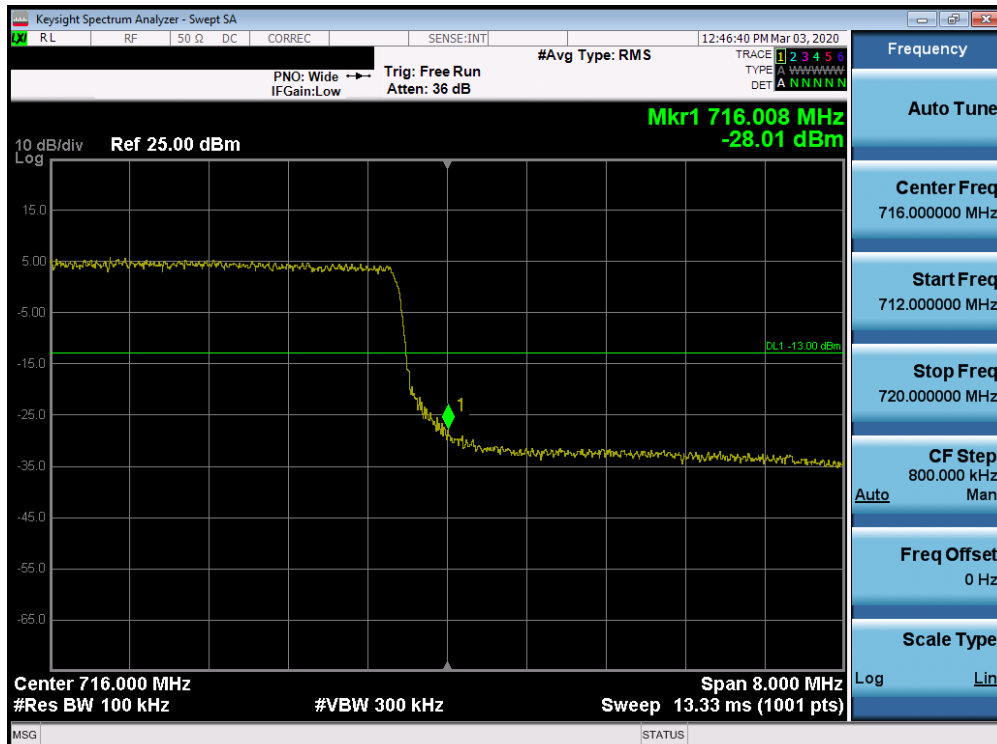


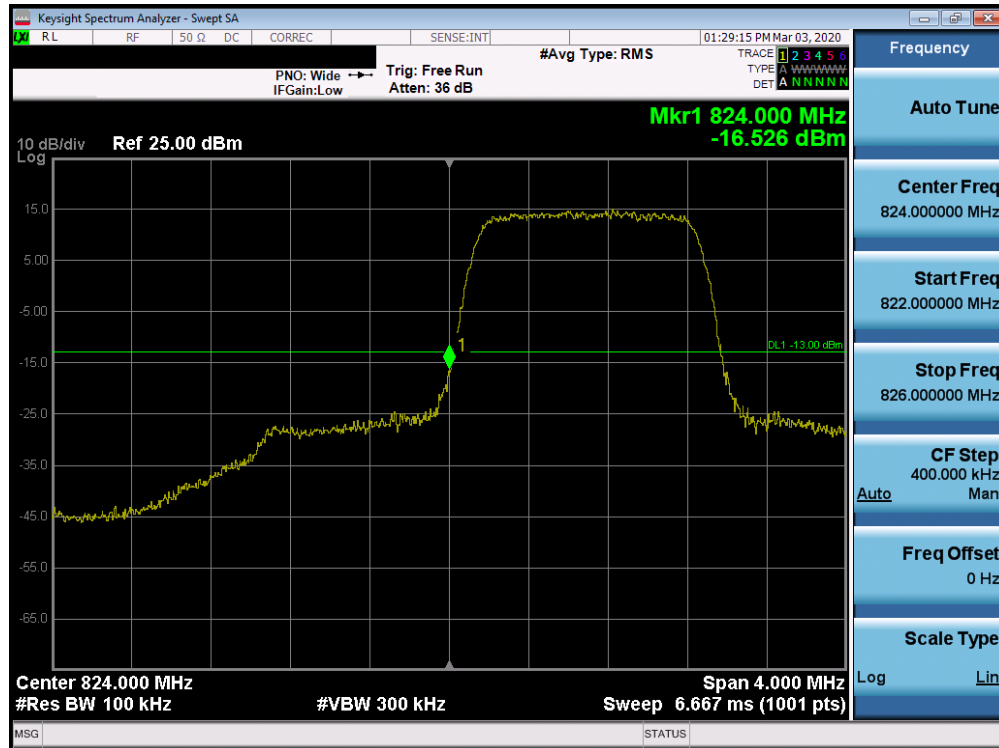
Plot 7-87. Lower Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)



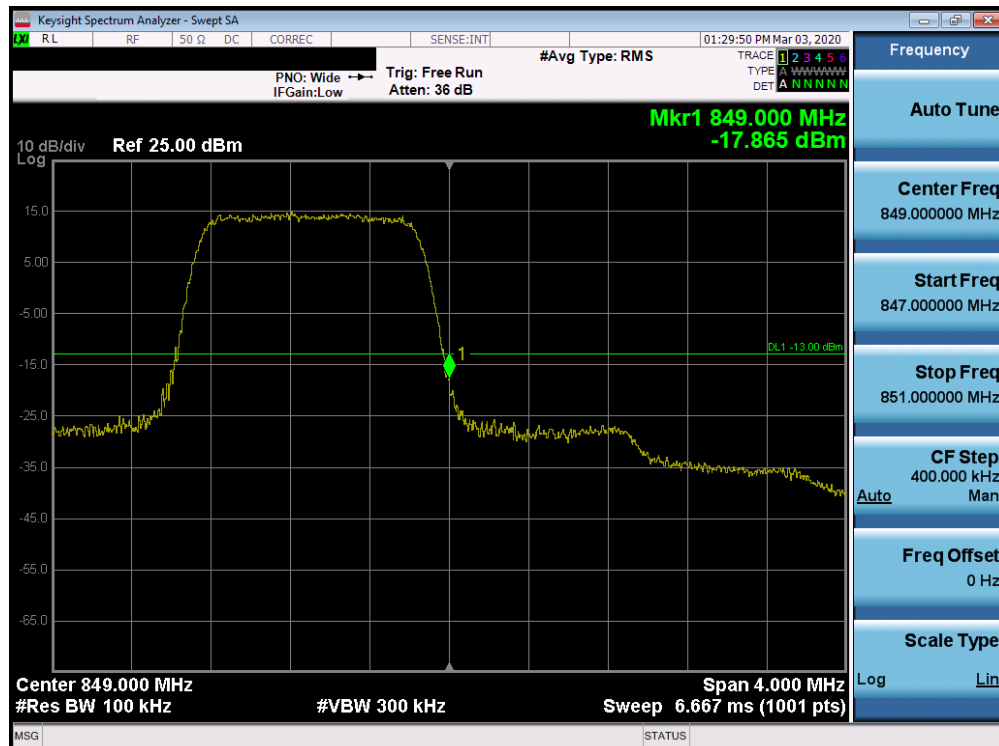
Plot 7-88. Upper Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 64 of 146

## Band 5

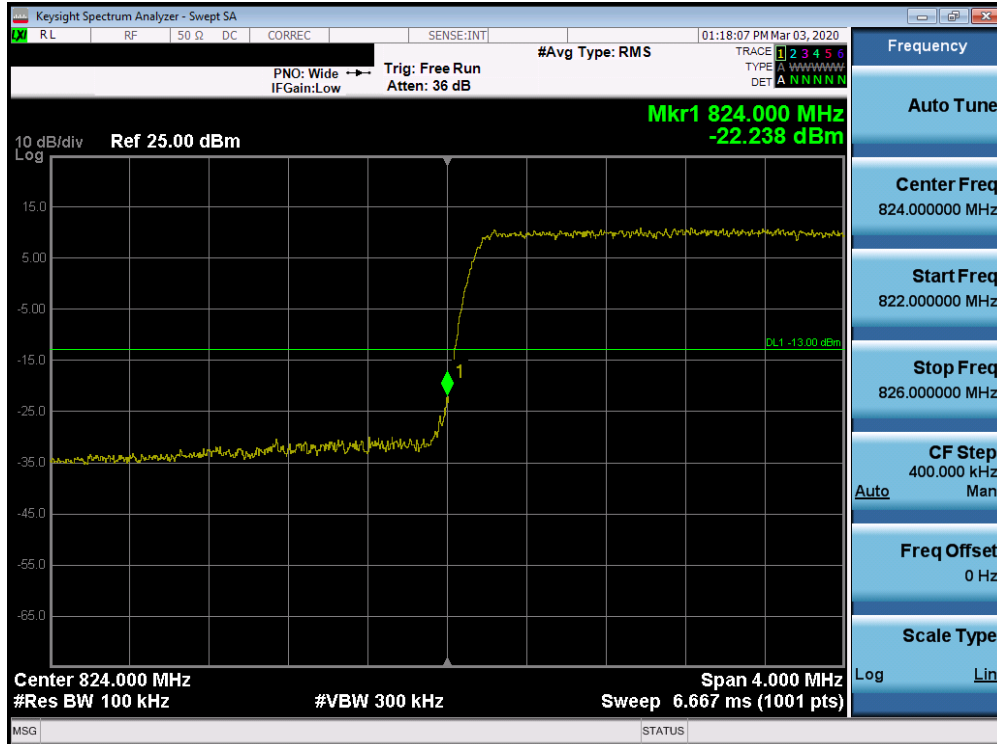


Plot 7-89. Lower Band Edge Plot (Band 5 - 1.4MHz QPSK - Full RB Configuration)

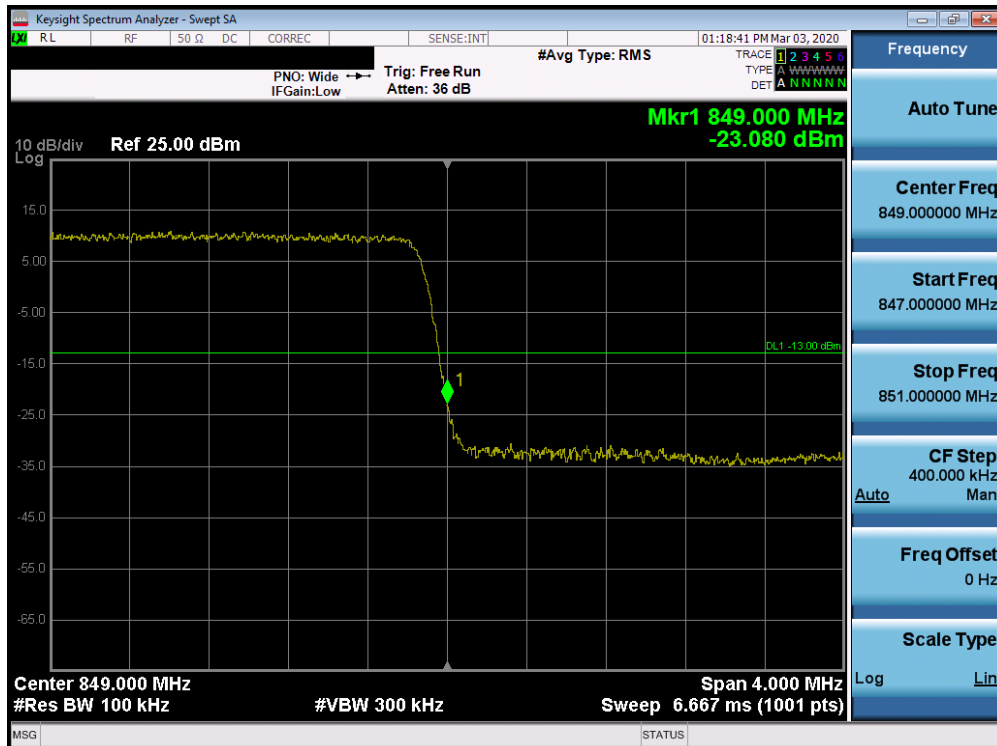


Plot 7-90. Upper Band Edge Plot (Band 5 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 65 of 146

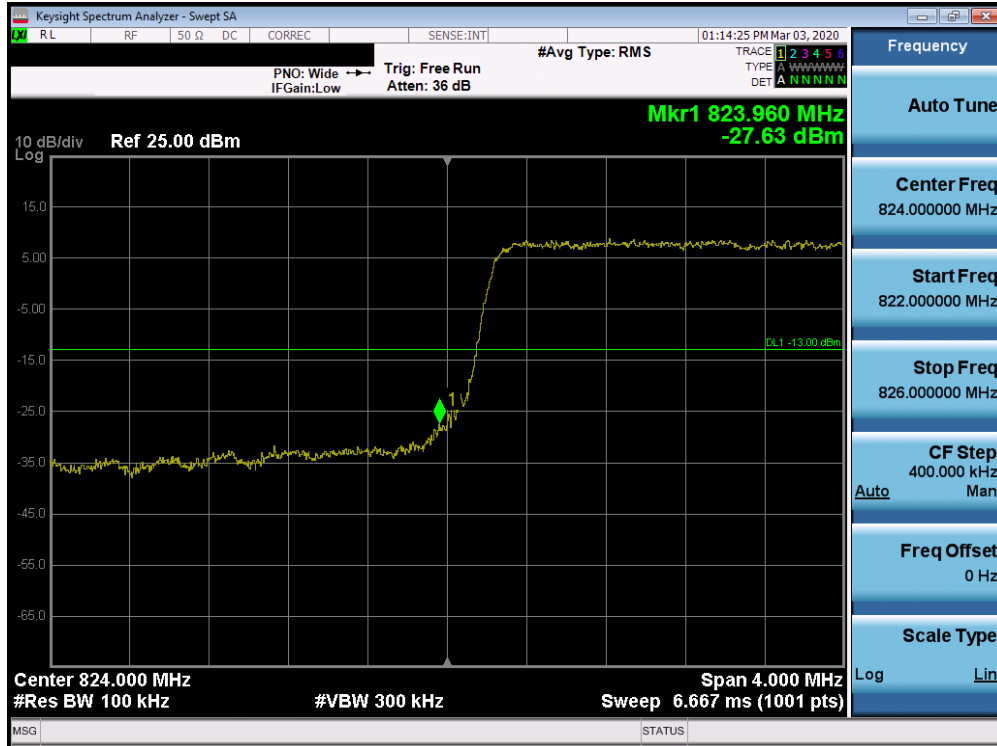


Plot 7-91. Lower Band Edge Plot (Band 5 - 3.0MHz QPSK - Full RB Configuration)

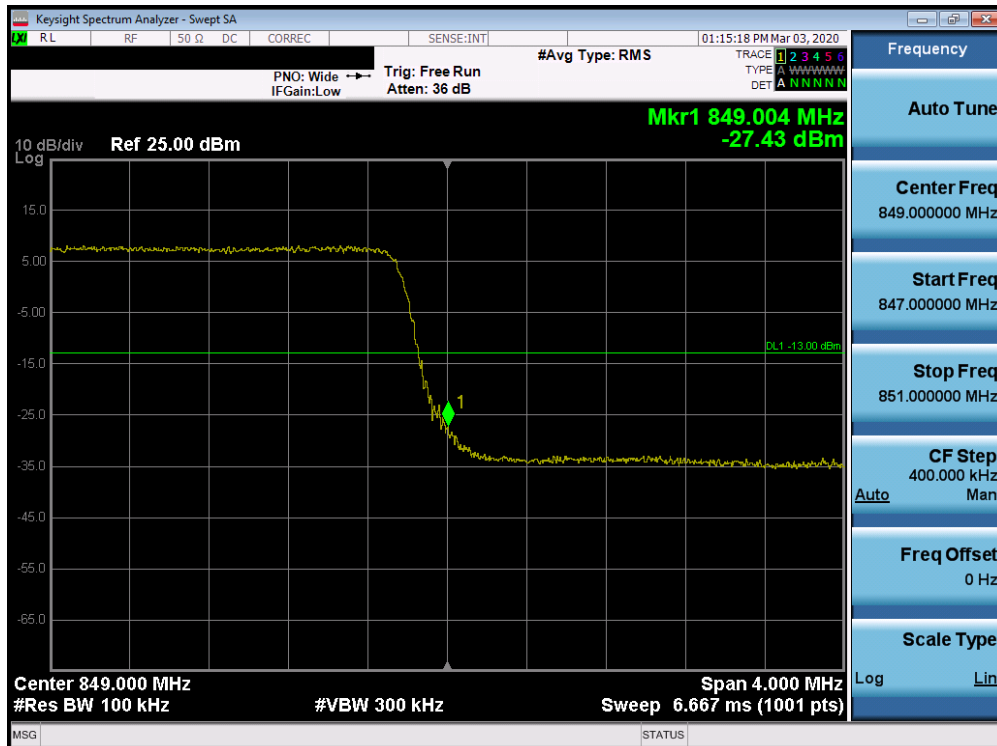


Plot 7-92. Upper Band Edge Plot (Band 5 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 66 of 146

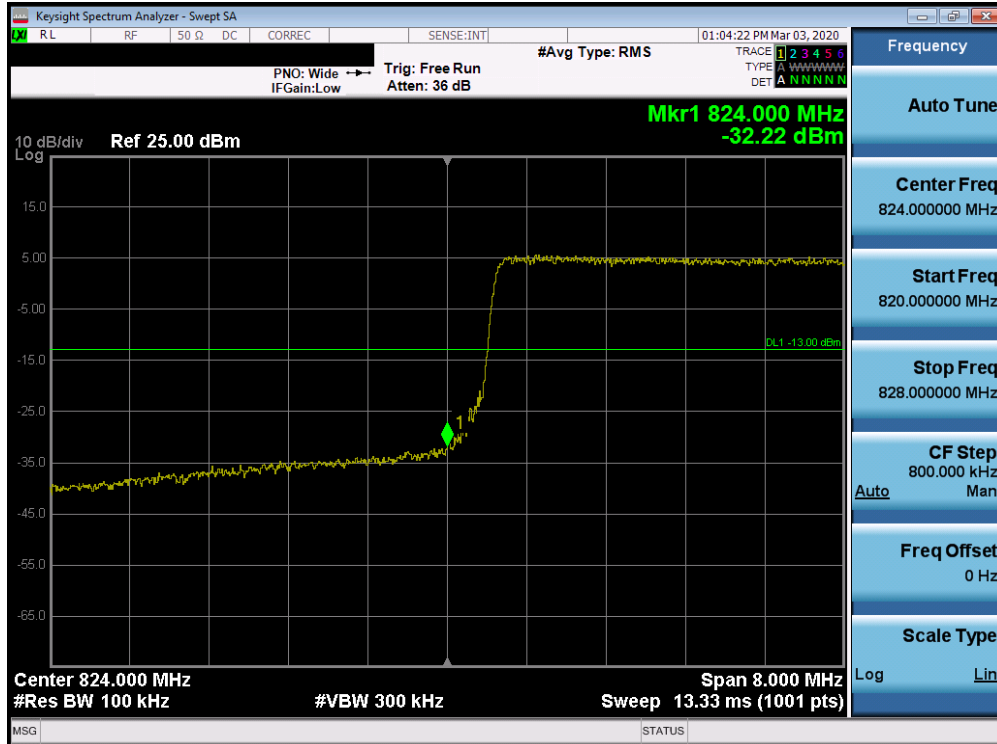


Plot 7-93. Lower Band Edge Plot (Band 5 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-94. Upper Band Edge Plot (Band 5 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 67 of 146



