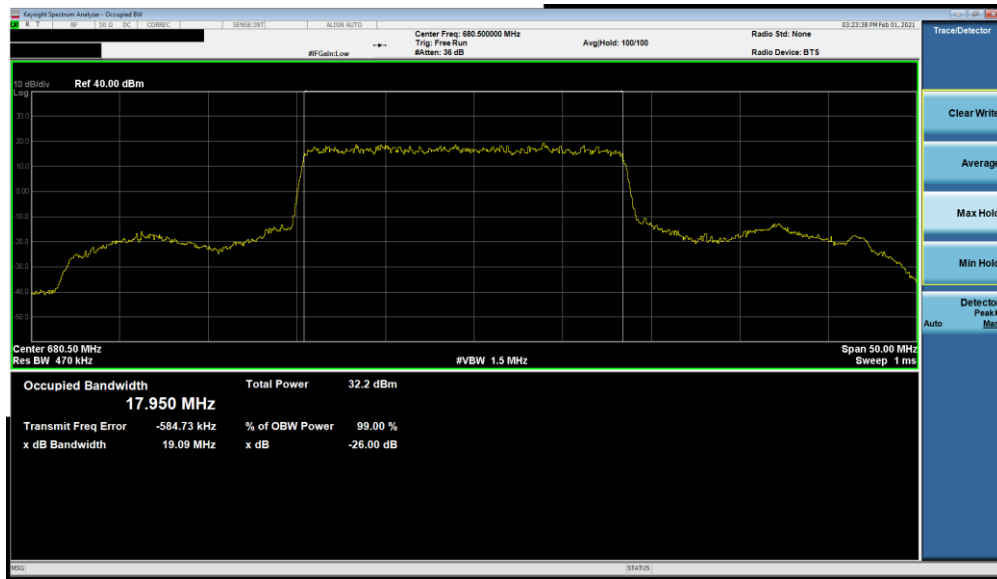
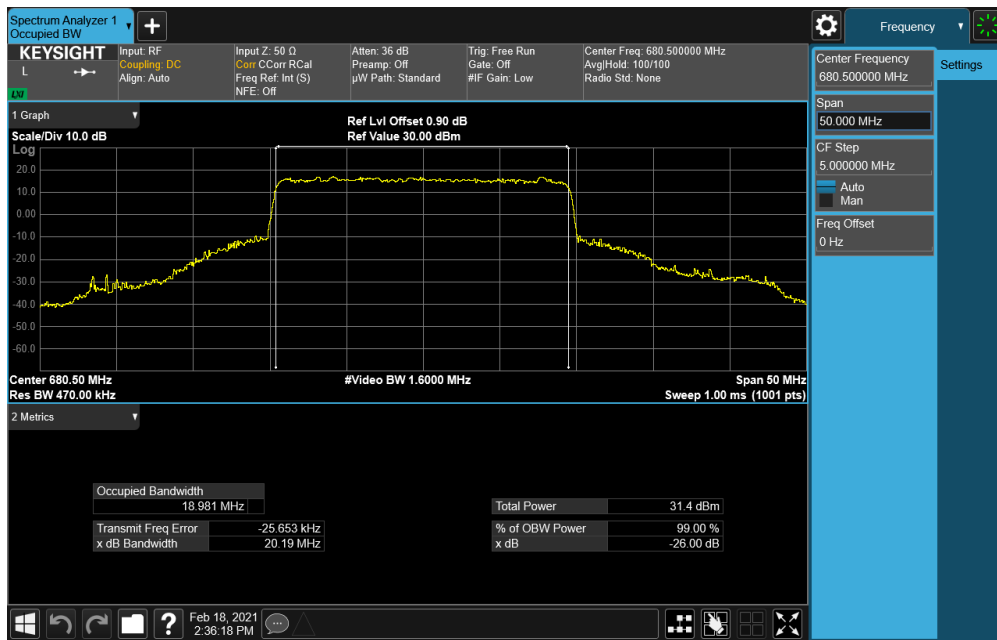


## NR Band n71

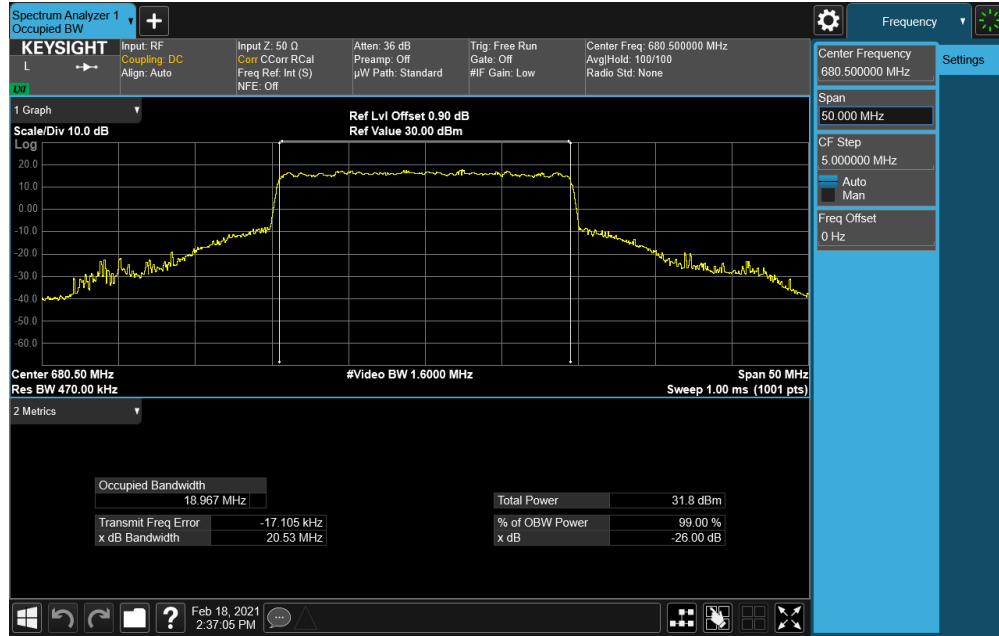


Plot 7-100. Occupied Bandwidth Plot (NR Band n71 - 20.0MHz DFT-s-OFDM  $\pi/2$  BPSK - Full RB)

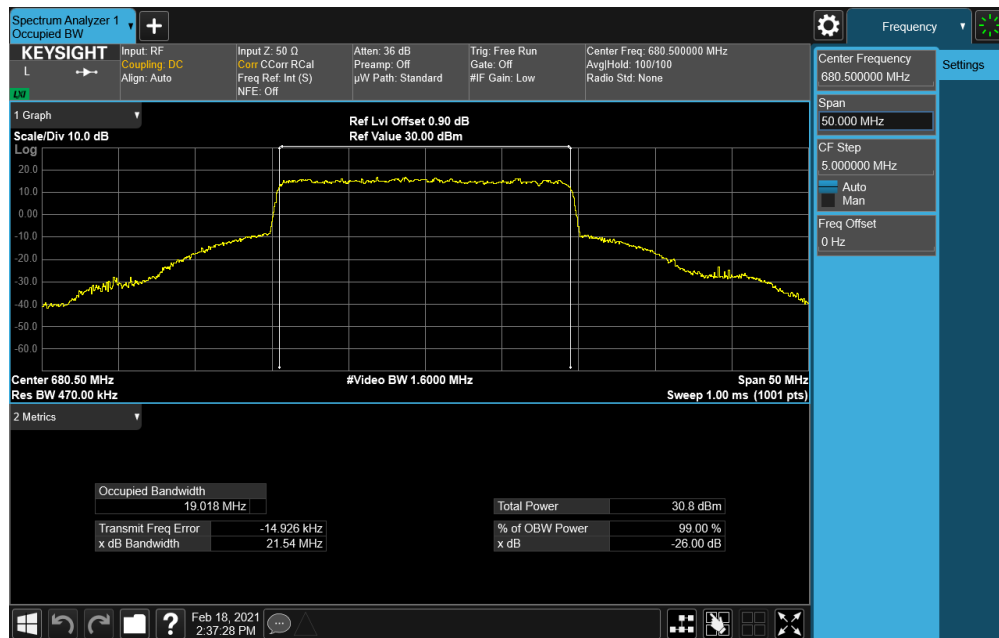


Plot 7-101. Occupied Bandwidth Plot (NR Band n71 - 20.0MHz CP-OFDM QPSK - Full RB)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 66 of 267



Plot 7-102. Occupied Bandwidth Plot (NR Band n71 - 20.0MHz CP-OFDM 16QAM - Full RB)



Plot 7-103. Occupied Bandwidth Plot (NR Band n71 - 20.0MHz CP-OFDM 64QAM - Full RB)

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 67 of 267

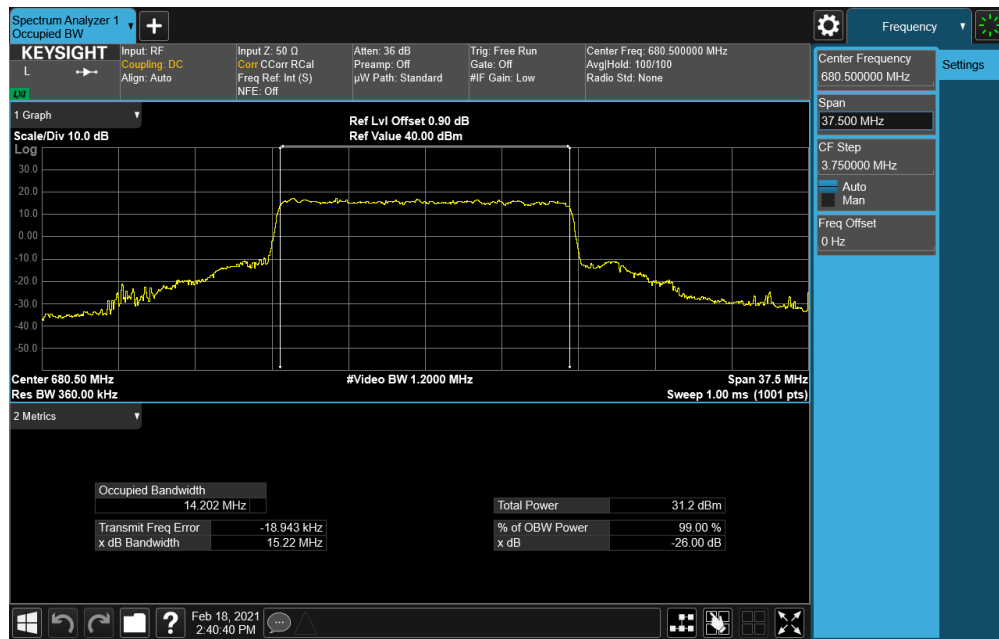


Plot 7-104. Occupied Bandwidth Plot (NR Band n71 - 20.0MHz CP-OFDM 256QAM - Full RB)

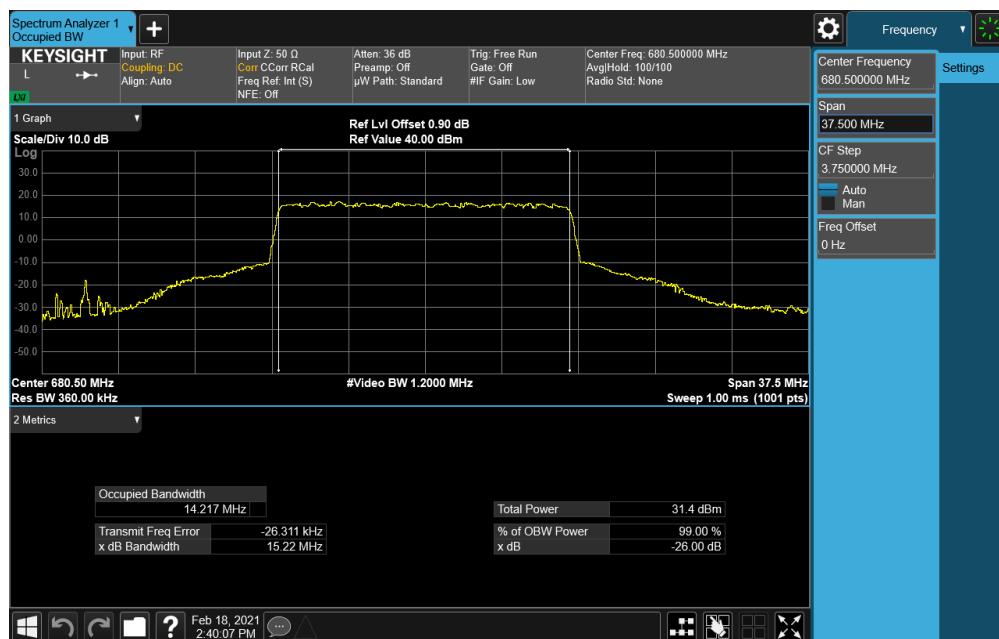


Plot 7-105. Occupied Bandwidth Plot (NR Band n71 - 15.0MHz DFT-s-OFDM  $\pi/2$  BPSK - Full RB)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 68 of 267

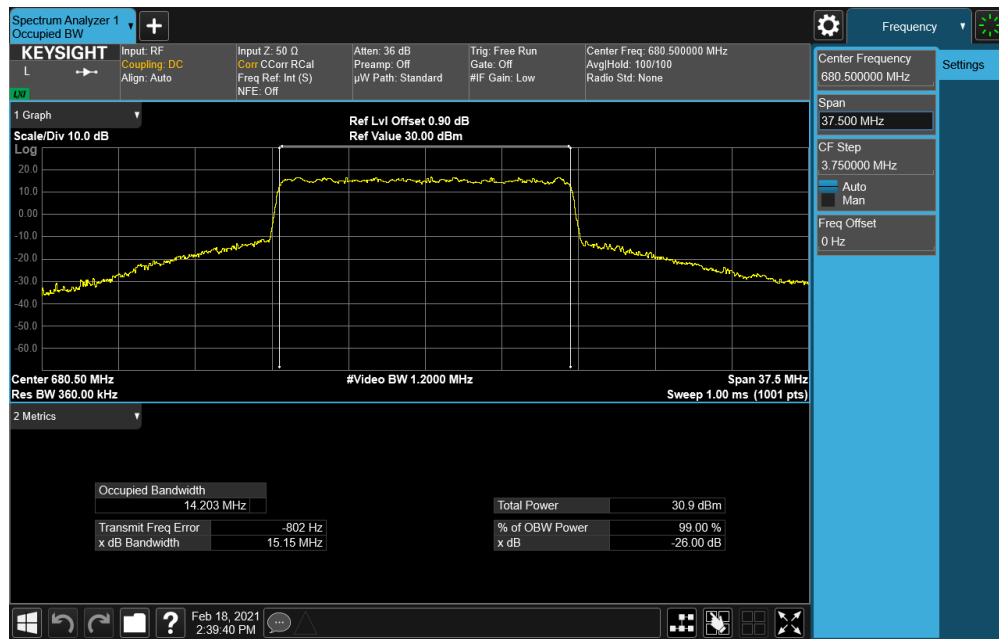


Plot 7-106. Occupied Bandwidth Plot (NR Band n71 - 15.0MHz CP-OFDM QPSK - Full RB)

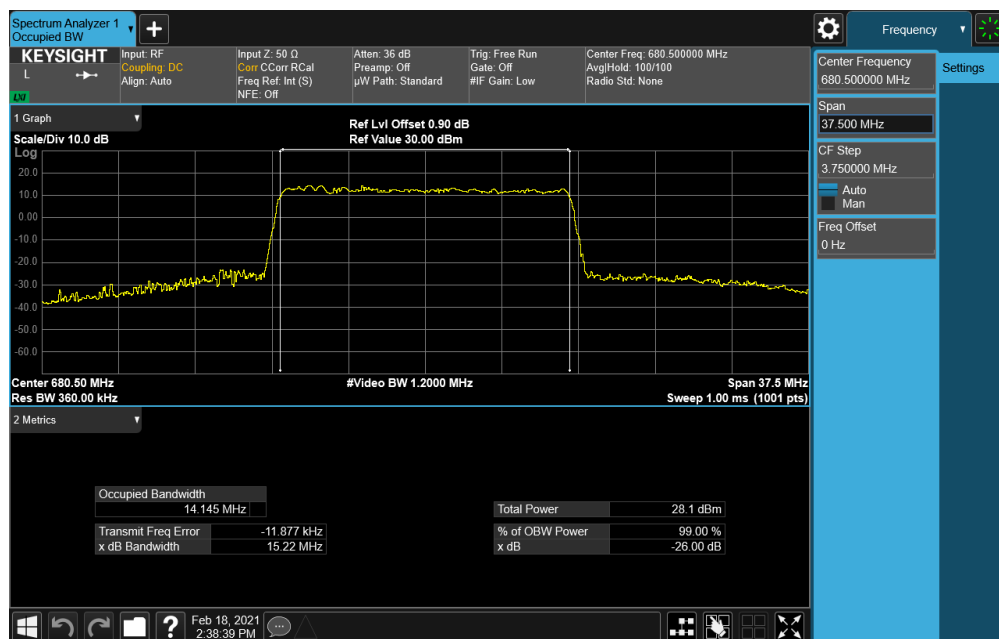


Plot 7-107. Occupied Bandwidth Plot (NR Band n71 - 15.0MHz CP-OFDM 16QAM - Full RB)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 69 of 267

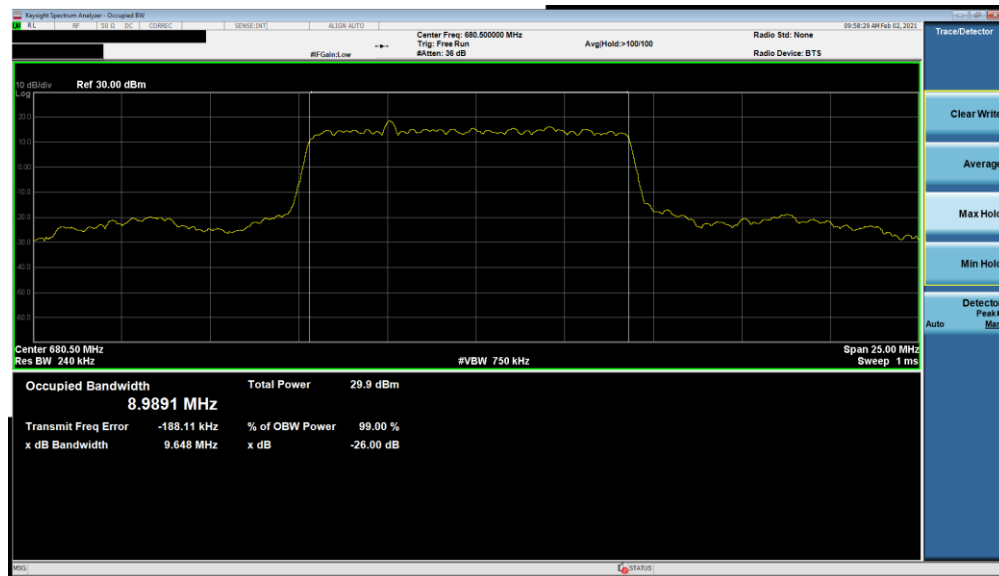


Plot 7-108. Occupied Bandwidth Plot (NR Band n71 - 15.0MHz CP-OFDM 64QAM - Full RB)

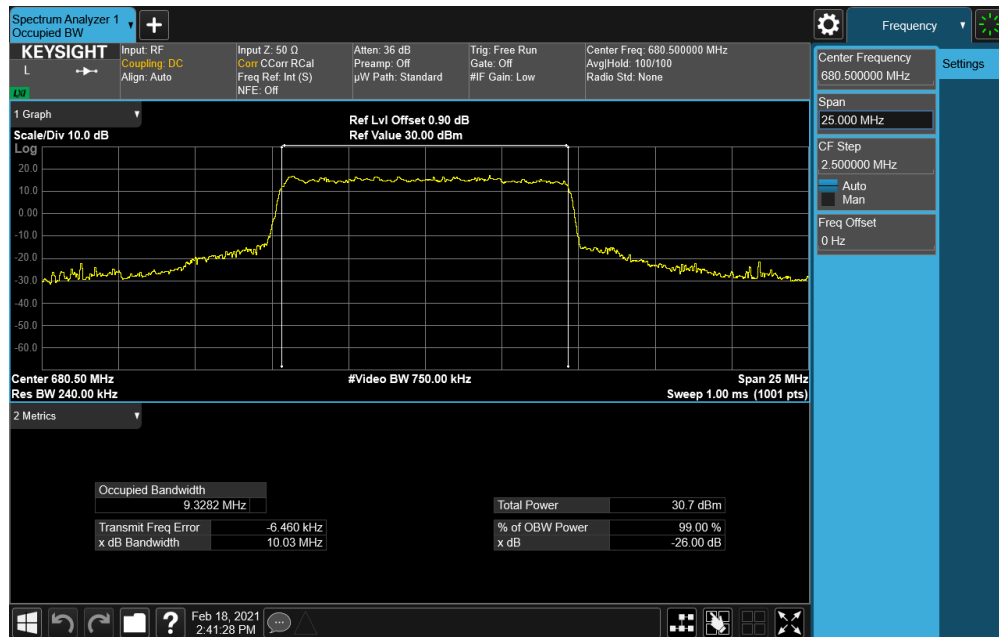


Plot 7-109. Occupied Bandwidth Plot (NR Band n71 - 15.0MHz CP-OFDM 256QAM - Full RB)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 70 of 267

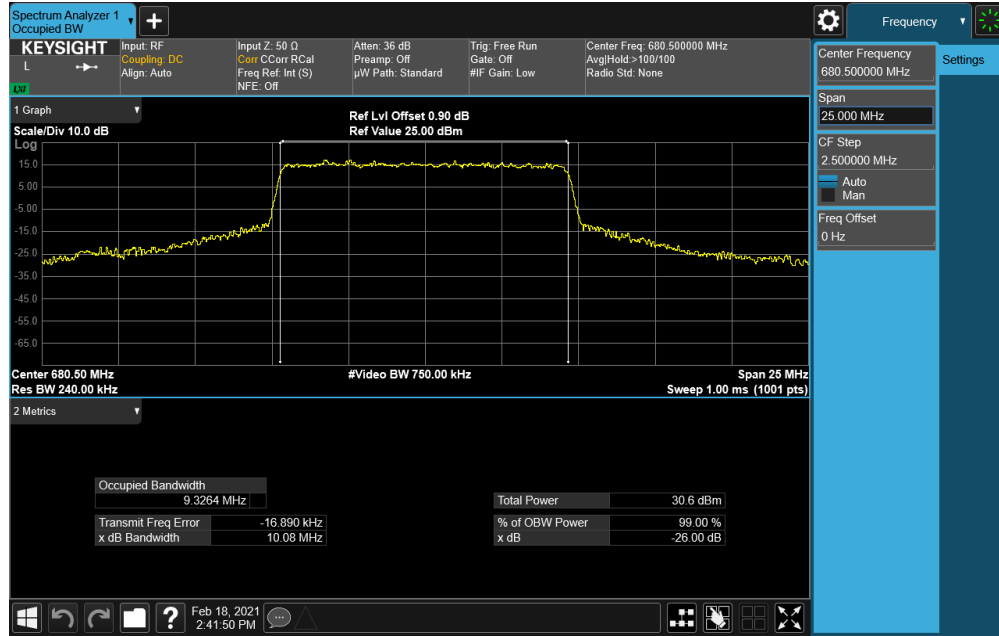


Plot 7-110. Occupied Bandwidth Plot (NR Band n71 - 10.0MHz DFT-s-OFDM  $\pi/2$  BPSK - Full RB)

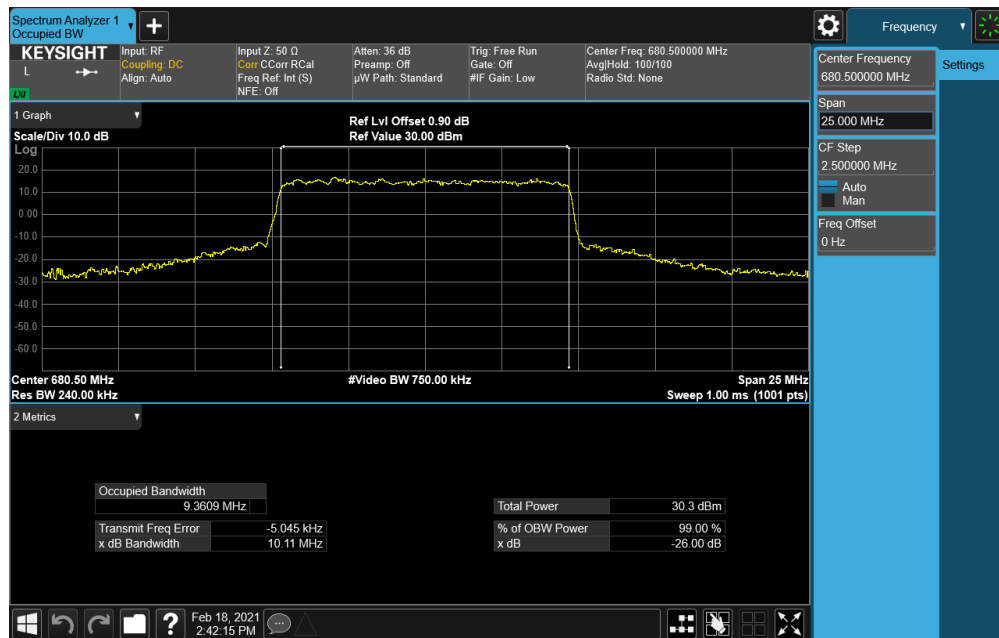


Plot 7-111. Occupied Bandwidth Plot (NR Band n71 - 10.0MHz CP-OFDM QPSK - Full RB)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 71 of 267

