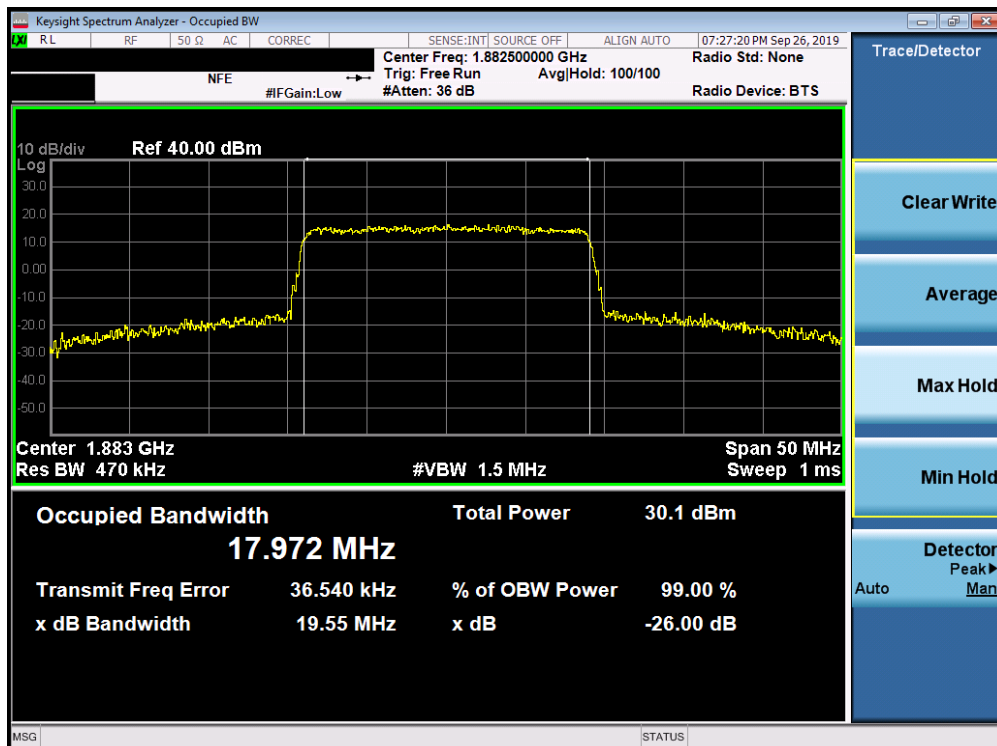


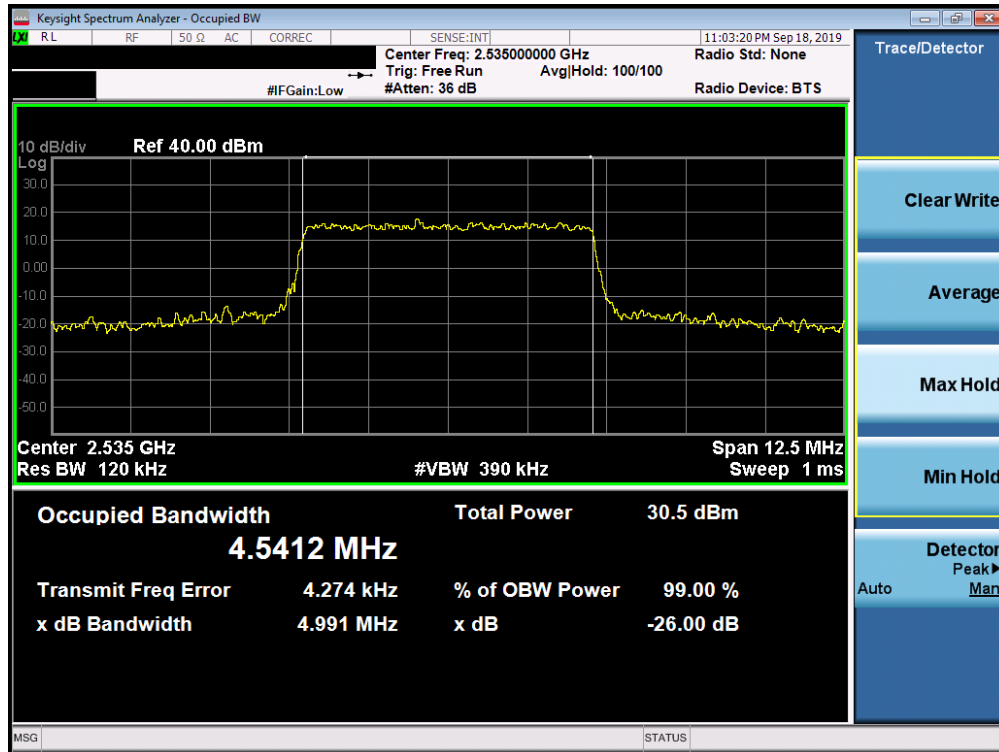
Plot 7-80. Occupied Bandwidth Plot (Band 25/2 - 20.0MHz 16-QAM - Full RB Configuration)



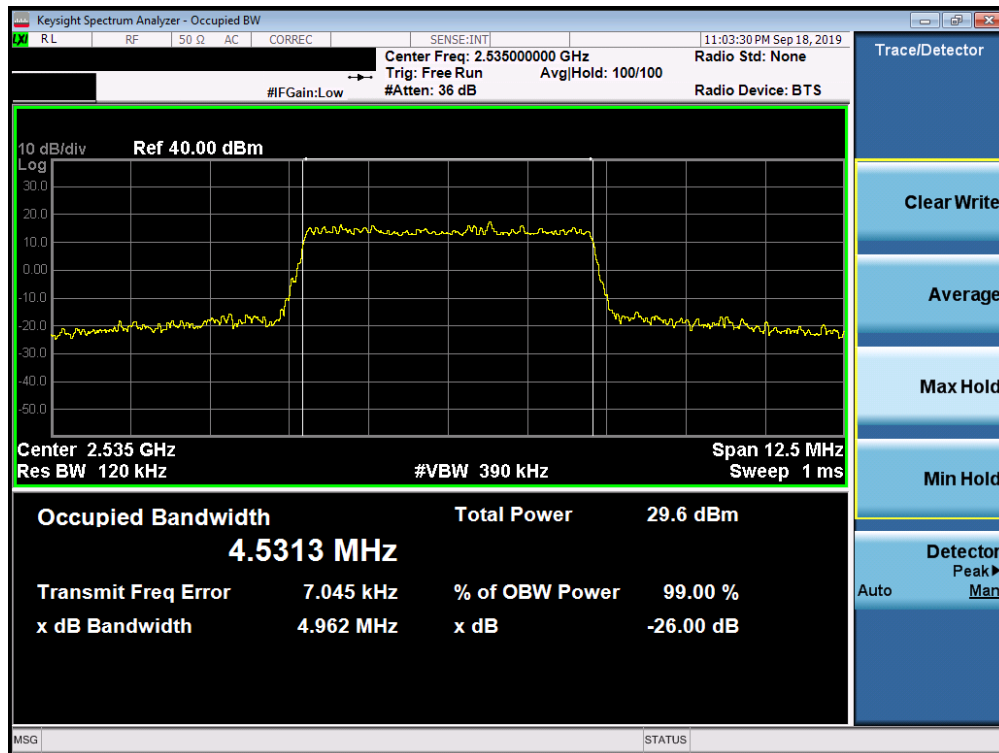
Plot 7-81. Occupied Bandwidth Plot (Band 25/2 - 20.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 58 of 244

## Band 7

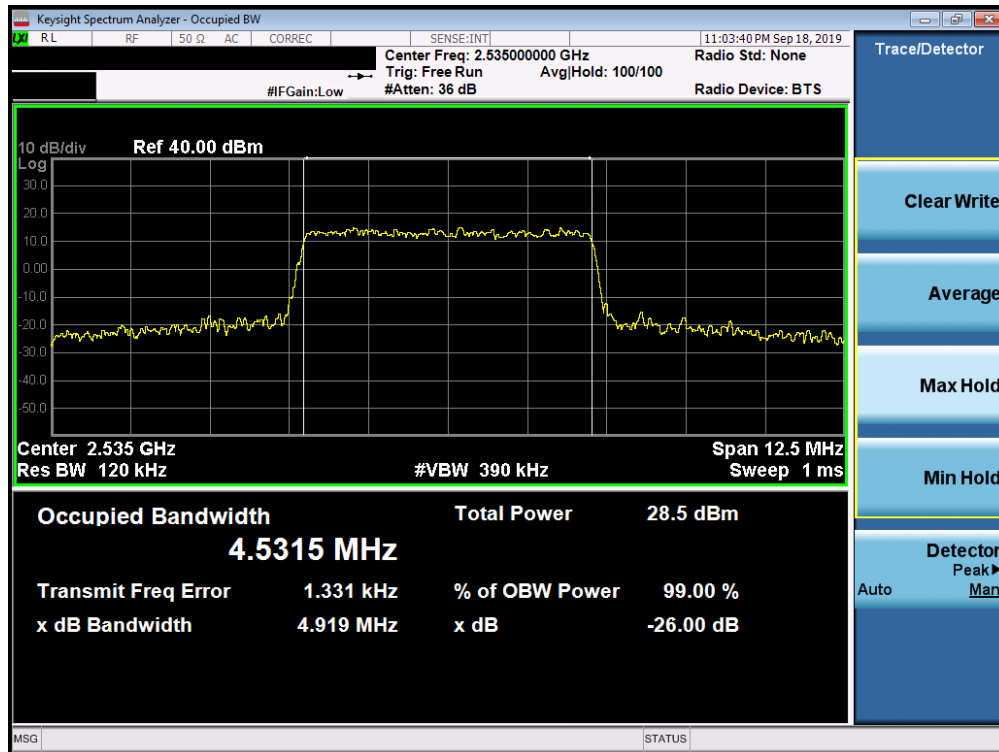


Plot 7-82. Occupied Bandwidth Plot (Band 7 - 5.0MHz QPSK - Full RB Configuration)

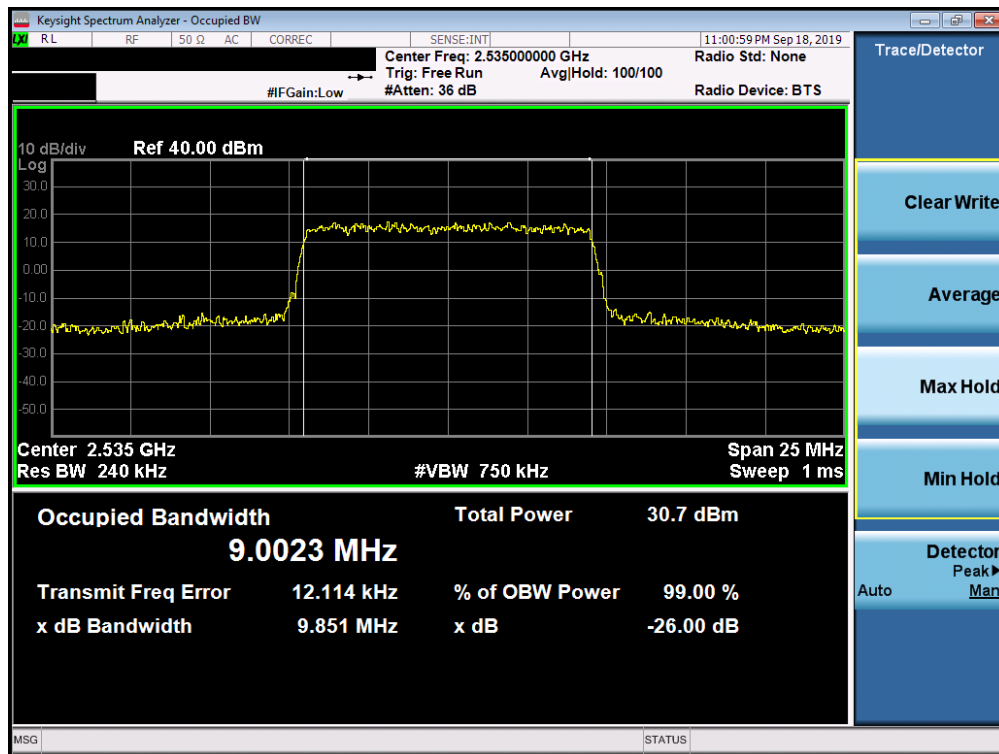


Plot 7-83. Occupied Bandwidth Plot (Band 7 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 59 of 244



Plot 7-84. Occupied Bandwidth Plot (Band 7 - 5.0MHz 64-QAM - Full RB Configuration)

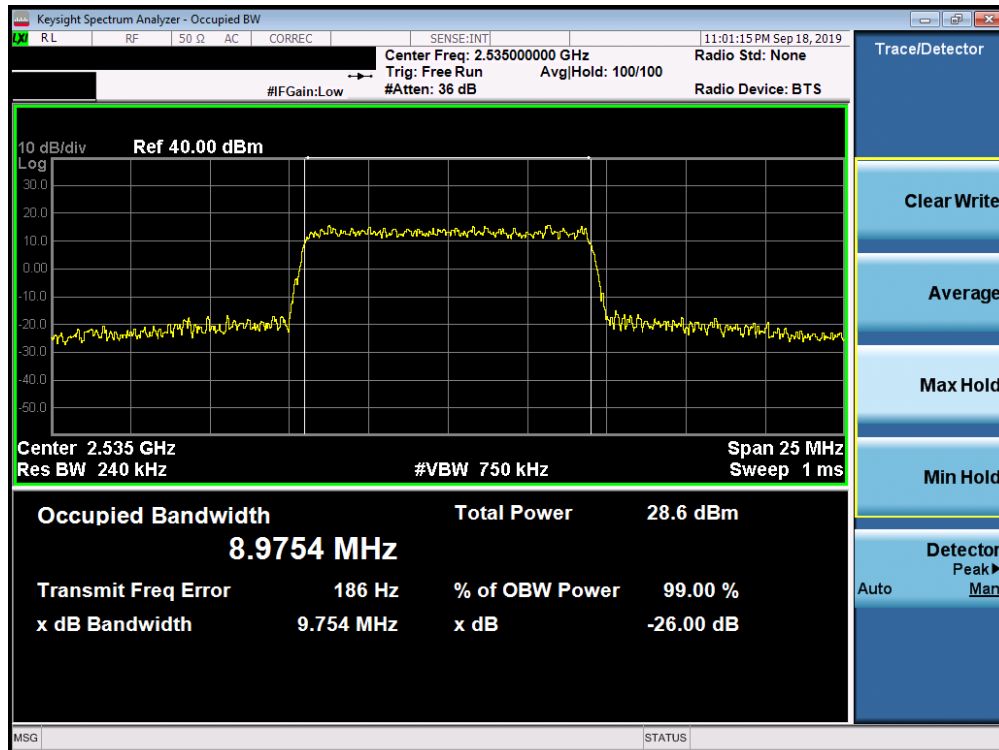


Plot 7-85. Occupied Bandwidth Plot (Band 7 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 60 of 244

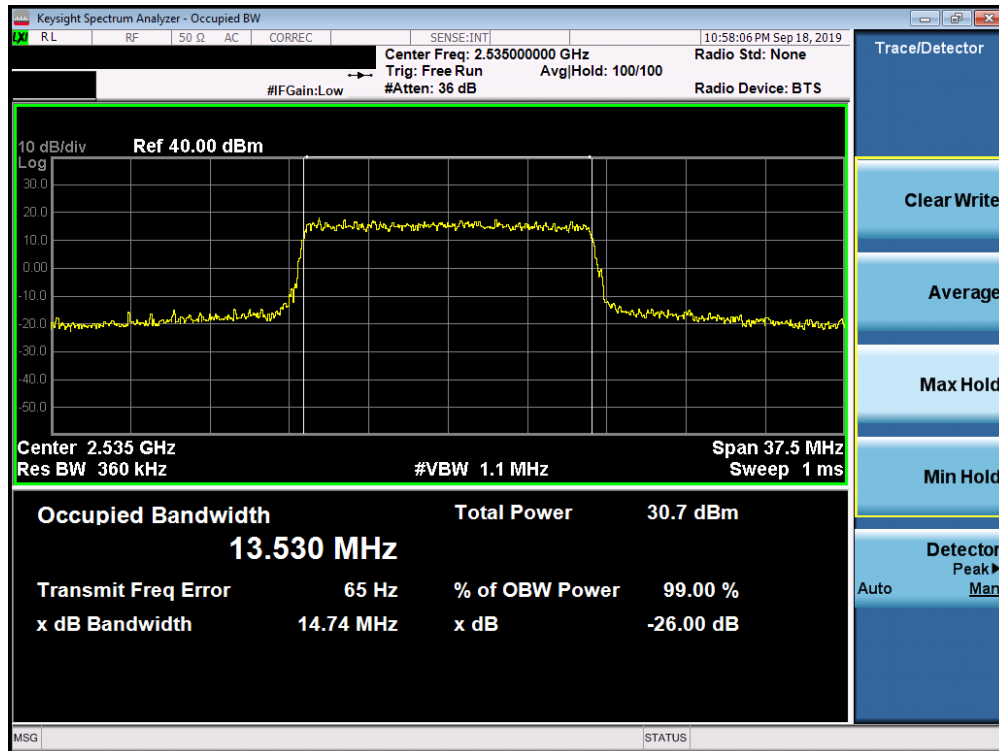


Plot 7-86. Occupied Bandwidth Plot (Band 7 - 10.0MHz 16-QAM - Full RB Configuration)

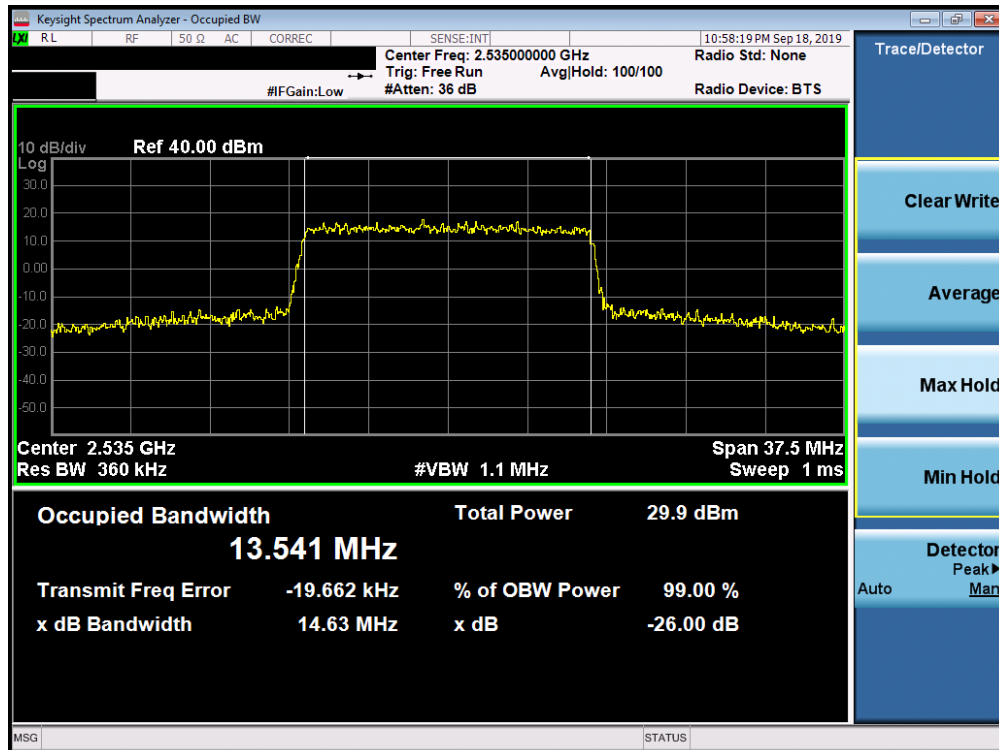


Plot 7-87. Occupied Bandwidth Plot (Band 7 - 10.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 61 of 244

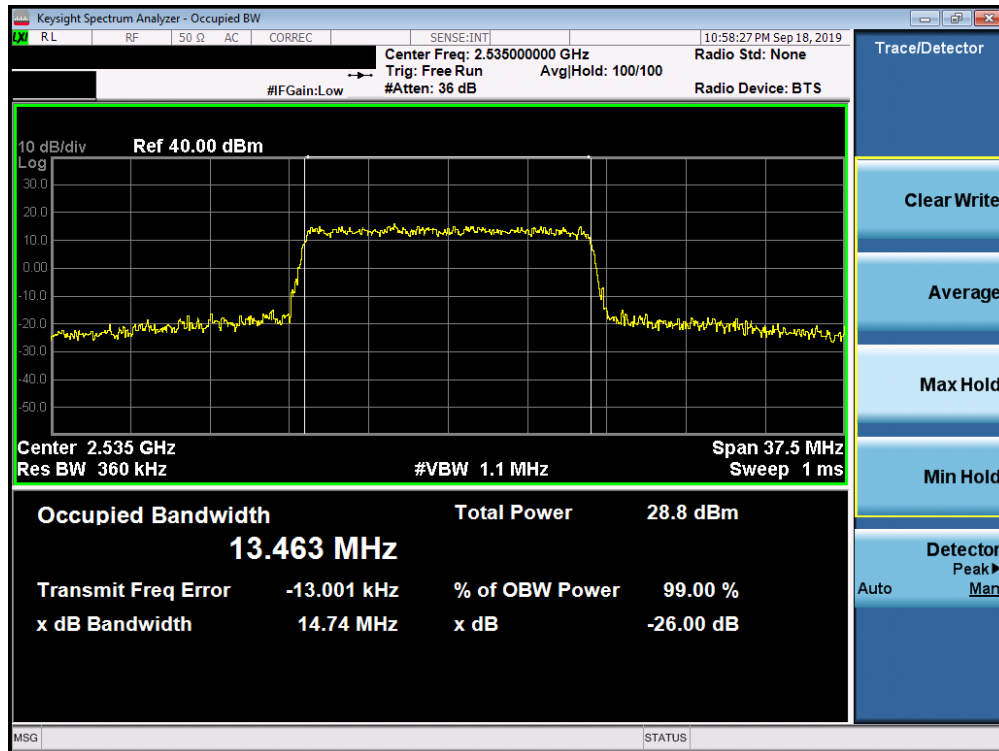


Plot 7-88. Occupied Bandwidth Plot (Band 7 - 15.0MHz QPSK - Full RB Configuration)

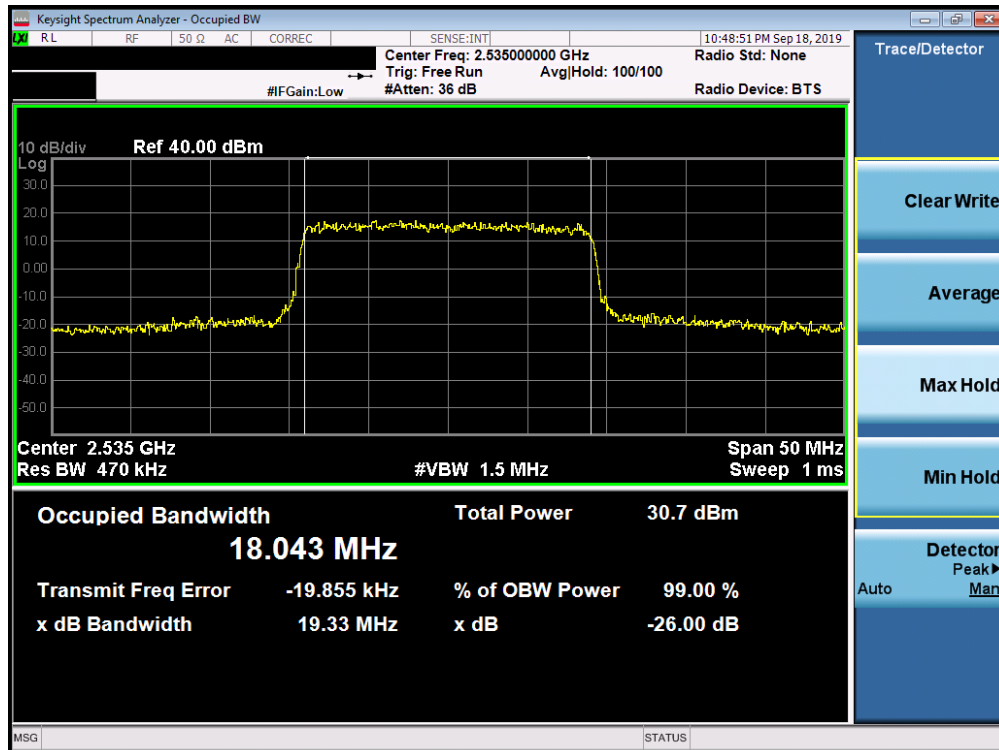


Plot 7-89. Occupied Bandwidth Plot (Band 7 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 62 of 244