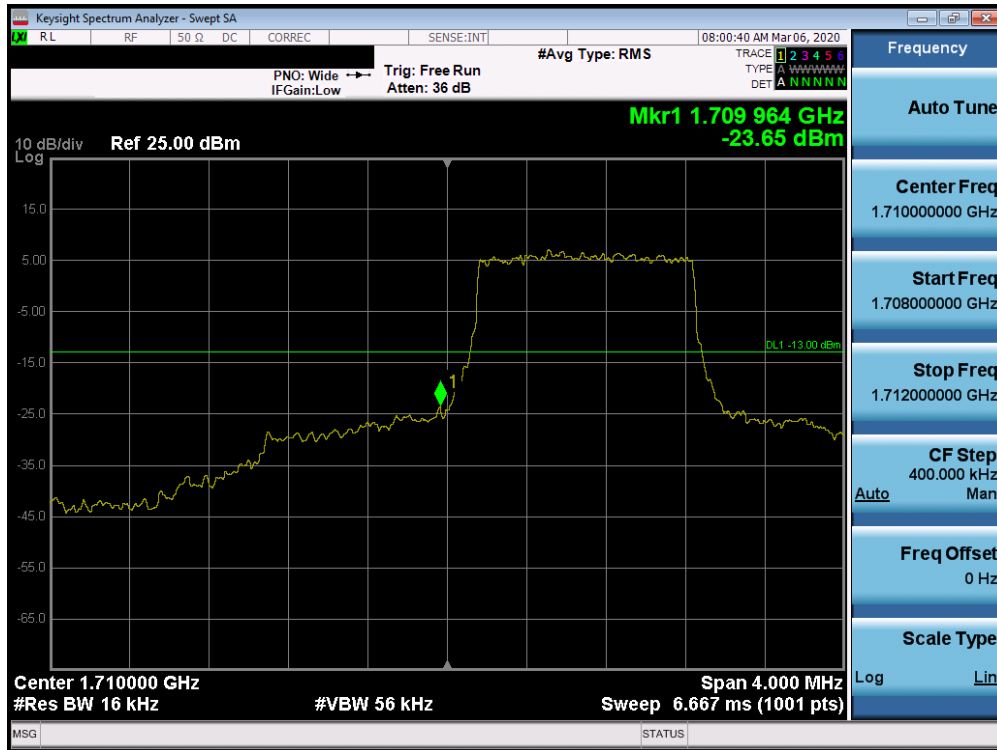
Plot 7-95. Lower Band Edge Plot (Band 5 - 10.0MHz QPSK - Full RB Configuration)



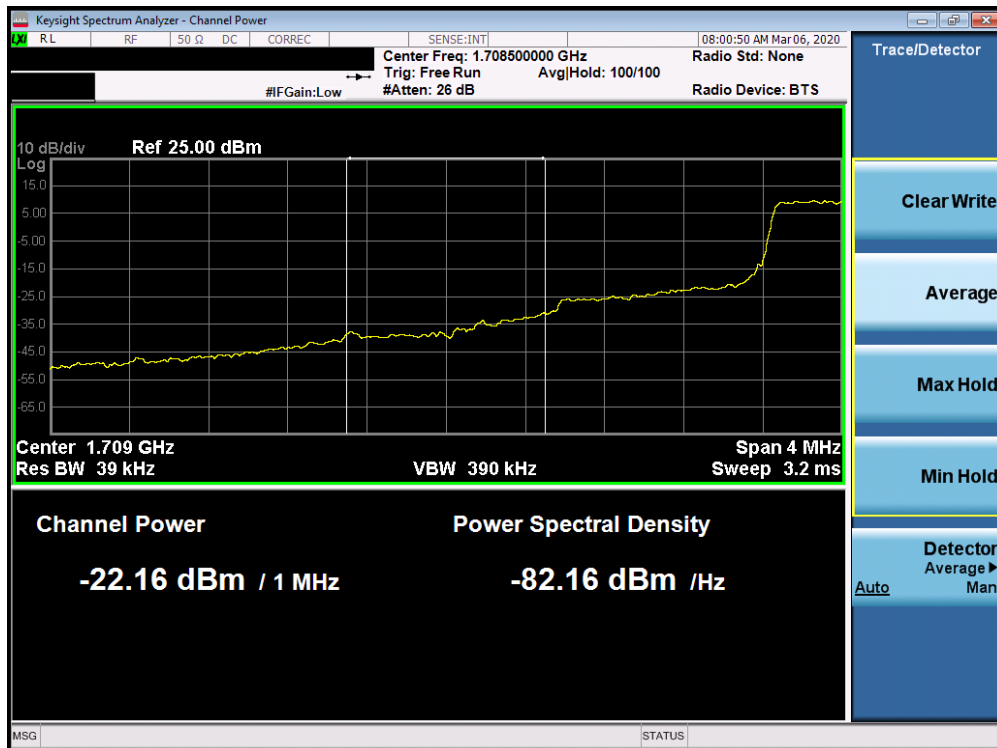
Plot 7-96. Upper Band Edge Plot (Band 5 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 68 of 146

**Band 66/4**



**Plot 7-97. Lower Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)**

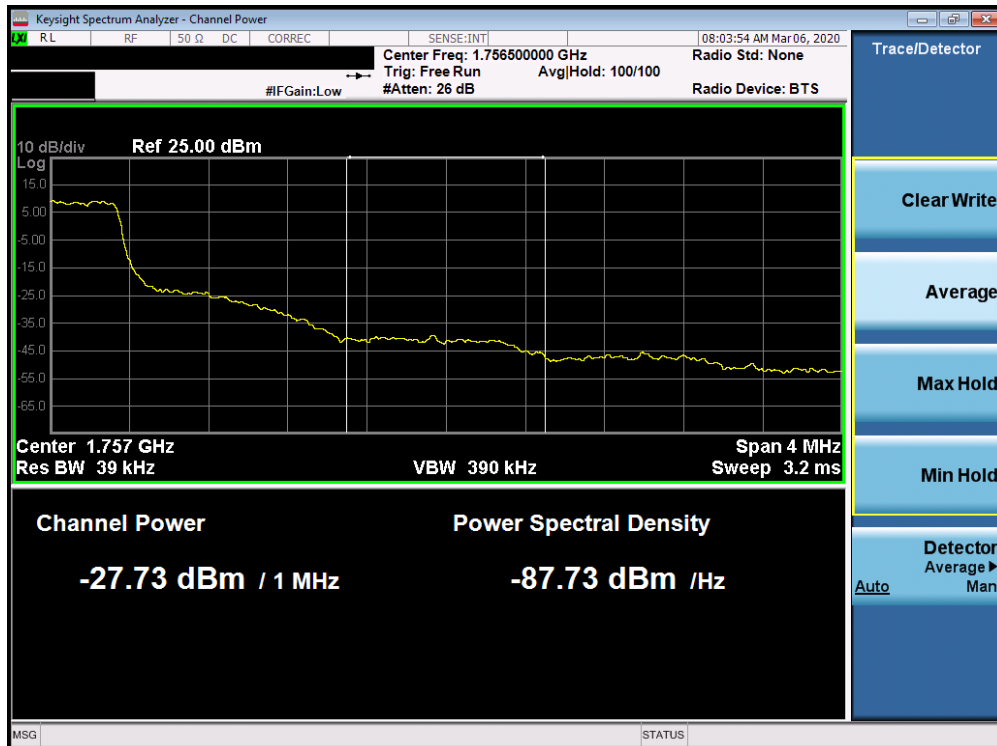


**Plot 7-98. Lower Extended Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)**

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 69 of 146



Plot 7-99. Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

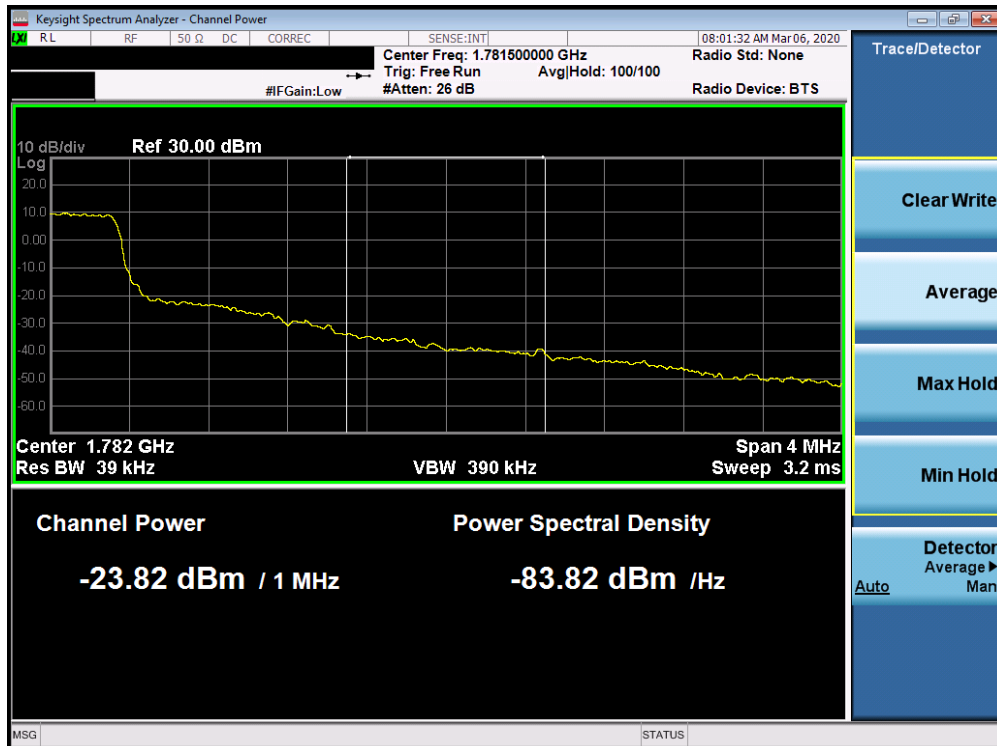


Plot 7-100. Upper Extended Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 70 of 146



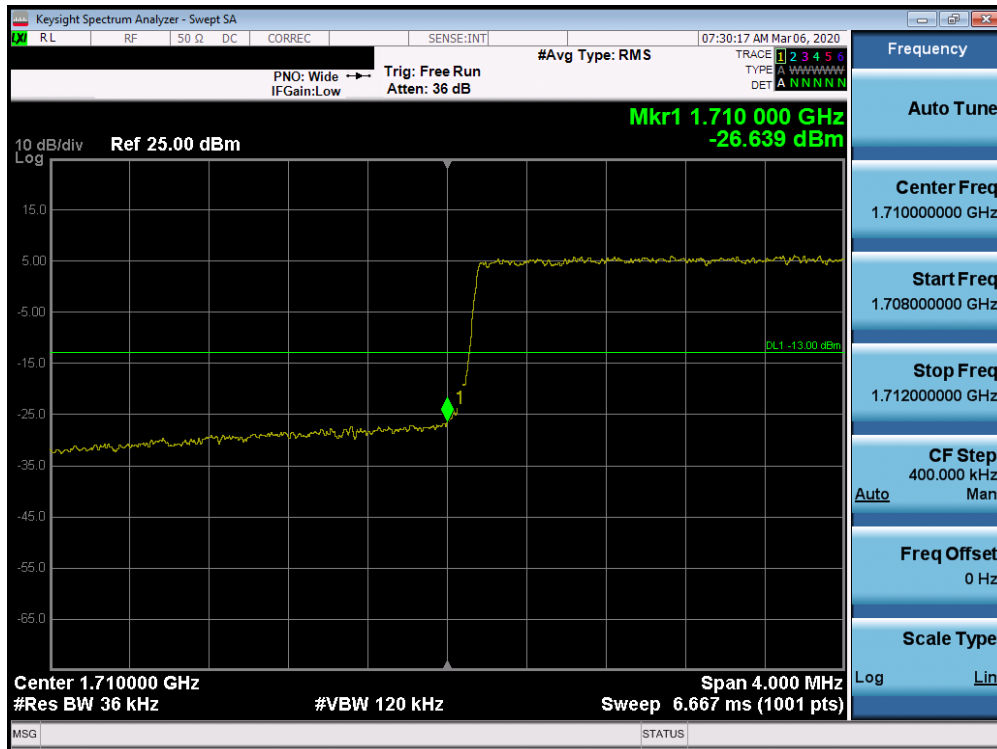
Plot 7-101. Upper Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)



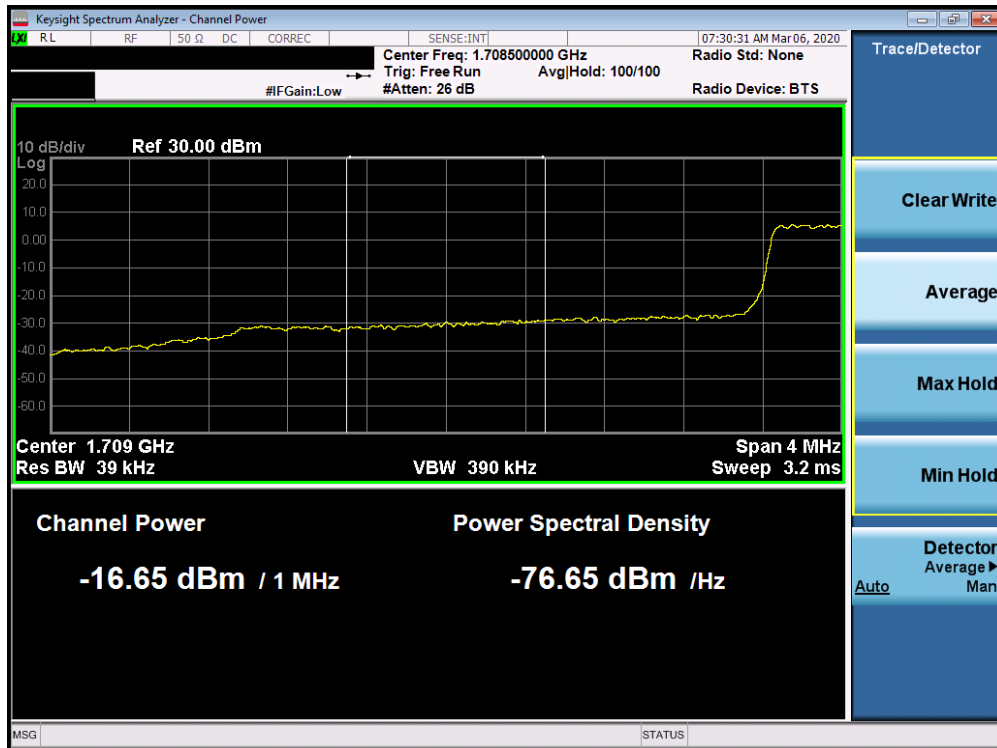
Plot 7-102. Upper Extended Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 71 of 146



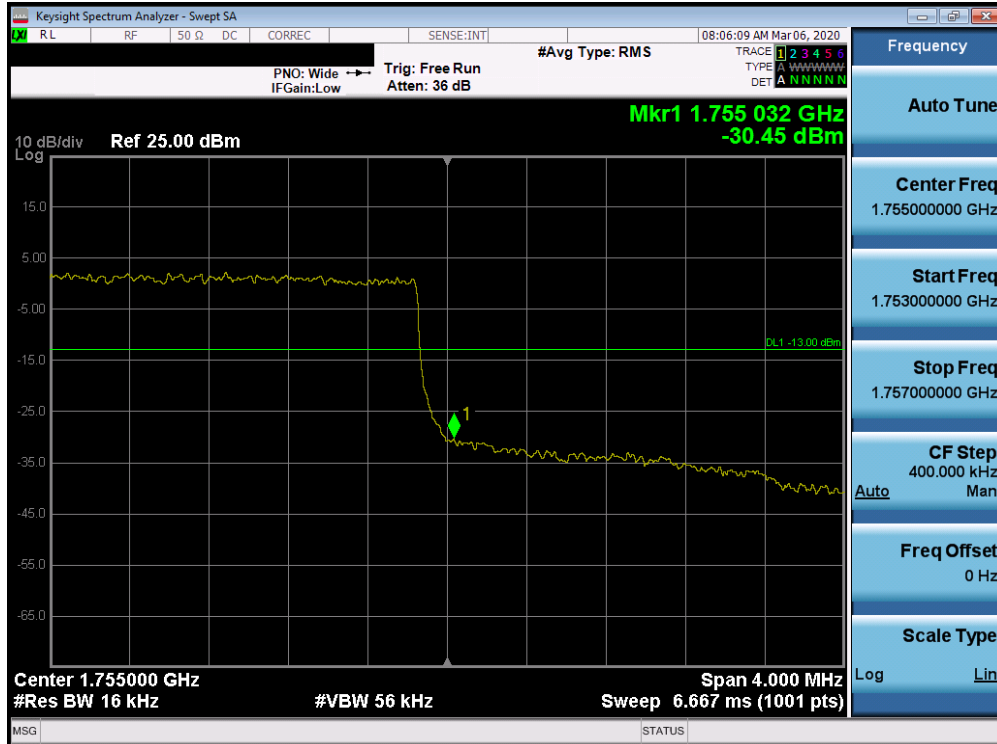


Plot 7-103. Lower Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

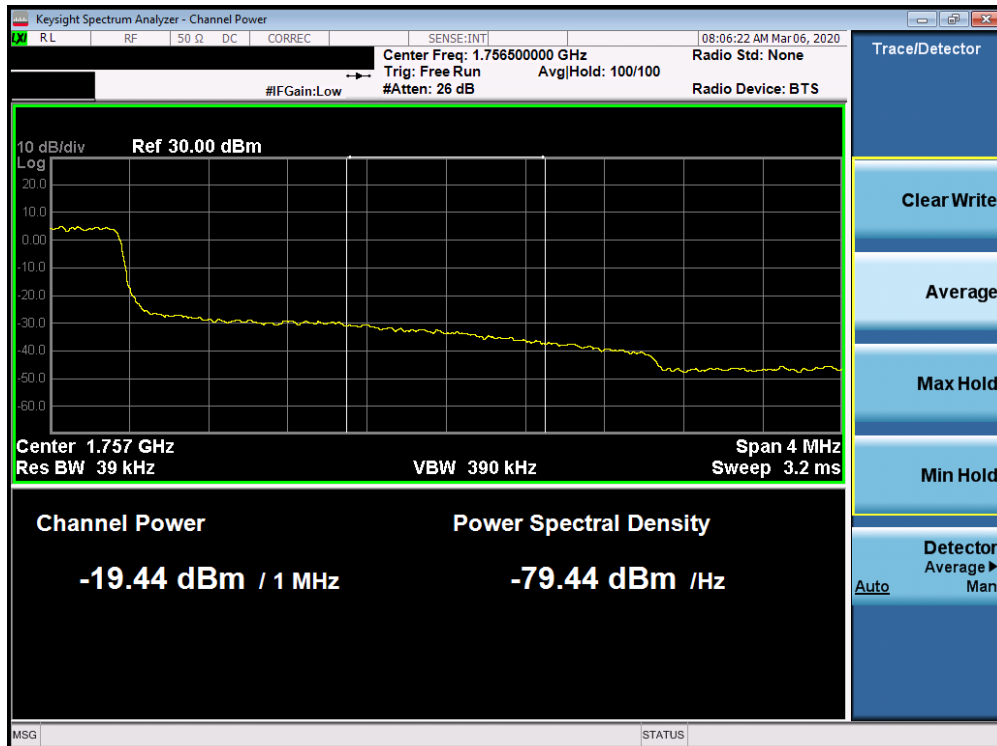


Plot 7-104. Lower Extended Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 72 of 146



