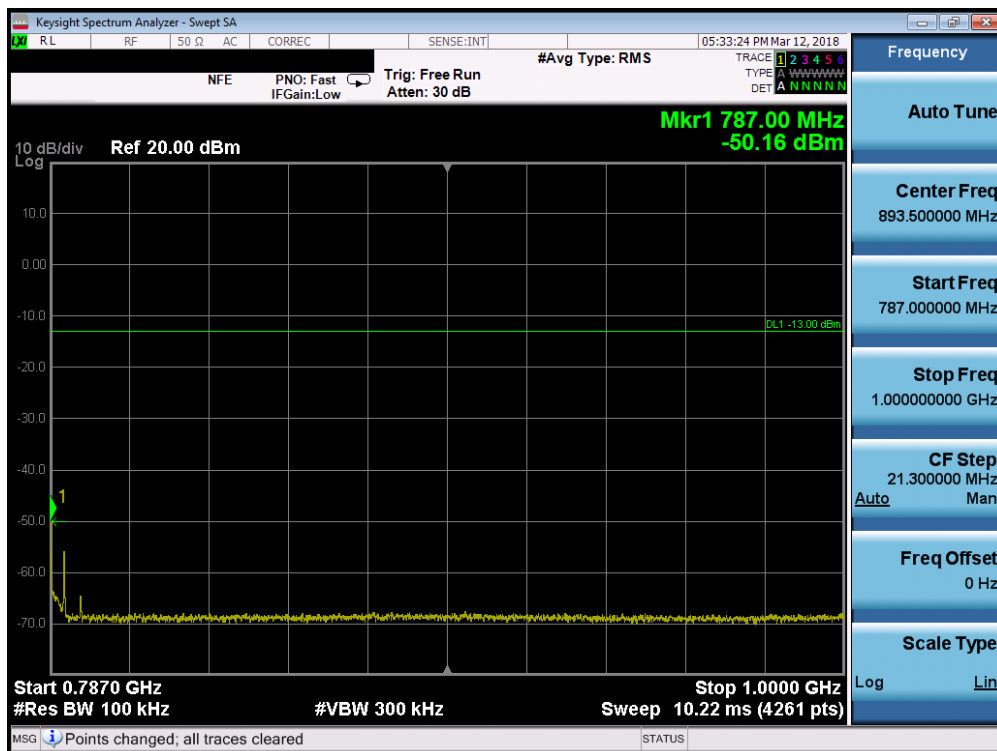
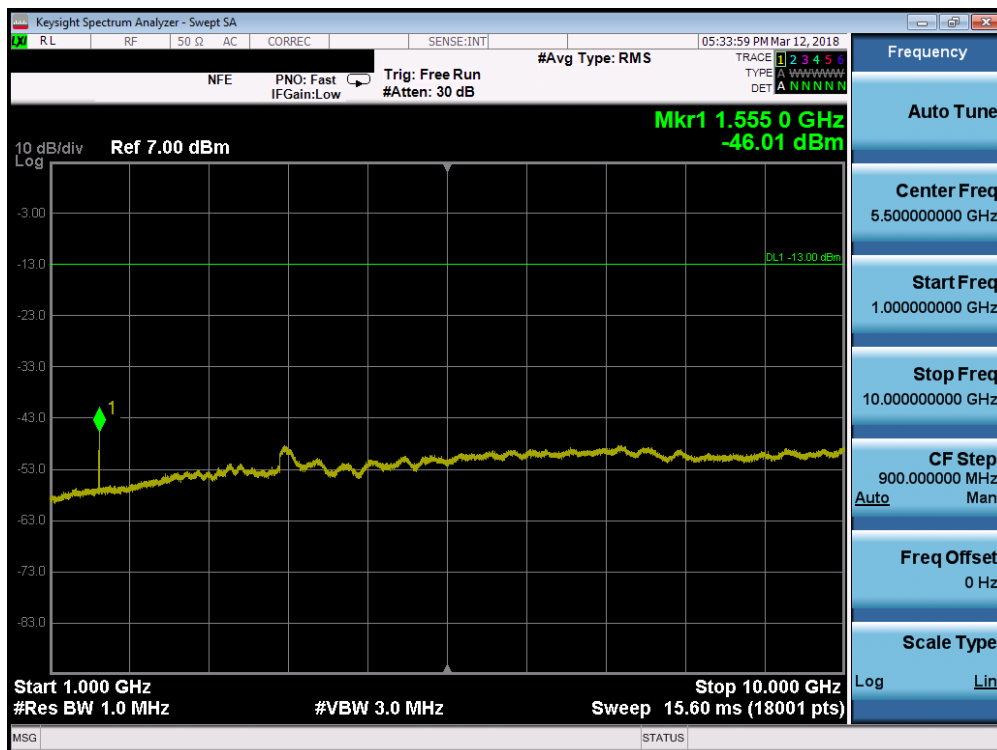




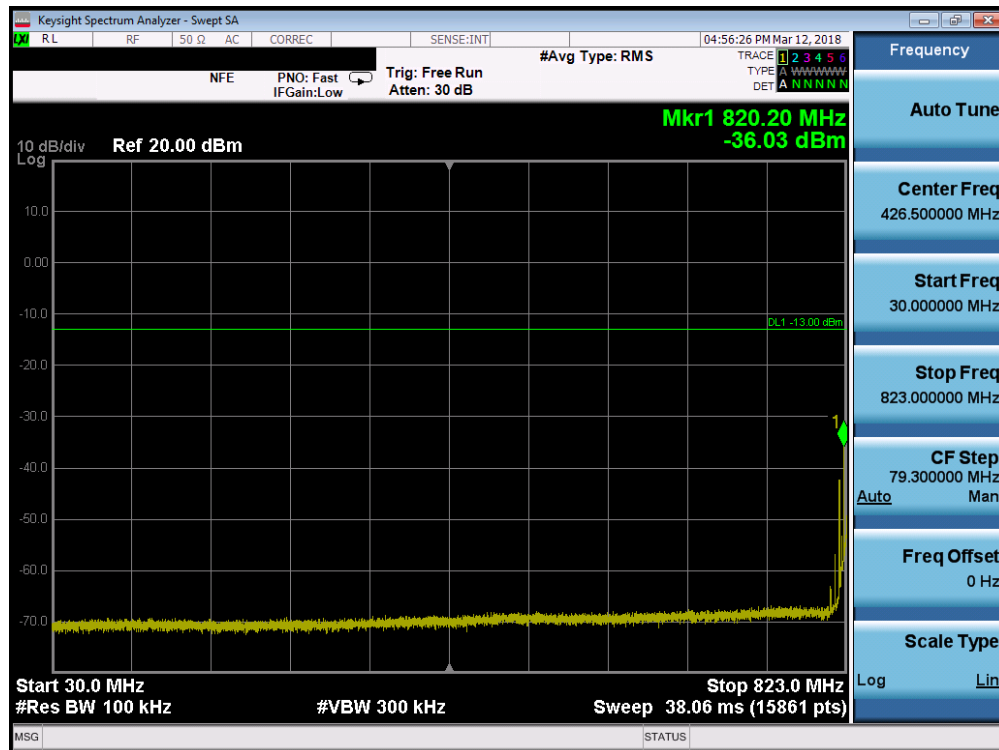
Plot 7-107. Conducted Spurious Plot (Band 13 - 10.0MHz QPSK - RB Size 1, RB Offset 0)



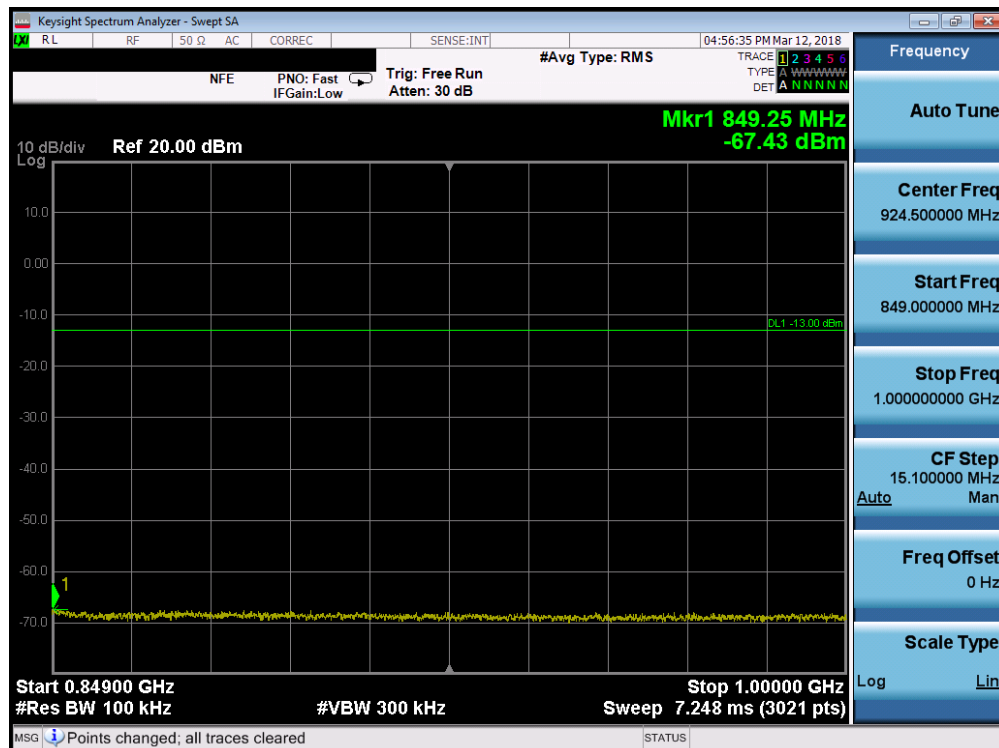
Plot 7-108. Conducted Spurious Plot (Band 13 - 10.0MHz QPSK - RB Size 1, RB Offset 0)

FCC ID: ZNFL713DL	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 71 of 180

Band 5

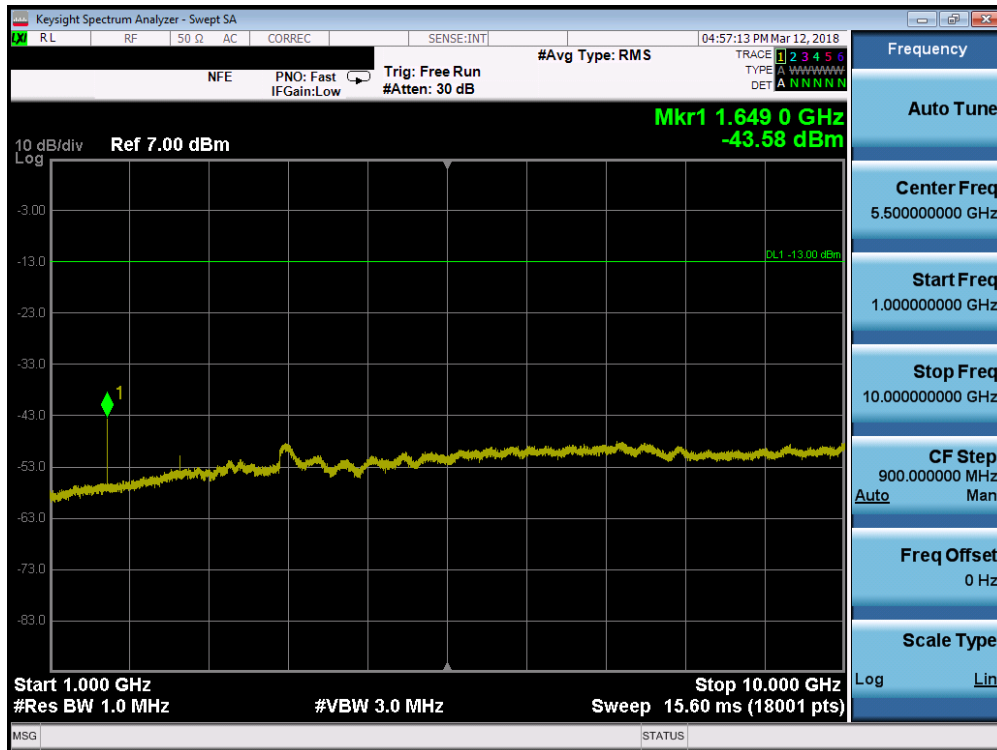


Plot 7-109. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

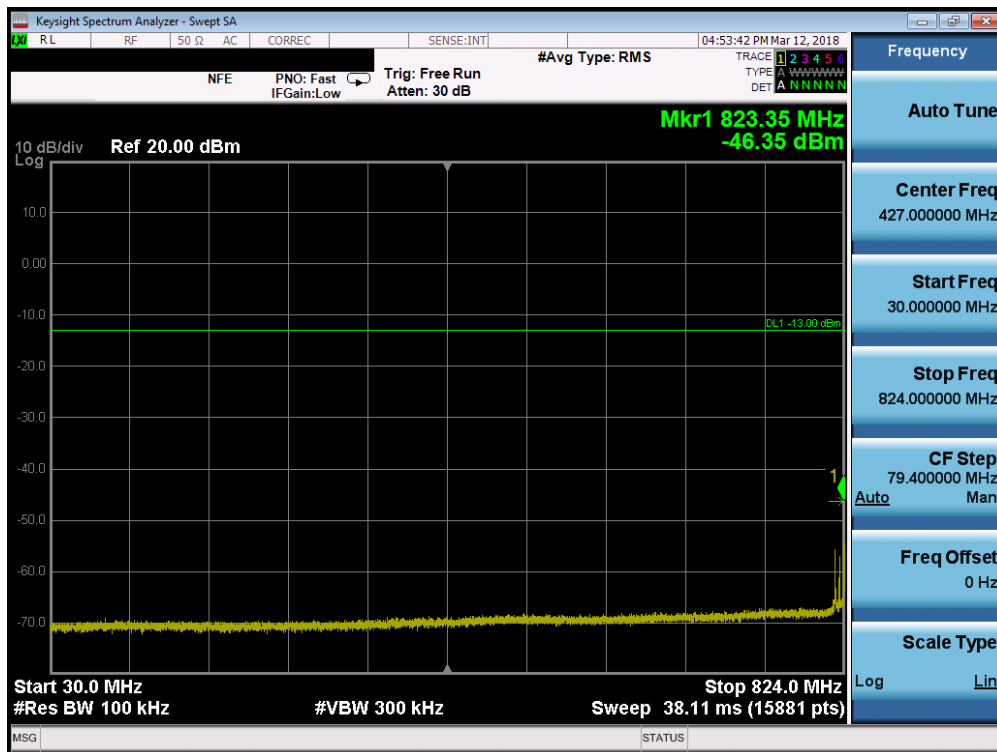


Plot 7-110. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 72 of 180

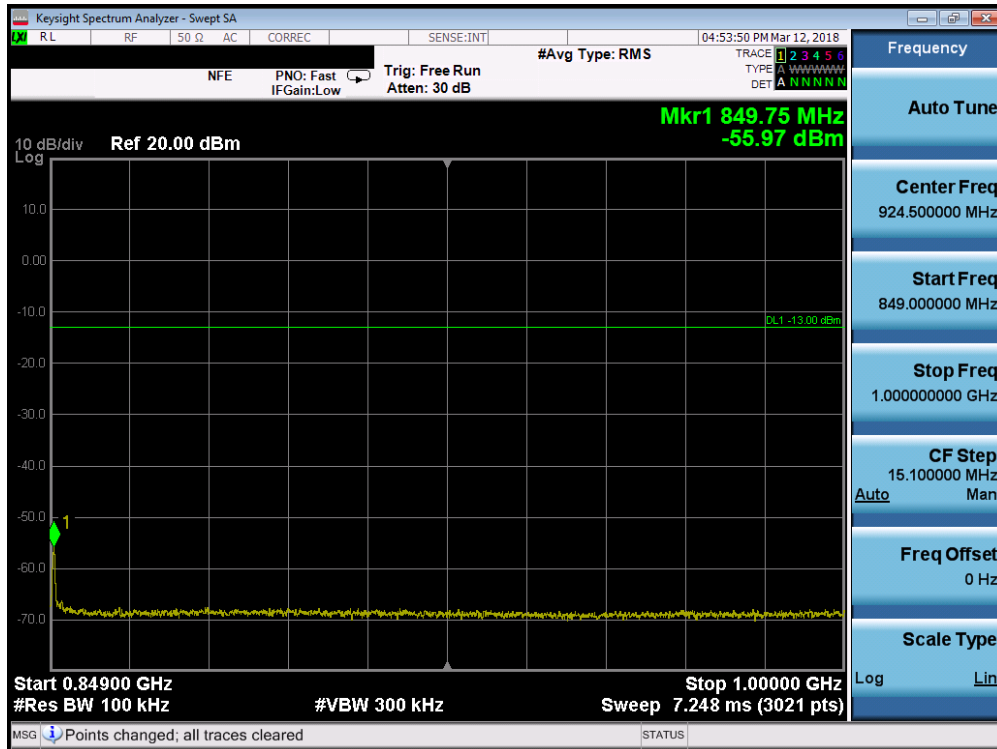


Plot 7-111. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

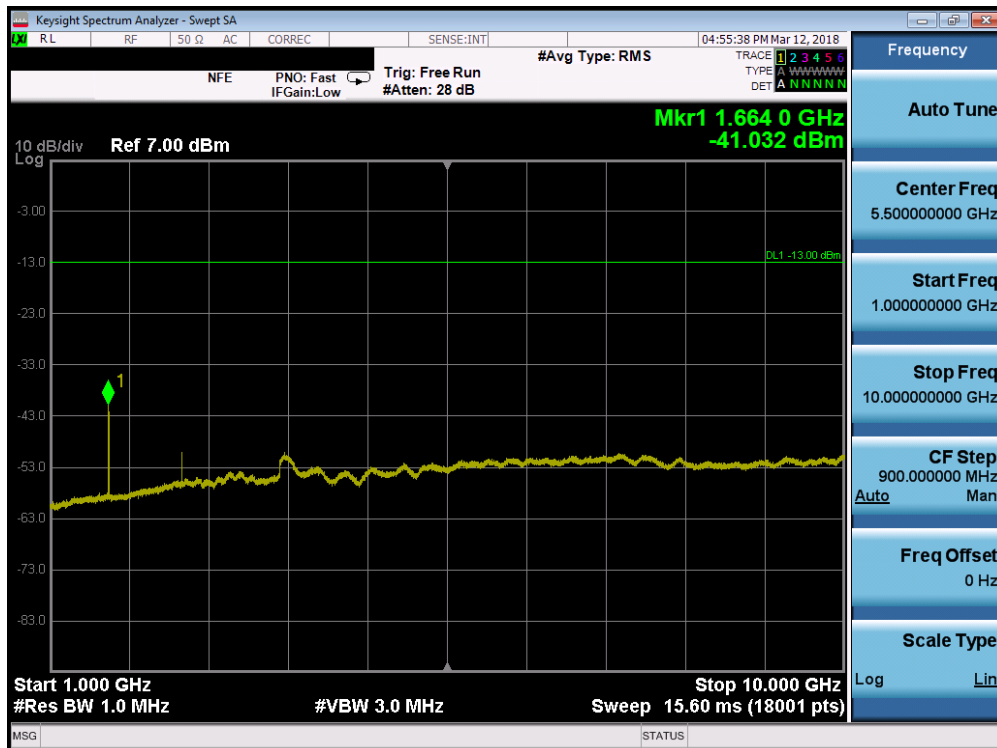


Plot 7-112. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 73 of 180

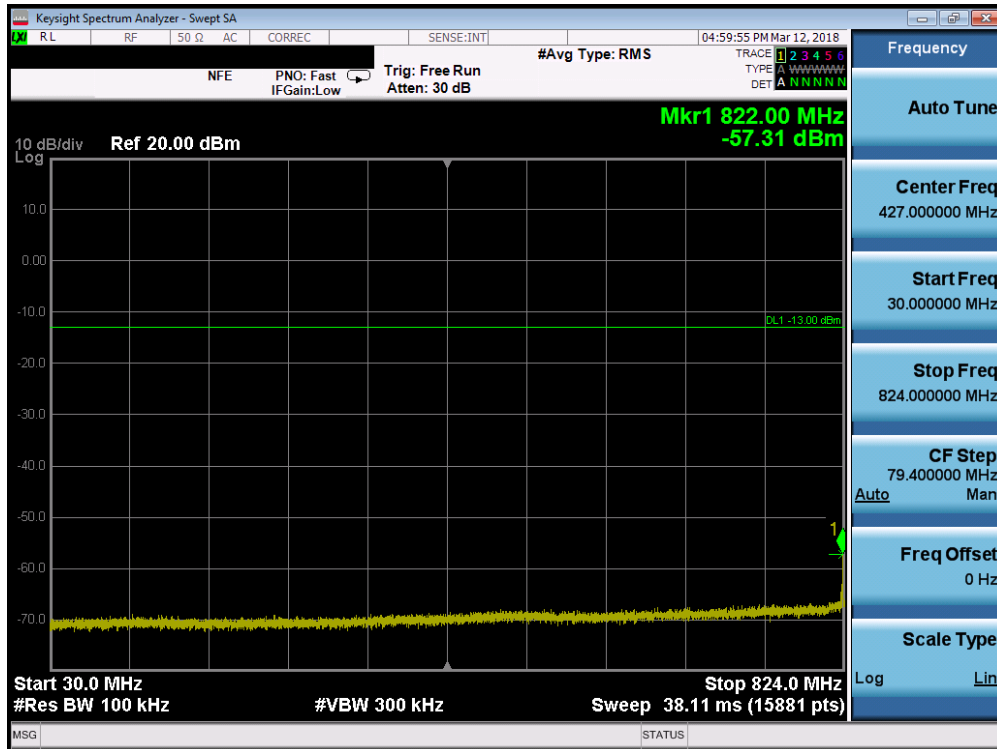


Plot 7-113. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

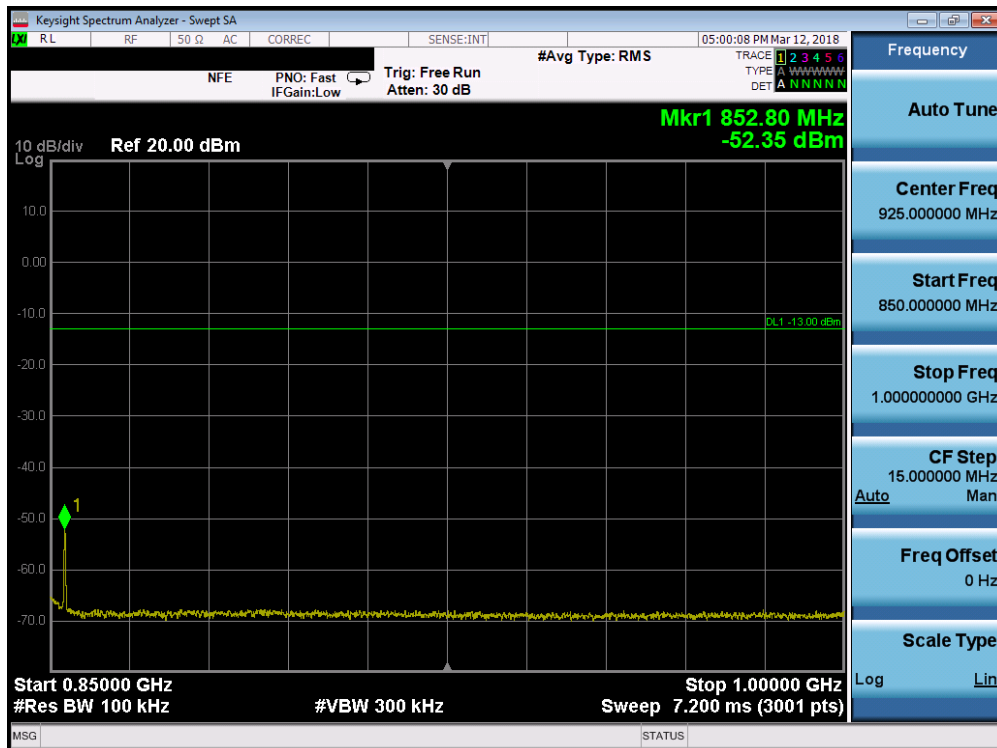


Plot 7-114. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 74 of 180

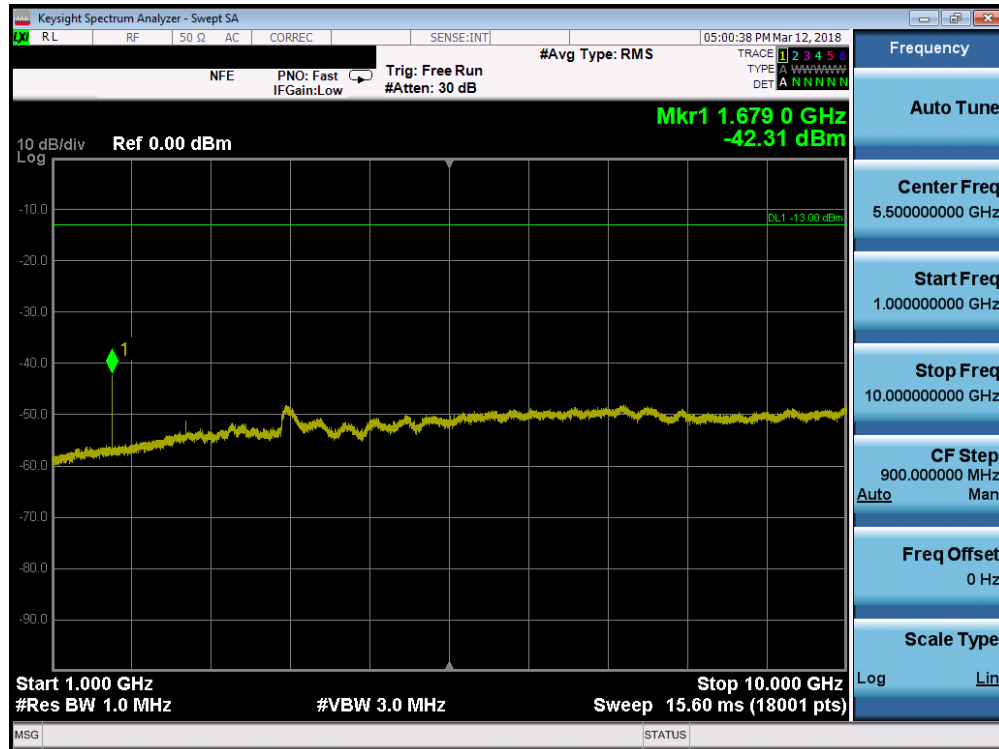


Plot 7-115. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-116. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