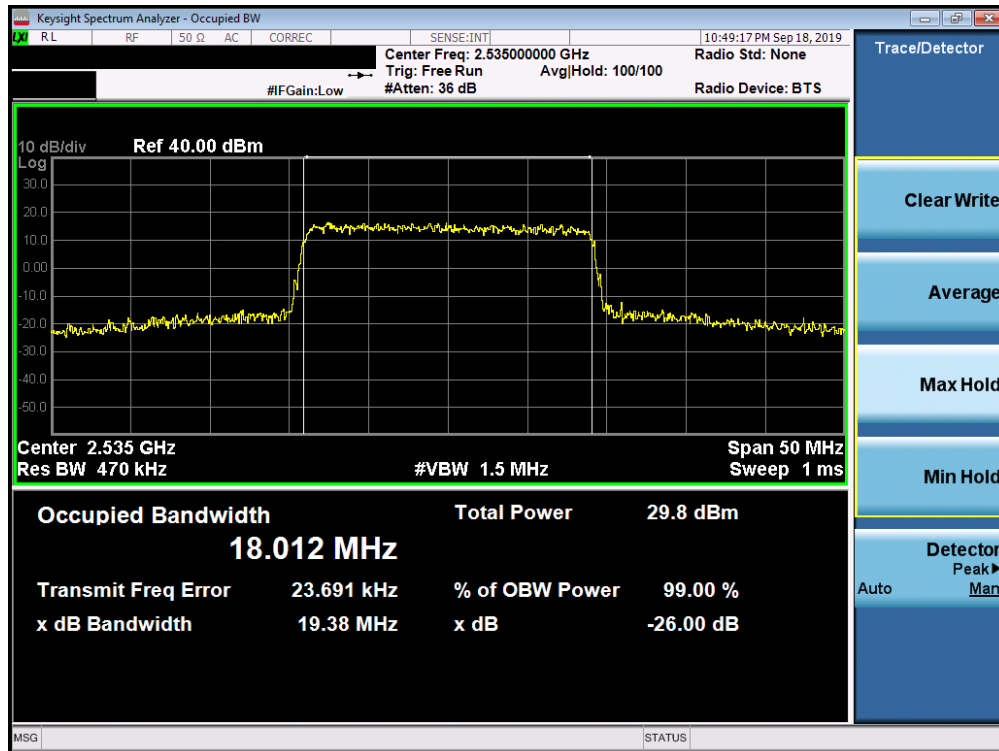


Plot 7-90. Occupied Bandwidth Plot (Band 7 - 15.0MHz 64-QAM - Full RB Configuration)

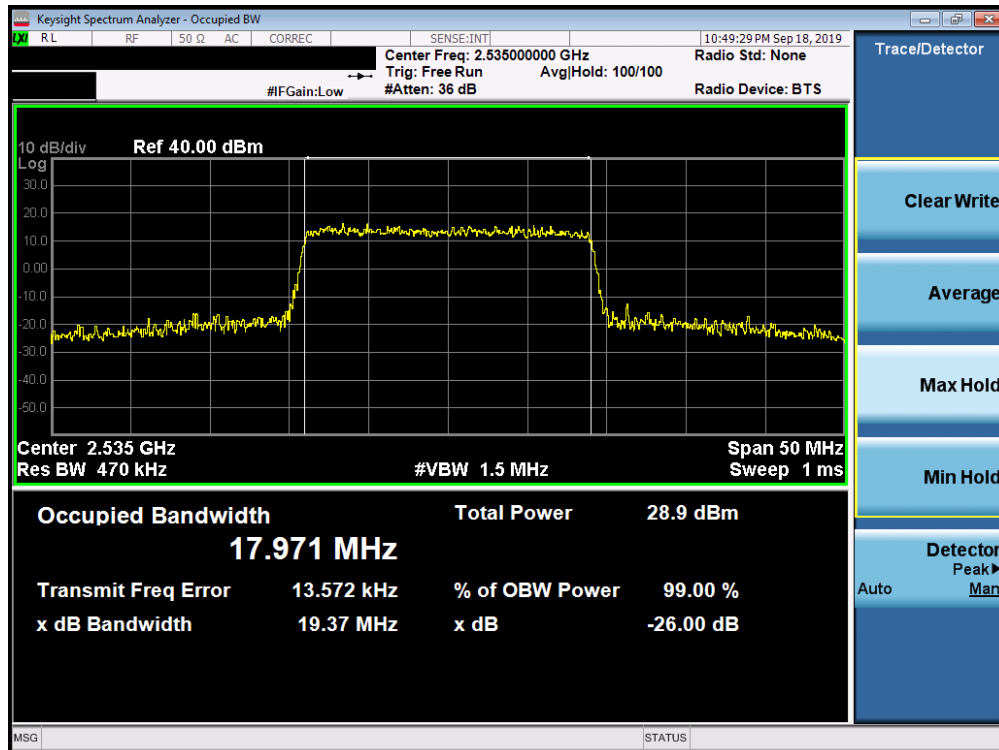


Plot 7-91. Occupied Bandwidth Plot (Band 7 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>MEASUREMENT REPORT</b> (CERTIFICATION)		<b>Approved by:</b> Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset	Page 63 of 244



Plot 7-92. Occupied Bandwidth Plot (Band 7 - 20.0MHz 16-QAM - Full RB Configuration)

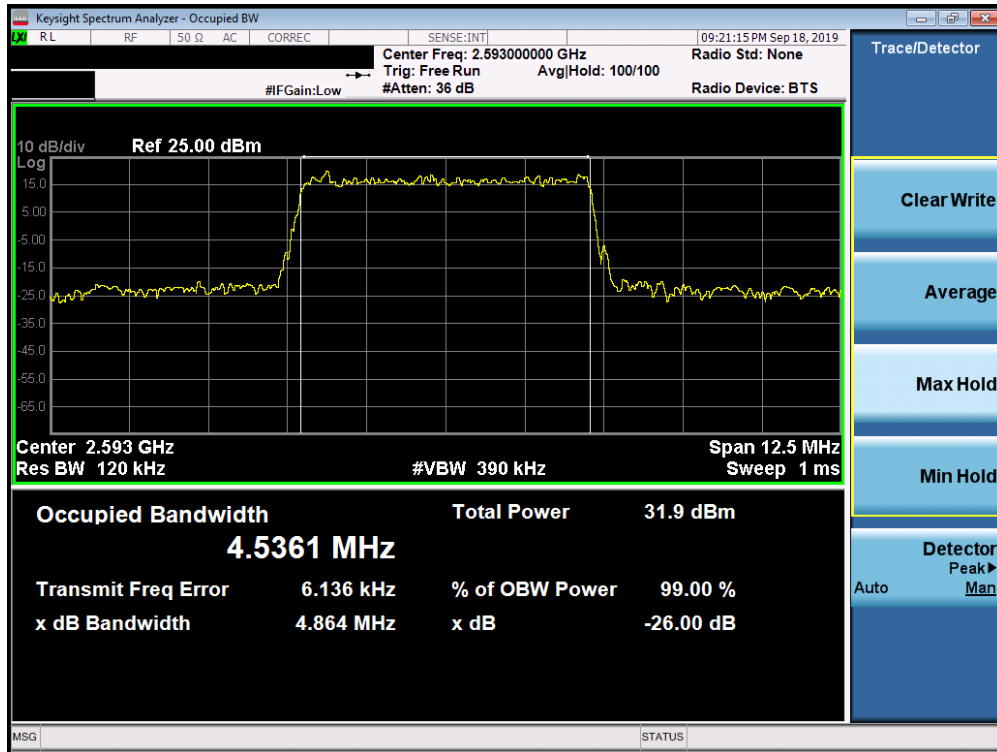


Plot 7-93. Occupied Bandwidth Plot (Band 7 - 20.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 64 of 244



## Band 41



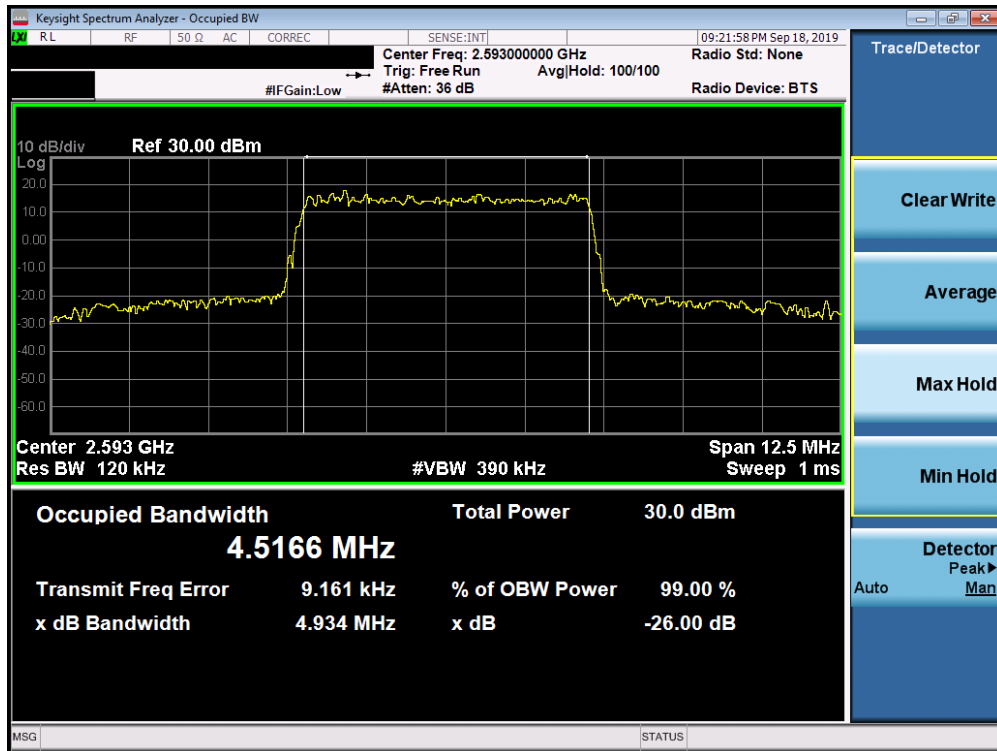
Plot 7-94. Occupied Bandwidth Plot (Band 41 - 5.0MHz QPSK - Full RB Configuration)



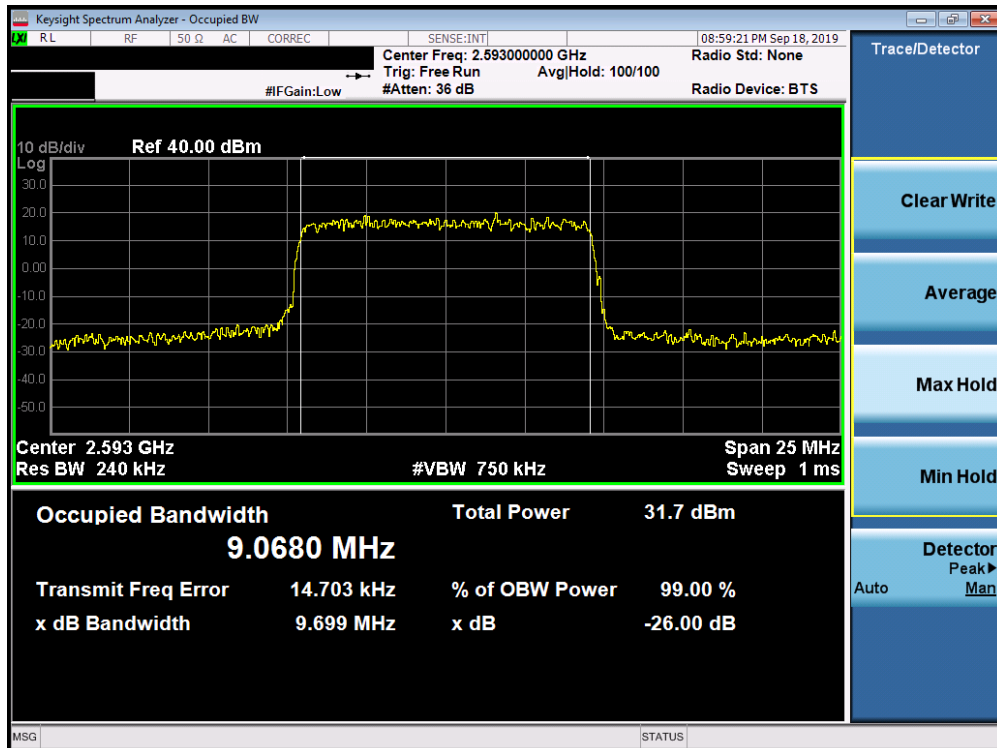
Plot 7-95. Occupied Bandwidth Plot (Band 41 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 65 of 244



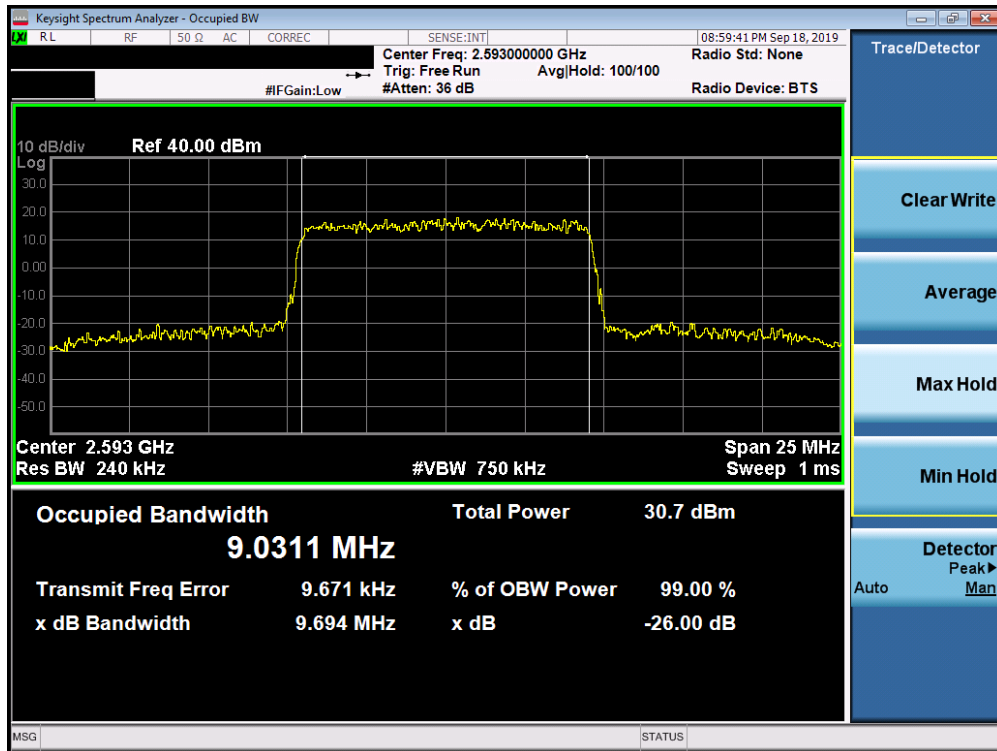


Plot 7-96. Occupied Bandwidth Plot (Band 41 - 5.0MHz 64-QAM - Full RB Configuration)

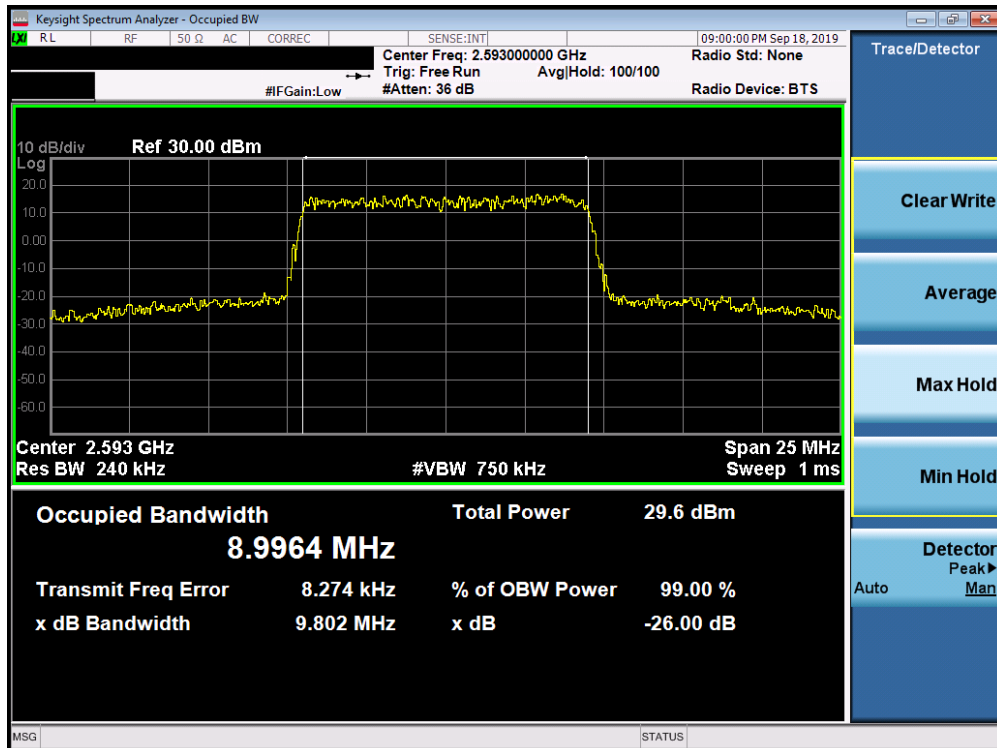


Plot 7-97. Occupied Bandwidth Plot (Band 41 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 66 of 244

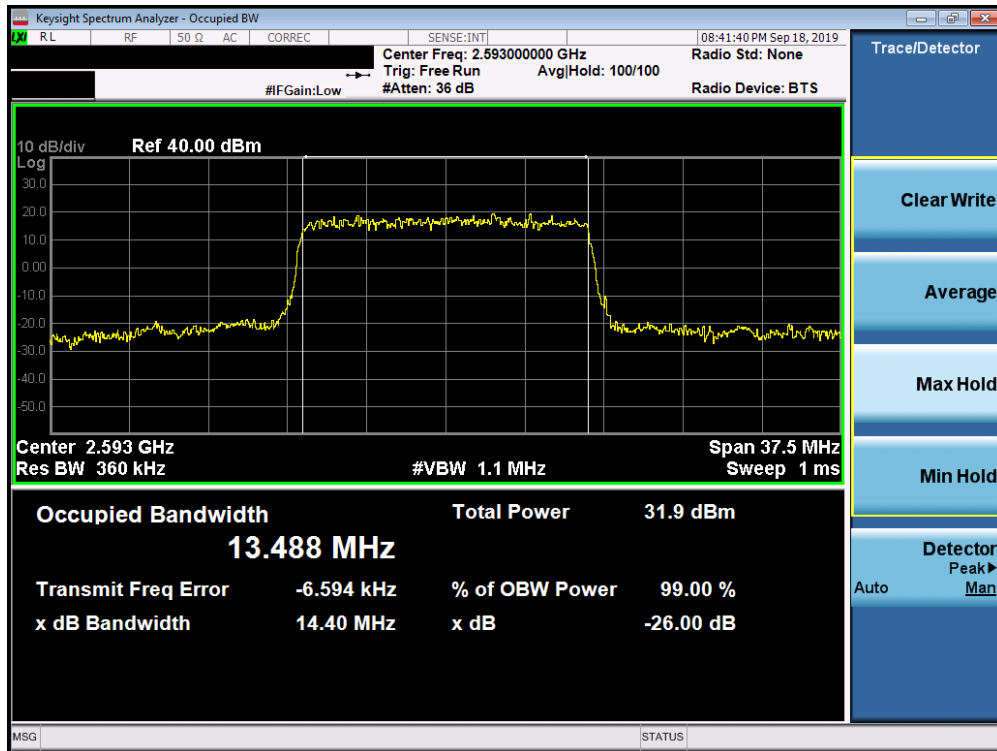


Plot 7-98. Occupied Bandwidth Plot (Band 41 - 10.0MHz 16-QAM - Full RB Configuration)

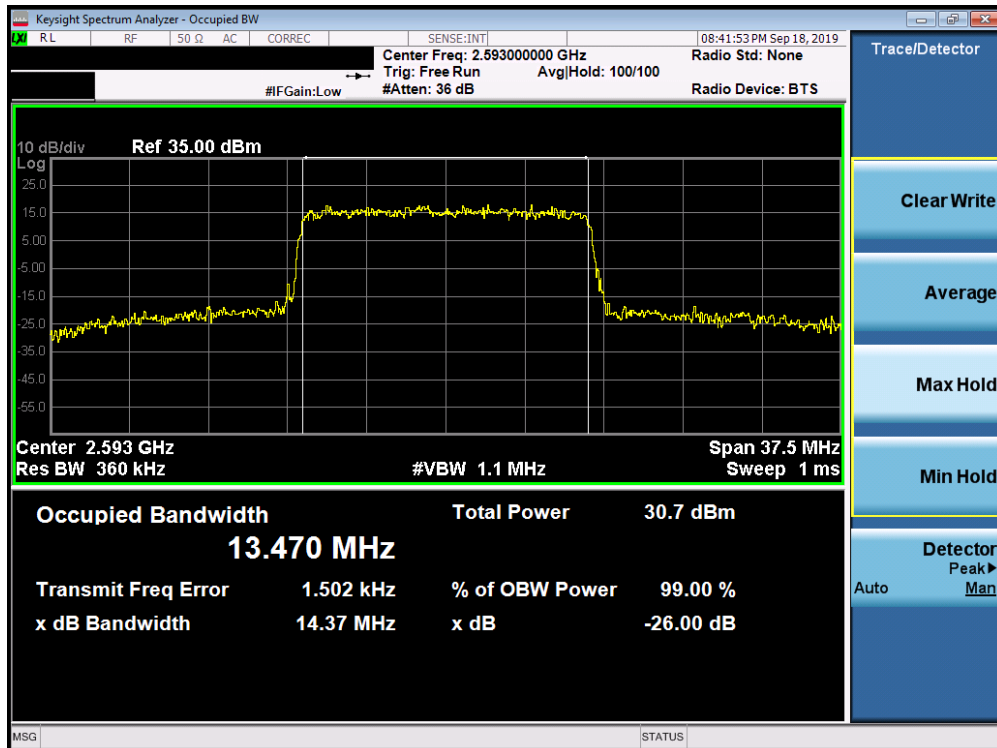


Plot 7-99. Occupied Bandwidth Plot (Band 41 - 10.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 67 of 244

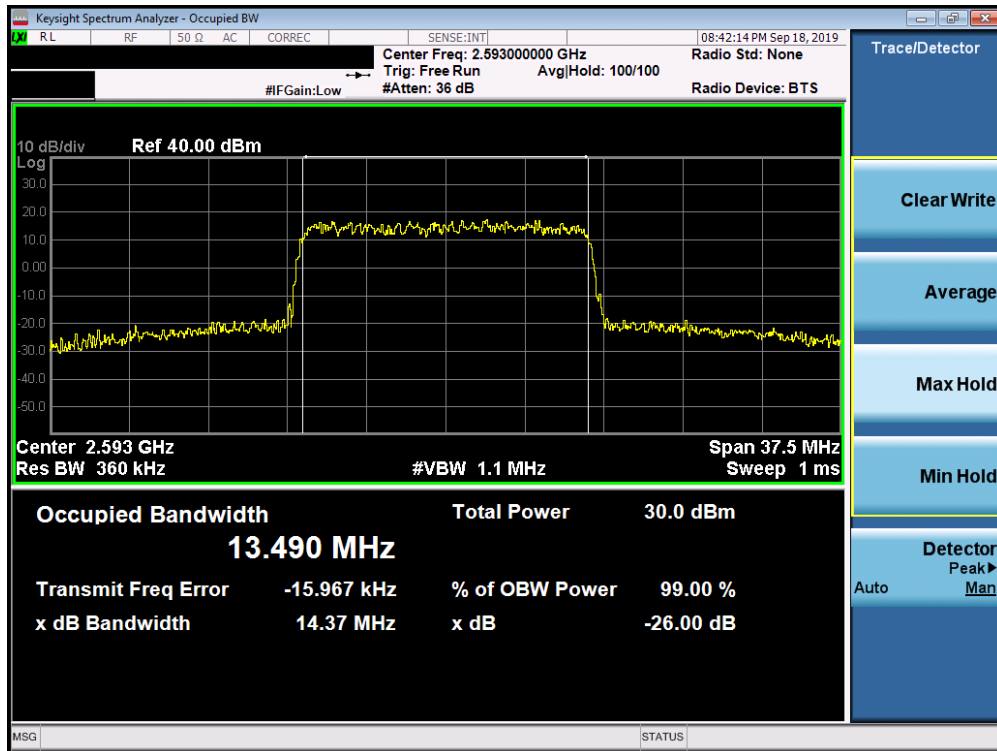


Plot 7-100. Occupied Bandwidth Plot (Band 41 - 15.0MHz QPSK - Full RB Configuration)

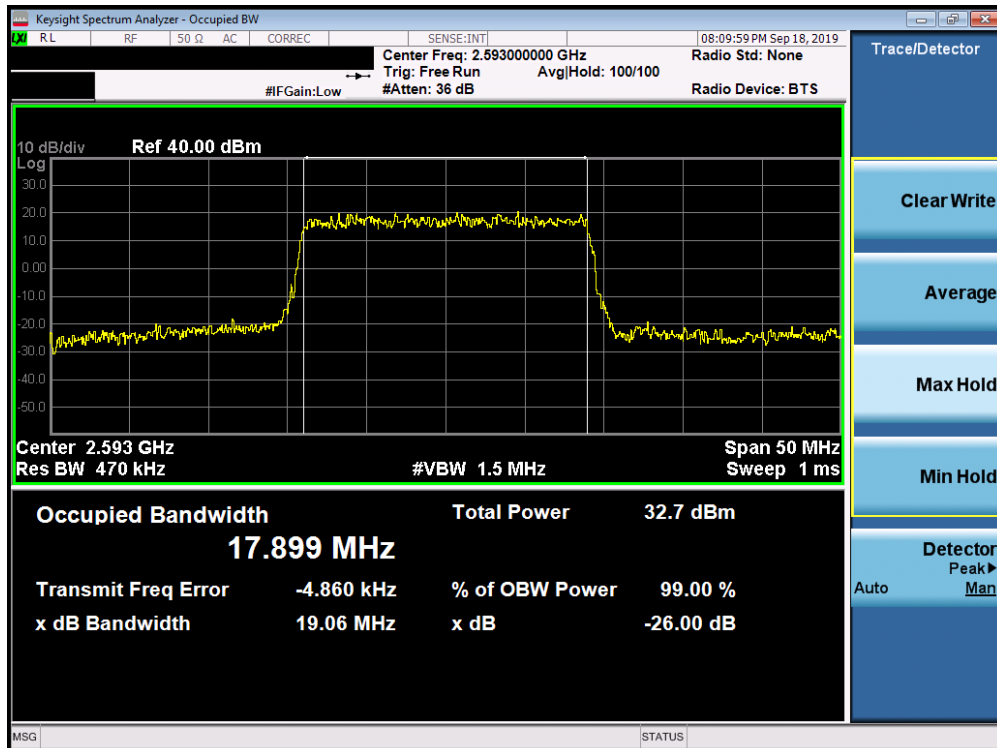


Plot 7-101. Occupied Bandwidth Plot (Band 41 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 68 of 244