Plot 7-105. Upper Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

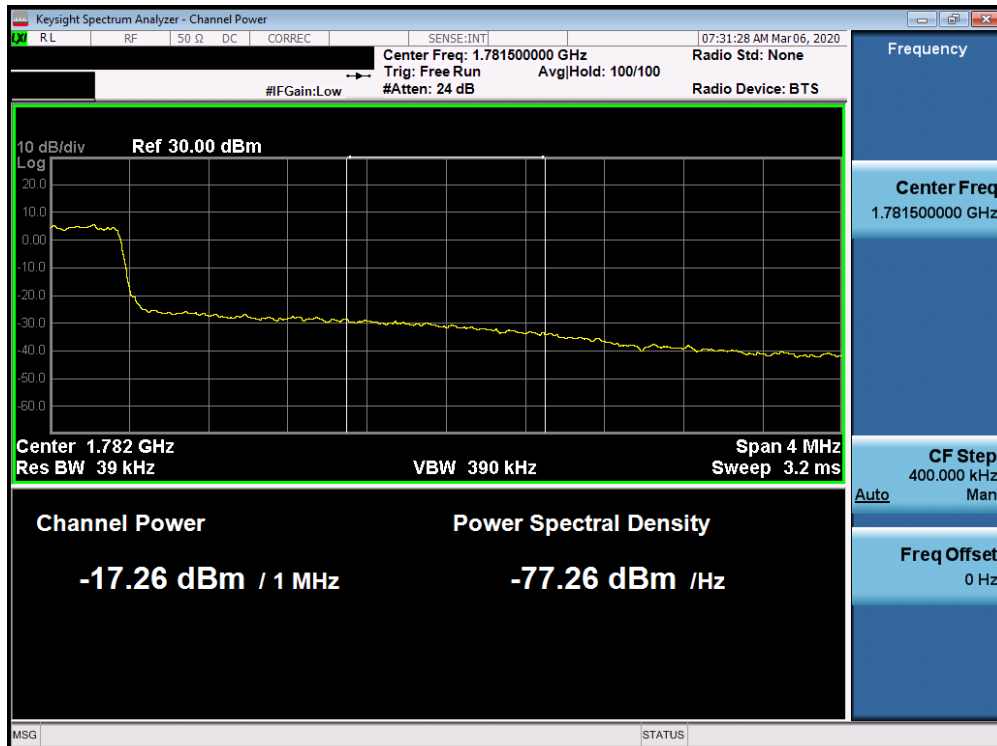


Plot 7-106. Upper Extended Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 73 of 146

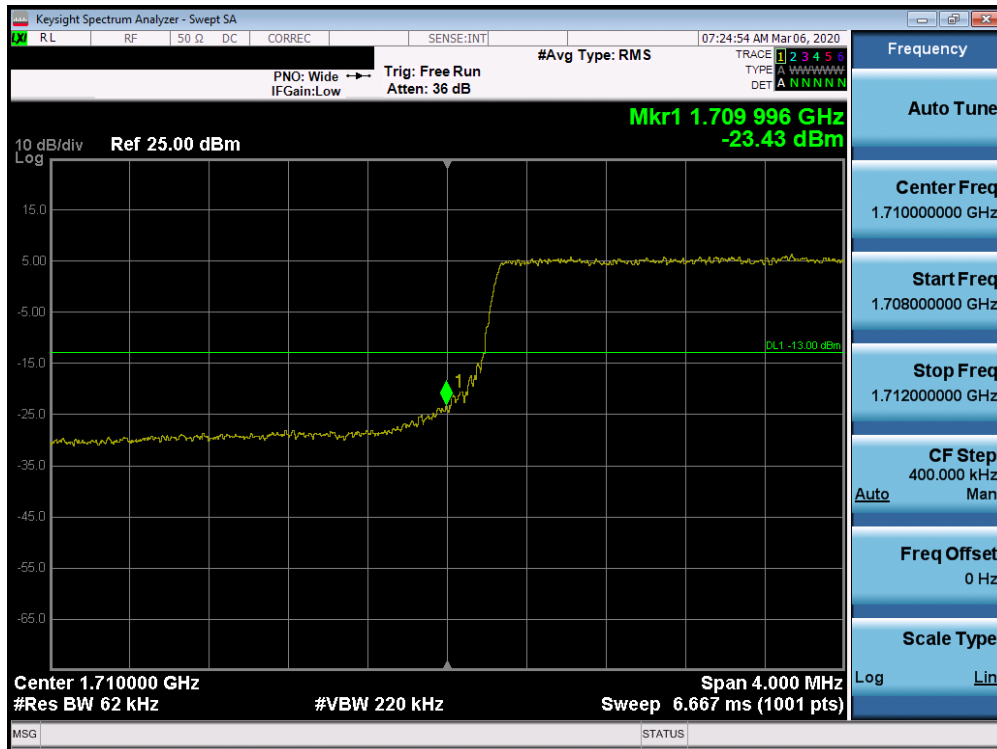


Plot 7-107. Upper Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

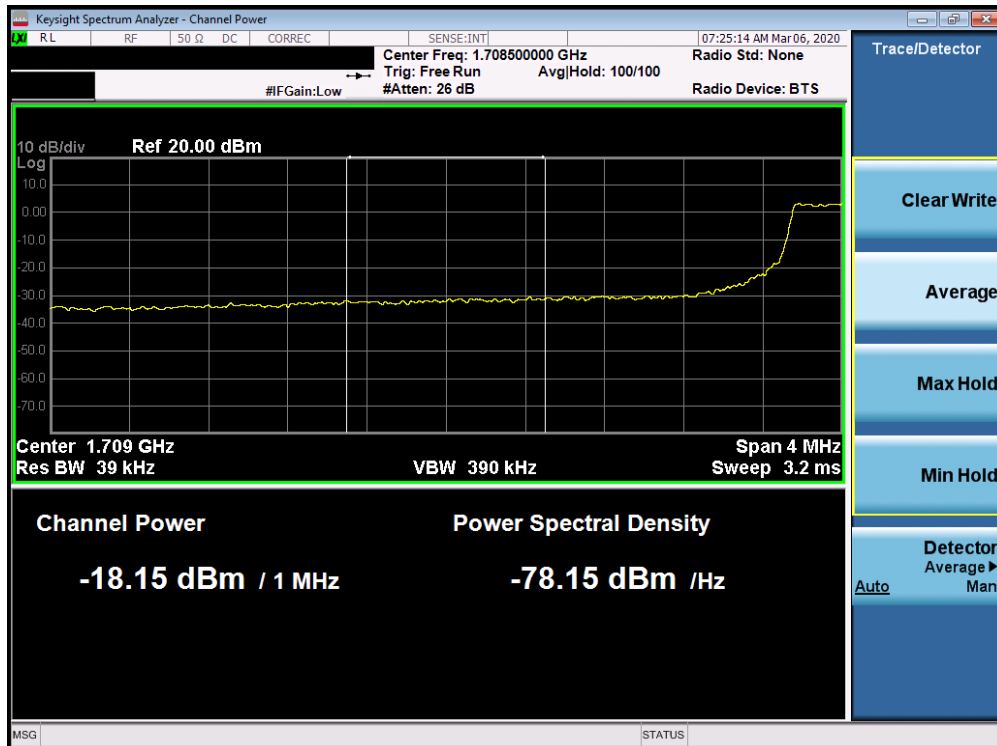


Plot 7-108. Upper Extended Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 74 of 146



Plot 7-109. Lower Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

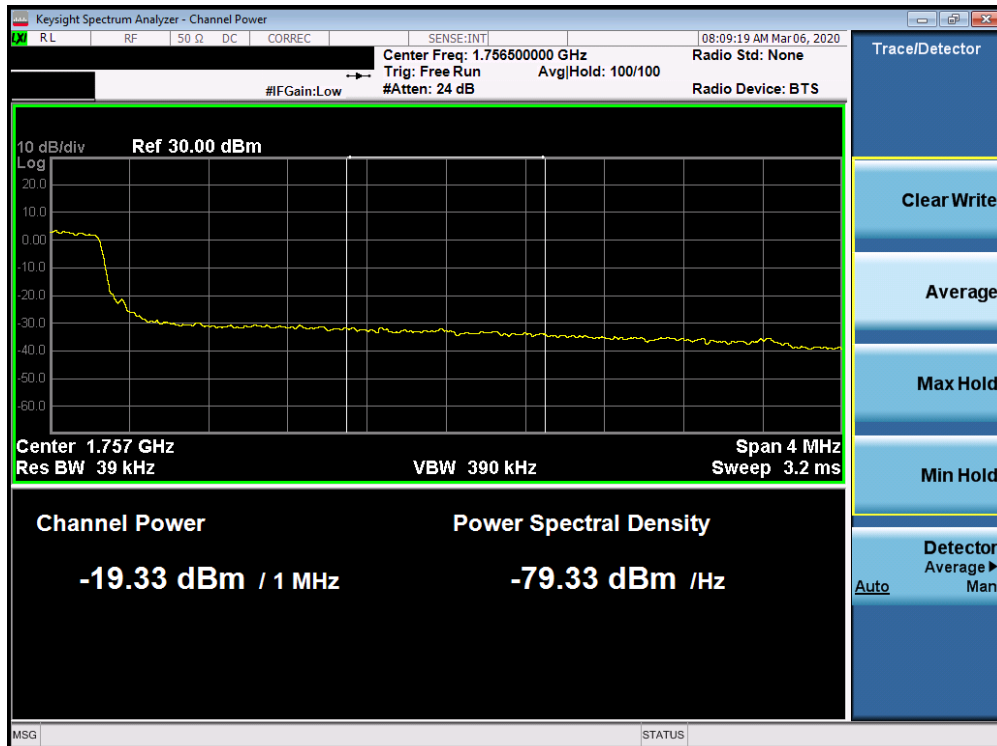


Plot 7-110. Lower Extended Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 75 of 146



Plot 7-111. Upper Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

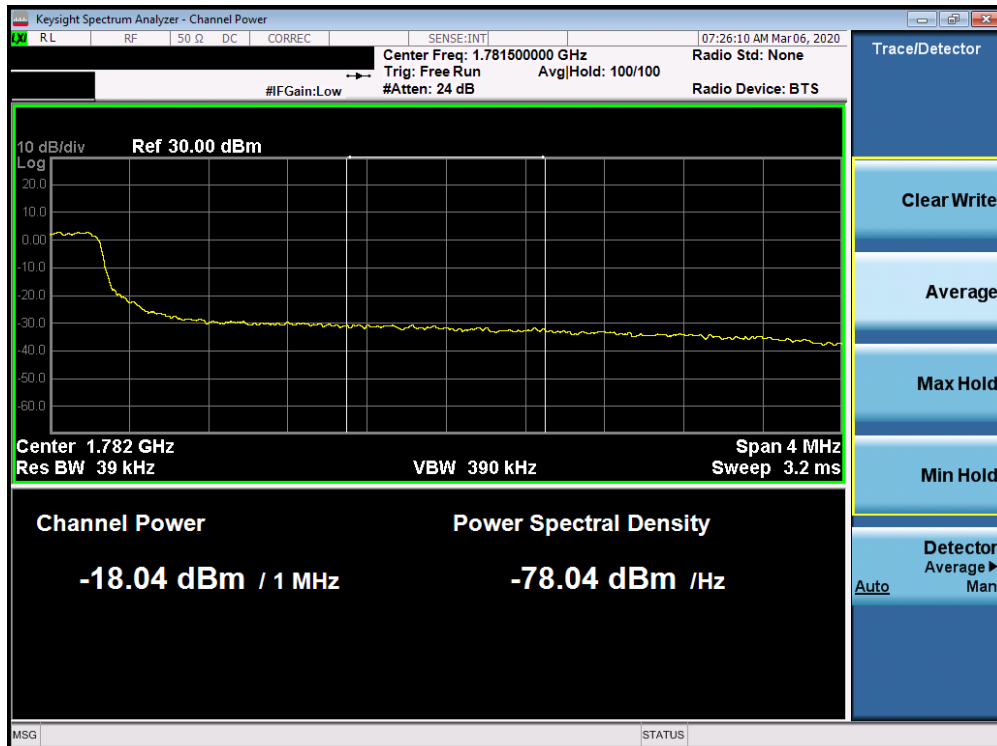


Plot 7-112. Upper Extended Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 76 of 146

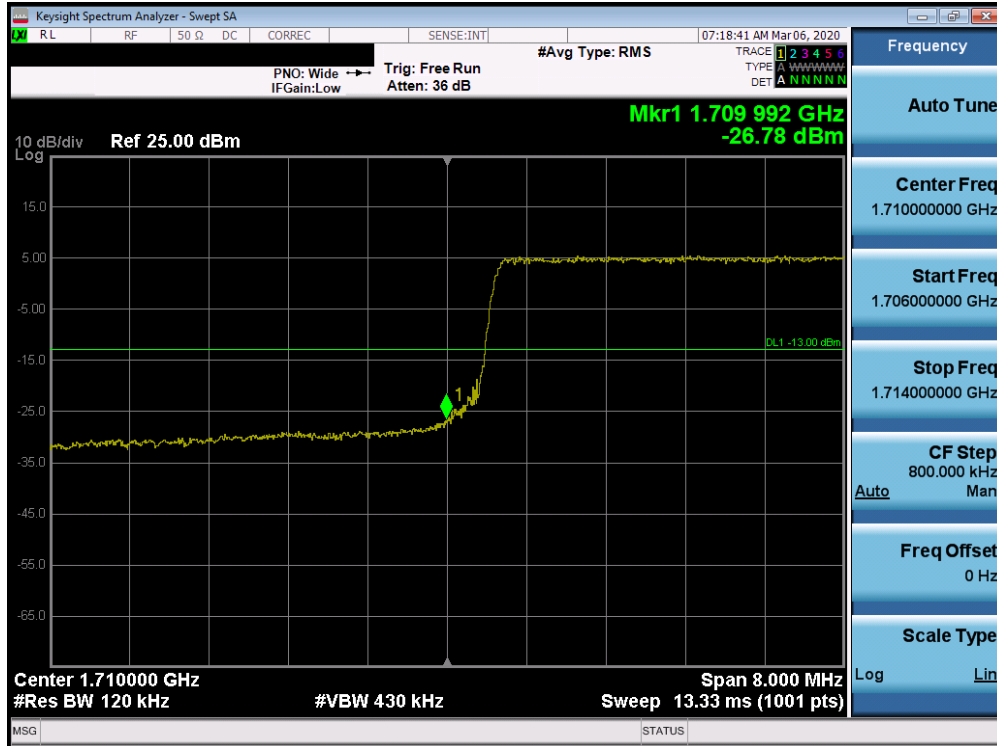


Plot 7-113. Upper Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

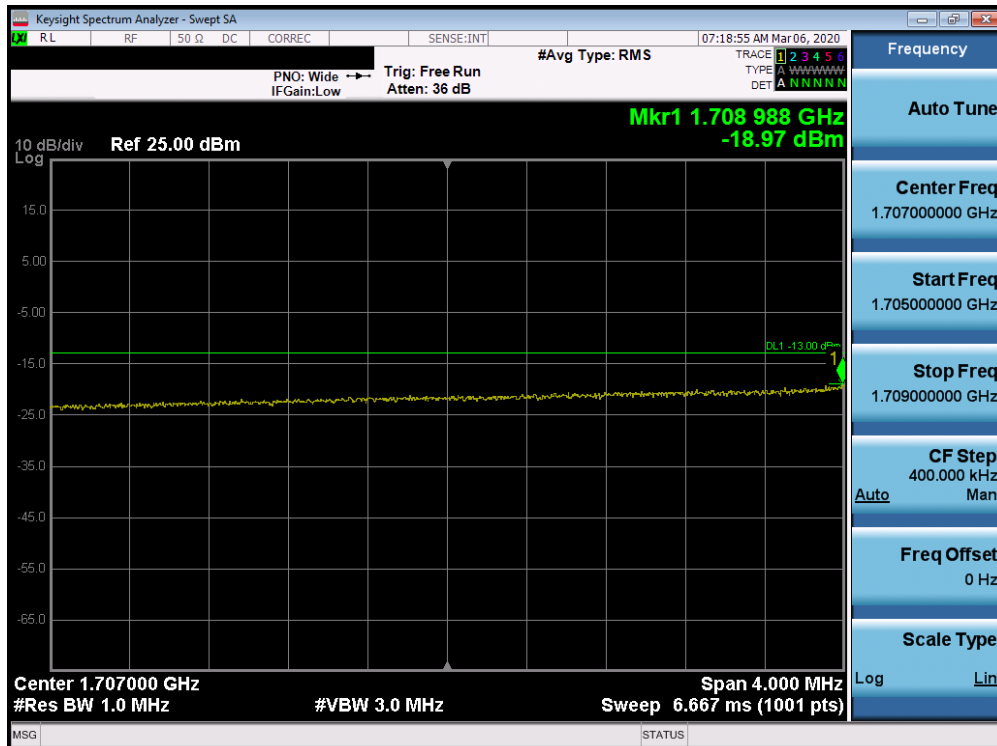


Plot 7-114. Upper Extended Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 77 of 146