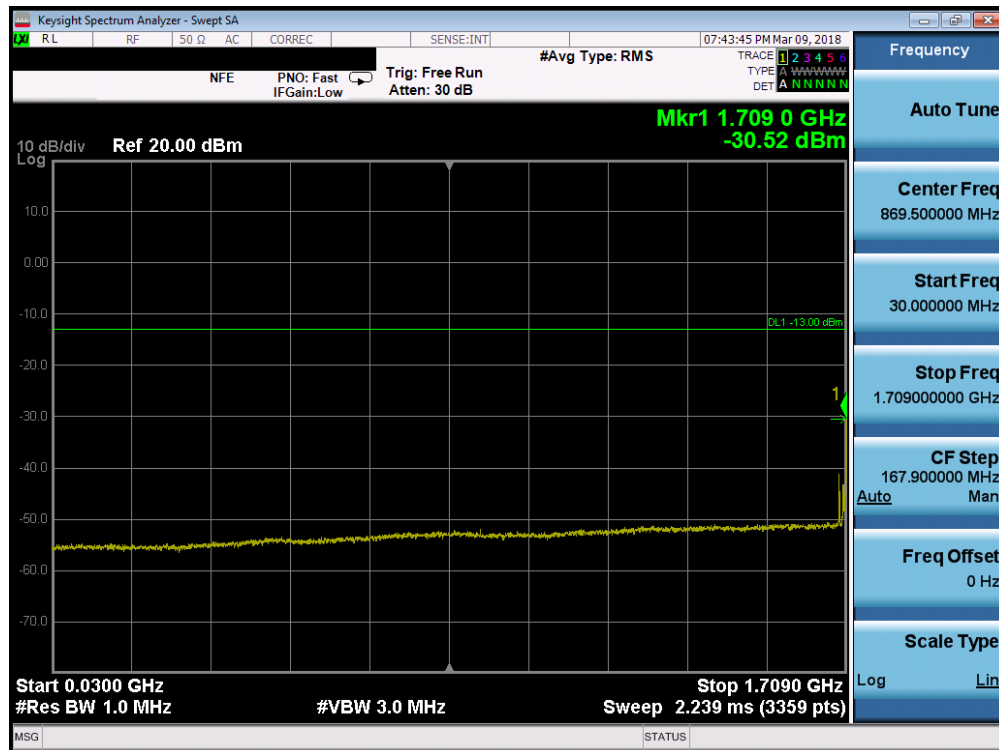
FCC ID: ZNFL713DL	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 75 of 180



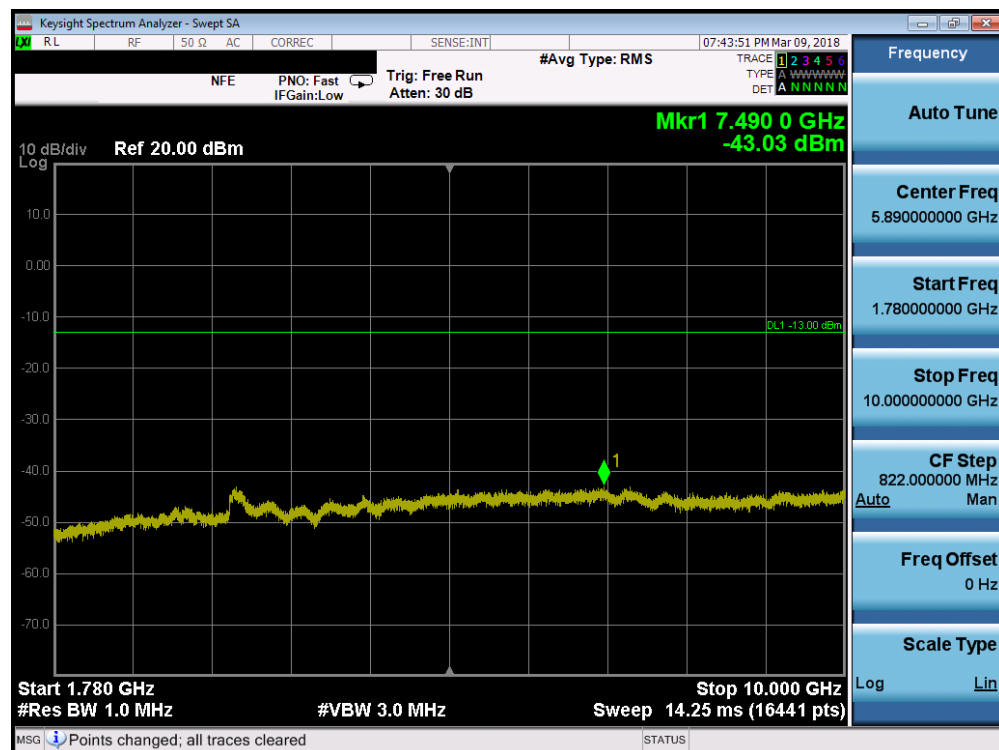
Plot 7-117. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 76 of 180

Band 66/4

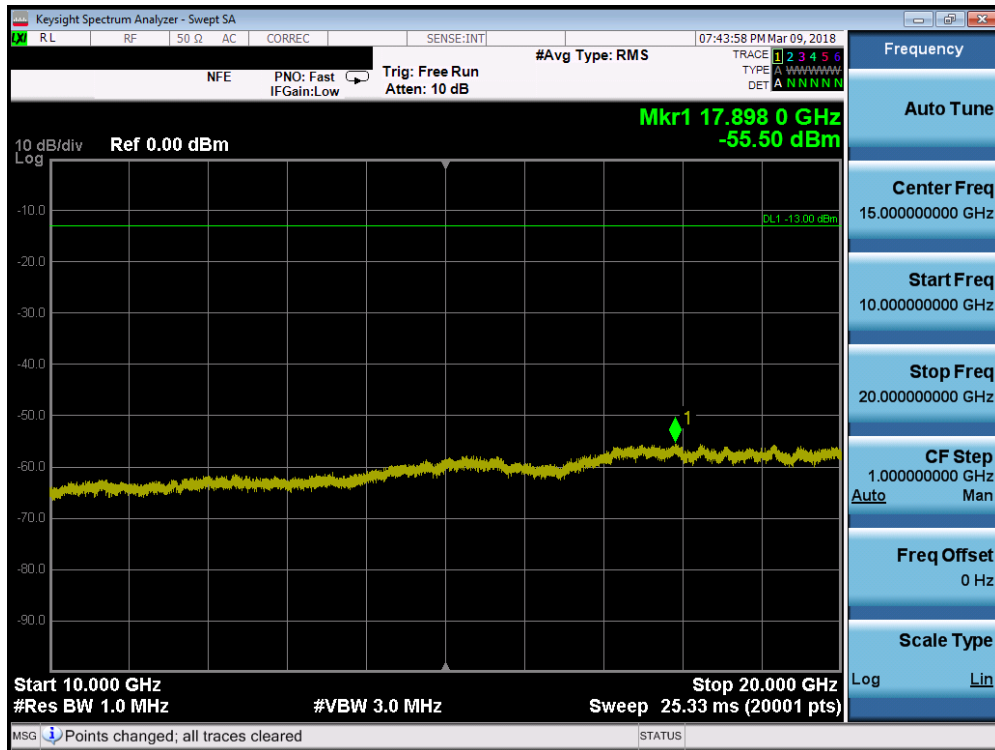


Plot 7-118. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-119. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 77 of 180

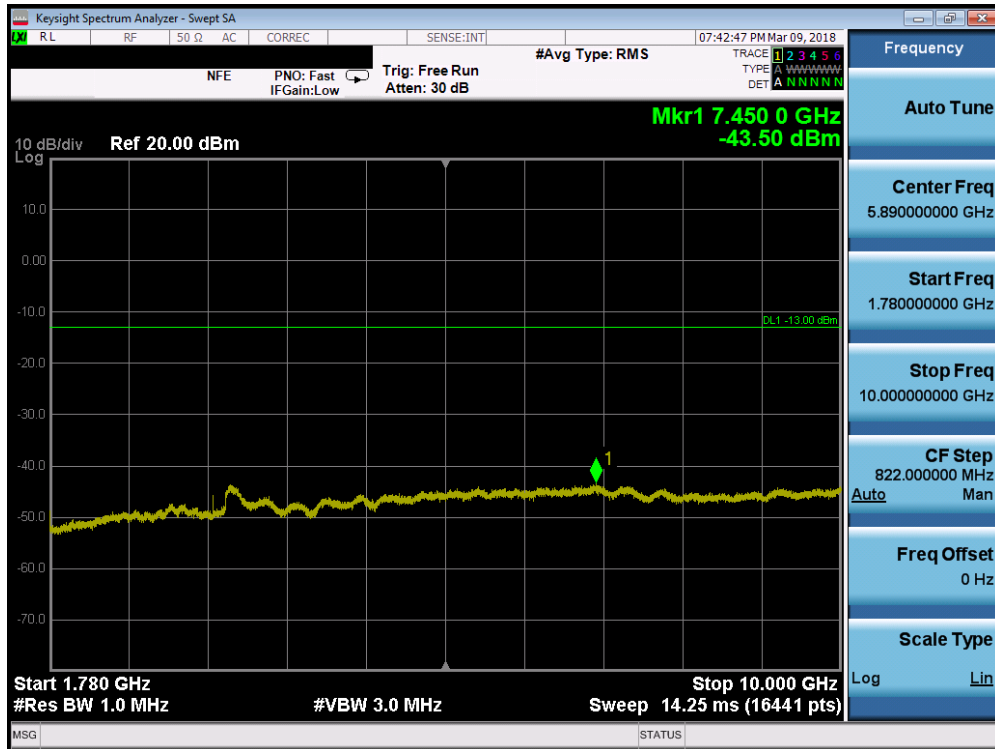


Plot 7-120. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

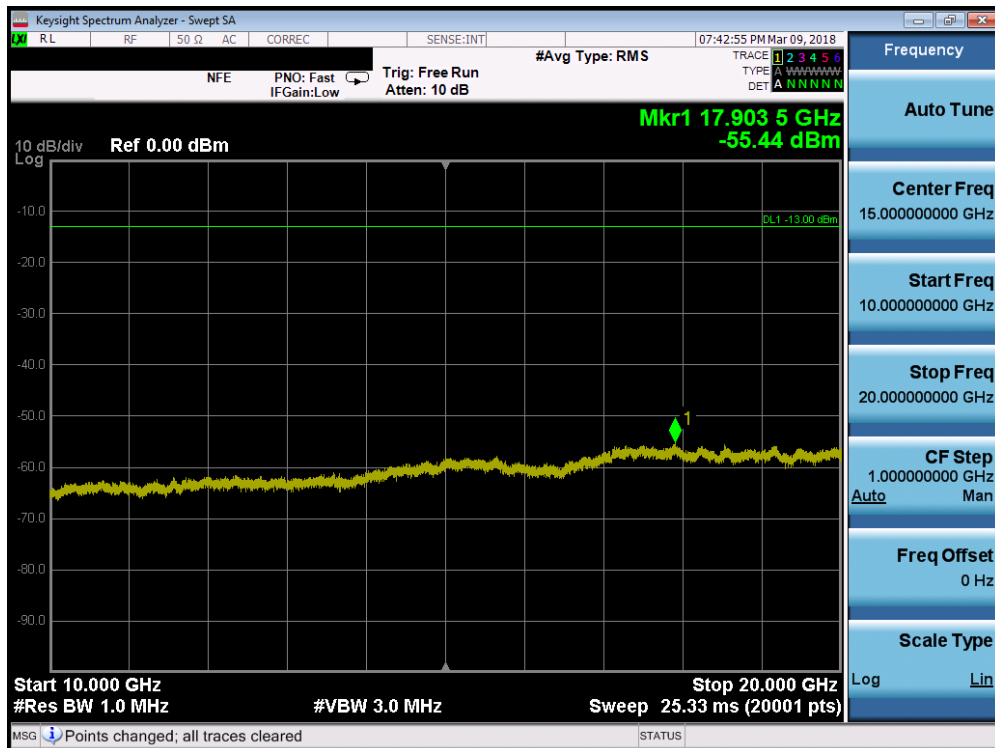


Plot 7-121. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 78 of 180	

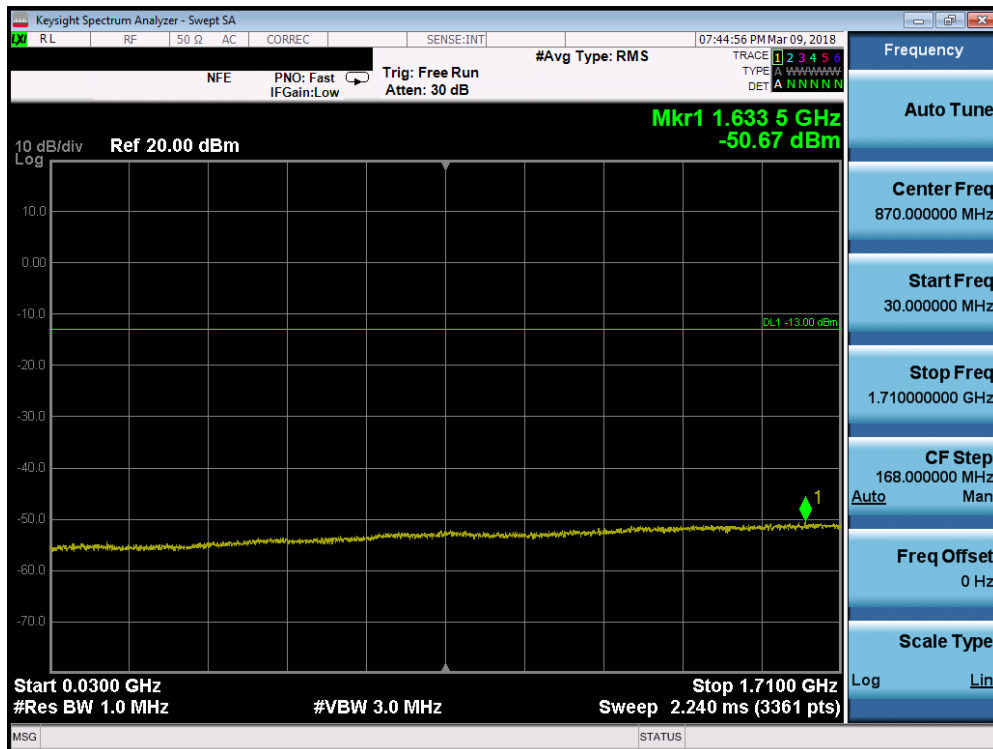


Plot 7-122. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

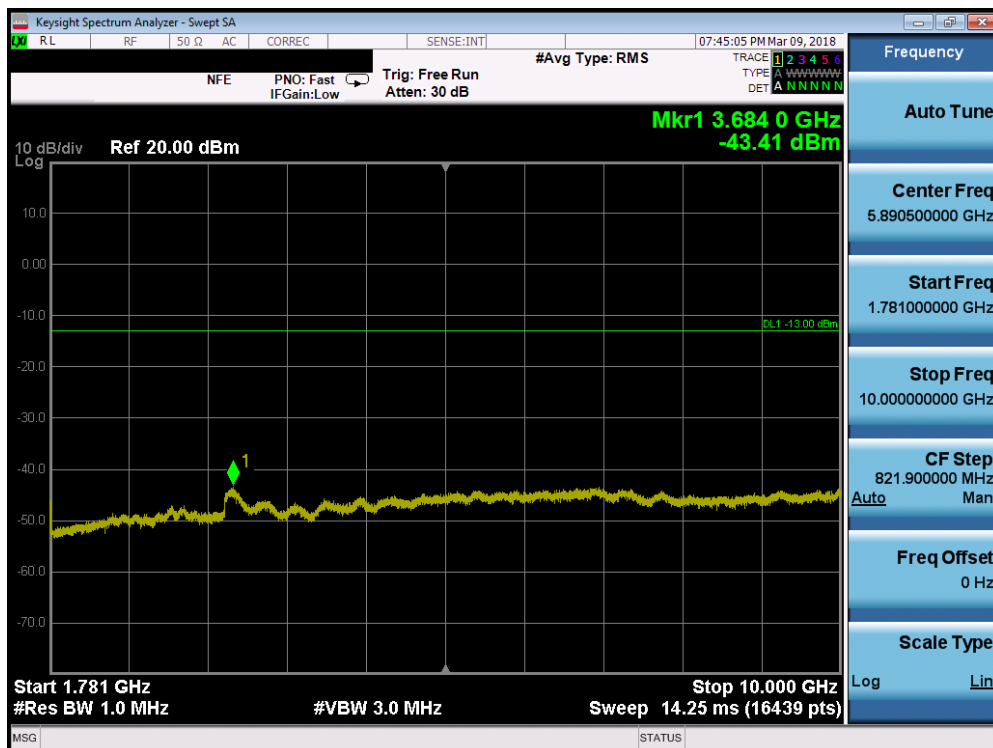


Plot 7-123. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 79 of 180

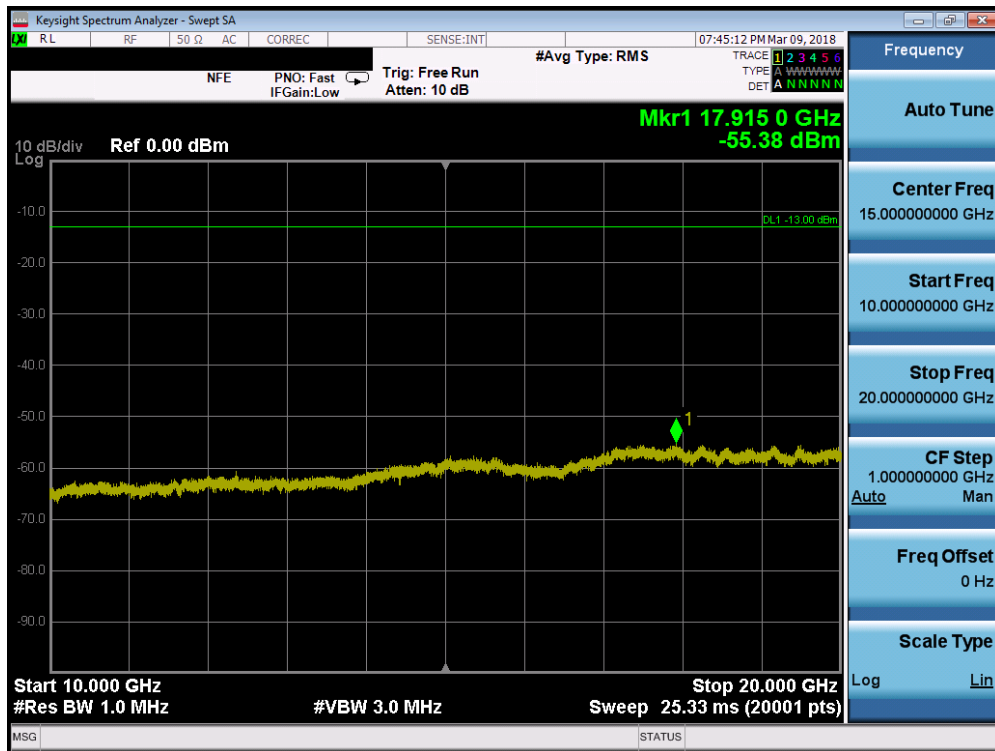


Plot 7-124. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-125. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 80 of 180

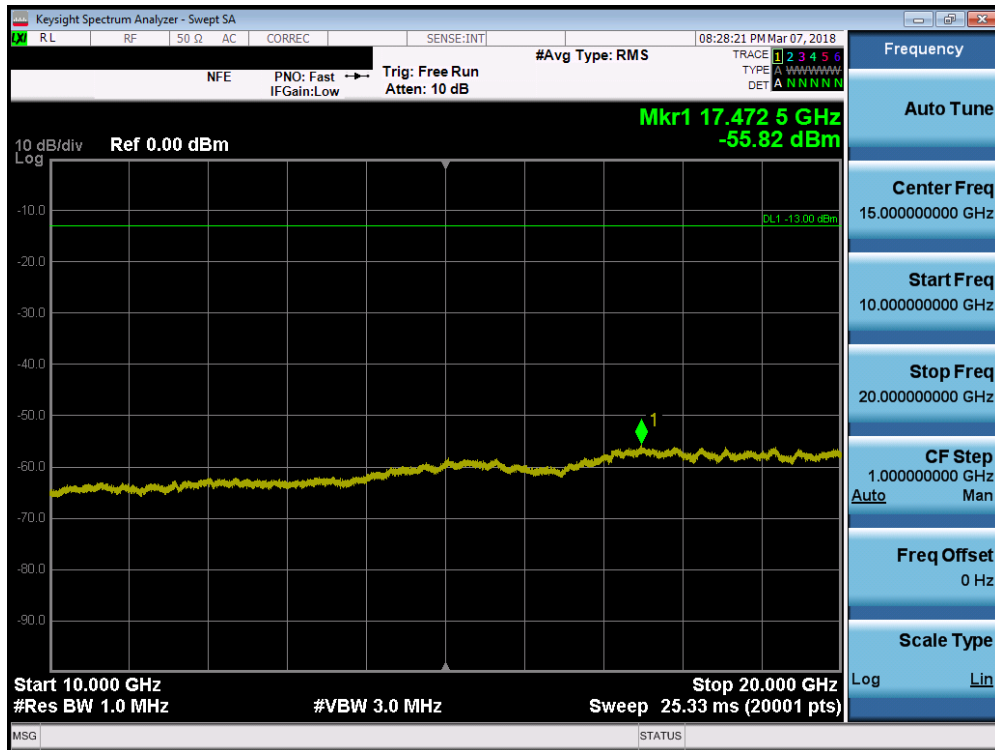


Plot 7-126. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFL713DL	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 81 of 180

V 7.5 2/26/2018

All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTEST.COM.

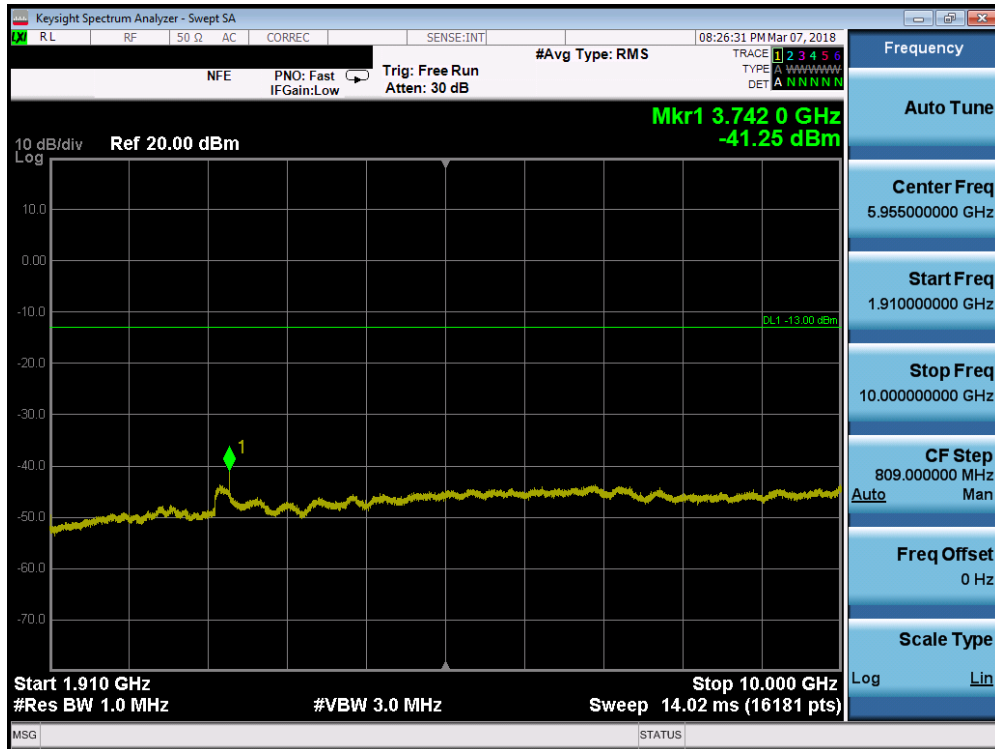


Plot 7-129. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

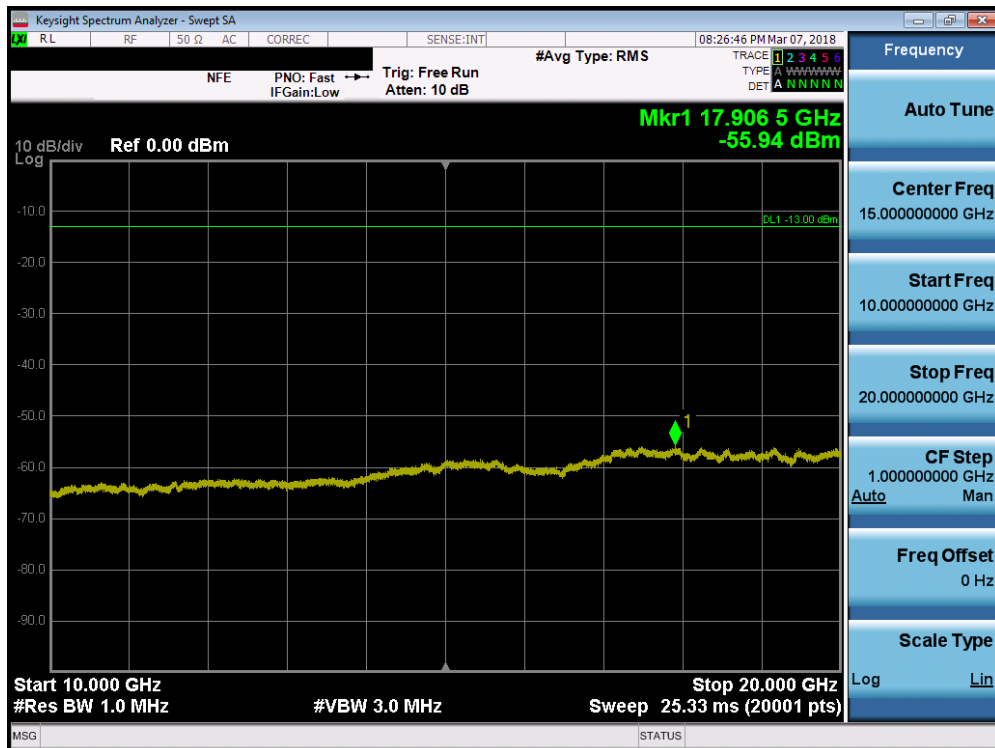


Plot 7-130. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 83 of 180	



Plot 7-131. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

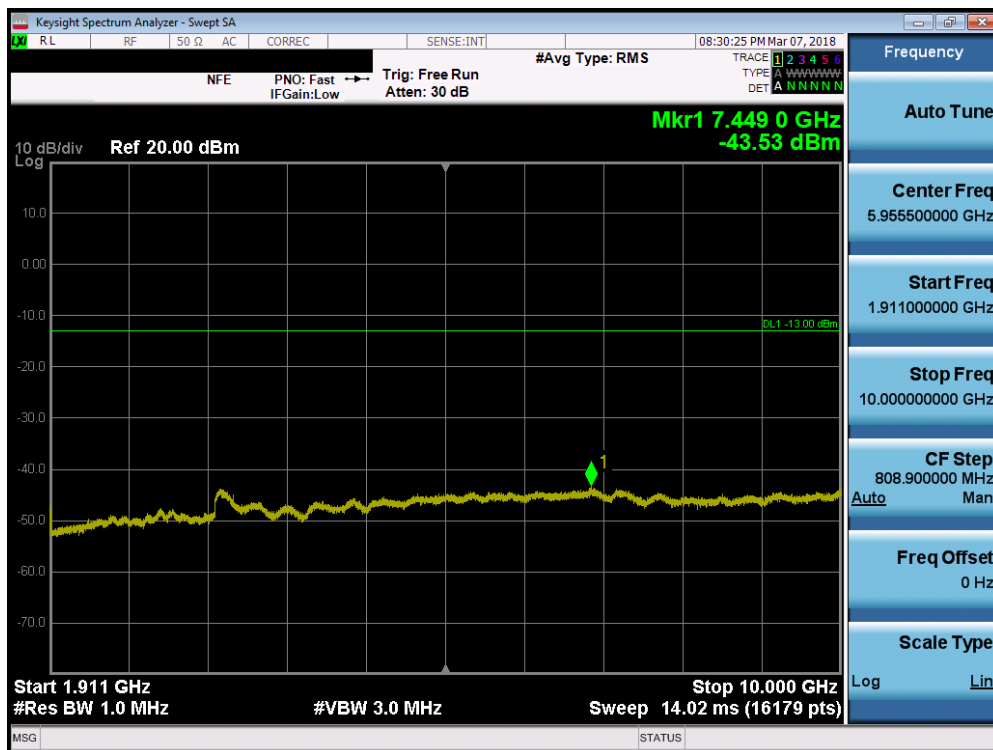


Plot 7-132. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 84 of 180

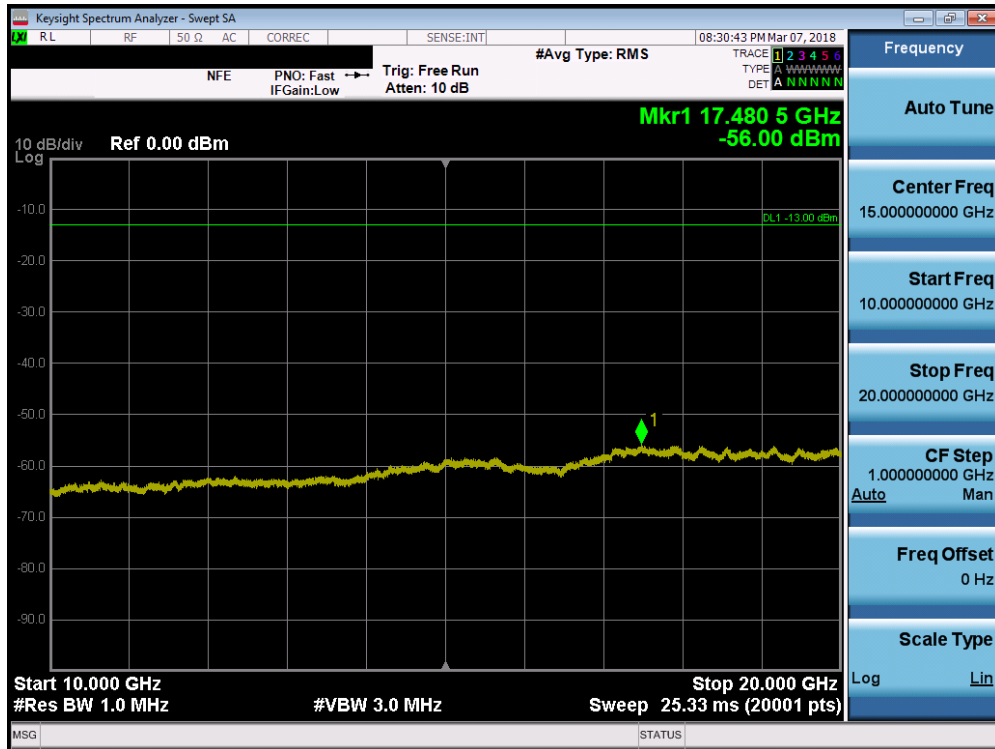


Plot 7-133. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-134. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 85 of 180



Plot 7-135. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 86 of 180

7.4 Band Edge Emissions at Antenna Terminal

Test Overview

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

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

Test Procedure Used

KDB 971168 D01 v03 – 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
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.