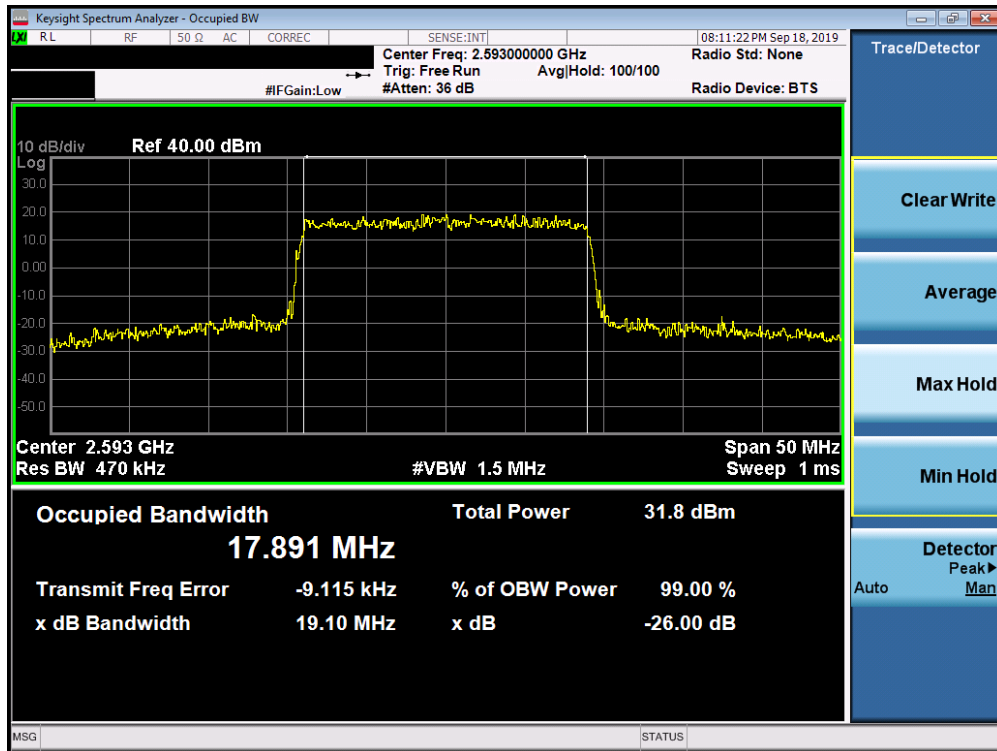


Plot 7-102. Occupied Bandwidth Plot (Band 41 - 15.0MHz 64-QAM - Full RB Configuration)

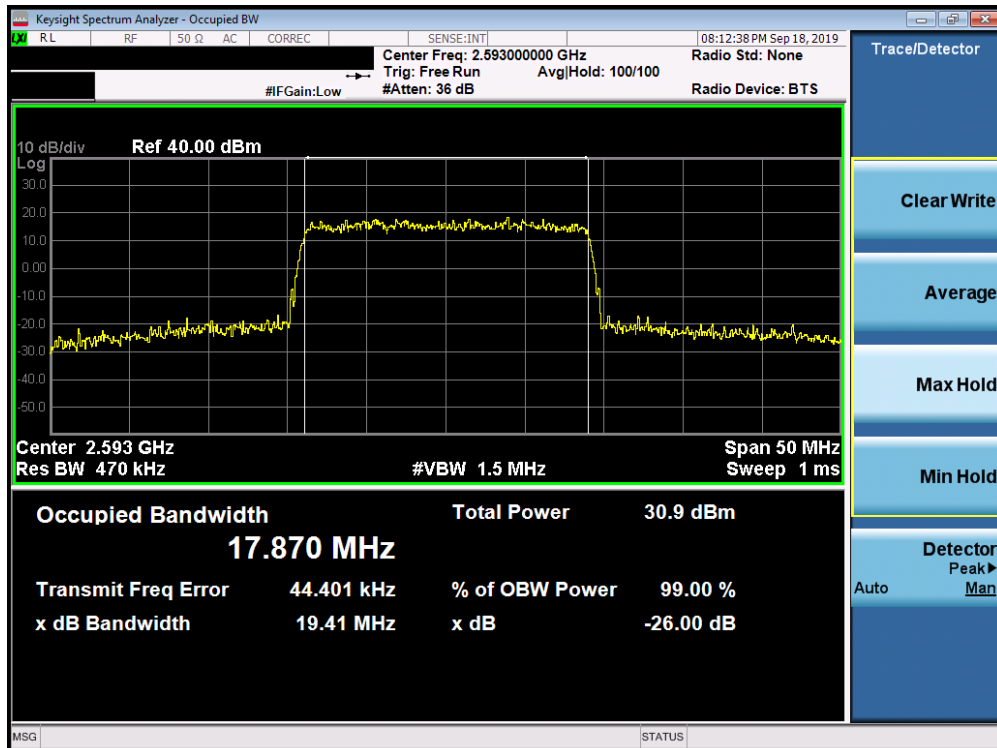


Plot 7-103. Occupied Bandwidth Plot (Band 41 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 69 of 244



Plot 7-104. Occupied Bandwidth Plot (Band 41 - 20.0MHz 16-QAM - Full RB Configuration)



Plot 7-105. Occupied Bandwidth Plot (Band 41 - 20.0MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 70 of 244

## 7.3 Spurious and Harmonic Emissions at Antenna Terminal

### Test Overview

The level of the carrier 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 10<sup>th</sup> 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.

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

### Test Procedure Used

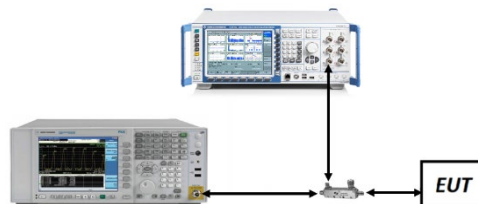
KDB 971168 D01 v03r01 – Section 6.0

### 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
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.



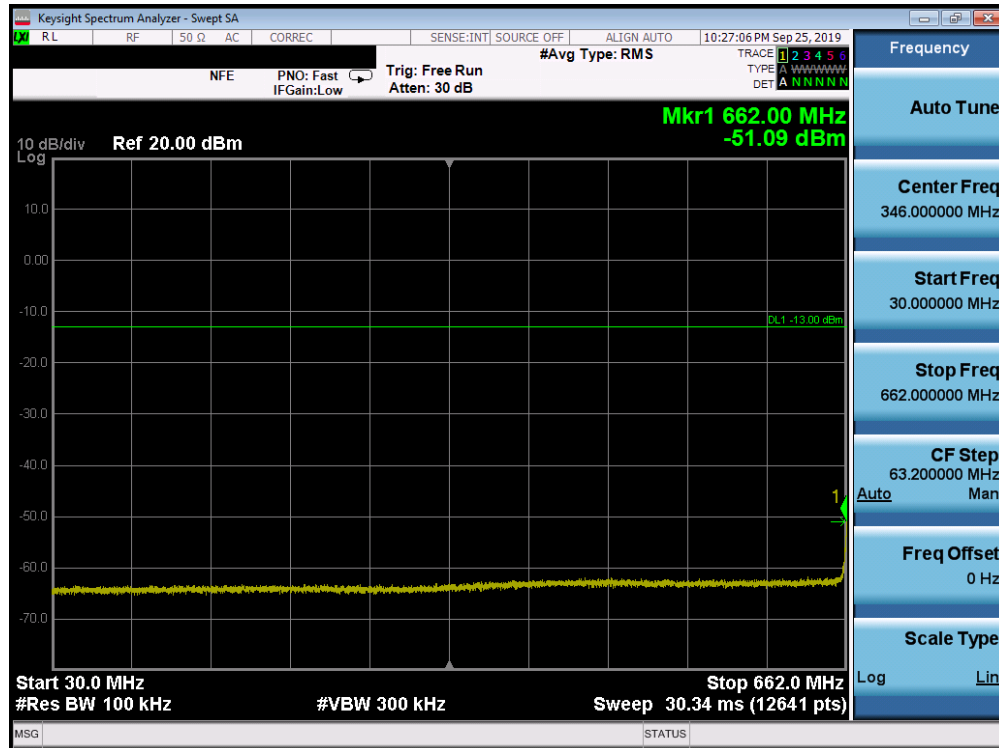
**Figure 7-2. Test Instrument & Measurement Setup**

### Test Notes

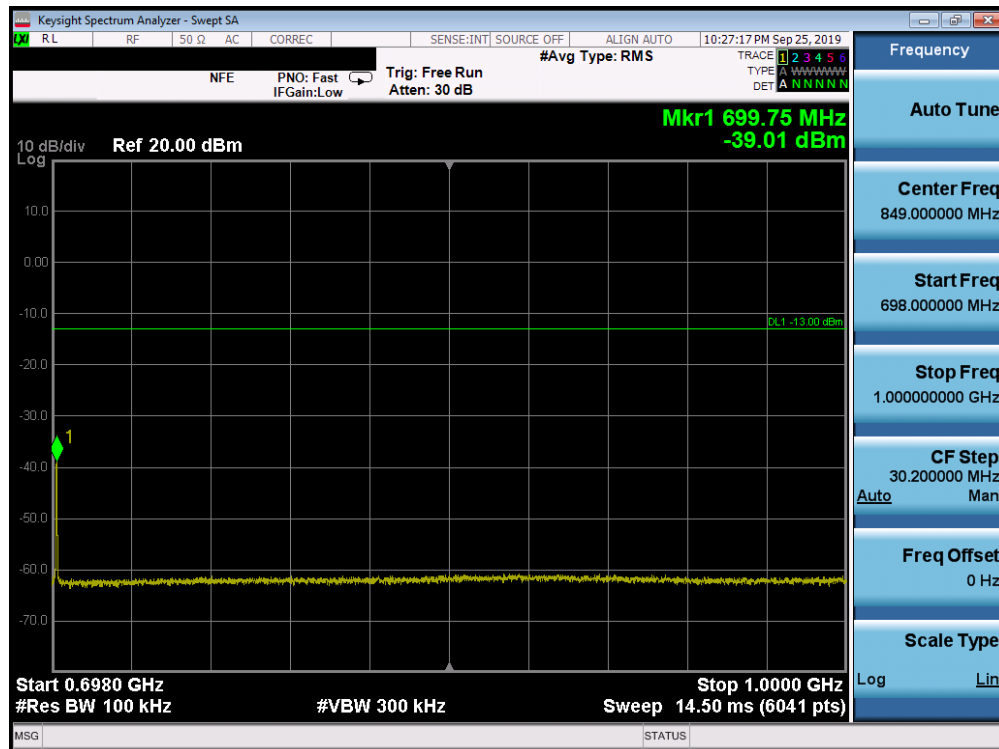
Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. 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.

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	<b>MEASUREMENT REPORT (CERTIFICATION)</b>	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 71 of 244

## Band 71



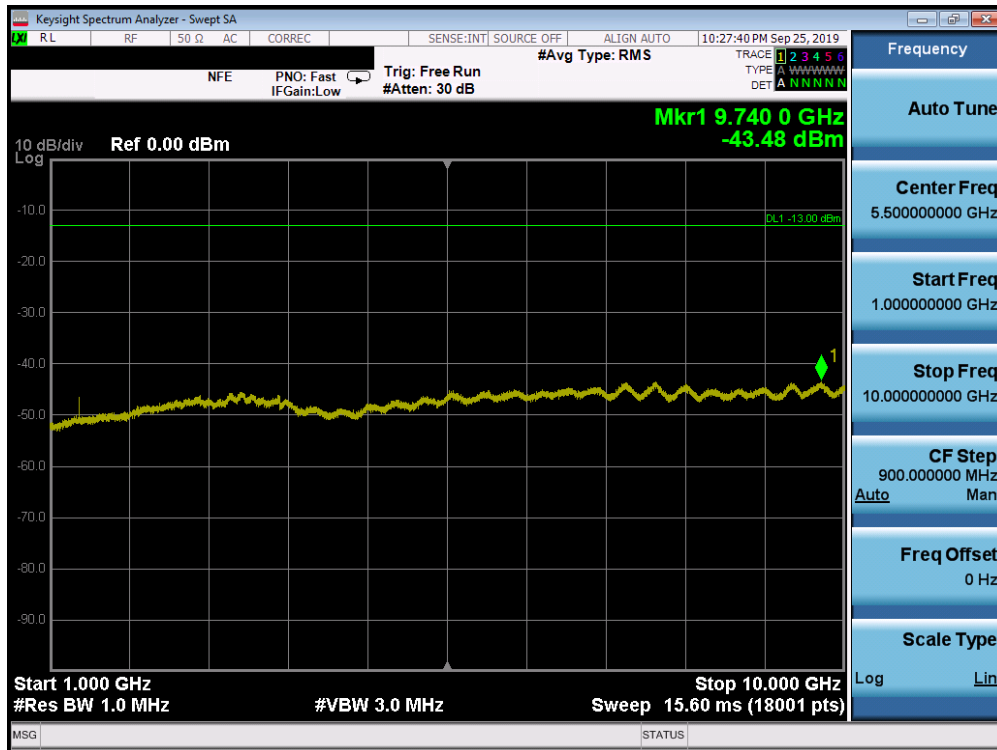
Plot 7-106. Conducted Spurious Plot (Band 71 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



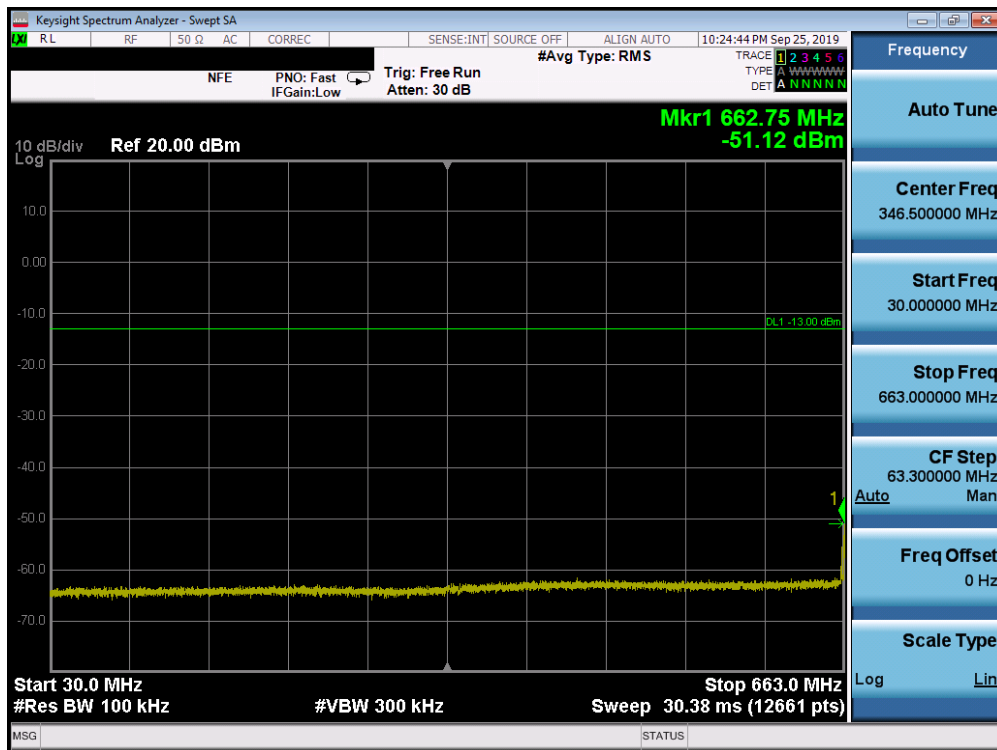
Plot 7-107. Conducted Spurious Plot (Band 71 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 72 of 244



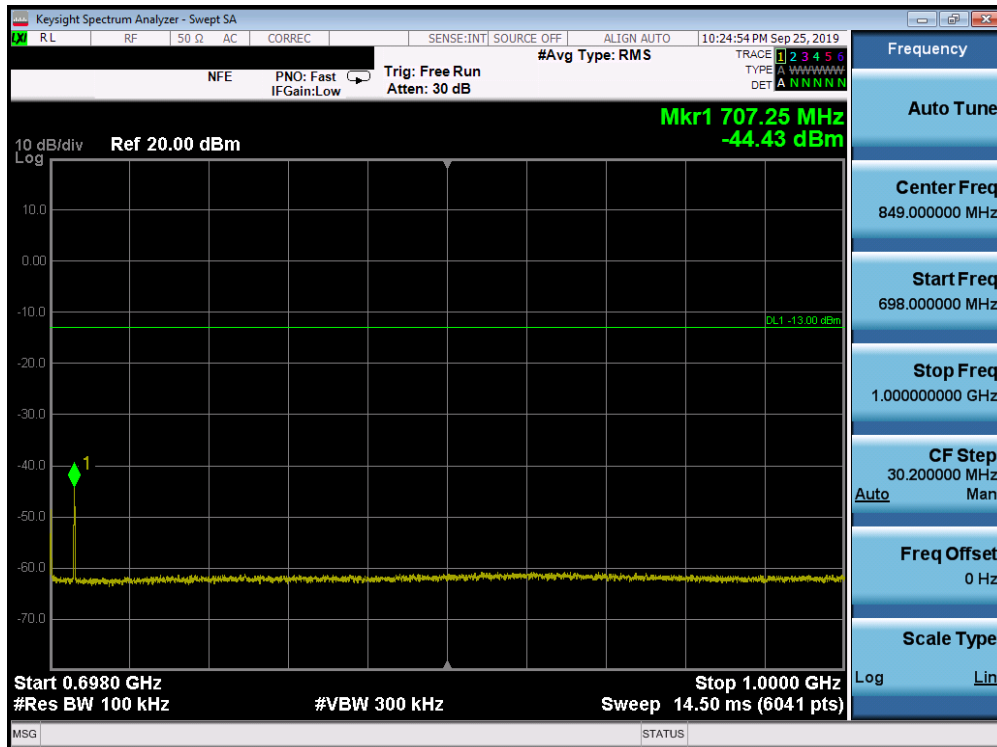


Plot 7-108. Conducted Spurious Plot (Band 71 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

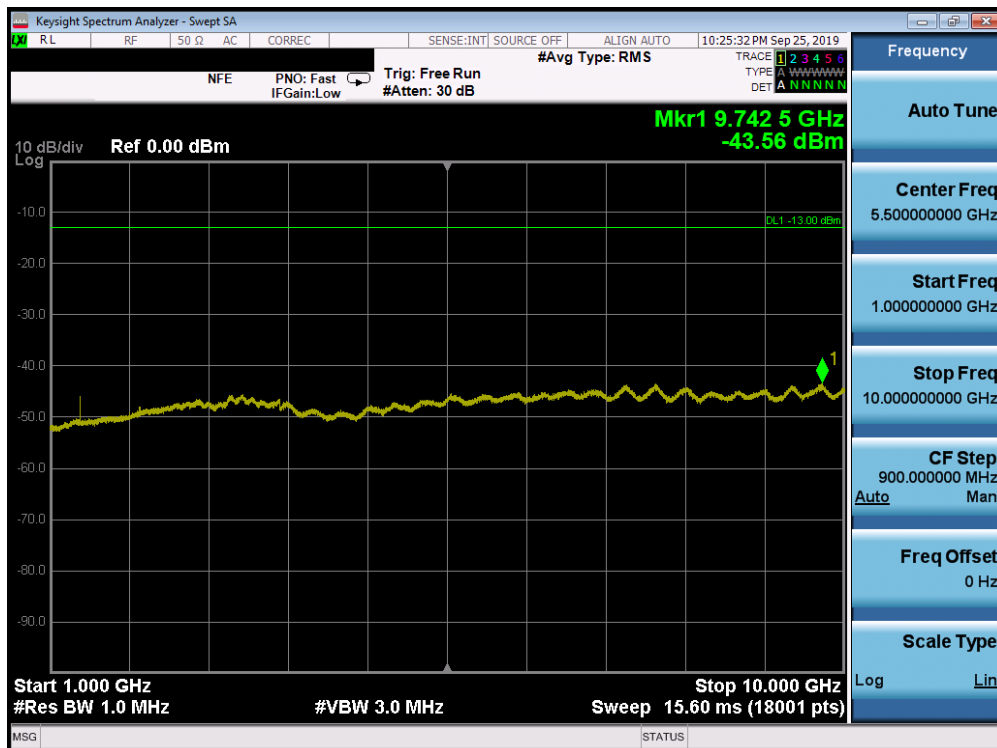


Plot 7-109. Conducted Spurious Plot (Band 71 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 73 of 244

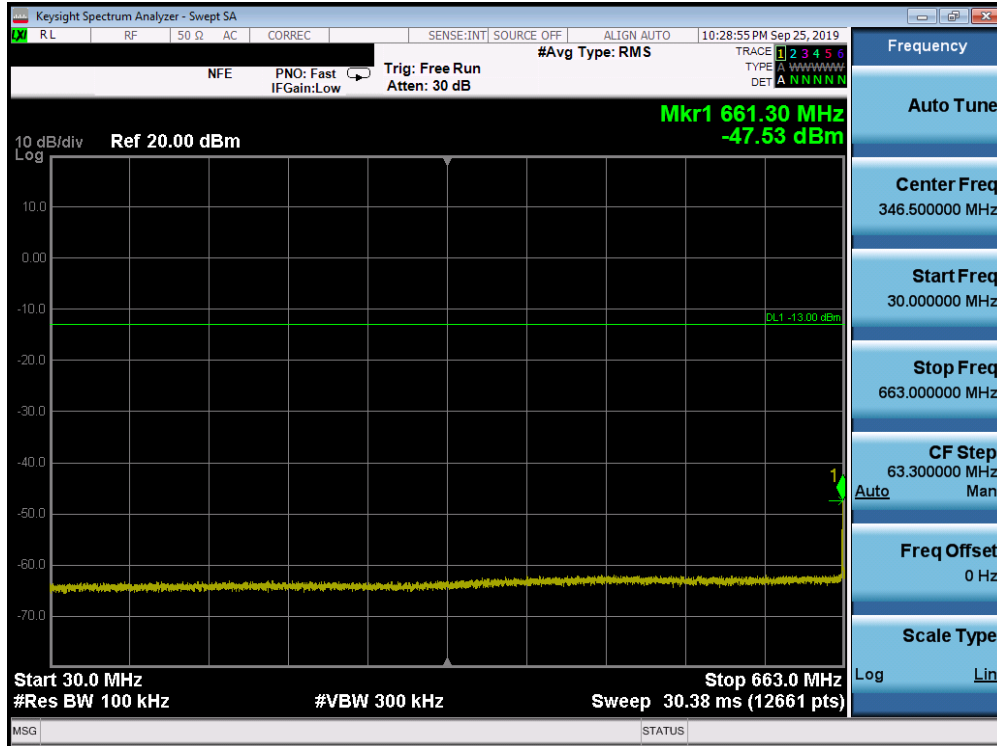


Plot 7-110. Conducted Spurious Plot (Band 71 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

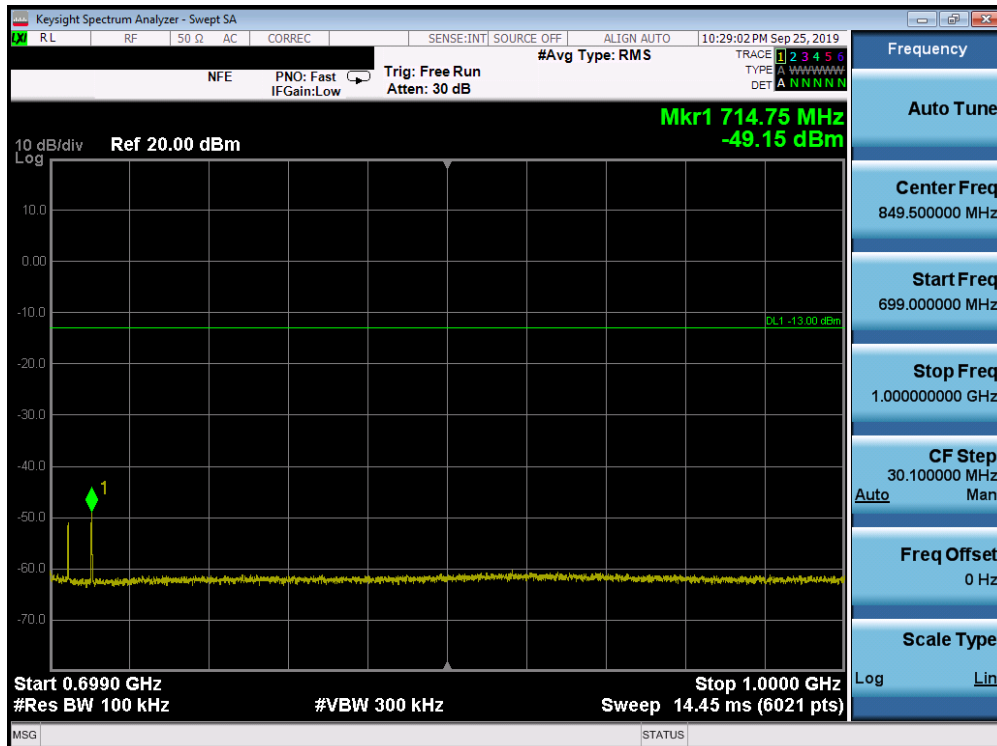


Plot 7-111. Conducted Spurious Plot (Band 71 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 74 of 244



