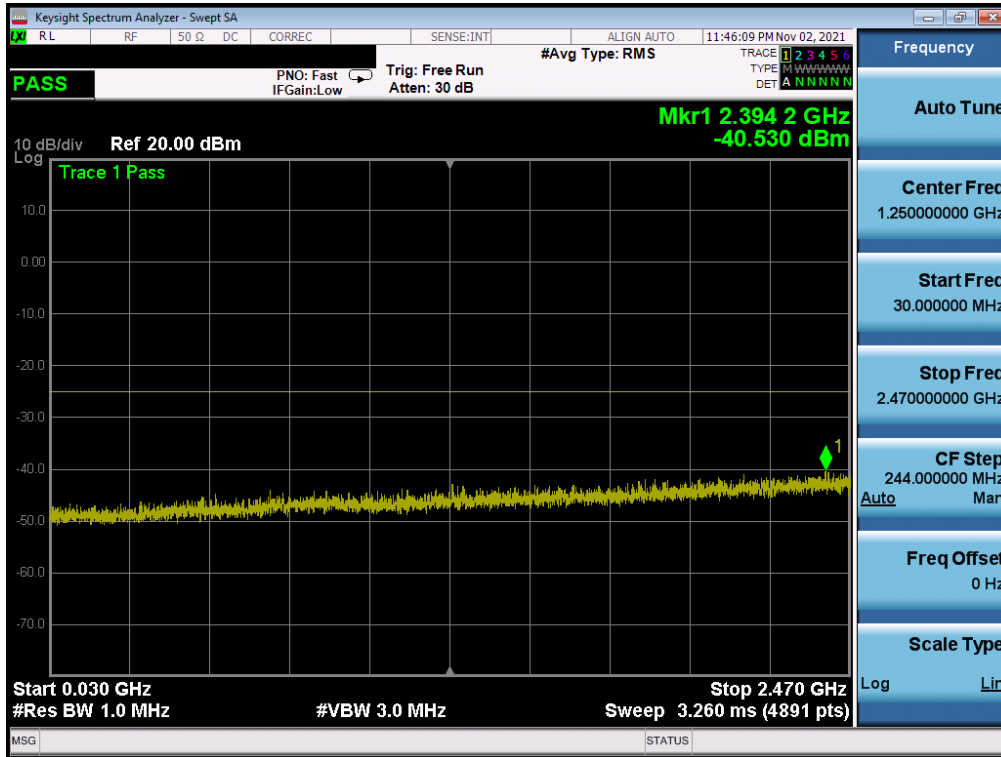
FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 101 of 231



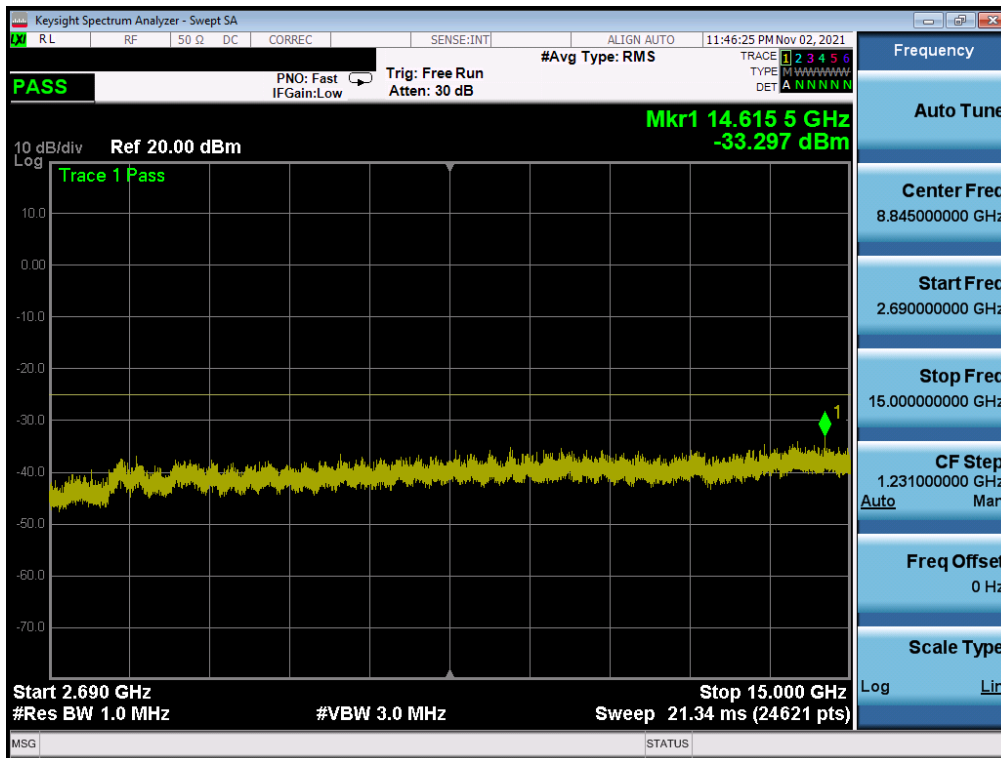
Plot 7-158. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant E)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 102 of 231

NR Band n41 - SRS2 - Ant B

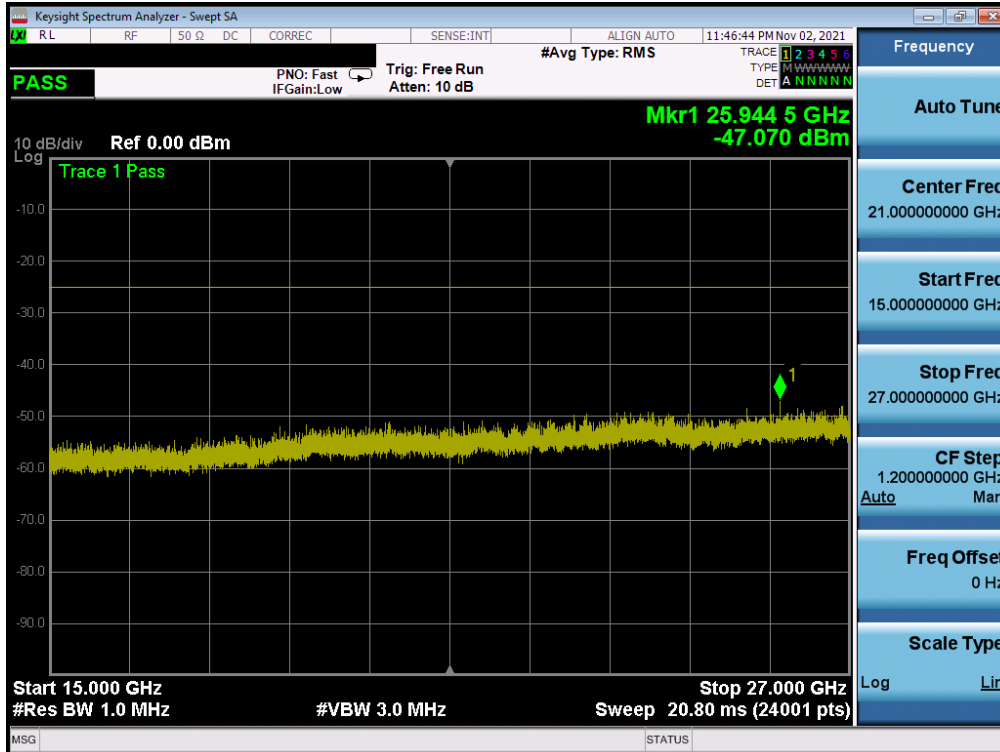


Plot 7-159. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant B)

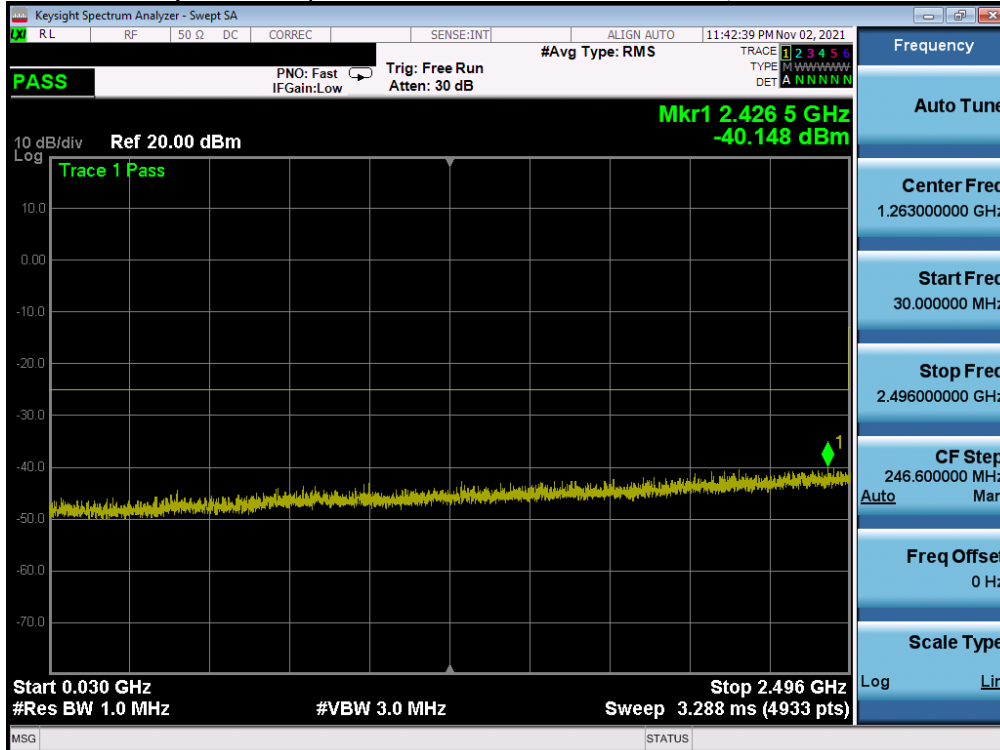


Plot 7-160. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant B)




FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 103 of 231

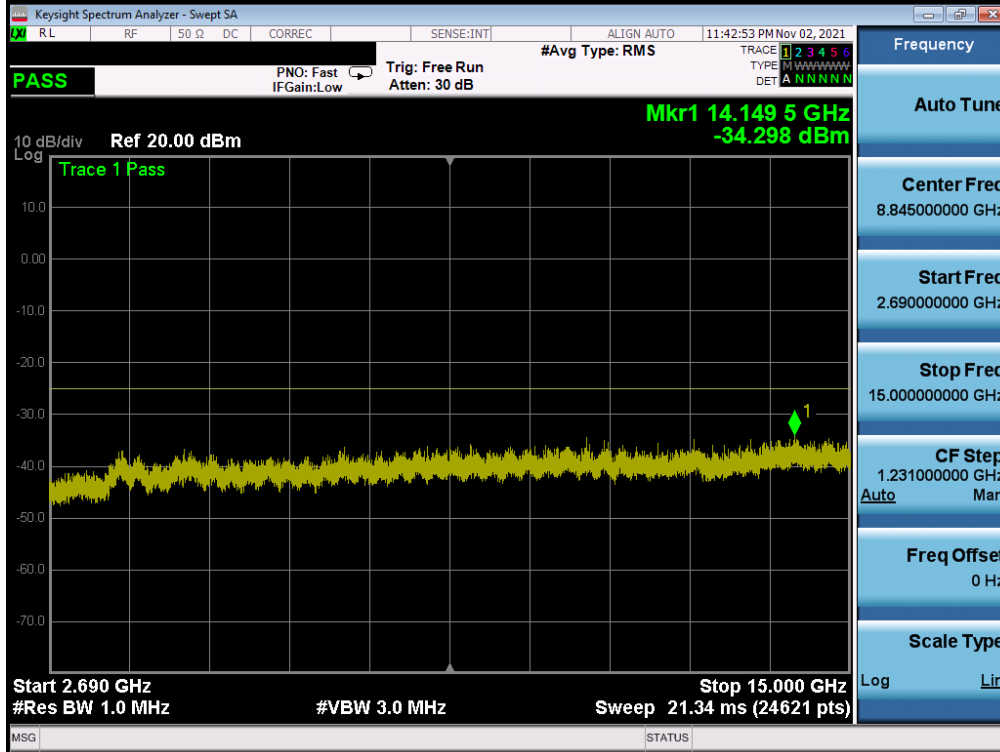


Plot 7-161. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant B)

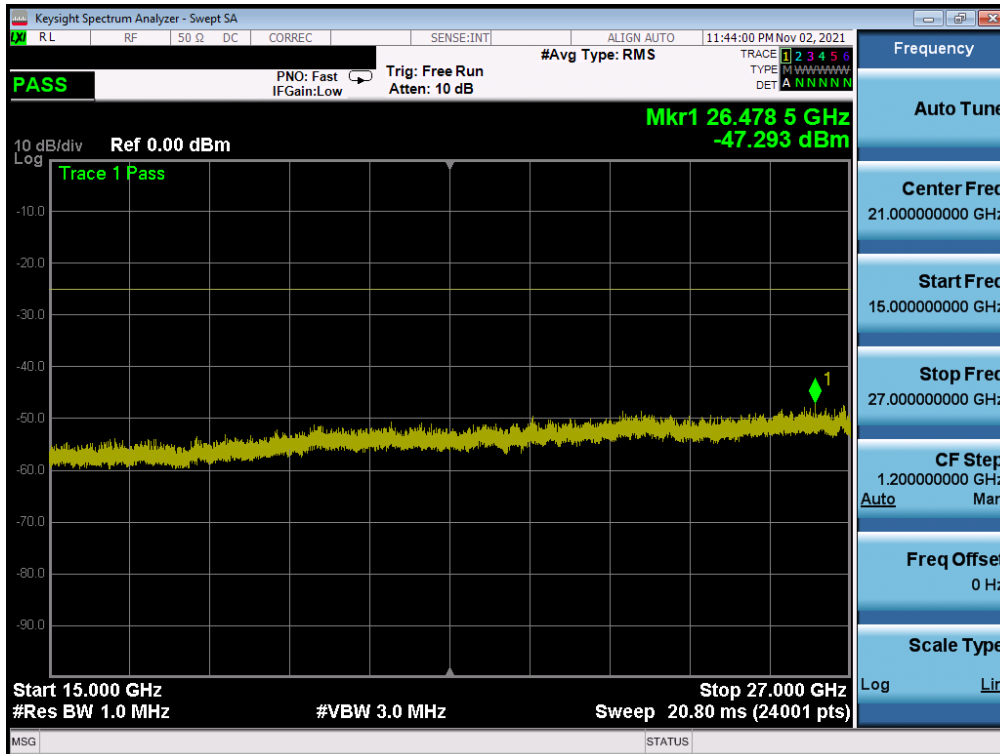


Plot 7-162. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant B)




FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 104 of 231

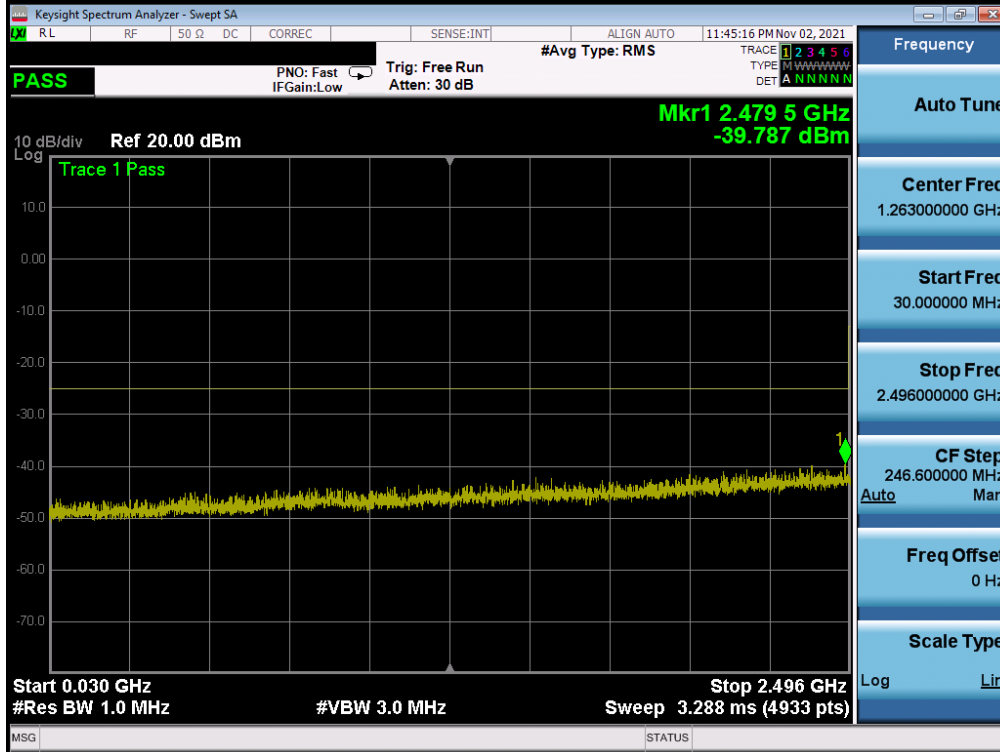


Plot 7-163. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant B)

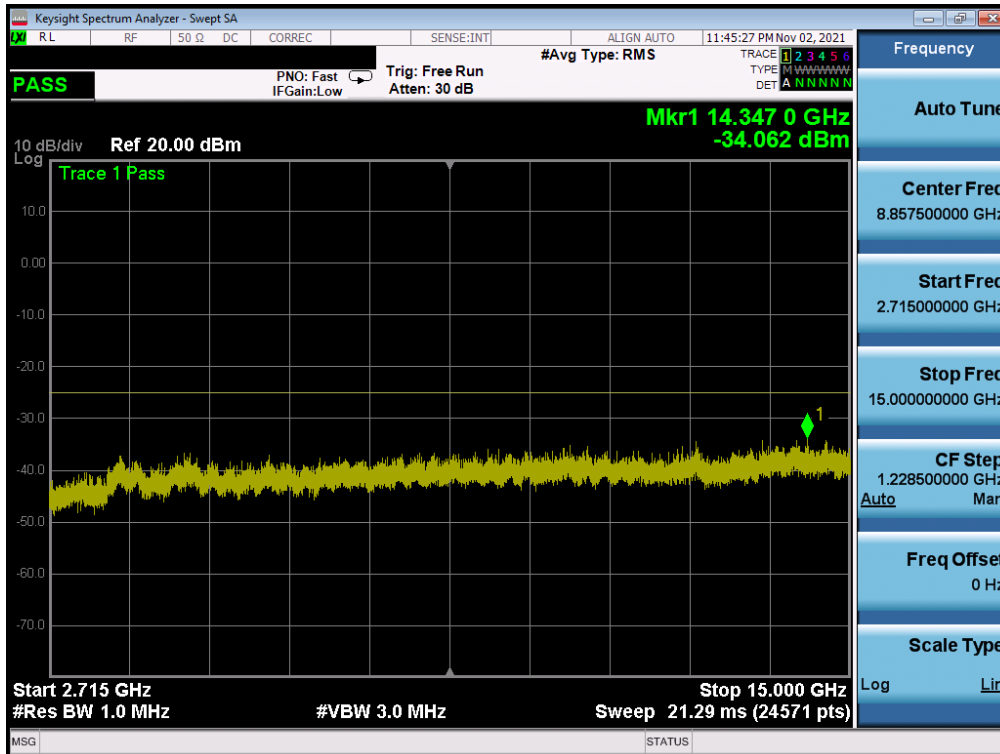


Plot 7-164. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant B)




FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 105 of 231

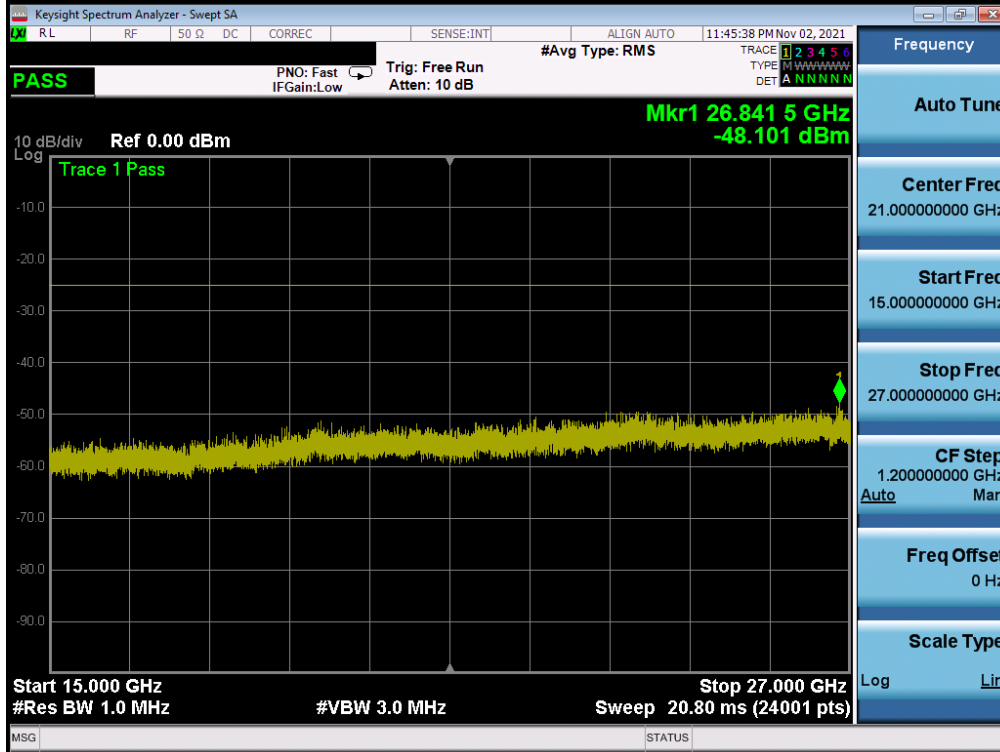


Plot 7-165. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant B)






Plot 7-166. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant B)

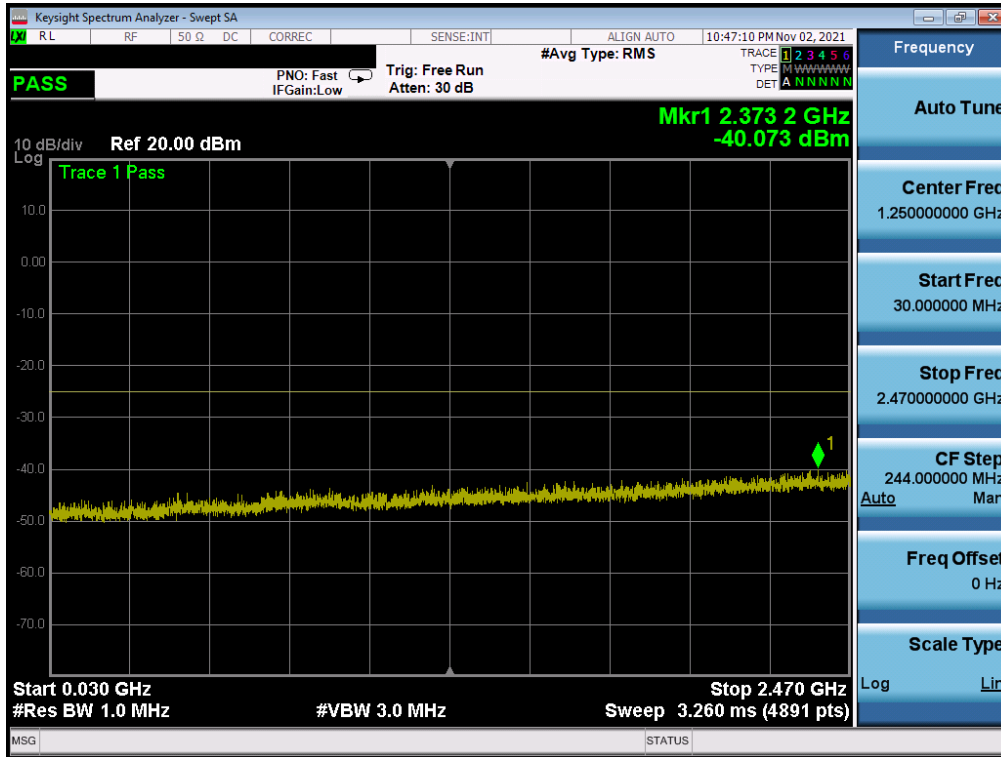
FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 106 of 231



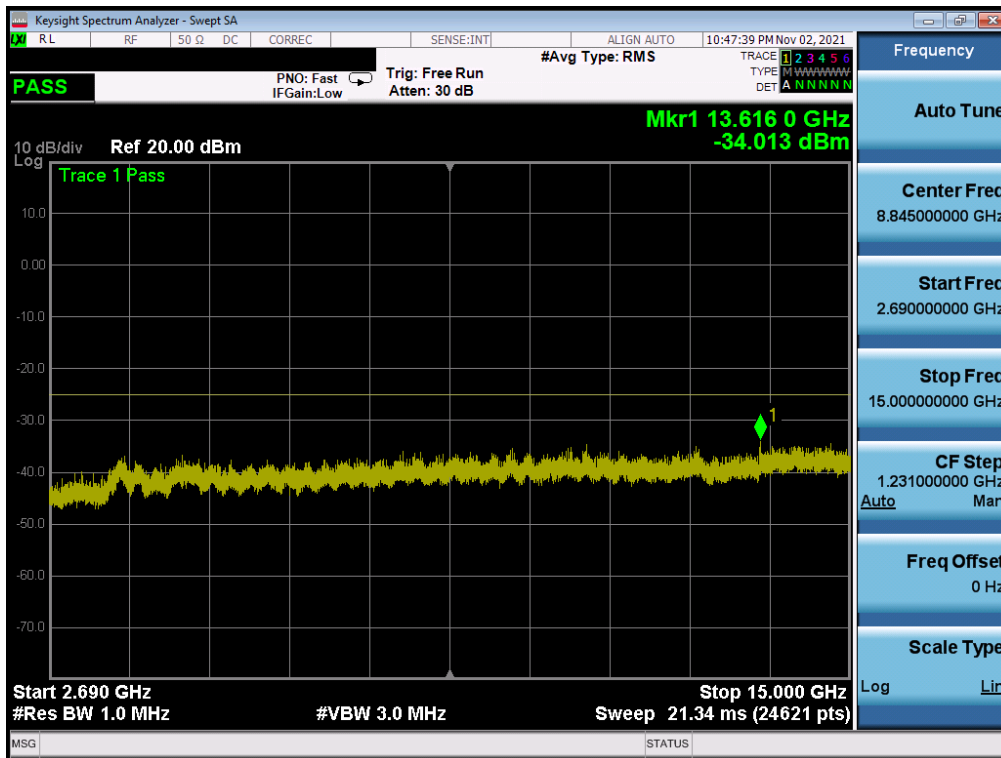
Plot 7-167. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant B)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 107 of 231

NR Band n41 – SRS4 - Ant D

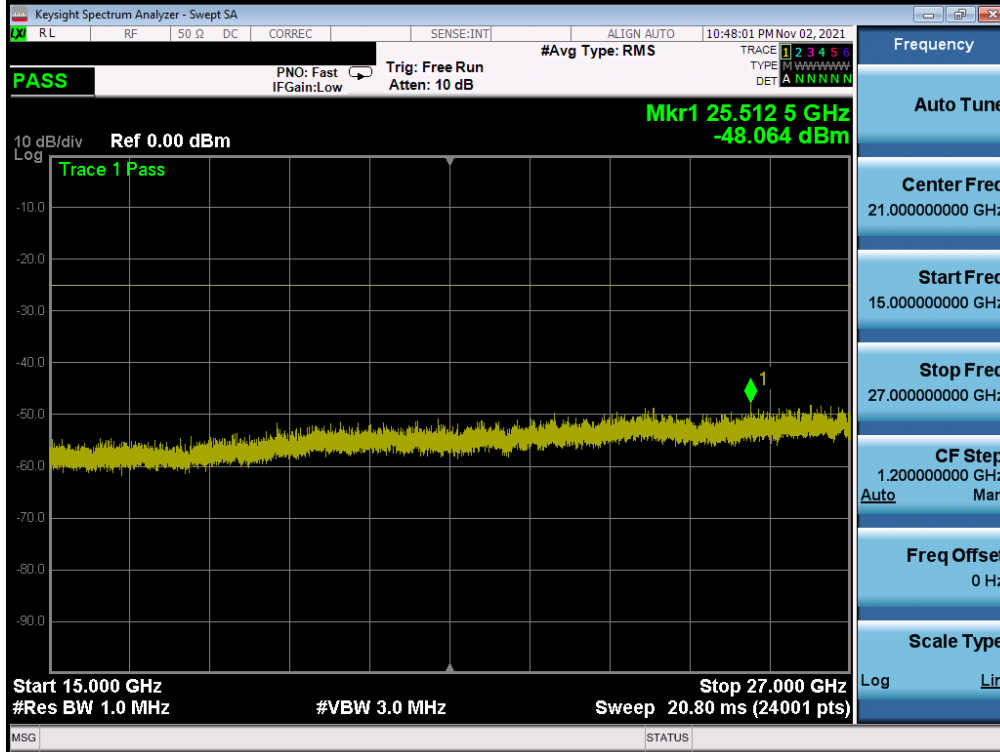


Plot 7-168. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant D)