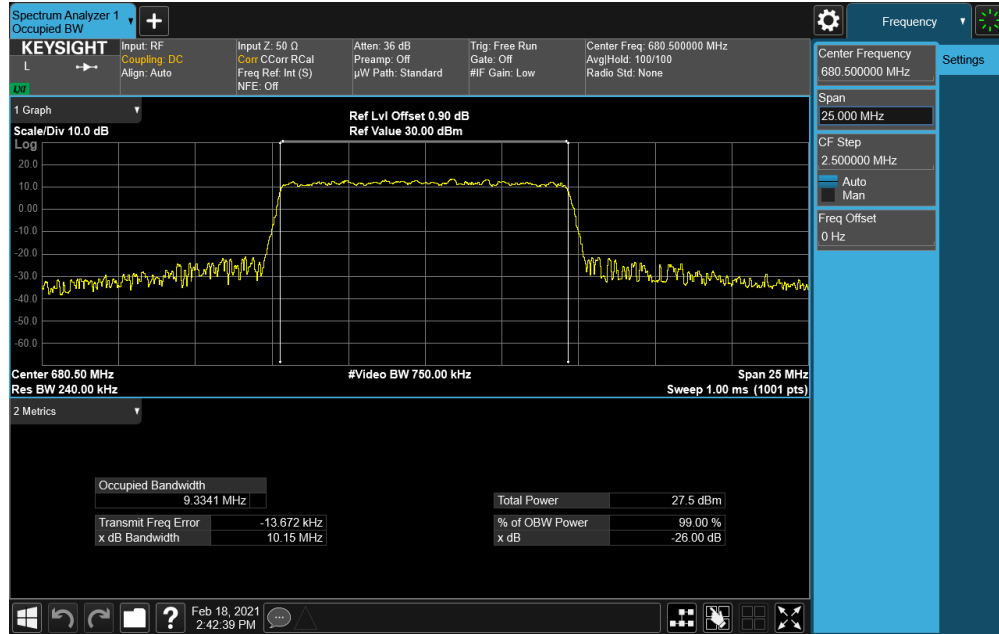


Plot 7-112. Occupied Bandwidth Plot (NR Band n71 - 10.0MHz CP-OFDM 16QAM - Full RB)

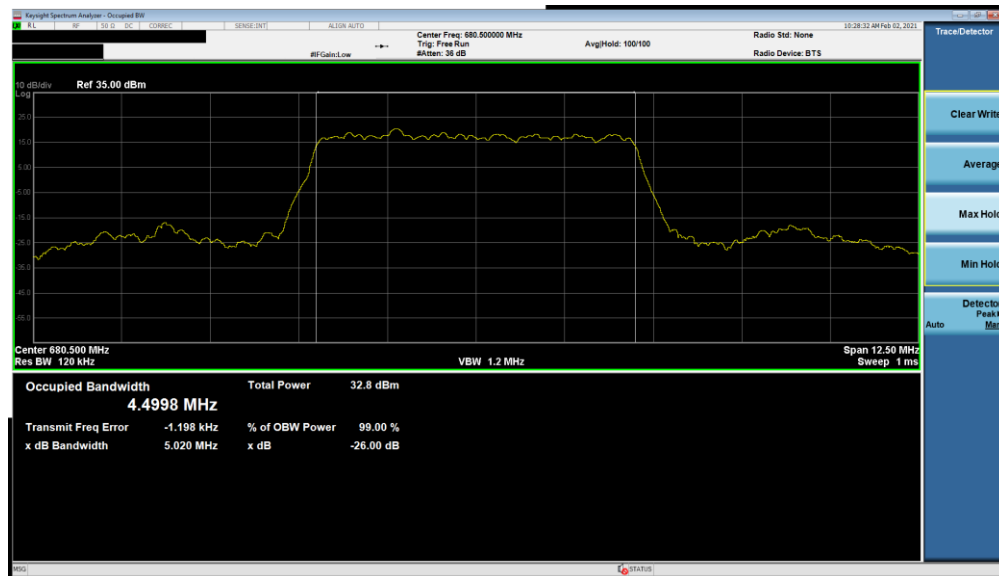


Plot 7-113. Occupied Bandwidth Plot (NR Band n71 - 10.0MHz CP-OFDM 64QAM - Full RB)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 72 of 267



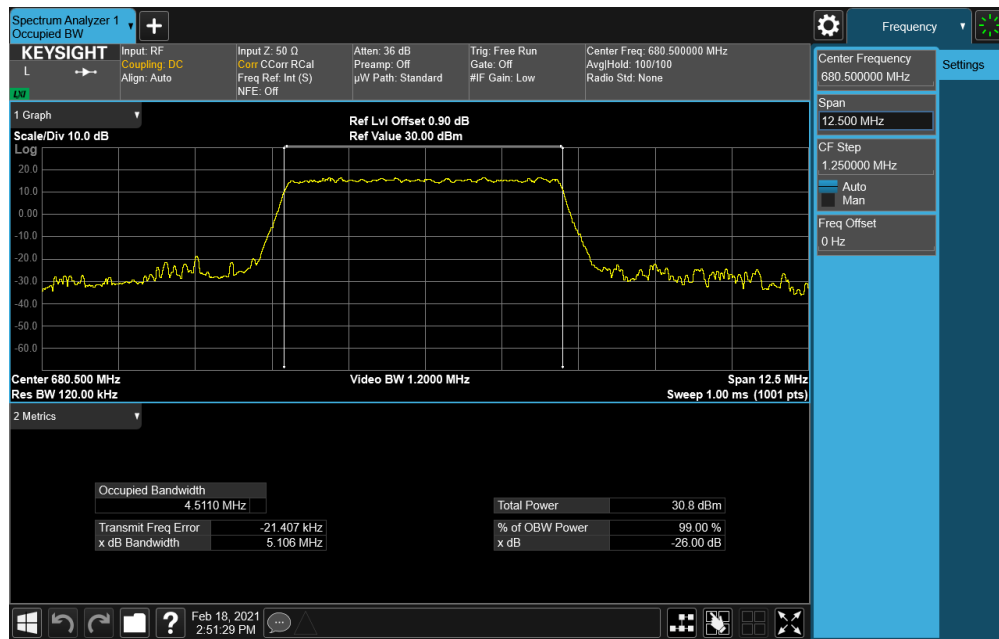
Plot 7-114. Occupied Bandwidth Plot (NR Band n71 - 10.0MHz CP-OFDM 256QAM - Full RB)



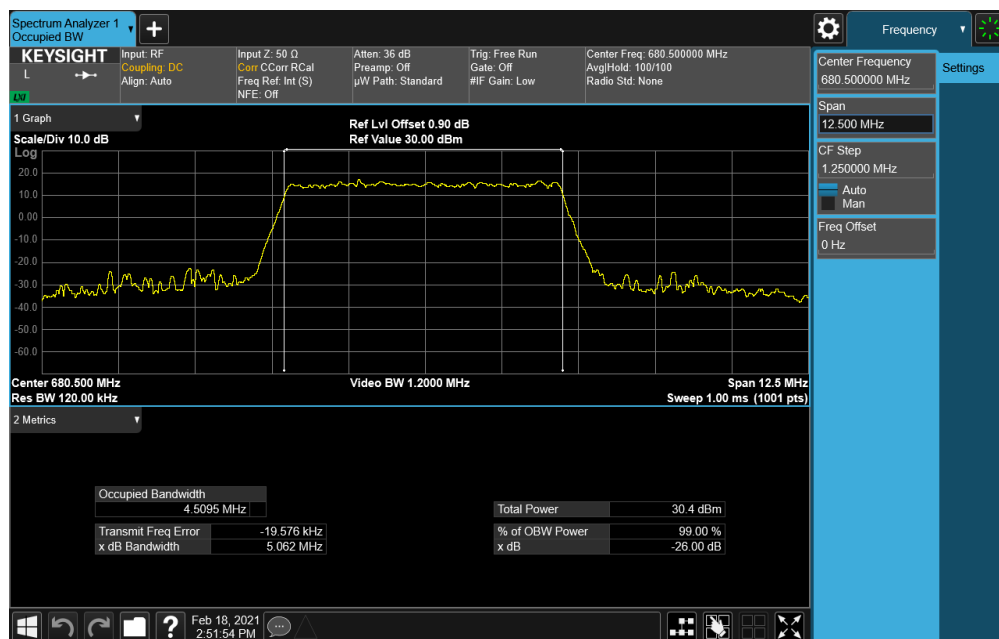
Plot 7-115. Occupied Bandwidth Plot (NR Band n71 - 5.0MHz DFT-s-OFDM  $\pi/2$  BPSK - Full RB)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 73 of 267



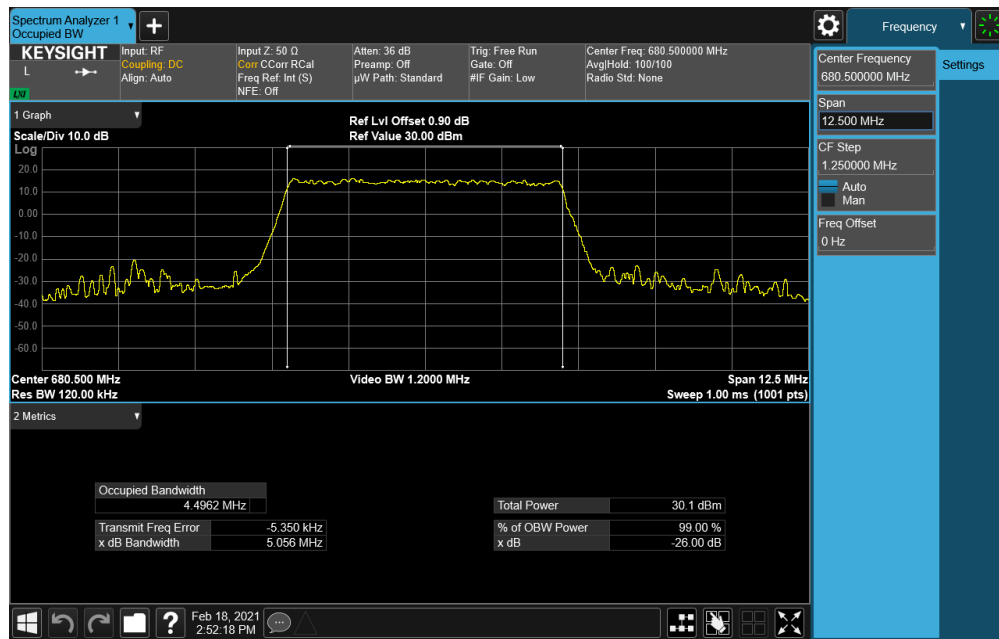


Plot 7-116. Occupied Bandwidth Plot (NR Band n71 - 5.0MHz CP-OFDM QPSK - Full RB)

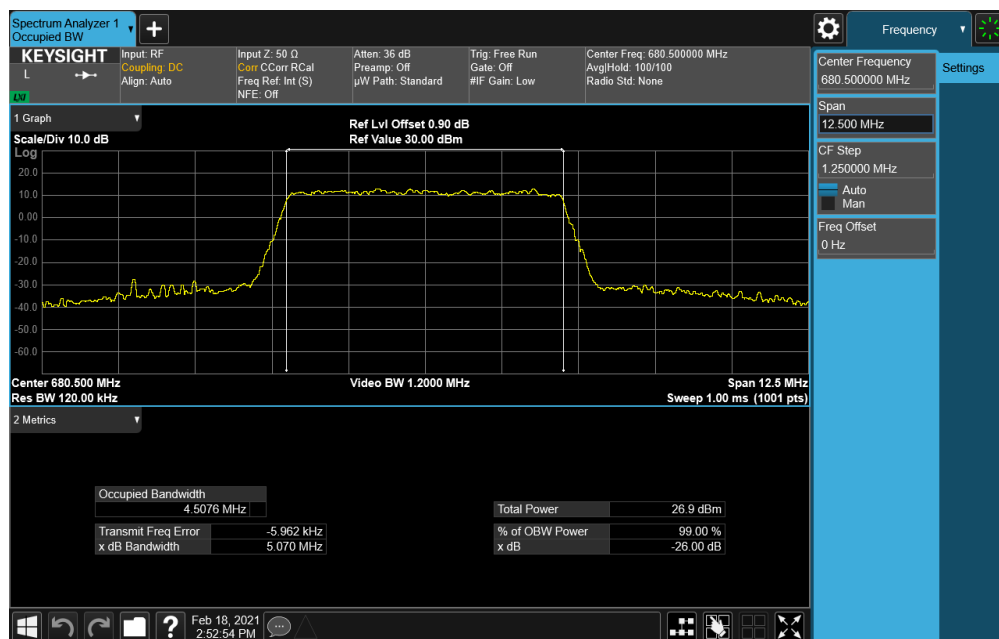


Plot 7-117. Occupied Bandwidth Plot (NR Band n71 - 5.0MHz CP-OFDM 16QAM - Full RB)

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 74 of 267



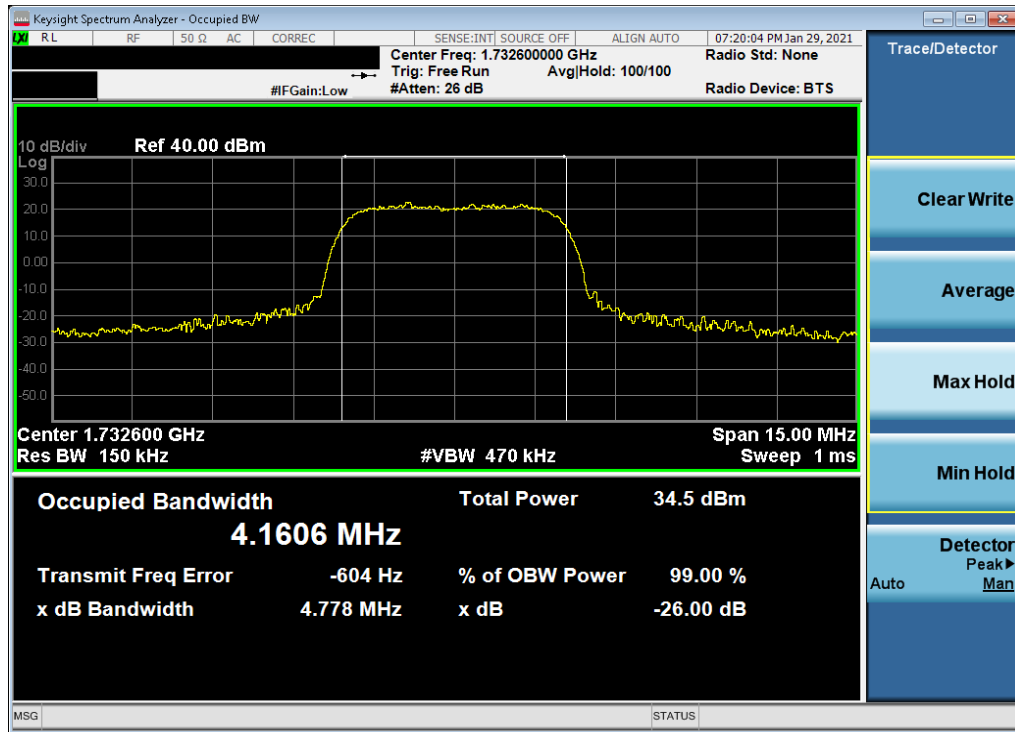
Plot 7-118. Occupied Bandwidth Plot (NR Band n71 - 5.0MHz CP-OFDM 64QAM - Full RB)



Plot 7-119. Occupied Bandwidth Plot (NR Band n71 - 5.0MHz CP-OFDM 256QAM - Full RB)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 75 of 267

## WCDMA AWS



Plot 7-120. Occupied Bandwidth Plot (WCDMA, Ch. 1413)

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 76 of 267

## 7.3 Spurious and Harmonic Emissions at Antenna Terminal

**\$2.1051, \$27.53**

### 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 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. All ports were tested and only the worst case data were reported.

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

### Test Procedure Used

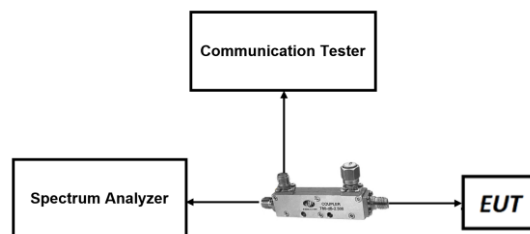
KDB 971168 D01 v03r01 – Section 6.0

### Test Settings


1. Start frequency was set to 30MHz and stop frequency was set to 18GHz (separated into at least two plots per channel)
2. RBW  $\geq$  100kHz
3. VBW  $\geq$  3 x RBW
4. Detector = RMS
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

### Test Setup

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




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

FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 77 of 267

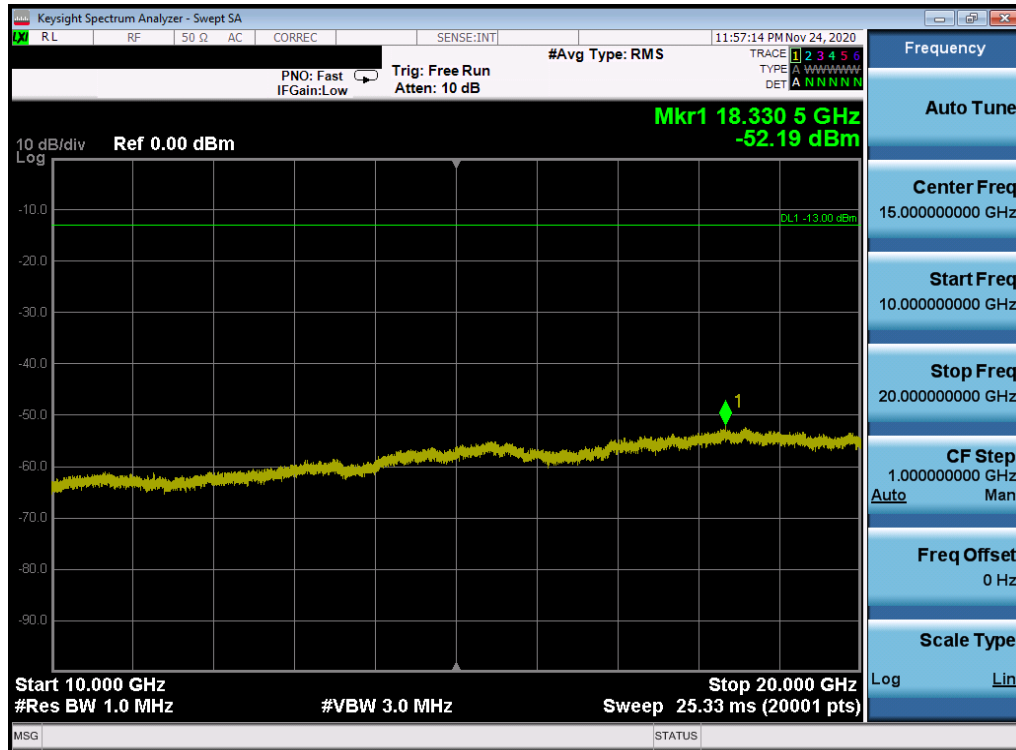
## Test Notes

1. Per Part 27, compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth 100 kHz or greater for measurements below 1GHz. 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.
2. 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.

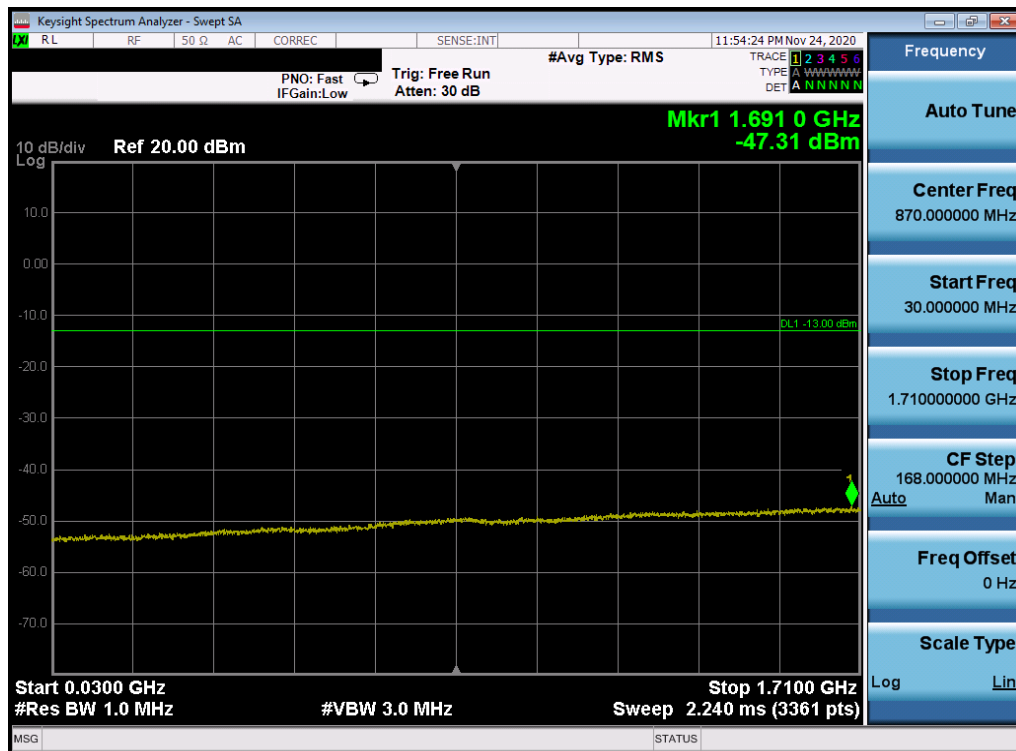
<b>FCC ID:</b> BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>	<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1C2101020005-04-R1.BCG	<b>Test Dates:</b> 12/15/2020 - 02/20/2021	<b>EUT Type:</b> Tablet Device
Page 78 of 267		



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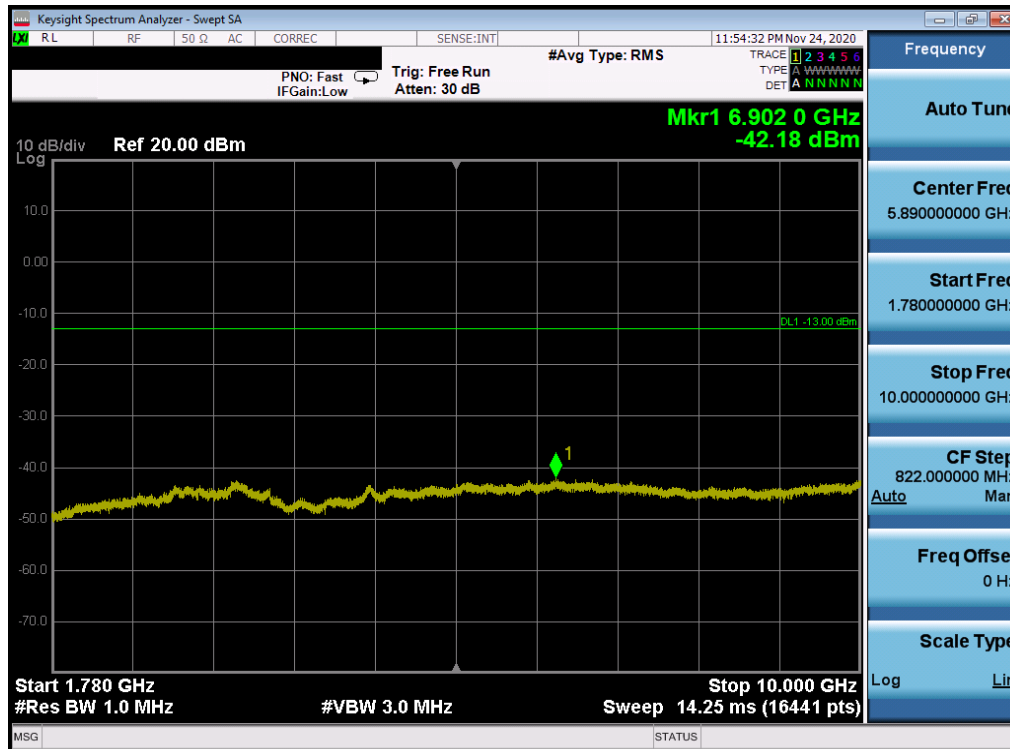