Plot 7-112. Conducted Spurious Plot (Band 71 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

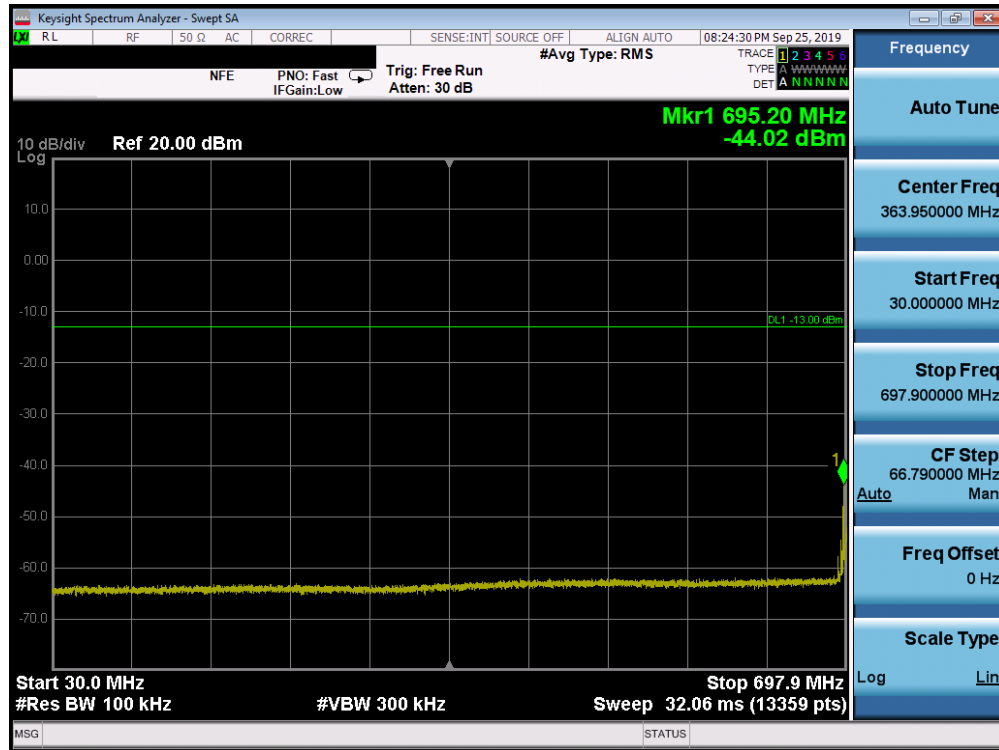


Plot 7-113. Conducted Spurious Plot (Band 71 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

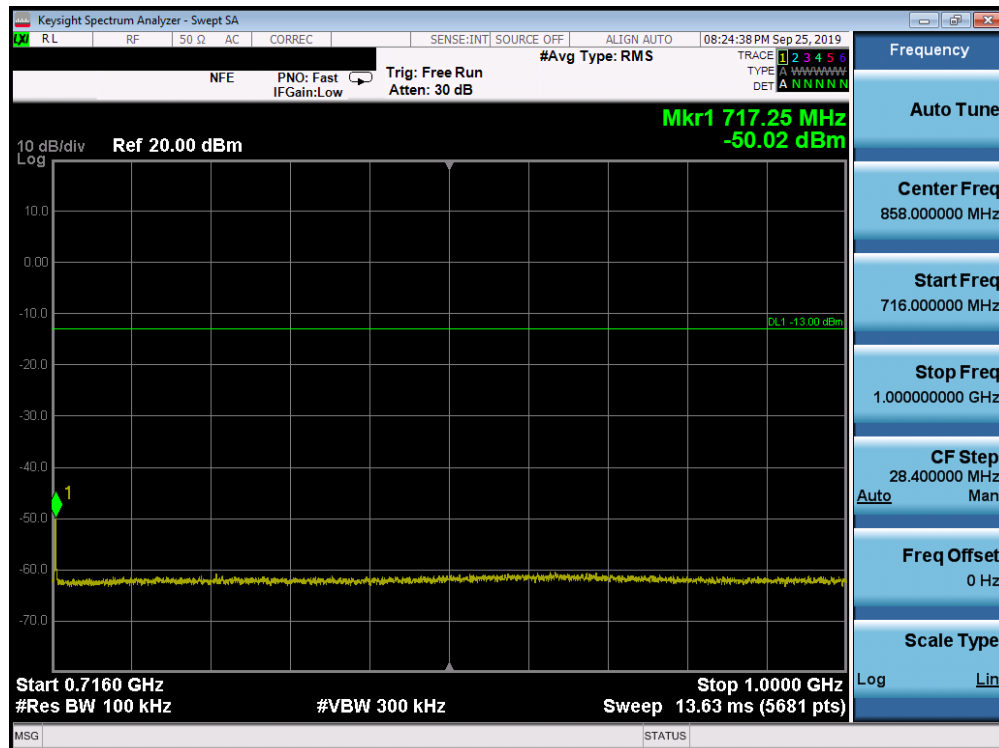
FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 75 of 244



## Band 12/17

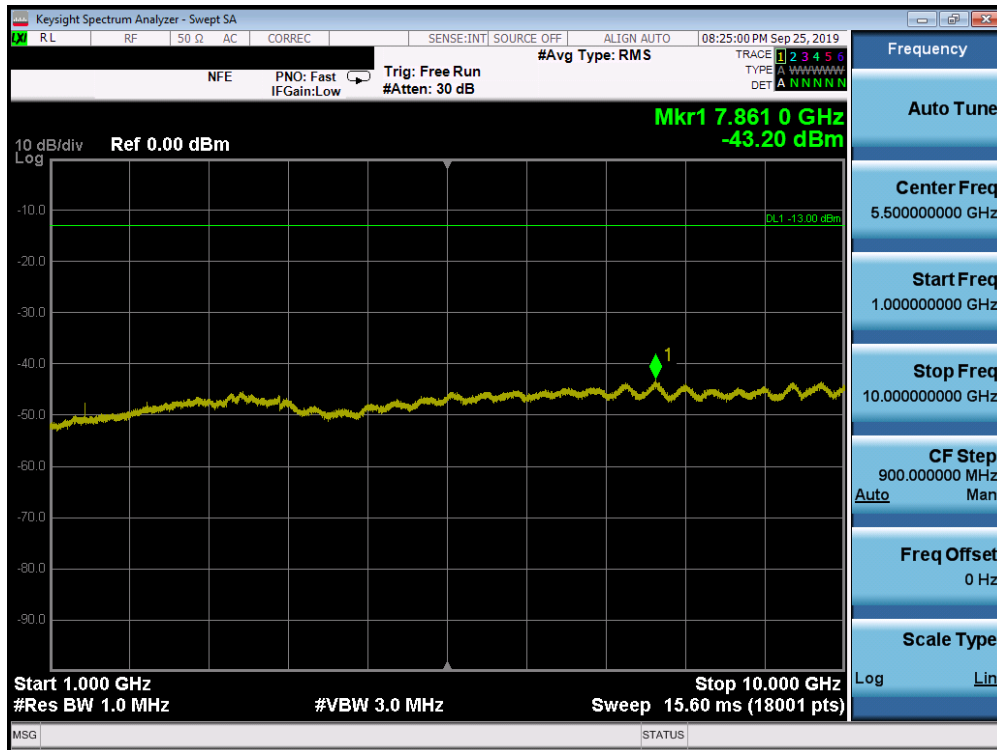


Plot 7-115. Conducted Spurious Plot (Band 12/17 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

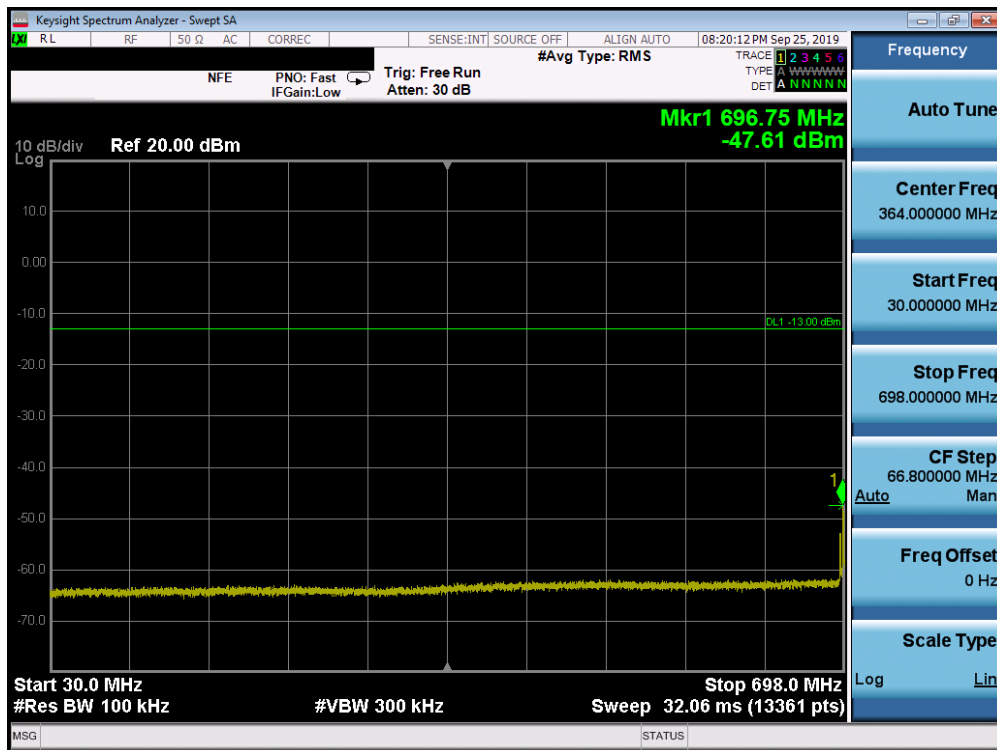


Plot 7-116. Conducted Spurious Plot (Band 12/17 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 77 of 244

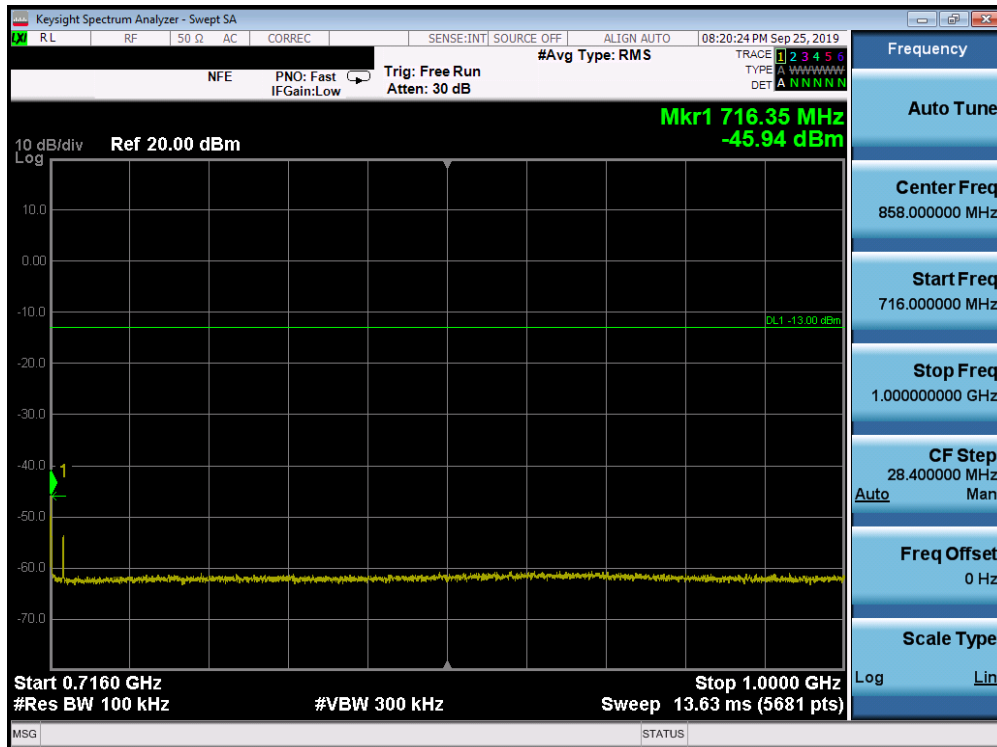


Plot 7-117. Conducted Spurious Plot (Band 12/17 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

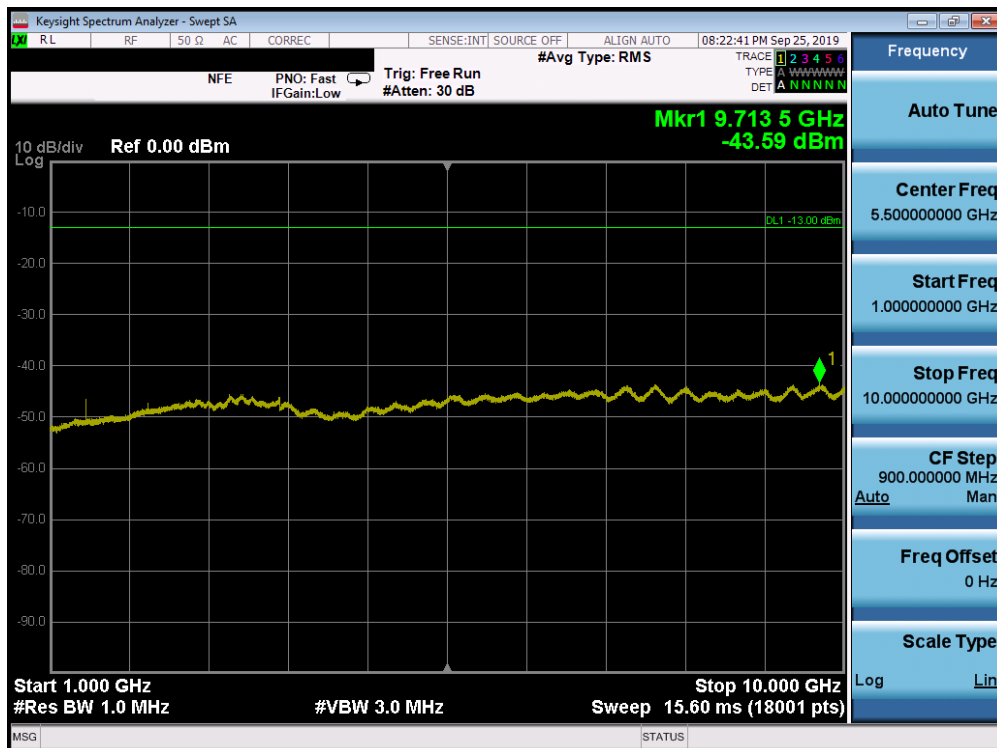


Plot 7-118. Conducted Spurious Plot (Band 12/17 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 78 of 244



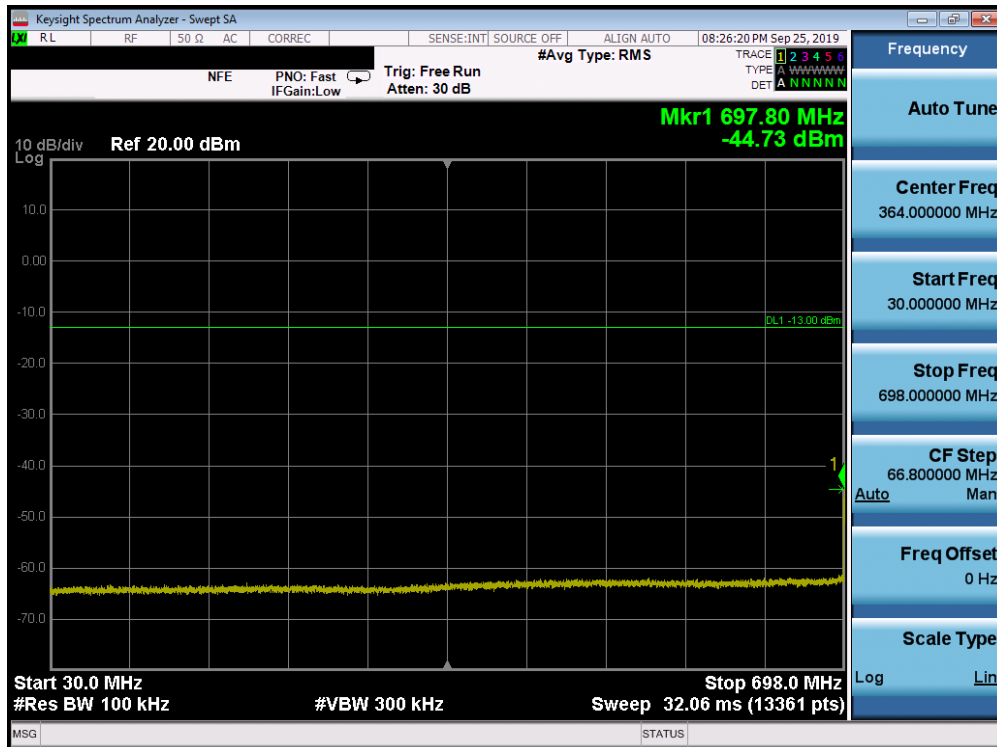
Plot 7-119. Conducted Spurious Plot (Band 12/17 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



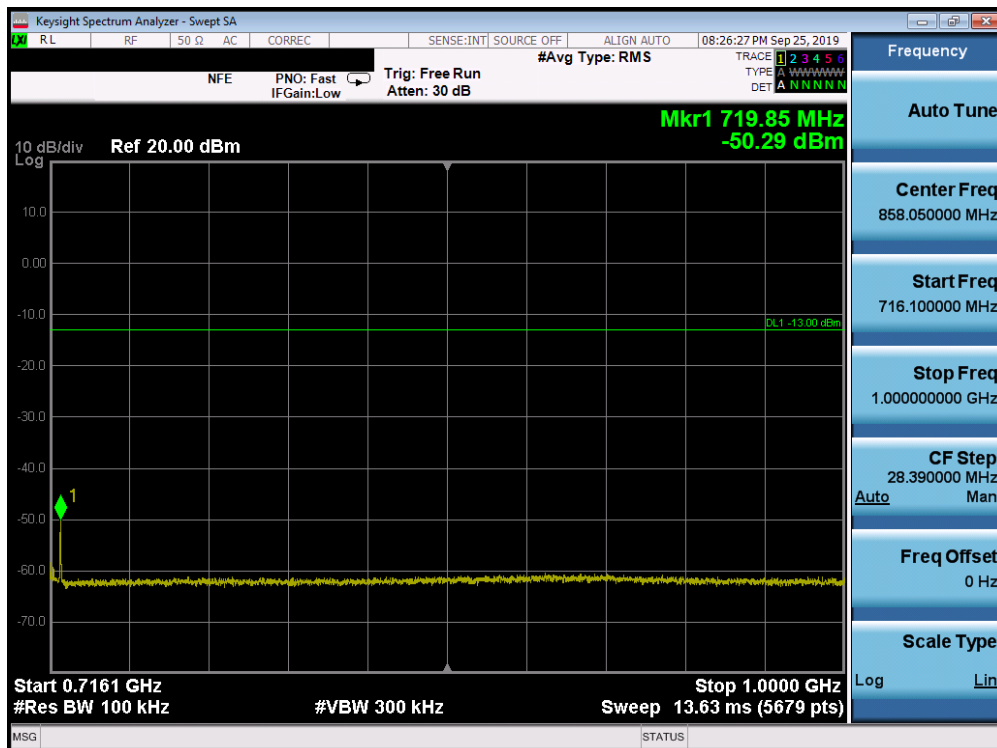
Plot 7-120. Conducted Spurious Plot (Band 12/17 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 79 of 244



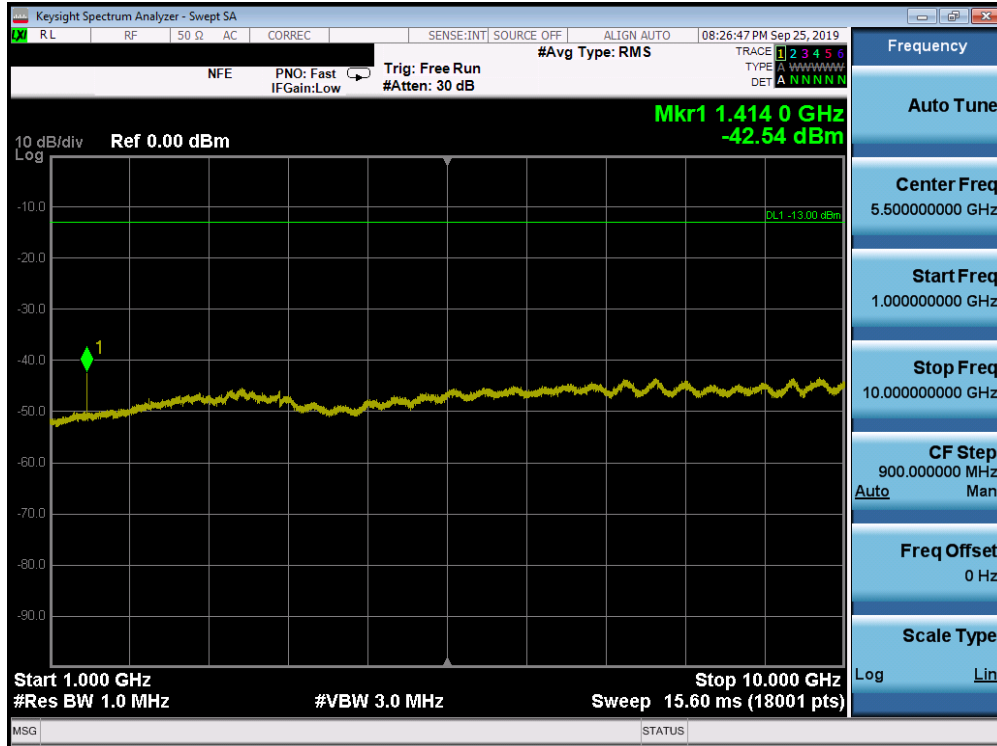


Plot 7-121. Conducted Spurious Plot (Band 12/17 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

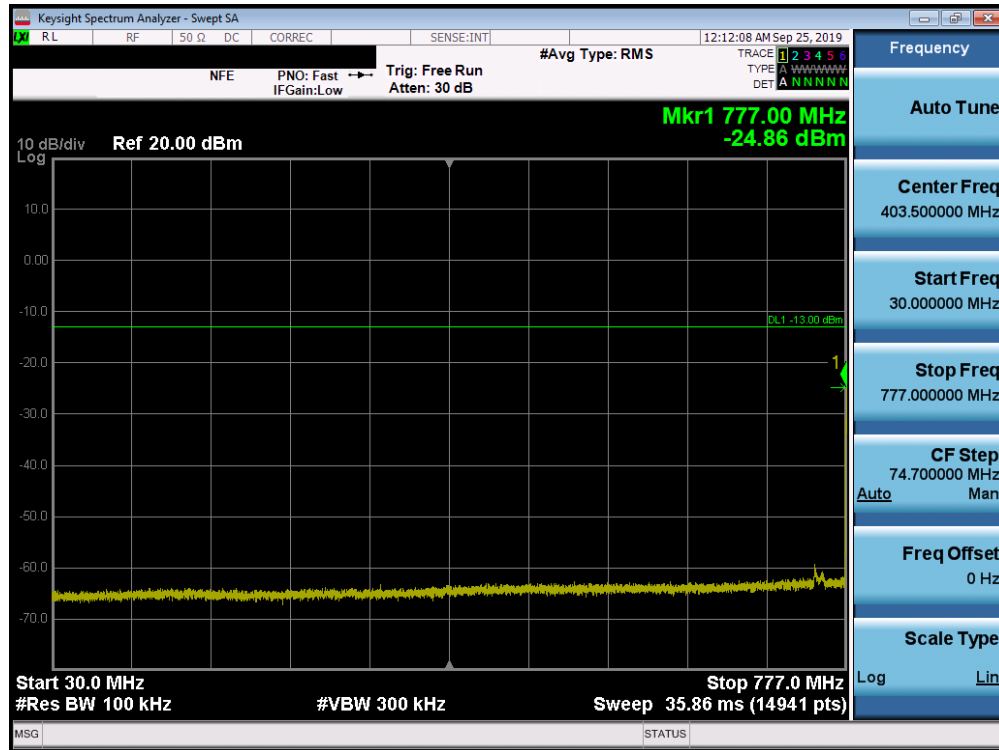


Plot 7-122. Conducted Spurious Plot (Band 12/17 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