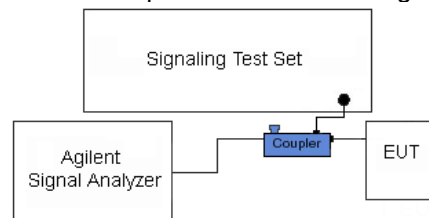


Figure 7-3. Test Instrument & Measurement Setup

FCC ID: ZNFL713DL	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 87 of 180

Test Notes

Per 22.917(b) 24.238(a) 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.

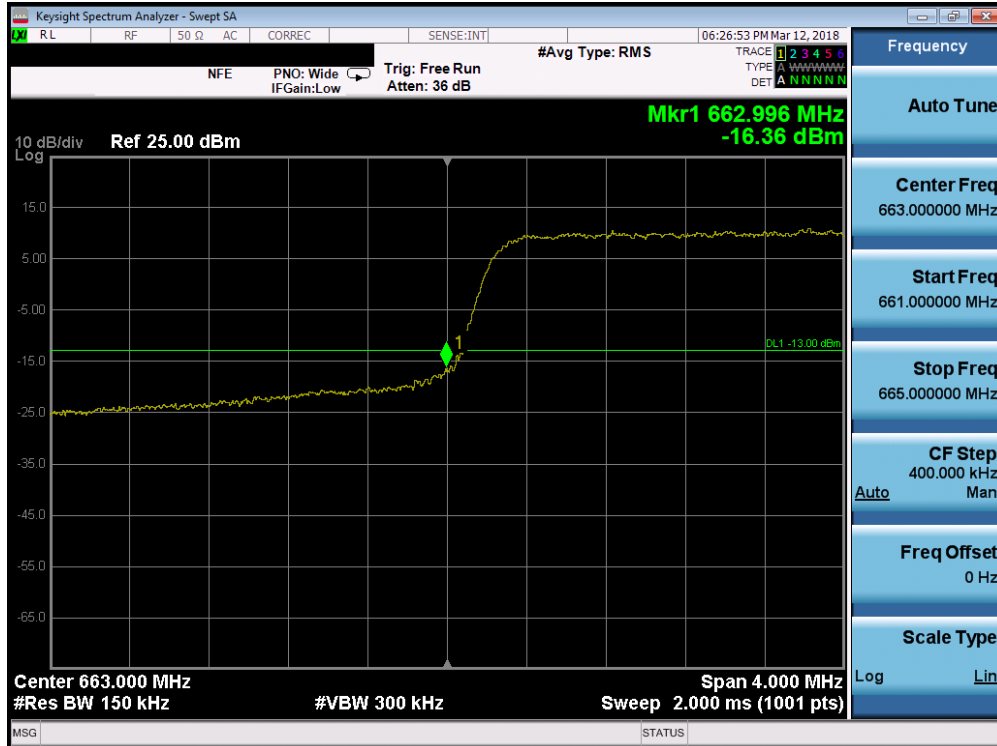
Per 27.53(g) for operations in the 600 MHz band, and in the 698-746 MHz band, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.

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.

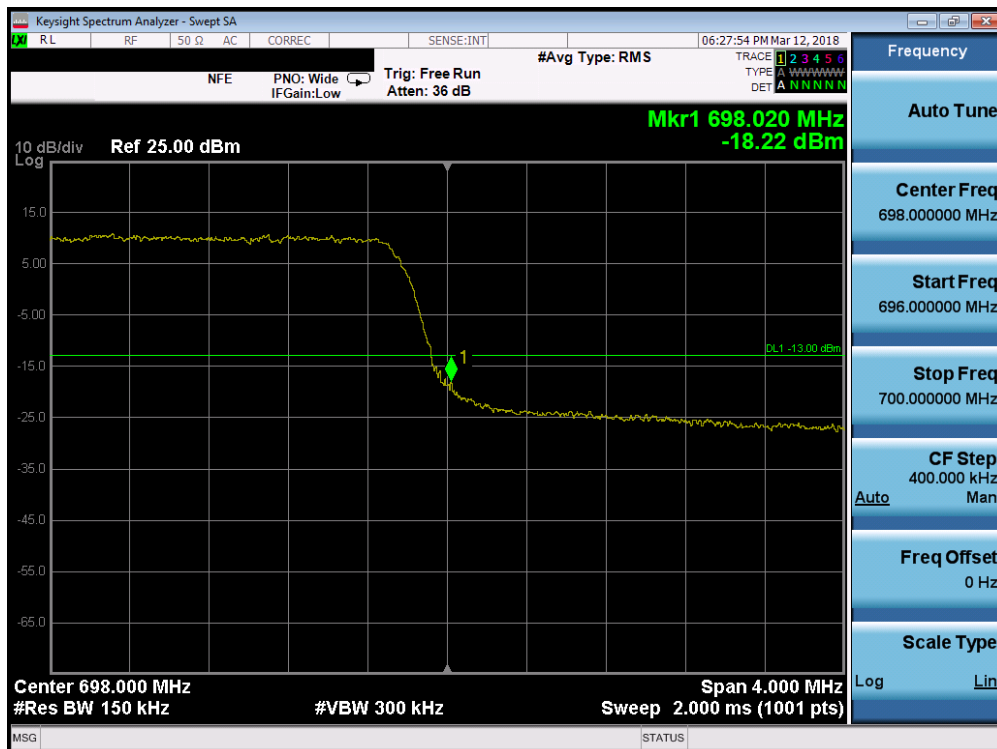
For all plots showing emissions in the 763 – 775MHz and 793 – 805MHz band, the FCC limit per 27.53(c)(4) is $65 + 10\log_{10}(P) = -35\text{dBm}$ in a 6.25kHz bandwidth.

FCC ID: ZNFL713DL	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 88 of 180

Band 71

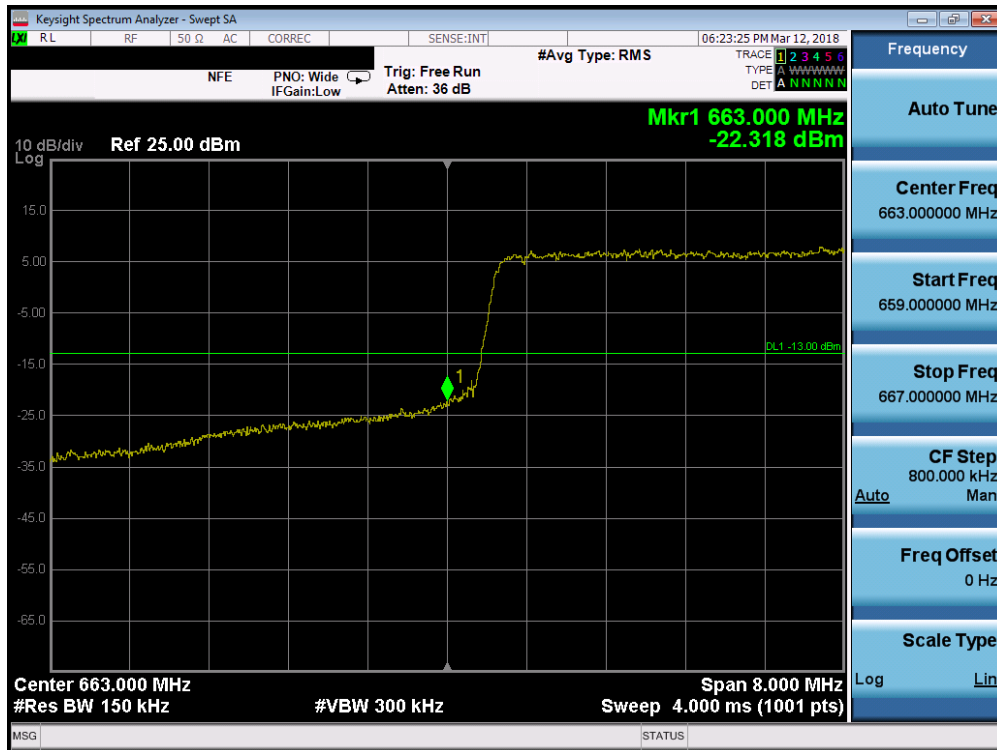


Plot 7-136. Lower Band Edge Plot (Band 71 - 5.0MHz QPSK - Full RB Configuration)

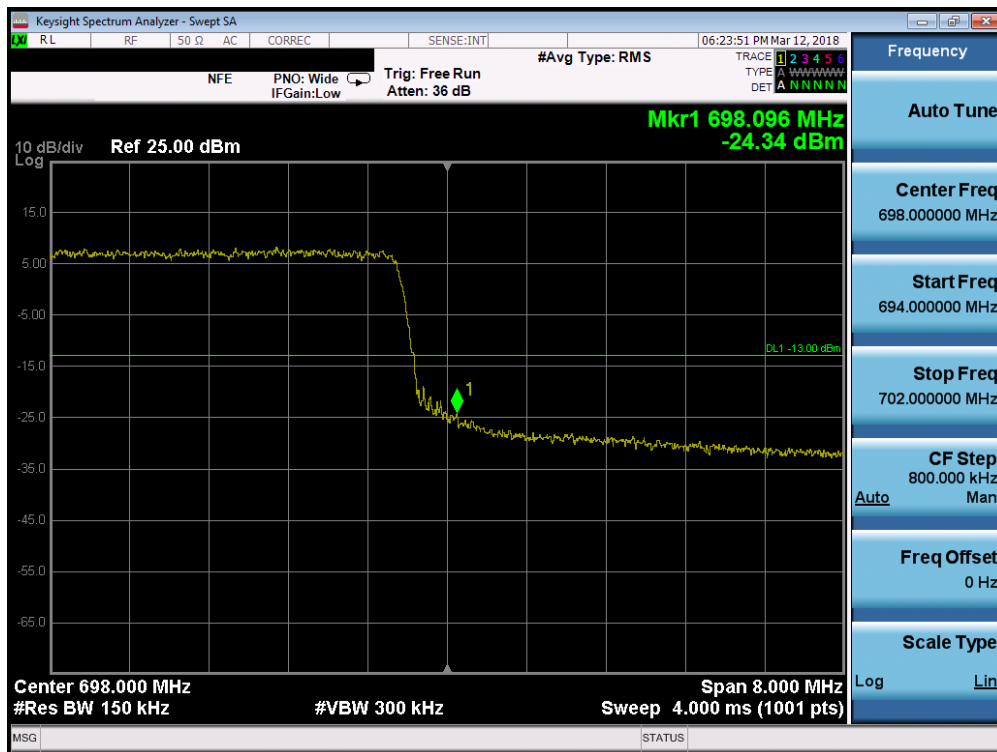


Plot 7-137. Upper Band Edge Plot (Band 71 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNLF713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 89 of 180	

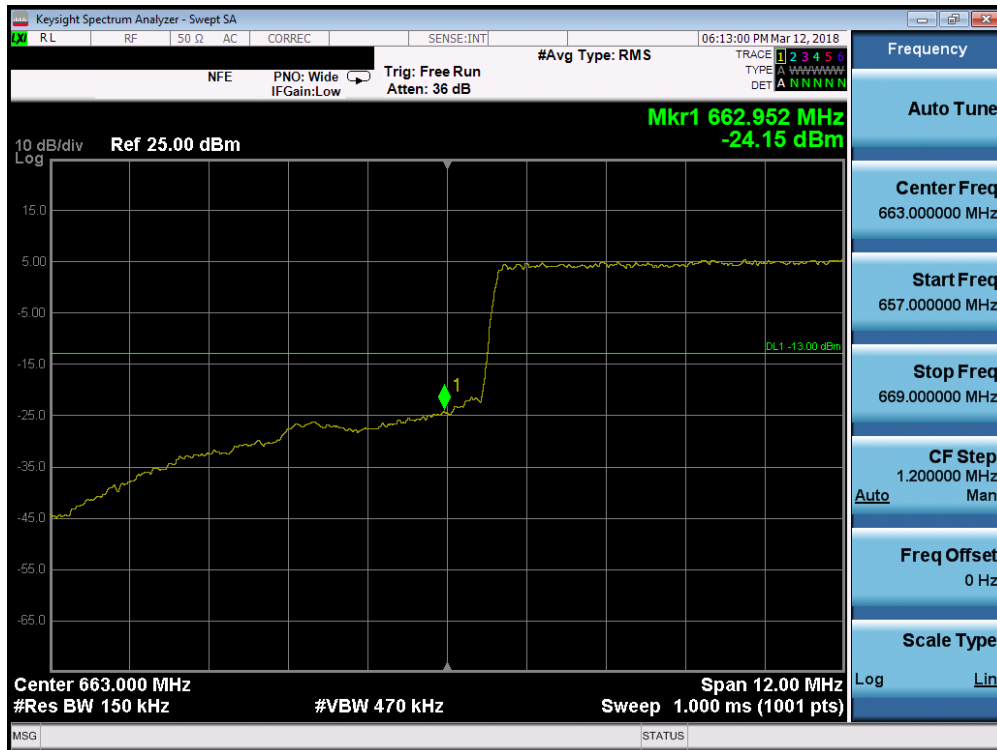


Plot 7-138. Lower Band Edge Plot (Band 71 - 10.0MHz QPSK - Full RB Configuration)

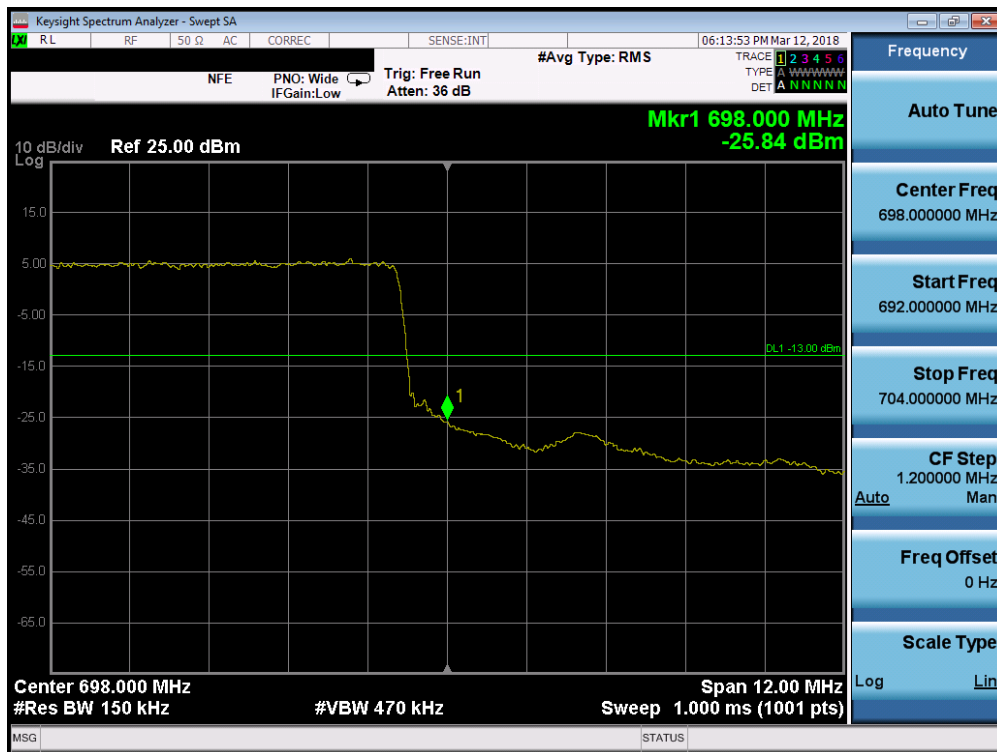


Plot 7-139. Upper Band Edge Plot (Band 71 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 90 of 180

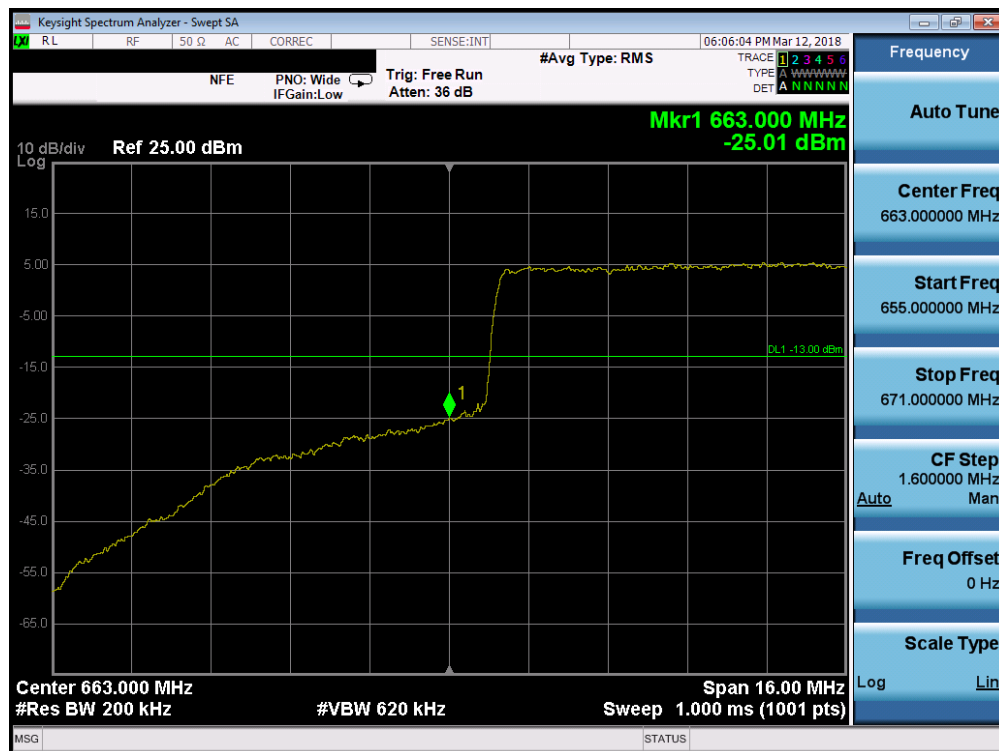


Plot 7-140. Lower Band Edge Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)

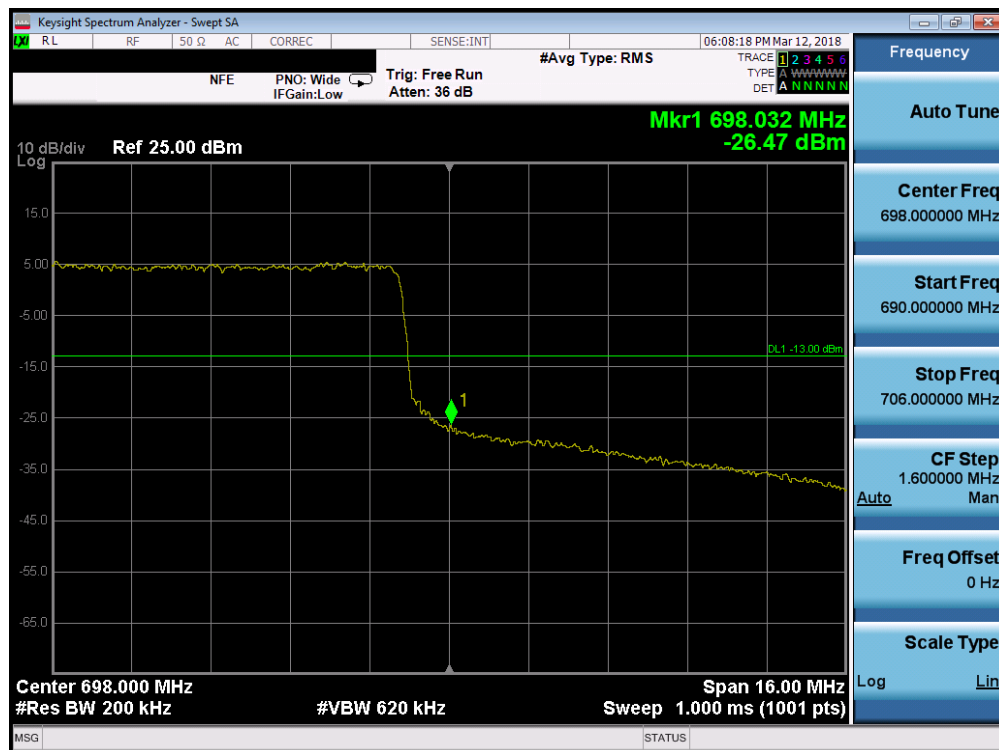


Plot 7-141. Upper Band Edge Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 91 of 180



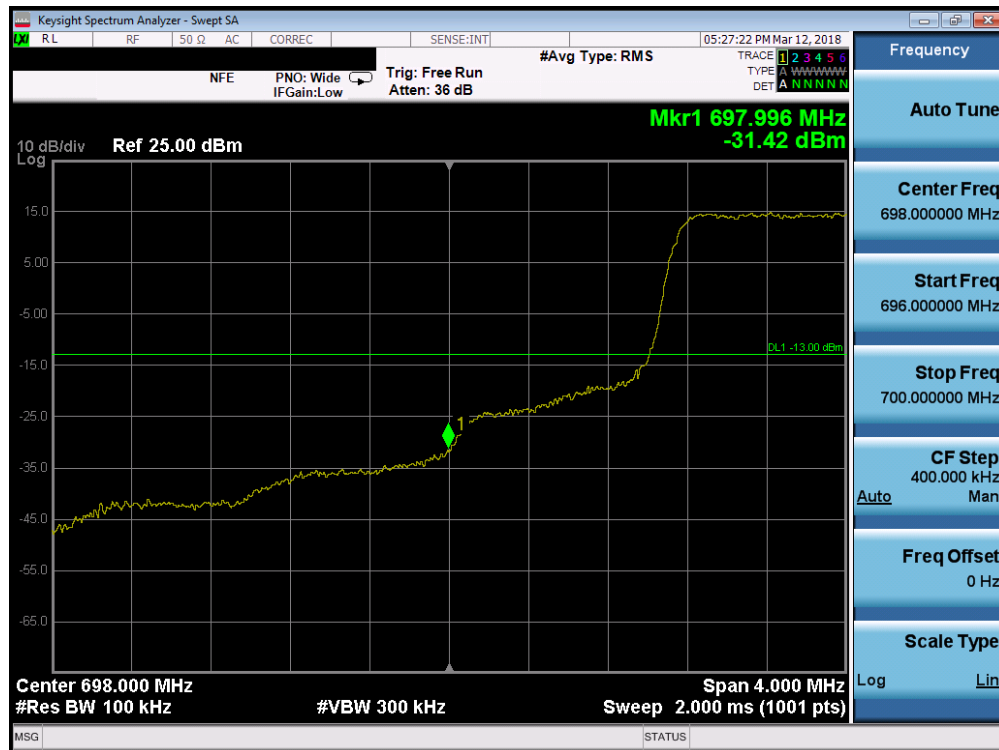
Plot 7-142. Lower Band Edge Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)



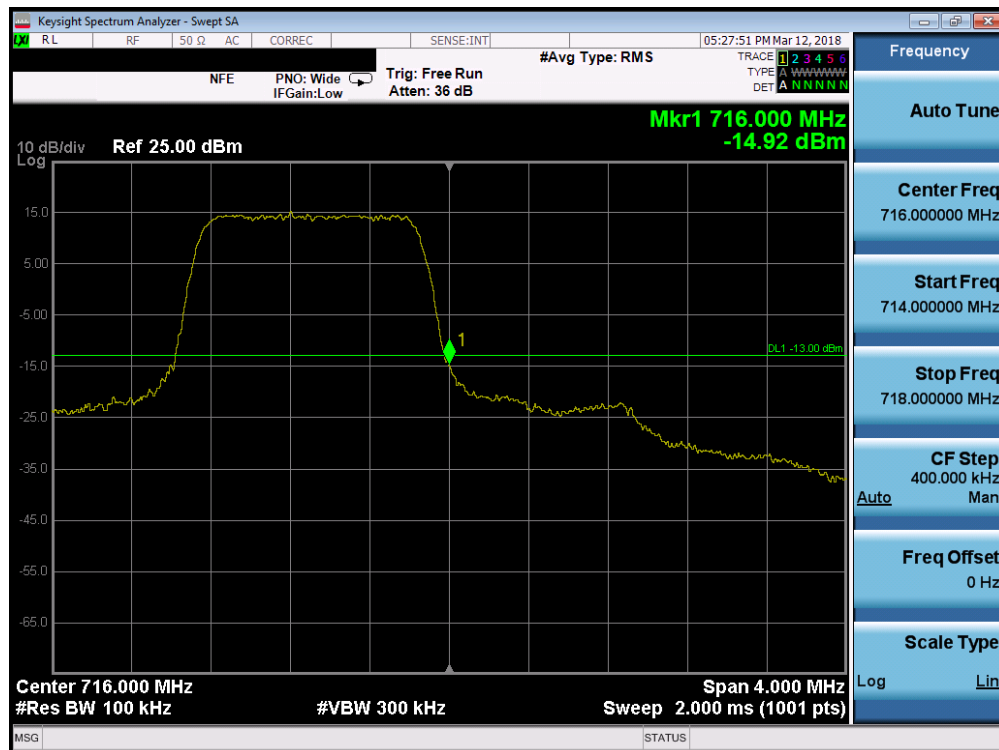
Plot 7-143. Upper Band Edge Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 92 of 180