Plot 7-123. CSE (LTE Band 66/4 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

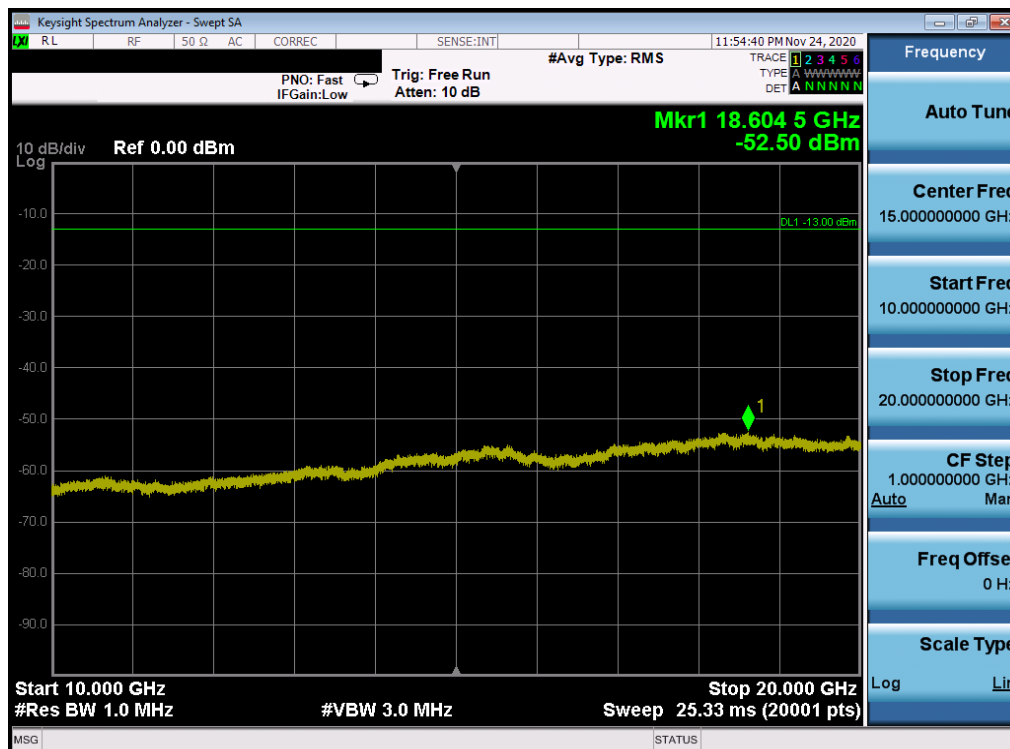


Plot 7-124. CSE (LTE Band 66/4 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)


FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 80 of 267



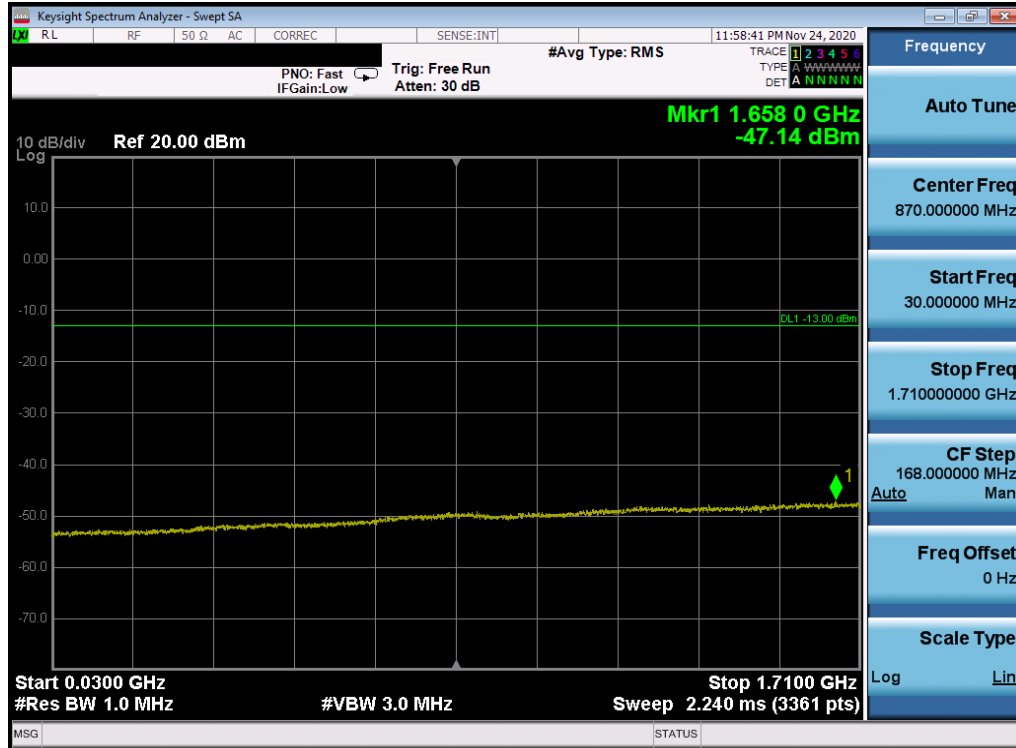
Plot 7-125. CSE (LTE Band 66/4 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



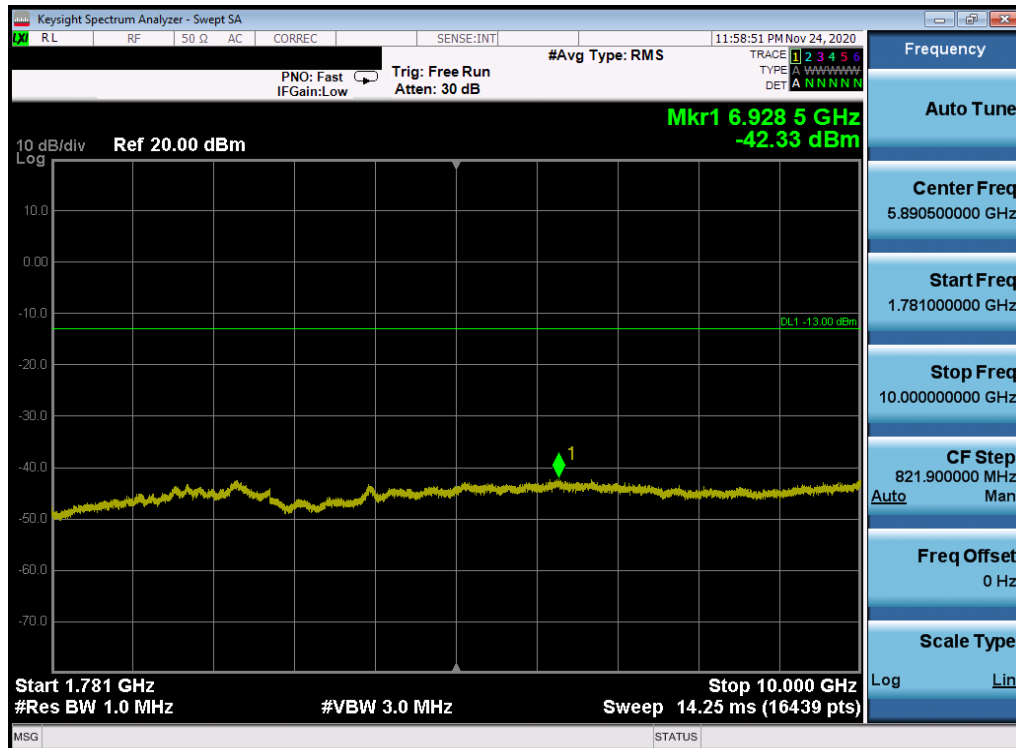
Plot 7-126. CSE (LTE Band 66/4 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 81 of 267



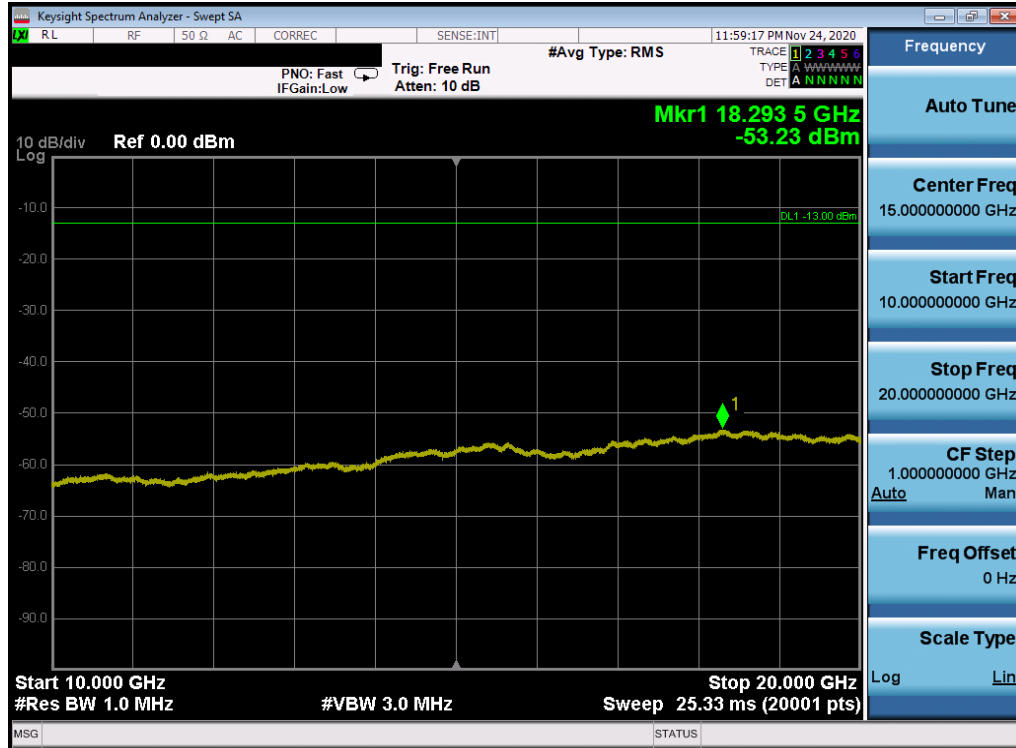


Plot 7-127. CSE (LTE Band 66/4 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-128. CSE (LTE Band 66/4 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 82 of 267



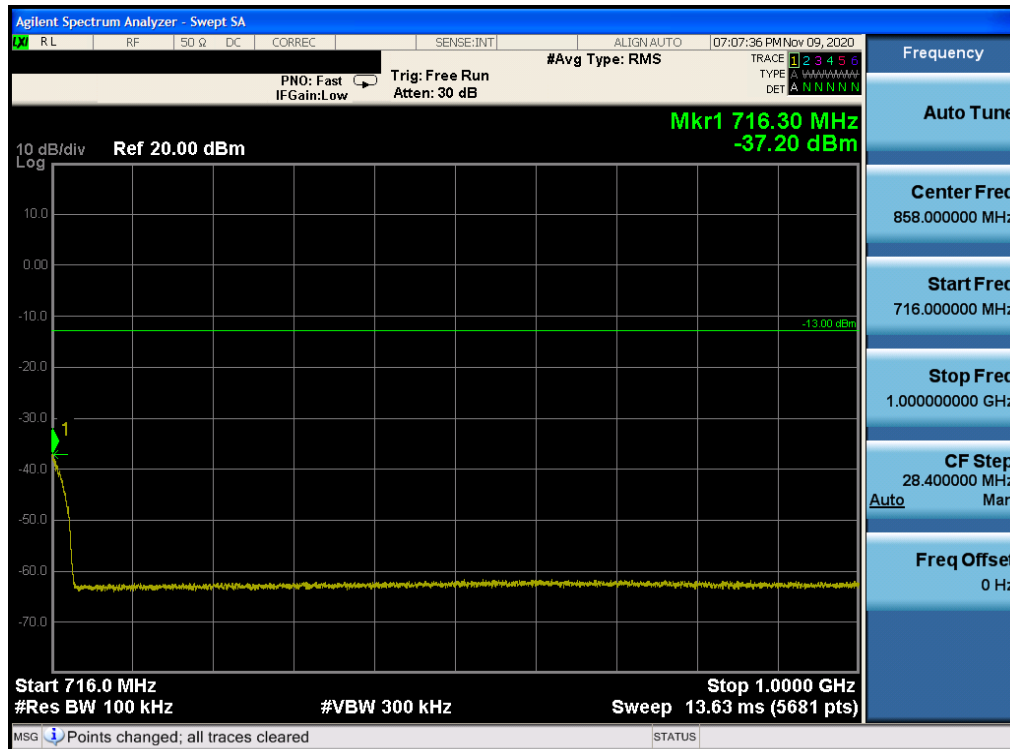
Plot 7-129. CSE (LTE Band 66/4 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 83 of 267

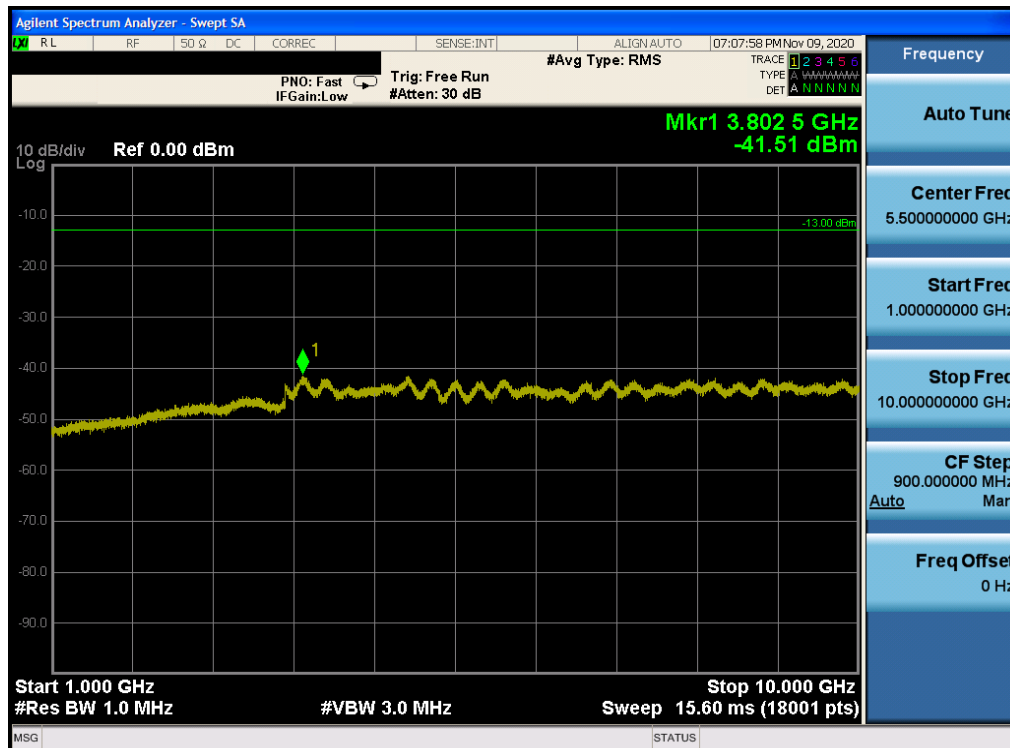


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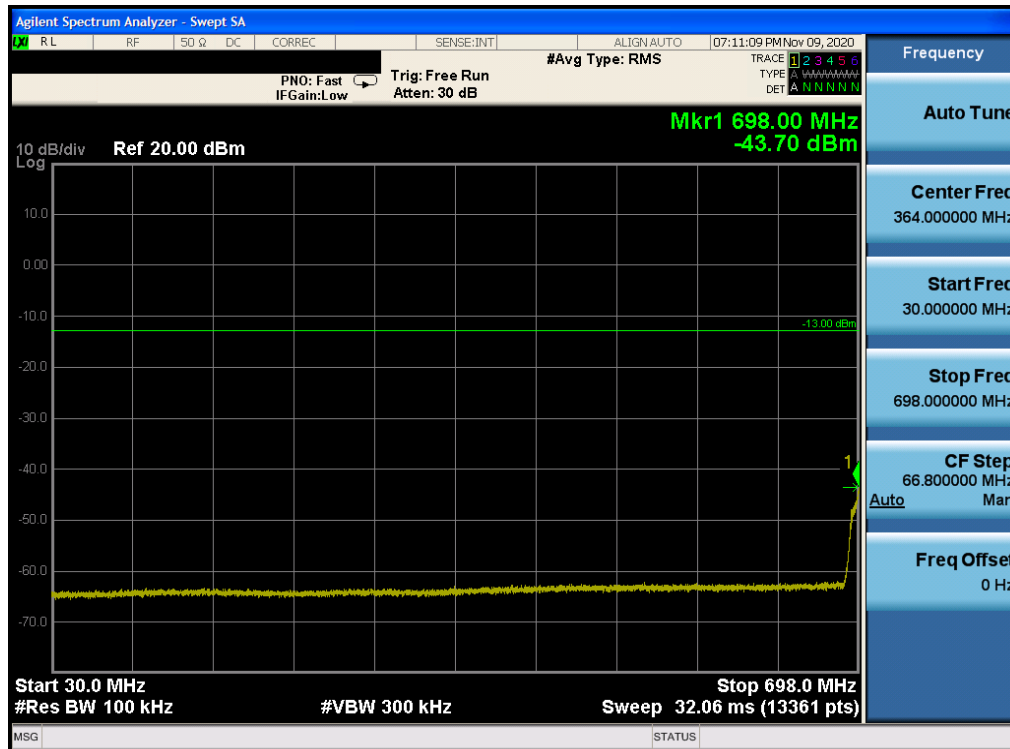


Plot 7-134. CSE (LTE Band 12/17 - 10MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

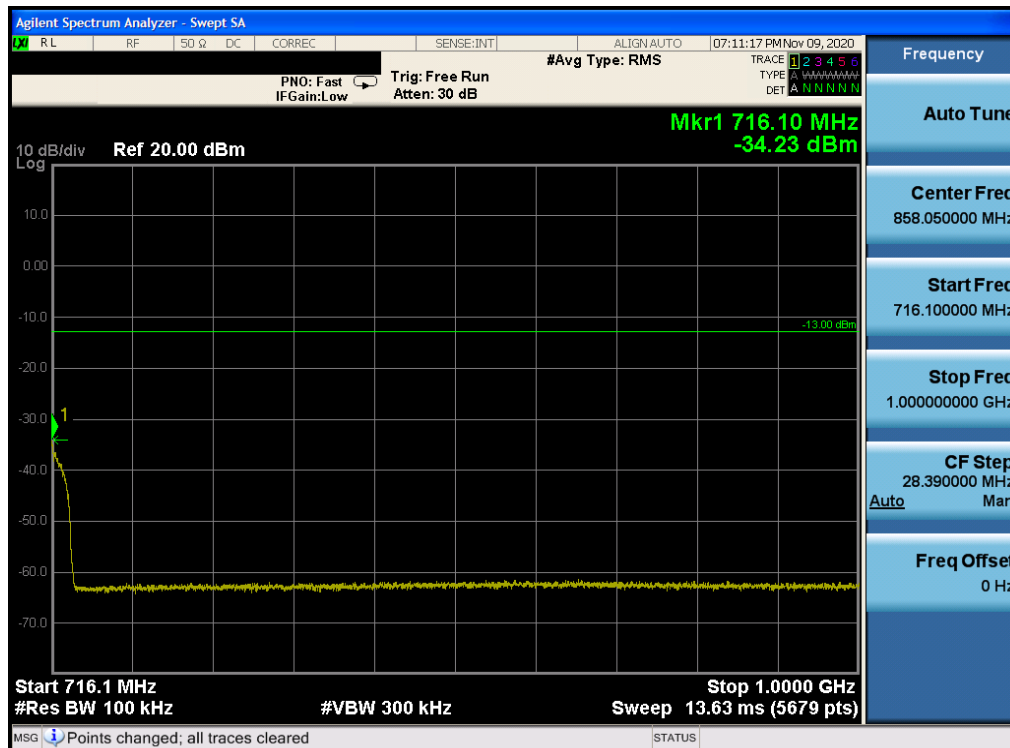


Plot 7-135. CSE (LTE Band 12/17 - 10MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 86 of 267

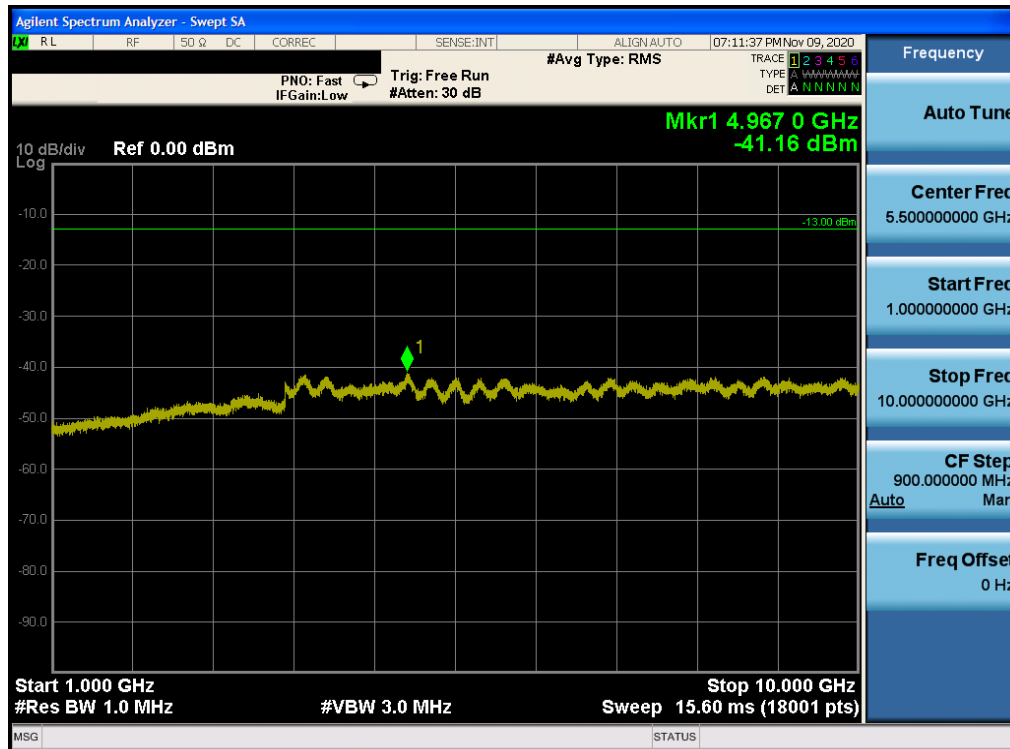


Plot 7-136. CSE (LTE Band 12/17 - 10MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-137. CSE (LTE Band 12/17 - 10MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

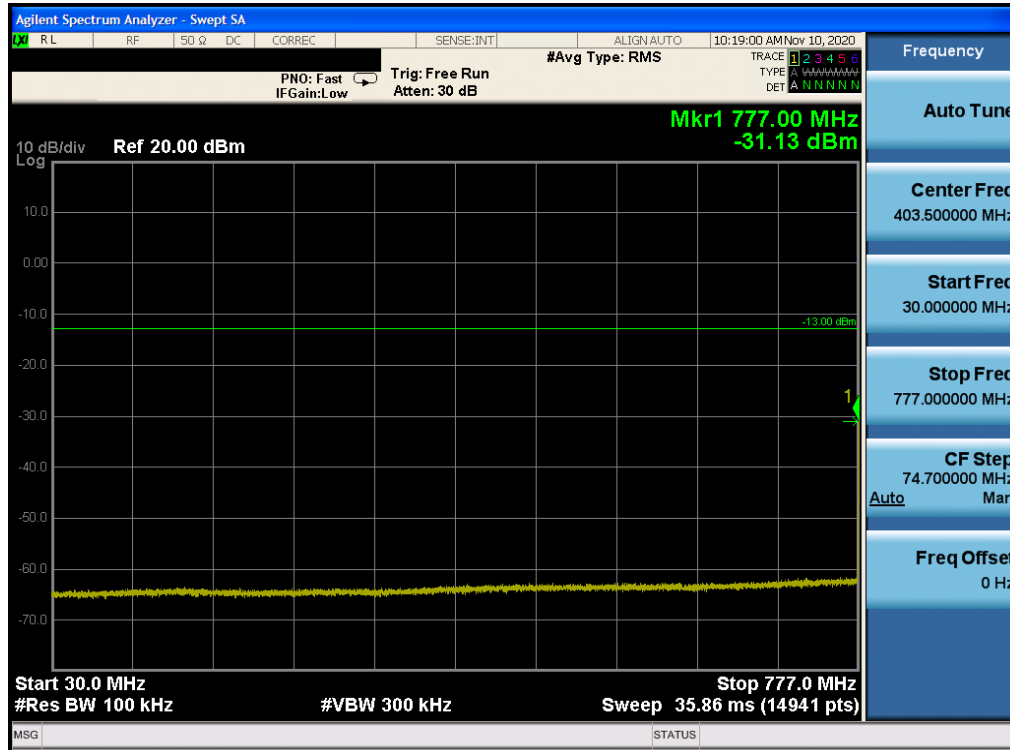
FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 87 of 267