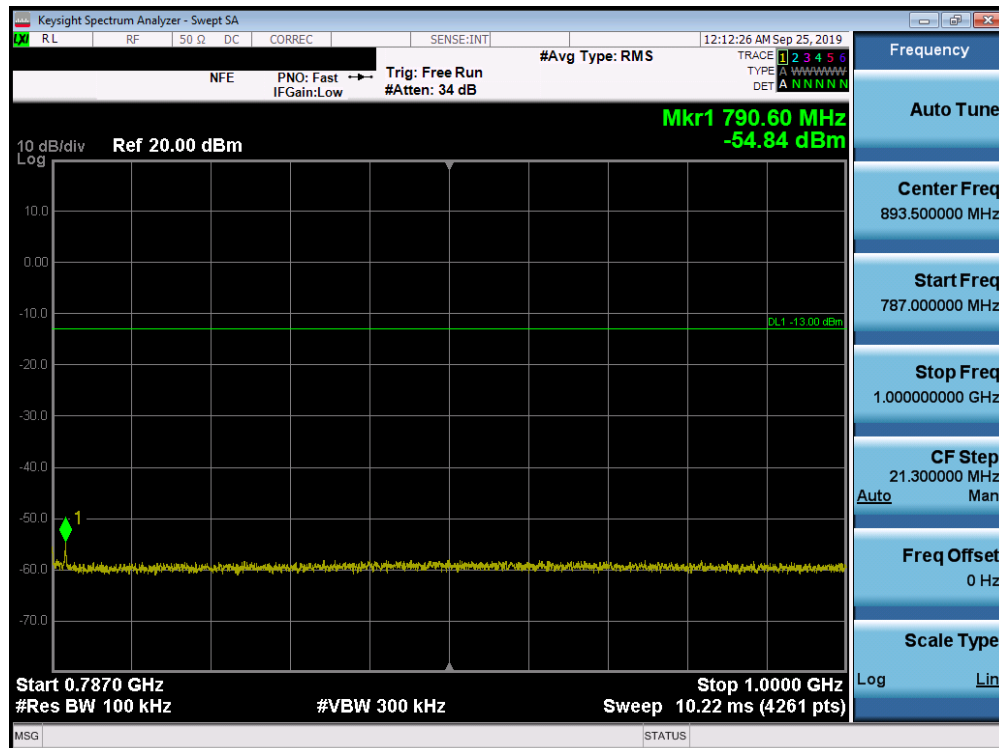
FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 80 of 244



## Band 13

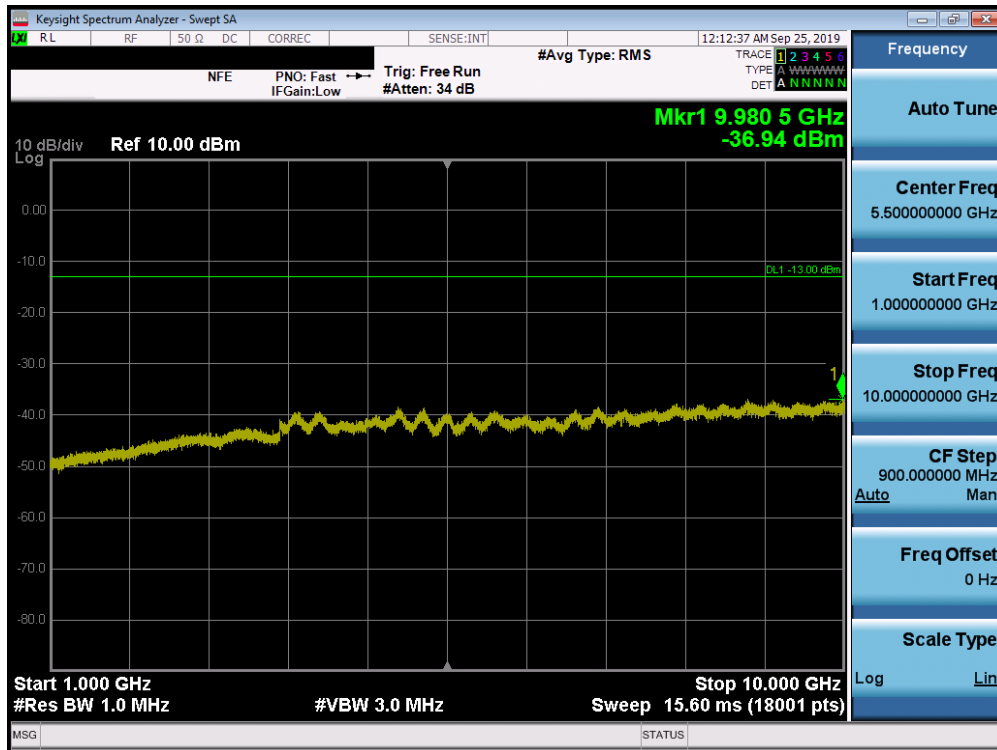


Plot 7-124. Conducted Spurious Plot (Band 13 - 10.0MHz QPSK - RB Size 1, RB Offset 0)



Plot 7-125. Conducted Spurious Plot (Band 13 - 10.0MHz QPSK - RB Size 1, RB Offset 0)

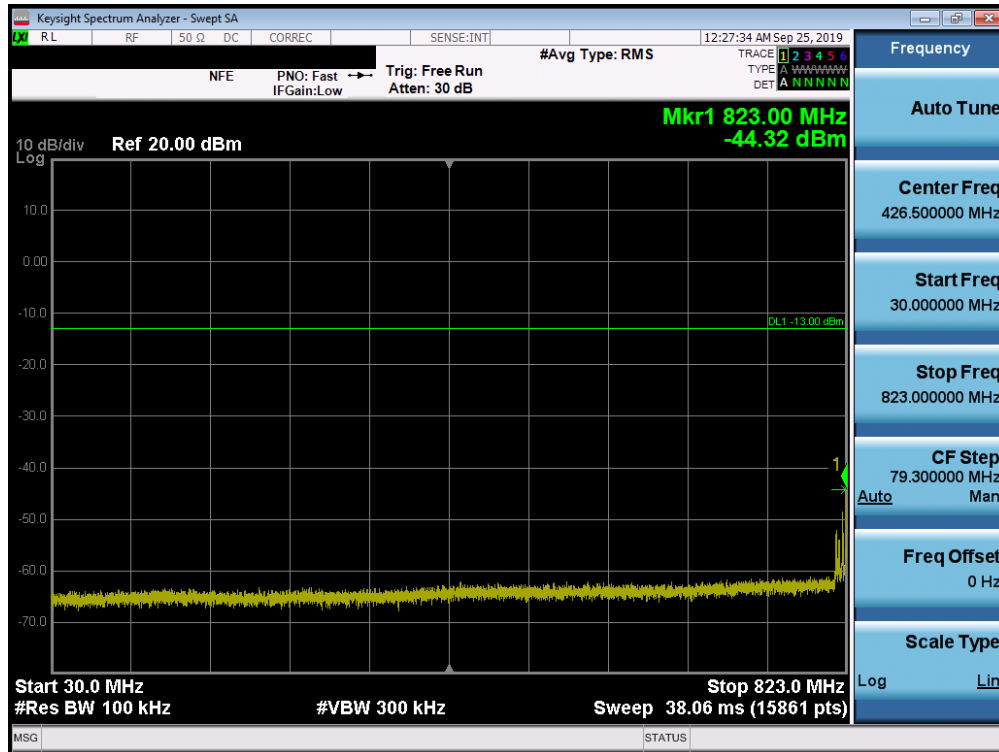
FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 82 of 244



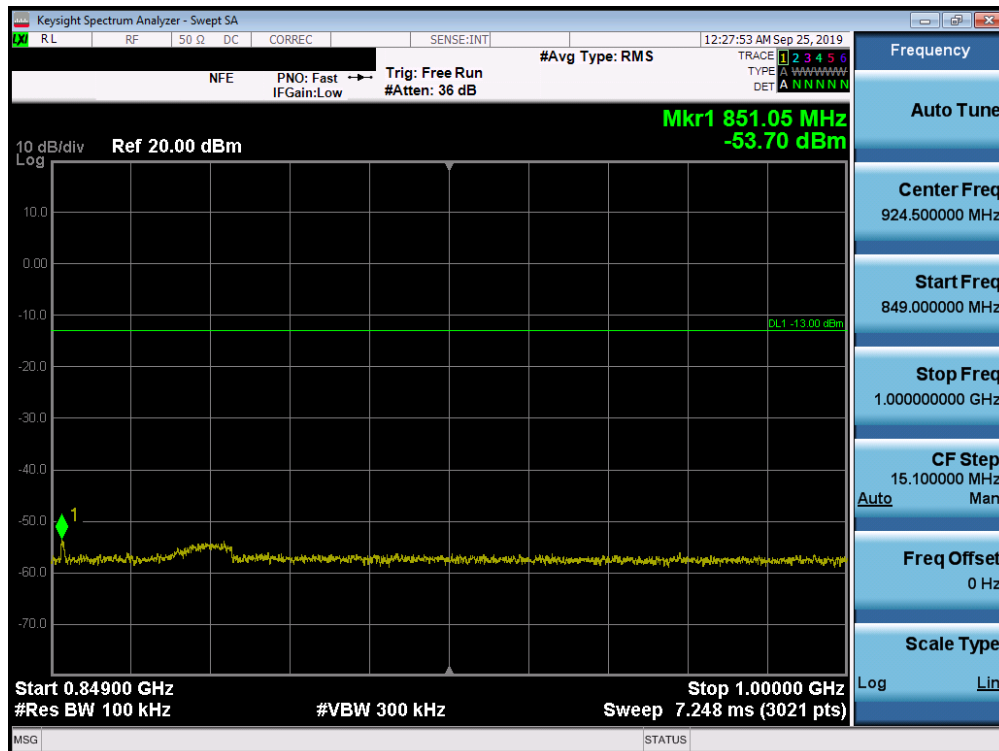
Plot 7-126. Conducted Spurious Plot (Band 13 - 10.0MHz QPSK - RB Size 1, RB Offset 0)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 83 of 244

## Band 26/5

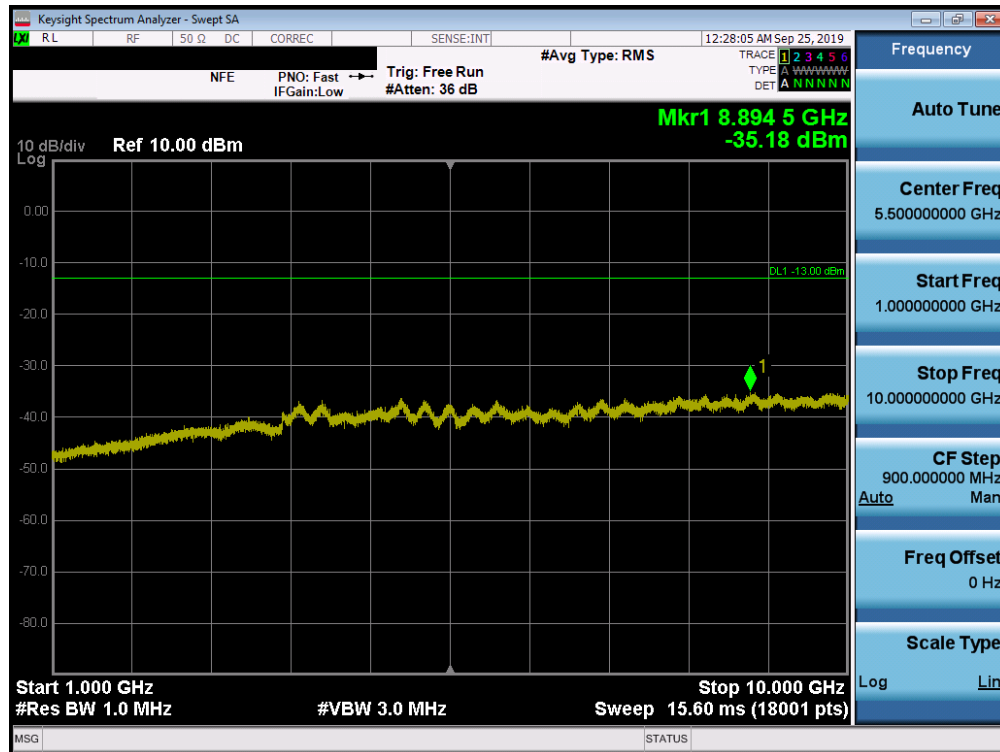


Plot 7-127. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

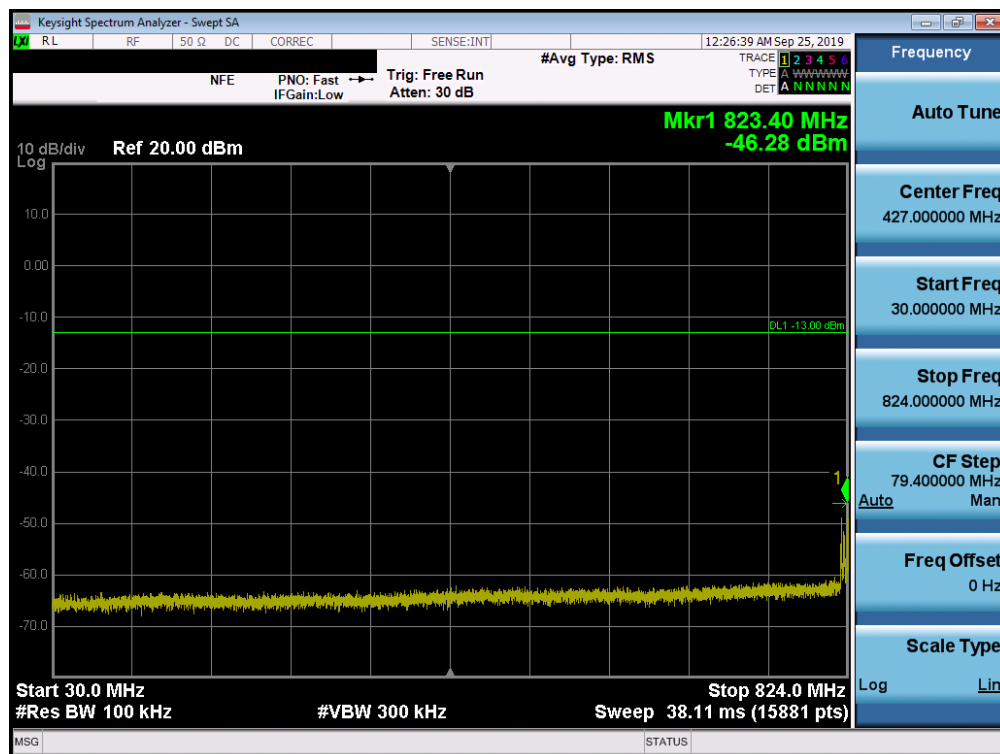


Plot 7-128. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 84 of 244

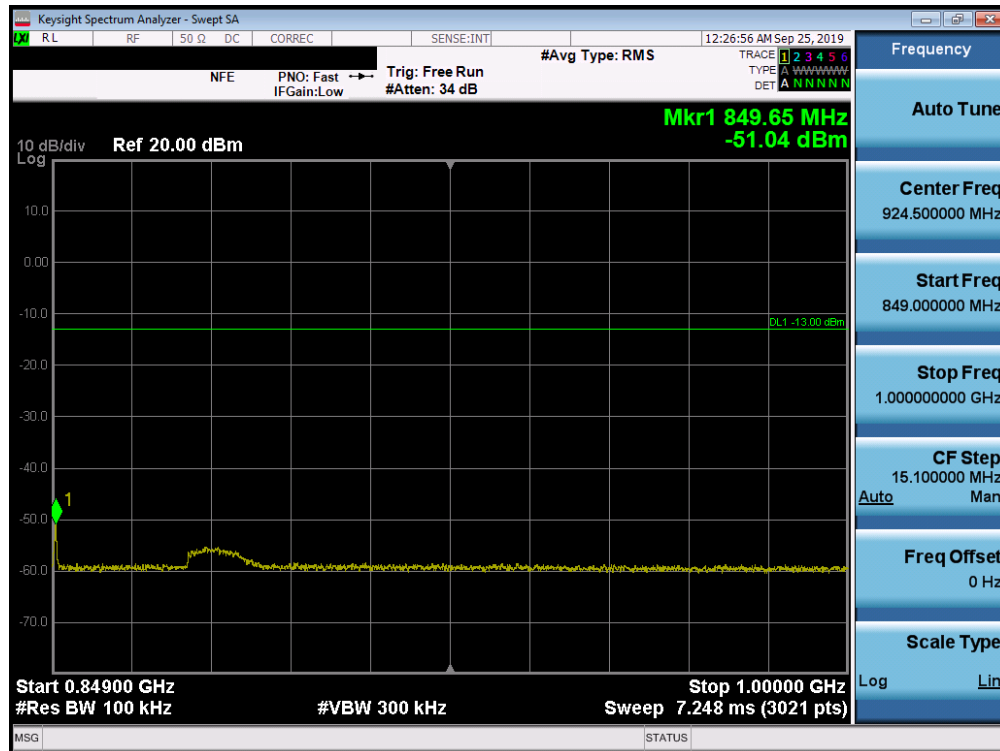


Plot 7-129. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

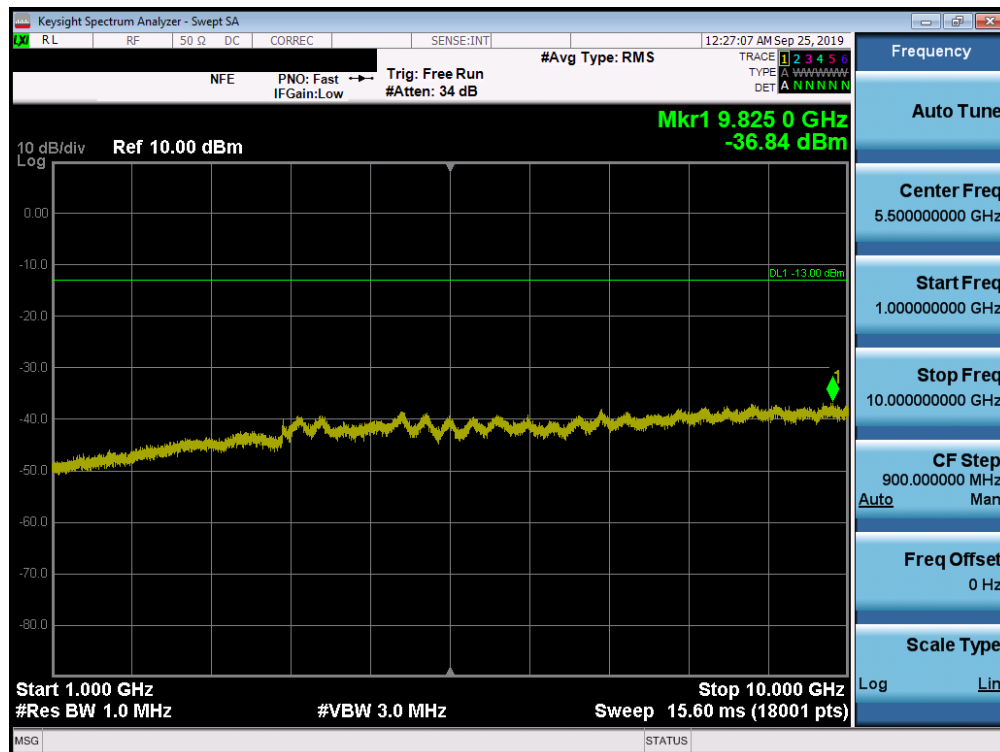


Plot 7-130. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 85 of 244



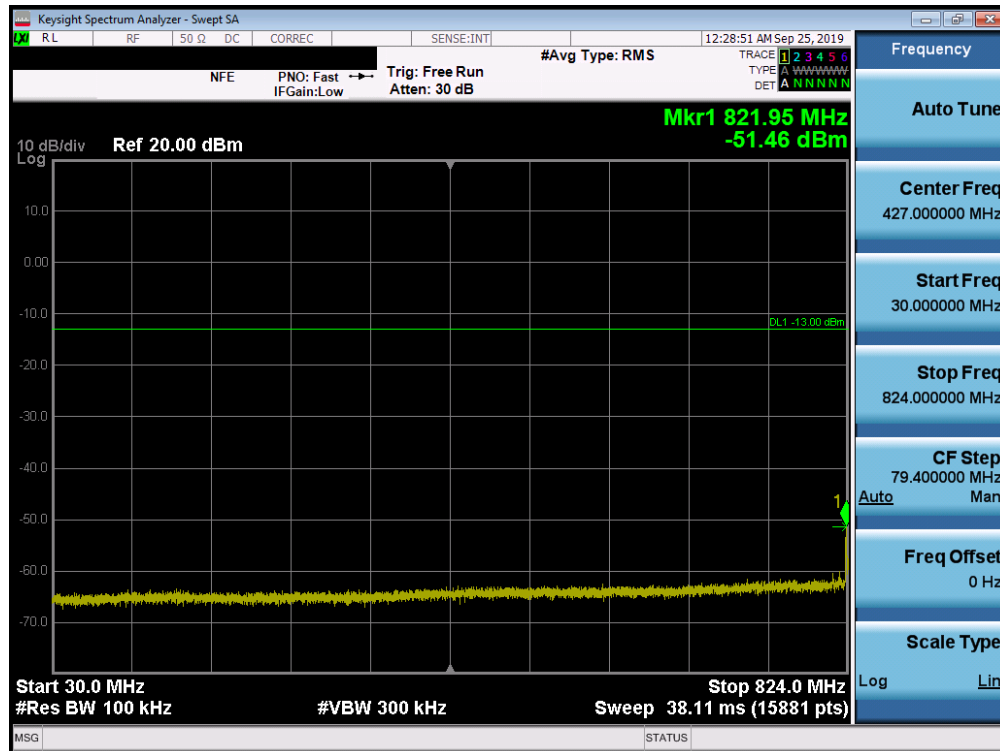
Plot 7-131. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



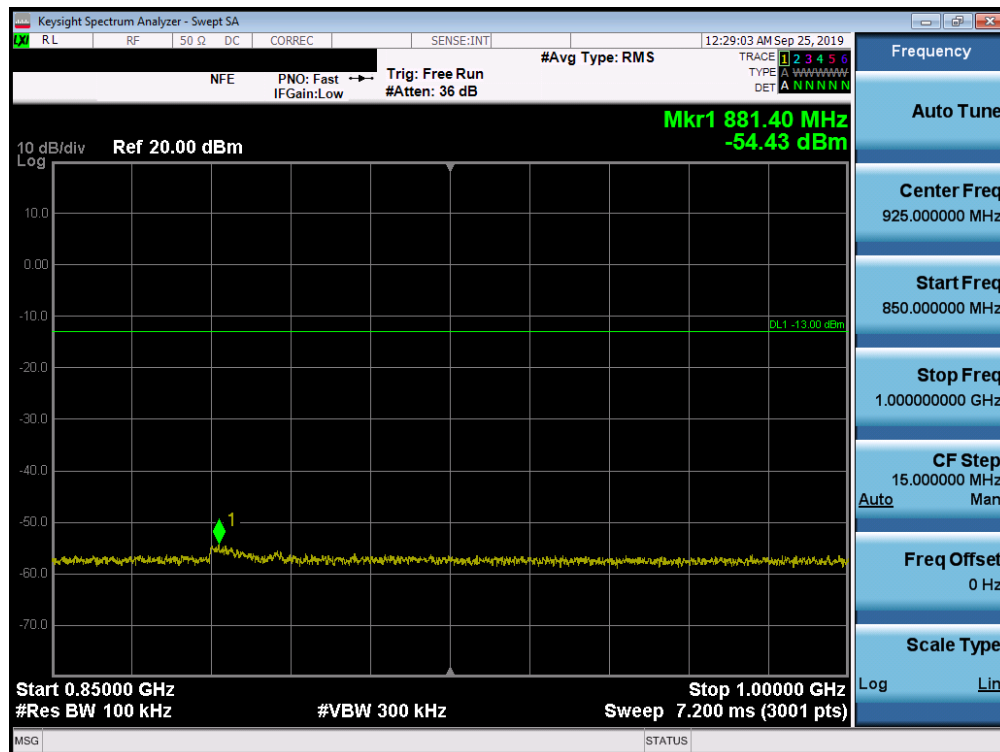
Plot 7-132. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 86 of 244



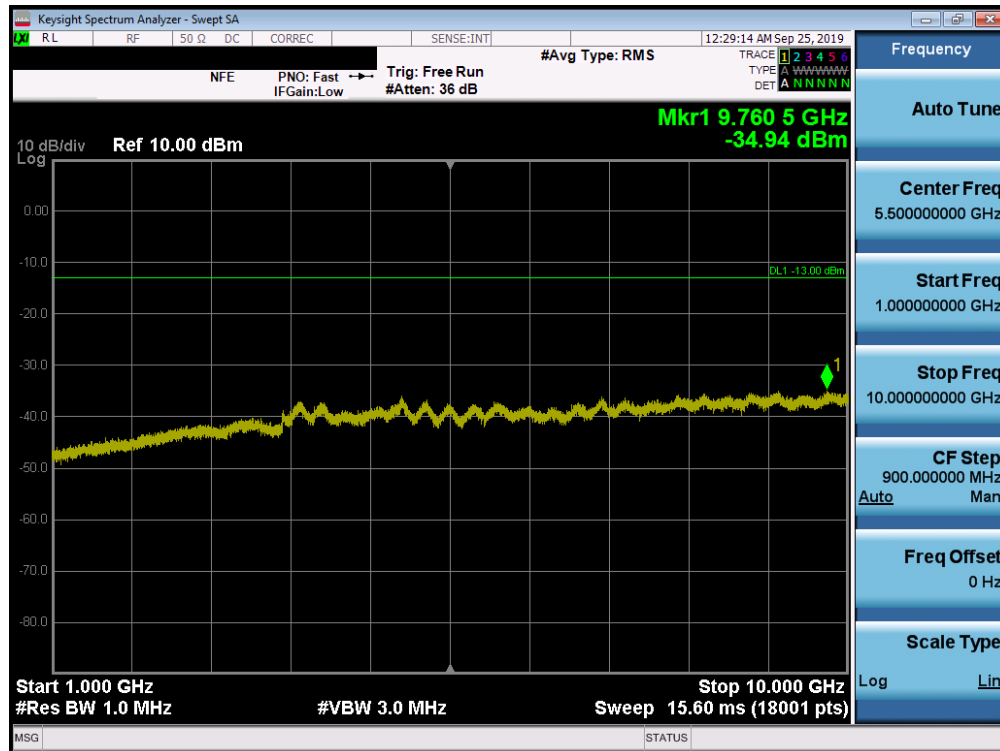


Plot 7-133. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-134. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