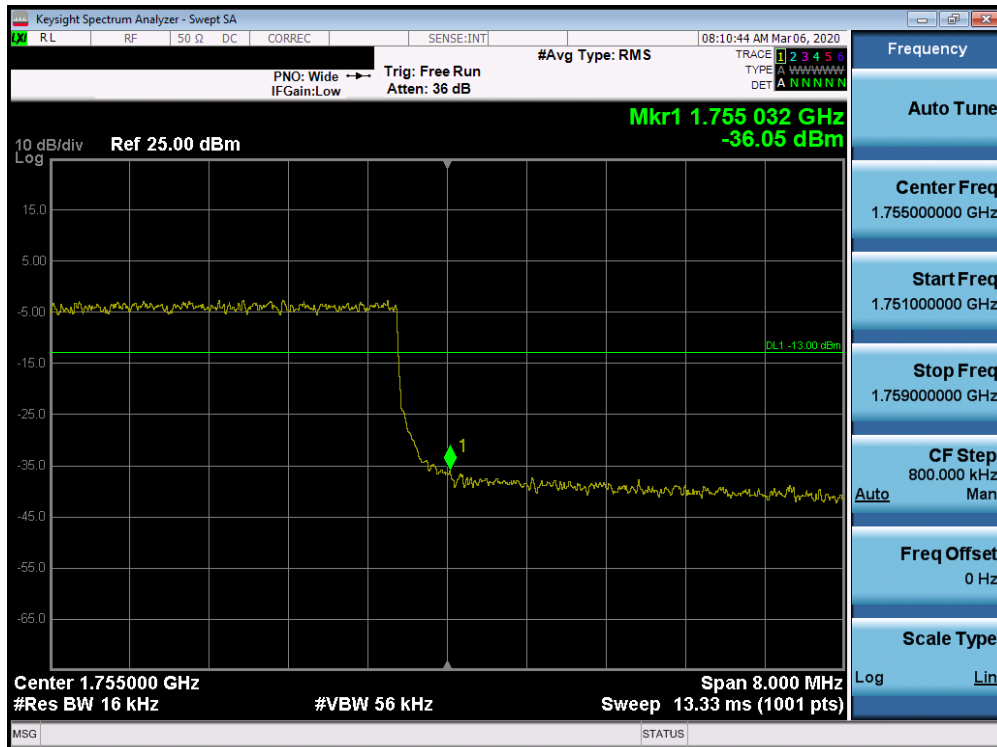


Plot 7-115. Lower Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

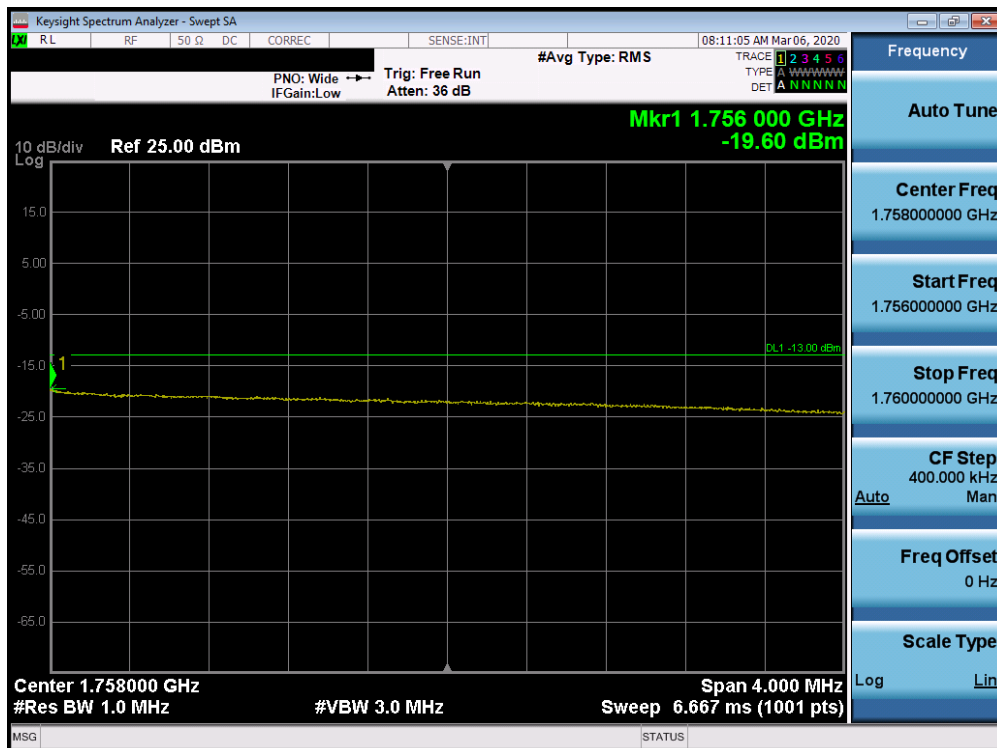


Plot 7-116. Lower Extended Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 78 of 146



Plot 7-117. Upper Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)



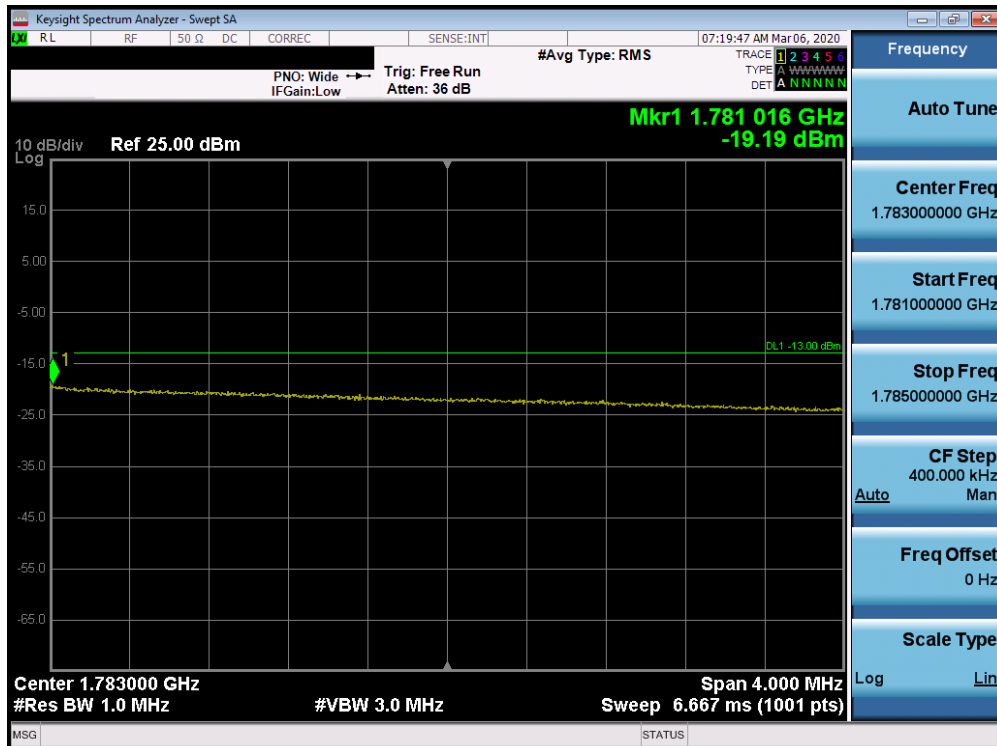
Plot 7-118. Upper Extended Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 79 of 146



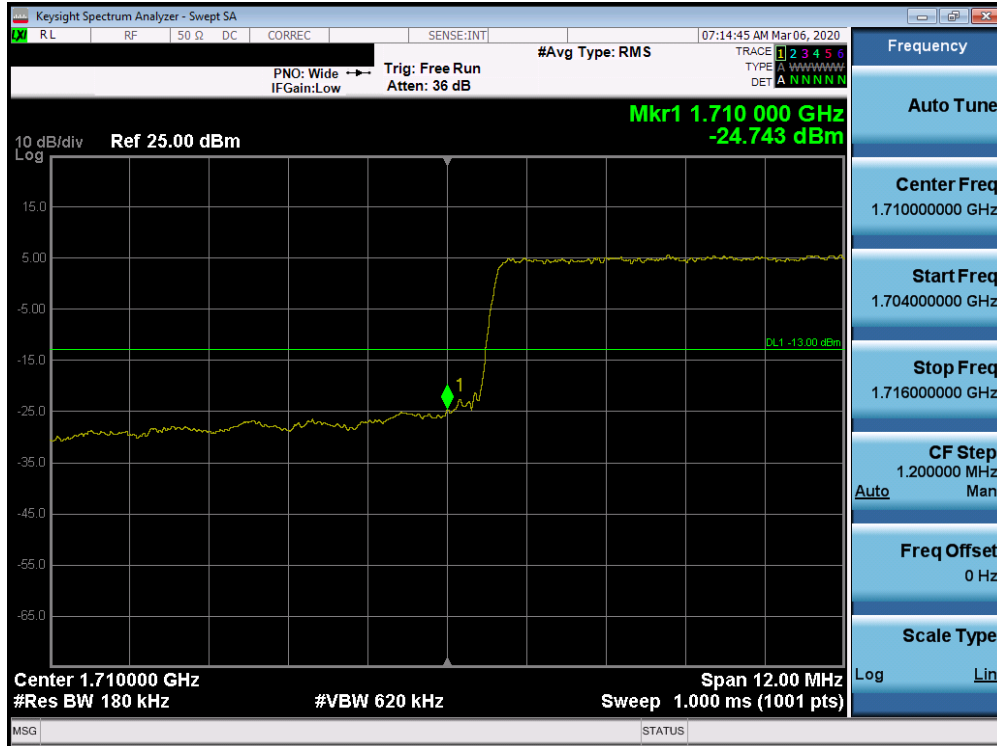


Plot 7-119. Upper Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

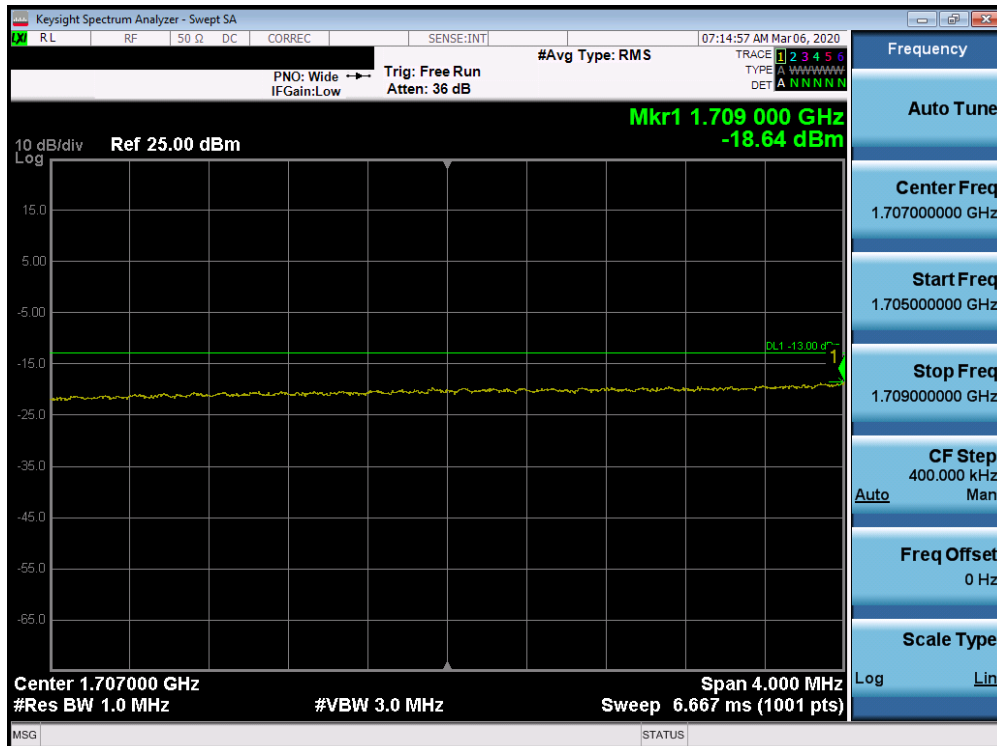


Plot 7-120. Upper Extended Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 80 of 146

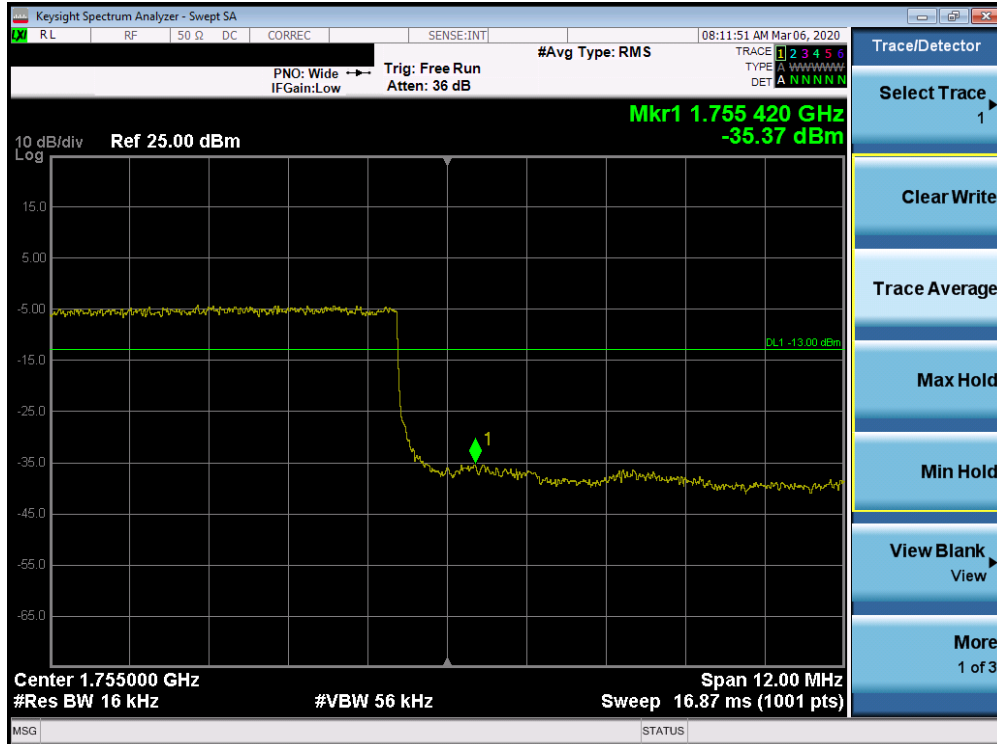


Plot 7-121. Lower Band Edge Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)

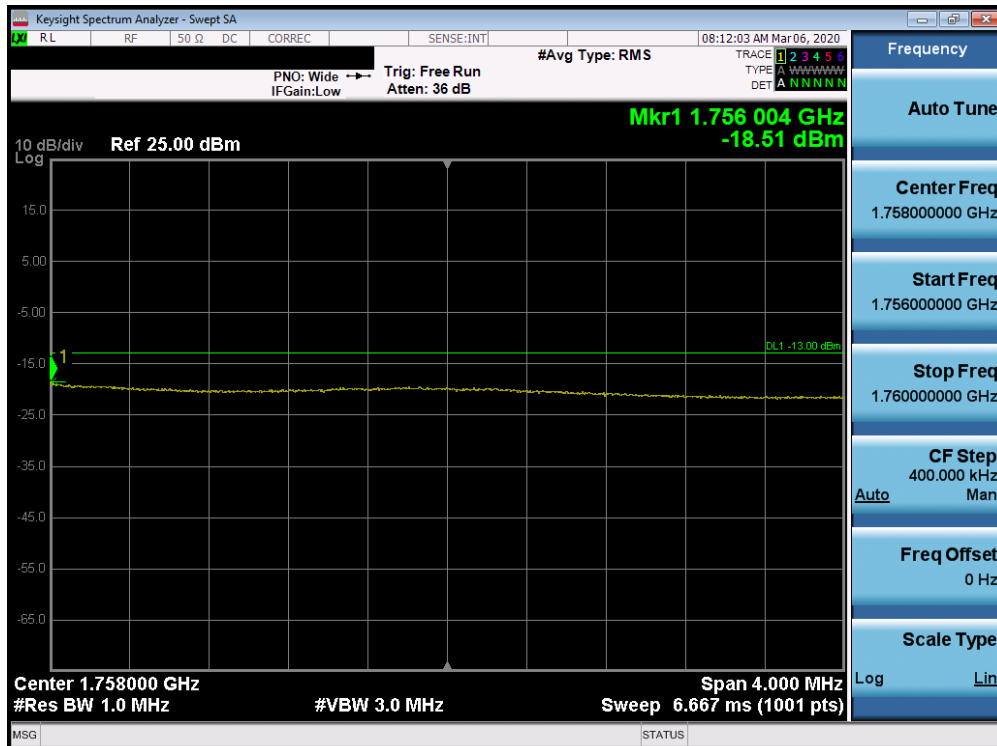


Plot 7-122. Lower Extended Band Edge Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 81 of 146