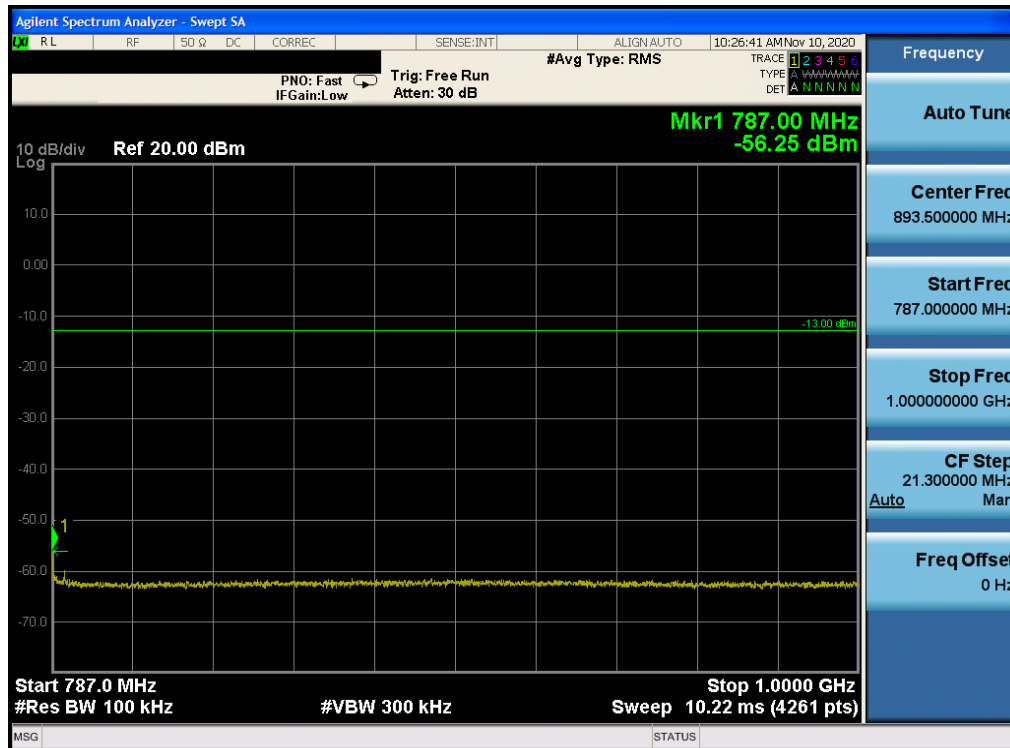
Plot 7-138. CSE (LTE Band 12/17 - 10MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 88 of 267

## LTE Band 13



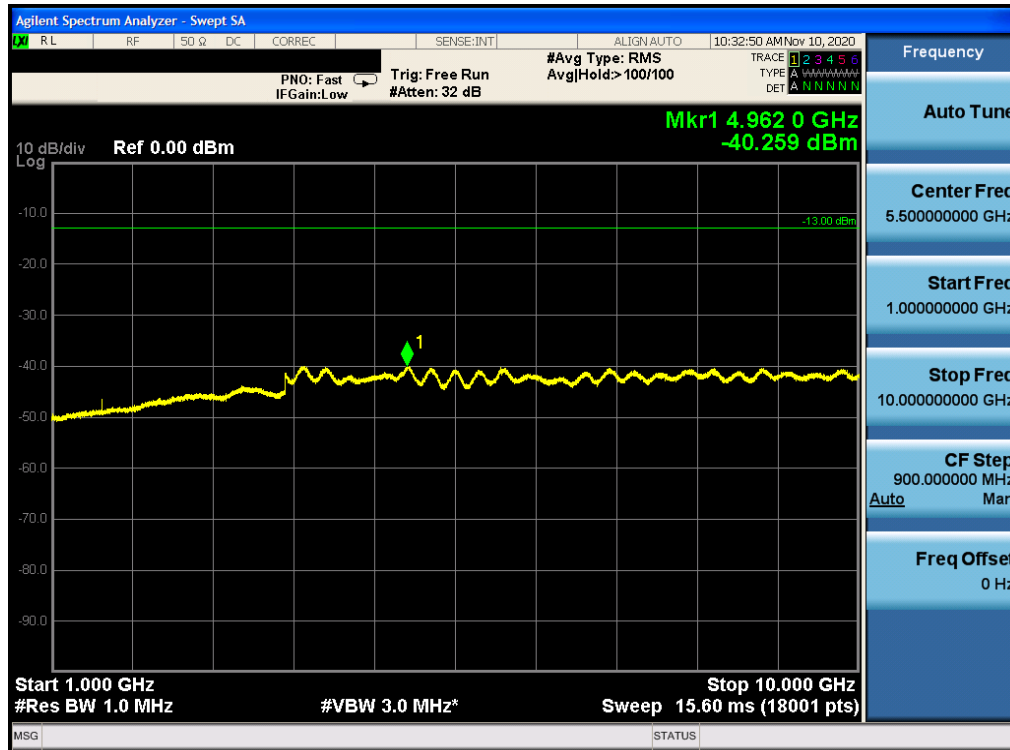
Plot 7-139. CSE (LTE Band 13 - 10MHz QPSK - RB Size 1, RB Offset 0)



Plot 7-140. CSE (LTE Band 13 - 10MHz QPSK - RB Size 1, RB Offset 0)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 89 of 267

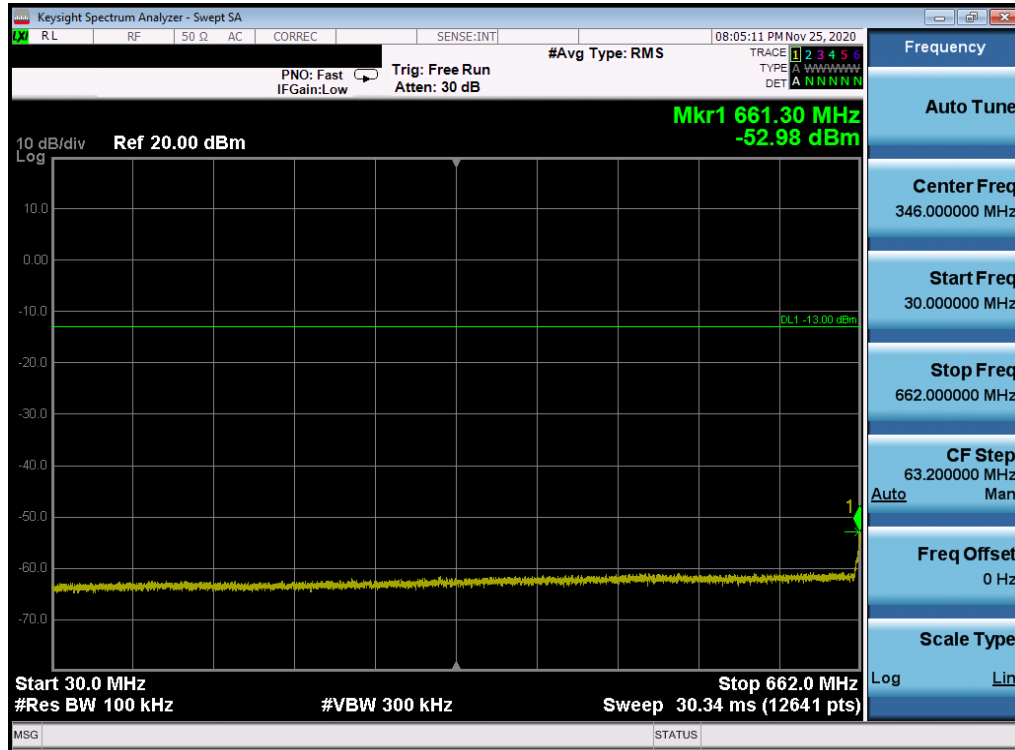




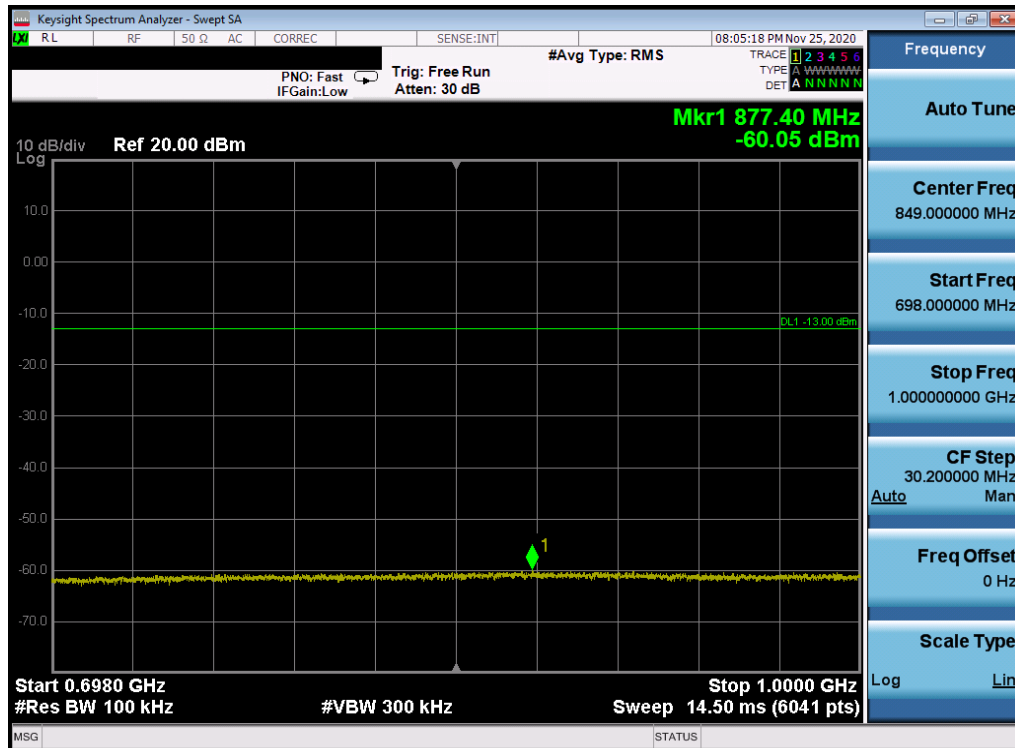
Plot 7-141. CSE (LTE Band 13 - 10MHz QPSK - RB Size 1, RB Offset 0)

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 90 of 267

## LTE Band 71

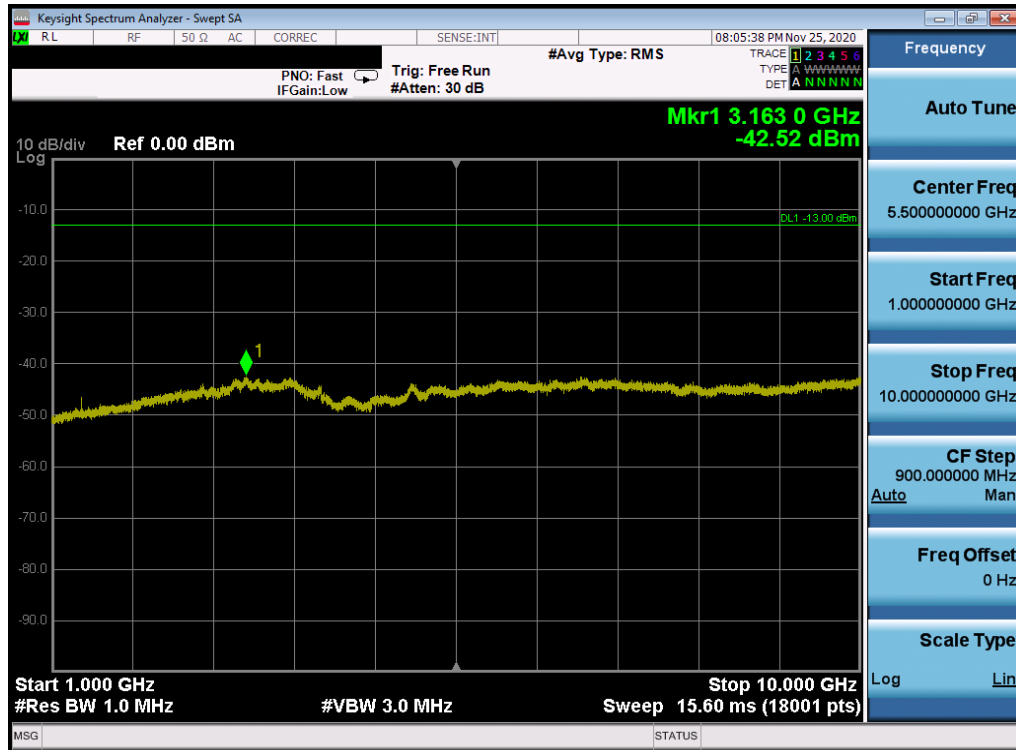


Plot 7-142. CSE (LTE Band 71 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

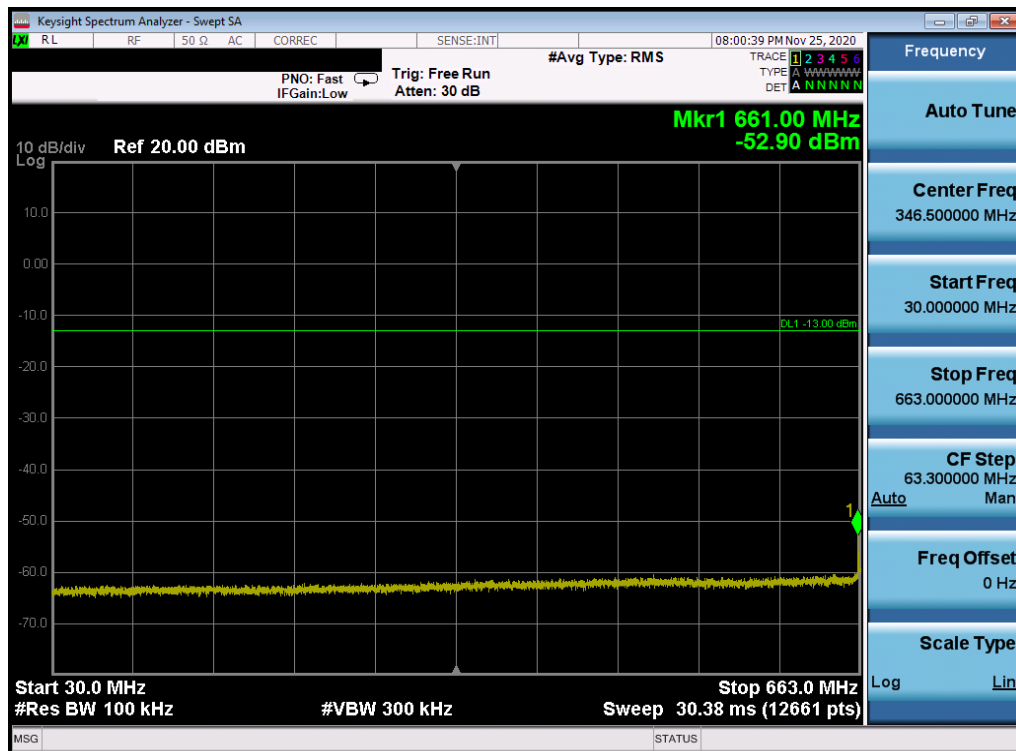


Plot 7-143. CSE (LTE Band 71 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 91 of 267

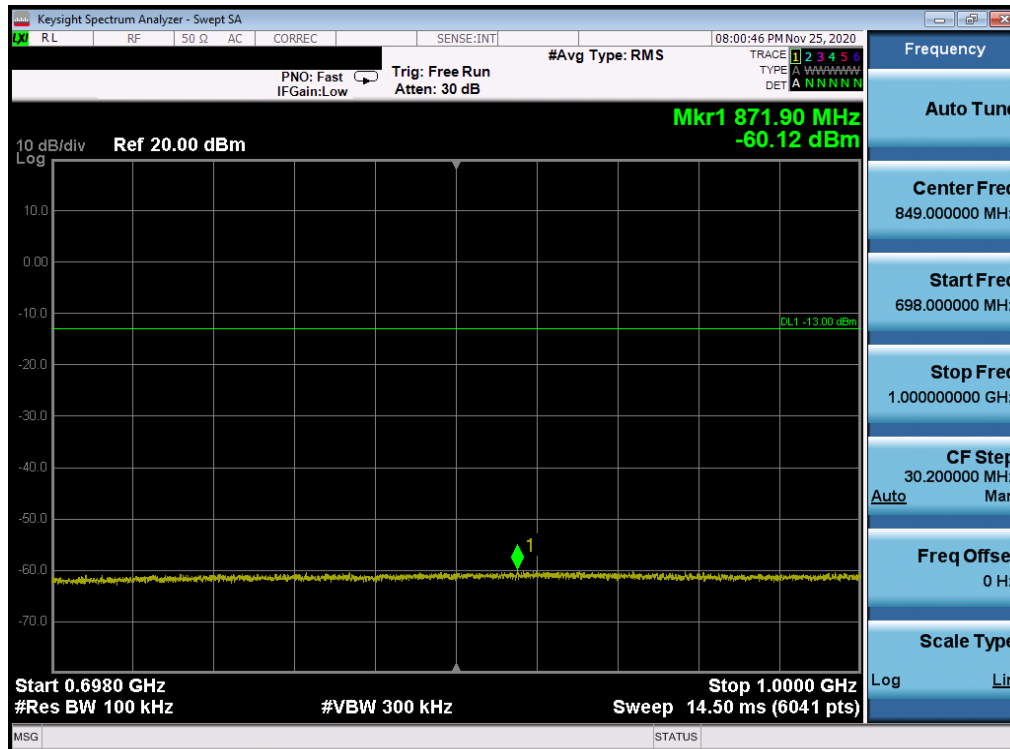


Plot 7-144. CSE (LTE Band 71 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

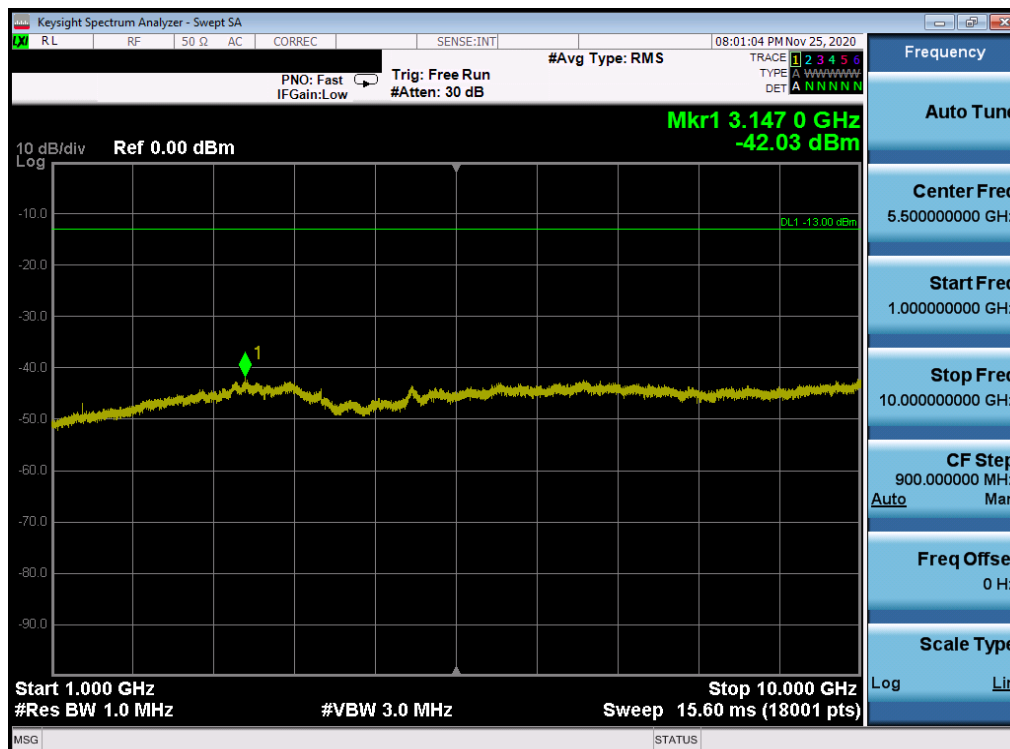


Plot 7-145. CSE (LTE Band 71 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 92 of 267

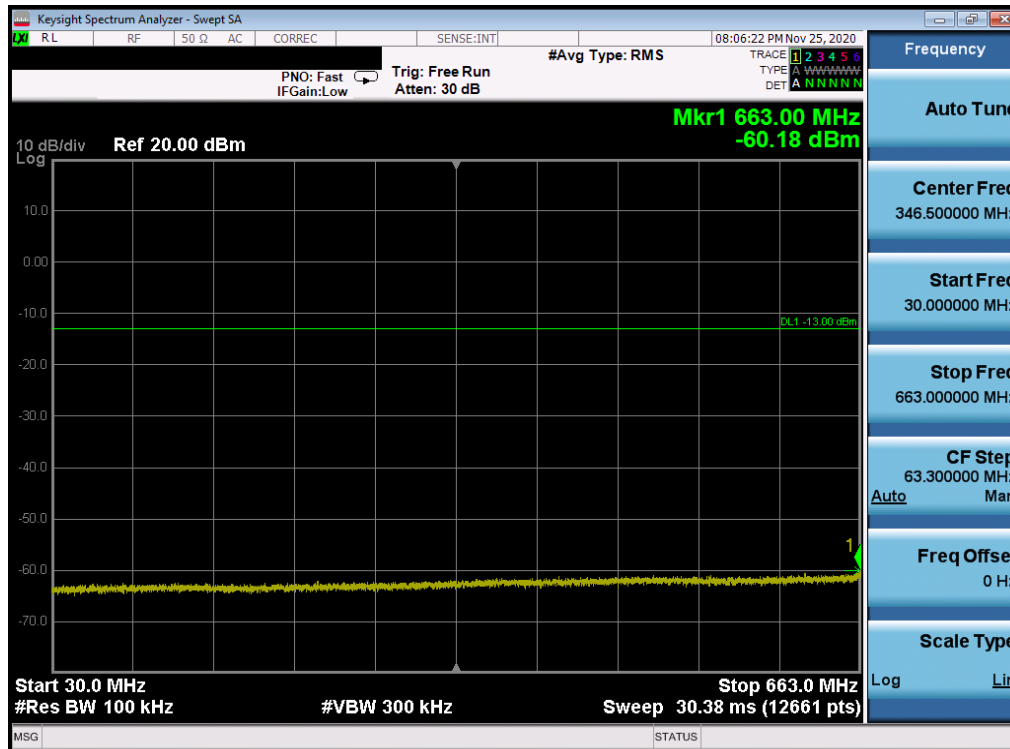


Plot 7-146. CSE (LTE Band 71 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

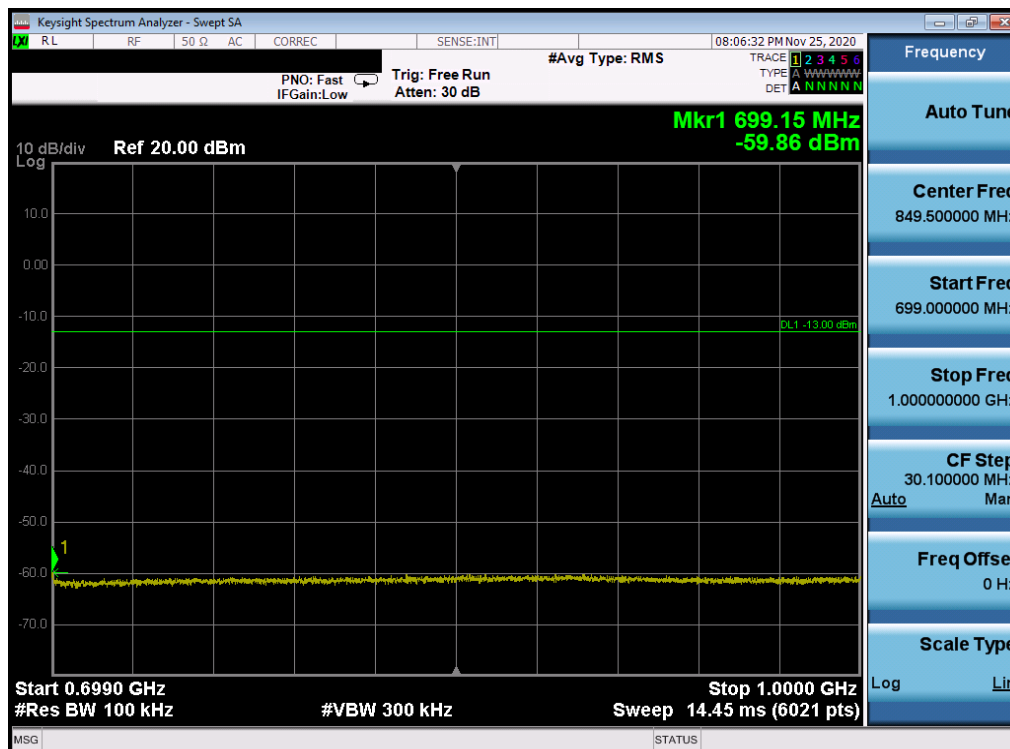


Plot 7-147. CSE (LTE Band 71 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 93 of 267