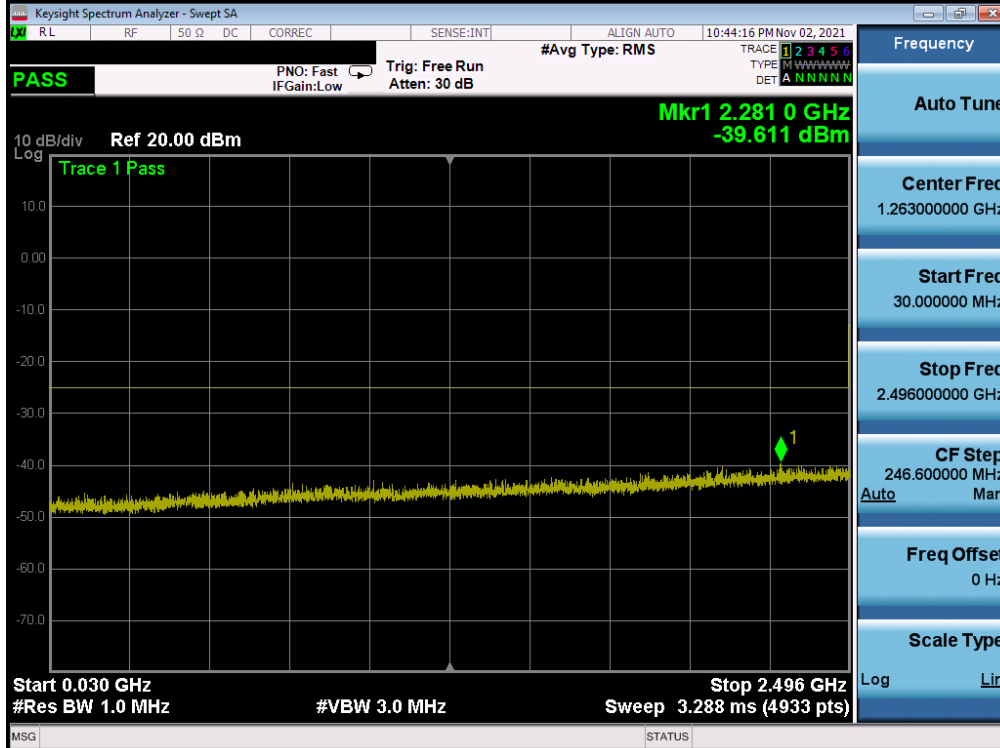


Plot 7-169. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant D)

FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 108 of 231

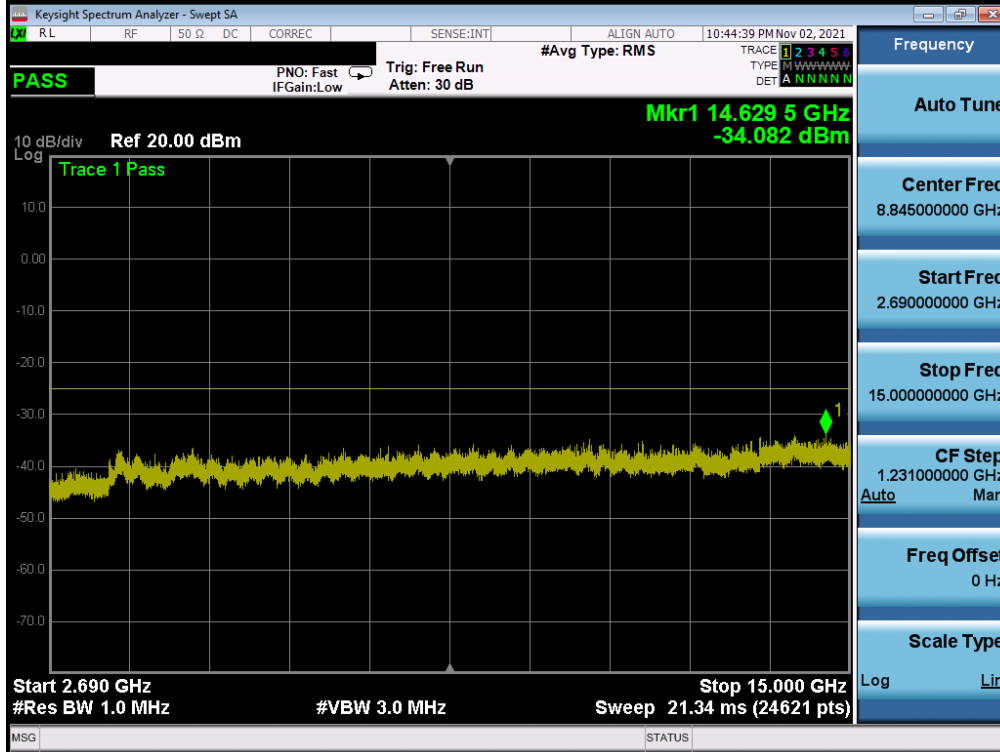


Plot 7-170. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant D)

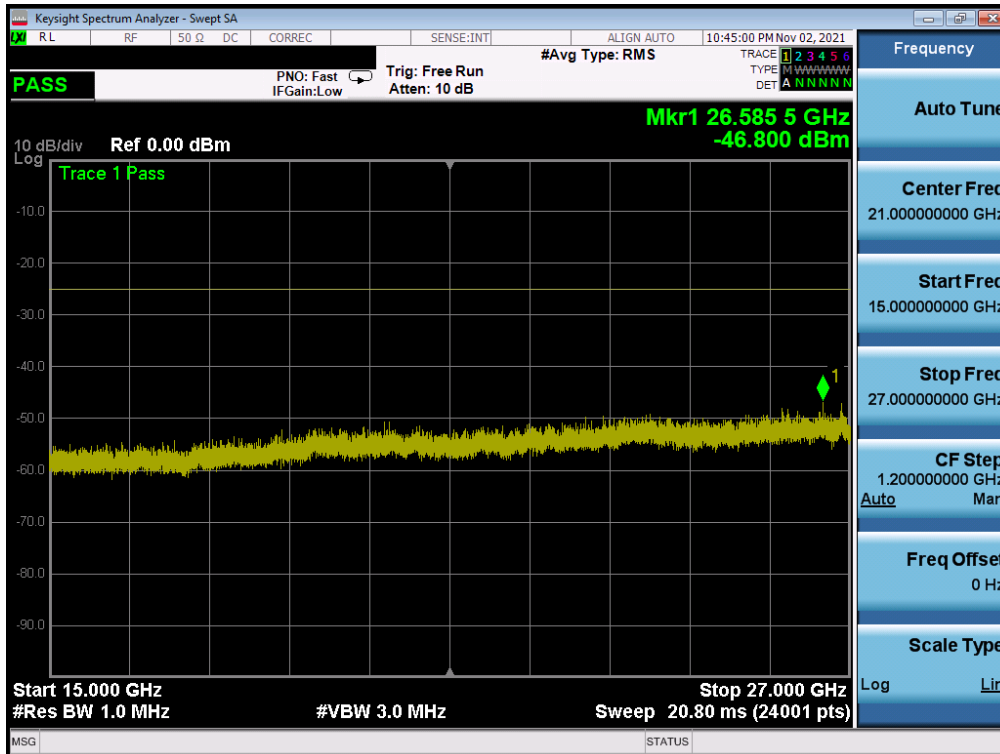


Plot 7-171. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant D)

FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 109 of 231

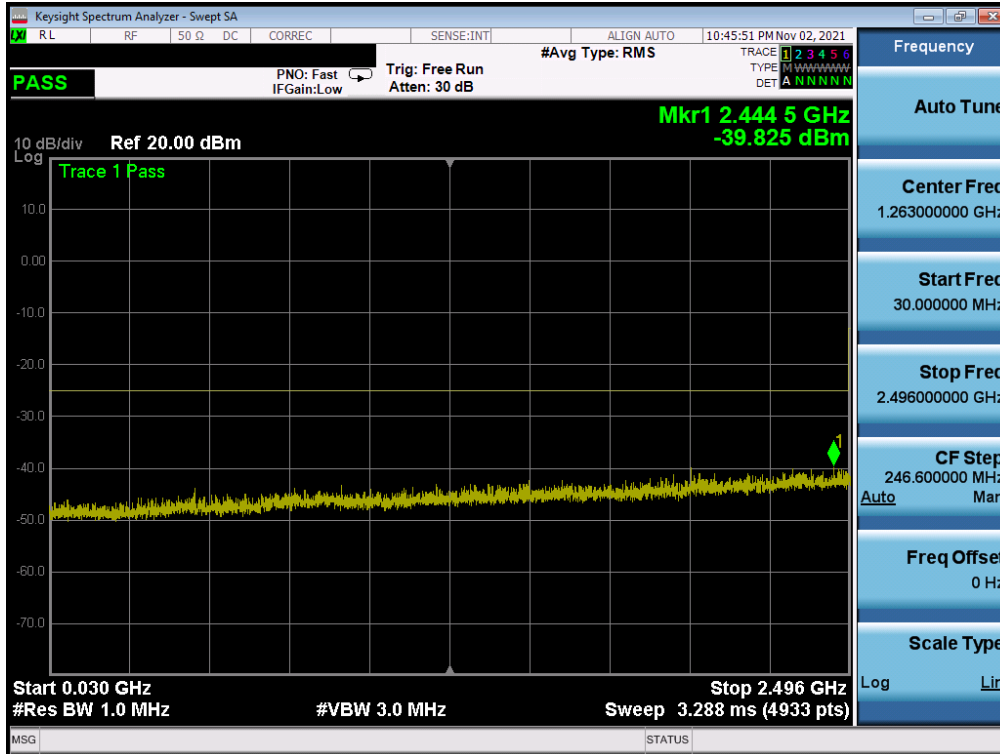


Plot 7-172. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant D)

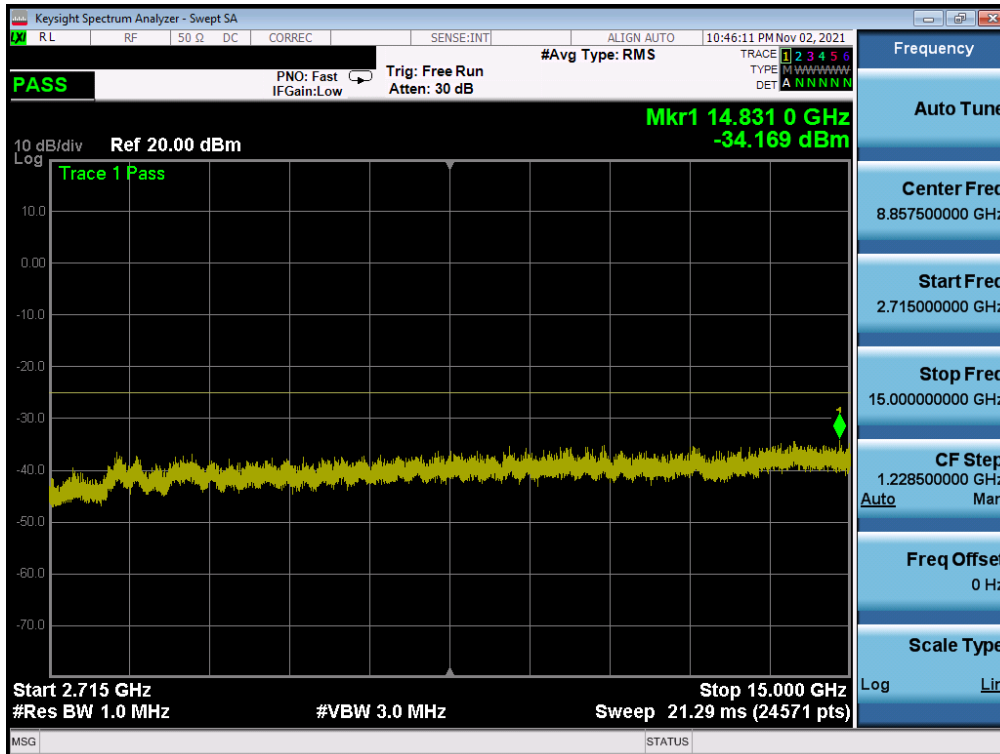


Plot 7-173. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Ant D)




FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 110 of 231

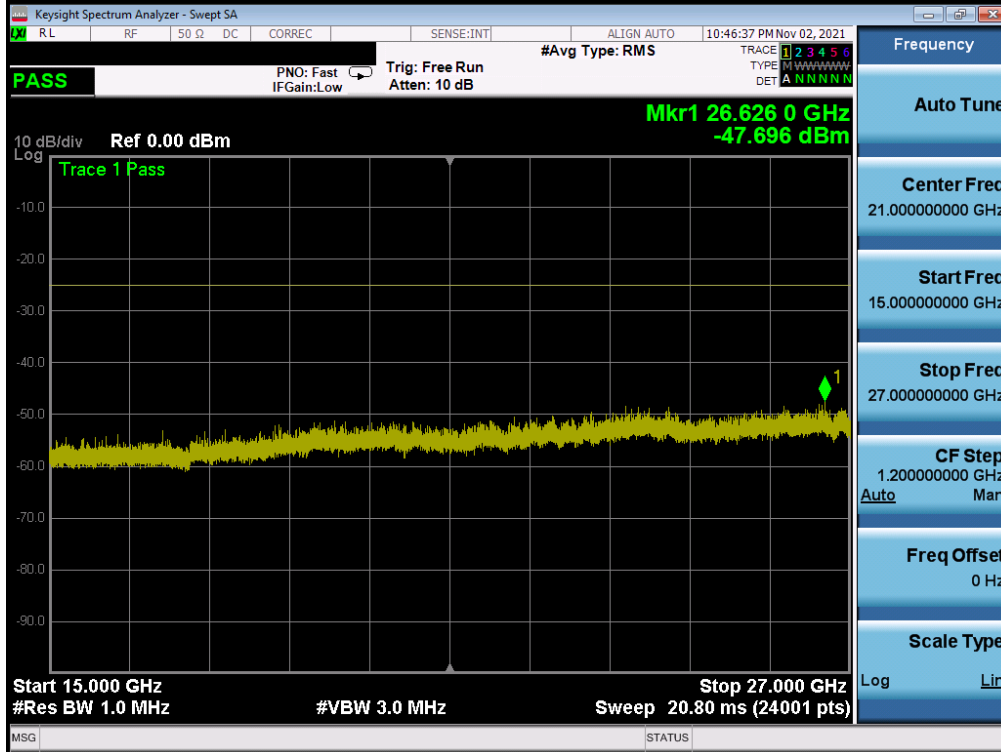


Plot 7-174. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant D)






Plot 7-175. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant D)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 111 of 231



Plot 7-176. Conducted Spurious Plot (NR Band n41 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant D)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 112 of 231

7.5 Uplink Carrier Aggregation

§27.53(m)

Test Overview

The EUT is set up to transmit two contiguous LTE channels. The power level of both carriers and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. 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.

For Band 41/38 the minimum permissible attenuation level of any spurious emission is $55 + 10 \log_{10}(P_{[Watts]})$.

Test Procedure Used

KDB 971168 D01 v03r01 - Section 6.0

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to at least 10 * the fundamental frequency (separated into at least two plots per channel)
2. Detector = RMS
3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

Test Setup

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

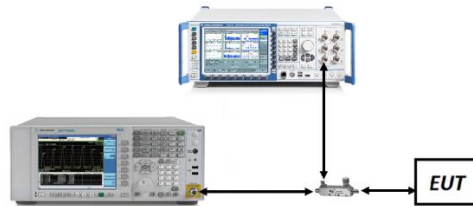




Figure 7-4. Test Instrument & Measurement Setup

Test Notes

1. Conducted power and spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device. The worst case (highest) powers were found while operating with QPSK modulation with both carriers set to transmit using 1RB.
2. Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz. However, 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.