Band 12

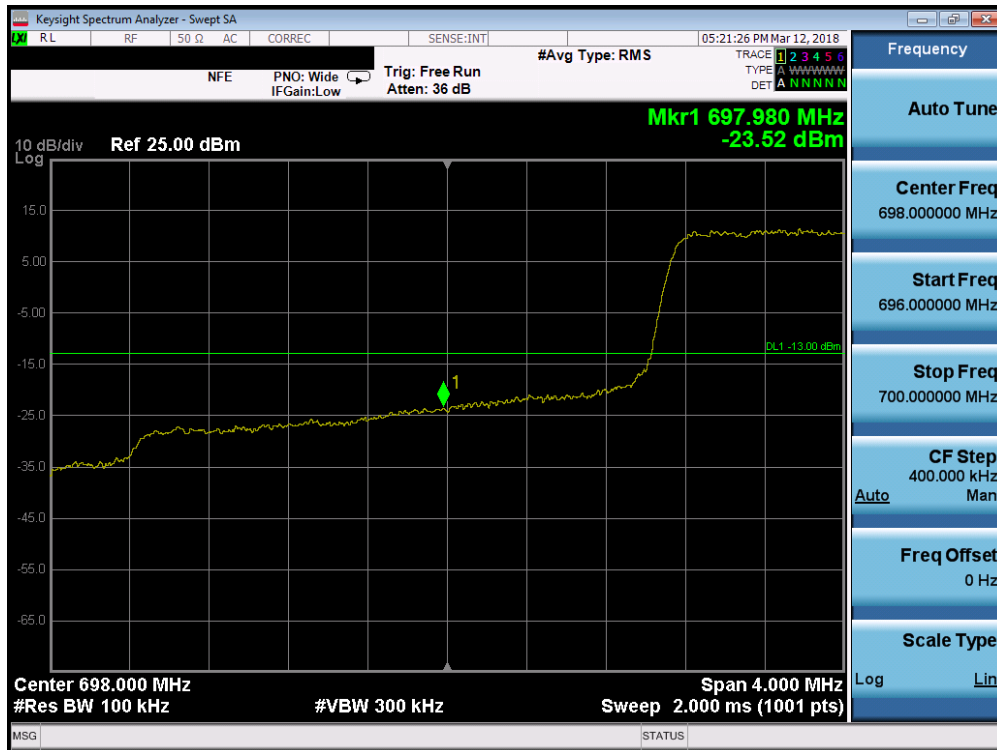


Plot 7-144. Lower Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)

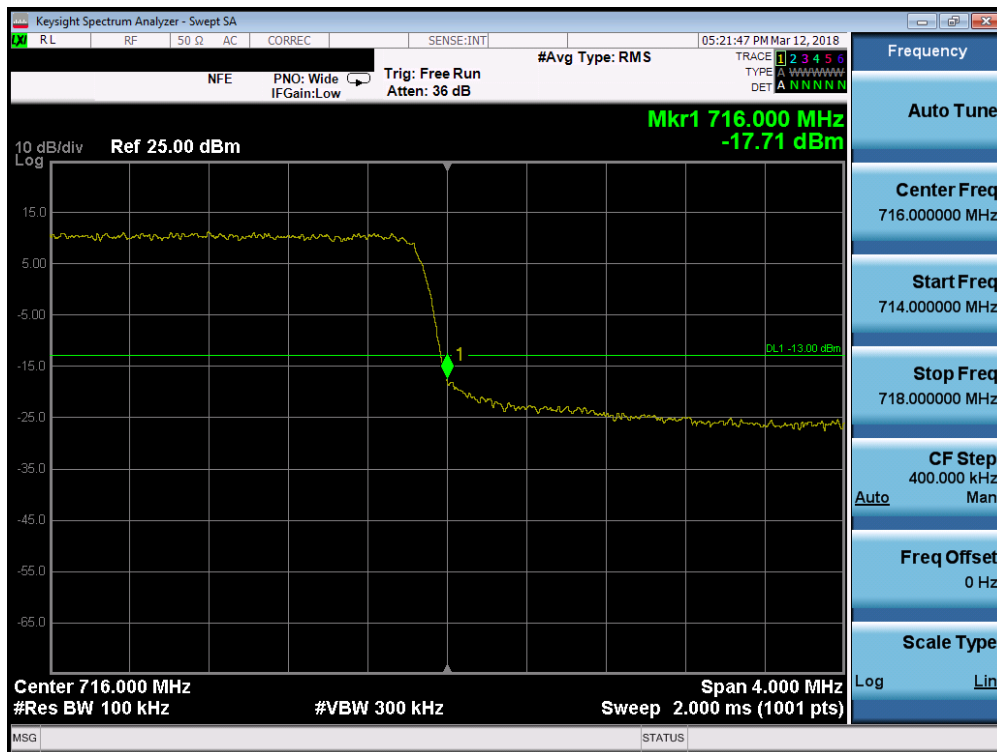


Plot 7-145. Upper Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 93 of 180	

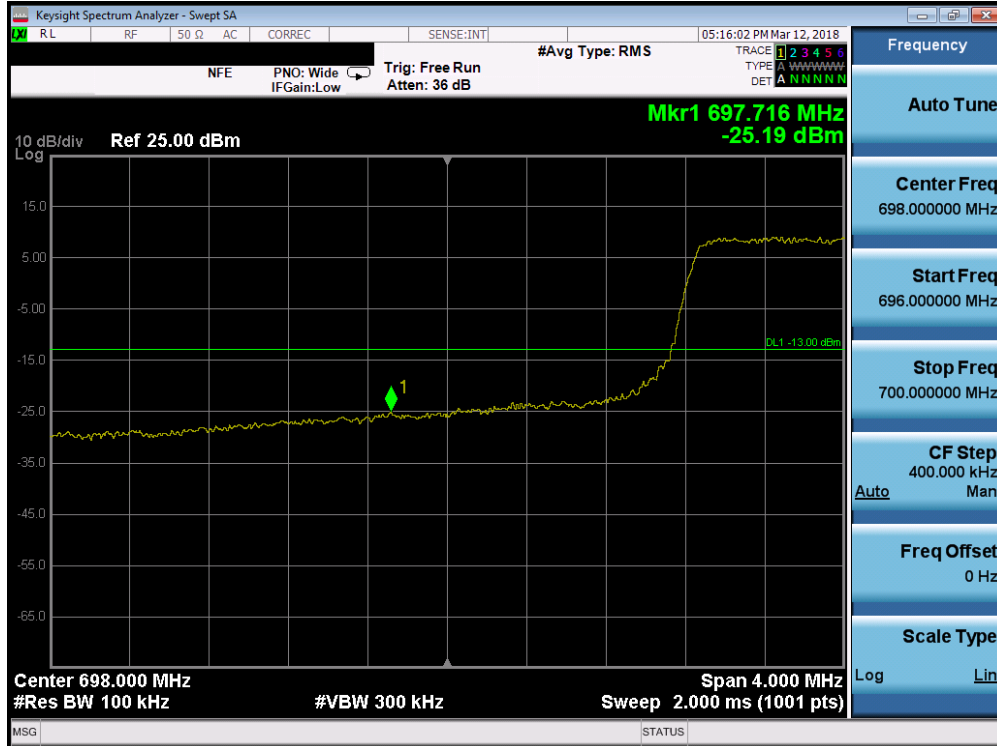


Plot 7-146. Lower Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

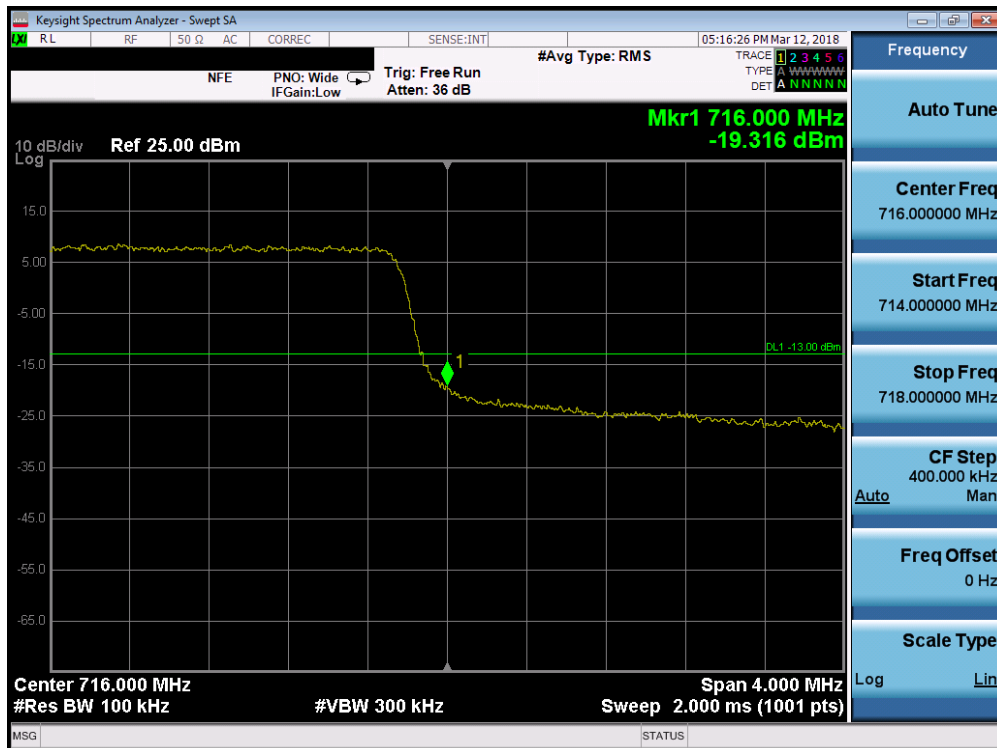


Plot 7-147. Upper Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNLF713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 94 of 180

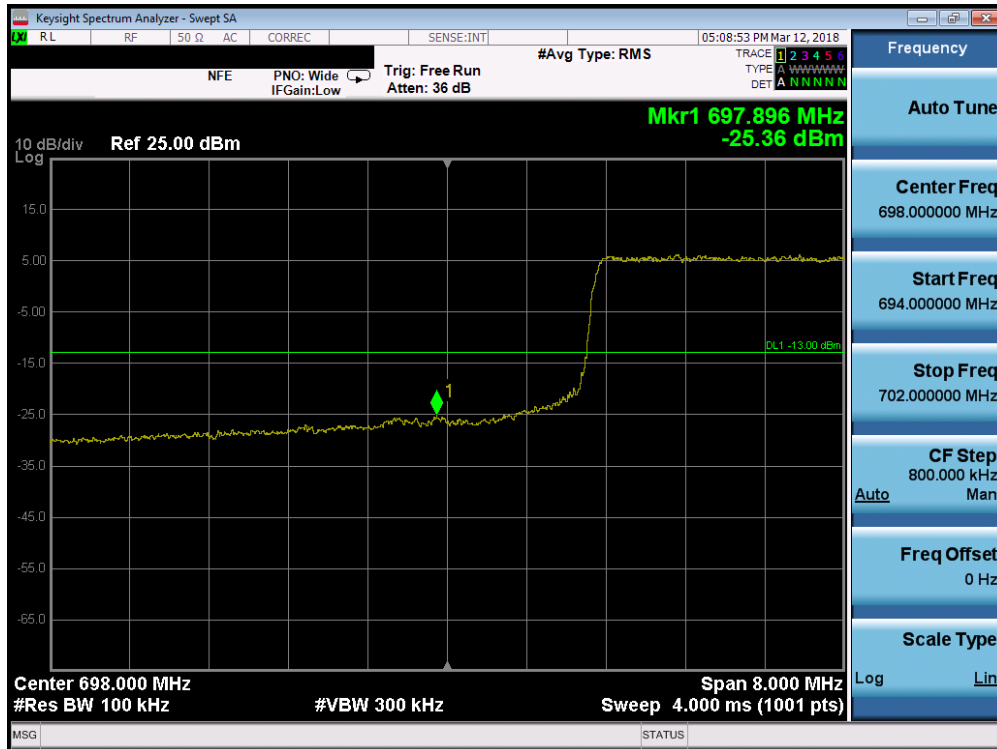


Plot 7-148. Lower Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)

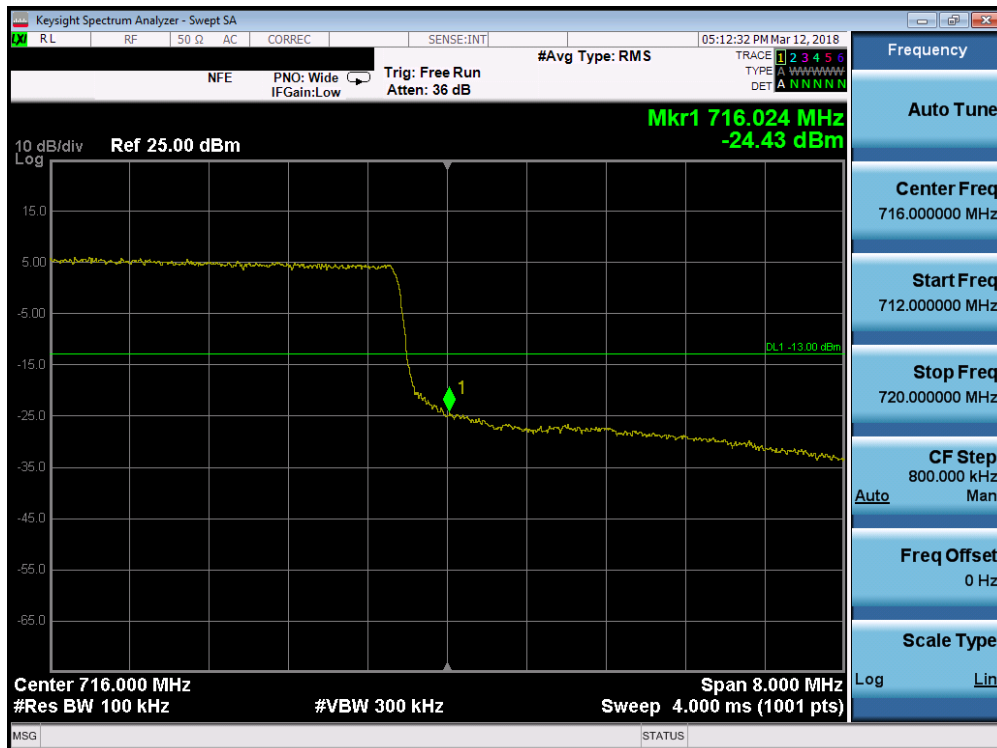


Plot 7-149. Upper Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 95 of 180



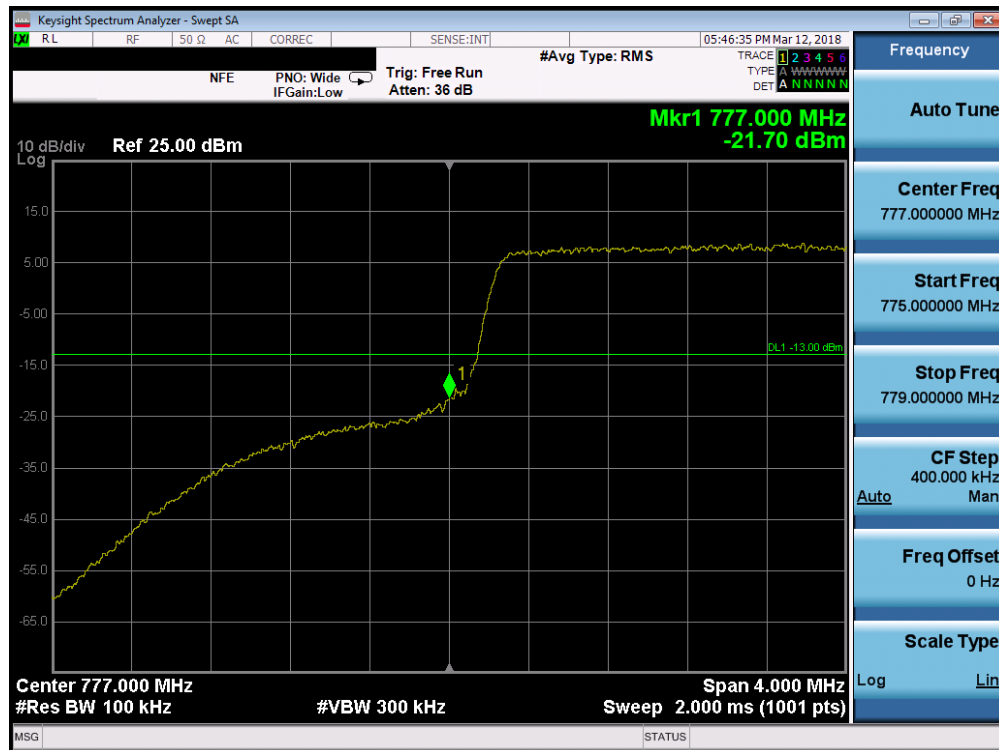
Plot 7-150. Lower Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-151. Upper Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 96 of 180

Band 13

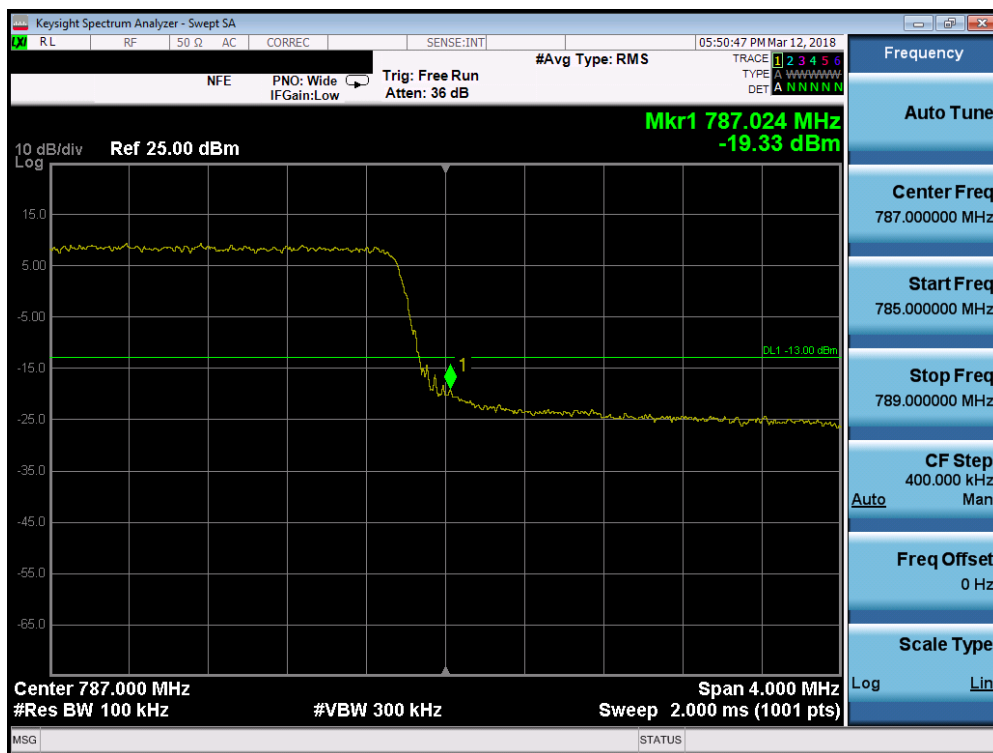


Plot 7-152. Lower Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

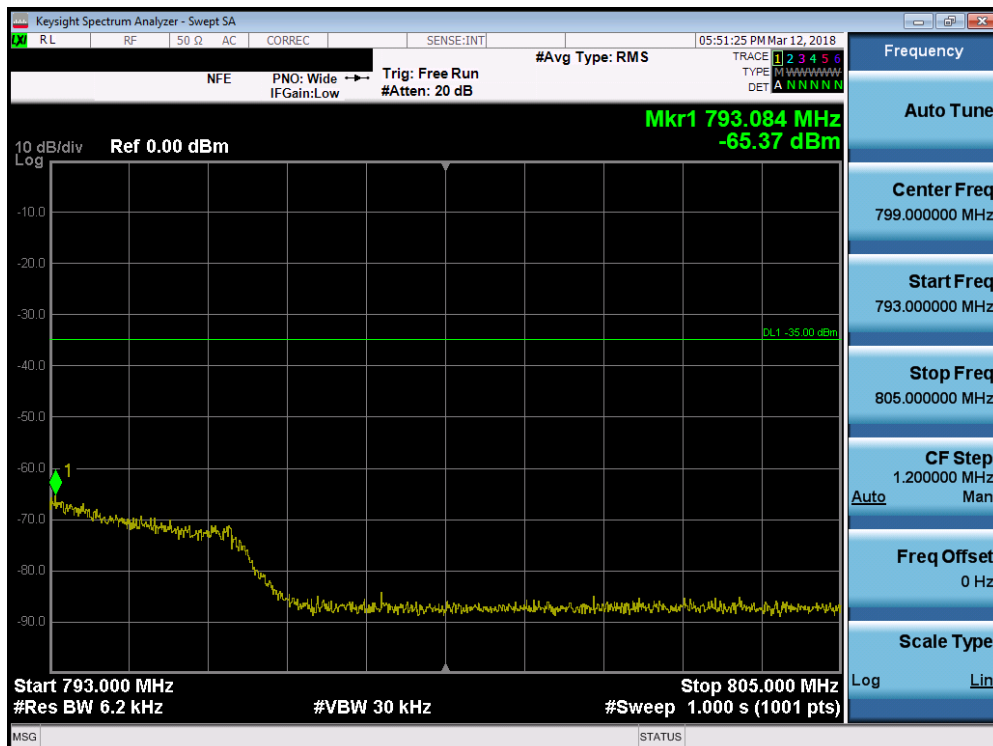


Plot 7-153. Lower Emission Mask Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 97 of 180	

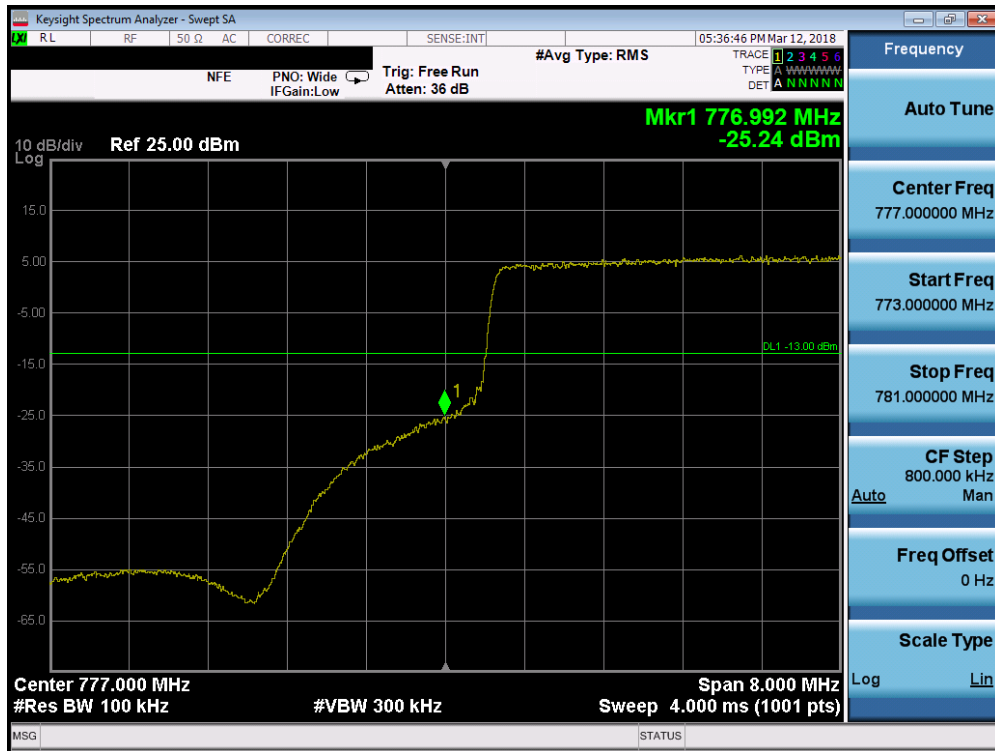


Plot 7-154. Upper Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-155. Upper Emission Mask Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNLF713DL	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 98 of 180



Plot 7-156. Lower Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

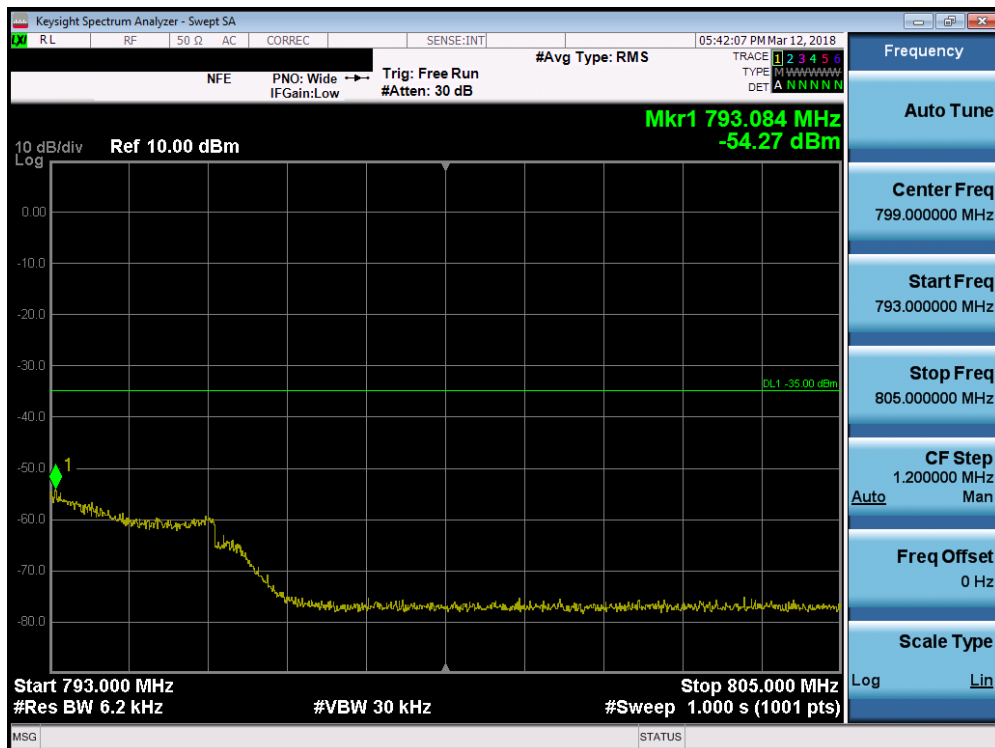


Plot 7-157. Lower Emission Mask Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNLF713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 99 of 180	