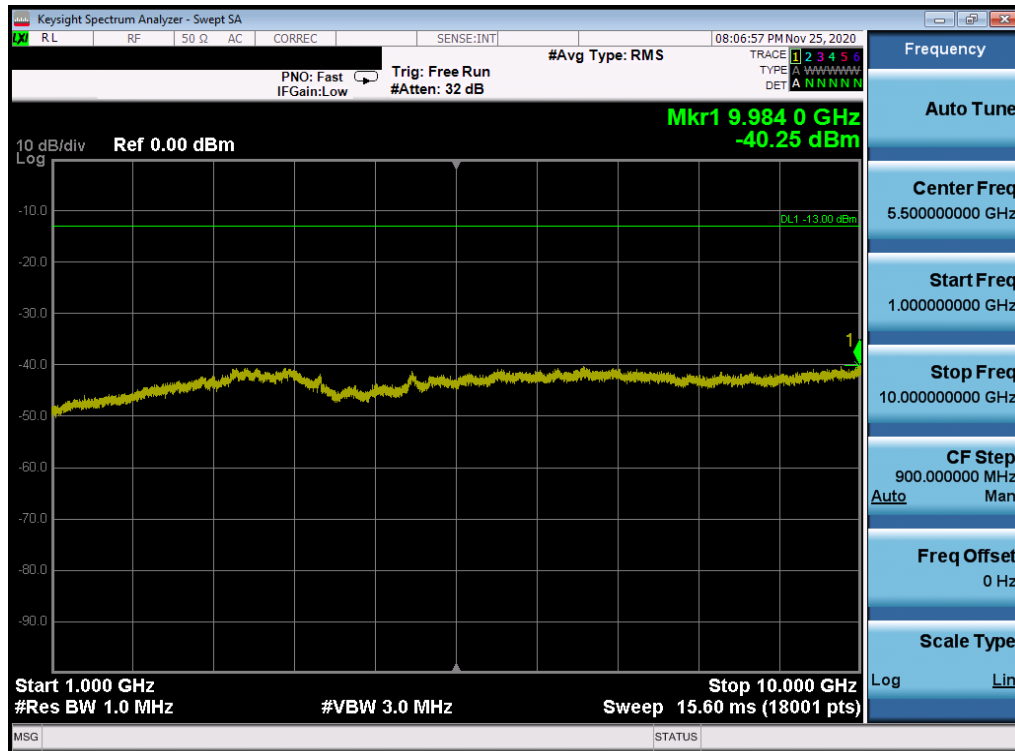


Plot 7-148. CSE (LTE Band 71 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-149. CSE (LTE Band 71 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

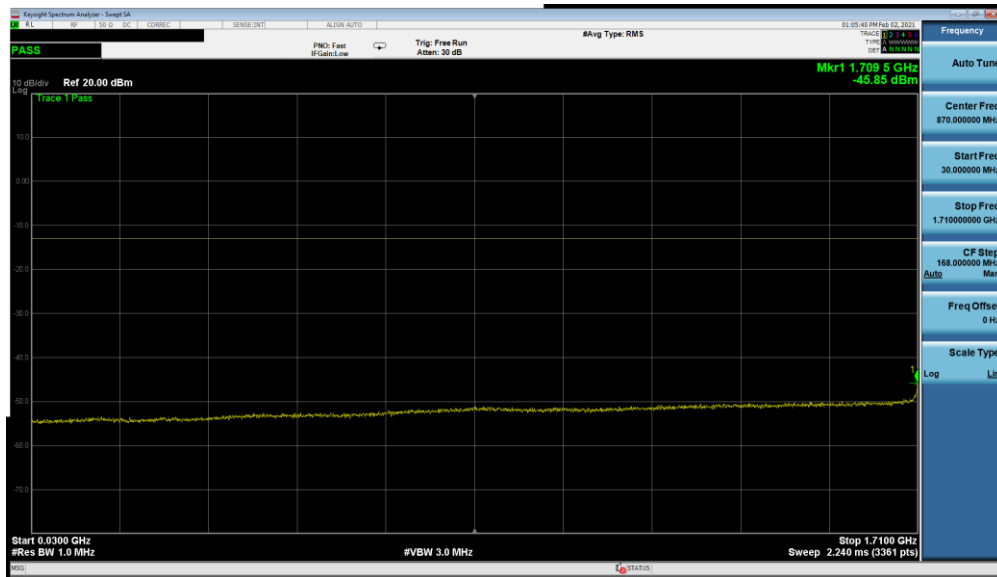
FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 94 of 267



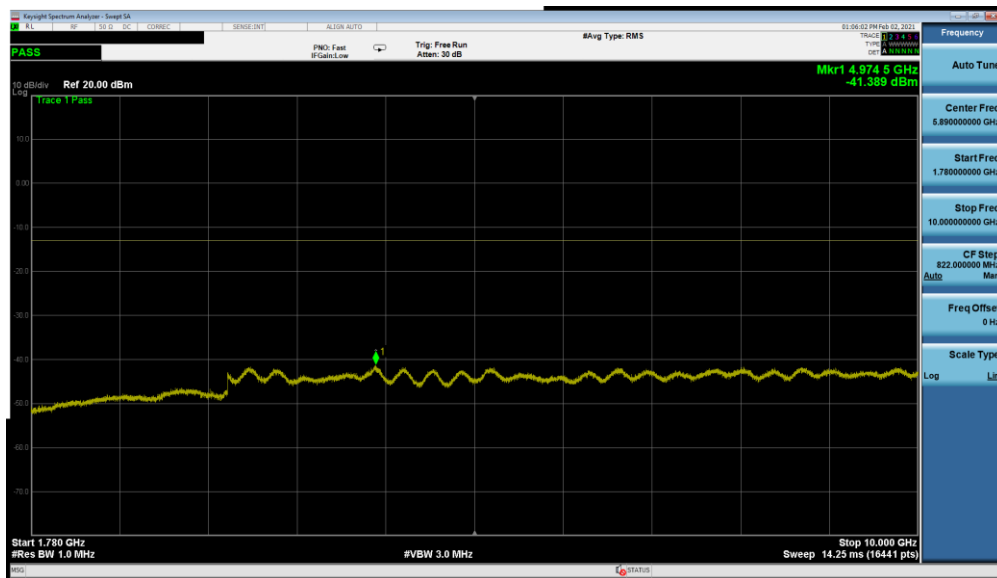
Plot 7-150. CSE (LTE Band 71 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 95 of 267

## NR Band n66

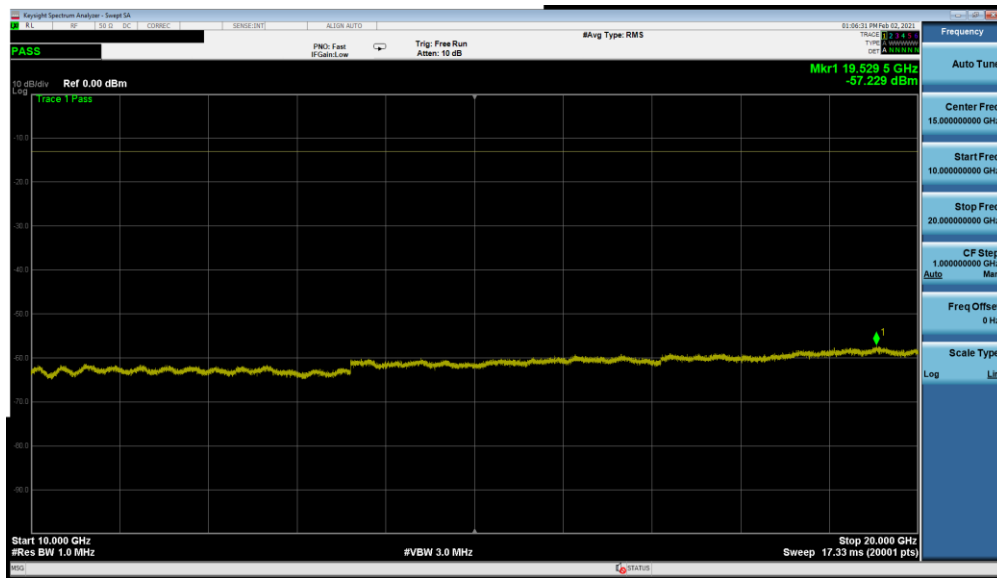


Plot 7-151. CSE (NR Band n66 -20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Low Channel)

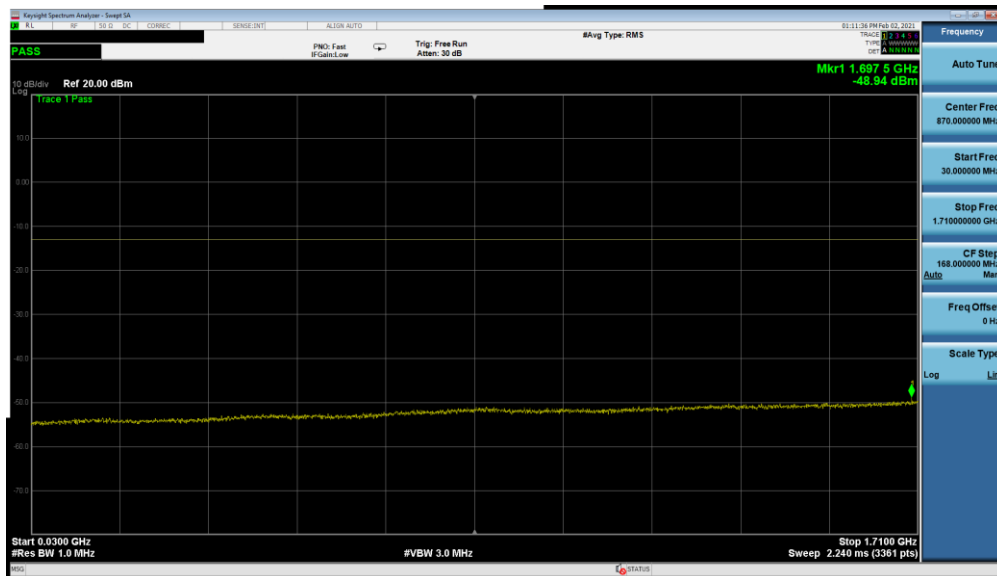


Plot 7-152. CSE (NR Band n66 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Low Channel)


FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 96 of 267



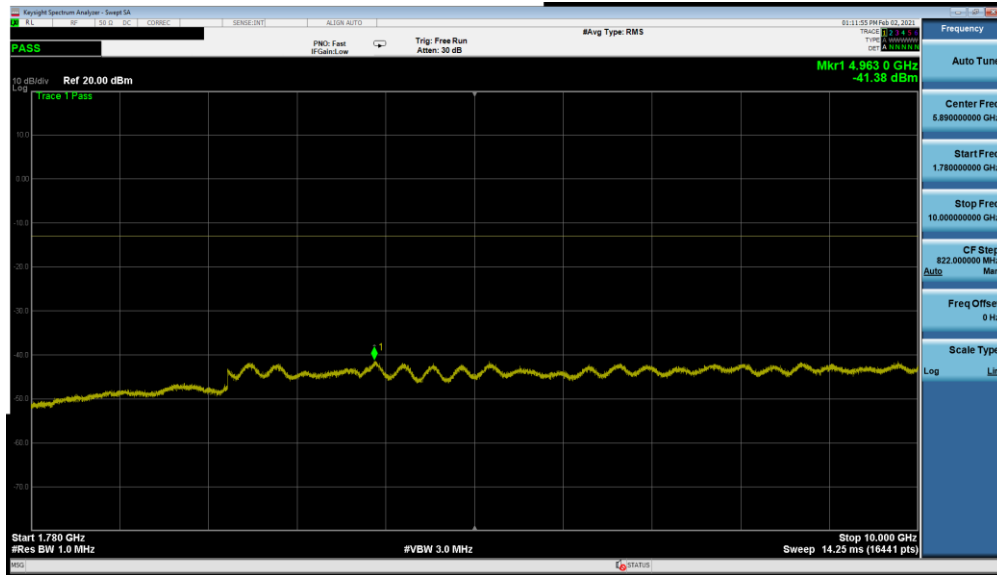
Plot 7-153. CSE (NR Band n66 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Low Channel)



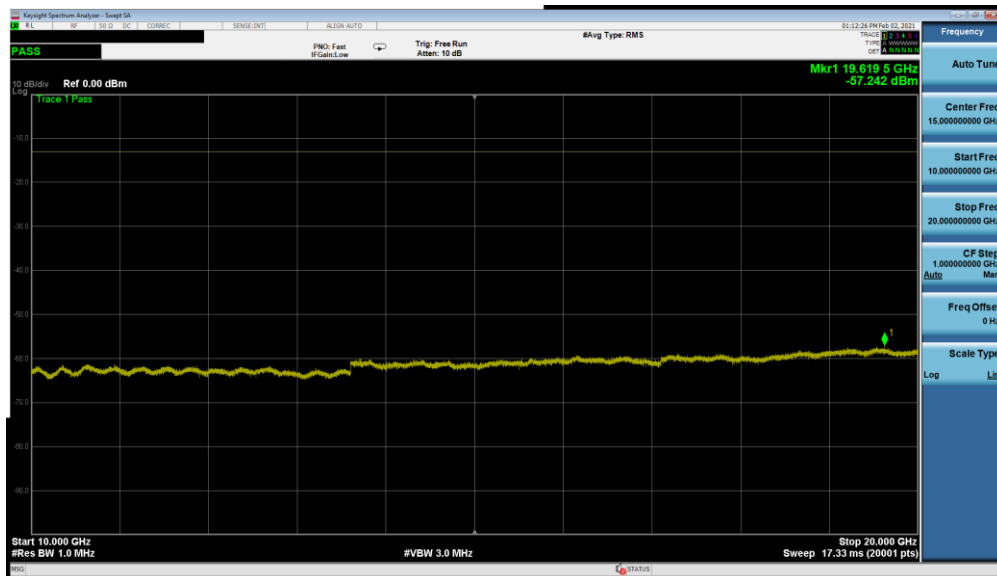
Plot 7-154. CSE (NR Band n66 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 97 of 267



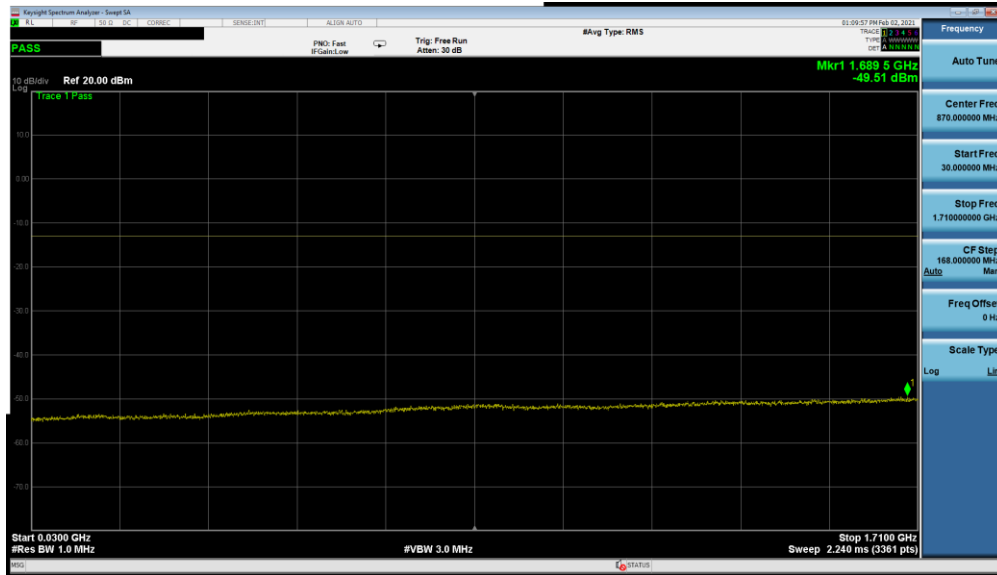


Plot 7-155. CSE (NR Band n66 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Mid Channel)

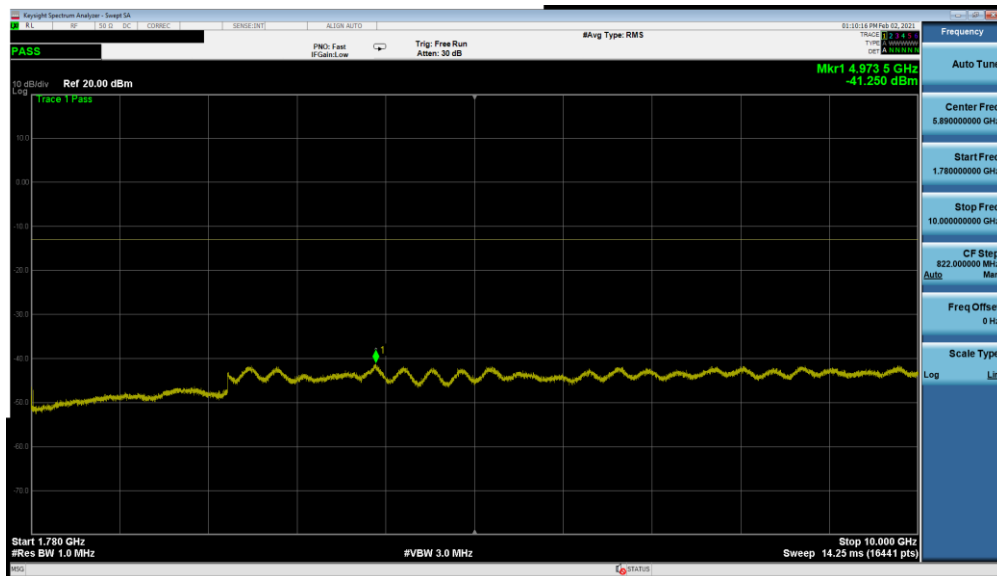


Plot 7-156. CSE (NR Band n66 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Mid Channel)


FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 98 of 267

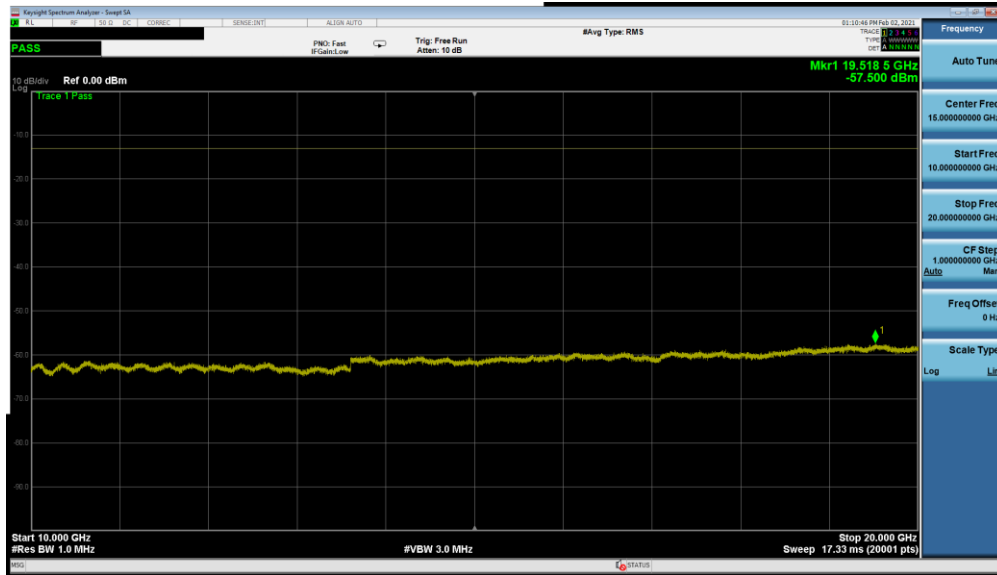


Plot 7-157. CSE (NR Band n66 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - High Channel)




Plot 7-158. CSE (NR Band n66 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - High Channel)

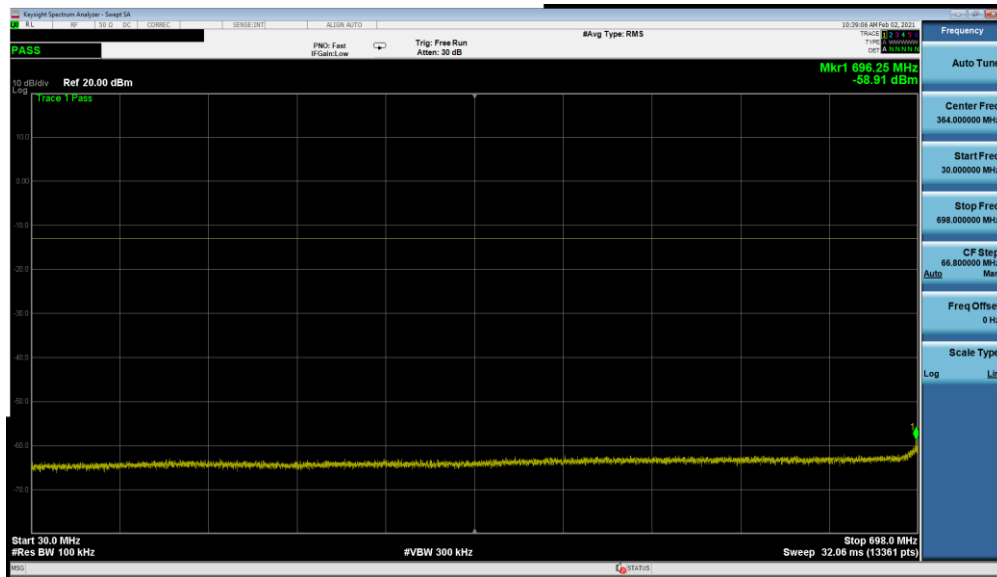
FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 99 of 267



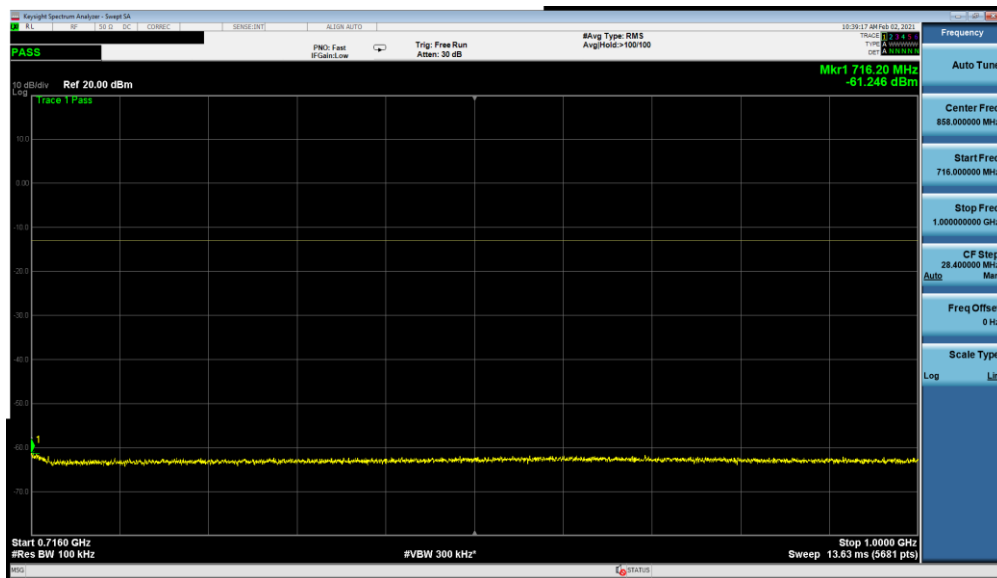
Plot 7-159. CSE (NR Band n66 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 100 of 267