FCC ID: A3LSMS908U	 PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 113 of 231



Uplink CA Configuration 41C

Power State	Band	Bandwidth (PCC + SCC)	PCC				SCC				ULCA Tx. Power [dBm]		
			Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency		UL # RB	UL RB Offset
Max	LTE B41 (PC2)	20MHz + 20MHz	QPSK	39750	2506.0	1	99	QPSK	39948	2525.6	1	0	26.04
				40620	2593.0	1	99		40818	2612.8	1	0	25.85
				41490	2680.0	1	0		41292	2660.2	1	99	26.32
			QPSK	41490	2680	100	0	QPSK	41292	2660.2	100	0	24.24
			16-QAM	41490	2680	100	0	16-QAM	41292	2660.2	100	0	23.30
			64-QAM	41490	2680	100	0	64-QAM	41292	2660.2	100	0	23.16
			256-QAM	41490	2680	100	0	256-QAM	41292	2660.2	100	0	21.55

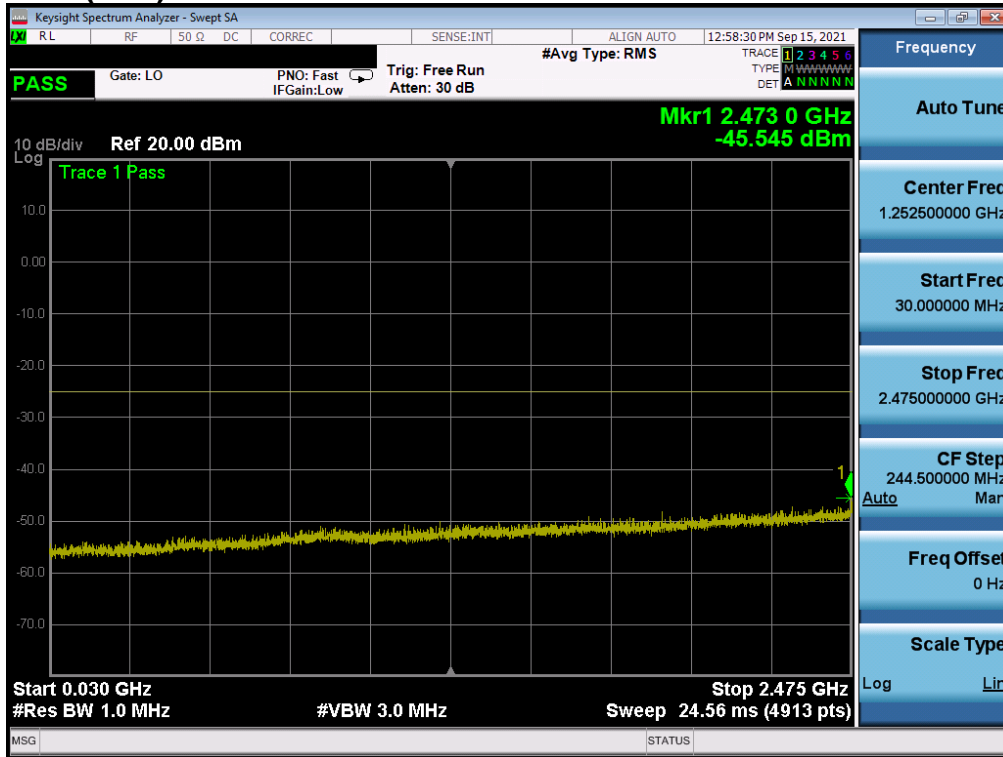
Table 7-177. Conducted Power Data (ULCA LTE B41(PC2))

Power State	Band	Bandwidth (PCC + SCC)	PCC				SCC				ULCA Tx. Power [dBm]		
			Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency		UL # RB	UL RB Offset
Max	LTE B41 (PC3)	20MHz + 20MHz	QPSK	39750	2506.0	1	99	QPSK	39948	2525.8	1	0	23.51
				40620	2593.0	1	99		40818	2612.8	1	0	23.53
				41490	2680.0	1	0		41292	2660.2	1	99	23.55
			QPSK	41490	2680	100	0	QPSK	41292	2660.2	100	0	21.55
			16-QAM	41490	2680	100	0	16-QAM	41292	2660.2	100	0	20.51
			64-QAM	41490	2680	100	0	64-QAM	41292	2660.2	100	0	20.49
			256-QAM	41490	2680	100	0	256-QAM	41292	2660.2	100	0	18.70

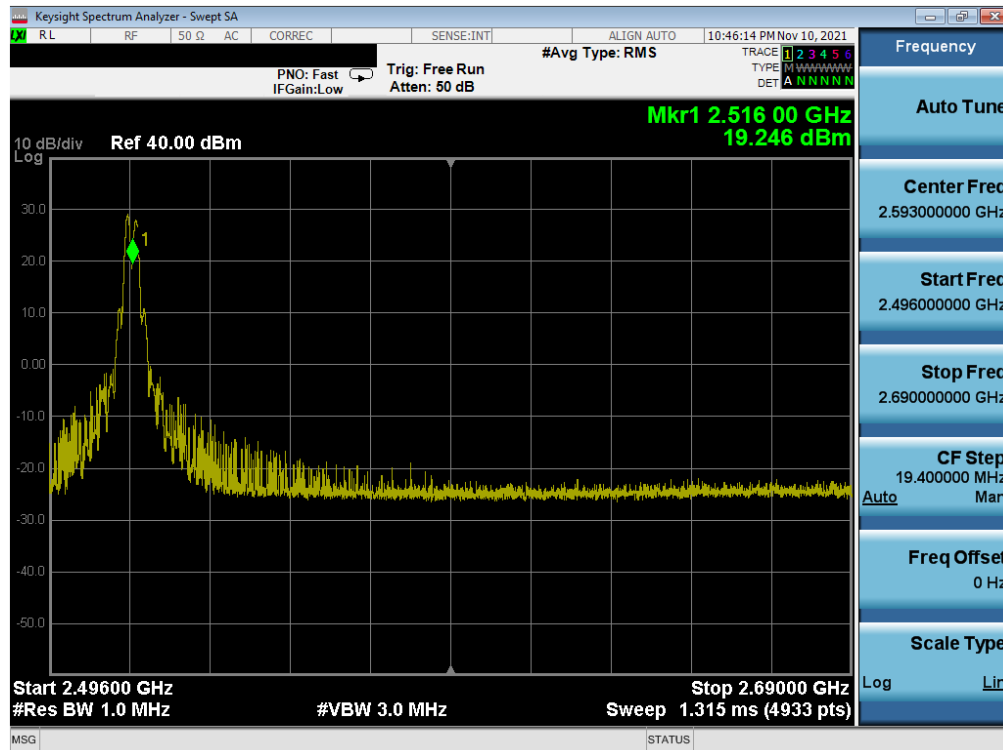
Table 7-178. Conducted Power Data (ULCA LTE B41(PC3))

FCC ID: A3LSMS908U	 PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 114 of 231

ULCA - LTE B41(PC2)

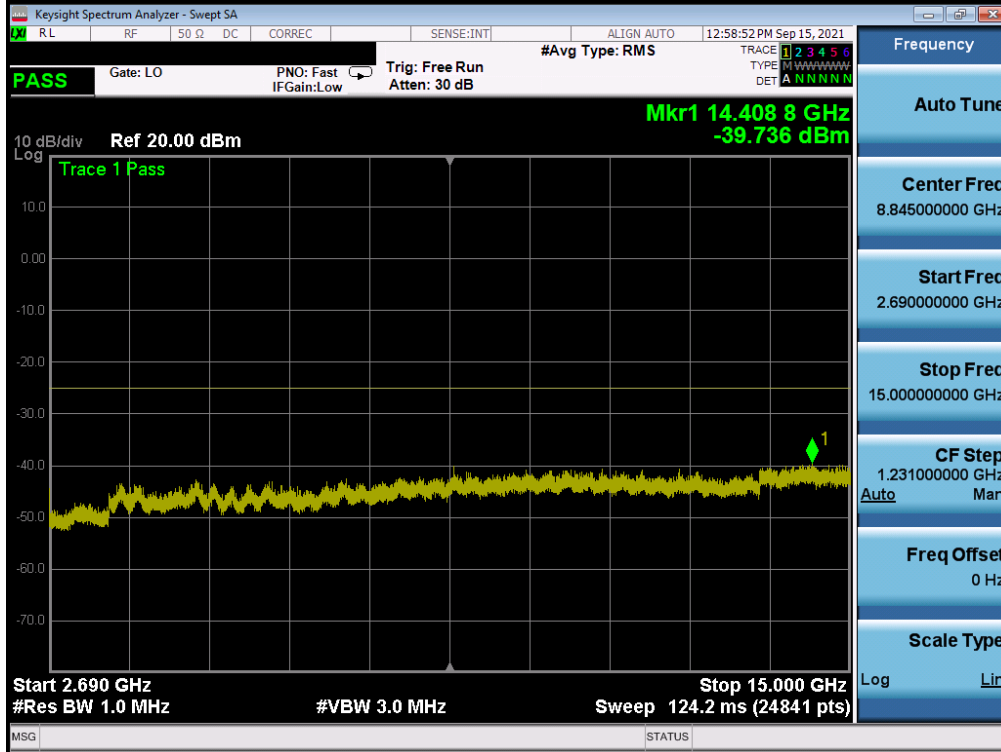


Plot 7-179. Conducted Spurious Plot (ULCA LTE B41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

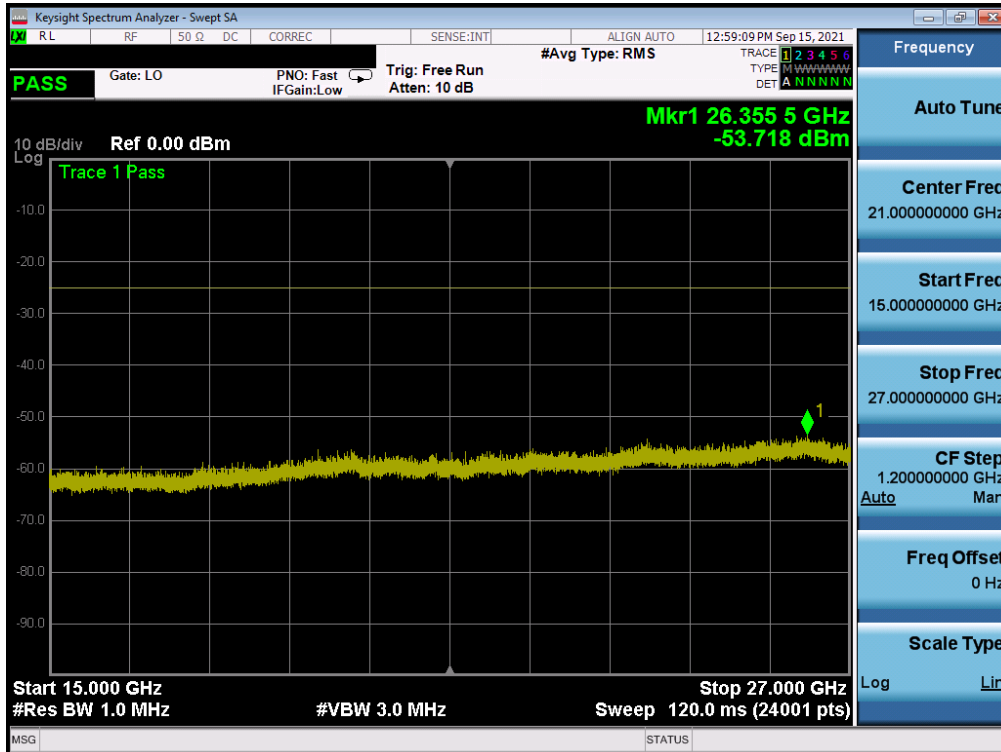


Plot 7-180. Conducted Spurious Plot (ULCA LTE B41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)




FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 115 of 231

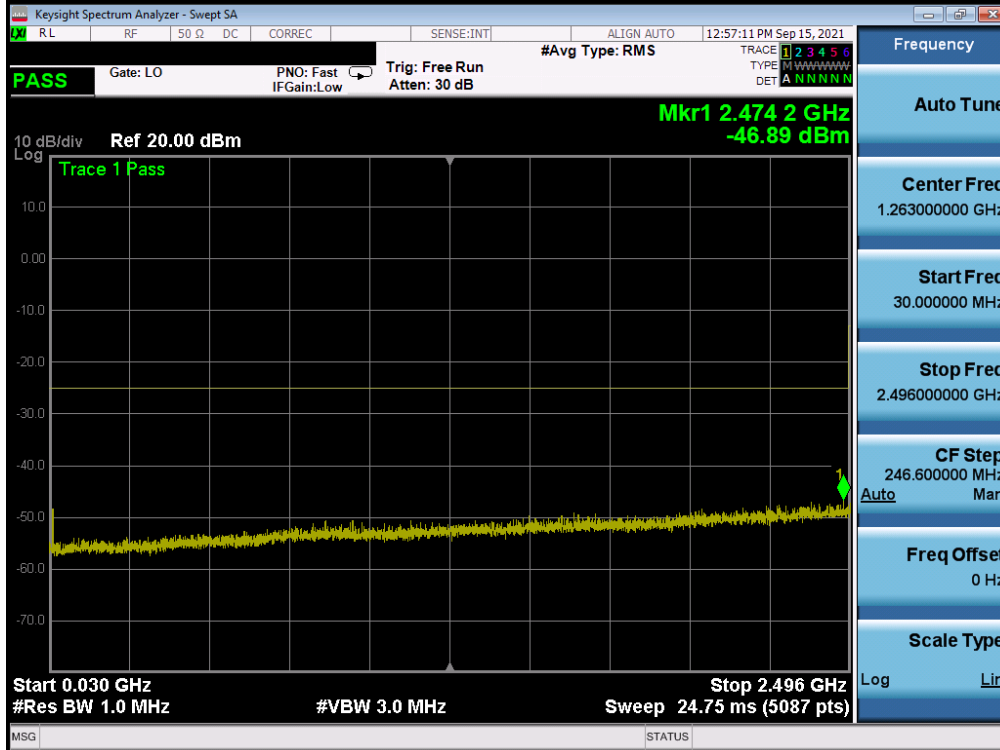


Plot 7-181. Conducted Spurious Plot (ULCA LTE B41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