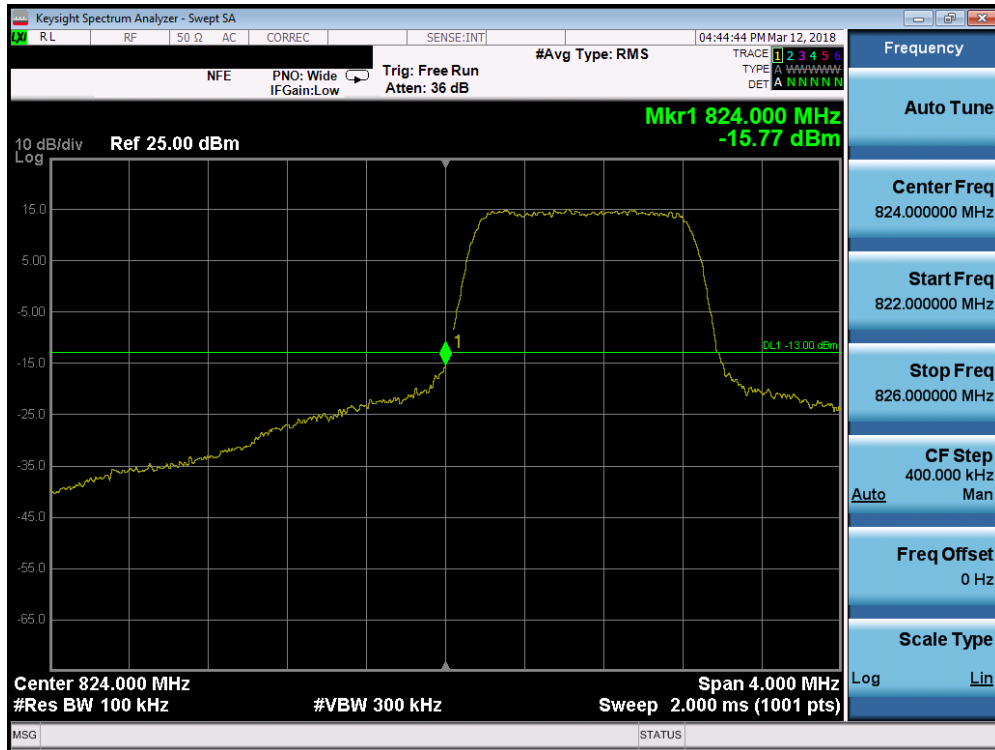
Plot 7-158. Upper Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)



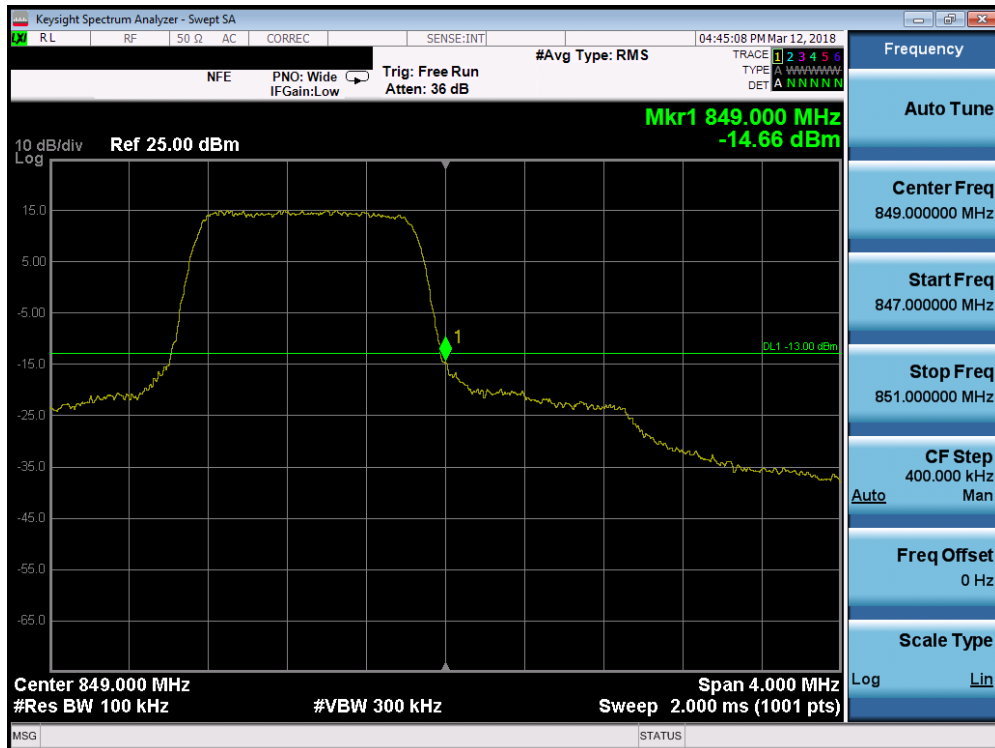
Plot 7-159. Upper Emission Mask Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNLF713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 100 of 180	

Band 5

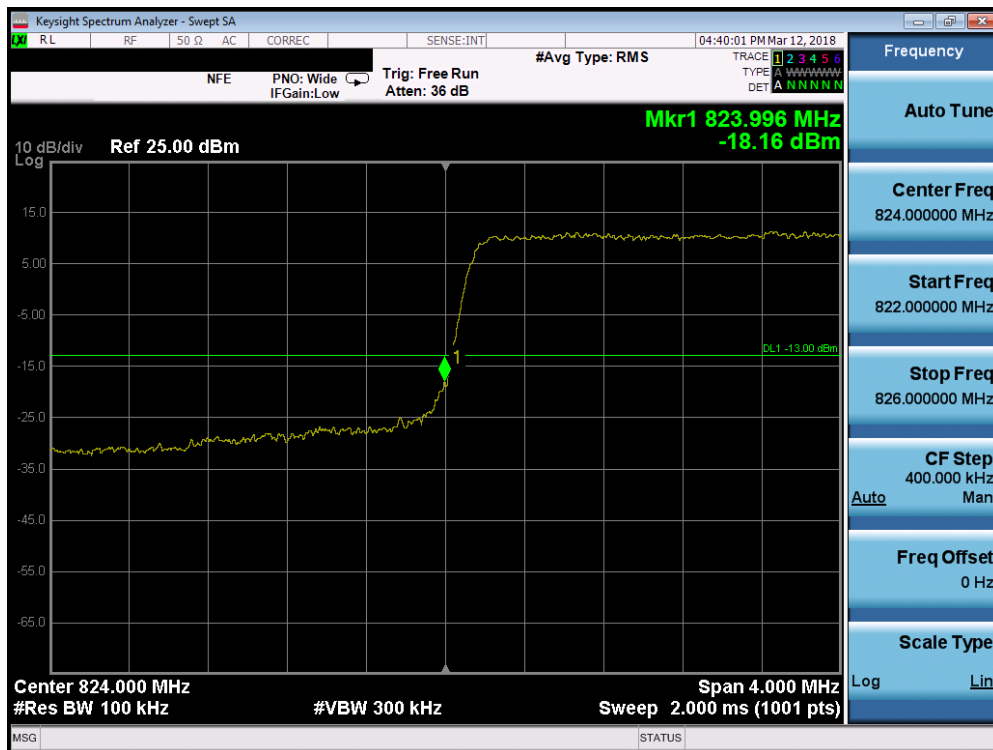


Plot 7-160. Lower Band Edge Plot (Band 5 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-161. Upper Band Edge Plot (Band 5 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 101 of 180

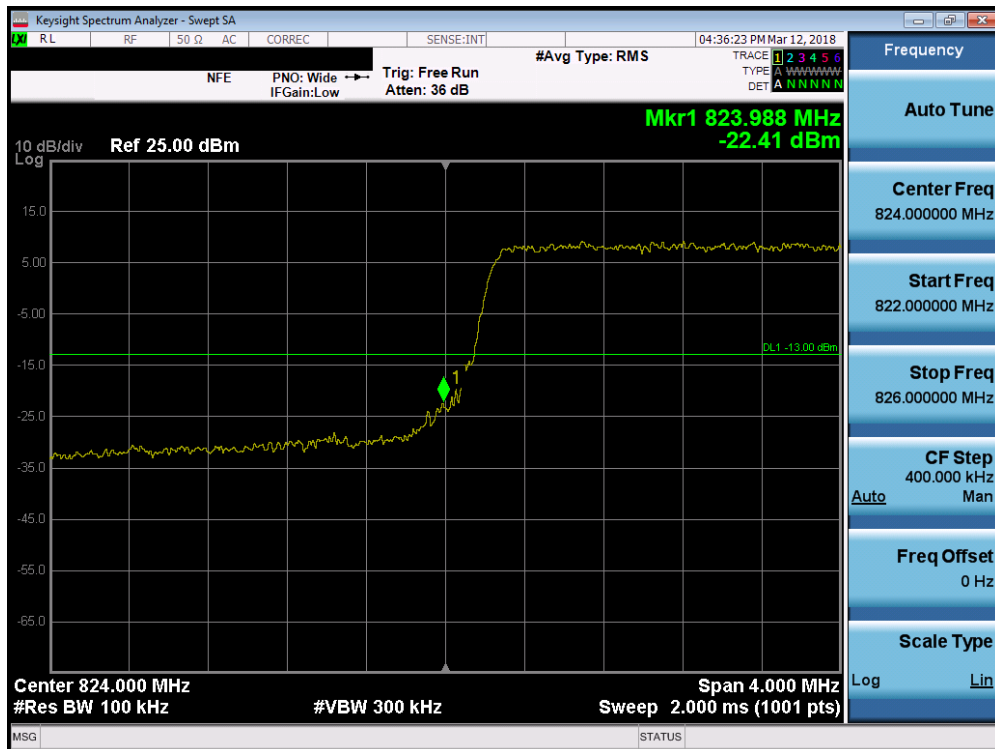


Plot 7-162. Lower Band Edge Plot (Band 5 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-163. Upper Band Edge Plot (Band 5 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 102 of 180	

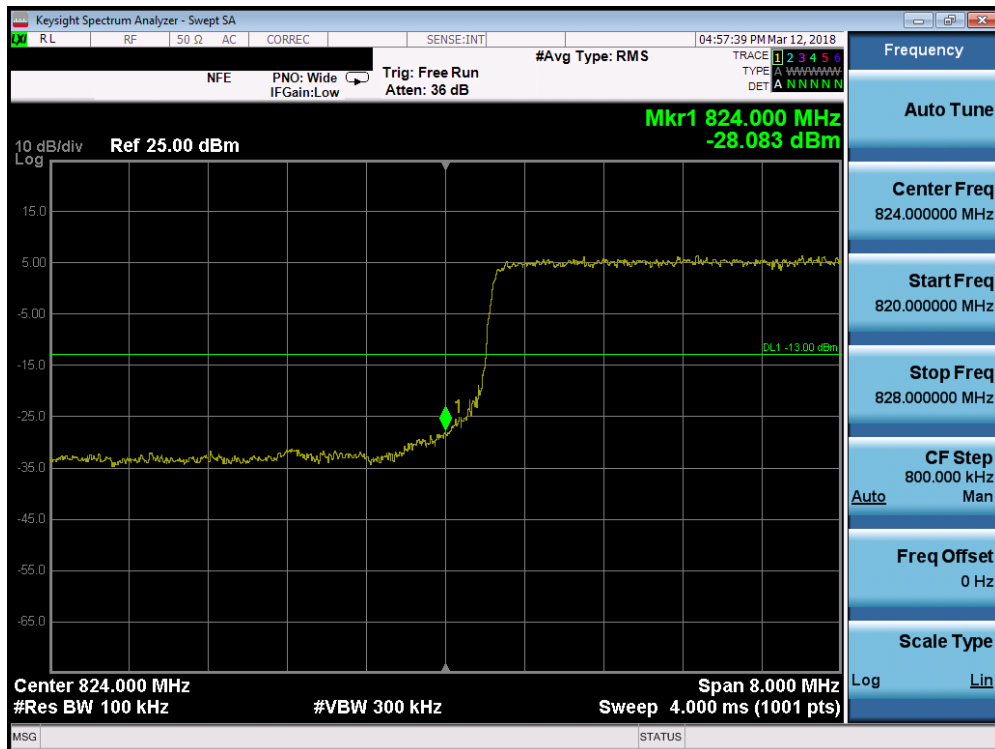


Plot 7-164. Lower Band Edge Plot (Band 5 - 5.0MHz QPSK - Full RB Configuration)

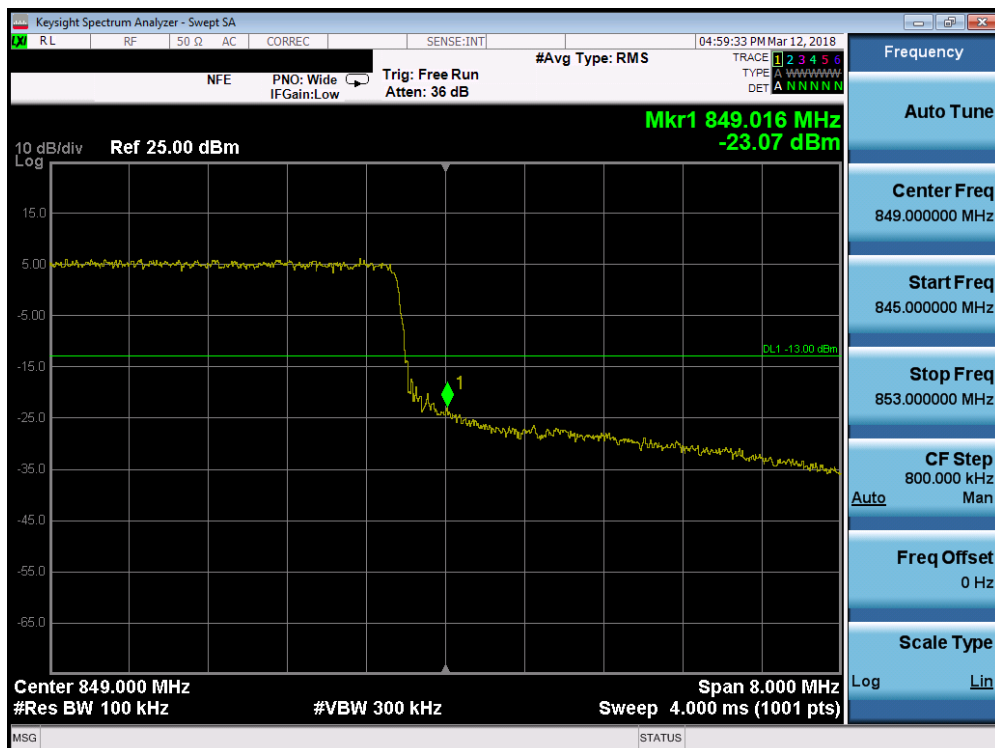


Plot 7-165. Upper Band Edge Plot (Band 5 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNLF713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 103 of 180



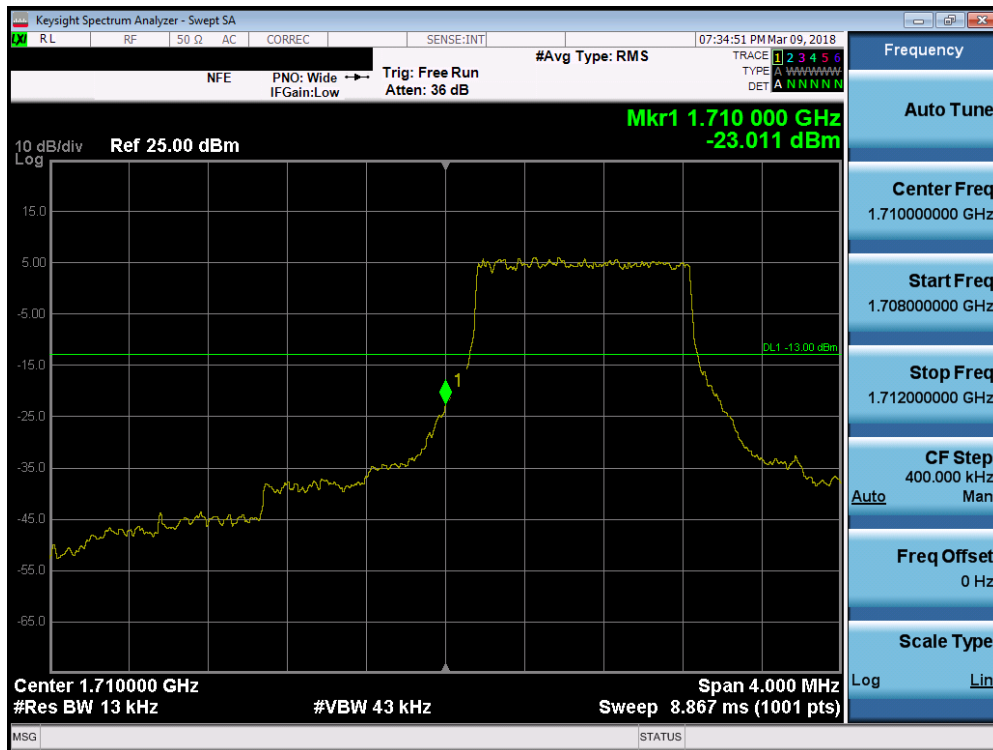
Plot 7-166. Lower Band Edge Plot (Band 5 - 10.0MHz QPSK - Full RB Configuration)



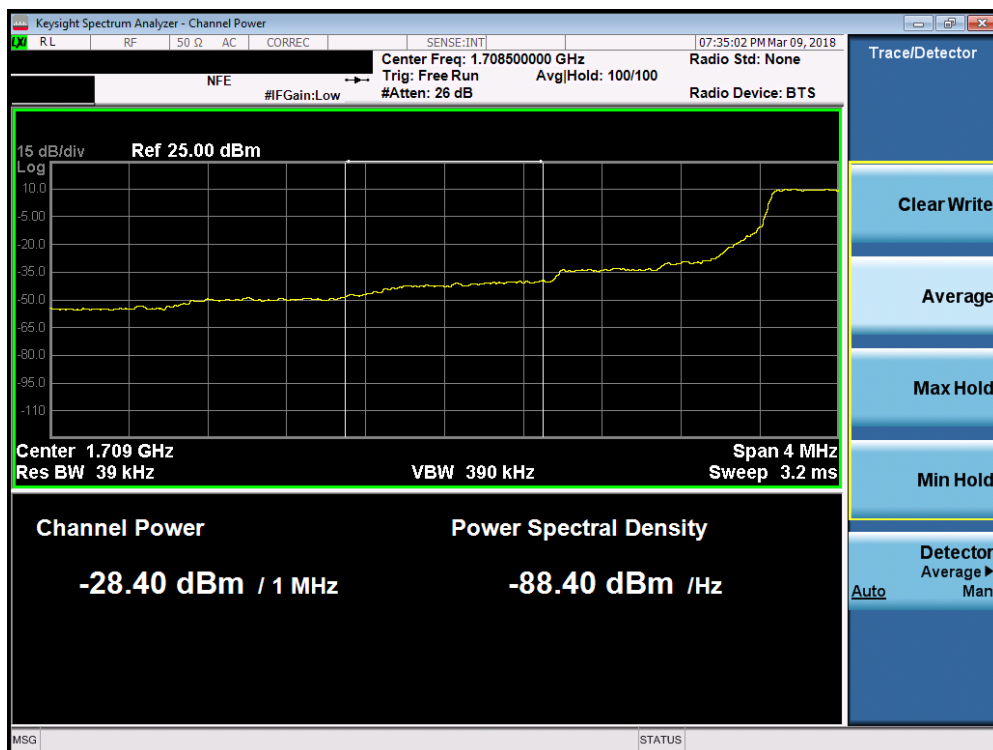
Plot 7-167. Upper Band Edge Plot (Band 5 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 104 of 180

Band 66/4



Plot 7-168. Lower Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)

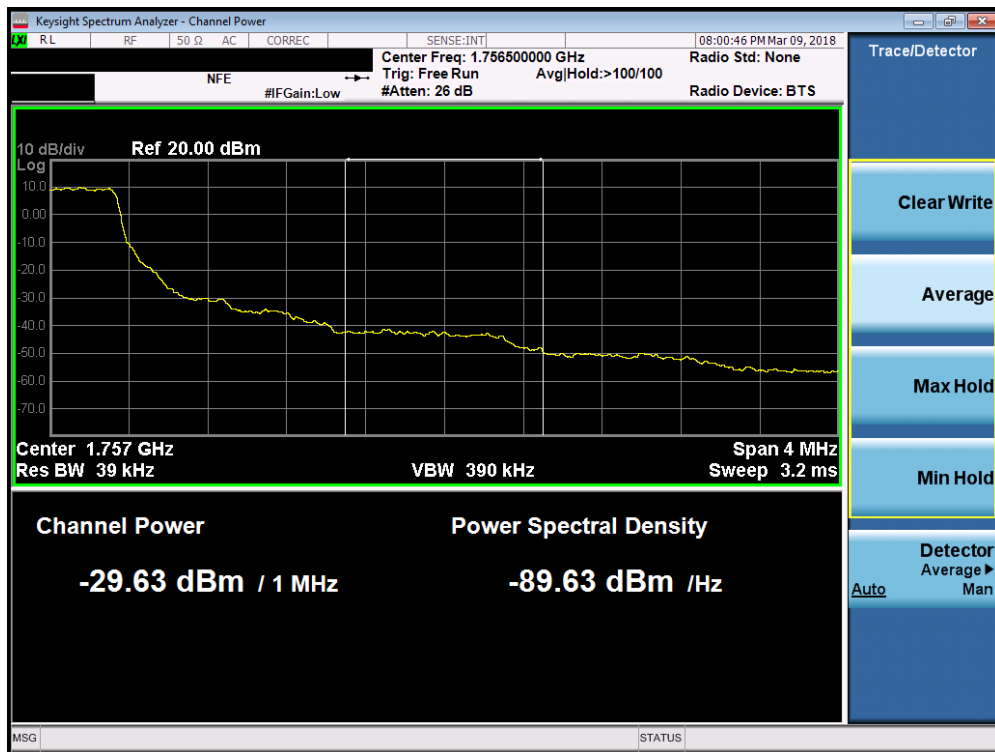


Plot 7-169. Lower Extended Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 105 of 180	



Plot 7-170. Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

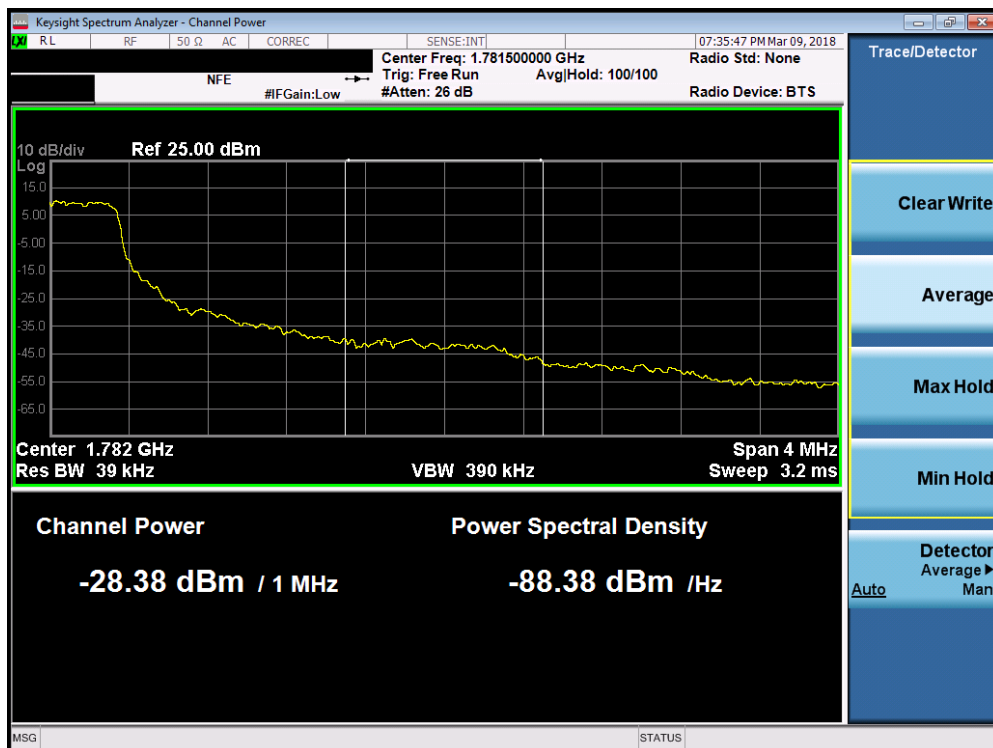


Plot 7-171. Upper Extended Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 106 of 180	

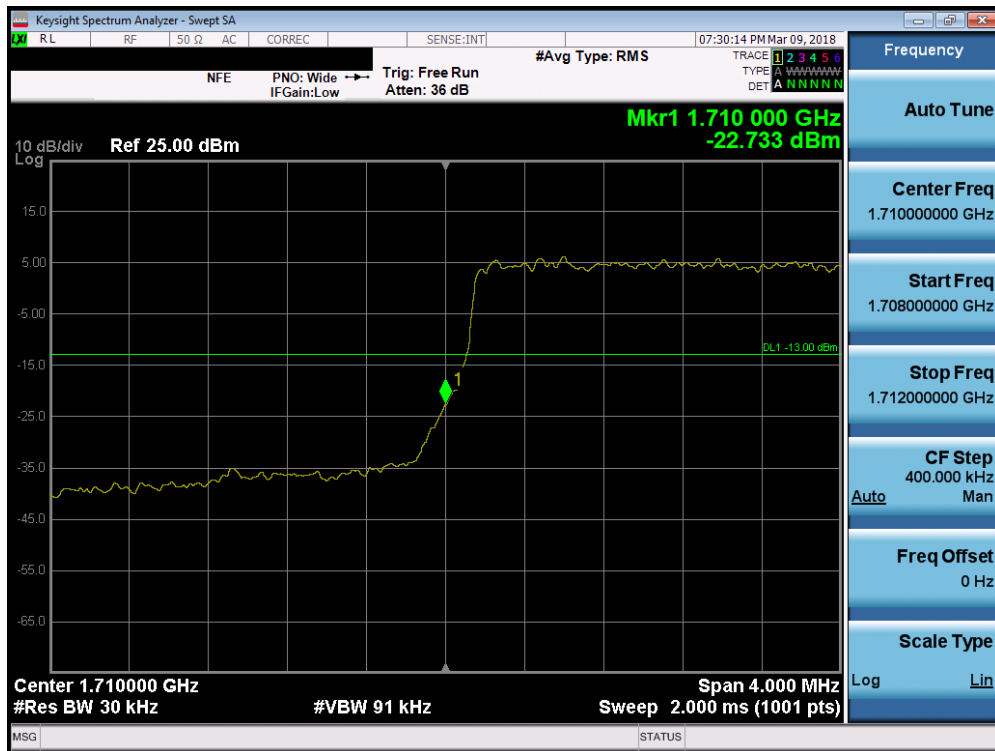


Plot 7-172. Upper Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

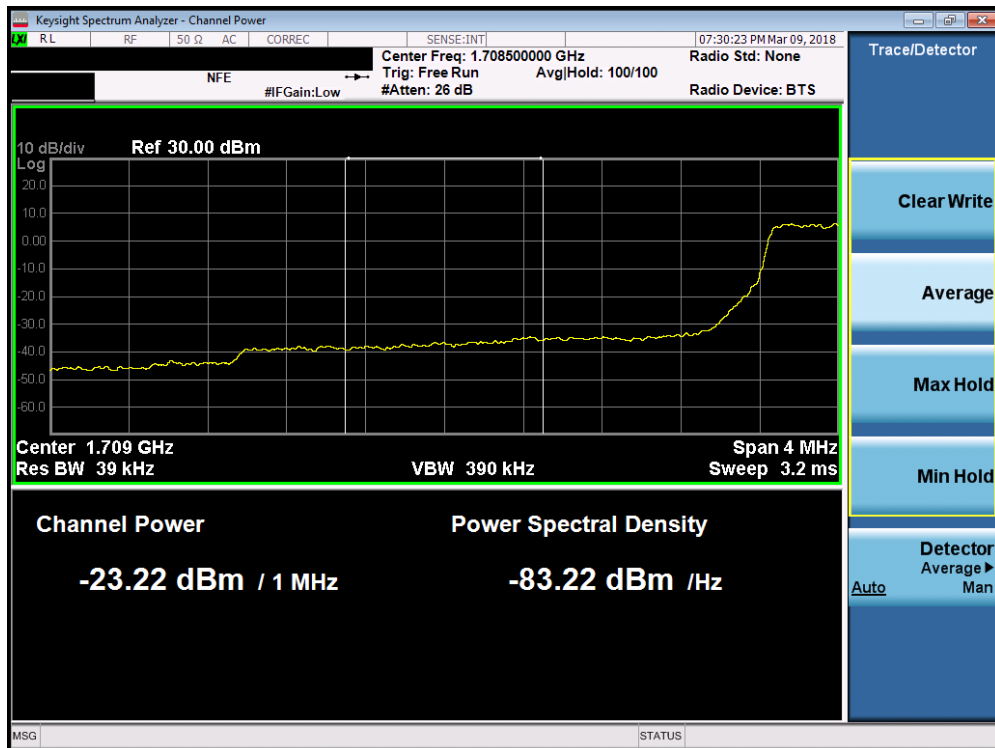


Plot 7-173. Upper Extended Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 107 of 180