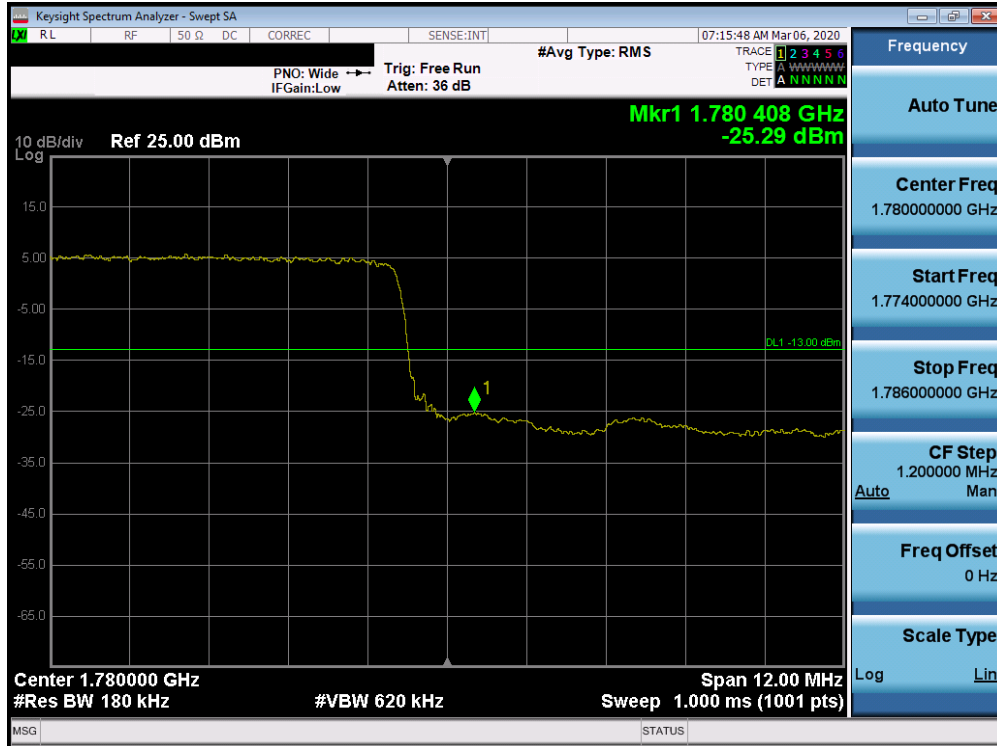


Plot 7-123. Upper Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

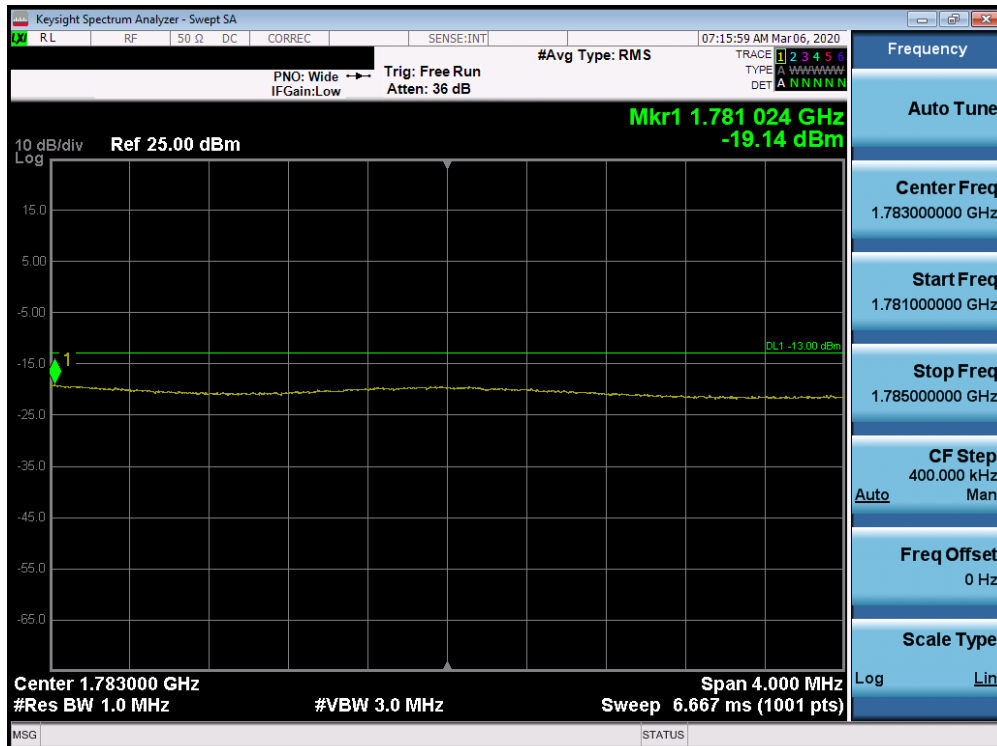


Plot 7-124. Upper Extended Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 82 of 146

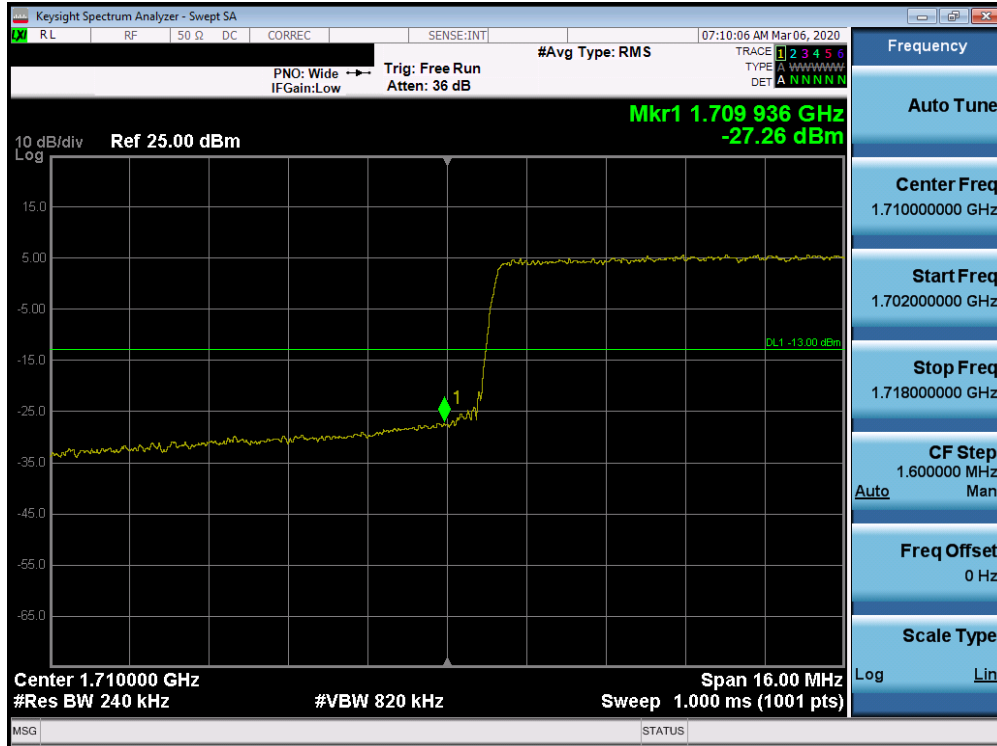


Plot 7-125. Upper Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

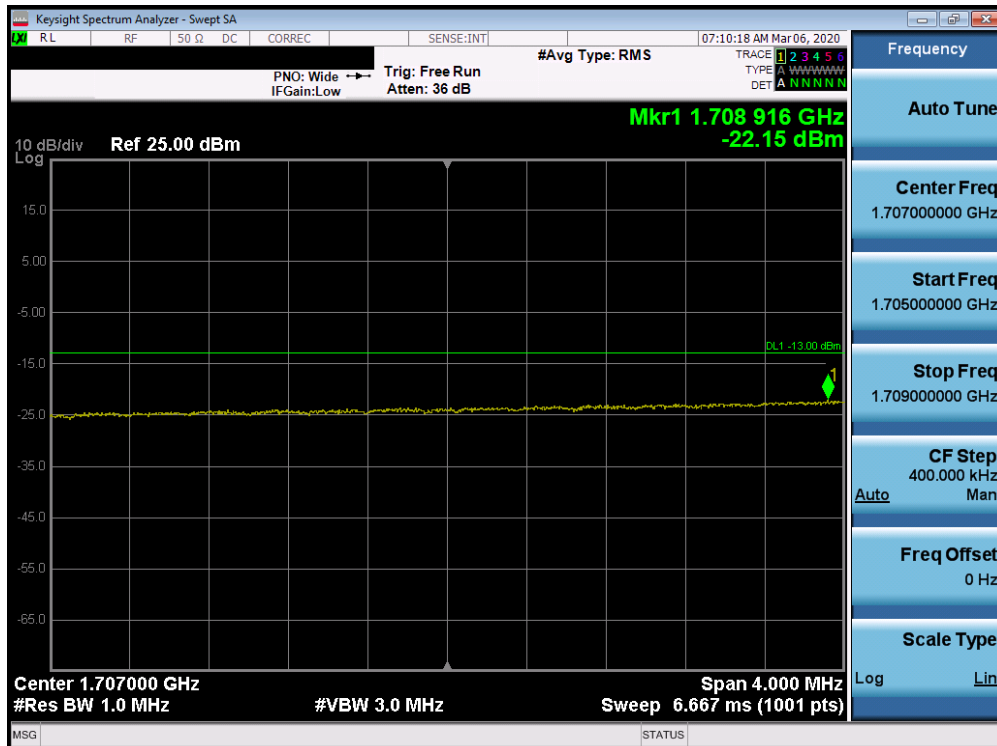


Plot 7-126. Upper Extended Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 83 of 146

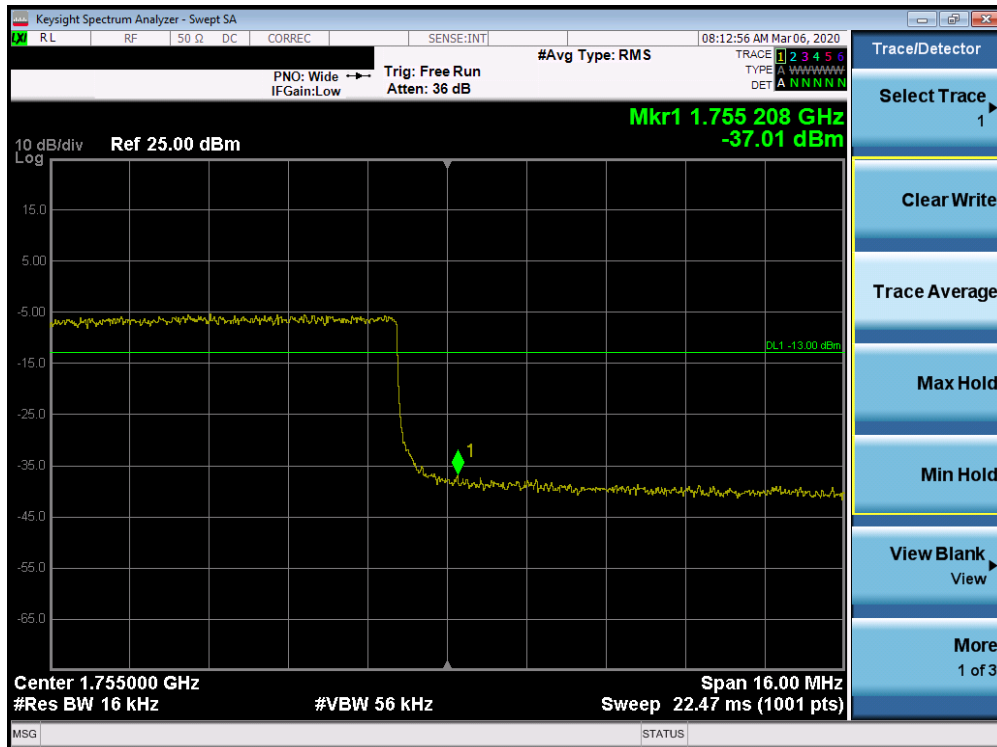


Plot 7-127. Lower Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

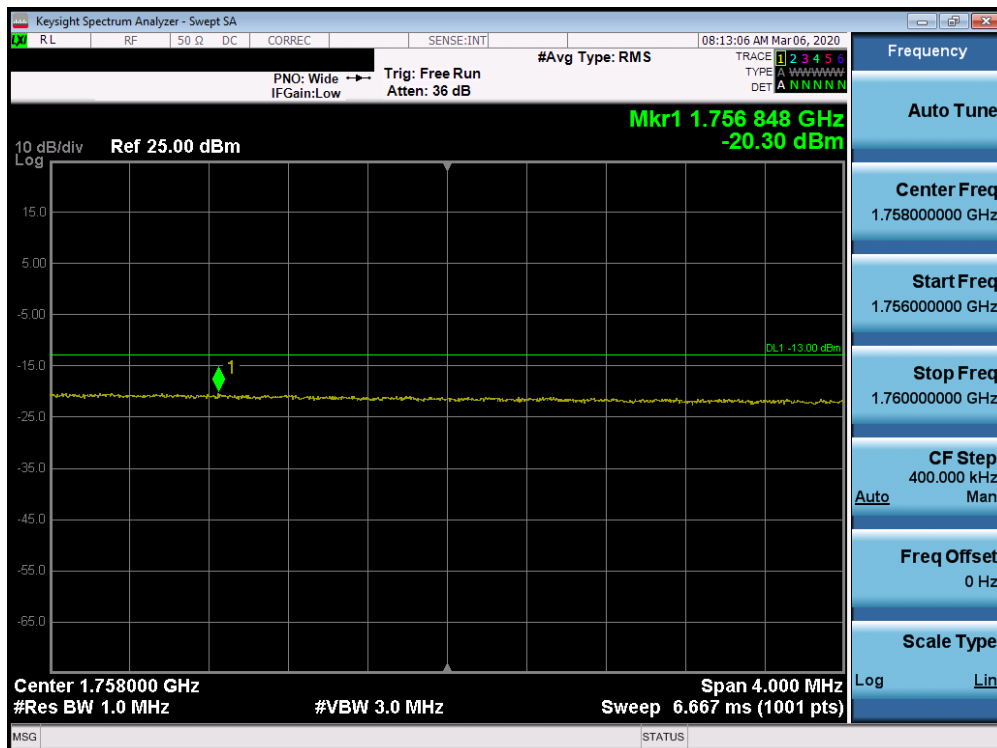


Plot 7-128. Lower Extended Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 84 of 146

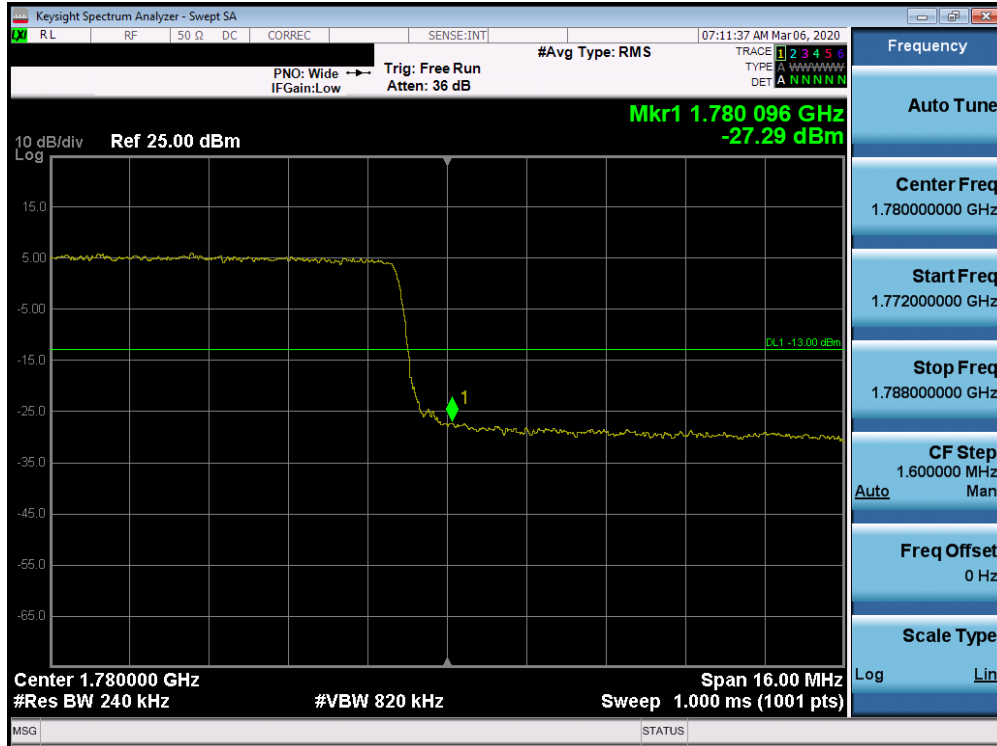


Plot 7-129. Upper Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

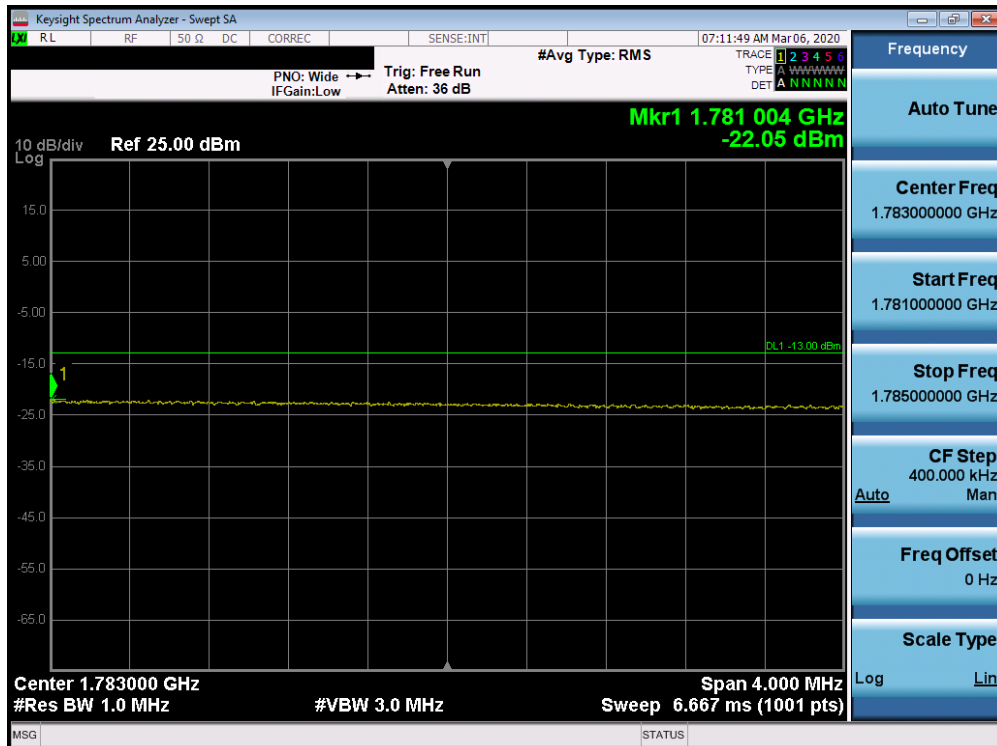


Plot 7-130. Upper Extended Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 85 of 146