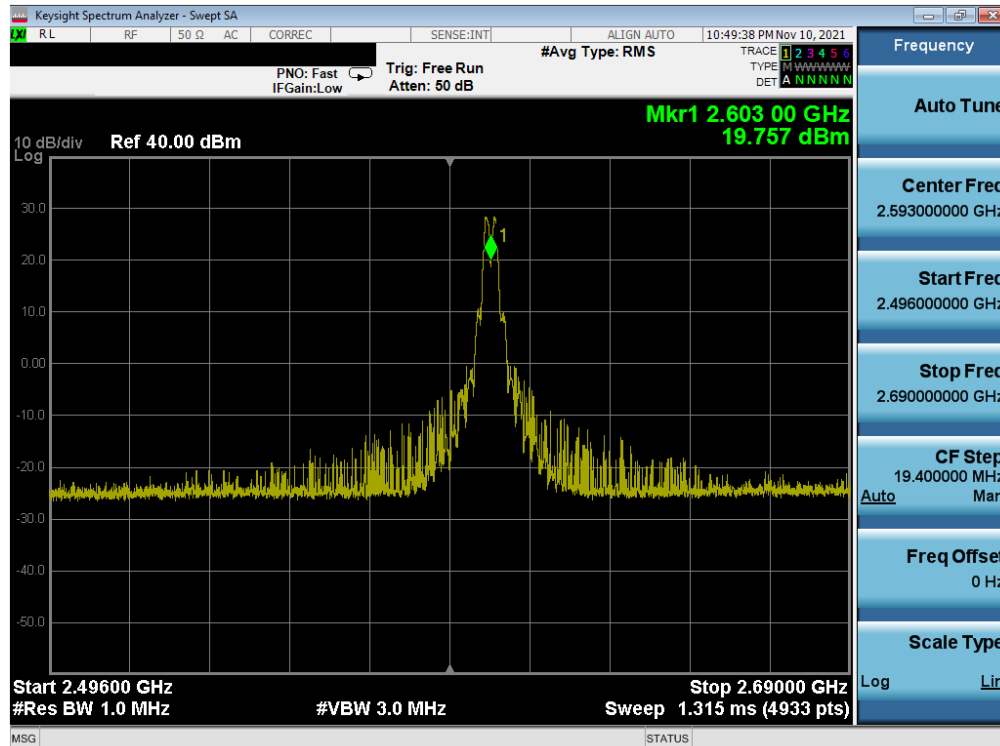


Plot 7-182. Conducted Spurious Plot (ULCA LTE B41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)




FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 116 of 231



Plot 7-183. Conducted Spurious Plot (ULCA LTE B41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

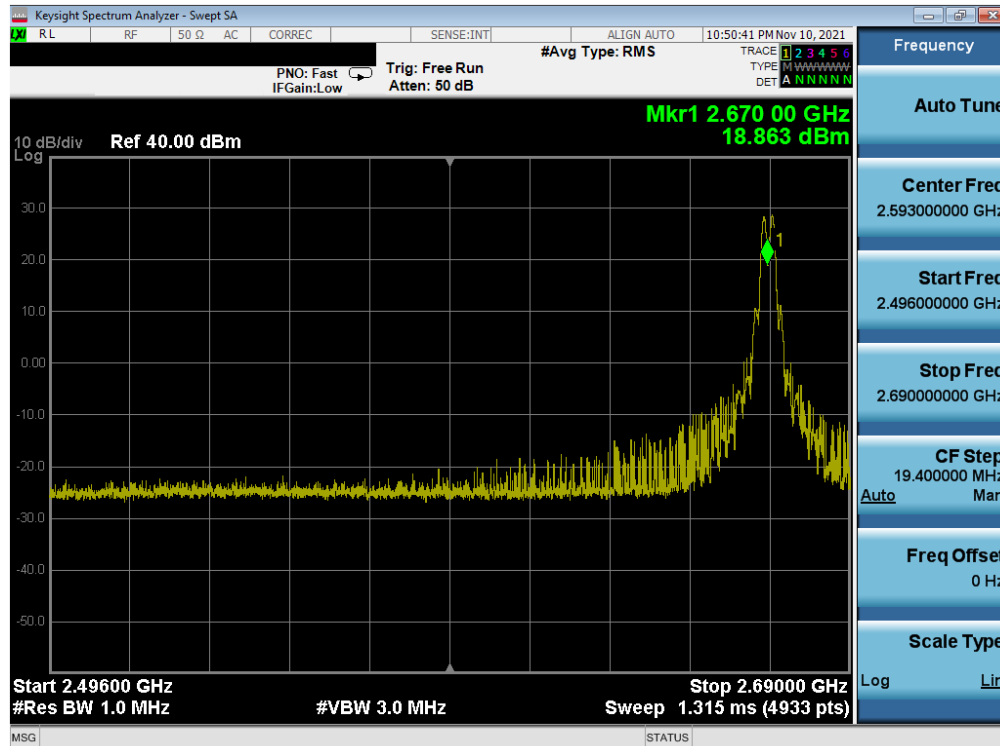


Plot 7-184. Conducted Spurious Plot (ULCA LTE B41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)




FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 117 of 231

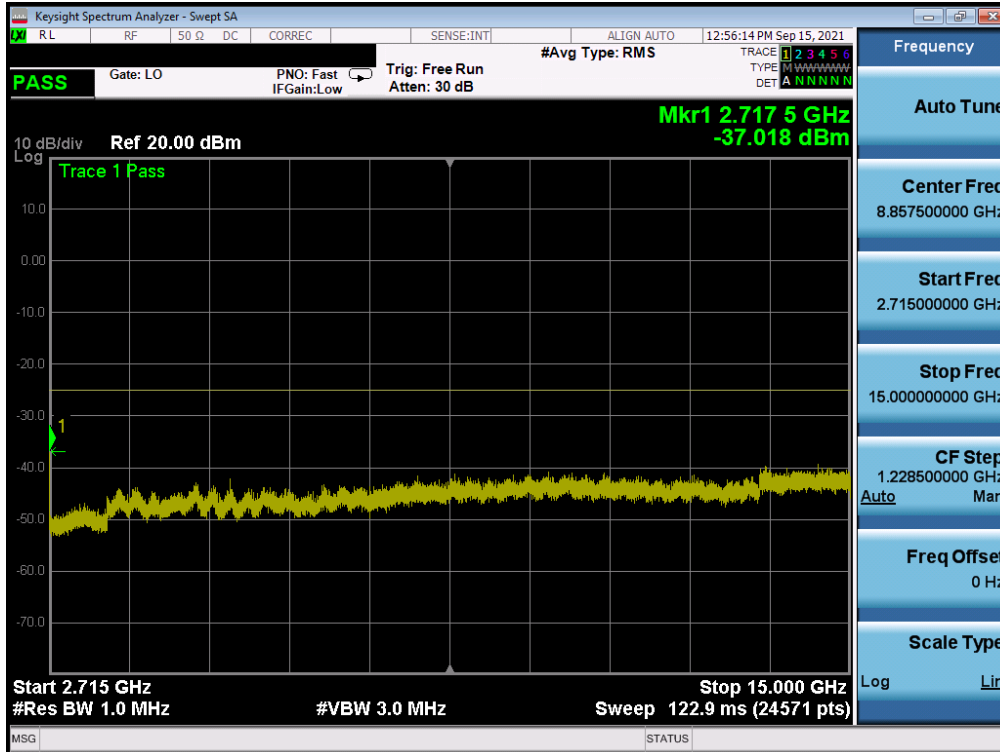


Plot 7-187. Conducted Spurious Plot (ULCA LTE B41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

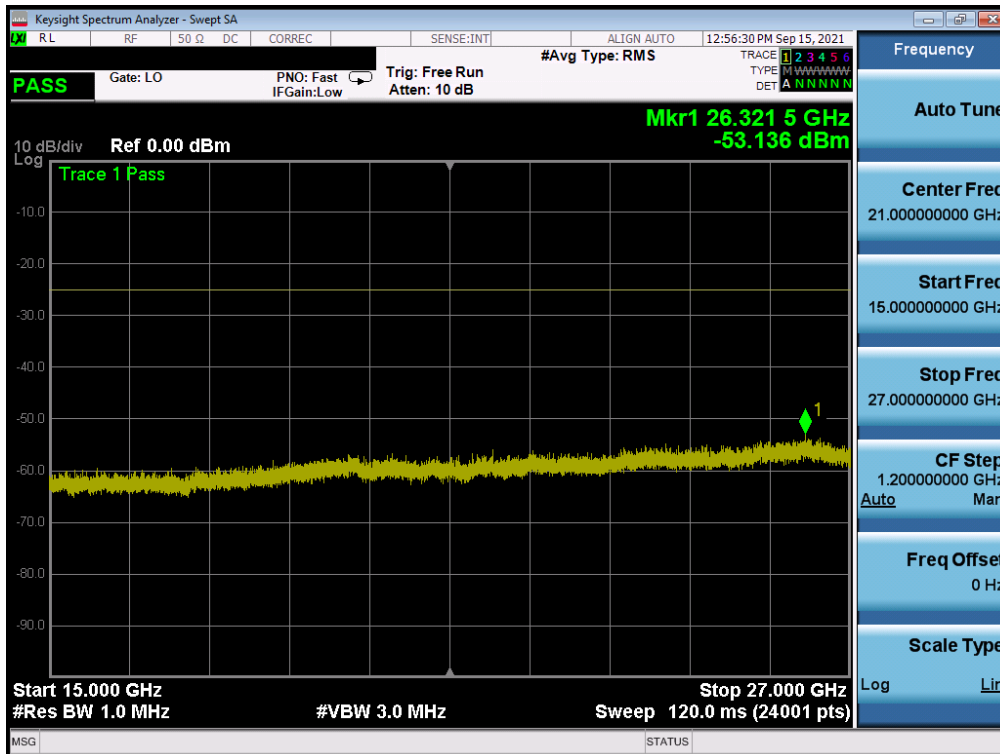


Plot 7-188. Conducted Spurious Plot (ULCA LTE B41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 119 of 231



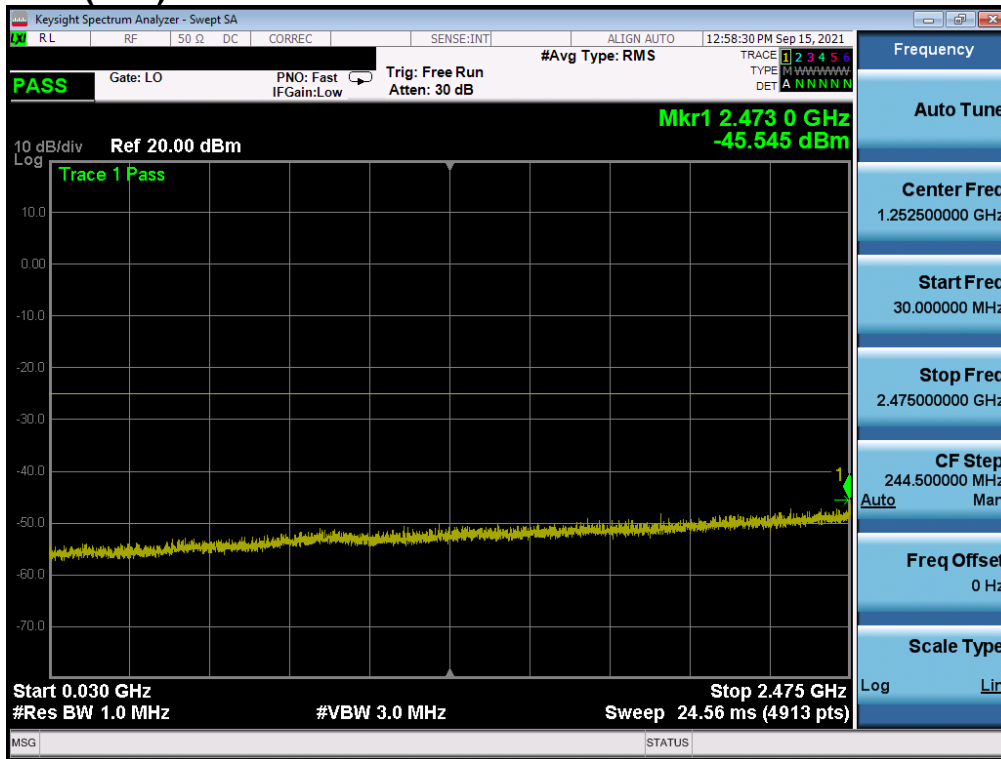
Plot 7-189. Conducted Spurious Plot (ULCA LTE B41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



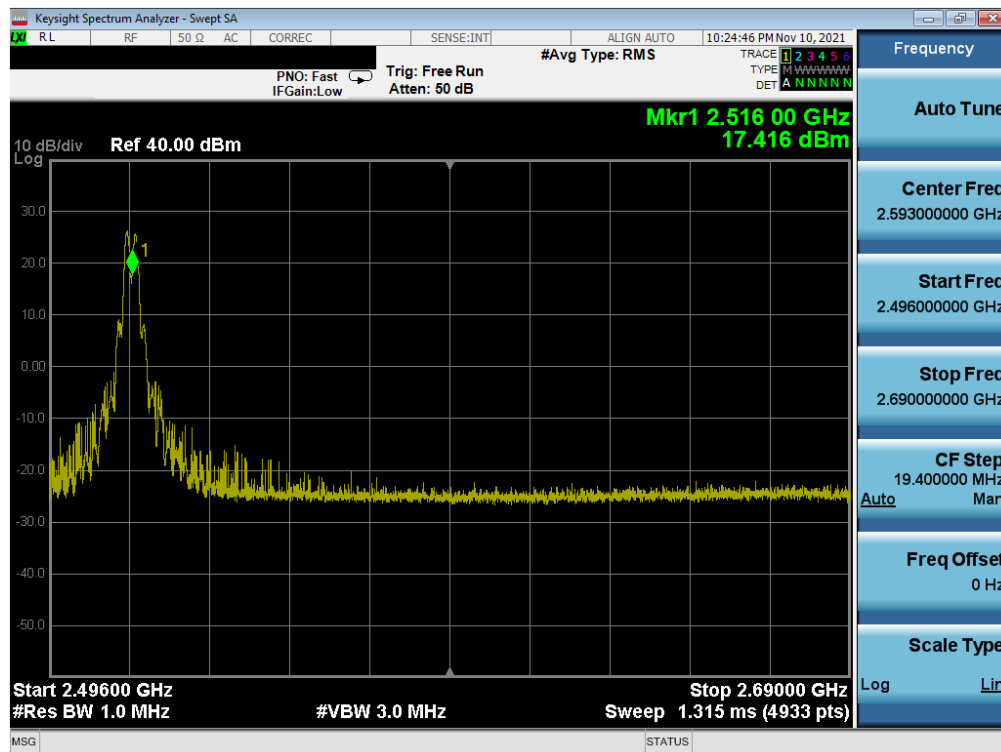
Plot 7-190. Conducted Spurious Plot (ULCA LTE B41(PC2) - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 120 of 231

ULCA - LTE B41(PC3)