## NR Band n12

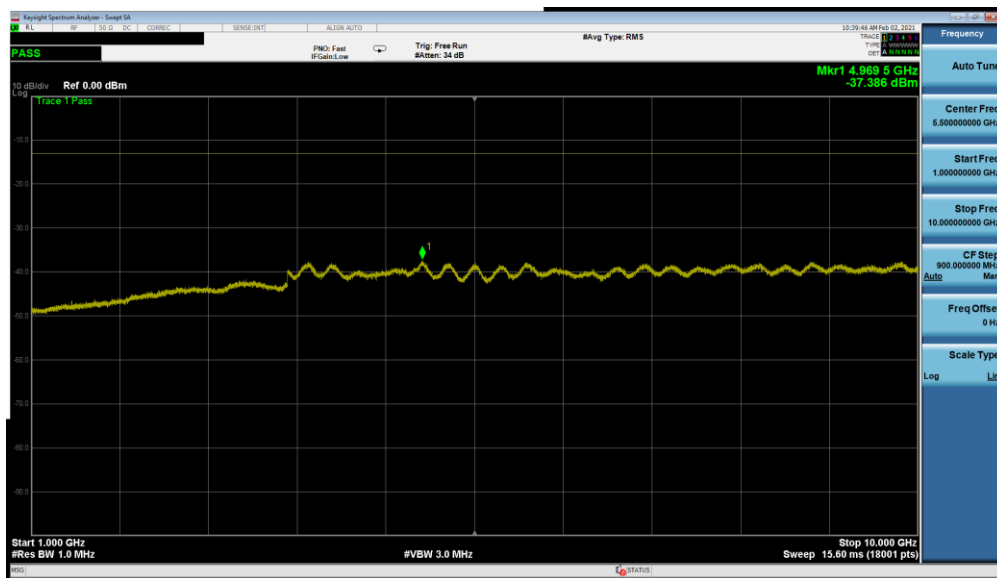


Plot 7-160. CSE (NR Band n12 -15.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Low Channel)

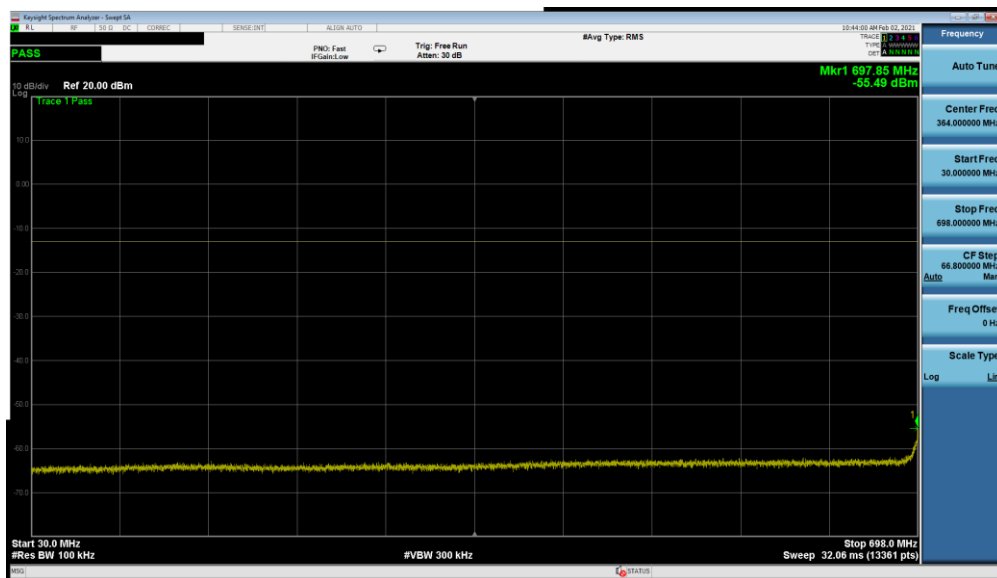


Plot 7-161. CSE (NR Band n12 - 15.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Low Channel)


FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 101 of 267

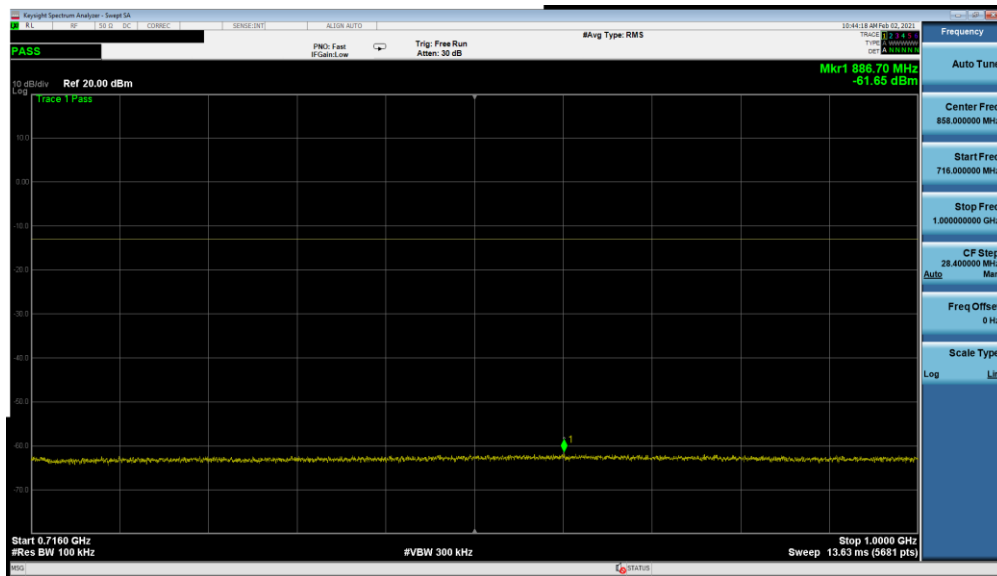


Plot 7-162. CSE (NR Band n12 - 15.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Low Channel)

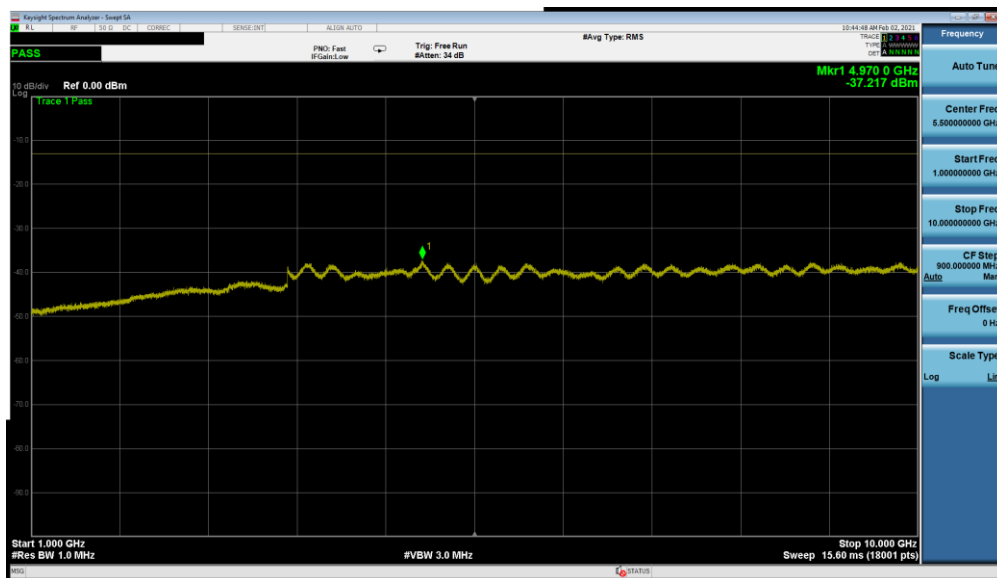


Plot 7-163. CSE (NR Band n12 - 15.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Mid Channel)


FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 102 of 267

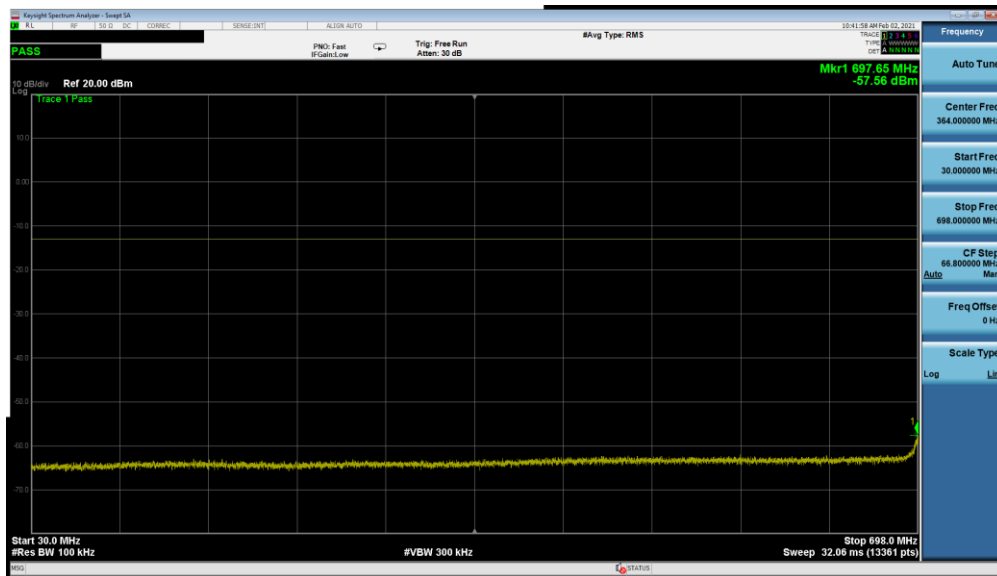


Plot 7-164. CSE (NR Band n12 - 15.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Mid Channel)

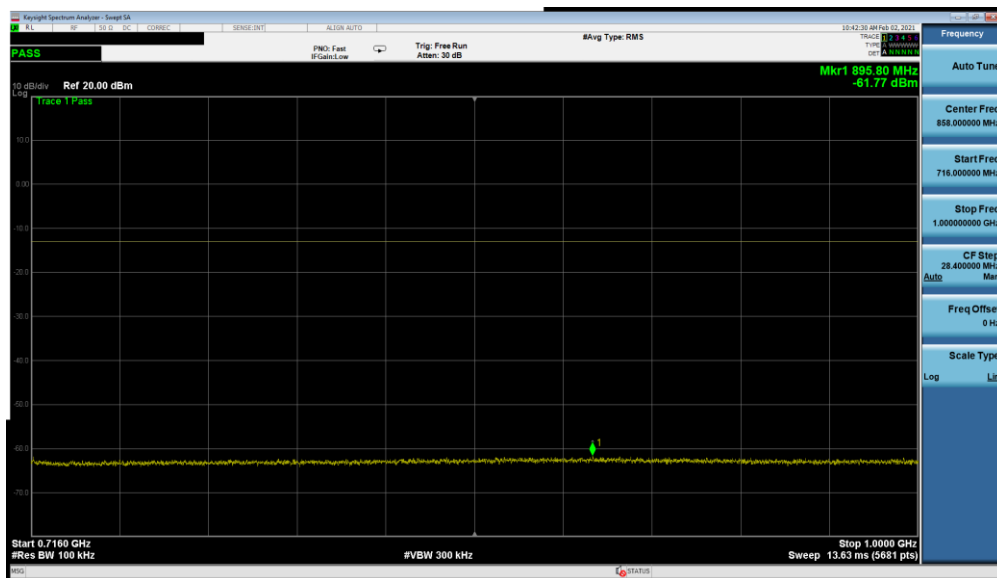


Plot 7-165. CSE (NR Band n12 - 15.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Mid Channel)


FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 103 of 267

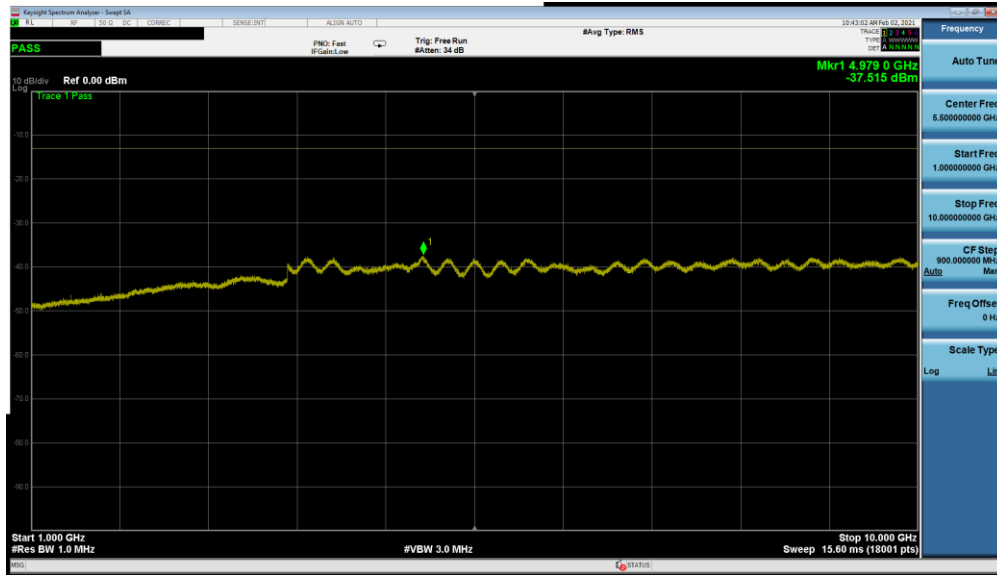


Plot 7-166. CSE (NR Band n12 - 15.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - High Channel)




Plot 7-167. CSE (NR Band n12 - 15.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 104 of 267

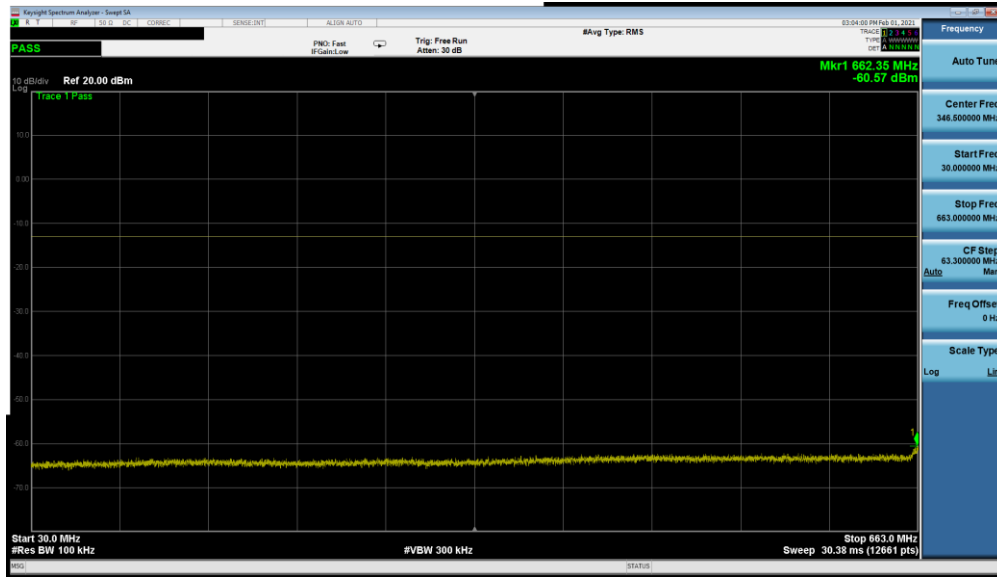


Plot 7-168. CSE (NR Band n12 - 15.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - High Channel)

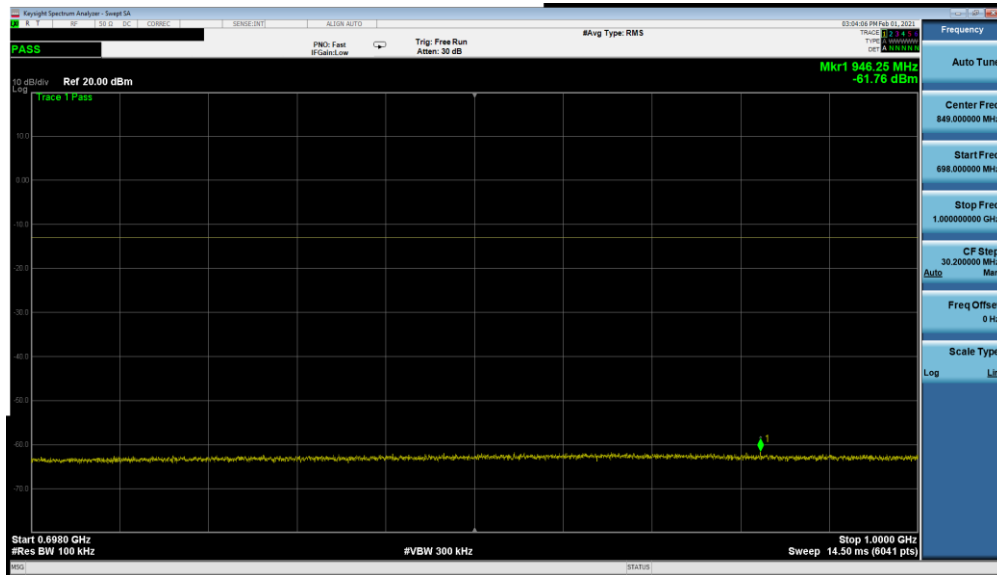
FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 105 of 267



## NR Band n71

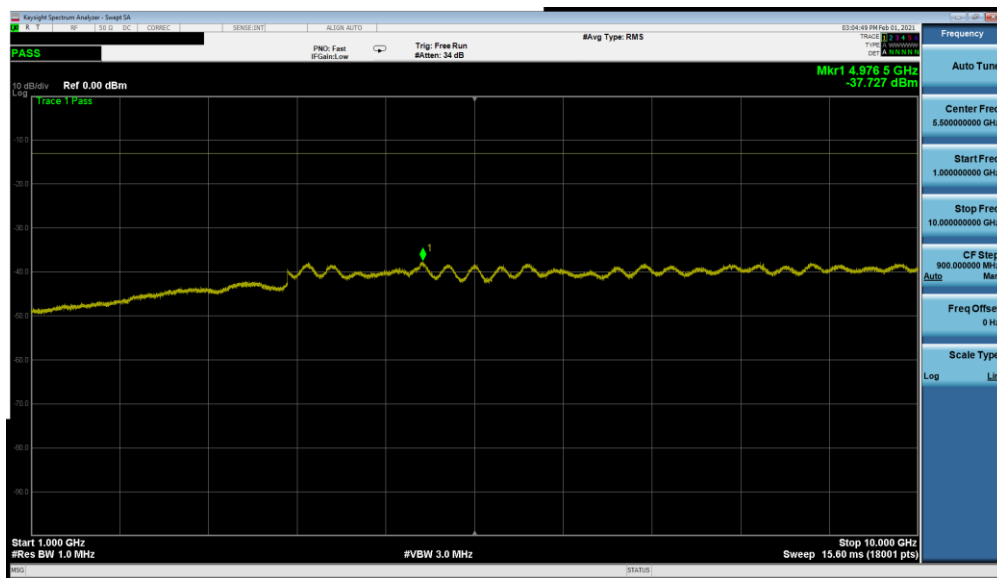


Plot 7-169. CSE (NR Band n71 -20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Low Channel)

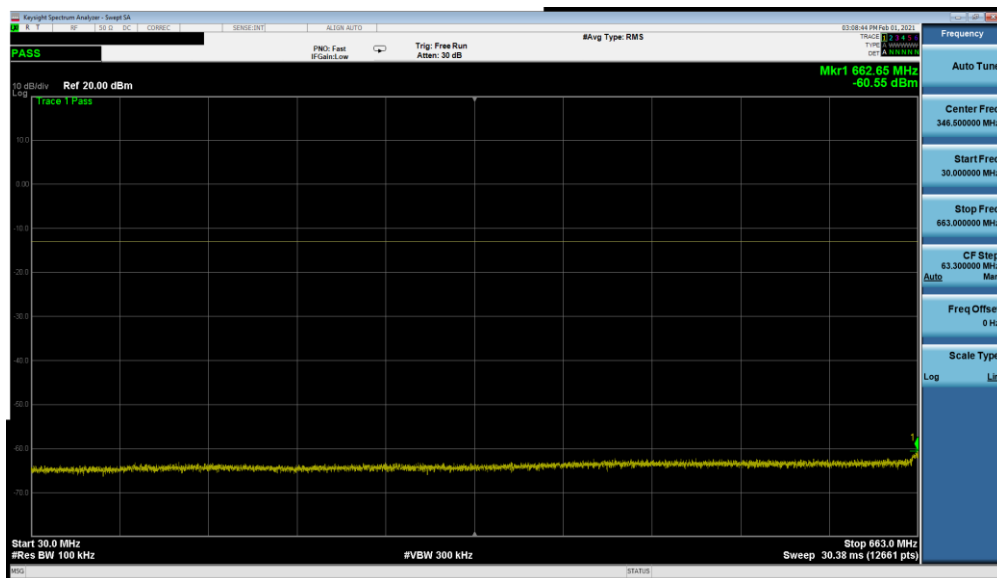


Plot 7-170. CSE (NR Band n71 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Low Channel)


FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 106 of 267

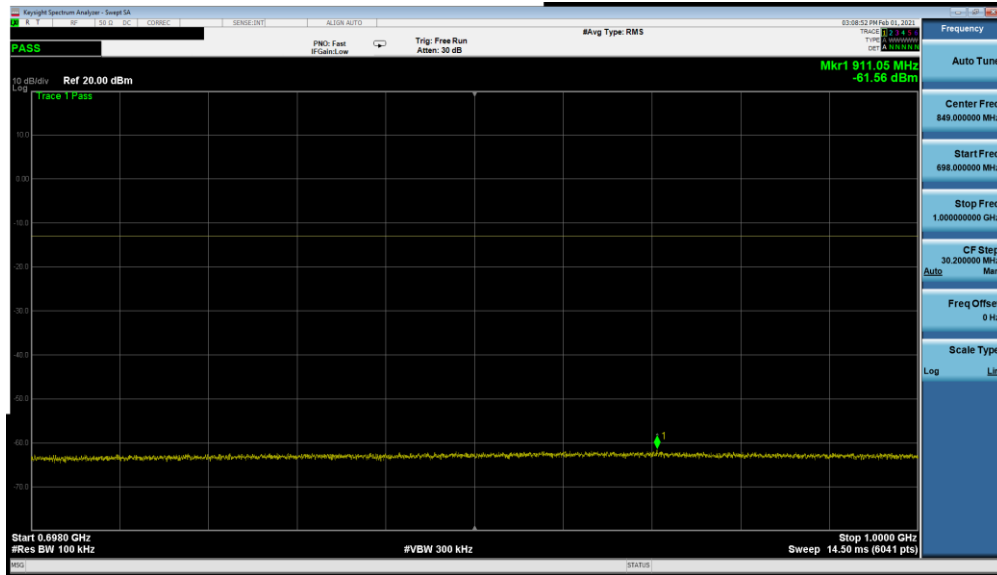


Plot 7-171. CSE (NR Band n71 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Low Channel)

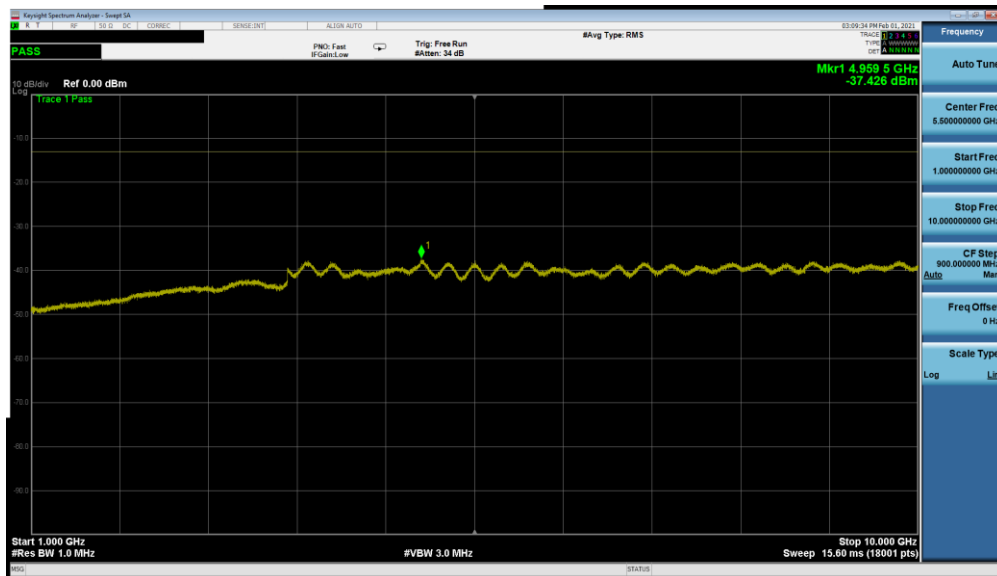


Plot 7-172. CSE (NR Band n71 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Mid Channel)


FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 107 of 267

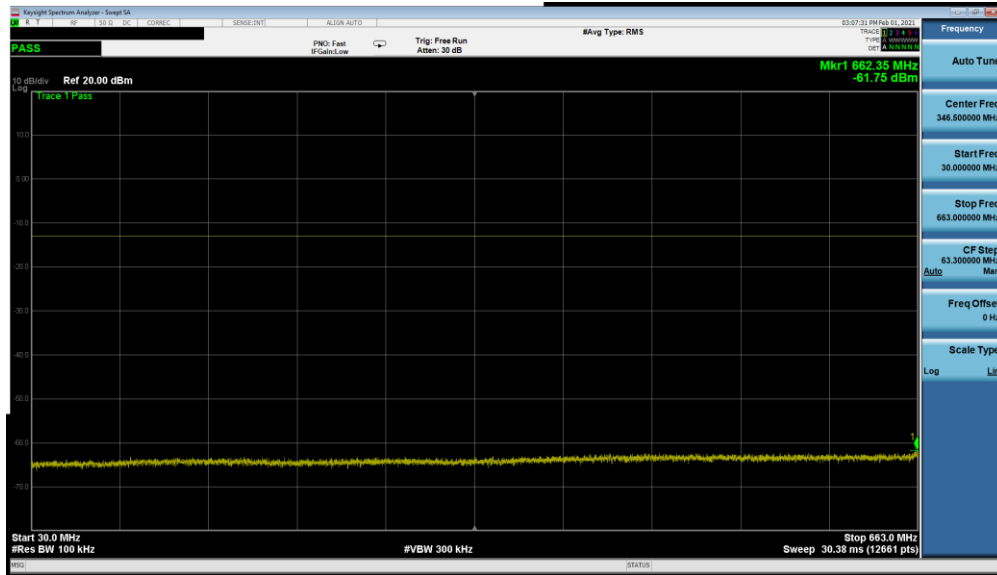


Plot 7-173. CSE (NR Band n71 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Mid Channel)

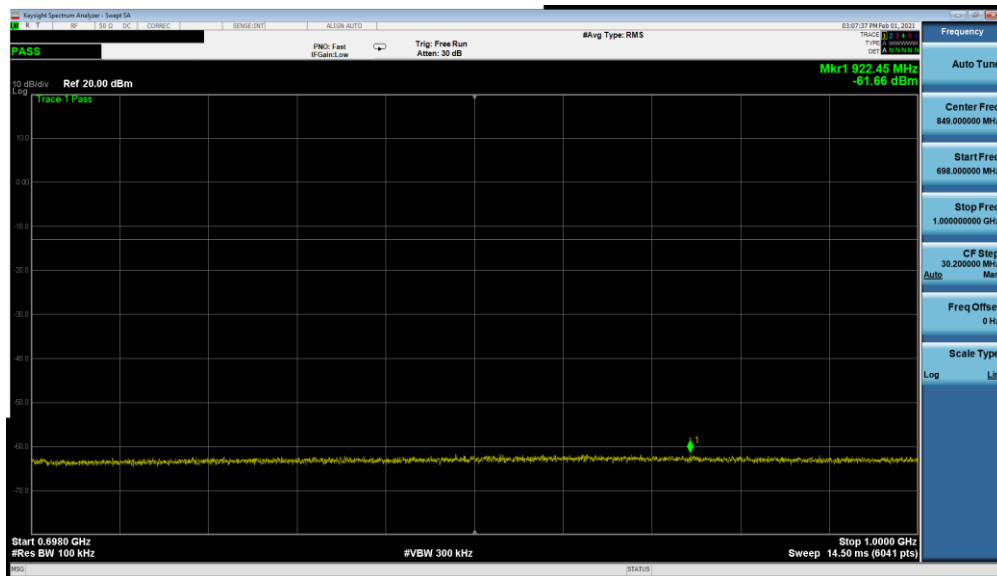


Plot 7-174. CSE (NR Band n71 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - Mid Channel)


FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 108 of 267

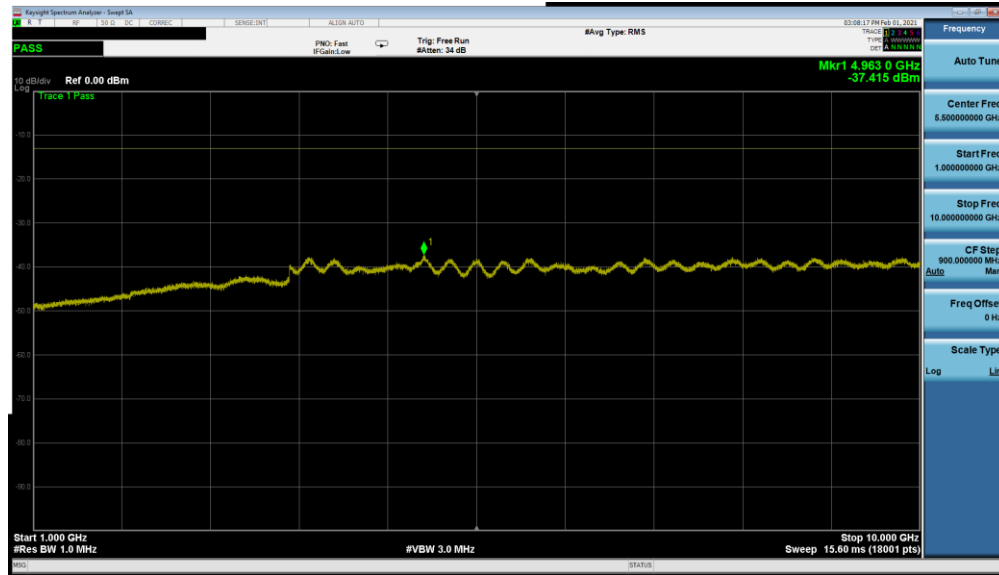


Plot 7-175. CSE (NR Band n71 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-176. CSE (NR Band n71 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - High Channel)

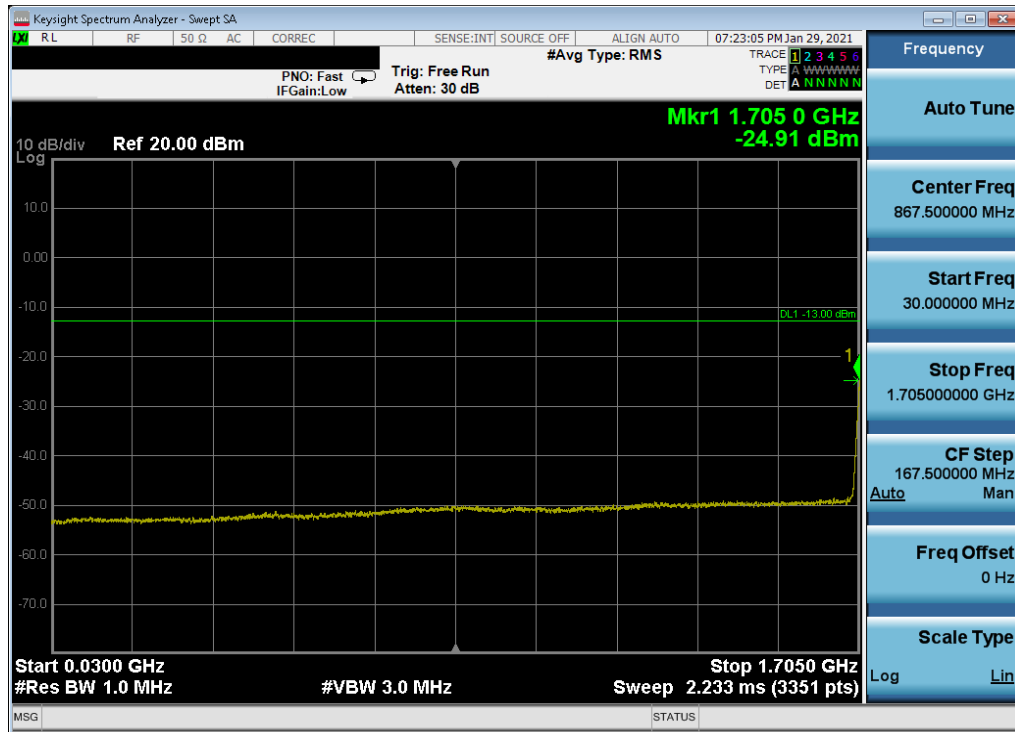
FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 109 of 267



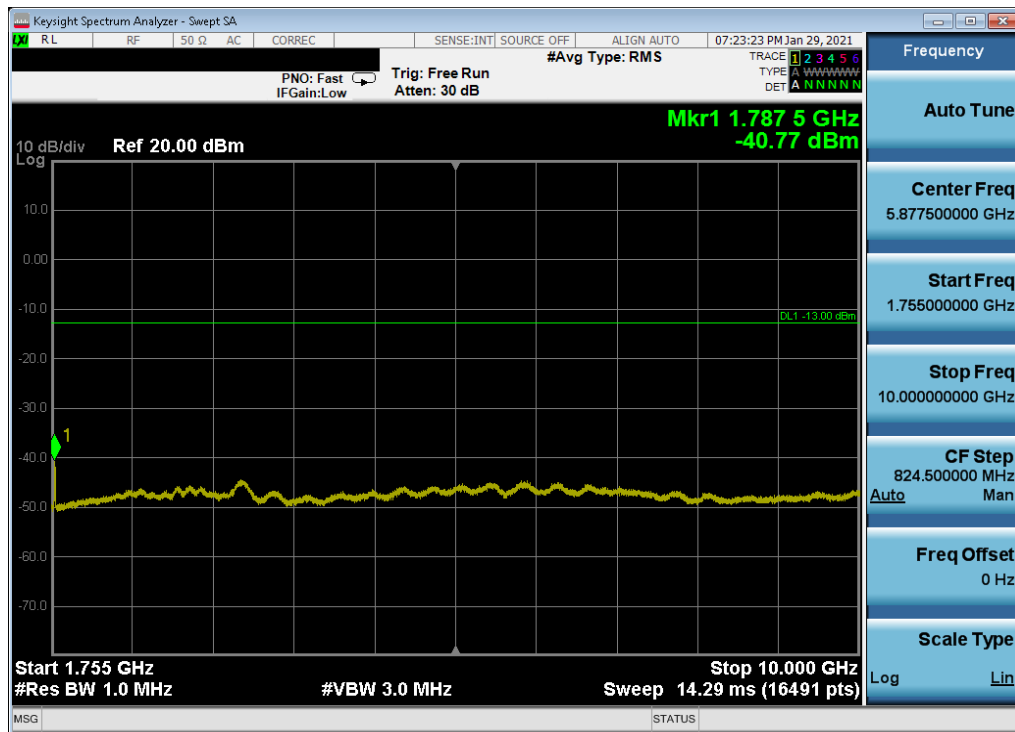
Plot 7-177. CSE (NR Band n71 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 110 of 267

## WCDMA AWS

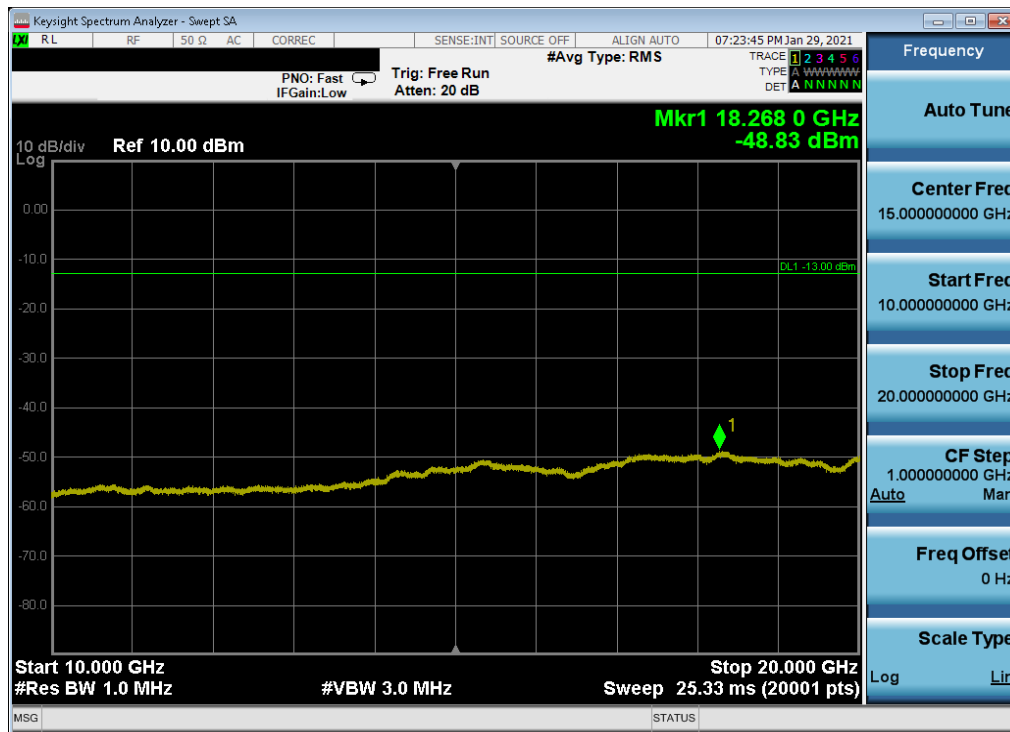


Plot 7-178. CSE (WCDMA Ch. 1312- Low Channel)

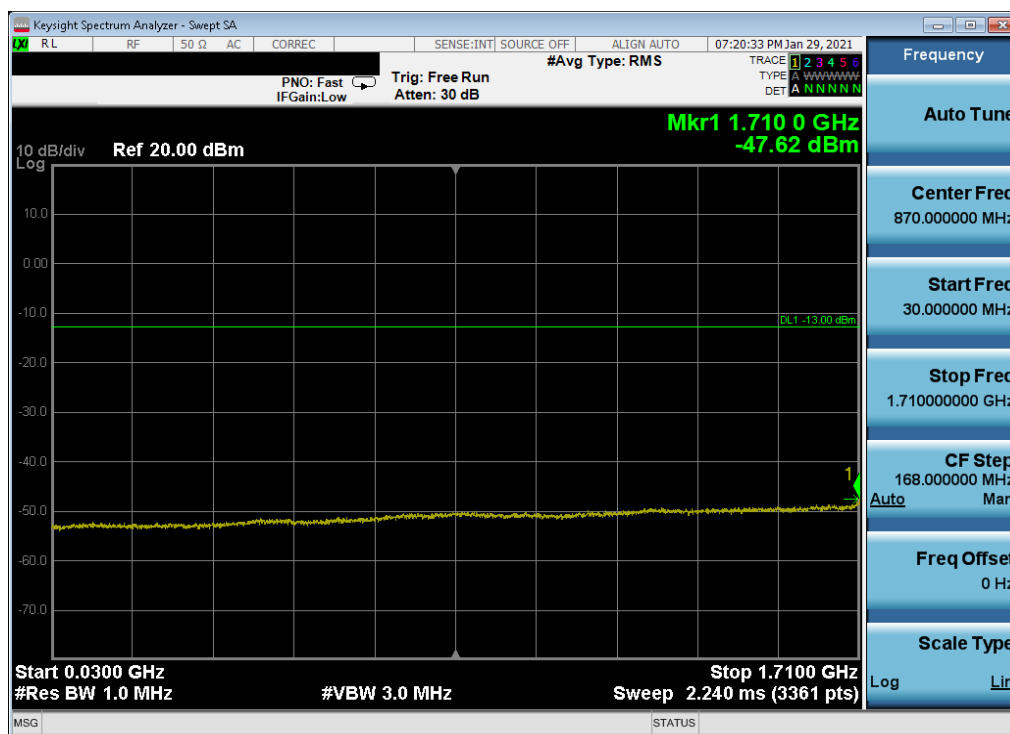


Plot 7-179. CSE (WCDMA Ch. 1312- Low Channel)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 111 of 267



Plot 7-180. CSE (WCDMA Ch. 1312- Low Channel)

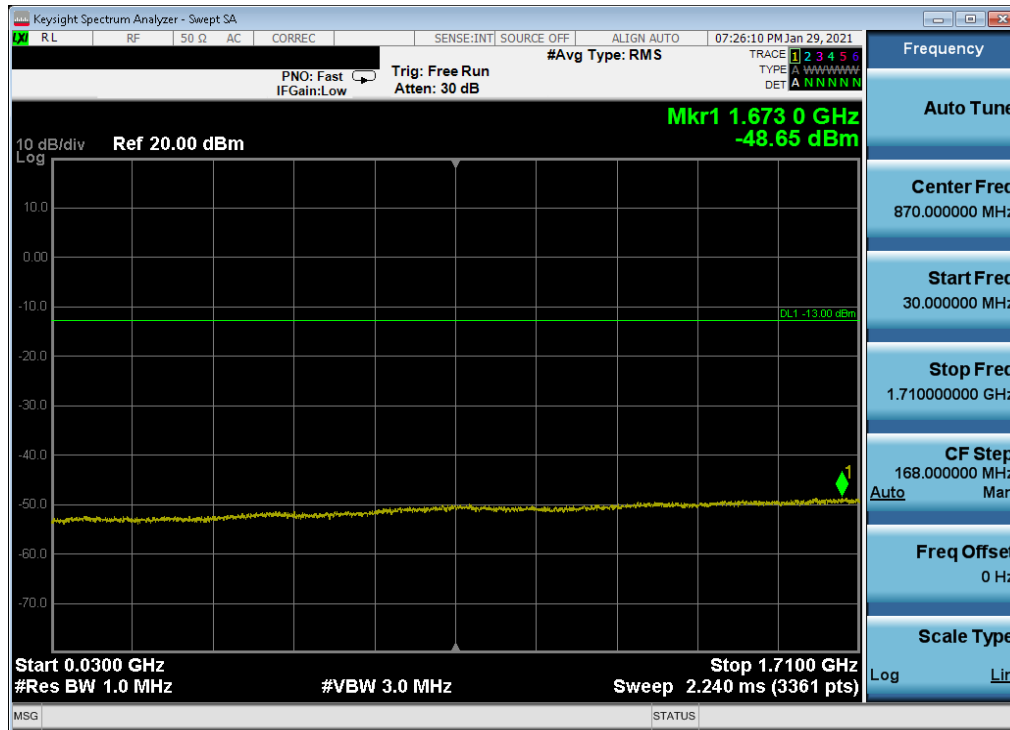


Plot 7-181. CSE (WCDMA Ch. 1413- Mid Channel)

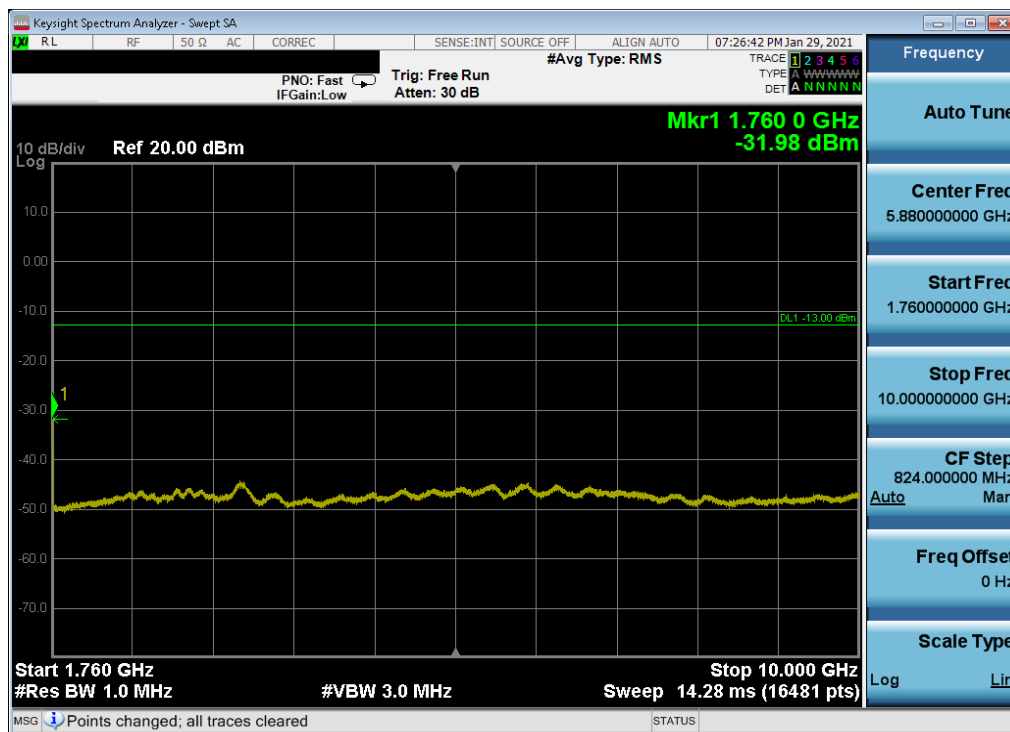
FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 112 of 267






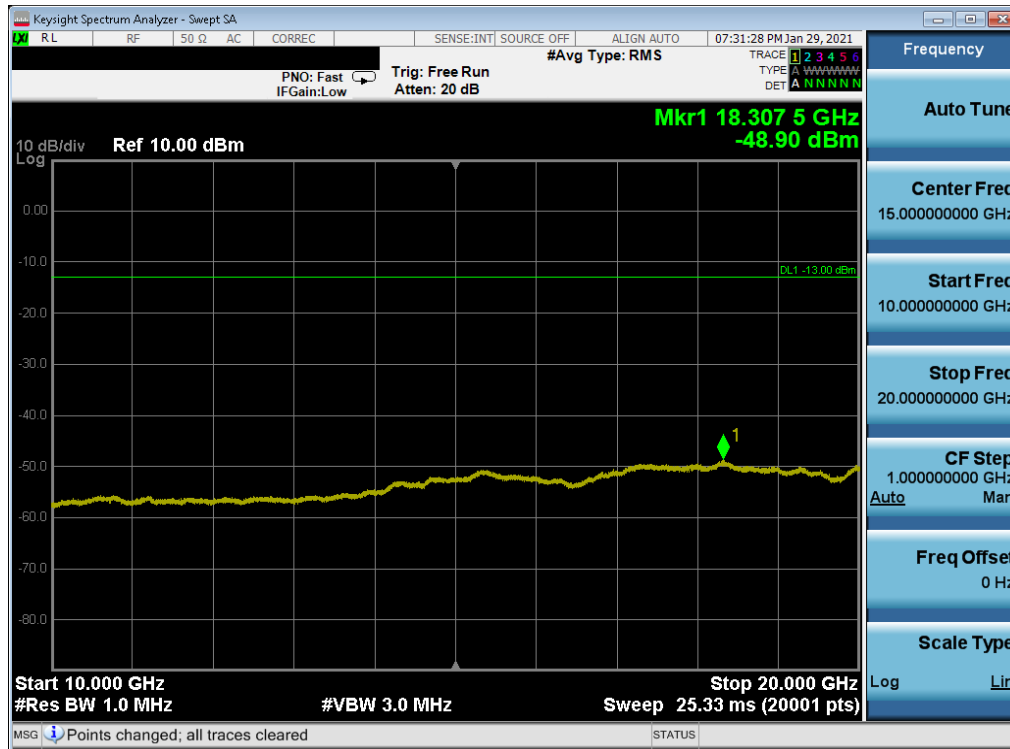


Plot 7-184. CSE (WCDMA Ch. 1513- High Channel)



Plot 7-185. CSE (WCDMA Ch. 1513- High Channel)

FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 114 of 267



**Plot 7-186. Conducted Spurious Plot (WCDMA Ch. 1513- High Channel)**

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 115 of 267

## 7.4 Band Edge Emissions at Antenna Terminal

§§2.1051, §27.53

### Test Overview

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

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

### Test Procedure Used

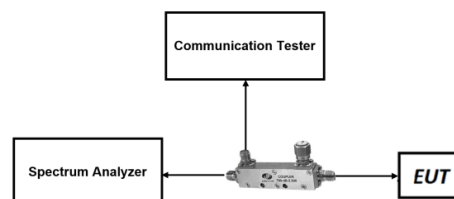
KDB 971168 D01 v03r01 – Section 6.0

### Test Settings


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

### Test Setup

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



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

FCC ID: BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 116 of 267


## Test Notes

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

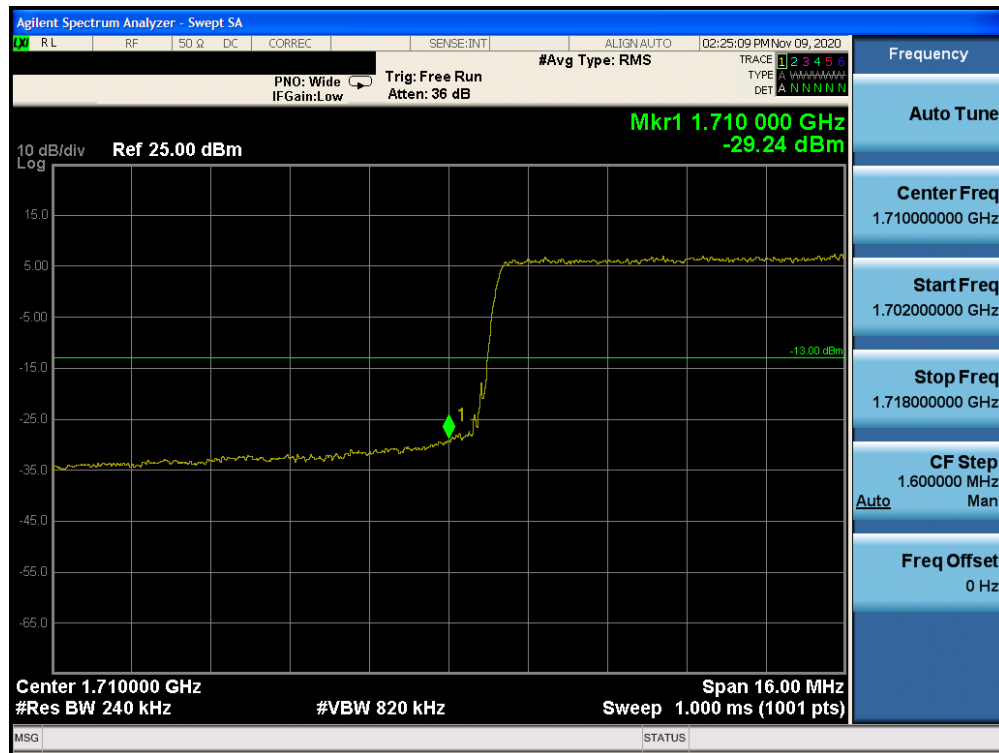
Per 27.53(g) for operations in the 698-746 MHz band, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.