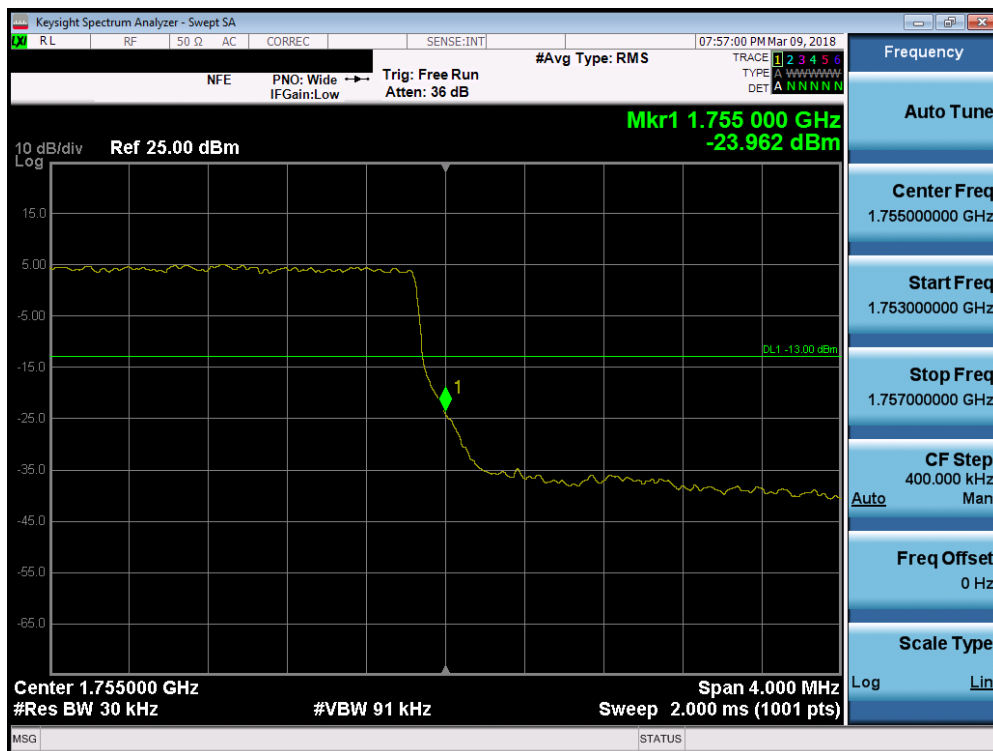


Plot 7-174. Lower Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

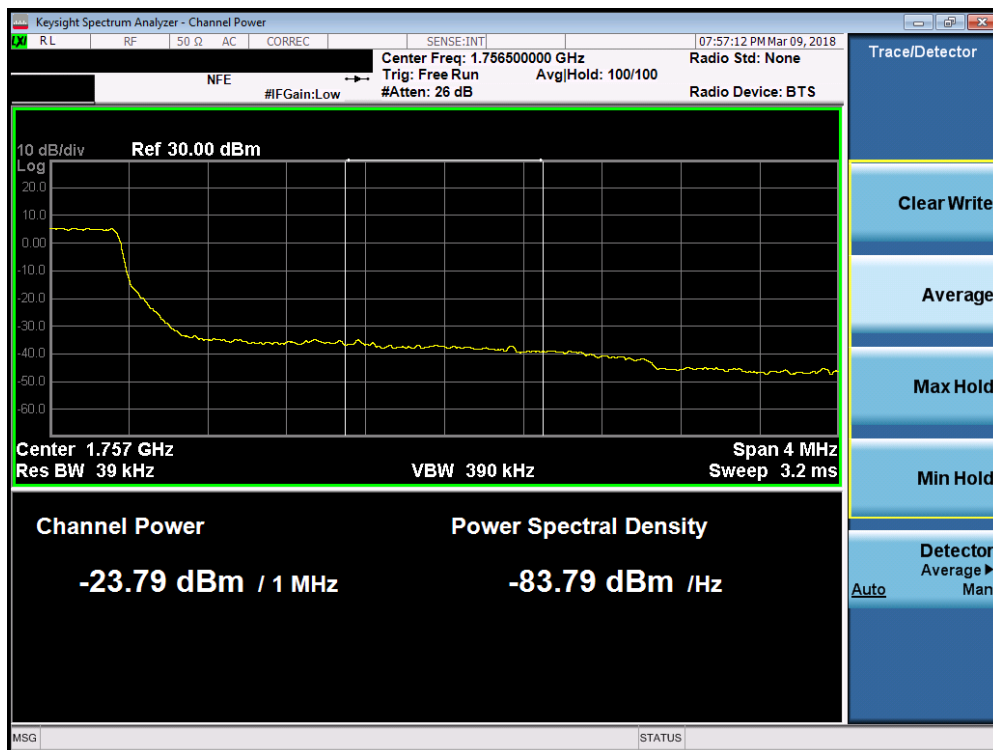


Plot 7-175. Lower Extended Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 108 of 180

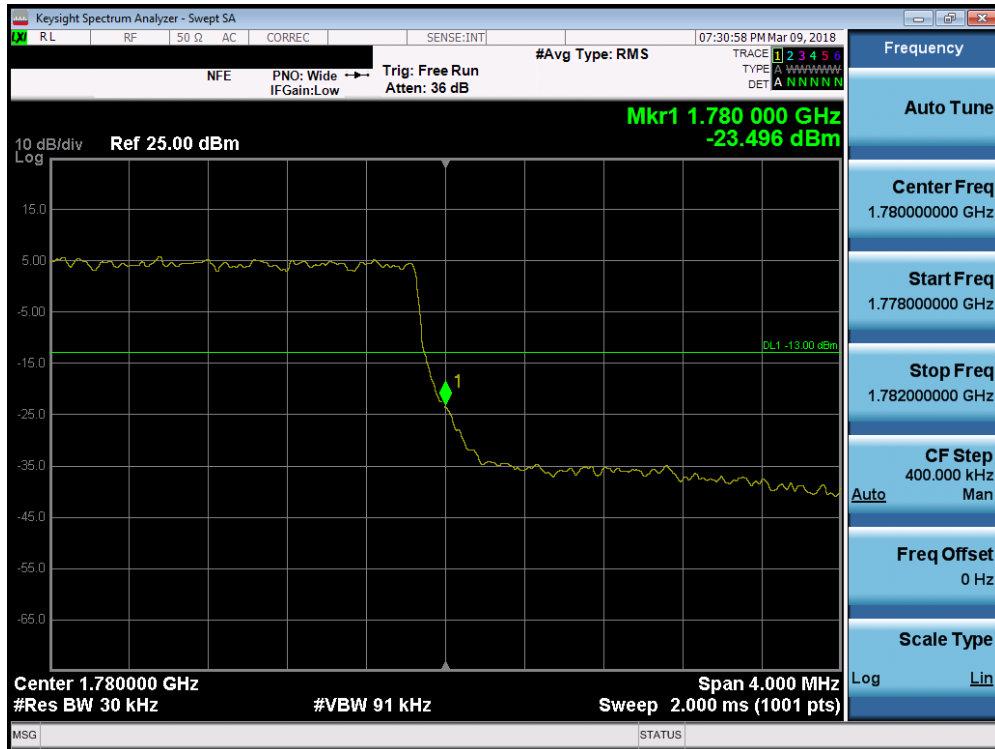


Plot 7-176. Upper Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

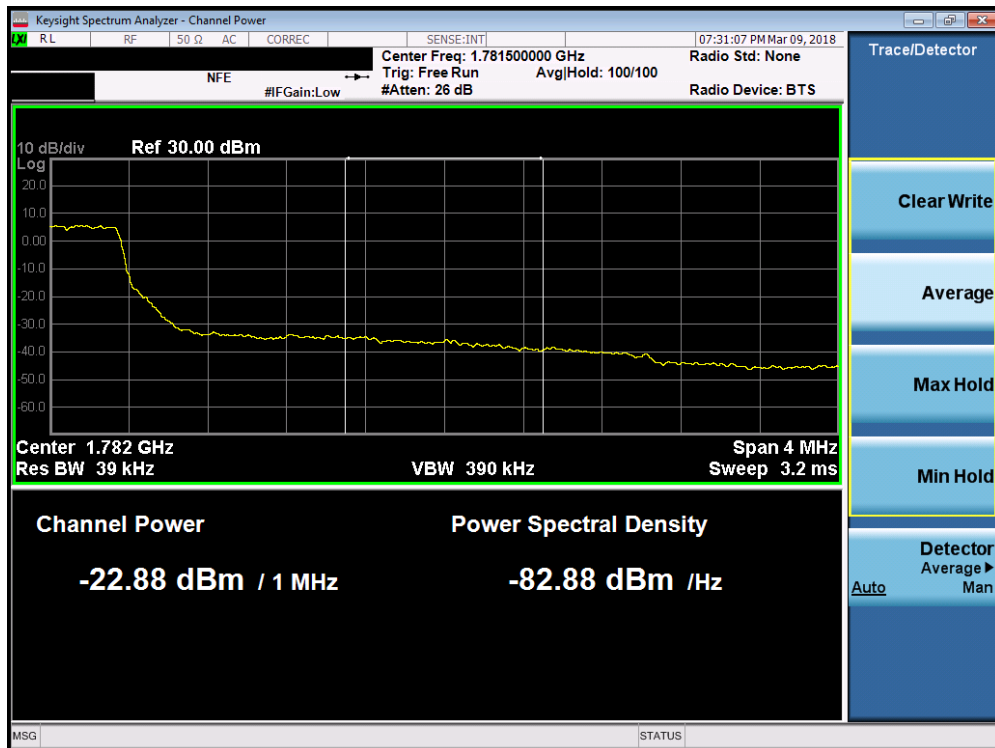


Plot 7-177. Upper Extended Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 109 of 180

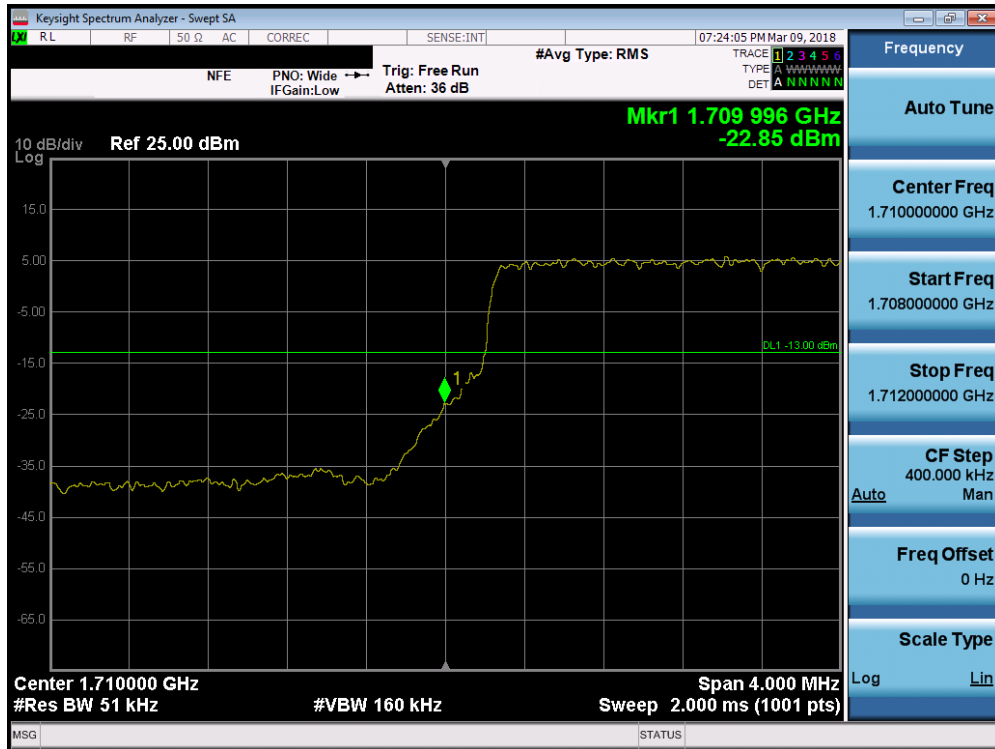


Plot 7-178. Upper Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

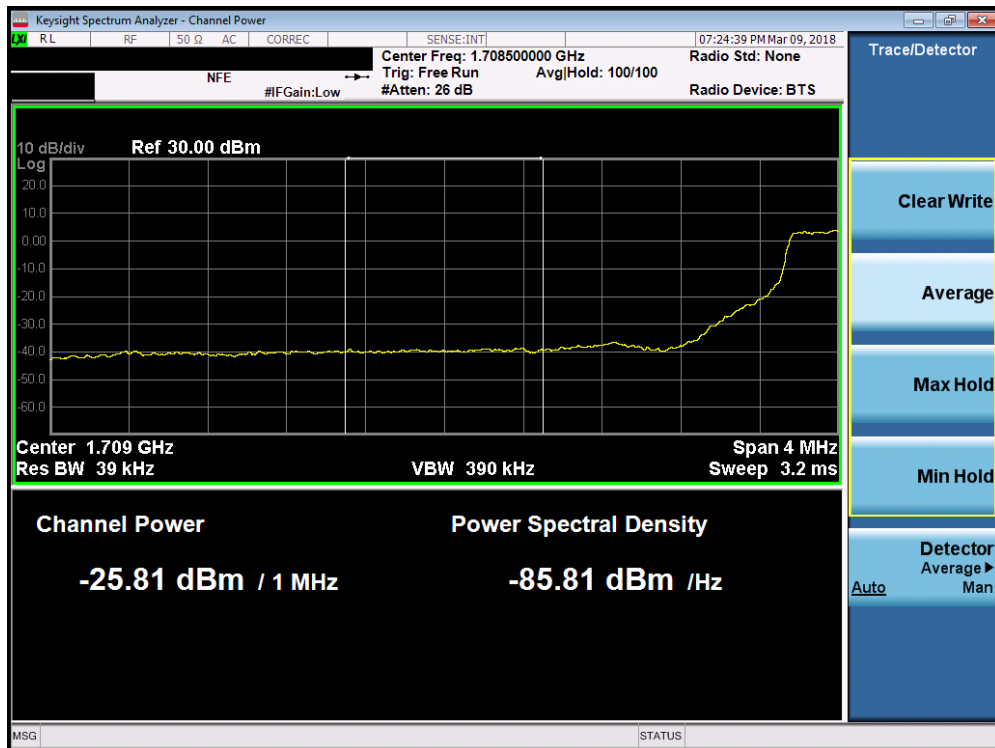


Plot 7-179. Upper Extended Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 110 of 180

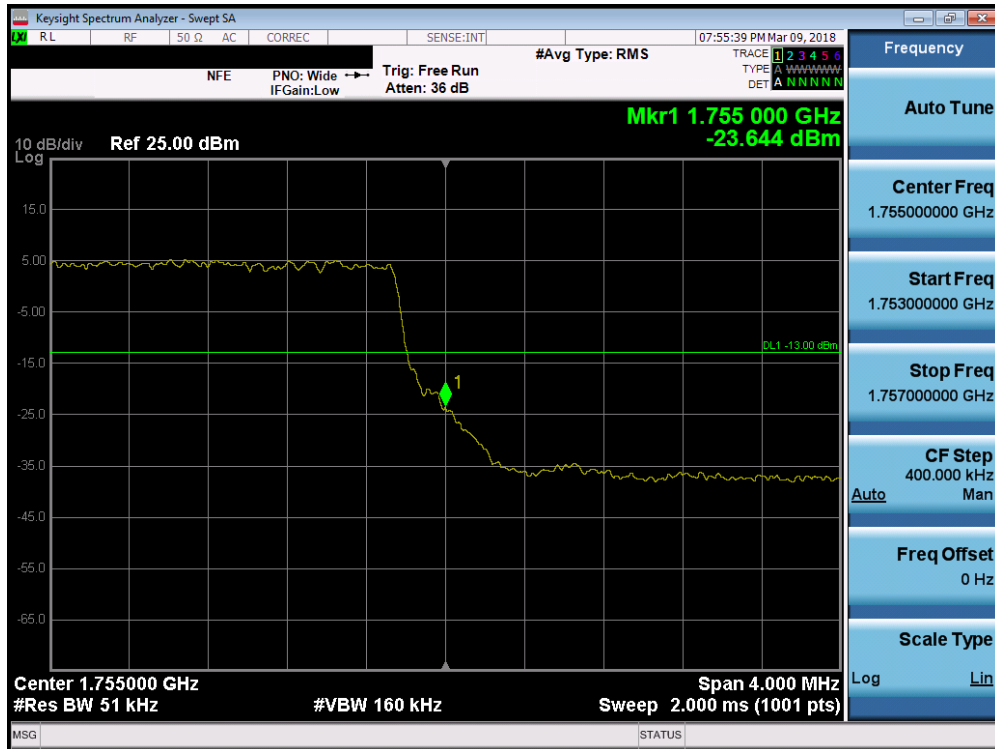


Plot 7-180. Lower Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

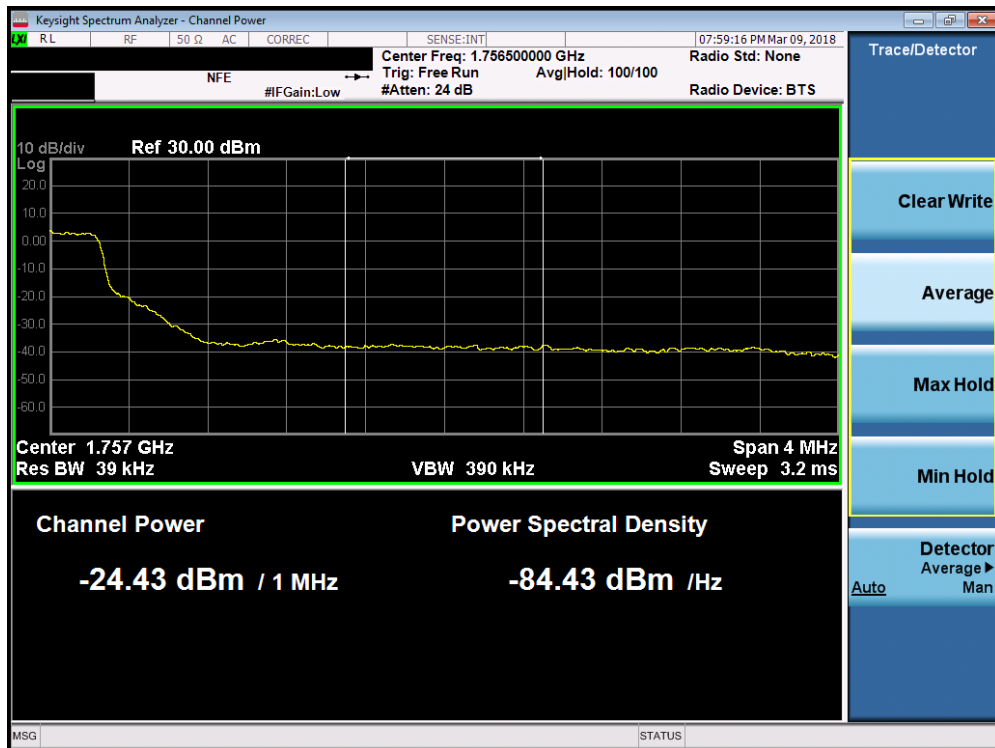


Plot 7-181. Lower Extended Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 111 of 180



Plot 7-182. Upper Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

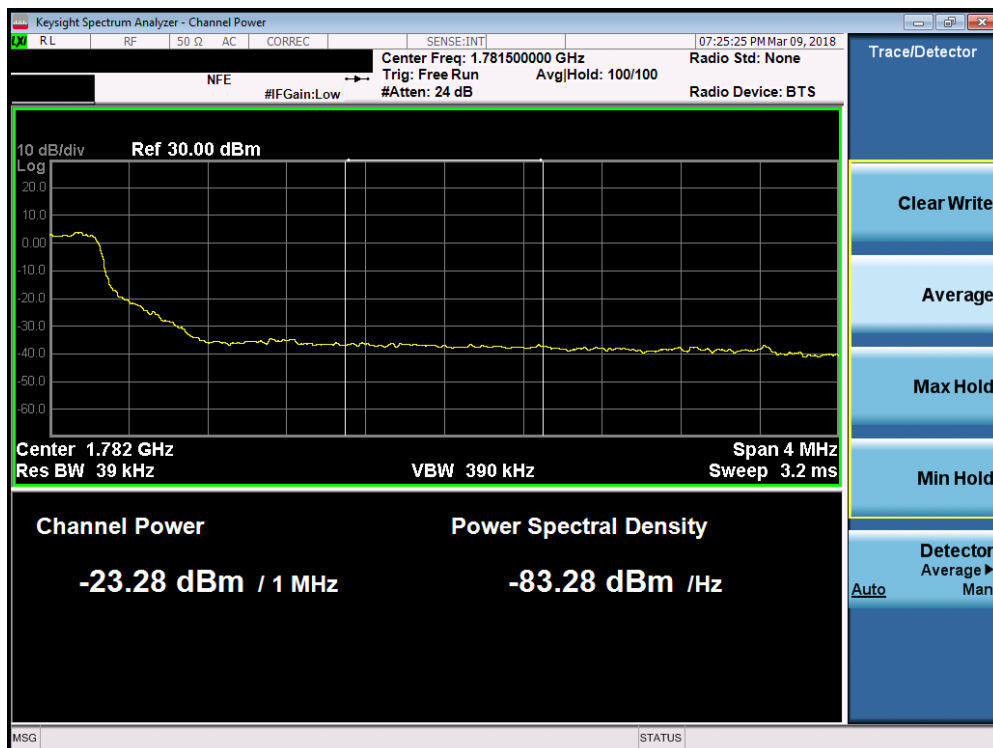


Plot 7-183. Upper Extended Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 112 of 180

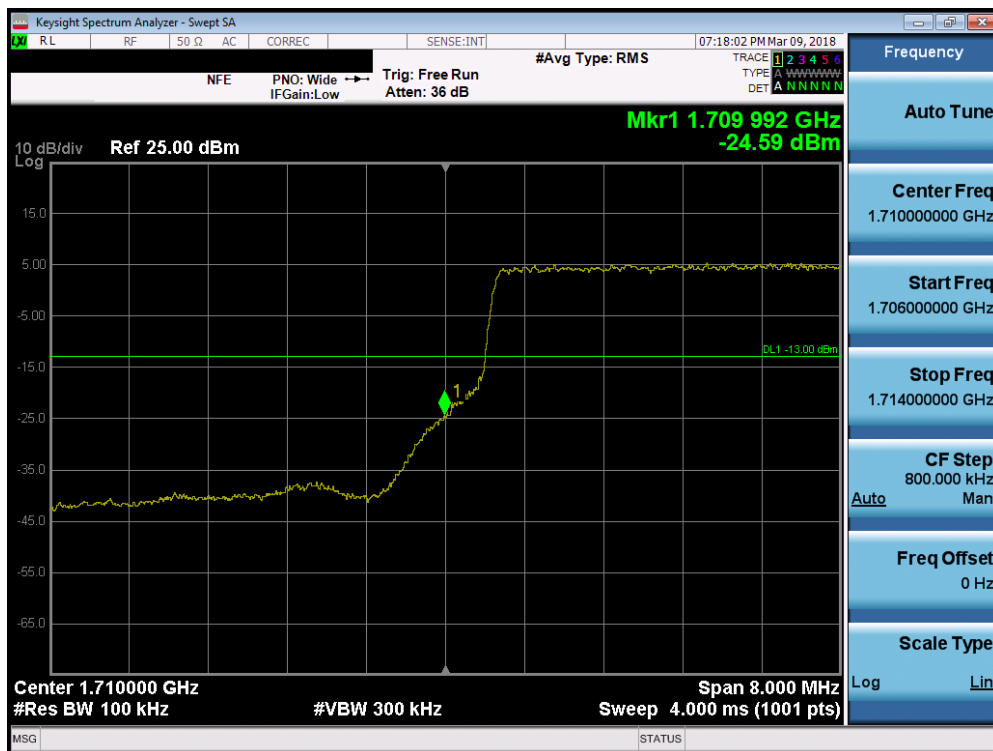


Plot 7-184. Upper Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

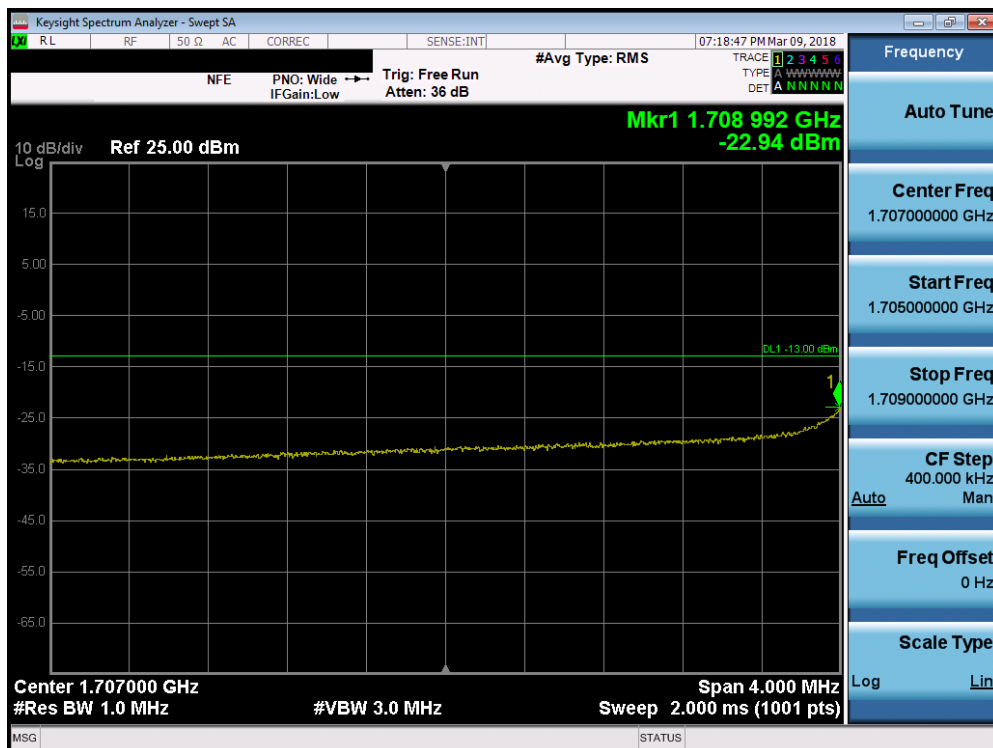


Plot 7-185. Upper Extended Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 113 of 180