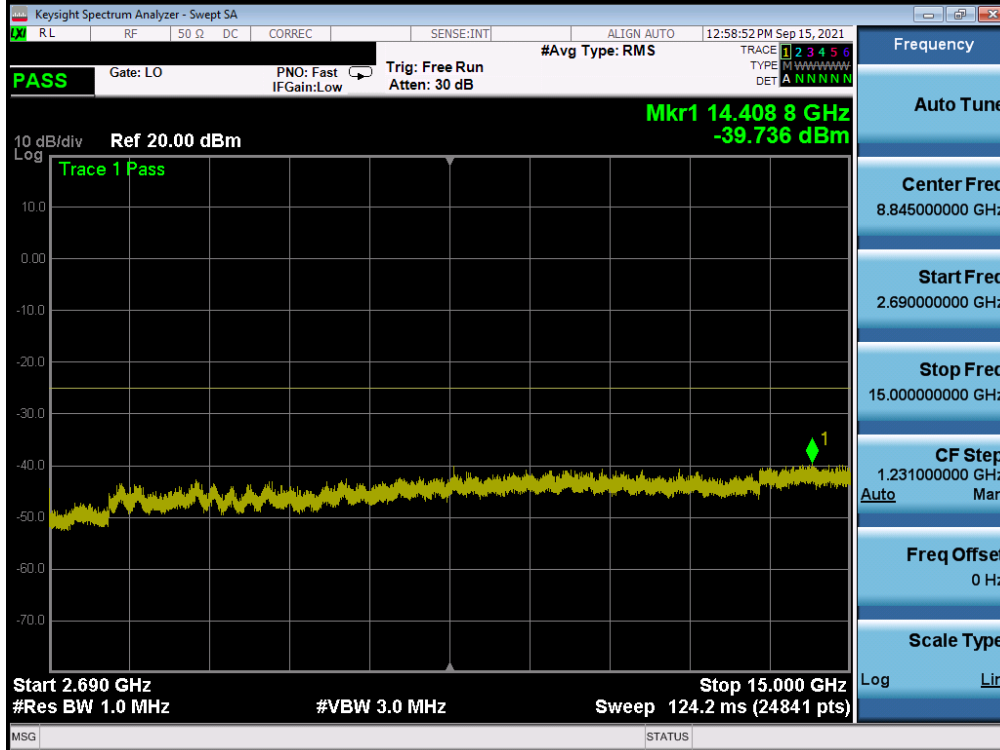


Plot 7-191. Conducted Spurious Plot (ULCA LTE B41(PC3) - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

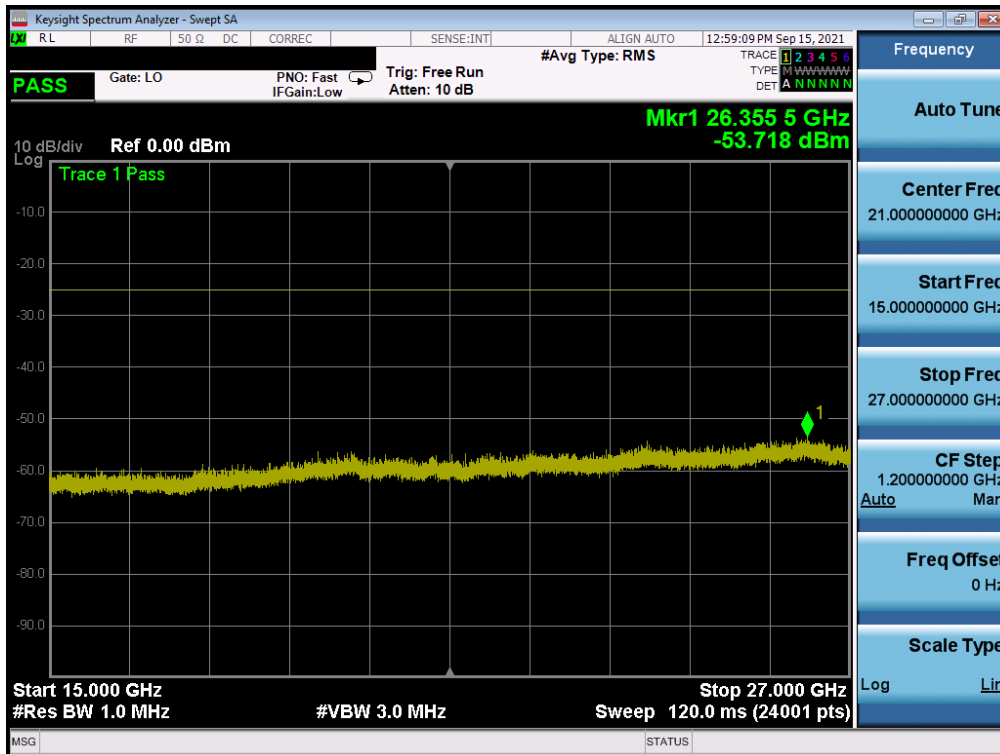


Plot 7-192. Conducted Spurious Plot (ULCA LTE B41(PC3) - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)




FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 121 of 231

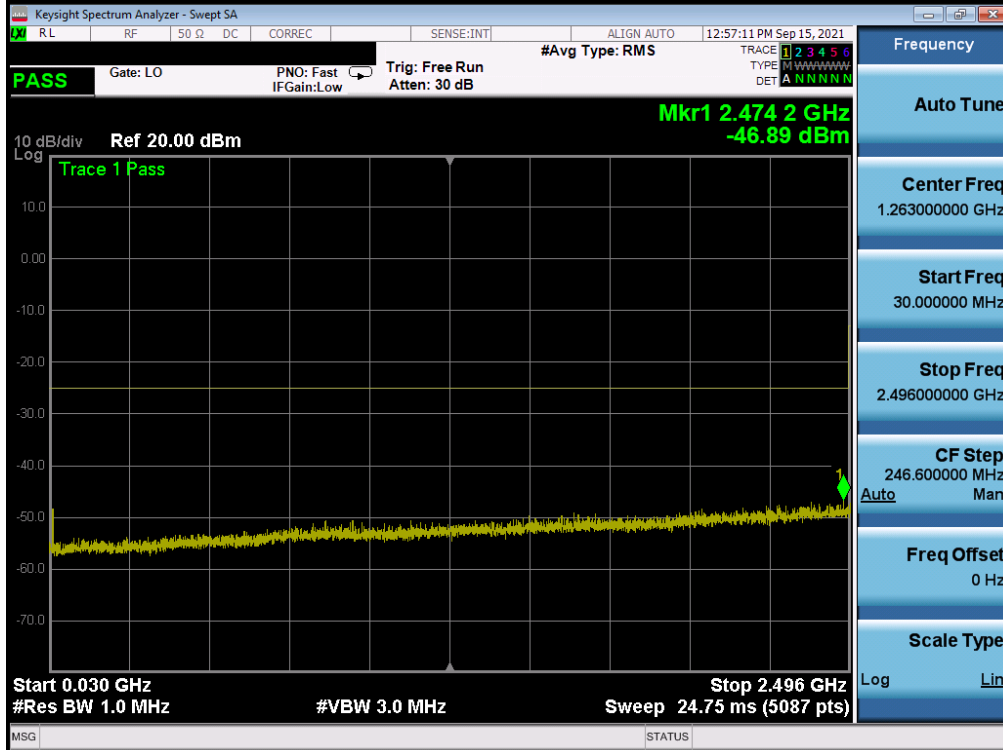


Plot 7-193. Conducted Spurious Plot (ULCA LTE B41(PC3) - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

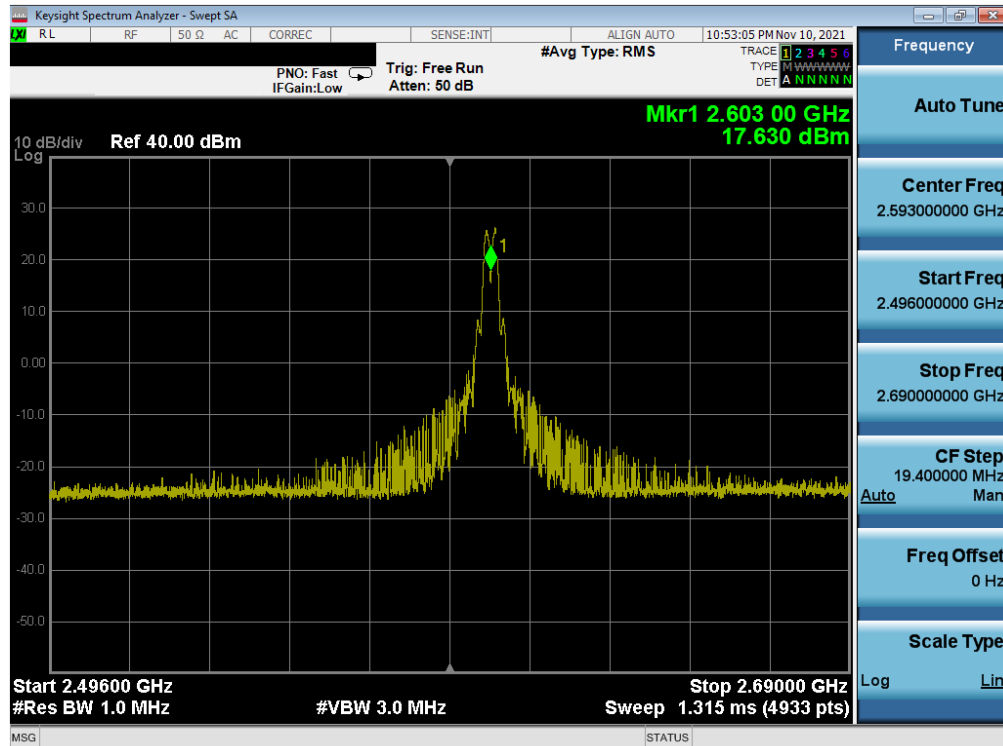


Plot 7-194. Conducted Spurious Plot (ULCA LTE B41(PC3) - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 122 of 231

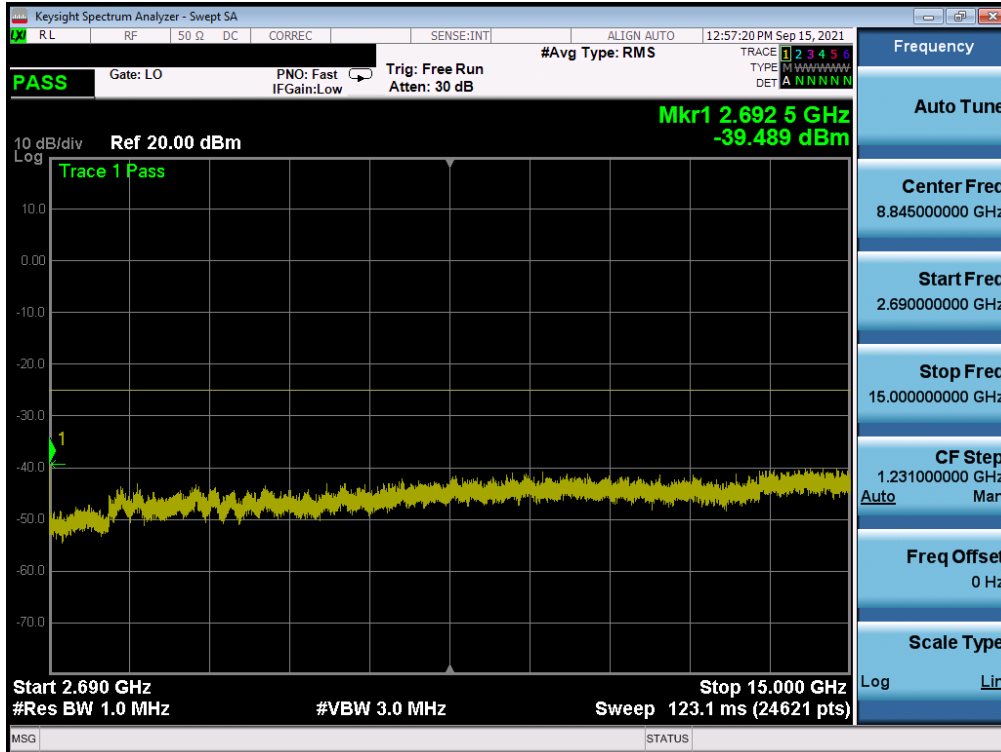


Plot 7-195. Conducted Spurious Plot (ULCA LTE B41(PC3) - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

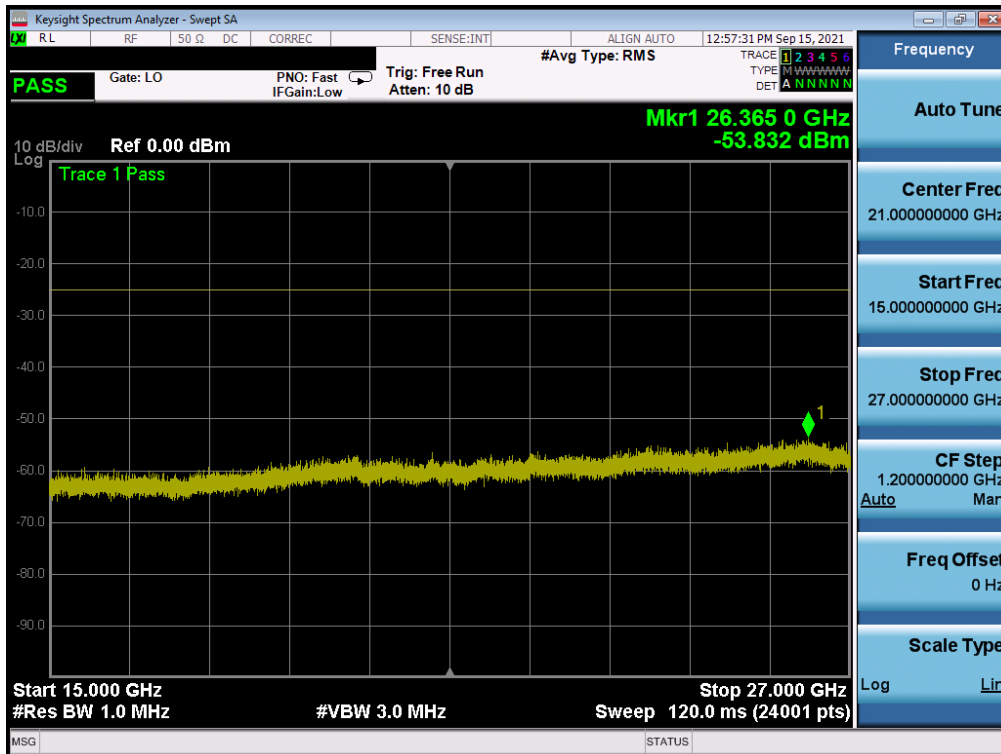


Plot 7-196. Conducted Spurious Plot (ULCA LTE B41(PC3) - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)




FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 123 of 231

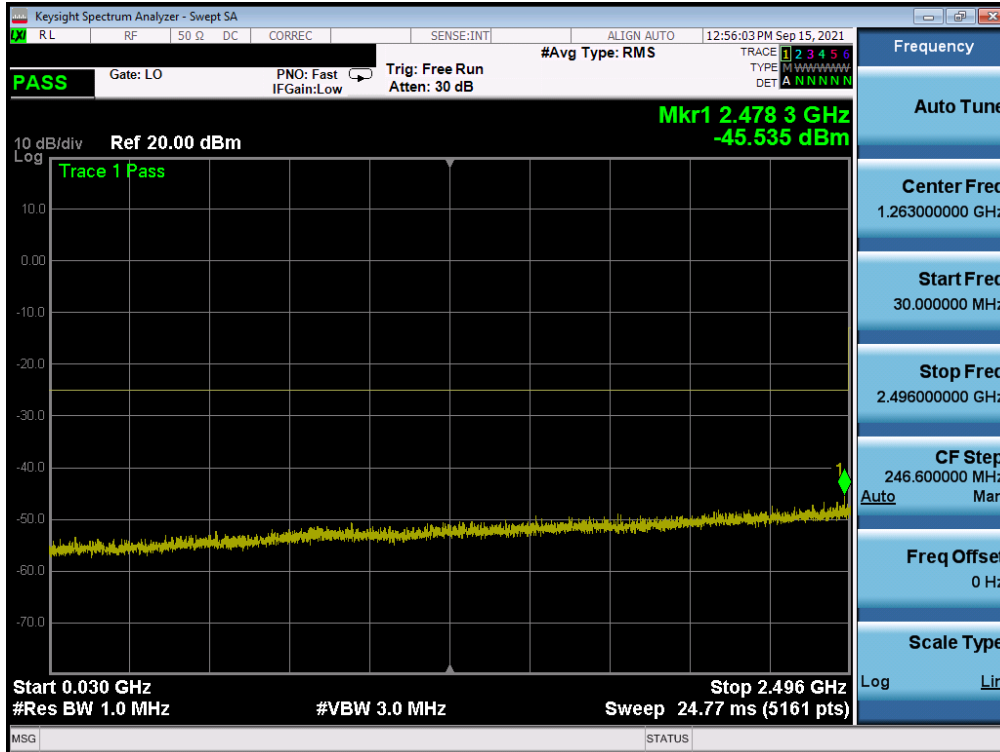


Plot 7-197. Conducted Spurious Plot (ULCA LTE B41(PC3) - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