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

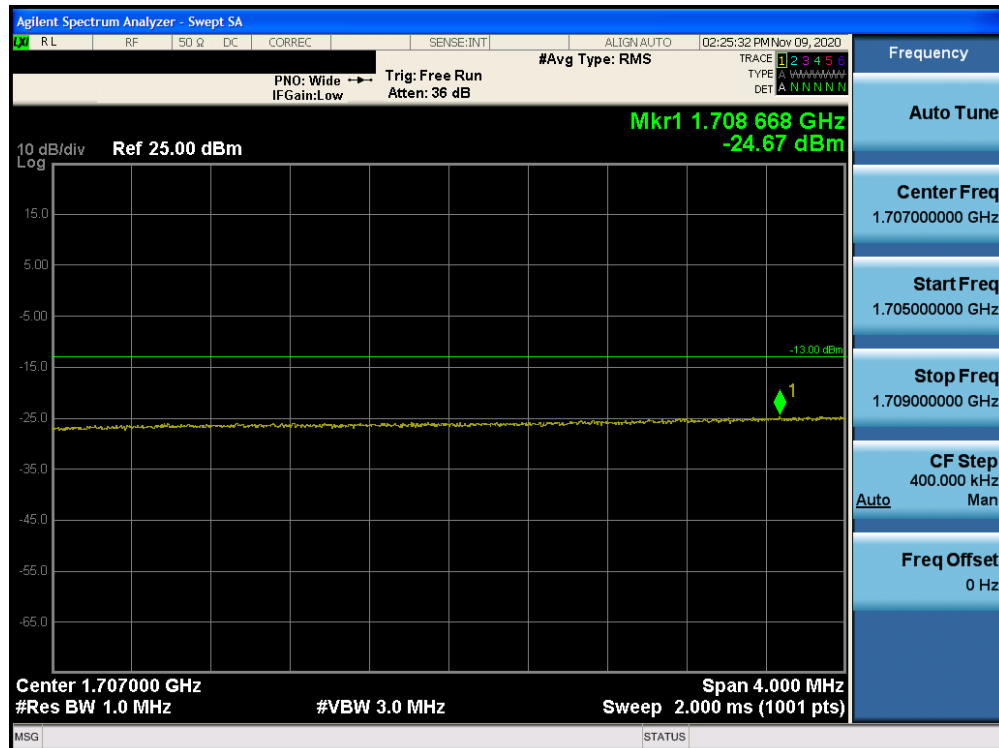
For all plots showing emissions in the 763 – 775MHz and 793 – 805MHz band, the FCC limit per 27.53(c)(4) is  $65 + 10 \log_{10}(P) = -35\text{dBm}$  in a 6.25kHz bandwidth.

<b>FCC ID:</b> BCGA2379	 <b>PART 27 MEASUREMENT REPORT</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1C2101020005-04-R1.BCG	<b>Test Dates:</b> 12/15/2020 - 02/20/2021	<b>EUT Type:</b> Tablet Device	Page 117 of 267

## Band 4

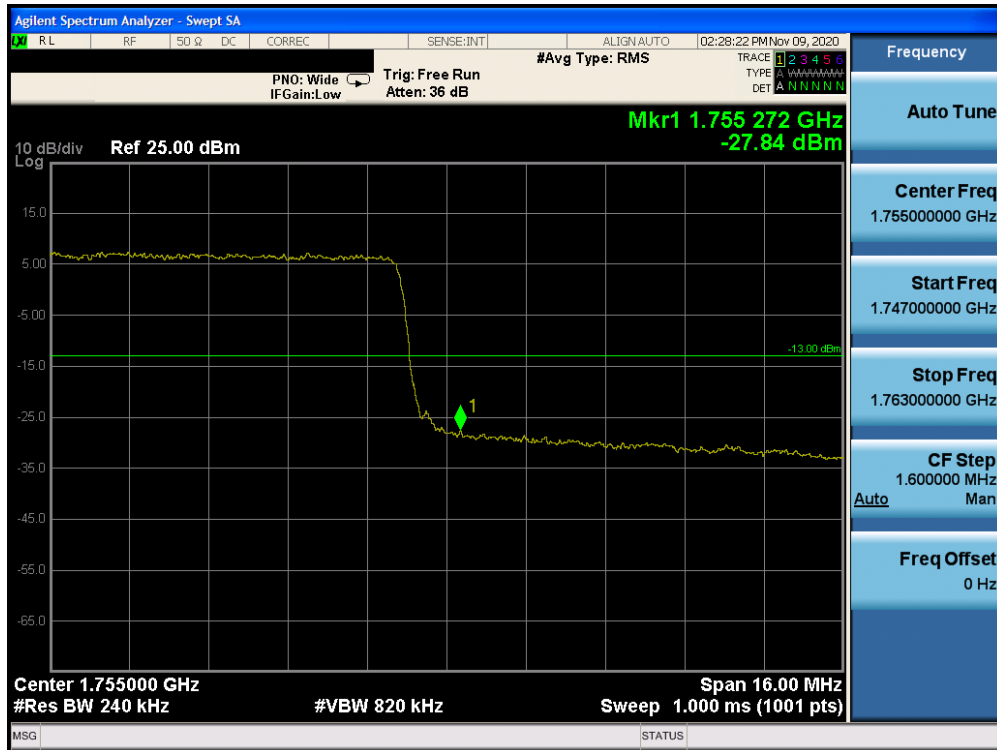


Plot 7-187. Lower Band Edge Plot (Band 4 - 20.0MHz DFT-s OFDM  $\pi/2$  BPSK QPSK - Full RB Configuration)

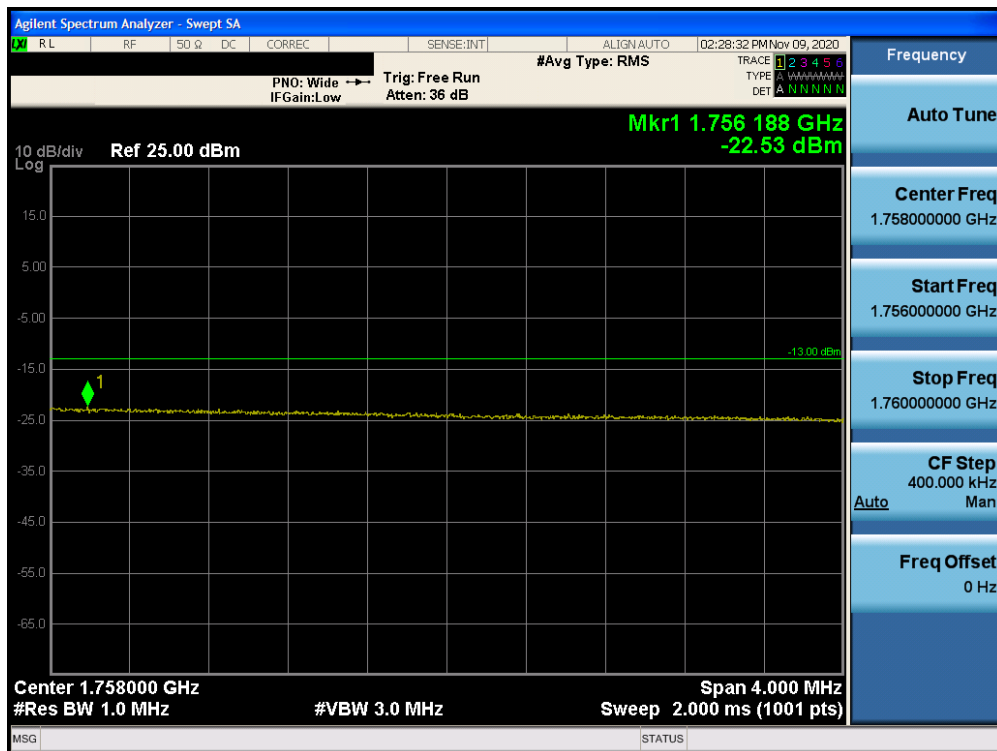


Plot 7-188. Lower Extended Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 118 of 267

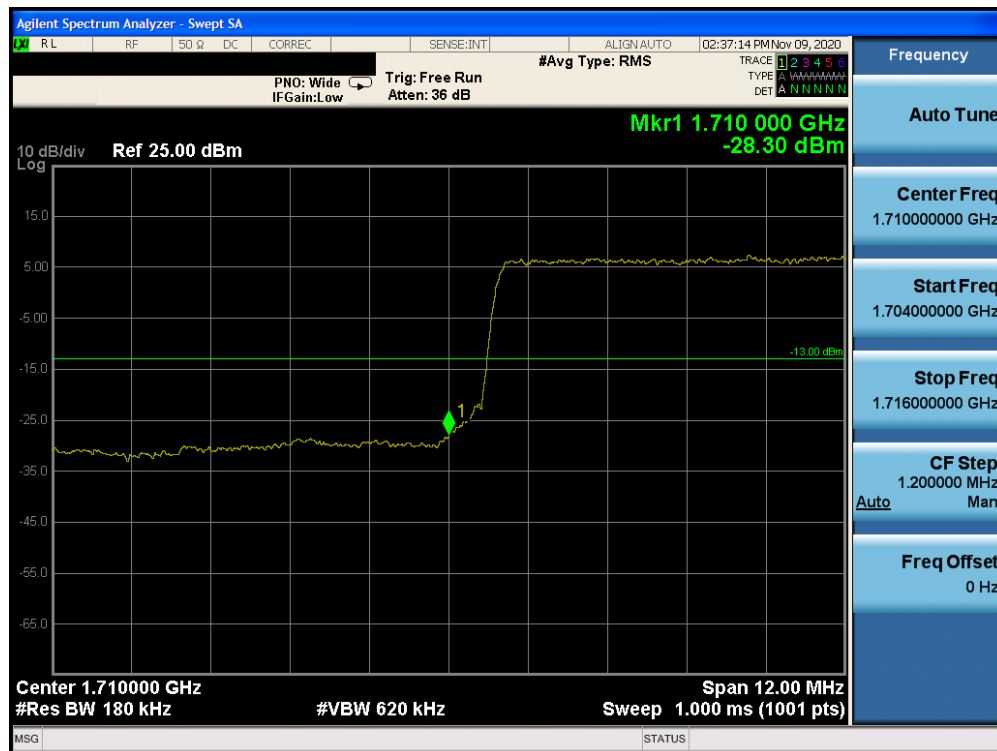


Plot 7-189. Upper Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

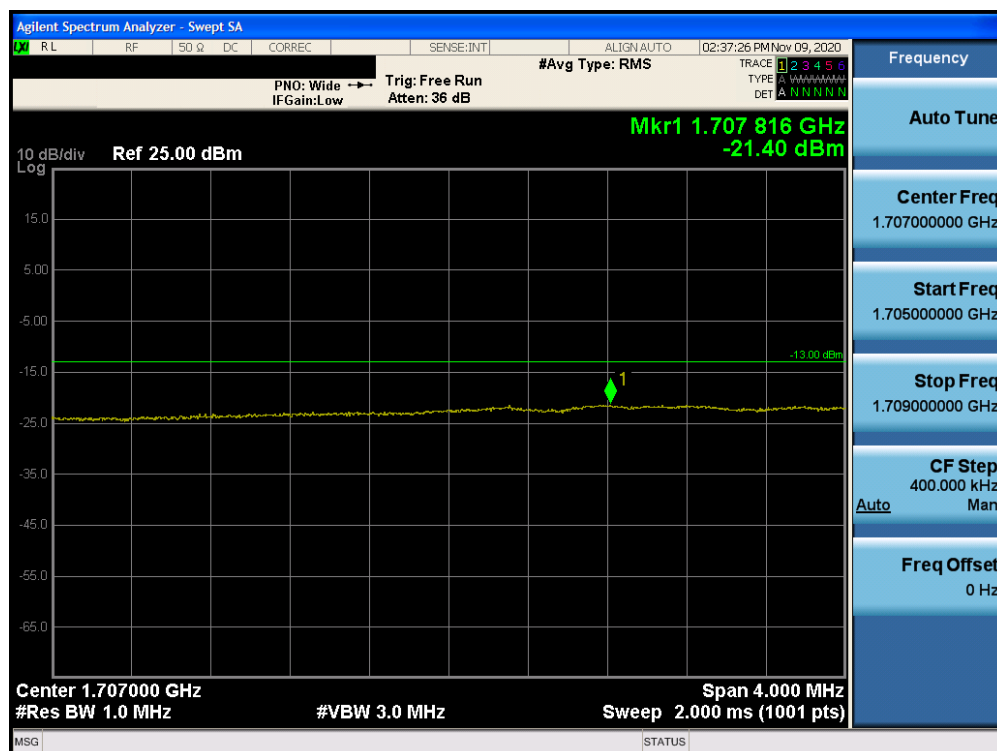


Plot 7-190. Upper Extended Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 119 of 267

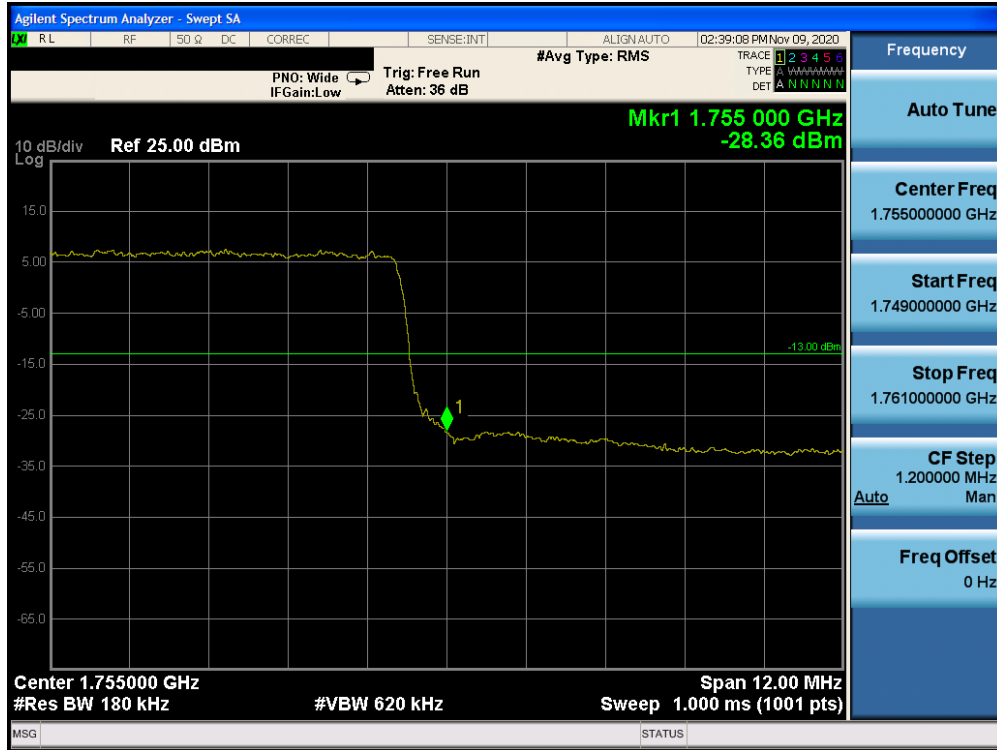


Plot 7-191. Lower Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

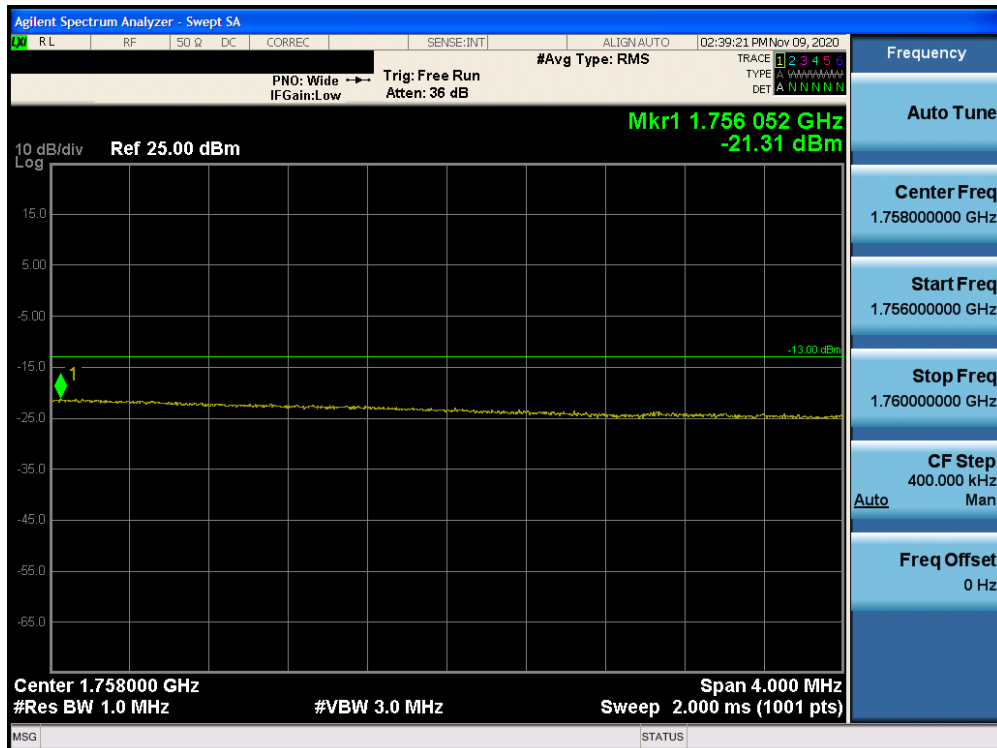


Plot 7-192. Lower Extended Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: BCGA2379	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 120 of 267



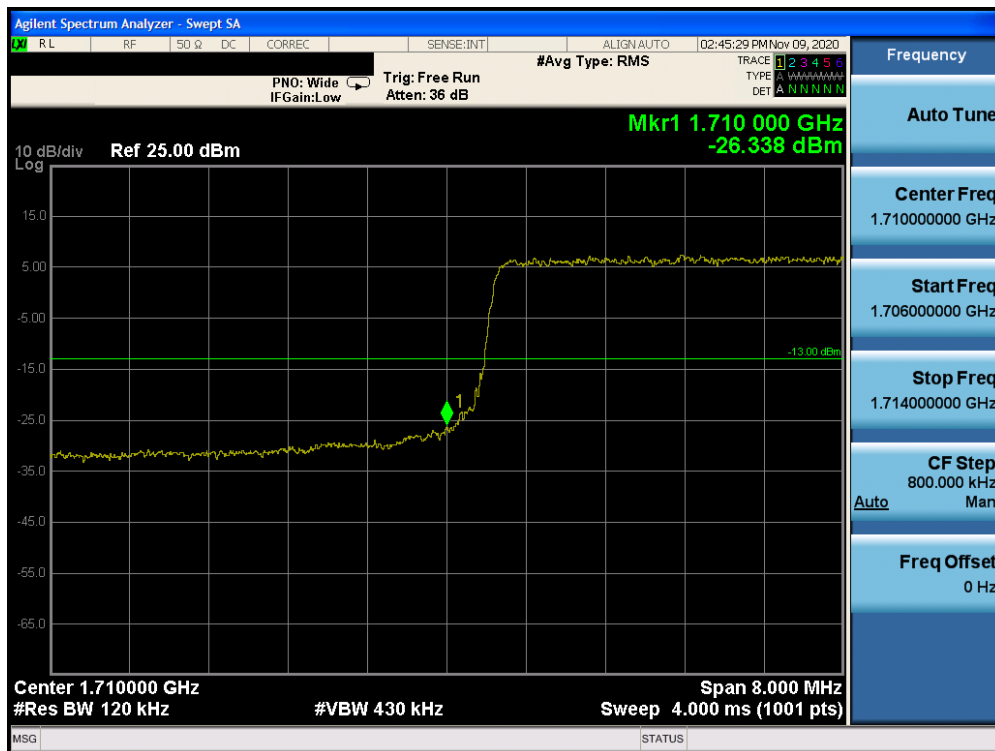
Plot 7-193. Upper Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)



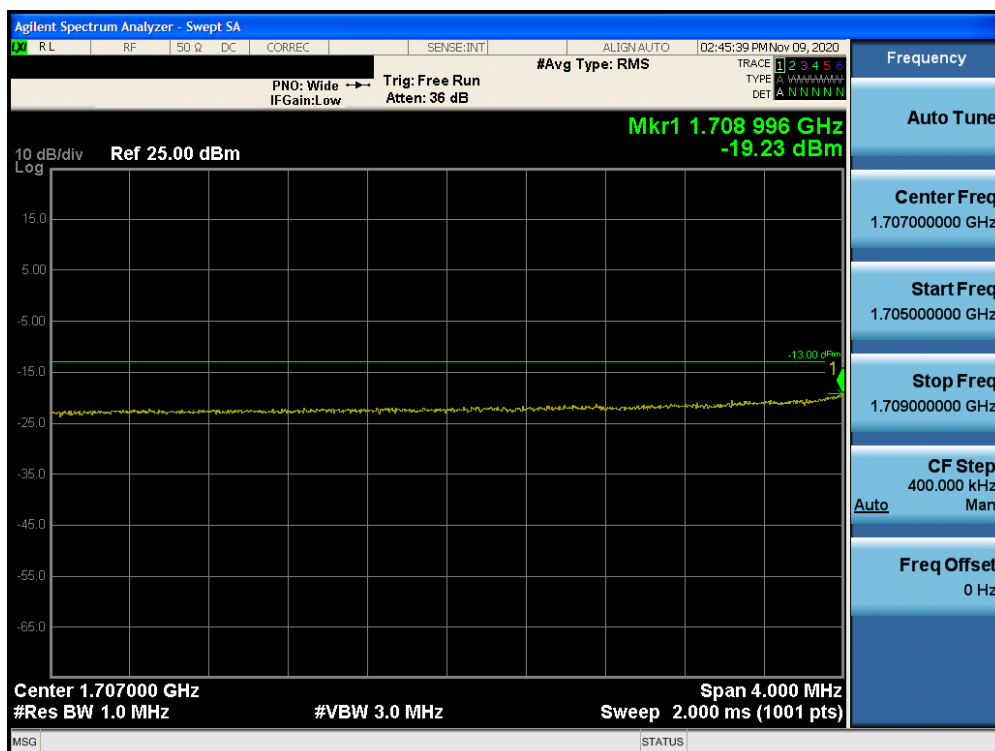
Plot 7-194. Upper Extended Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 121 of 267





Plot 7-195. Lower Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-196. Lower Extended Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: BCGA2379	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Quality Manager
Test Report S/N: 1C2101020005-04-R1.BCG	Test Dates: 12/15/2020 - 02/20/2021	EUT Type: Tablet Device	Page 122 of 267