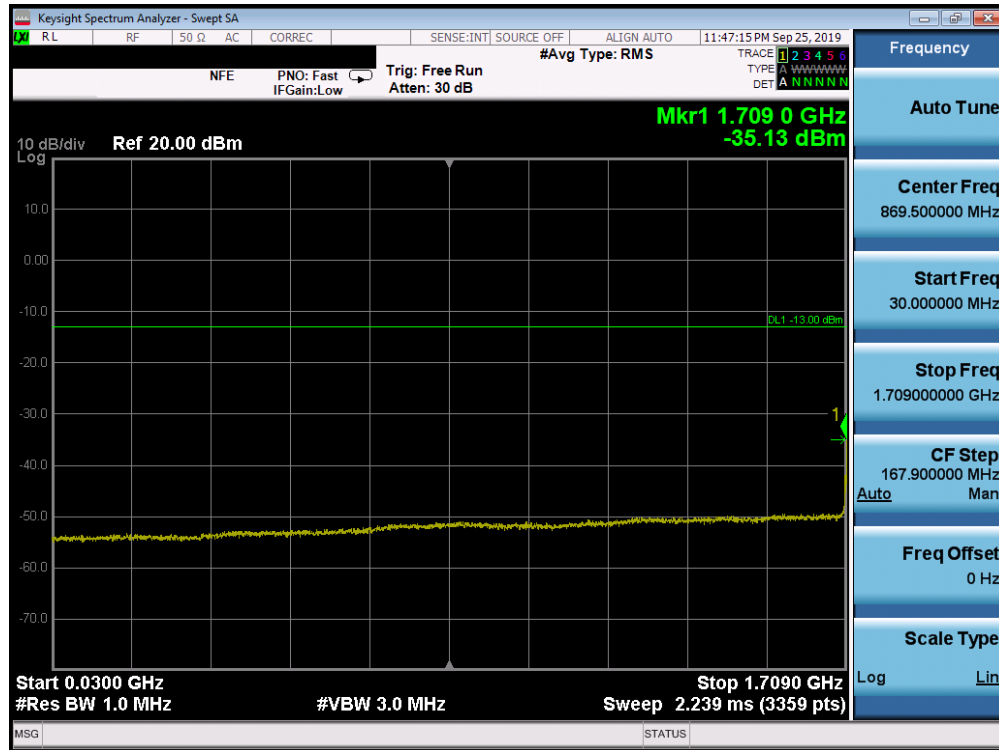
FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 87 of 244



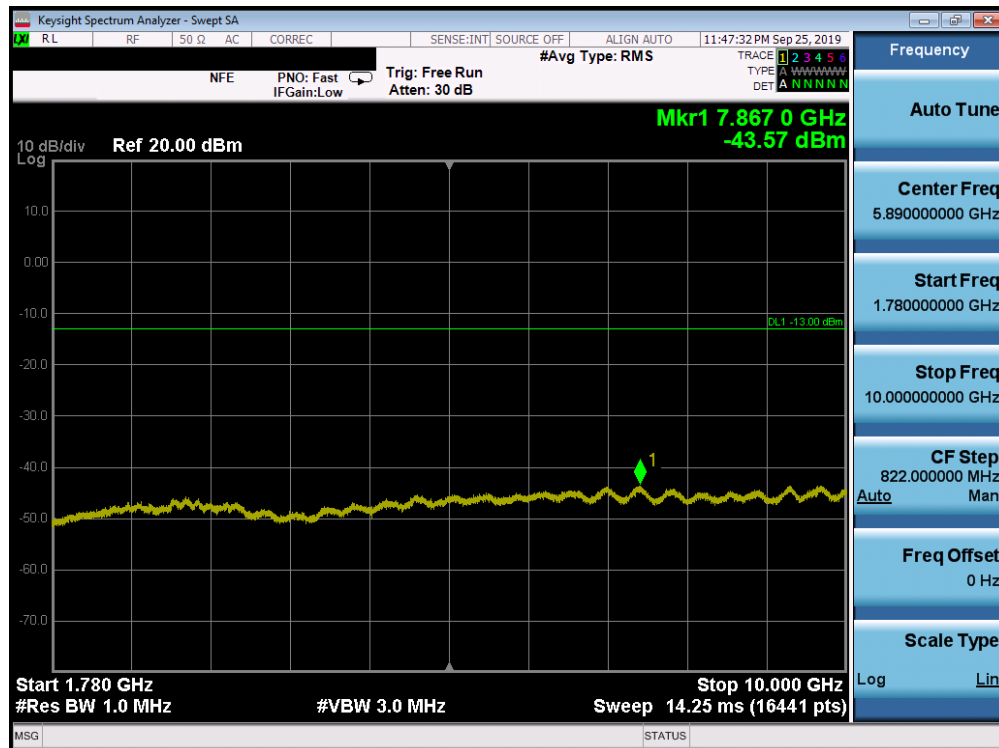
Plot 7-135. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 88 of 244

## Band 66/4

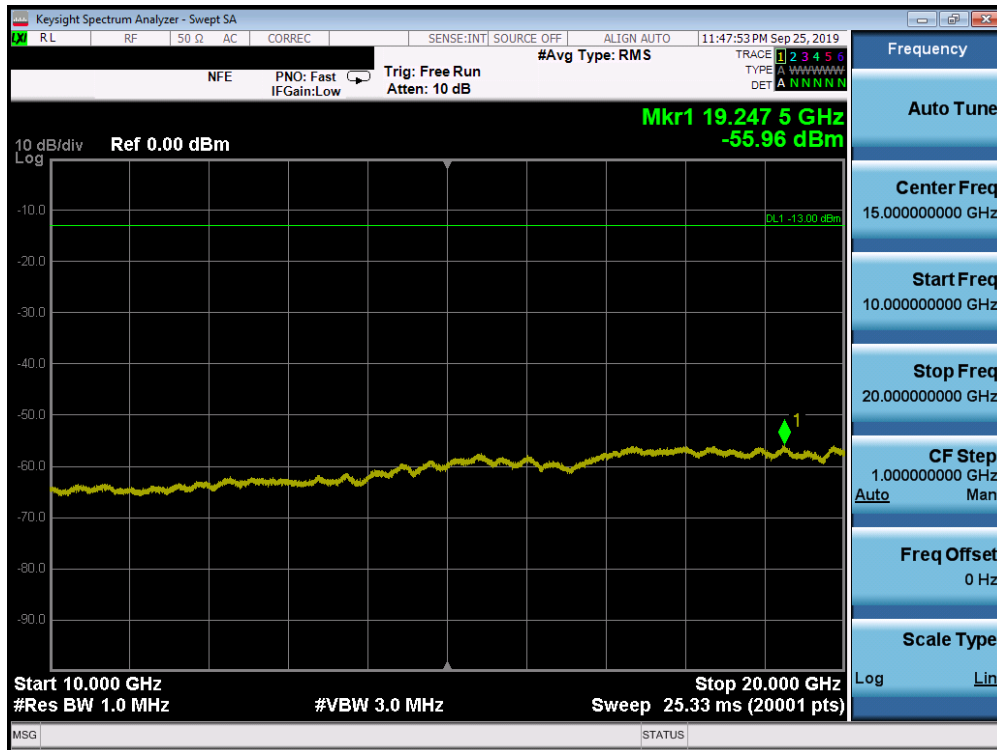


Plot 7-136. Conducted Spurious Plot (Band 66/4 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

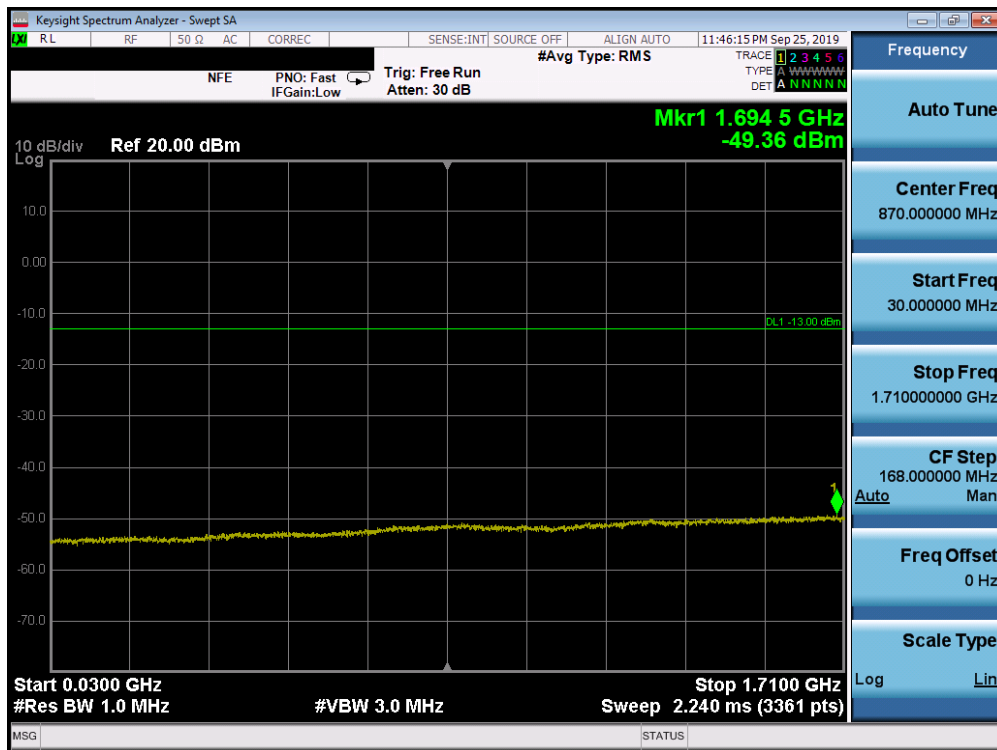


Plot 7-137. Conducted Spurious Plot (Band 66/4 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 89 of 244

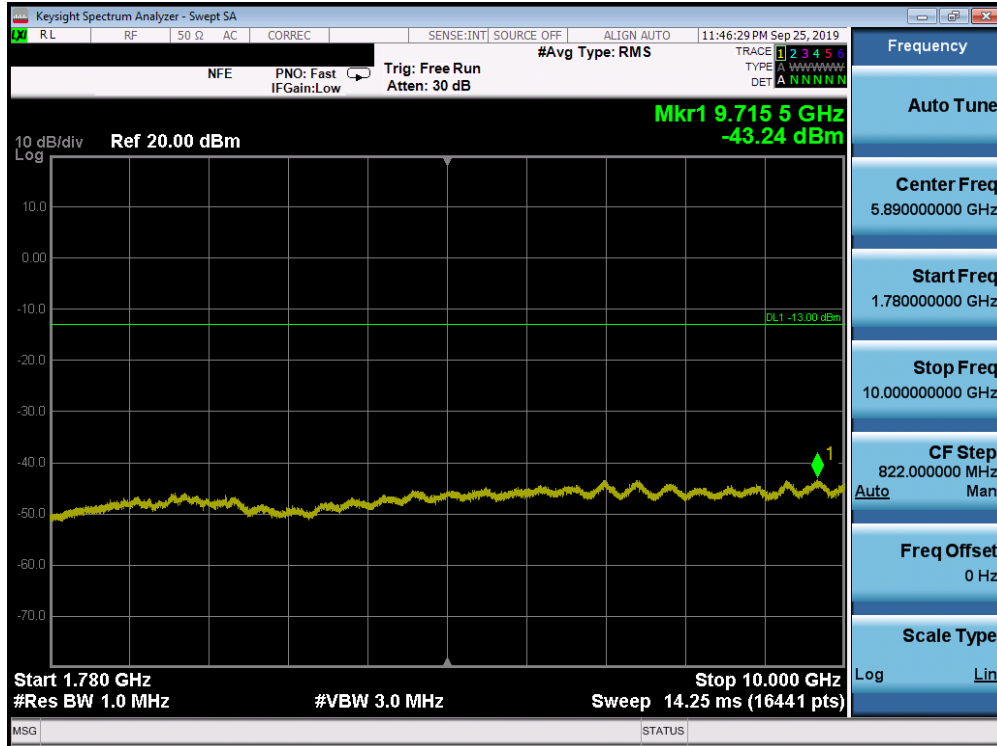


Plot 7-138. Conducted Spurious Plot (Band 66/4 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

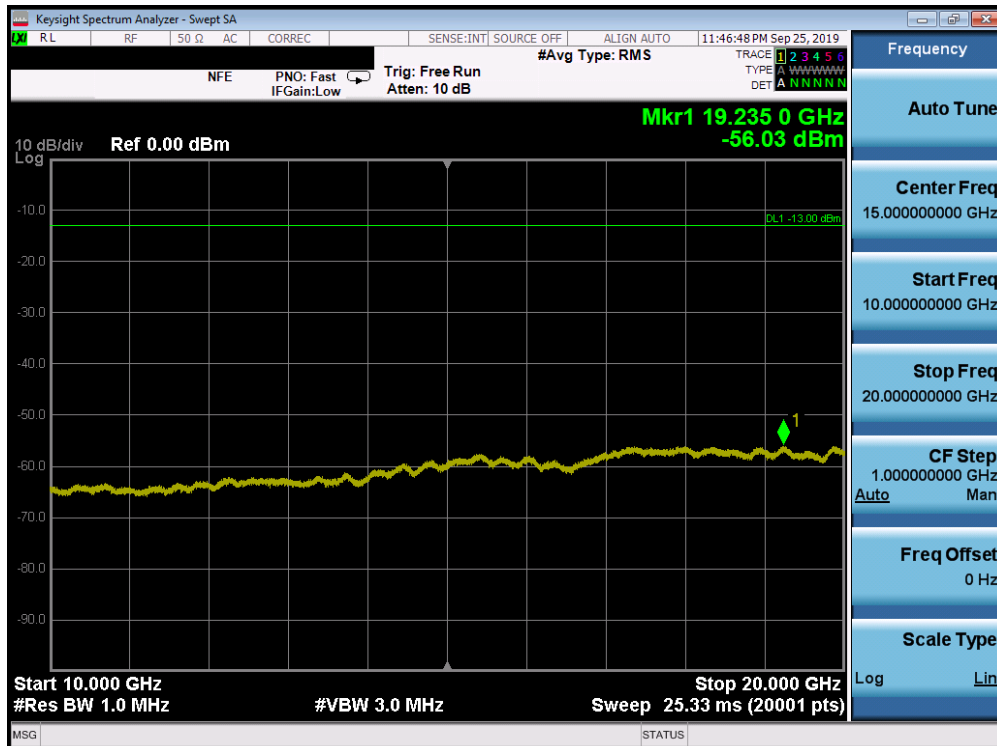


Plot 7-139. Conducted Spurious Plot (Band 66/4 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 90 of 244

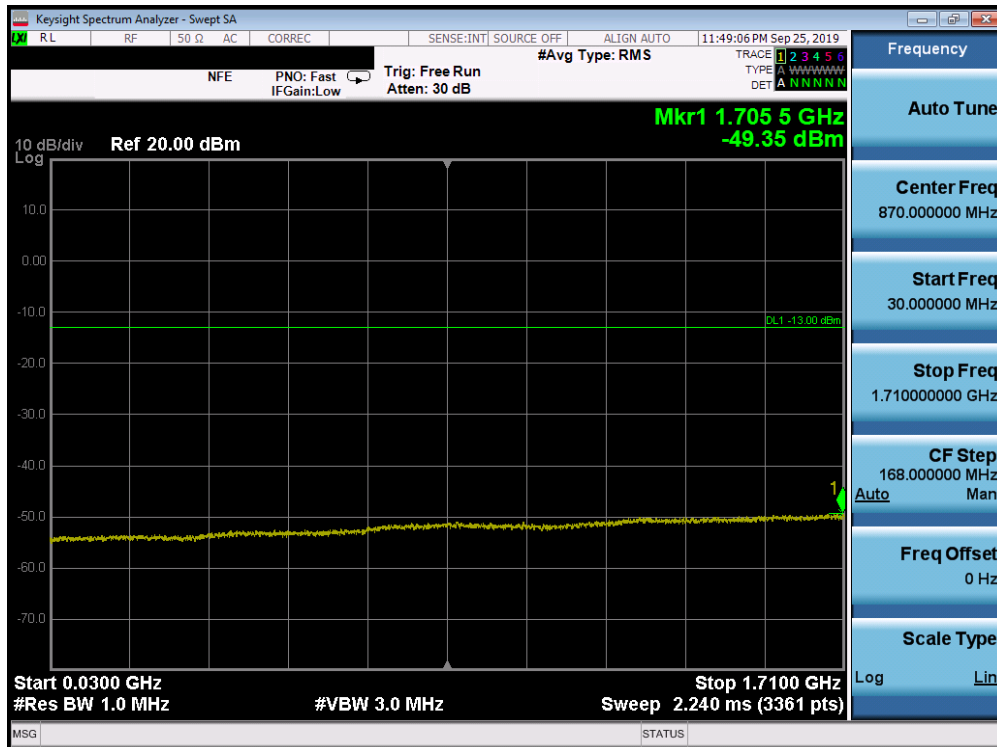


Plot 7-140. Conducted Spurious Plot (Band 66/4 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

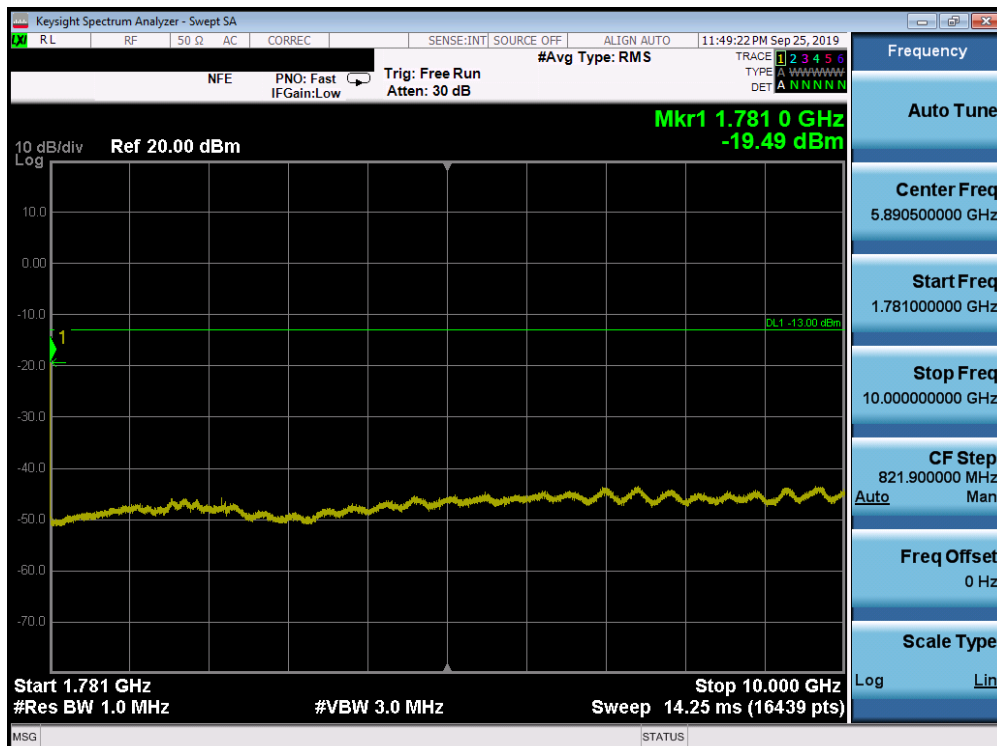


Plot 7-141. Conducted Spurious Plot (Band 66/4 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 91 of 244



Plot 7-142. Conducted Spurious Plot (Band 66/4 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



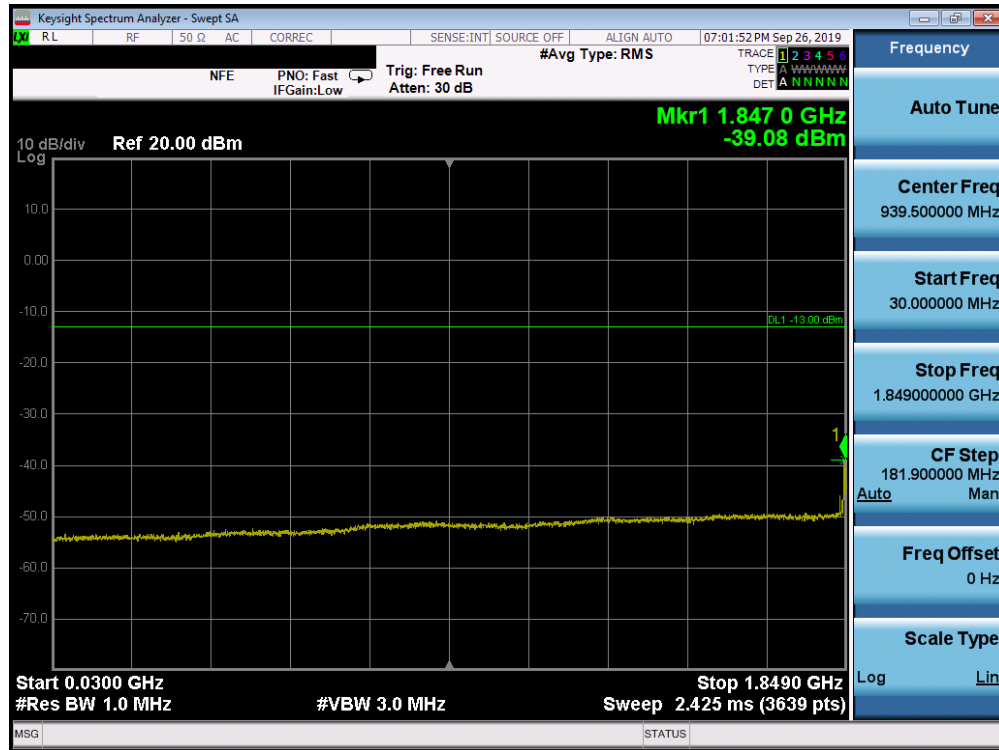
Plot 7-143. Conducted Spurious Plot (Band 66/4 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 92 of 244

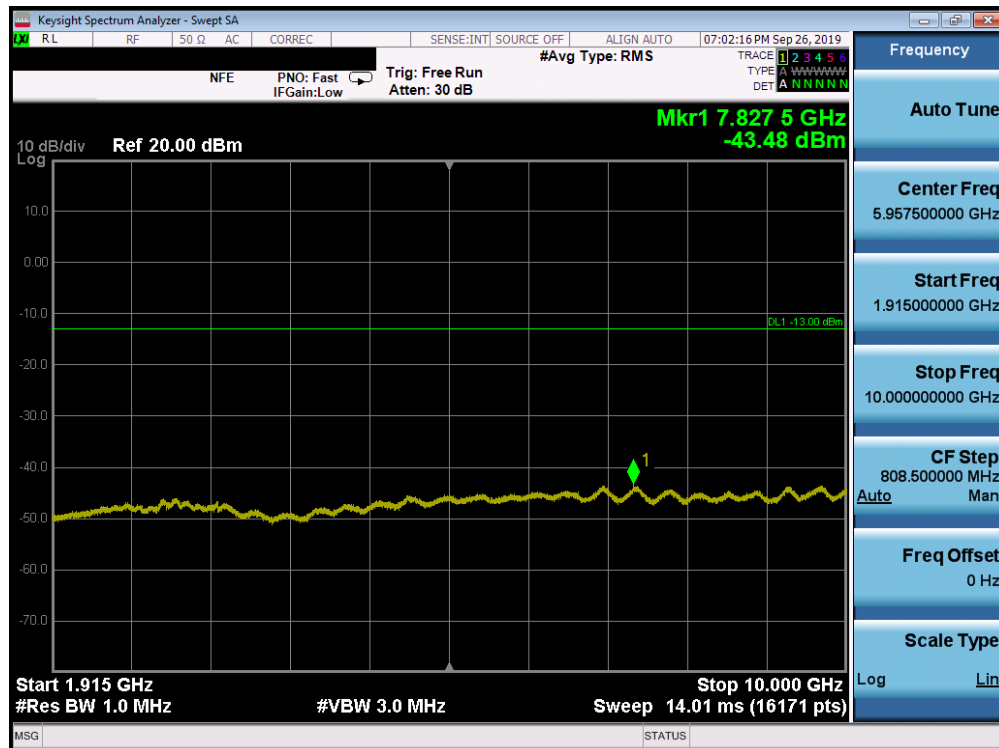




## Band 25/2

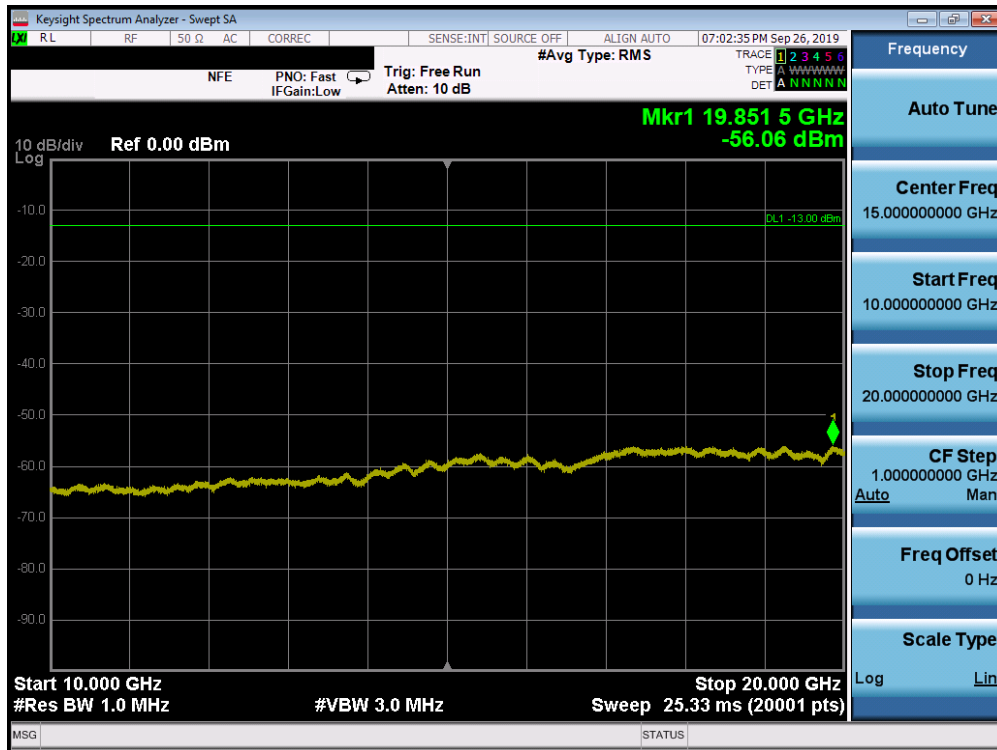


Plot 7-145. Conducted Spurious Plot (Band 25/2 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