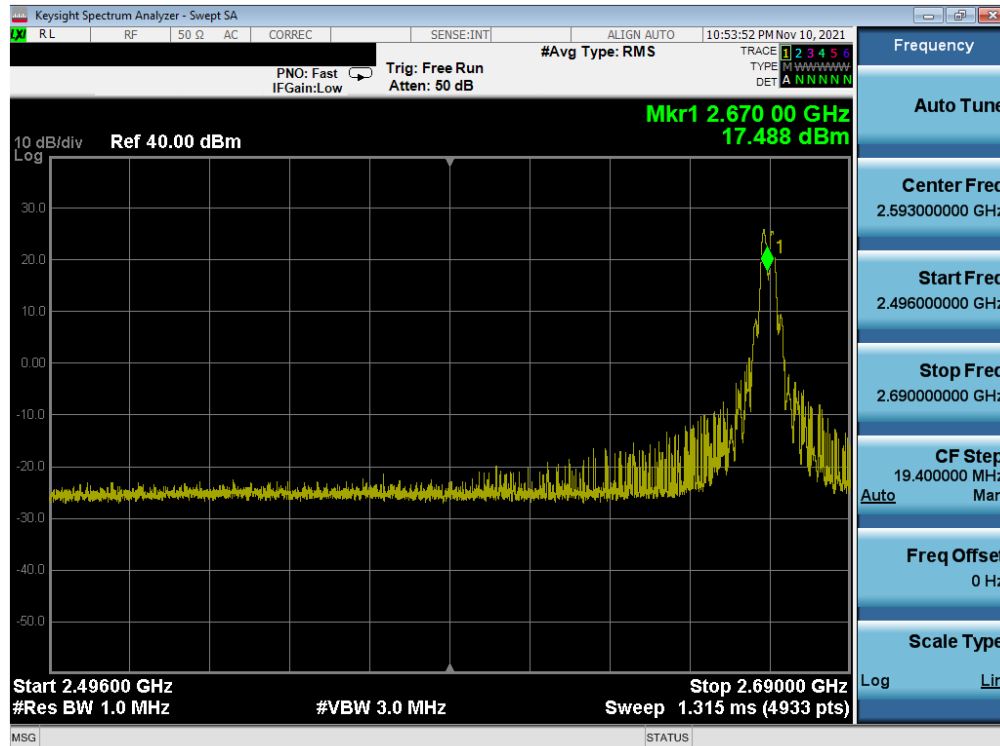


Plot 7-198. Conducted Spurious Plot (ULCA LTE B41(PC3) - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)




FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 124 of 231

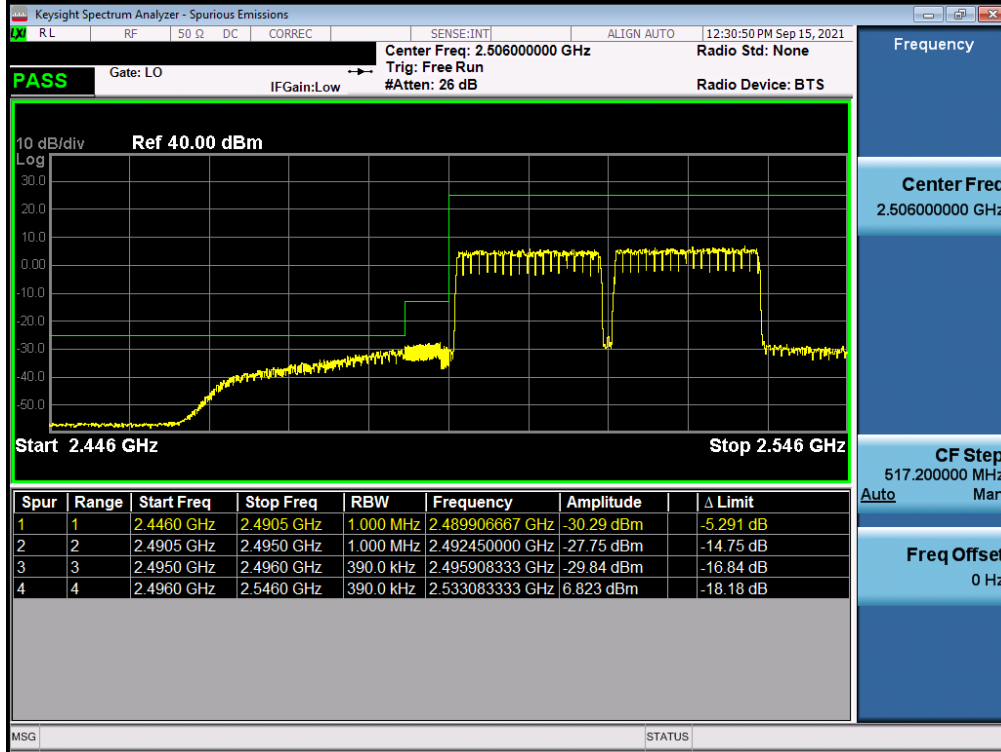


Plot 7-199. Conducted Spurious Plot (ULCA LTE B41(PC3) - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

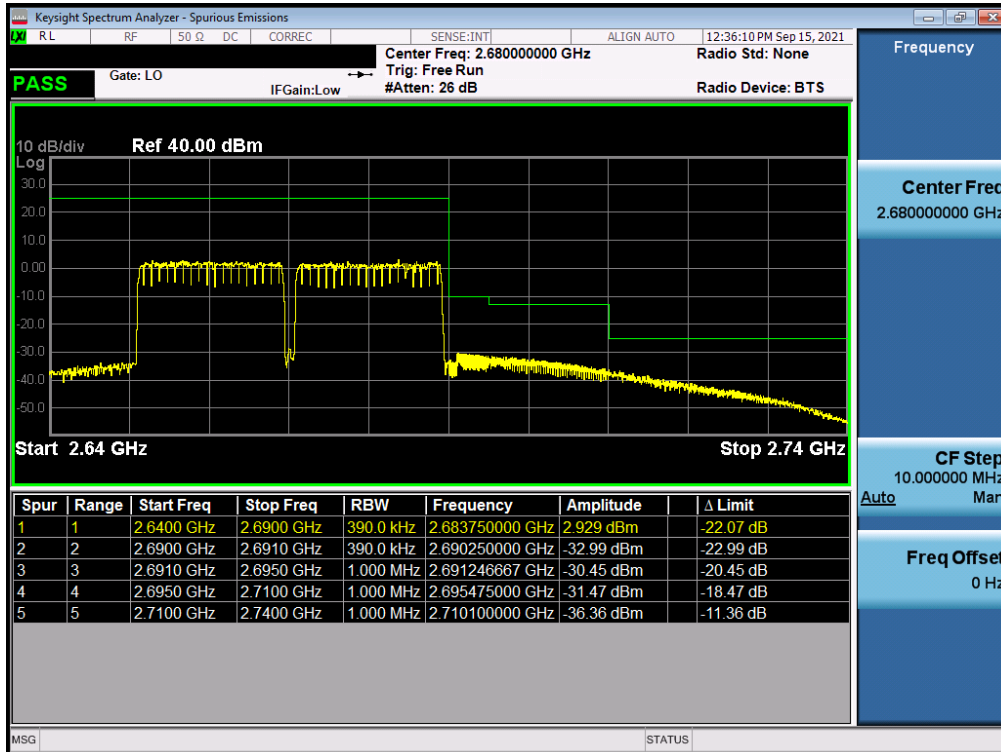


Plot 7-200. Conducted Spurious Plot (ULCA LTE B41(PC3) - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 125 of 231

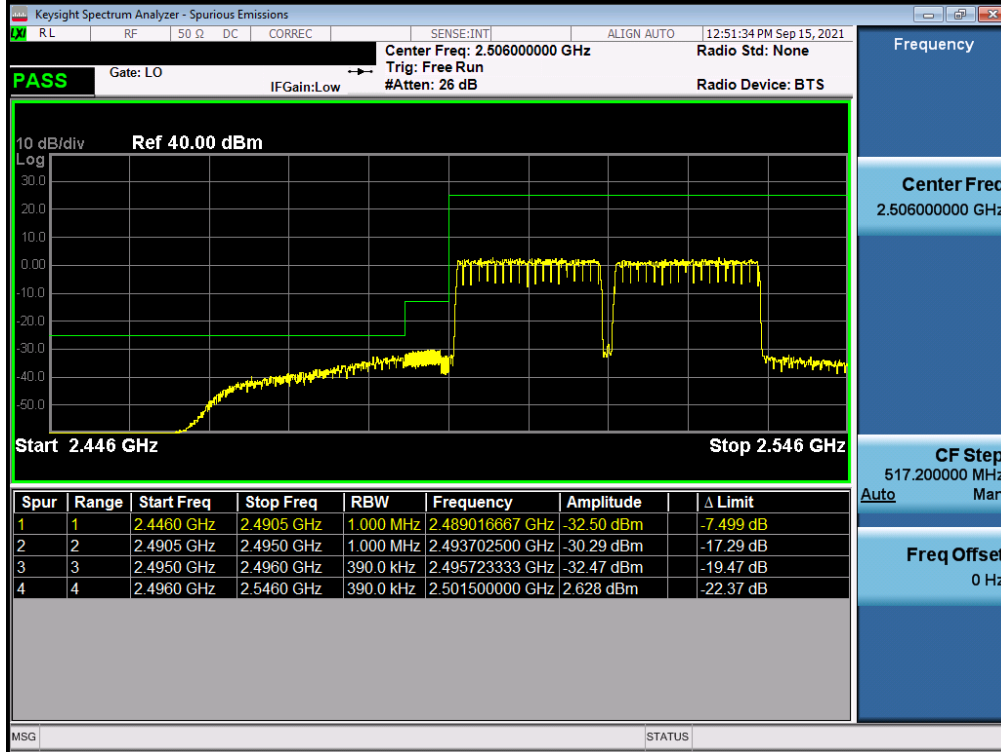


Plot 7-203. Lower ACP Plot (ULCA LTE B41(PC2) - 20MHz QPSK - Full RB)

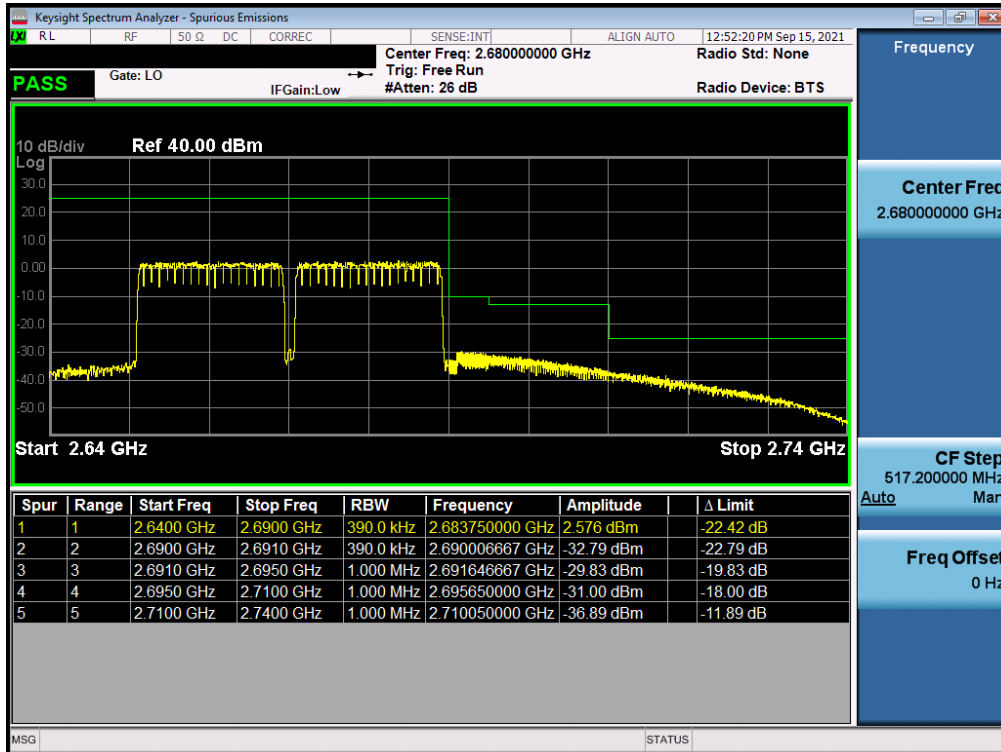


Plot 7-204. Upper ACP Plot (ULCA LTE B41(PC2) - 20MHz QPSK - Full RB)

FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 127 of 231



Plot 7-205. Lower ACP Plot (ULCA LTE B41(PC3) - 20MHz QPSK - Full RB)



Plot 7-206. Upper ACP Plot (ULCA LTE B41(PC3) - 20MHz QPSK - Full RB)

FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 128 of 231

7.6 Band Edge Emissions at Antenna Terminal

Test Overview

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

The 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 and 41 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 x RBW
5. Detector = RMS
6. Number of sweep points \geq 2 x Span/RBW
7. Trace mode = trace average for continuous emissions, max hold for pulse emissions
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Setup