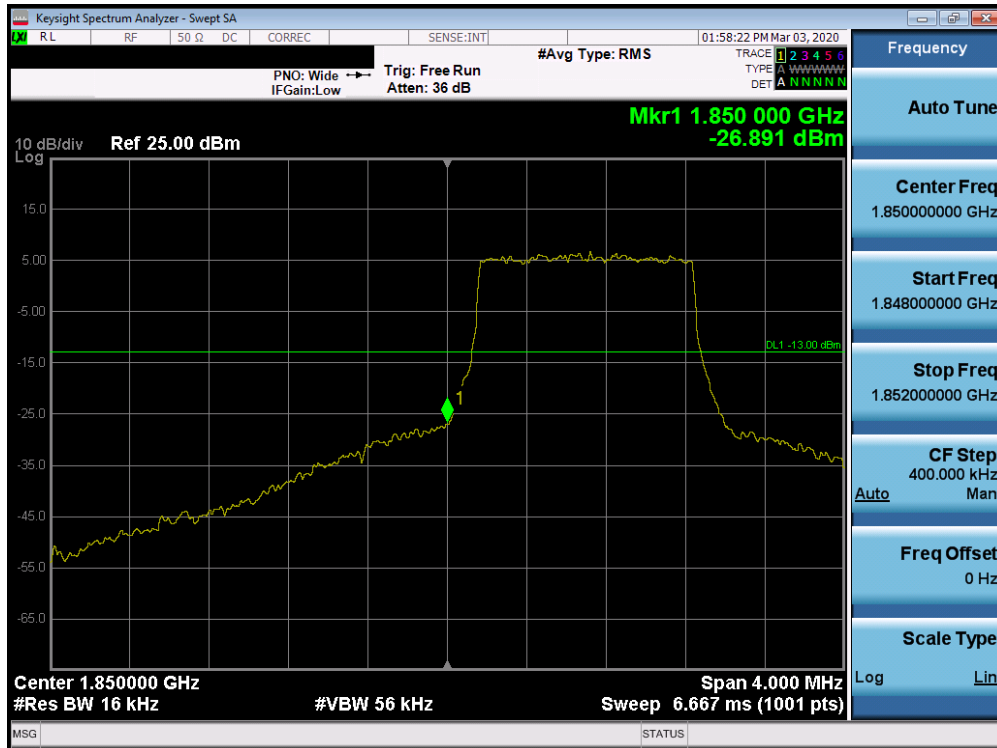
Plot 7-131. Upper Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)



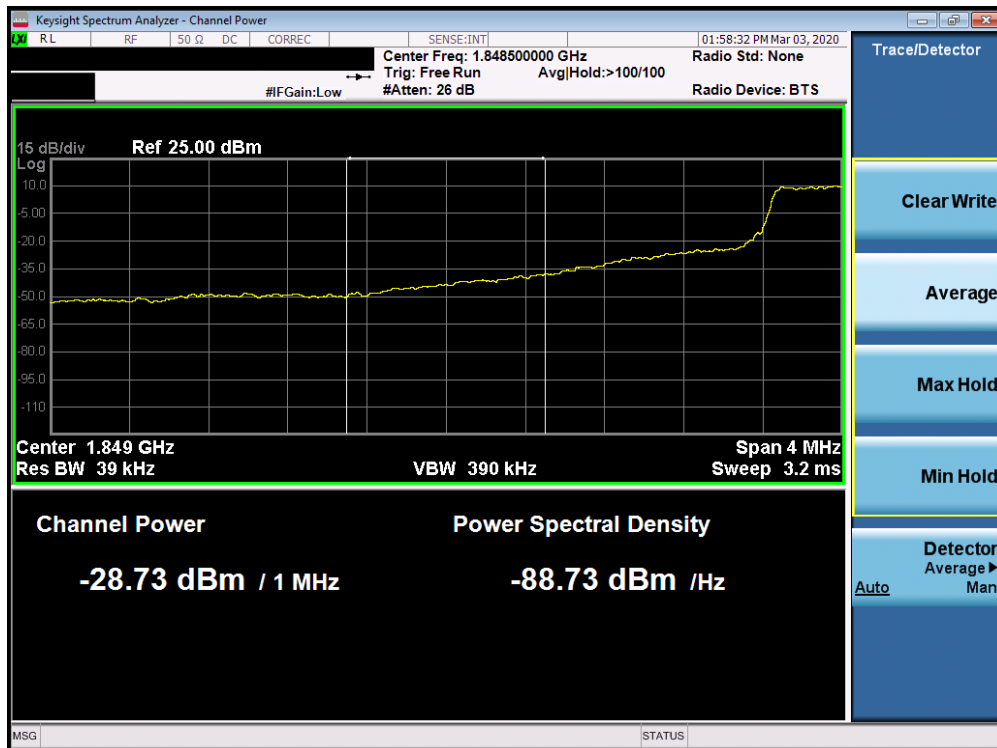
Plot 7-132. Upper Extended Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 86 of 146

**Band 2**



**Plot 7-133. Lower Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)**



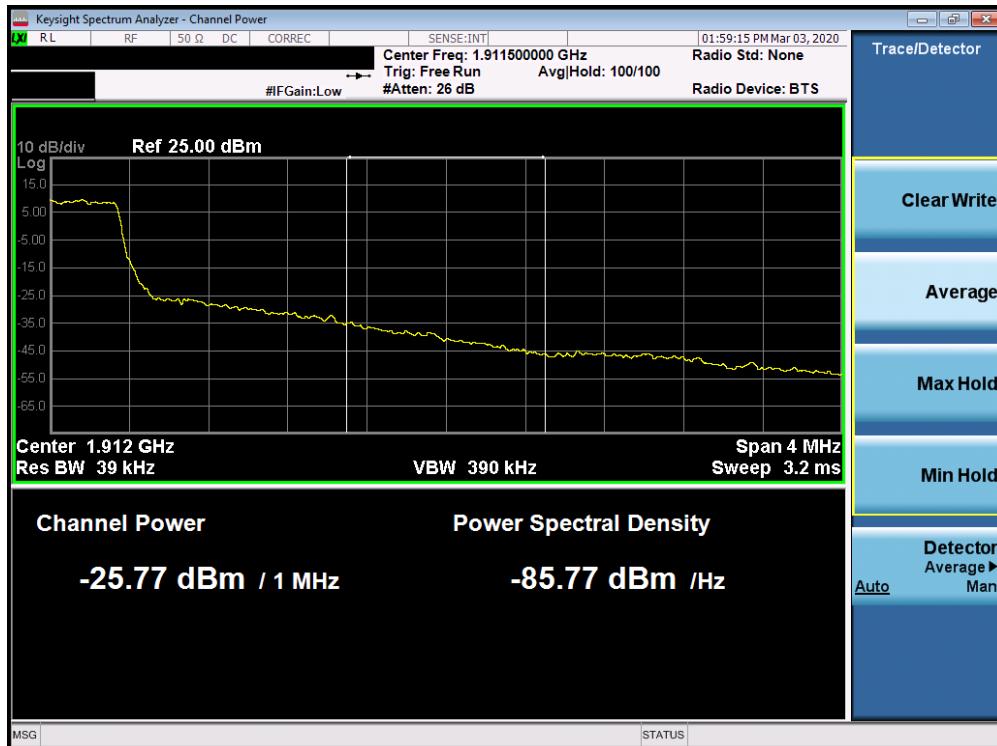
**Plot 7-134. Lower Extended Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)**

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 87 of 146



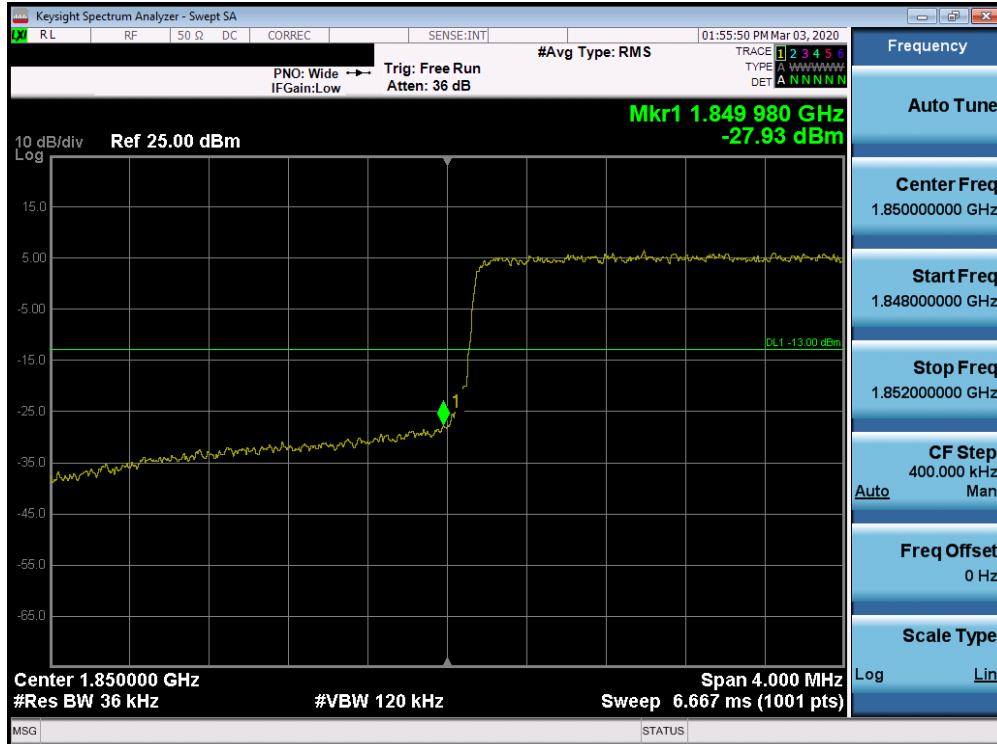


Plot 7-135. Upper Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

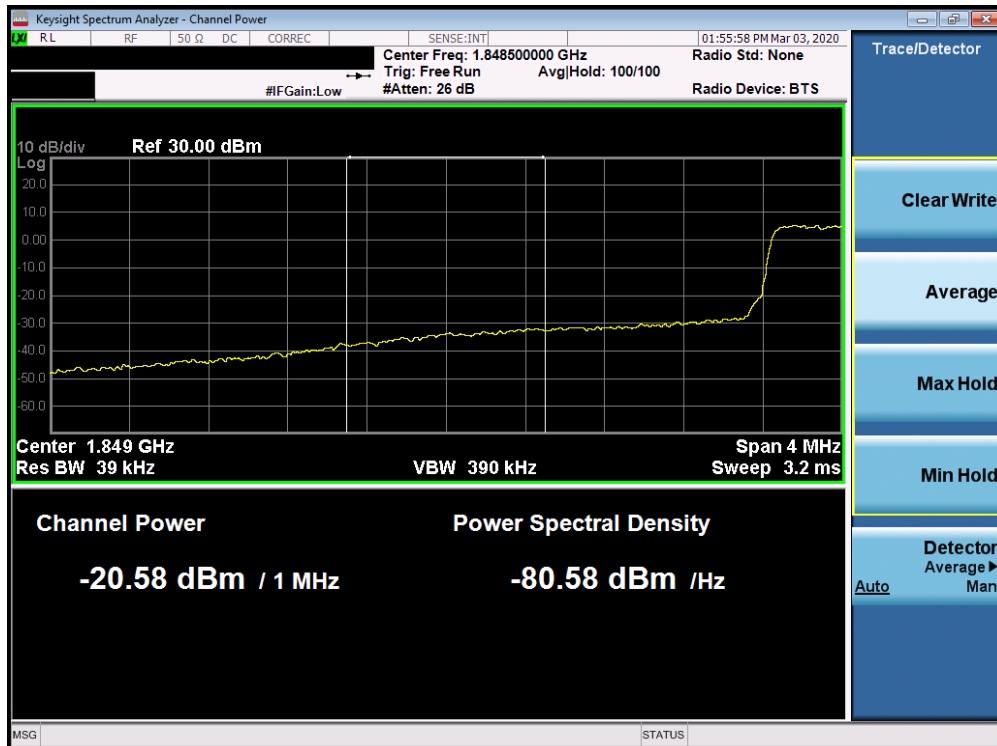


Plot 7-136. Upper Extended Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 88 of 146

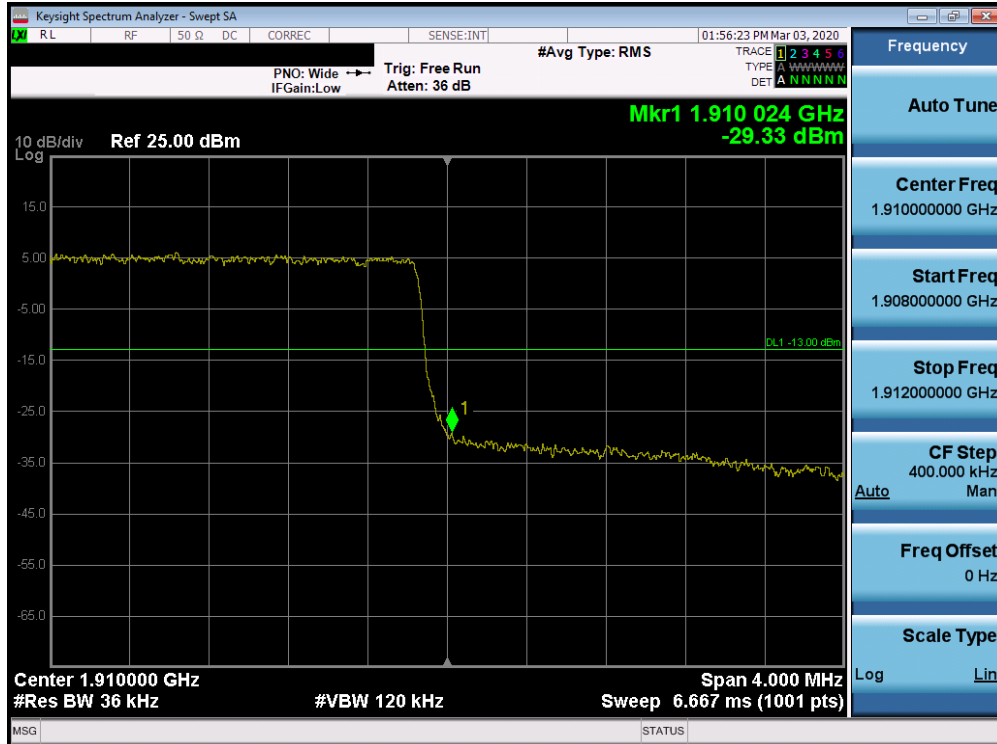


Plot 7-137. Lower Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

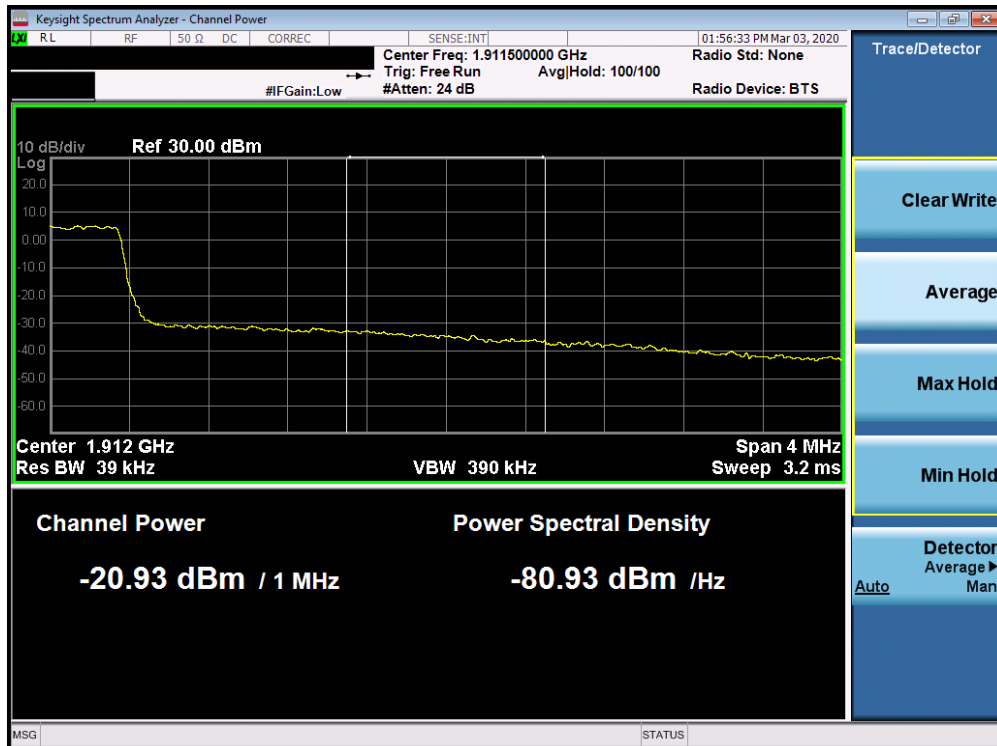


Plot 7-138. Lower Extended Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 89 of 146