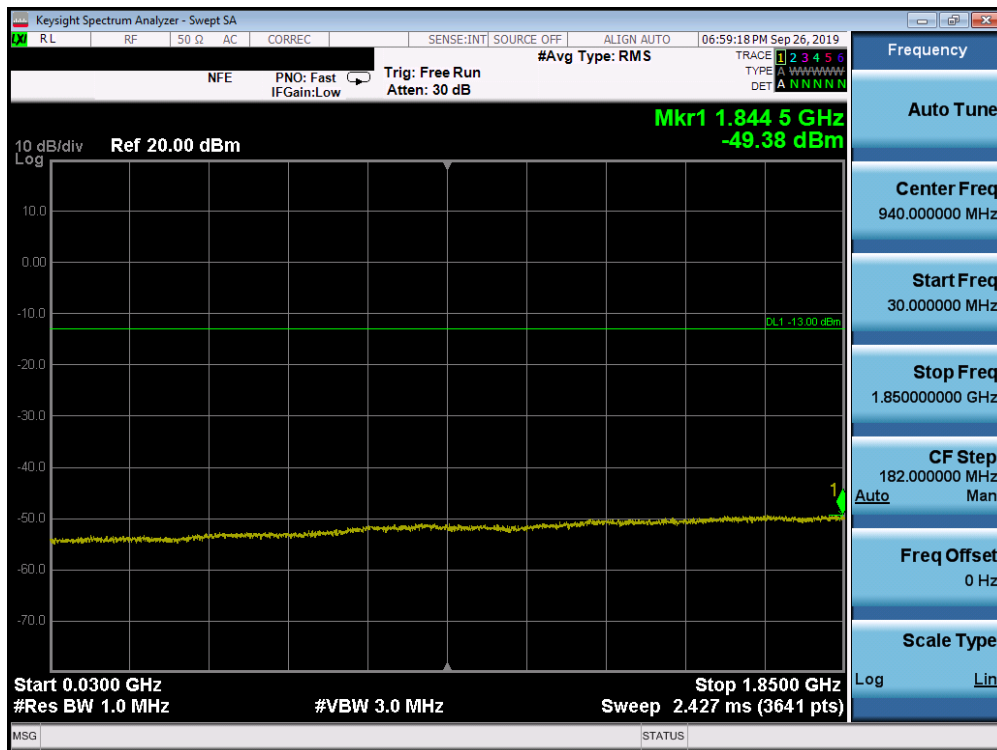


Plot 7-146. Conducted Spurious Plot (Band 25/2 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 94 of 244

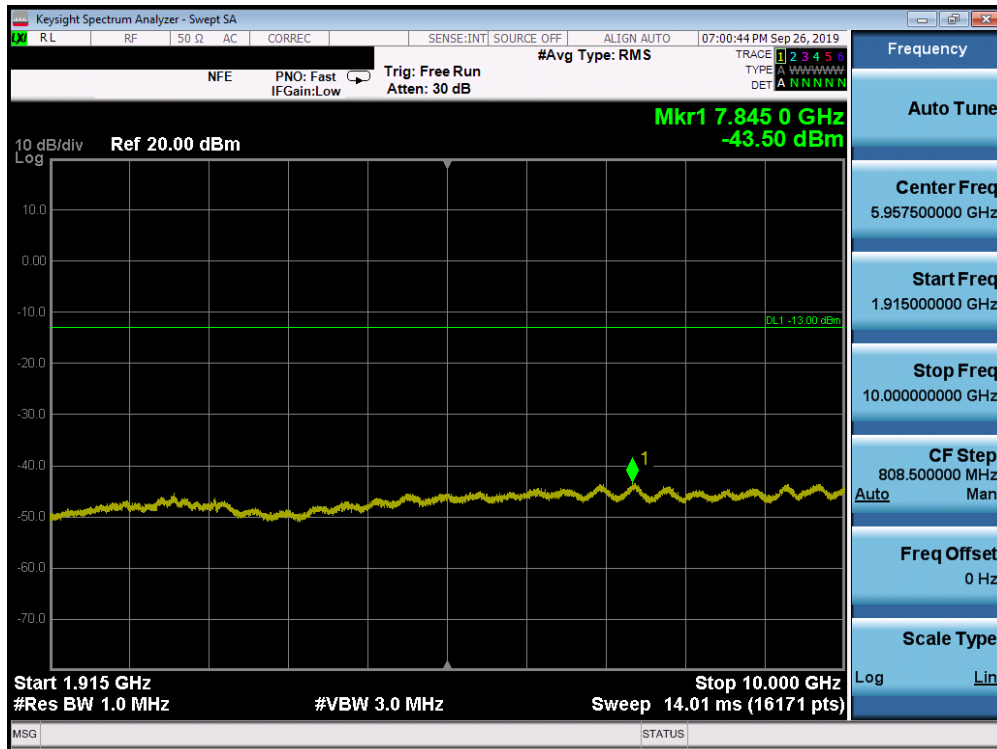


Plot 7-147. Conducted Spurious Plot (Band 25/2 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

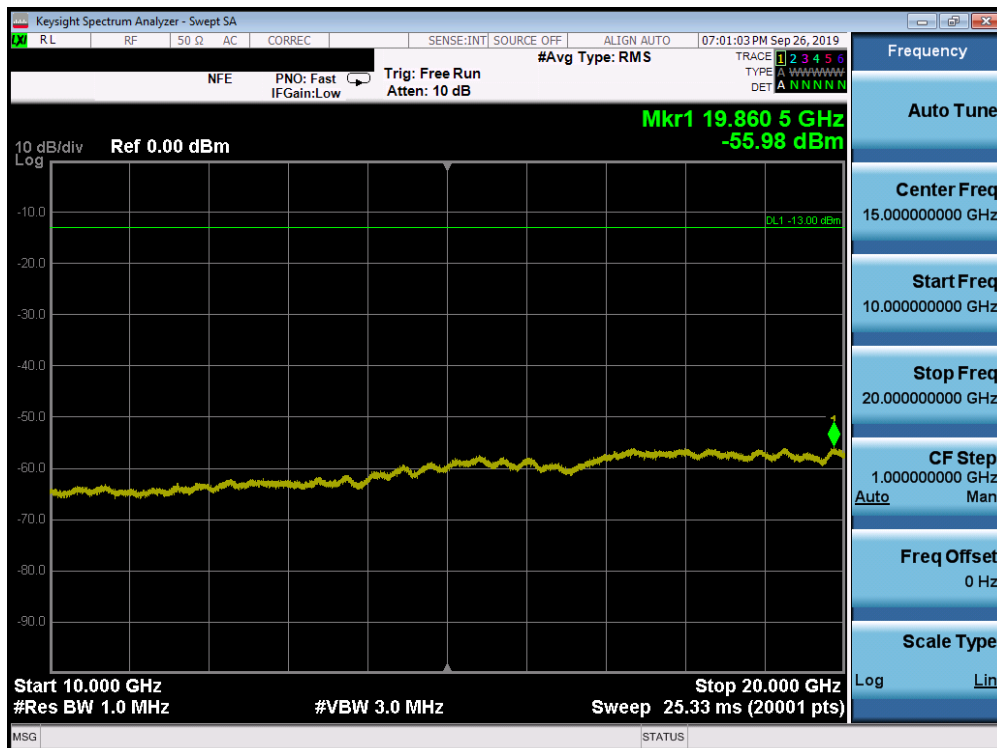


Plot 7-148. Conducted Spurious Plot (Band 25/2 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 95 of 244

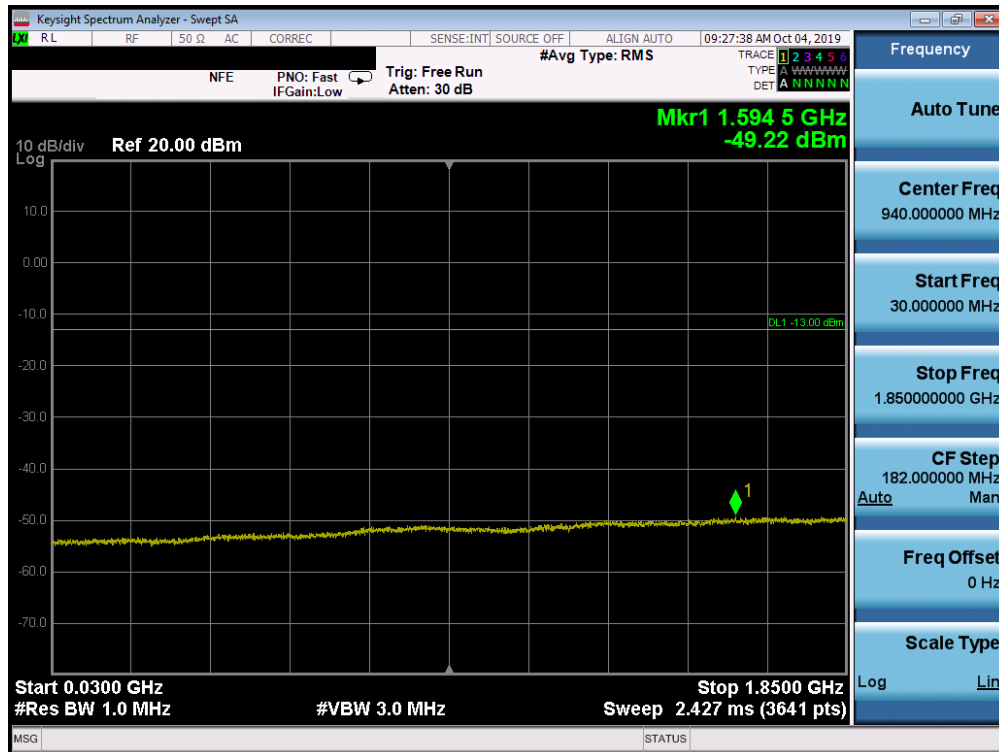


Plot 7-149. Conducted Spurious Plot (Band 25/2 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

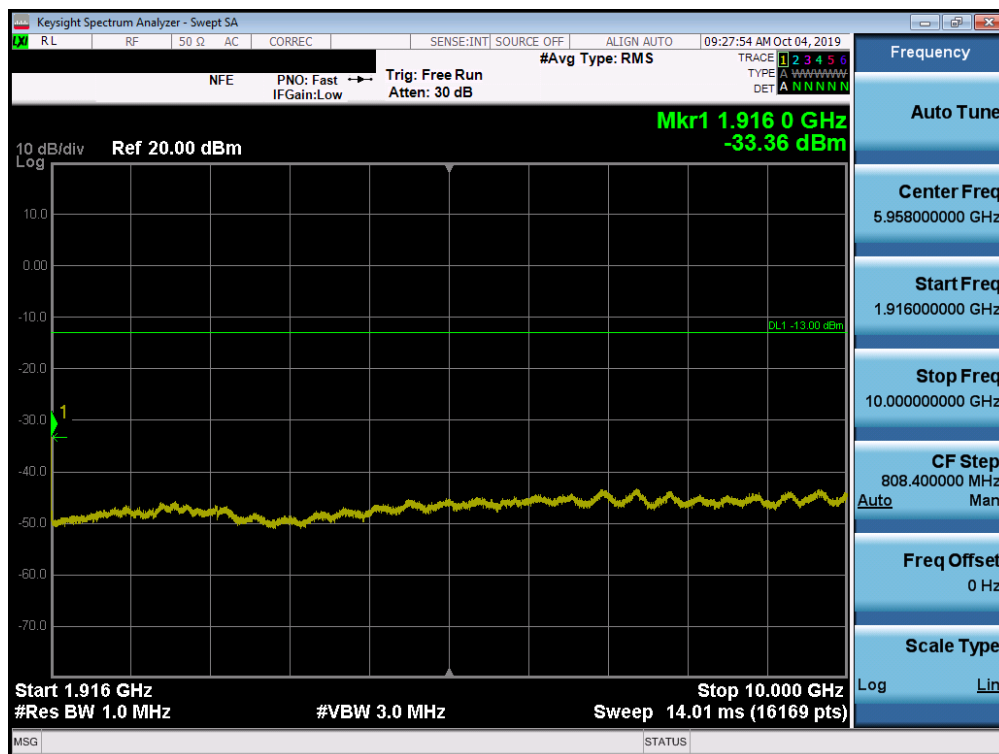


Plot 7-150. Conducted Spurious Plot (Band 25/2 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1-ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 96 of 244

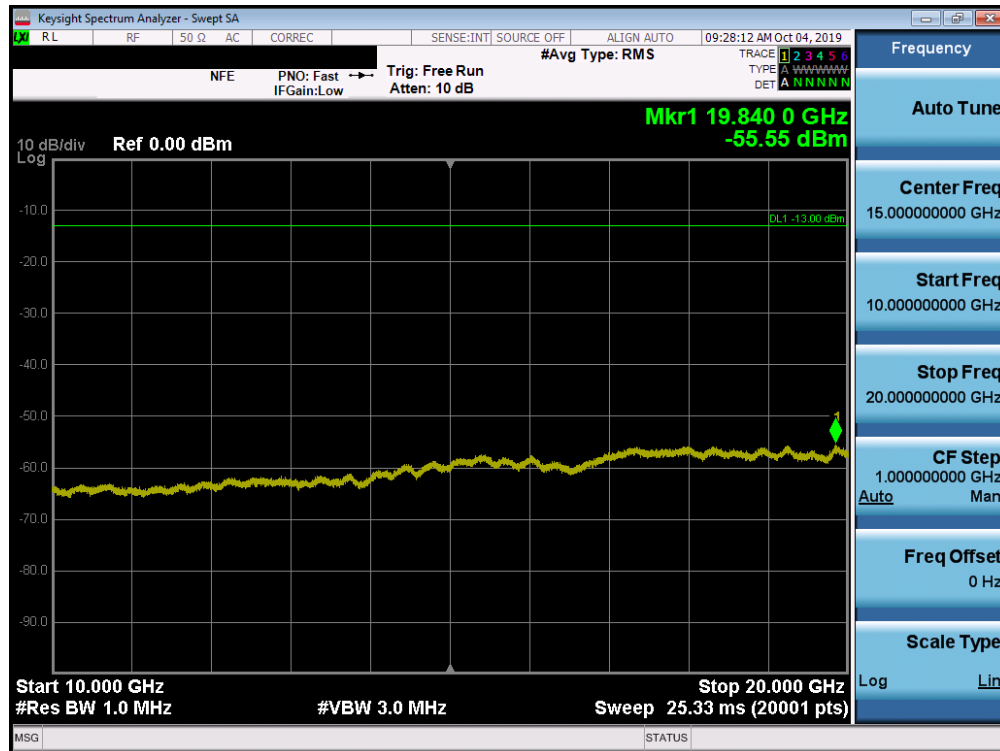


Plot 7-151. Conducted Spurious Plot (Band 25/2 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-152. Conducted Spurious Plot (Band 25/2 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

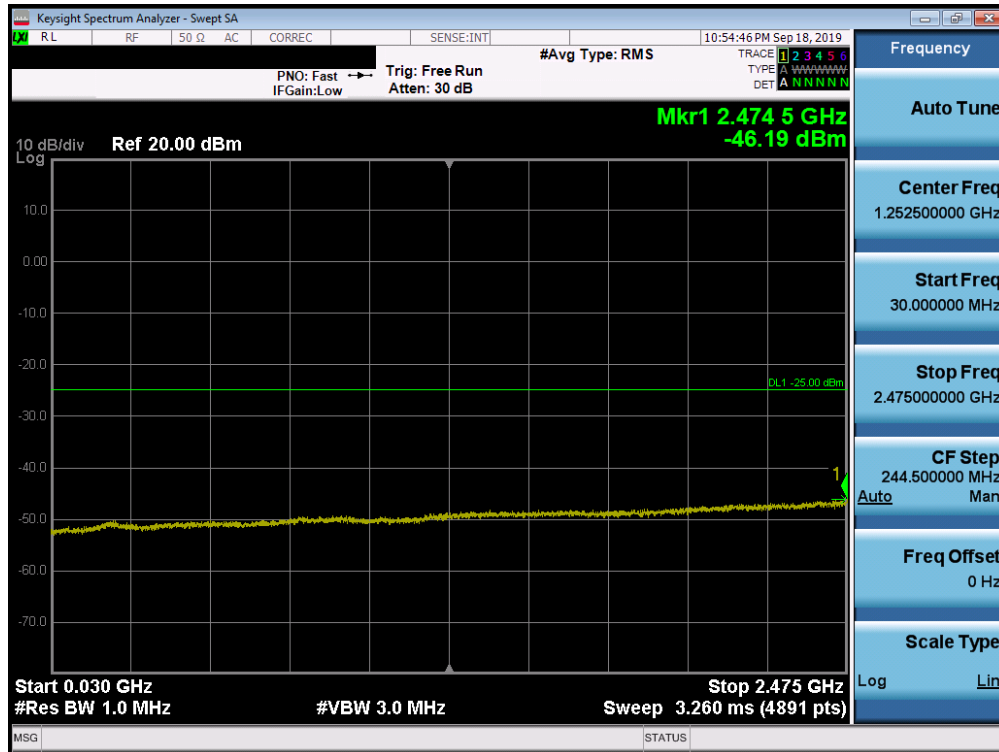
FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 97 of 244



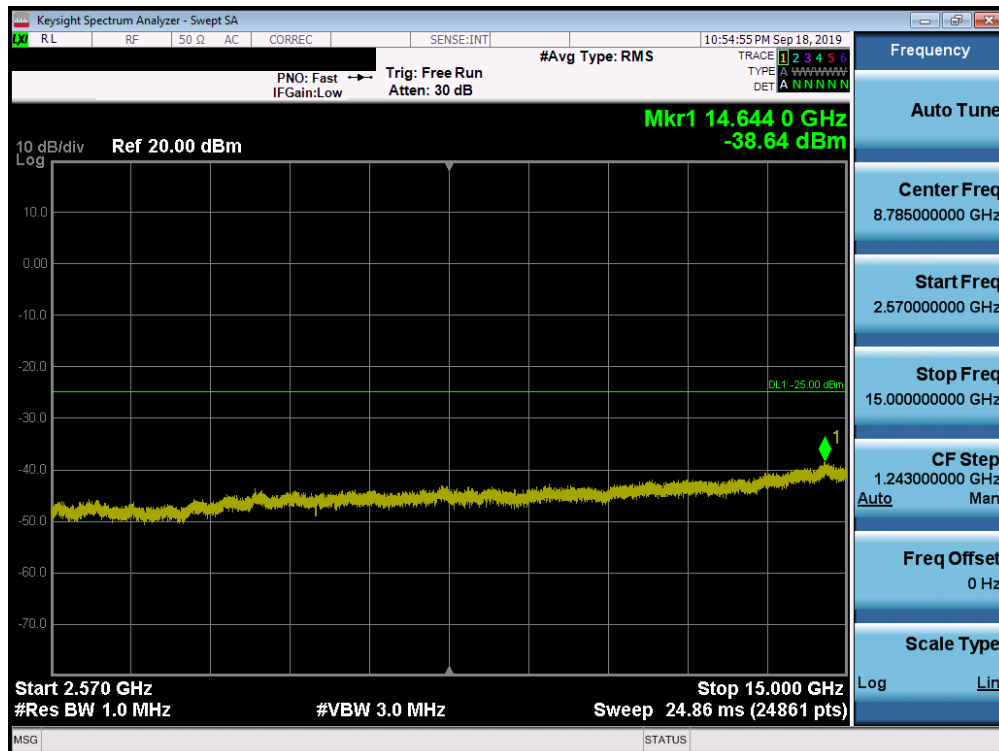
Plot 7-153. Conducted Spurious Plot (Band 25/2 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	<b>MEASUREMENT REPORT (CERTIFICATION)</b>	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 98 of 244

## Band 7

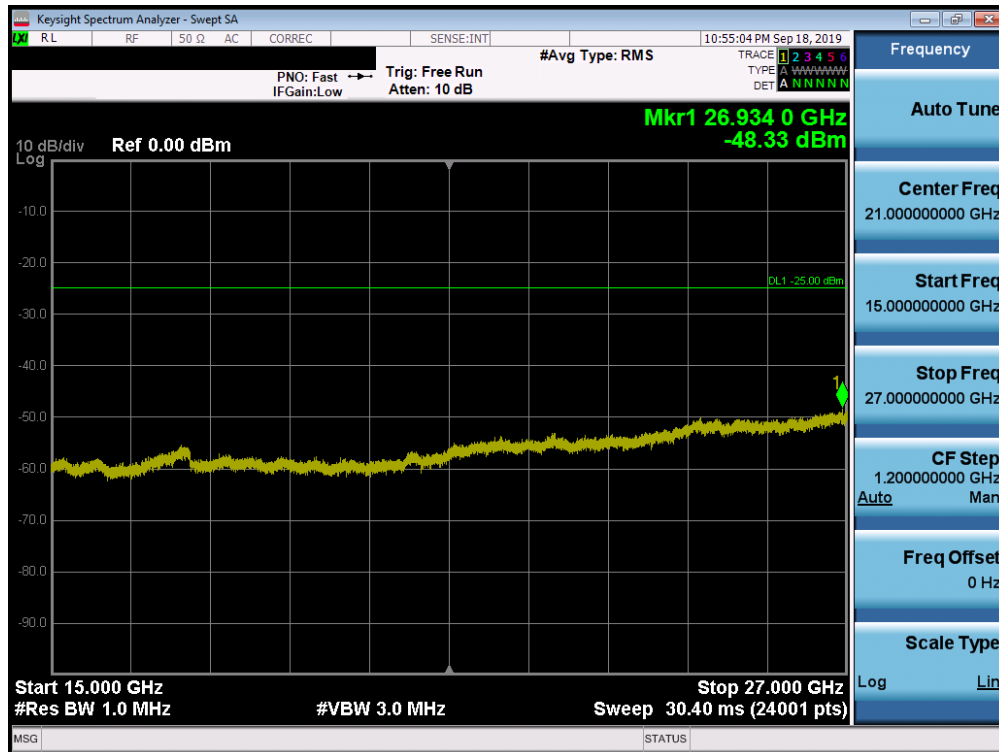


Plot 7-154. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-155. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 99 of 244



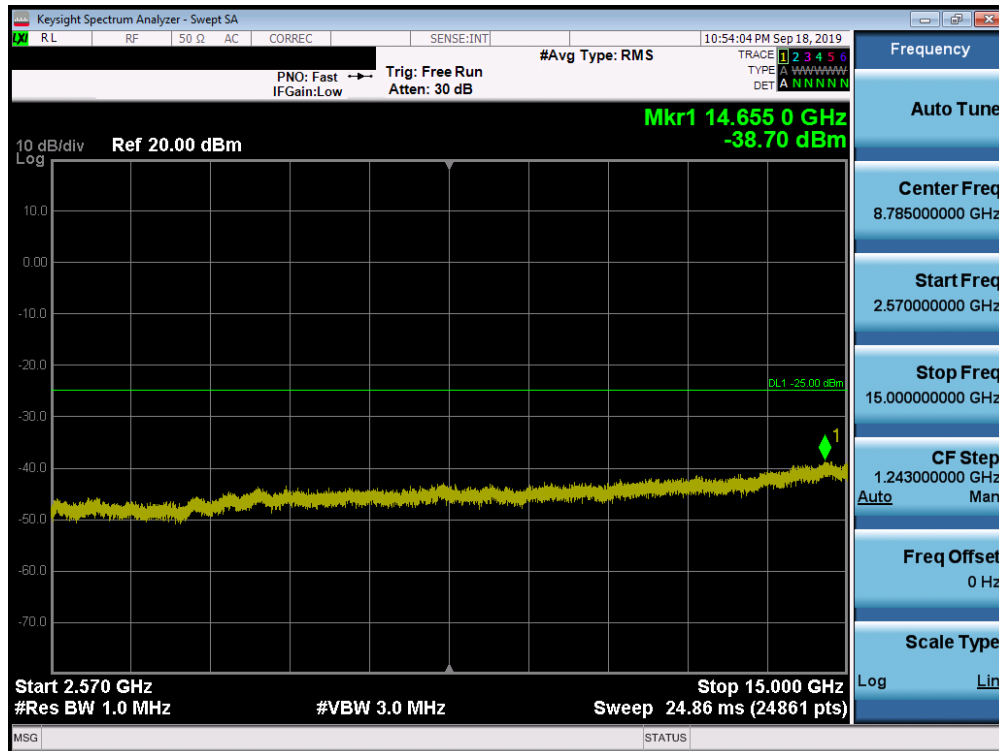
Plot 7-156. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-157. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 - 10/14/2019	EUT Type: Portable Handset		Page 100 of 244