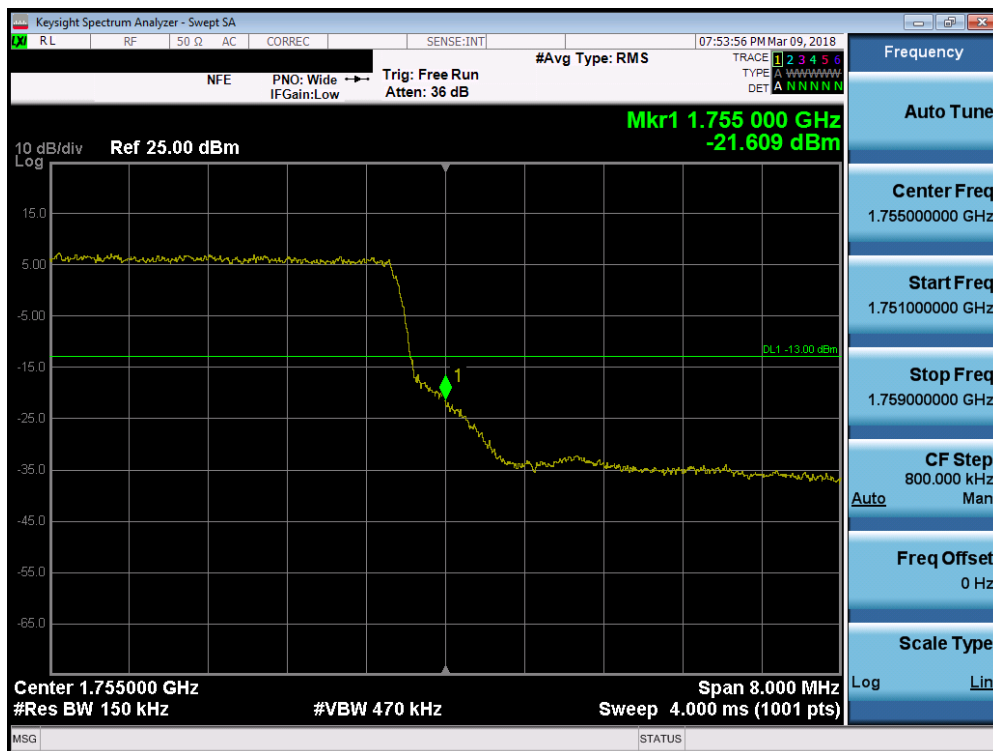


Plot 7-186. Lower Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

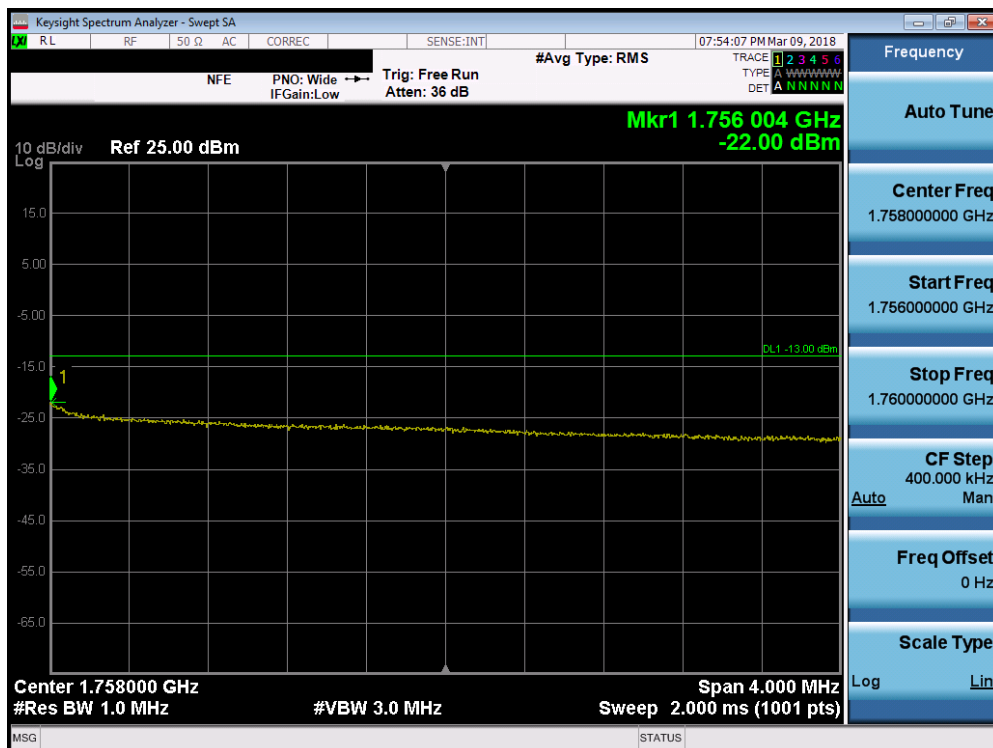


Plot 7-187. Lower Extended Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 114 of 180



Plot 7-188. Upper Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-189. Upper Extended Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 115 of 180

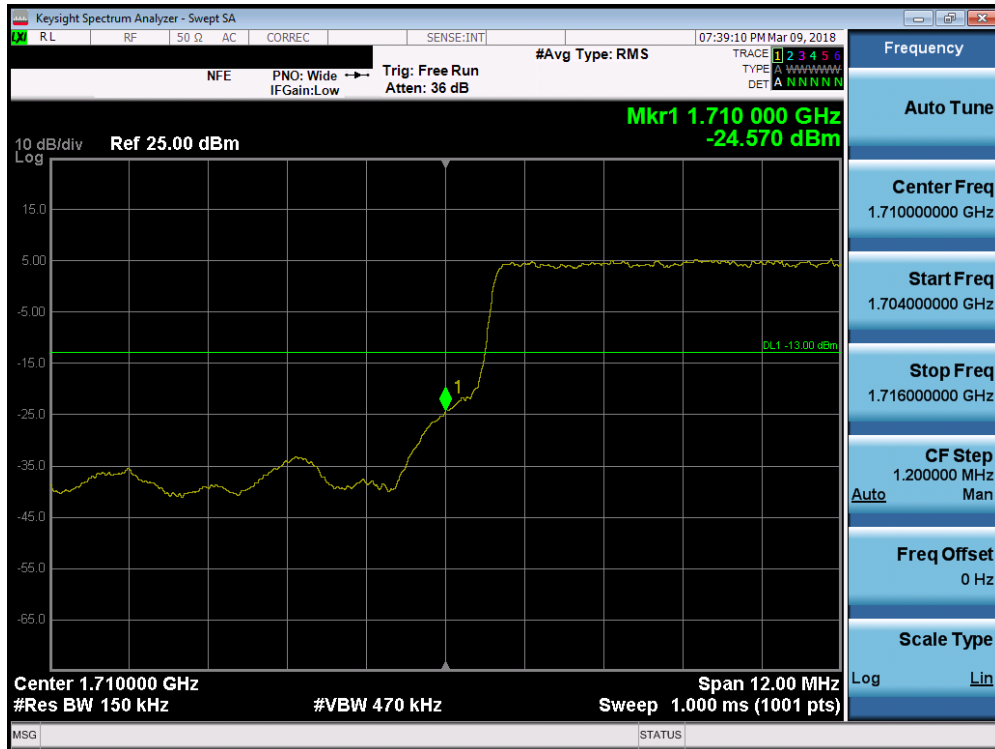


Plot 7-190. Upper Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

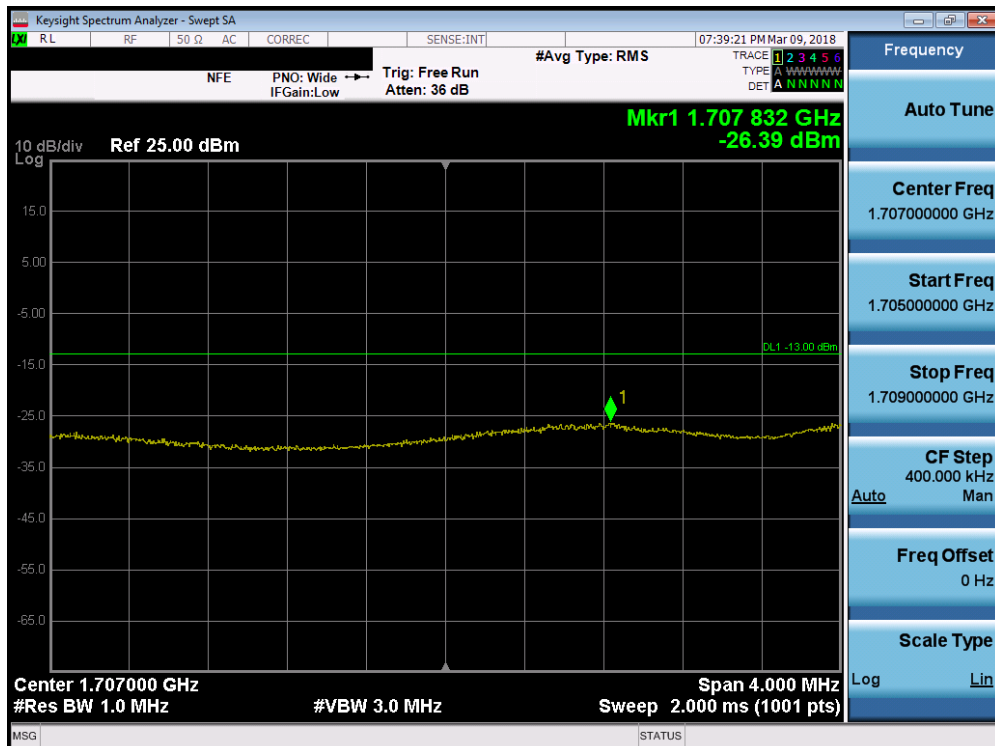


Plot 7-191. Upper Extended Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 116 of 180

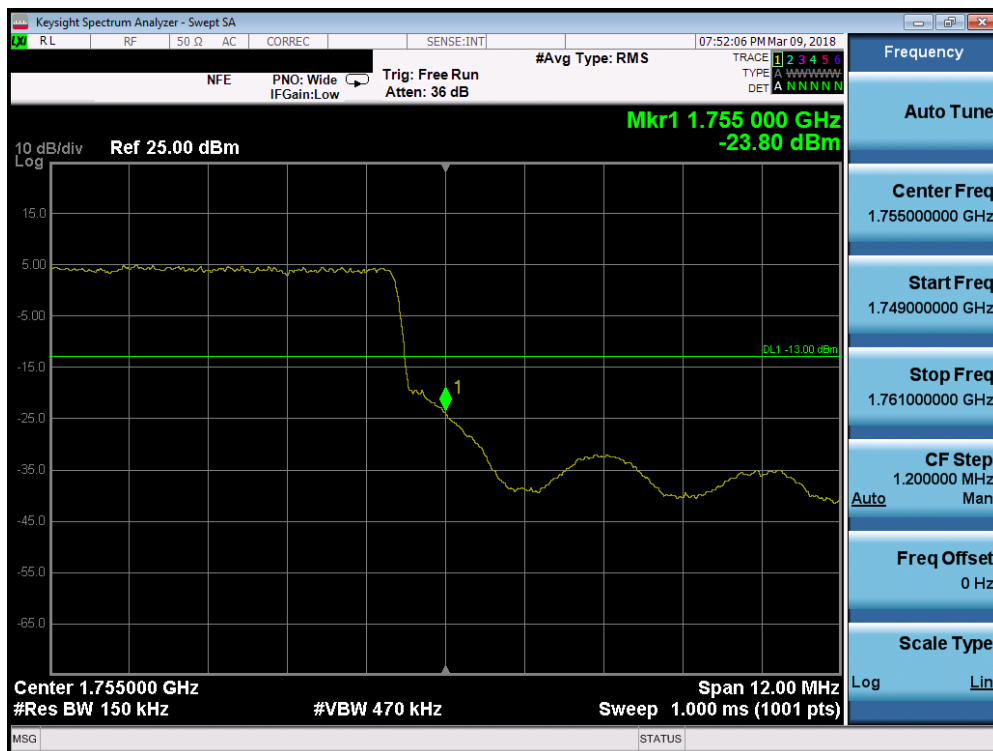


Plot 7-192. Lower Band Edge Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-193. Lower Extended Band Edge Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 117 of 180

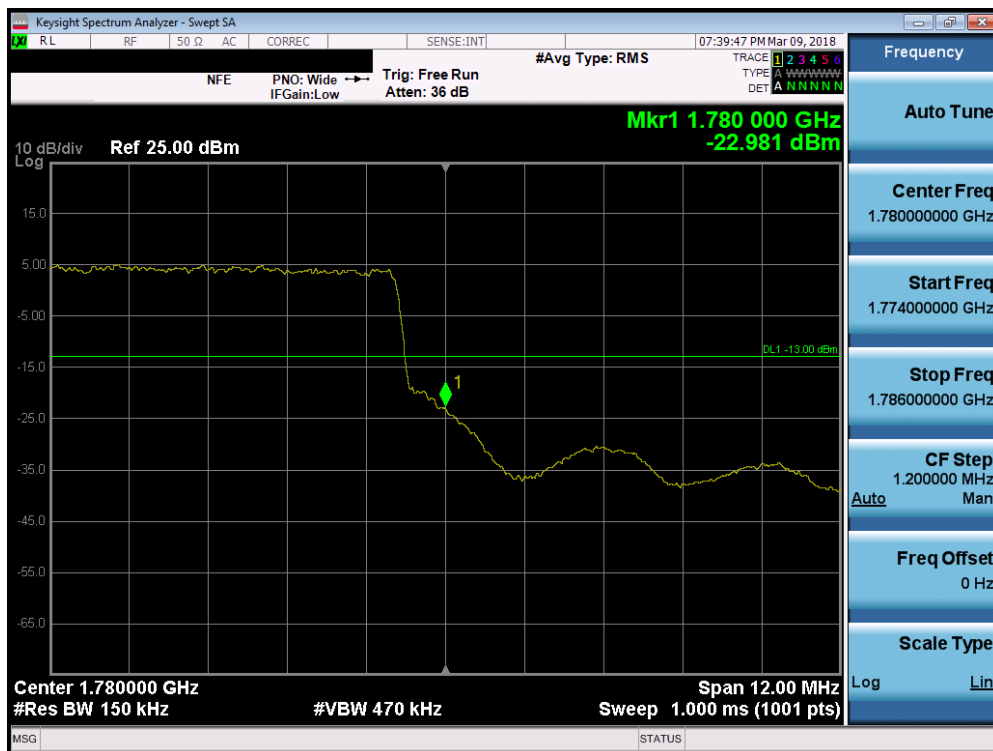


Plot 7-194. Upper Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-195. Upper Extended Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 118 of 180

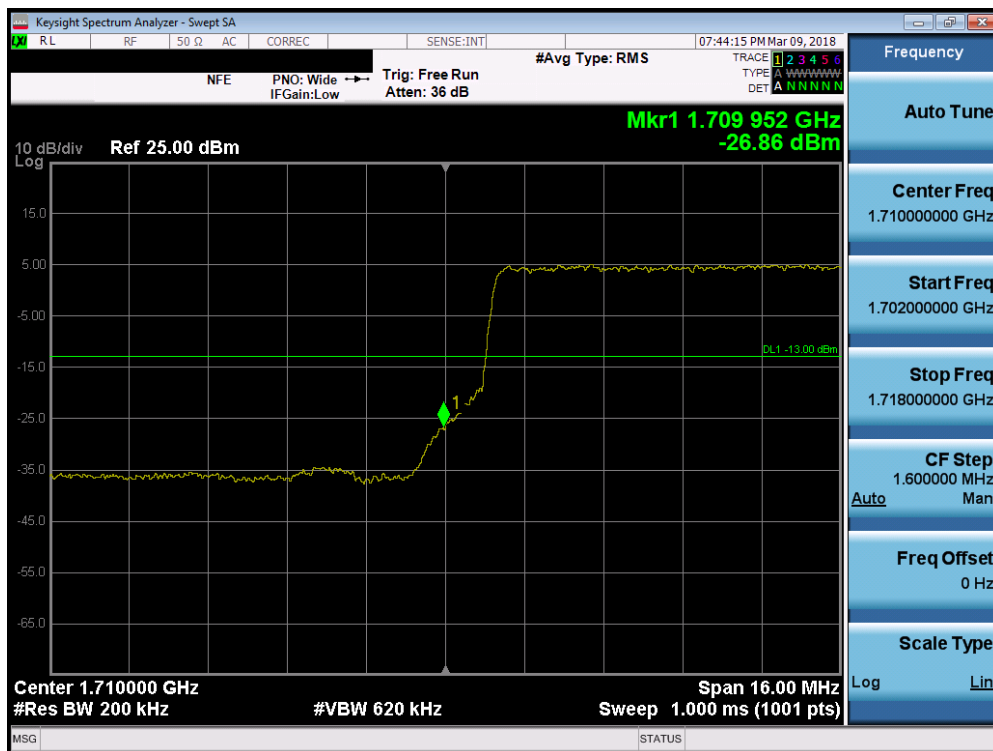


Plot 7-196. Upper Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

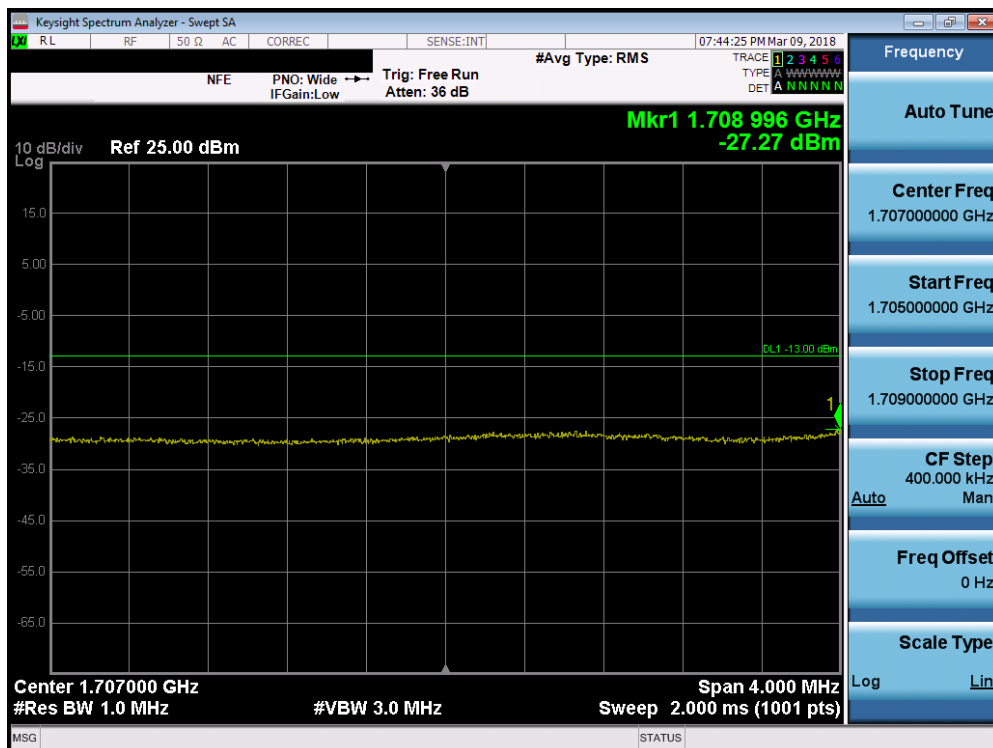


Plot 7-197. Upper Extended Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 119 of 180

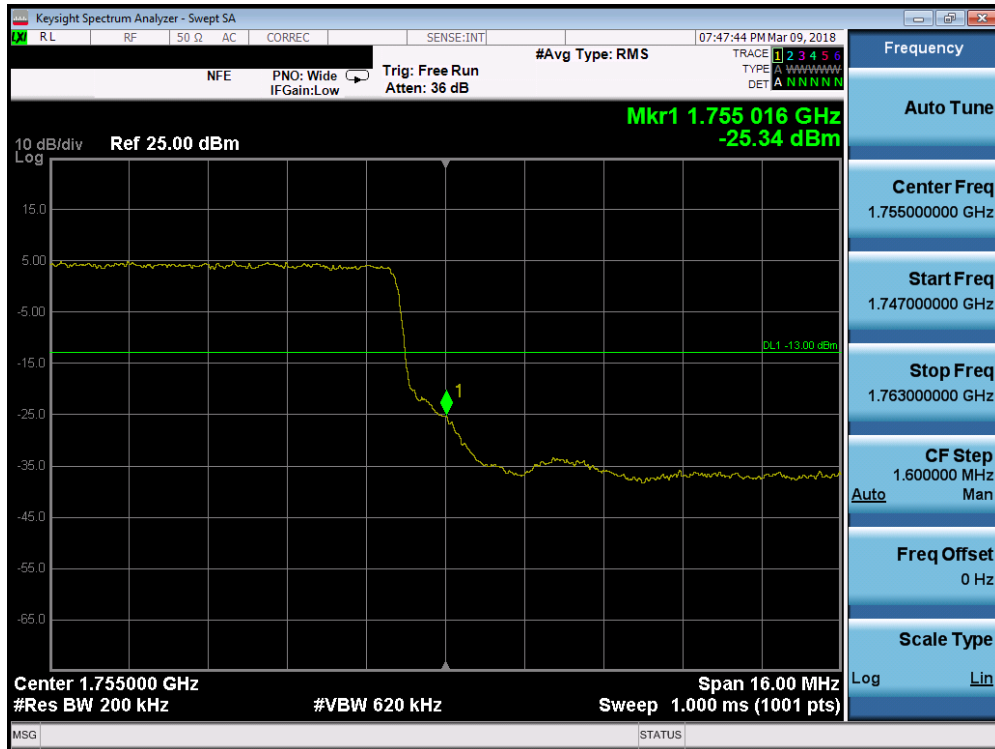


Plot 7-198. Lower Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

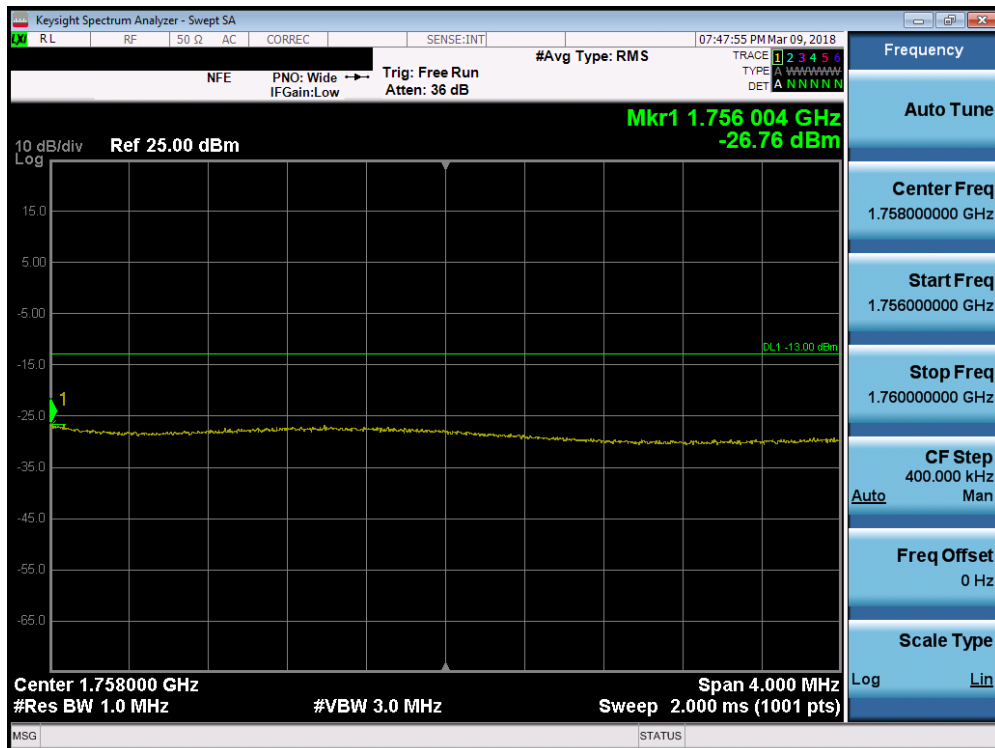


Plot 7-199. Lower Extended Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 120 of 180