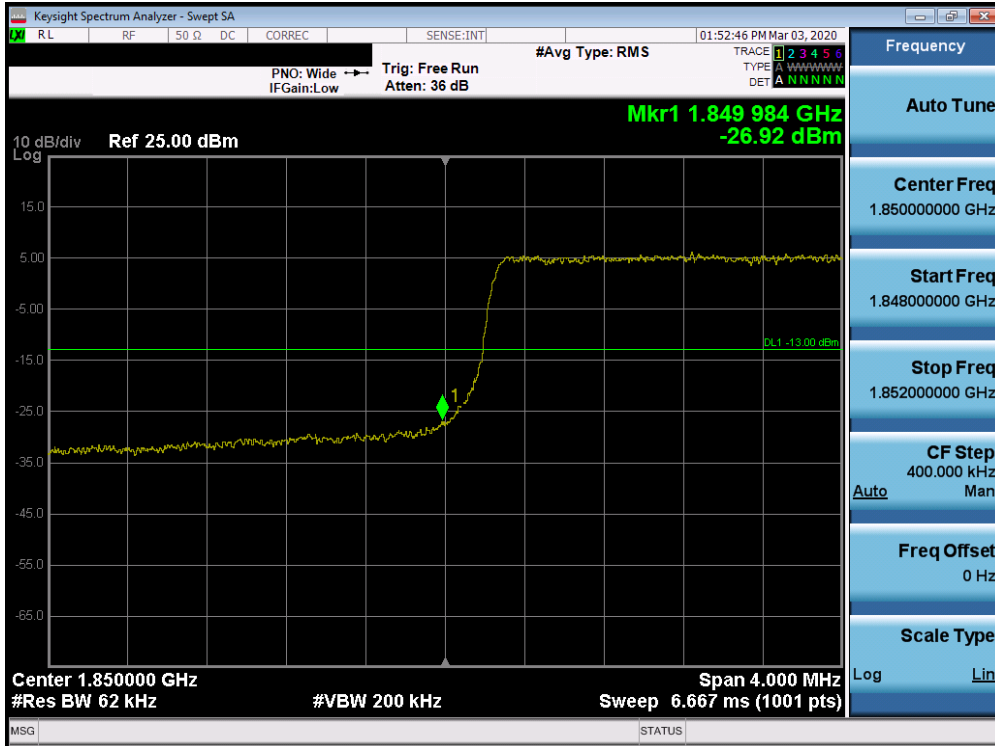


Plot 7-139. Upper Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

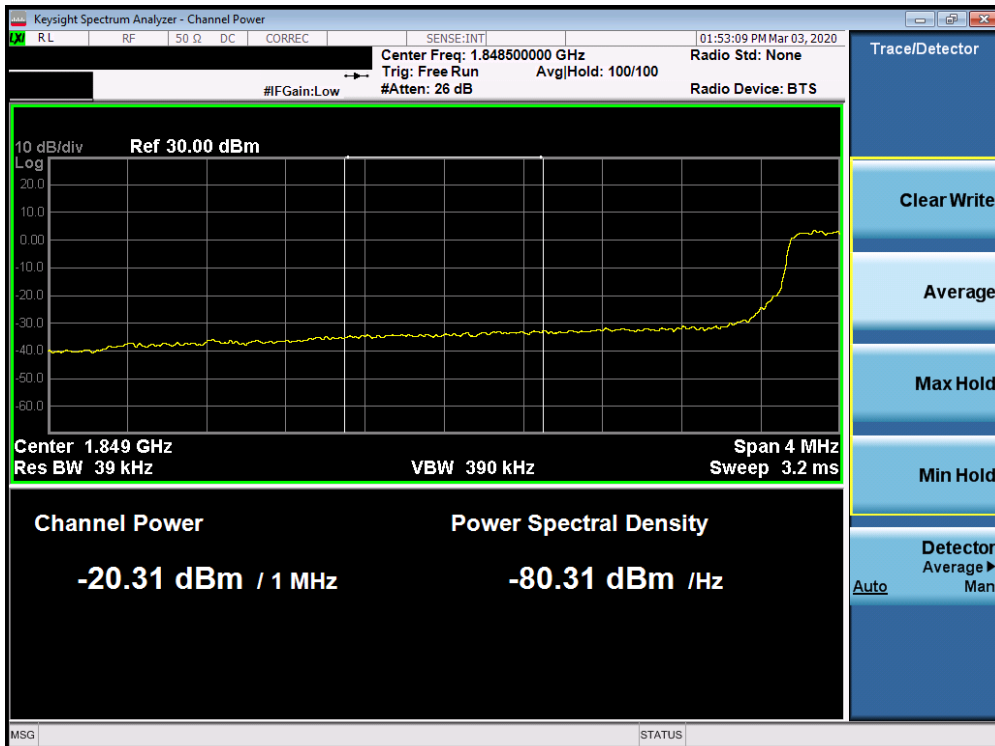


Plot 7-140. Upper Extended Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 90 of 146

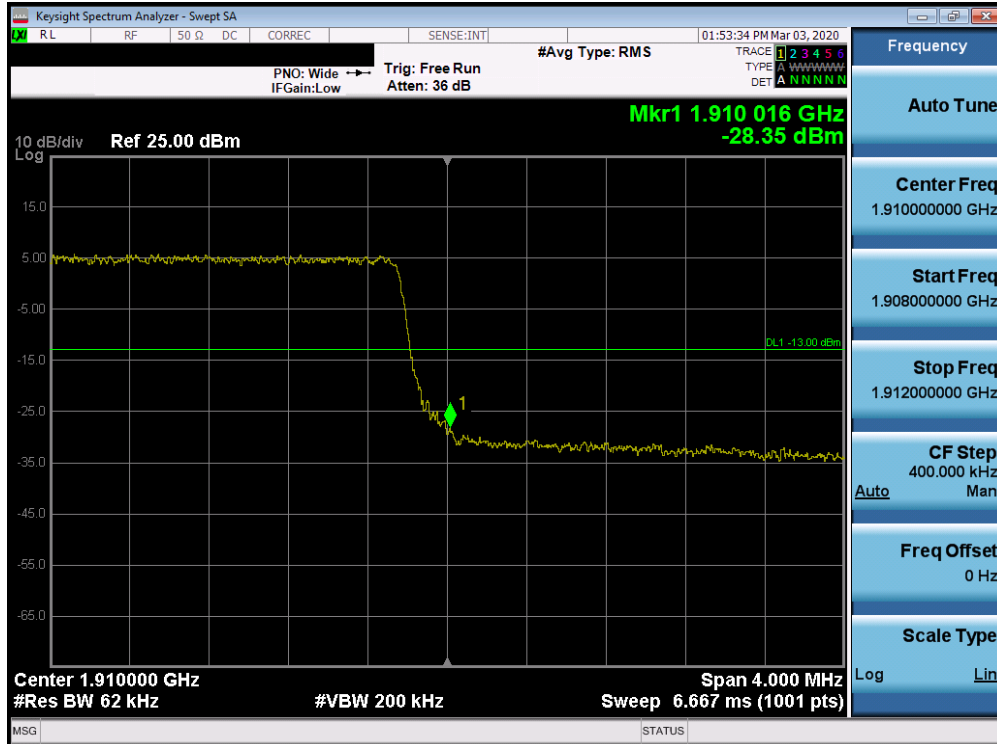


Plot 7-141. Lower Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

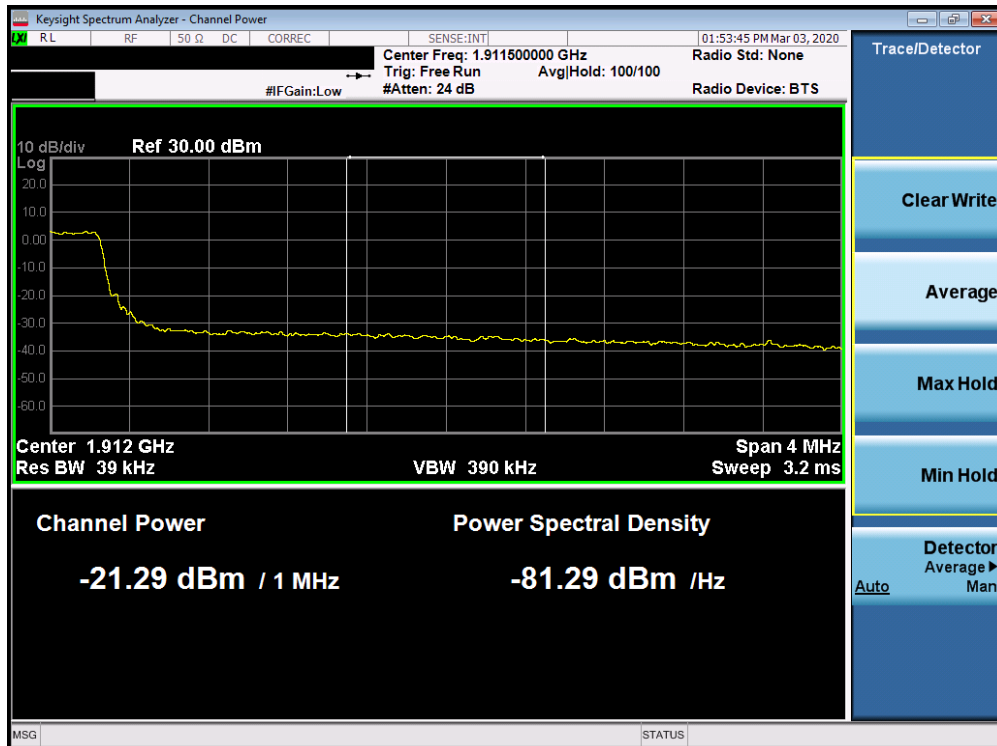


Plot 7-142. Lower Extended Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 91 of 146

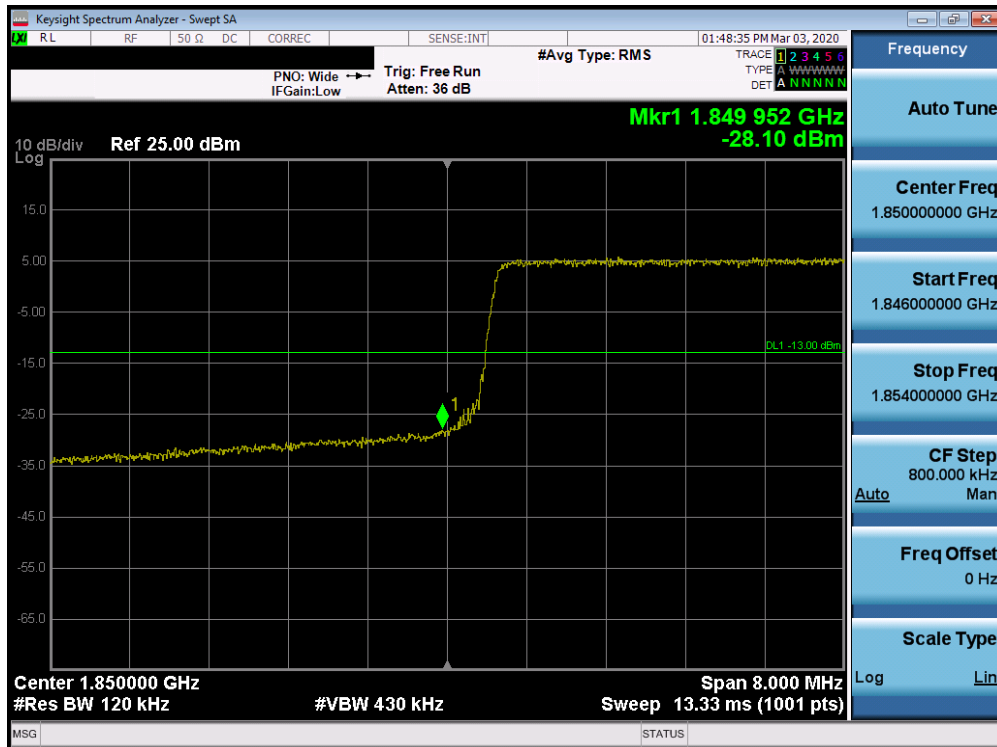


Plot 7-143. Upper Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

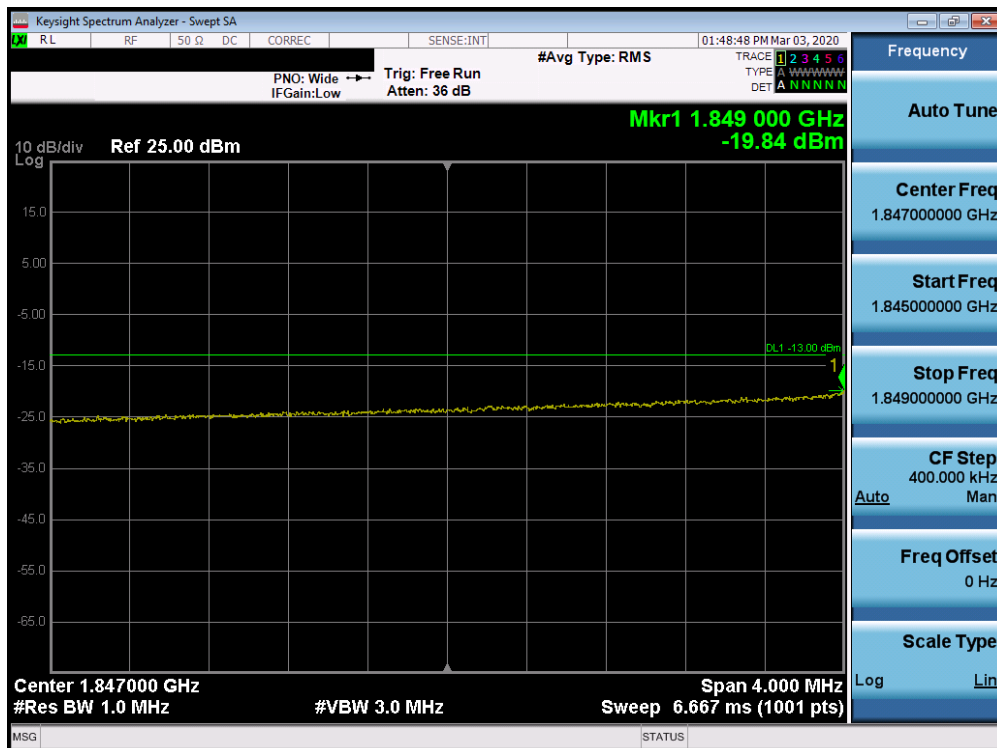


Plot 7-144. Upper Extended Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 92 of 146



Plot 7-145. Lower Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

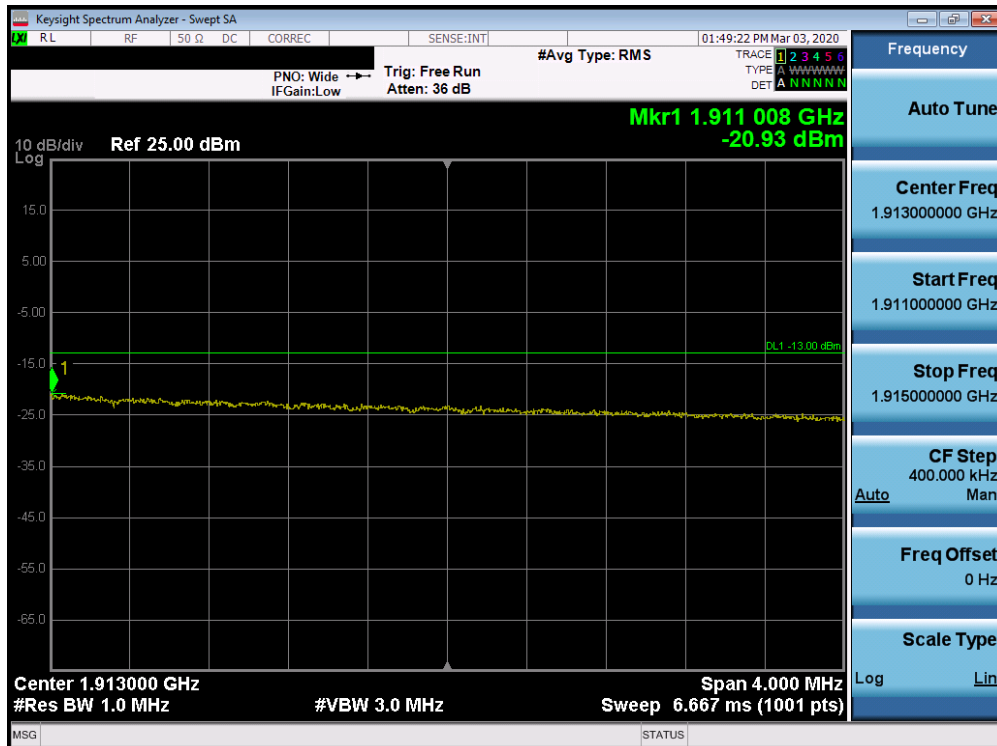


Plot 7-146. Lower Extended Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>LG</b>	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 93 of 146

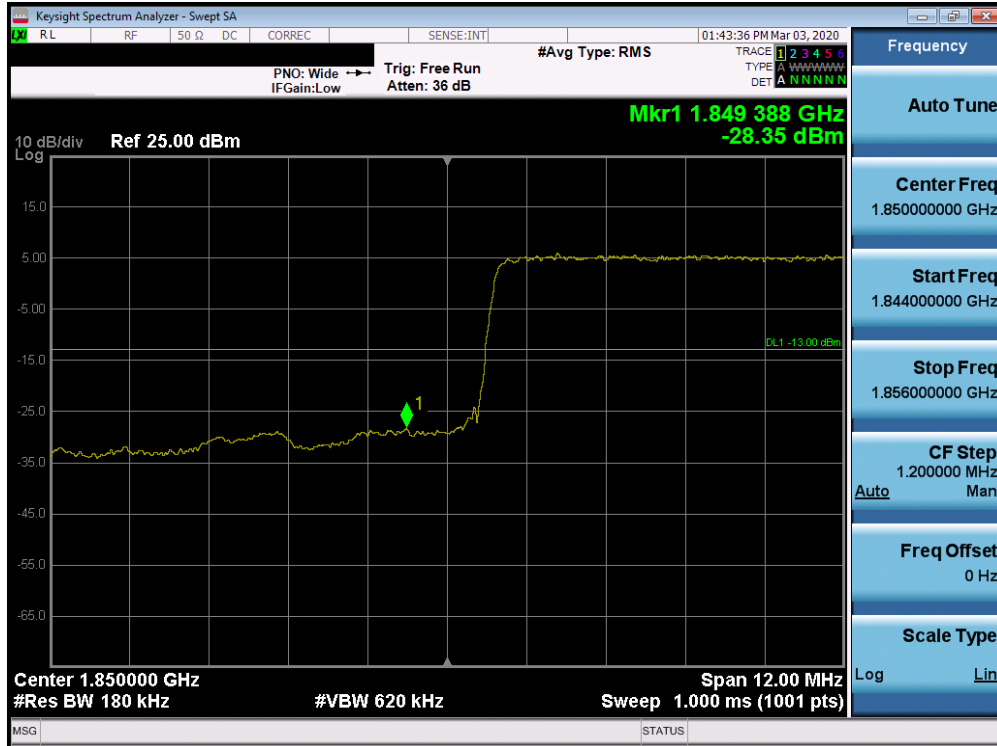


Plot 7-147. Upper Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

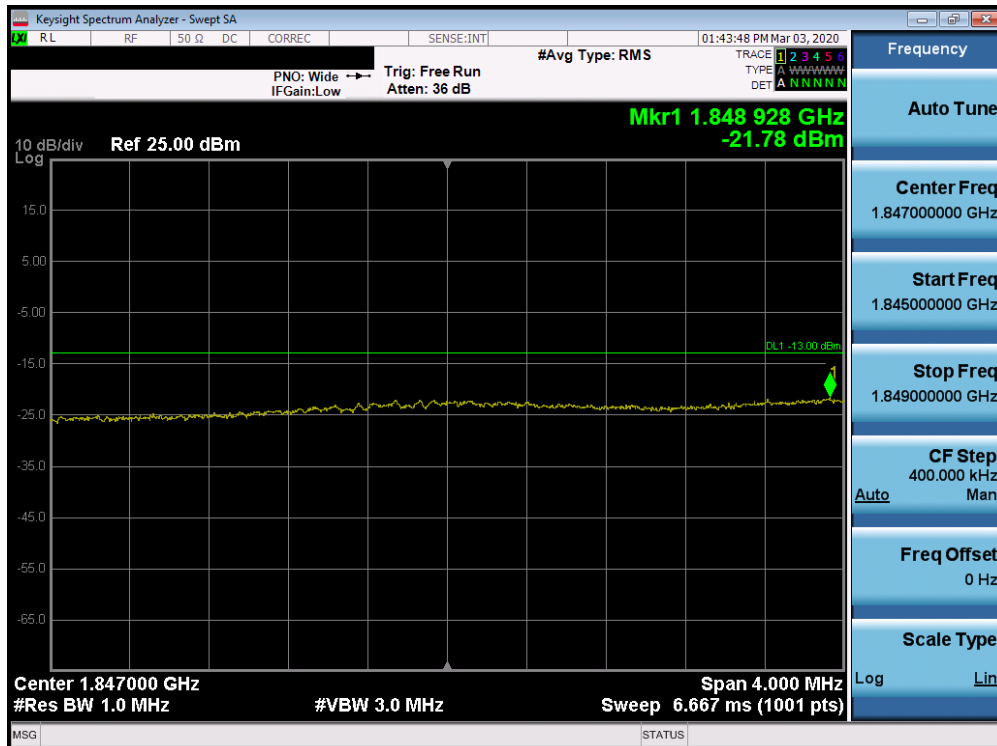


Plot 7-148. Upper Extended Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 94 of 146