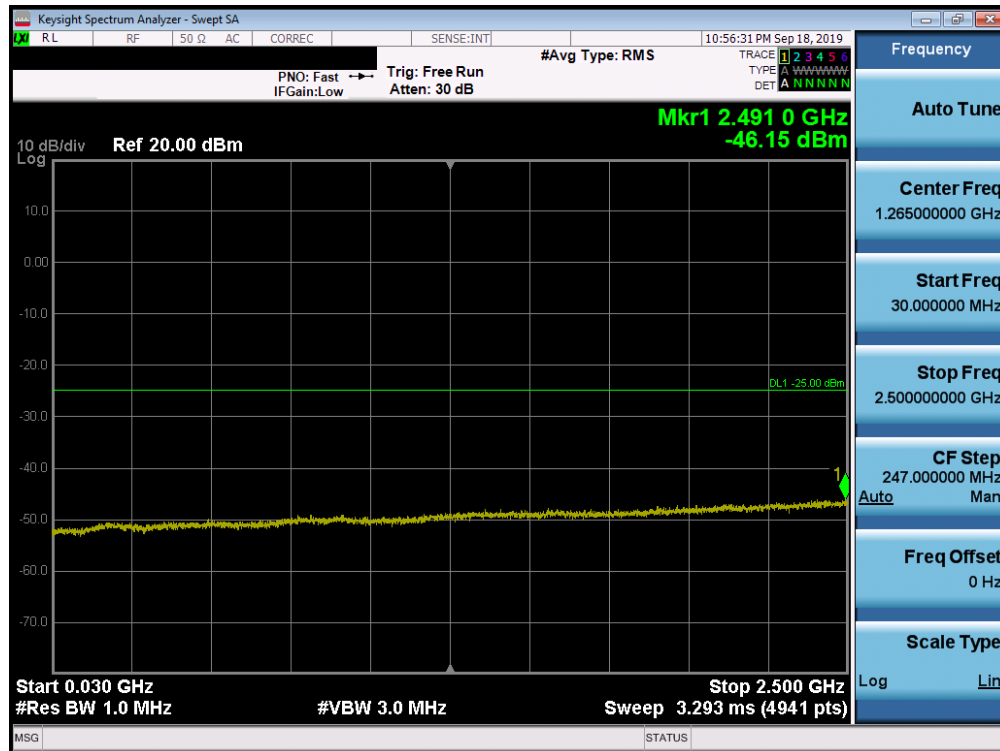


Plot 7-158. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-159. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 101 of 244



Plot 7-160. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-161. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

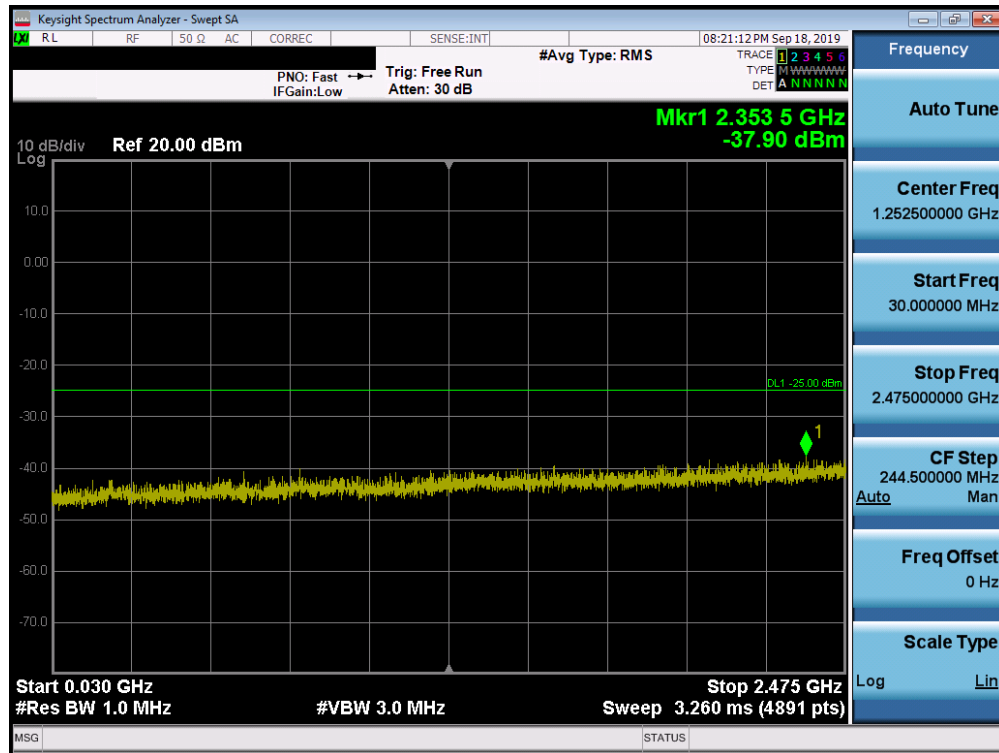
FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 102 of 244



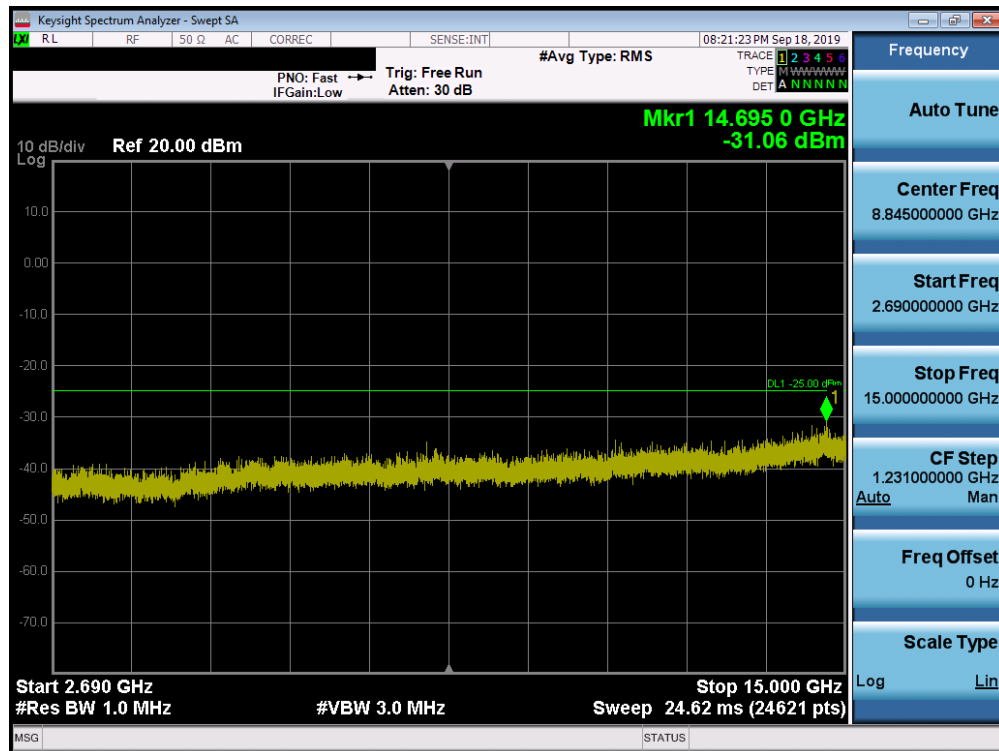
Plot 7-162. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	<b>MEASUREMENT REPORT (CERTIFICATION)</b>	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 103 of 244

## Band 41

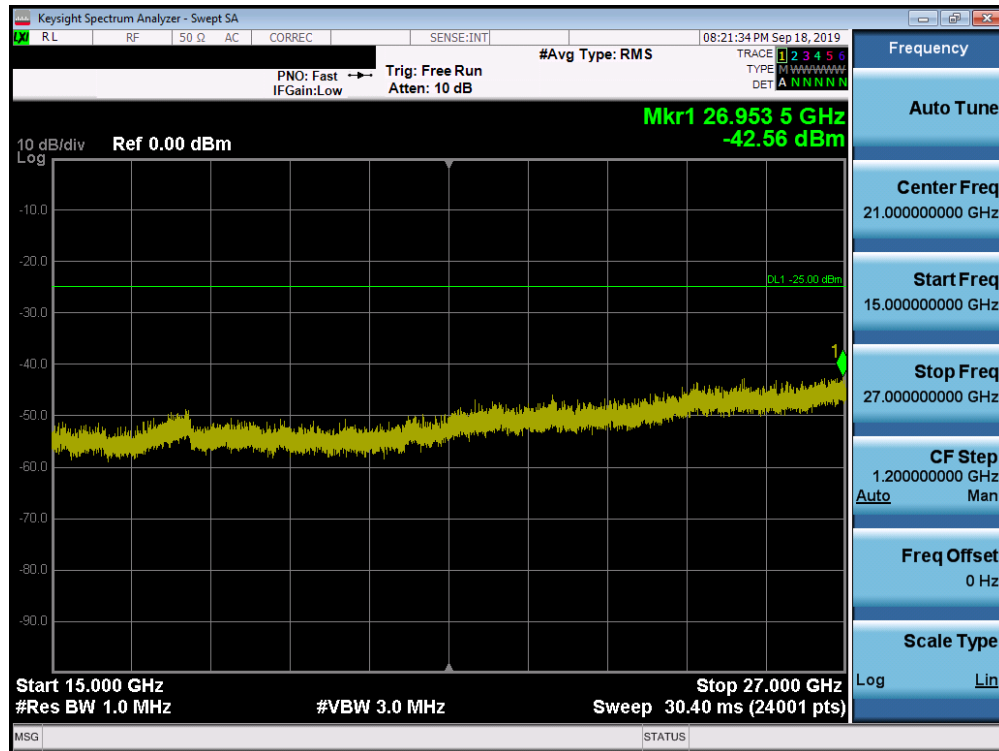


Plot 7-163. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

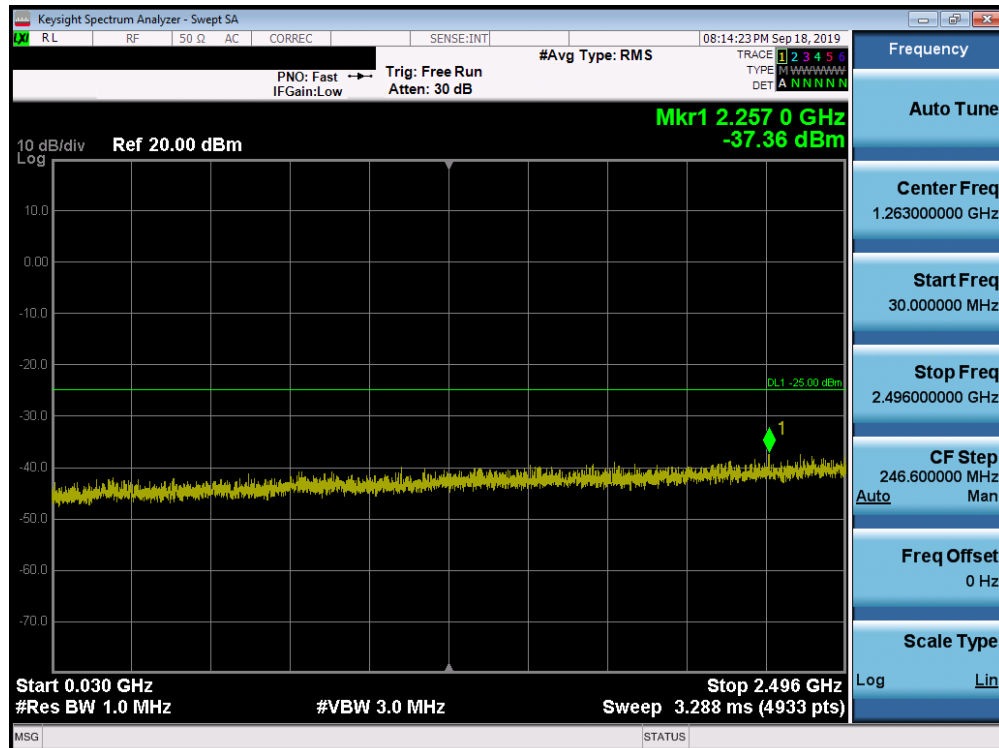


Plot 7-164. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 104 of 244

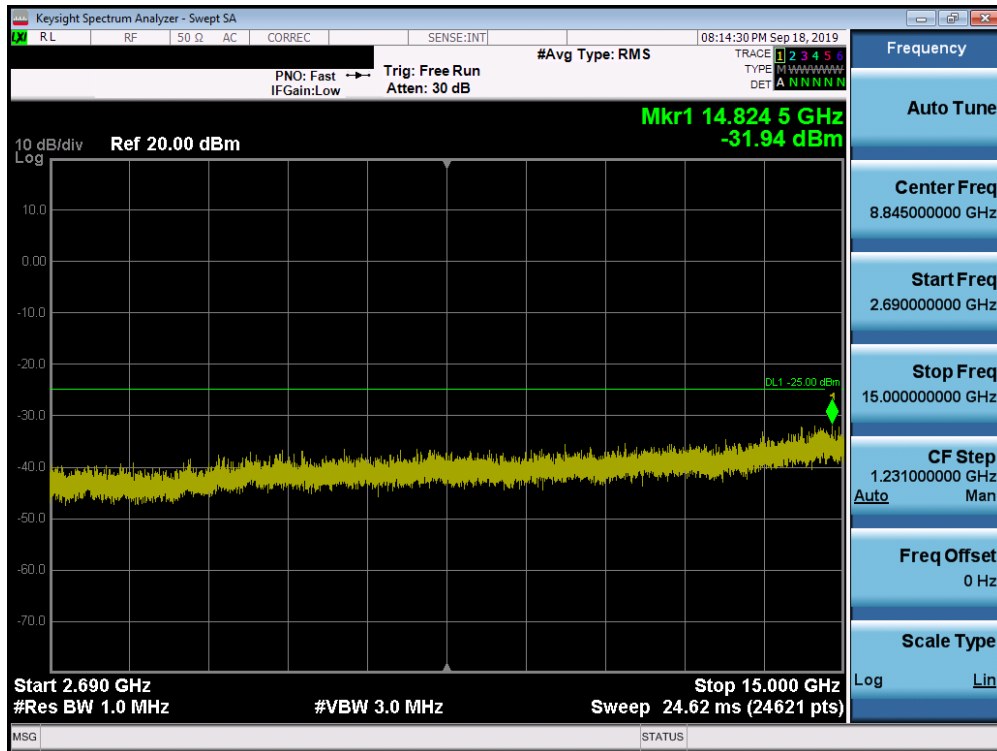


Plot 7-165. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

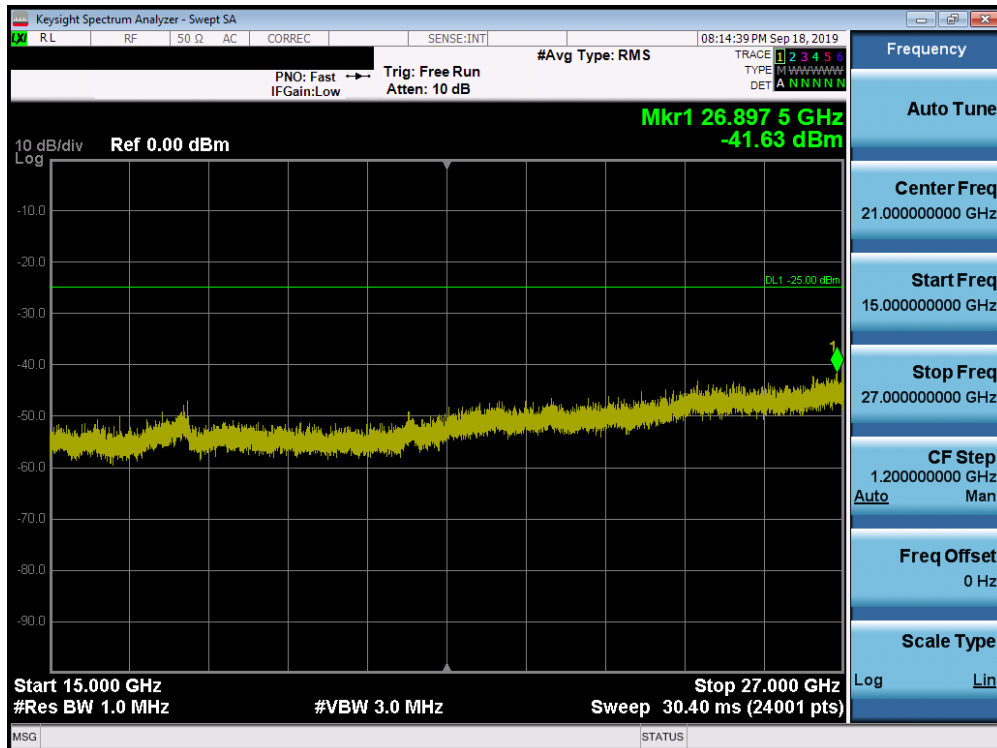


Plot 7-166. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 105 of 244

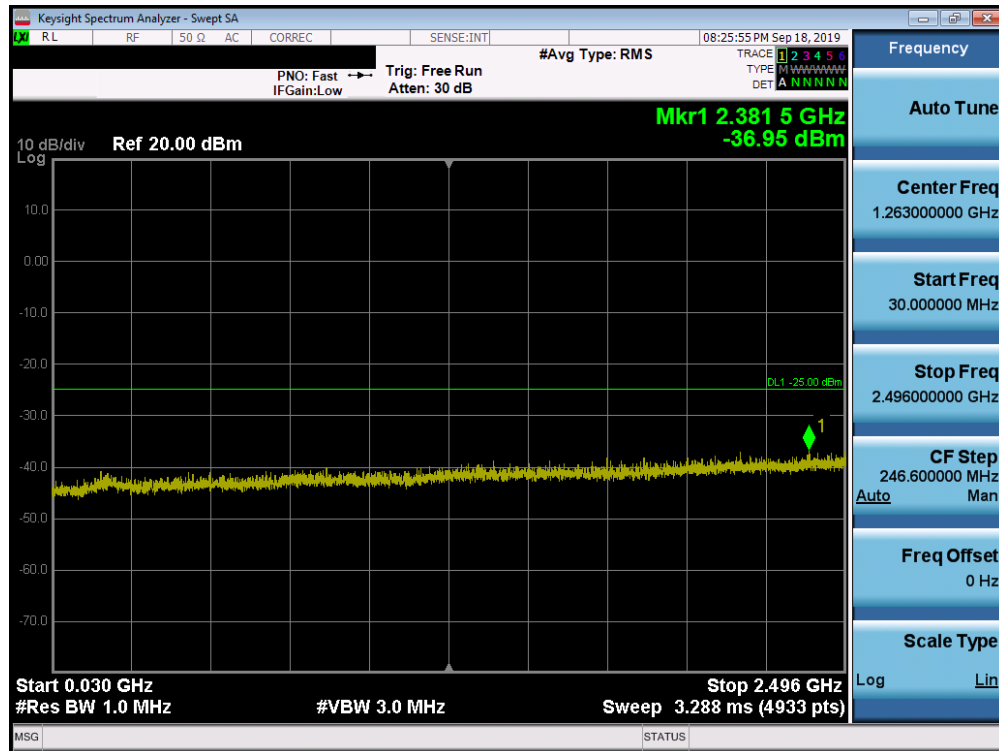


Plot 7-167. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

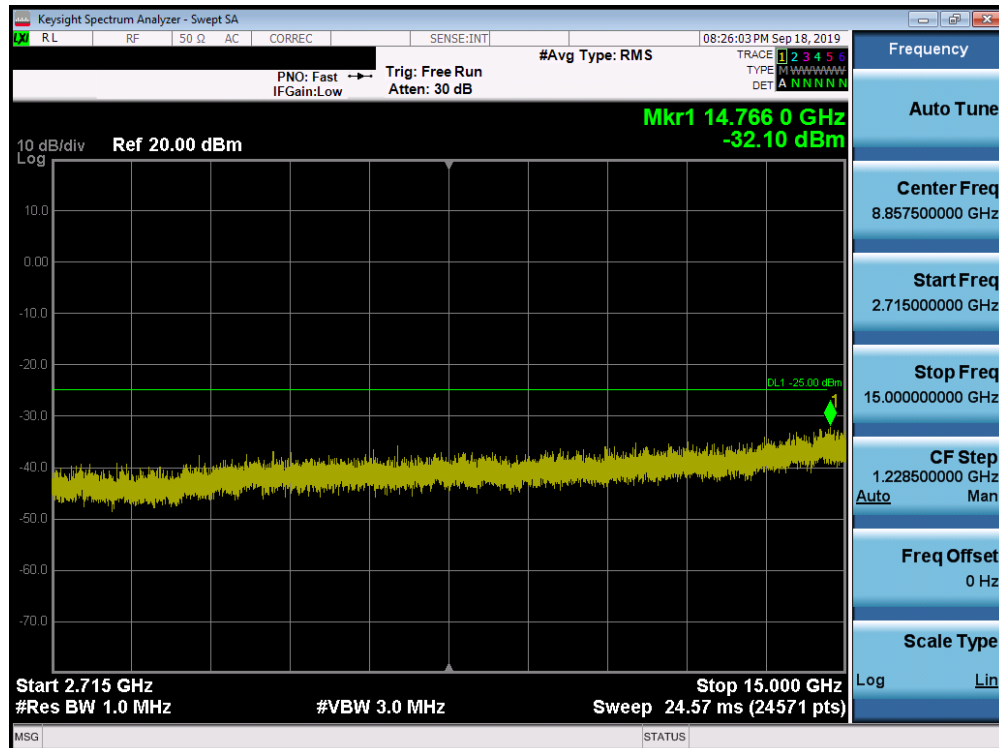


Plot 7-168. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 106 of 244



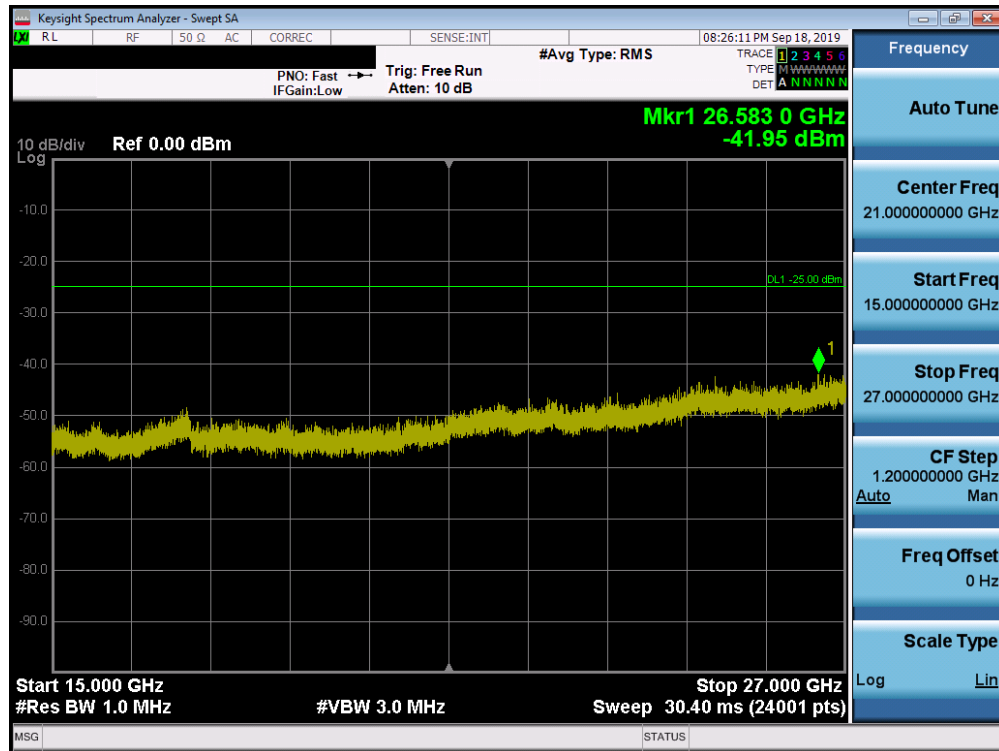
Plot 7-169. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-170. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 107 of 244





Plot 7-171. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFQ620WA	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1909120153-03-R1.ZNF	Test Dates: 9/12 – 10/14/2019	EUT Type: Portable Handset		Page 108 of 244