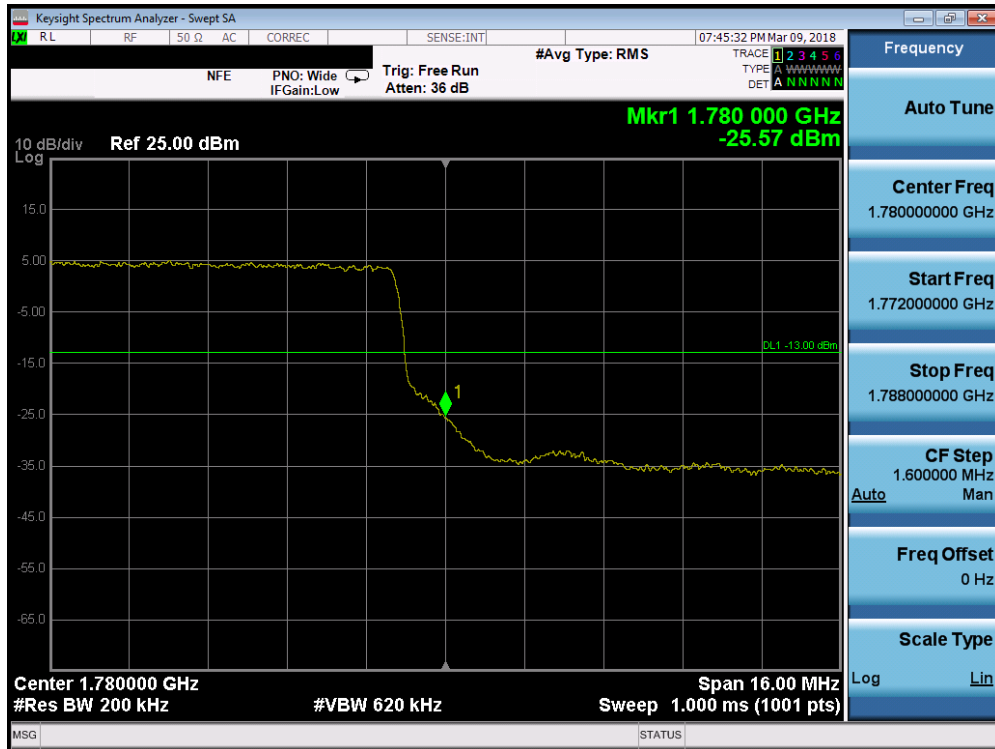


Plot 7-200. Upper Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

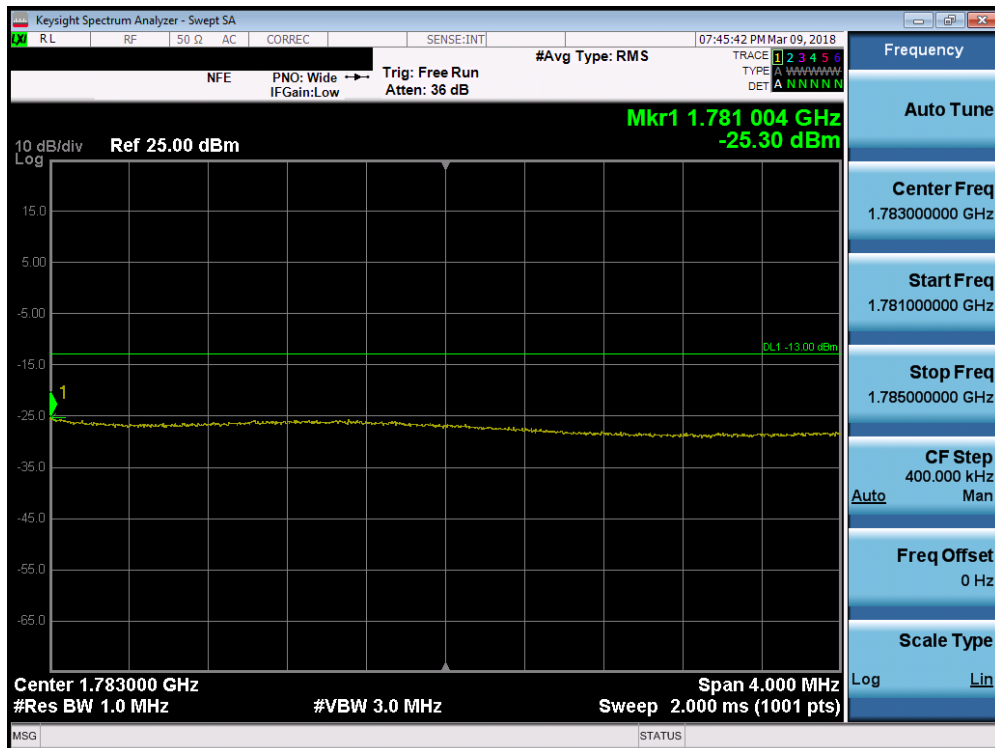


Plot 7-201. Upper Extended Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 121 of 180	



Plot 7-202. Upper Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)



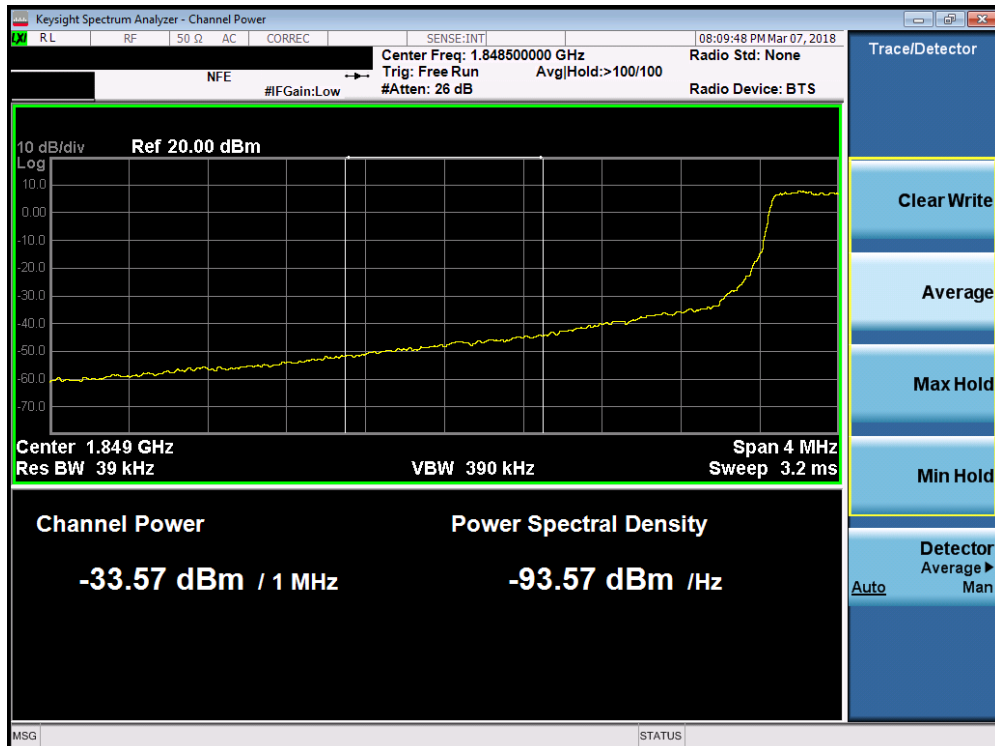
Plot 7-203. Upper Extended Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 122 of 180

Band 2



Plot 7-204. Lower Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

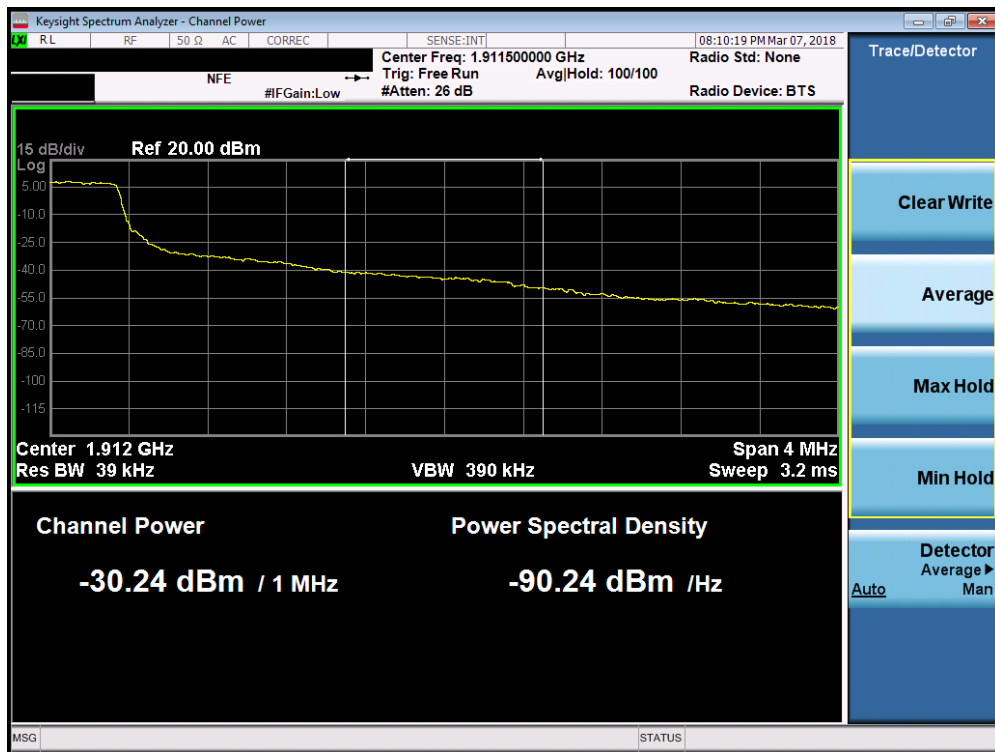


Plot 7-205. Lower Extended Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 123 of 180

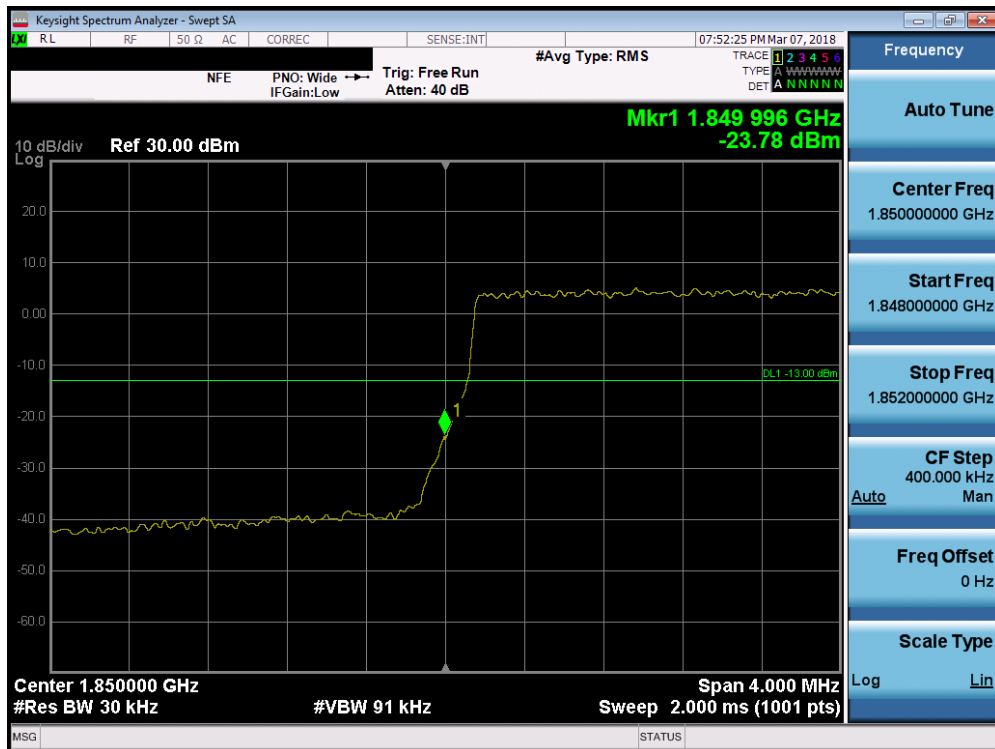


Plot 7-206. Upper Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

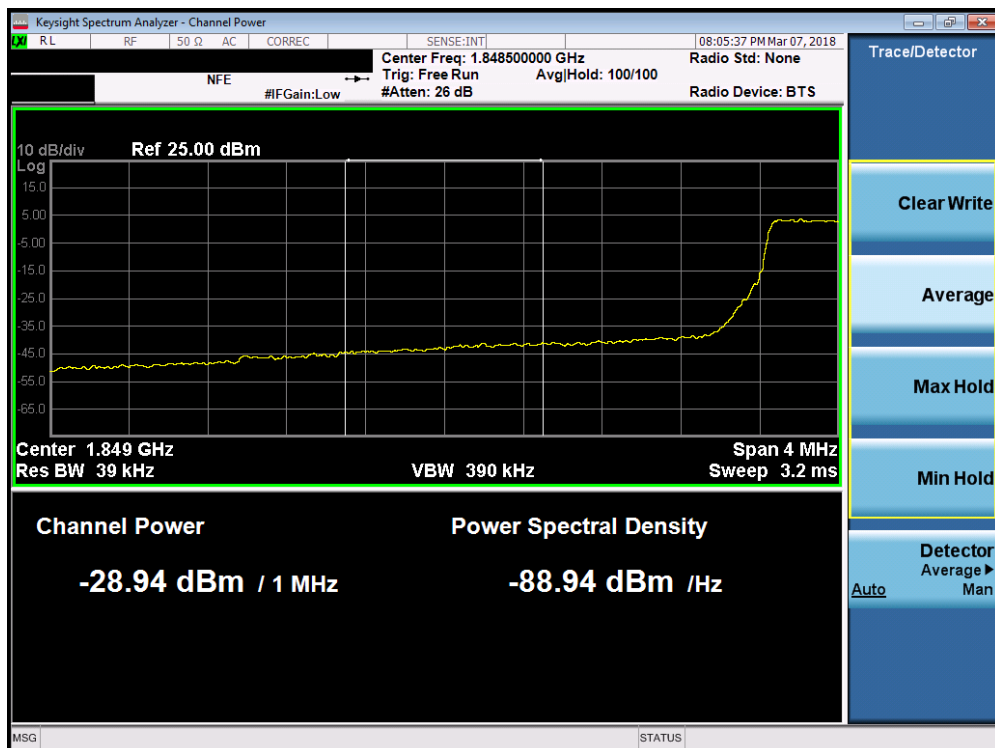


Plot 7-207. Upper Extended Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 124 of 180	

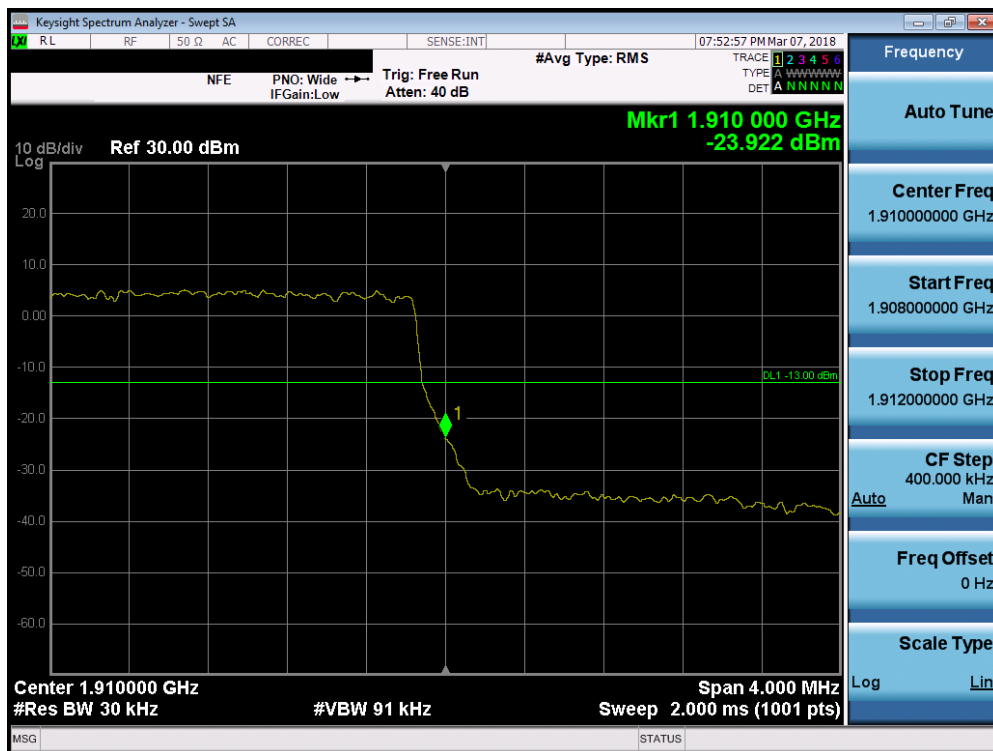


Plot 7-208. Lower Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

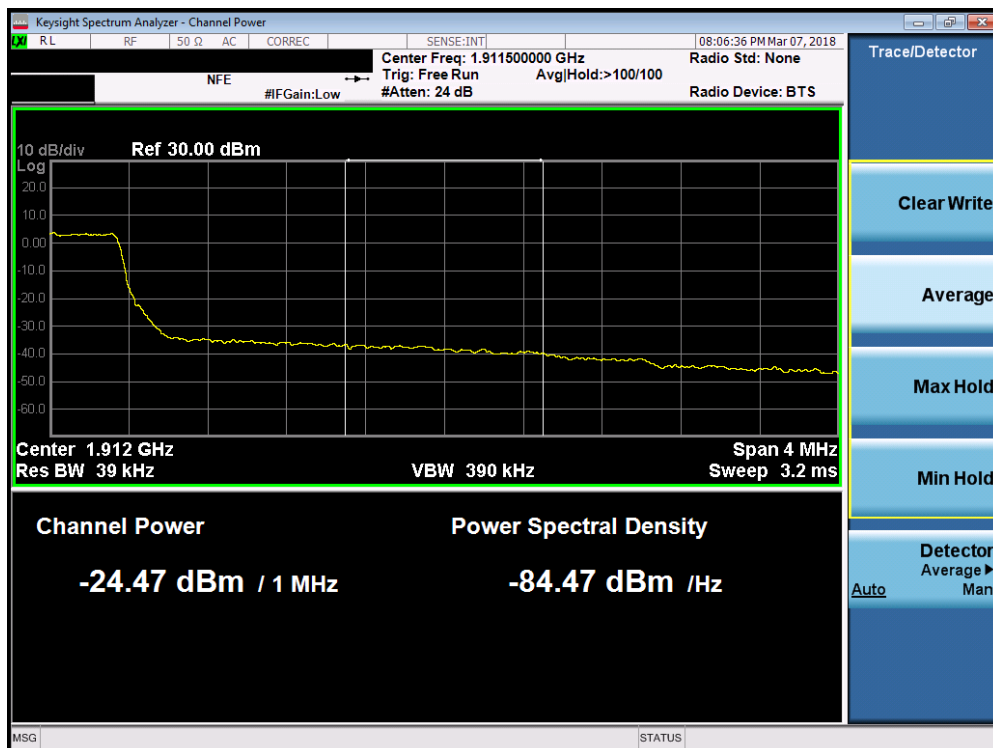


Plot 7-209. Lower Extended Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 125 of 180

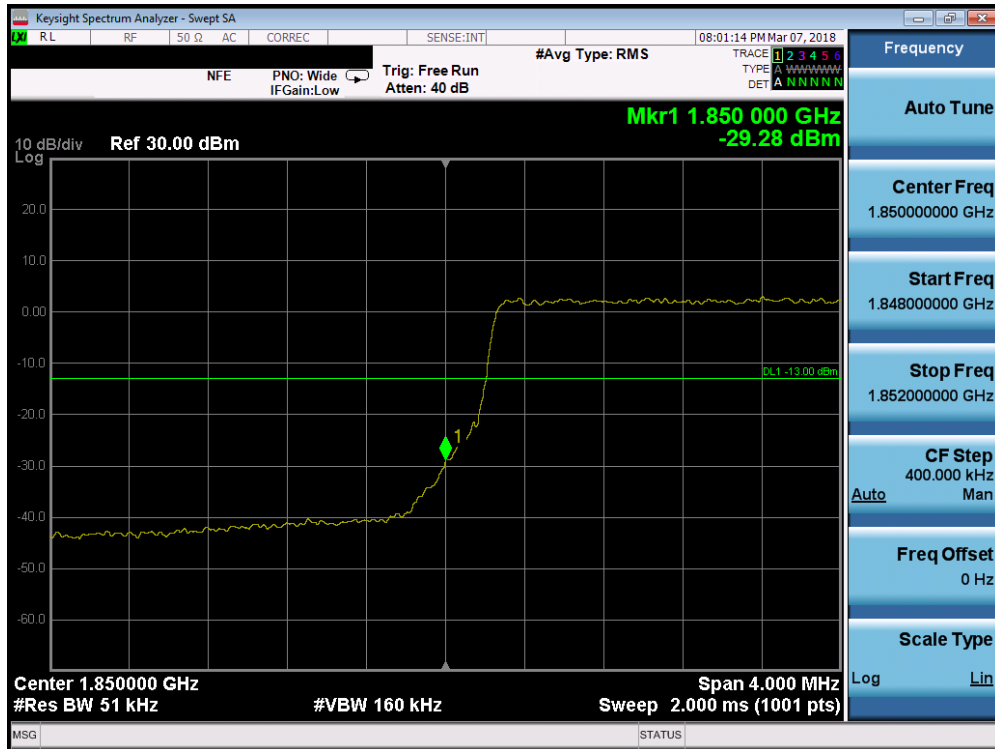


Plot 7-210. Upper Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-211. Upper Extended Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 126 of 180



Plot 7-212. Lower Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

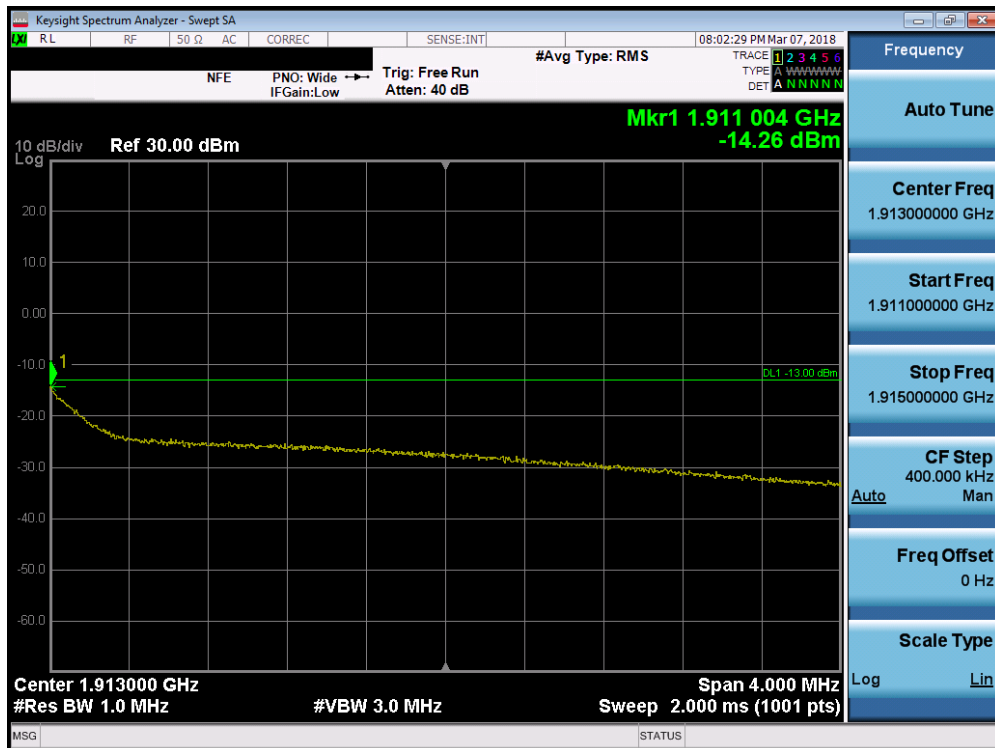


Plot 7-213. Lower Extended Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 127 of 180



Plot 7-214. Upper Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

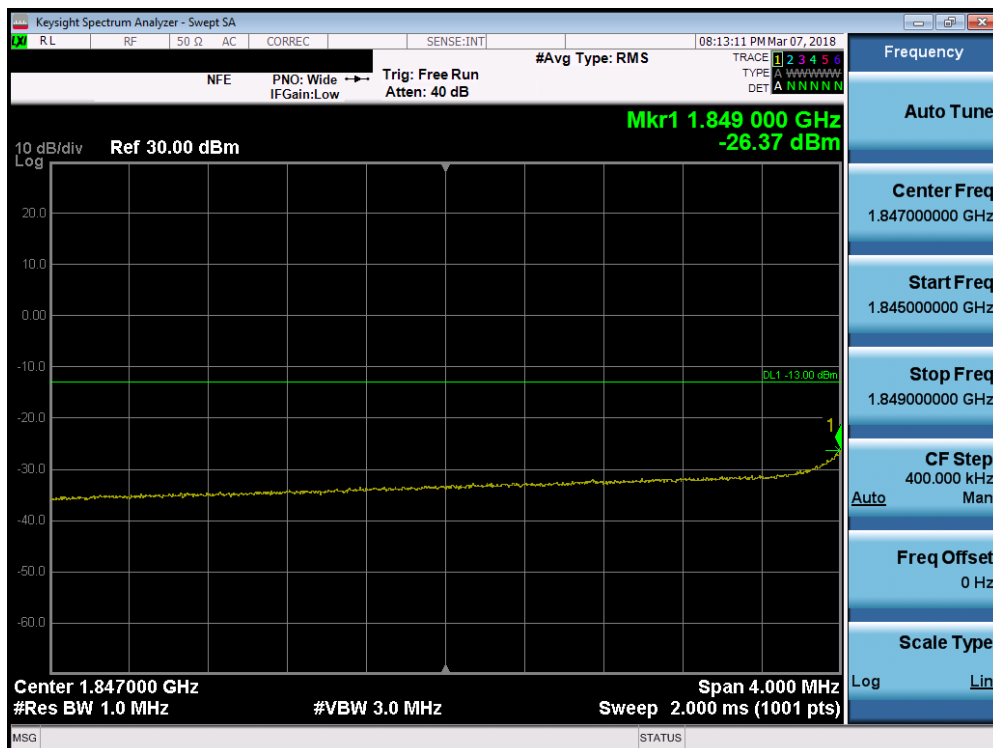


Plot 7-215. Upper Extended Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset	Page 128 of 180



Plot 7-216. Lower Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

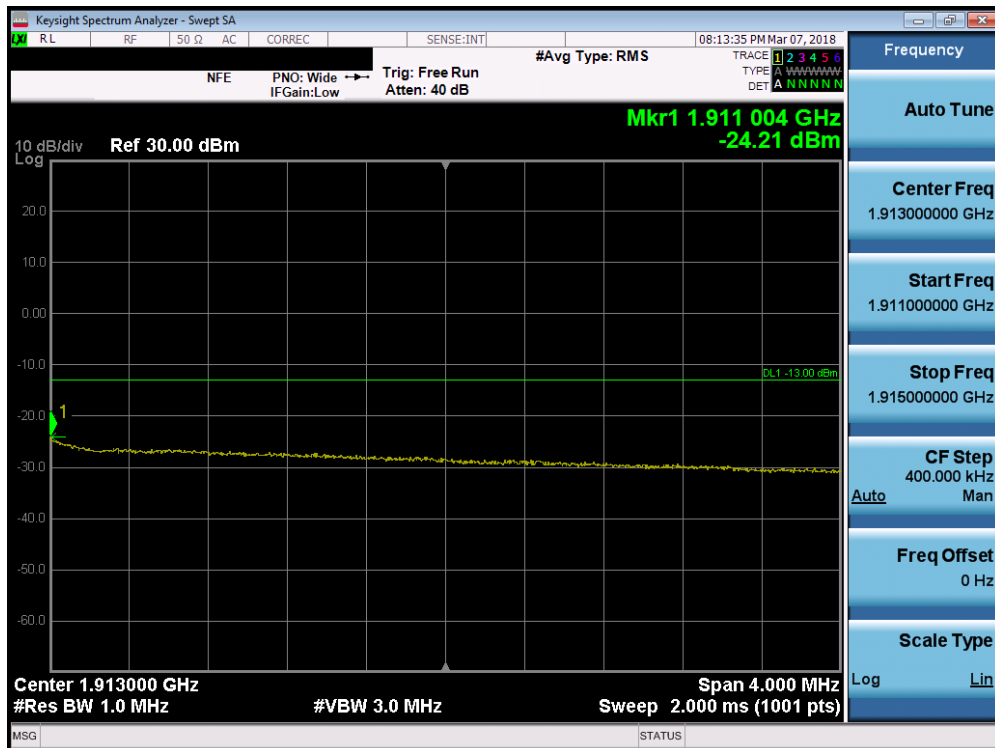


Plot 7-217. Lower Extended Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 129 of 180



Plot 7-218. Upper Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-219. Upper Extended Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFL713DL	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1803050034-05.ZNF	Test Dates: 3/7/2018 - 4/2/2018	EUT Type: Portable Handset		Page 130 of 180