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

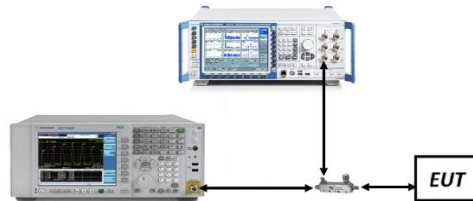






Figure 7-5. Test Instrument & Measurement Setup

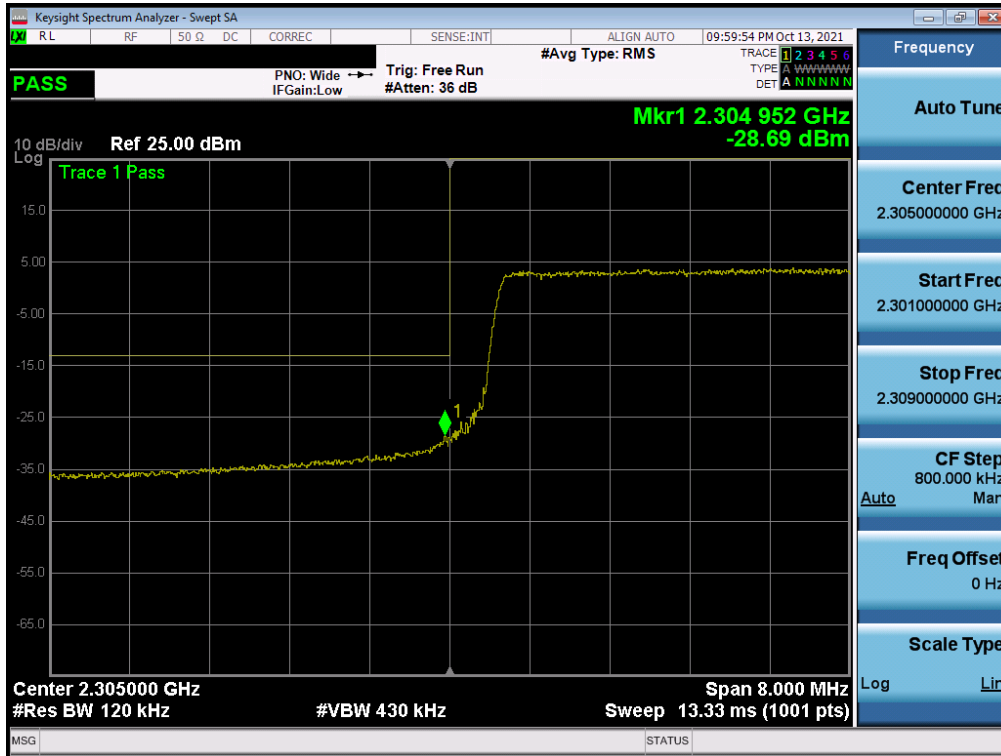
FCC ID: A3LSMS908U	 PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 129 of 231

Test Notes

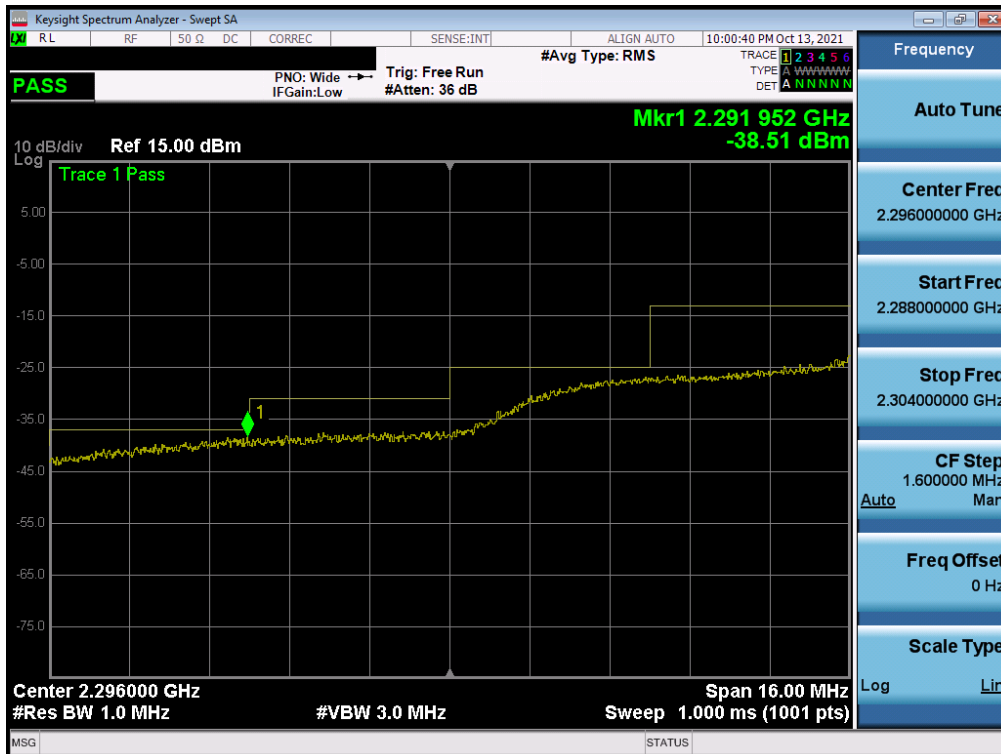
1. Per 27.53(a)(5) in the 1 MHz bands immediately outside and adjacent to the channel blocks at 2305, 2310, 2315, 2320, 2345, 2350, 2355, and 2360 MHz, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution 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.
2. 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 than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz.
3. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

FCC ID: A3LSMS908U	 PART 27 MEASUREMENT REPORT 		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset	Page 130 of 231

LTE Band 30



Plot 7-207. Lower Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB)

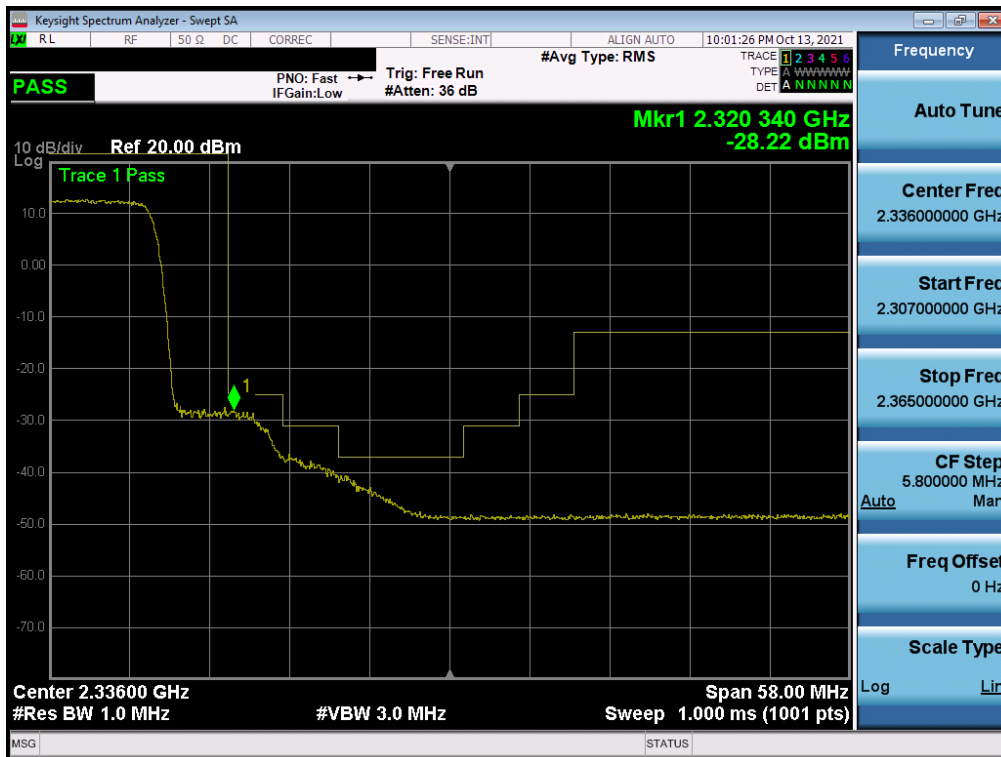


Plot 7-208. Extended Lower Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB)

FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 131 of 231

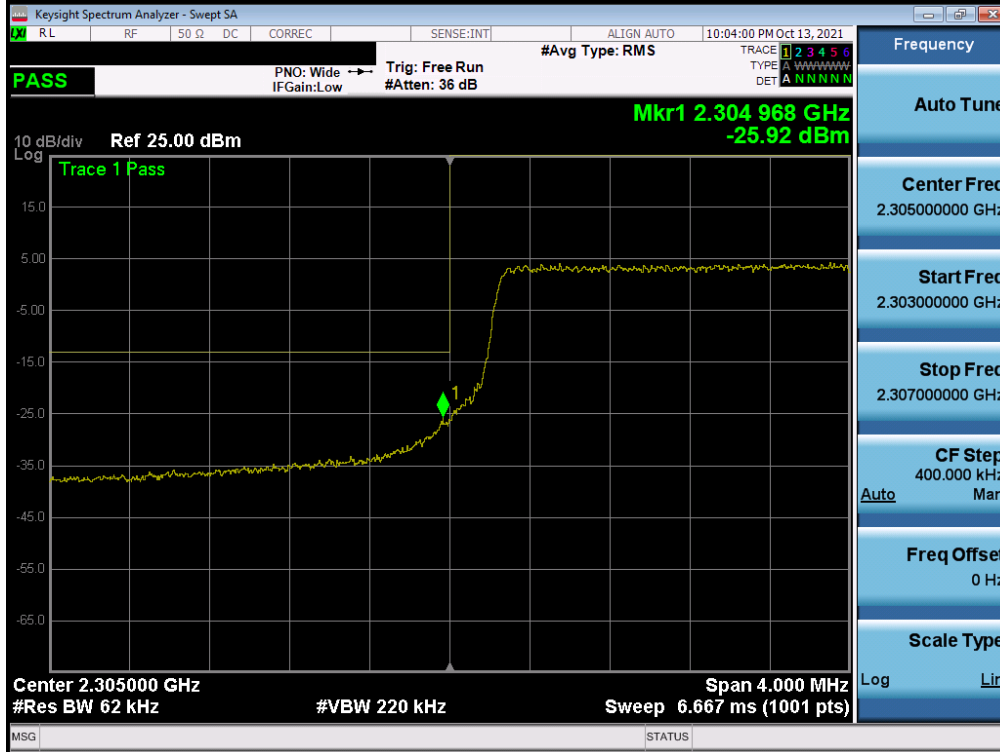


Plot 7-209. Upper Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB)

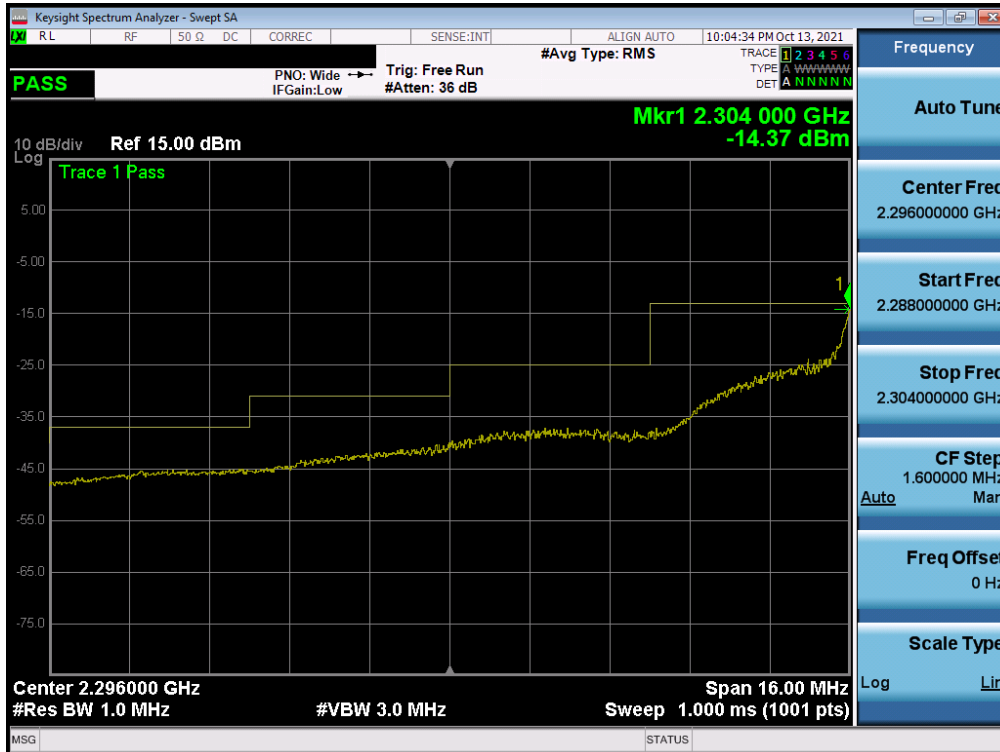


Plot 7-210. Extended Upper Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB)




FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 132 of 231



Plot 7-211. Lower Band Edge Plot (LTE Band 30 - 5MHz QPSK - Full RB)

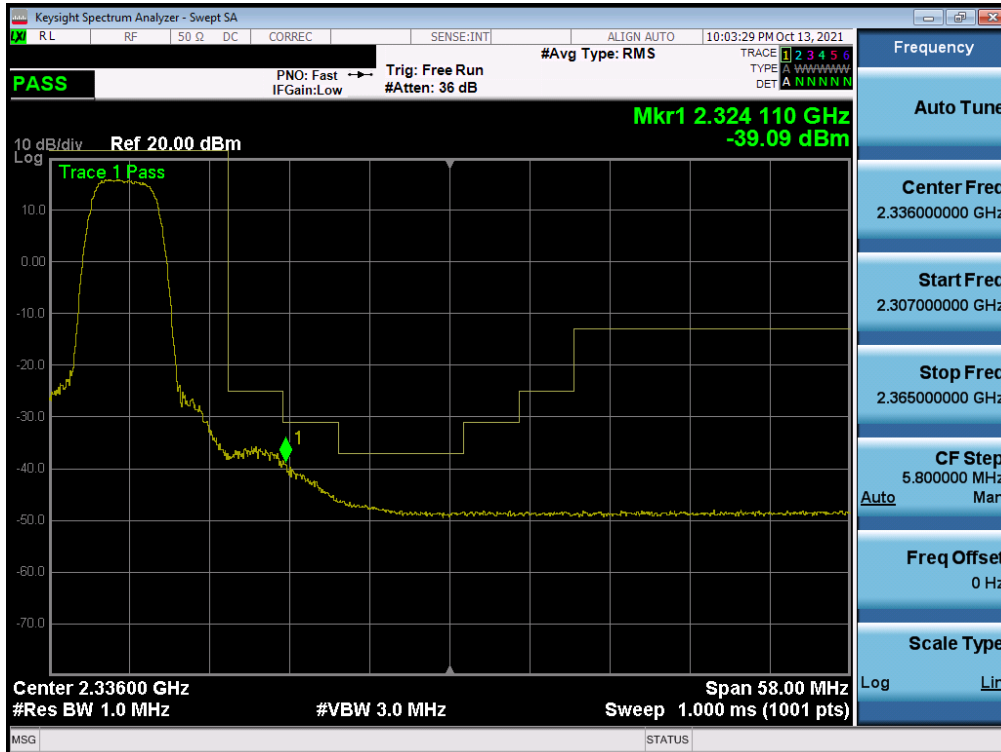


Plot 7-212. Extended Lower Band Edge Plot (LTE Band 30 - 5MHz QPSK - Full RB)

FCC ID: A3LSMS908U	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 133 of 231



Plot 7-213. Upper Band Edge Plot (LTE Band 30 - 5MHz QPSK – Full RB)



Plot 7-214. Extended Upper Band Edge Plot (LTE Band 30 - 5MHz QPSK – Full RB)

FCC ID: A3LSMS908U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090102-05-R1.A3L	Test Dates: 9/14 - 11/12/2021	EUT Type: Portable Handset		Page 134 of 231