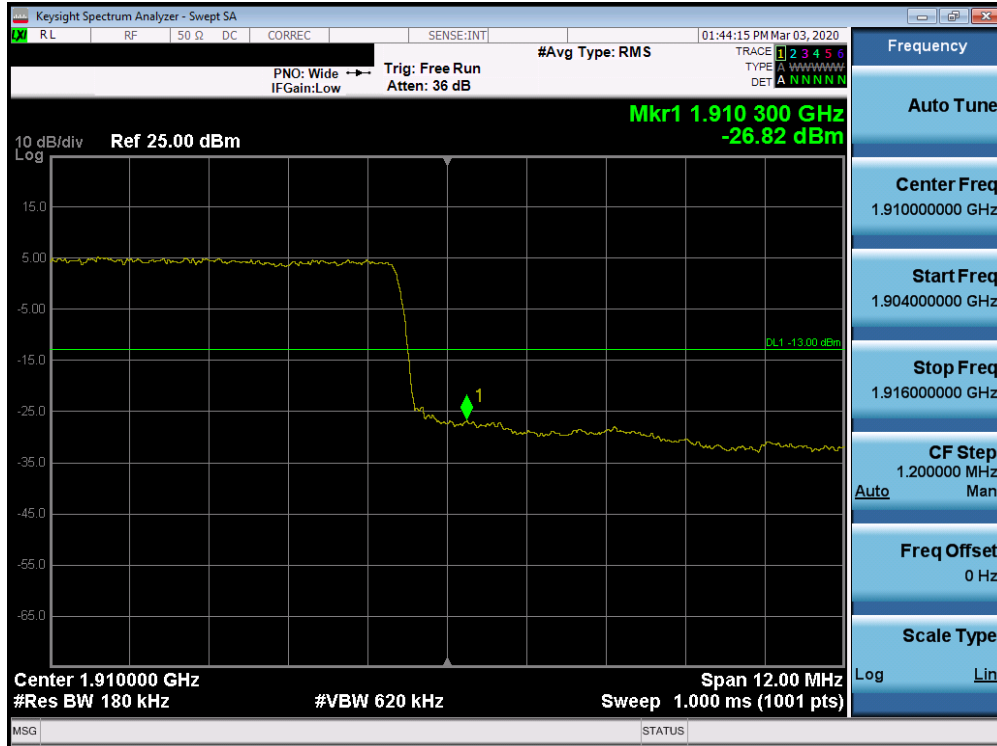
Plot 7-149. Lower Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)



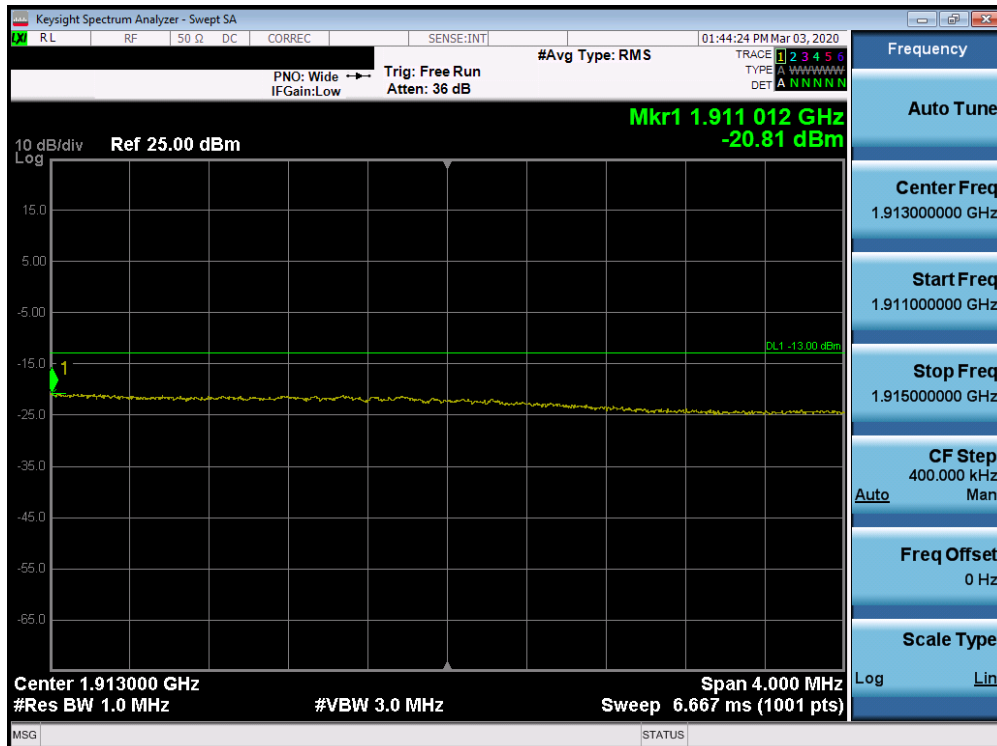
Plot 7-150. Lower Extended Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 95 of 146



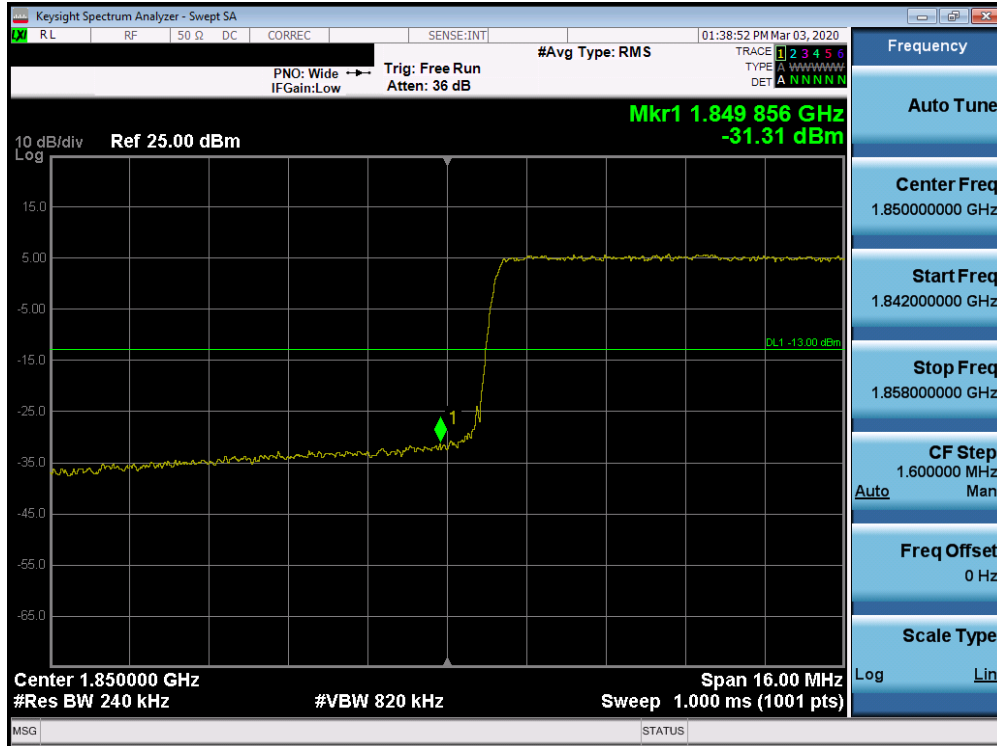


Plot 7-151. Upper Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)

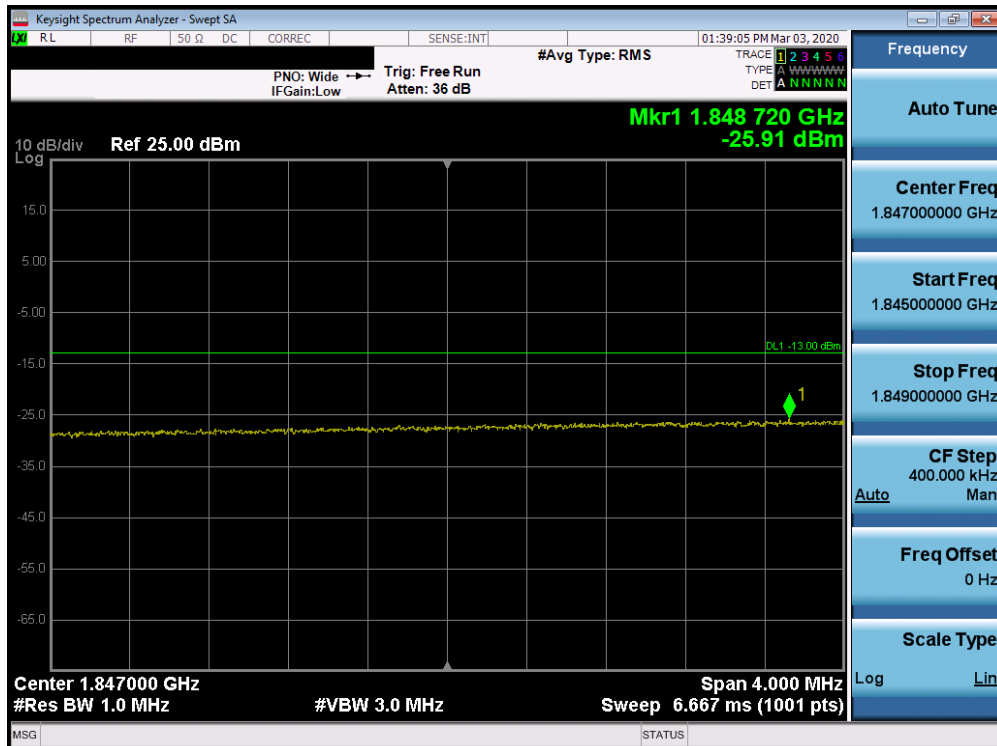


Plot 7-152. Upper Extended Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 96 of 146

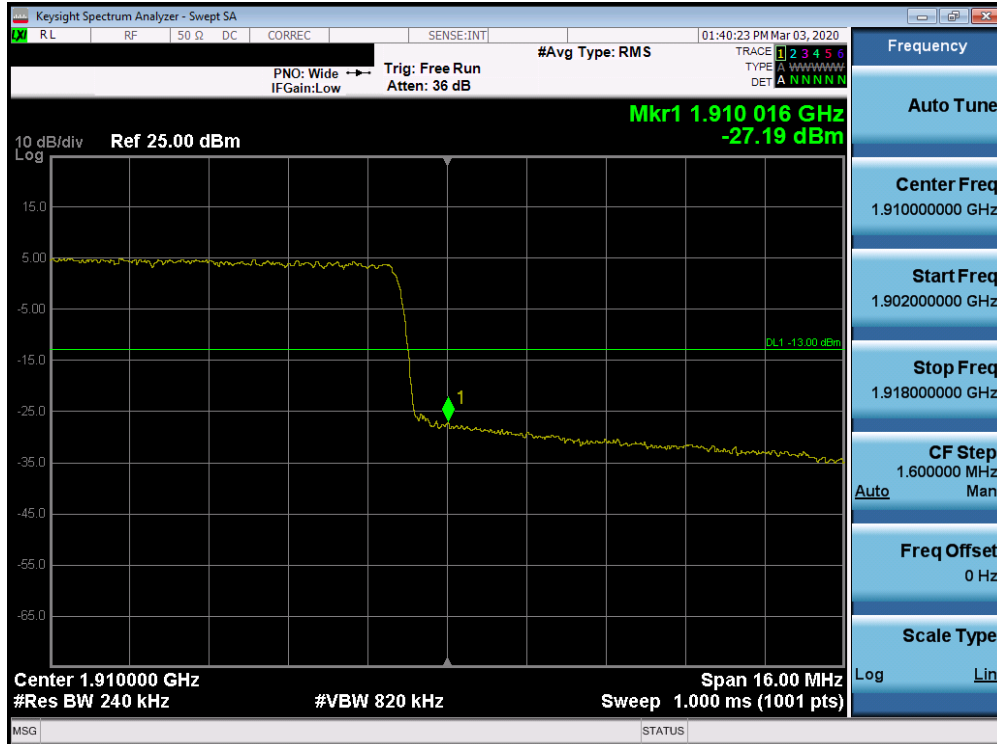


Plot 7-153. Lower Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)

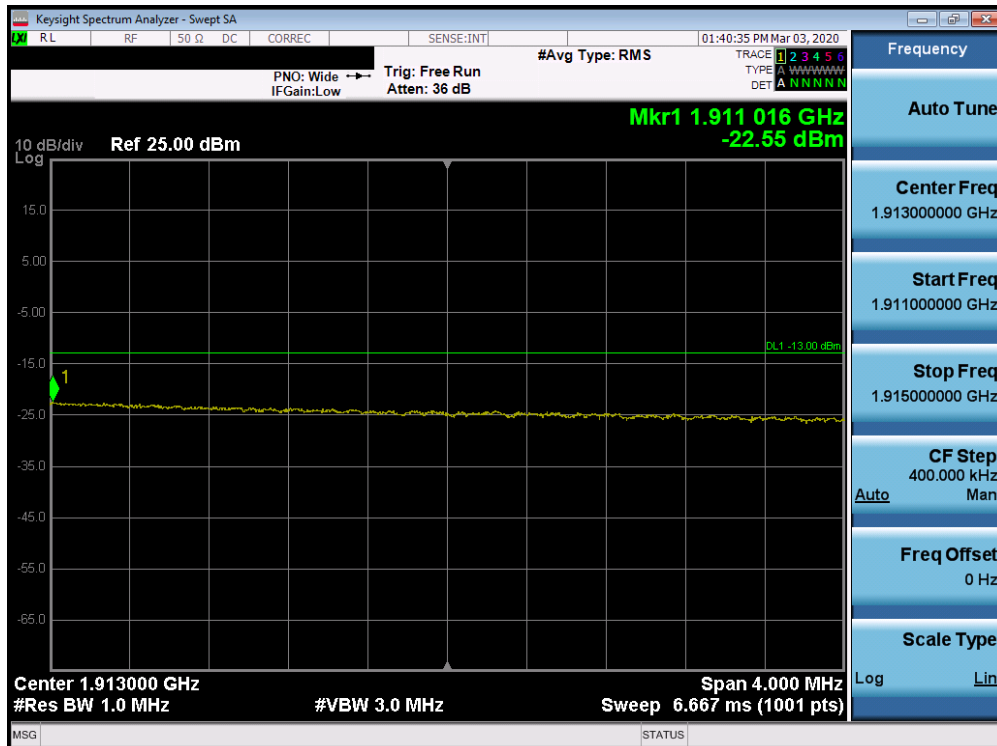


Plot 7-154. Lower Extended Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 97 of 146



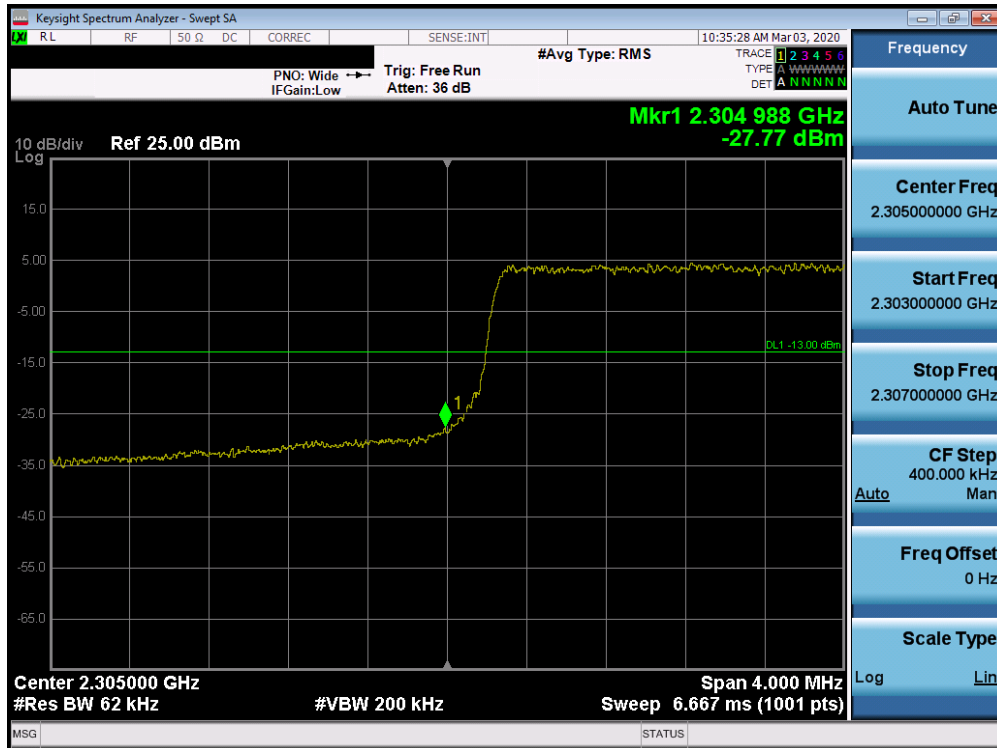
Plot 7-155. Upper Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)



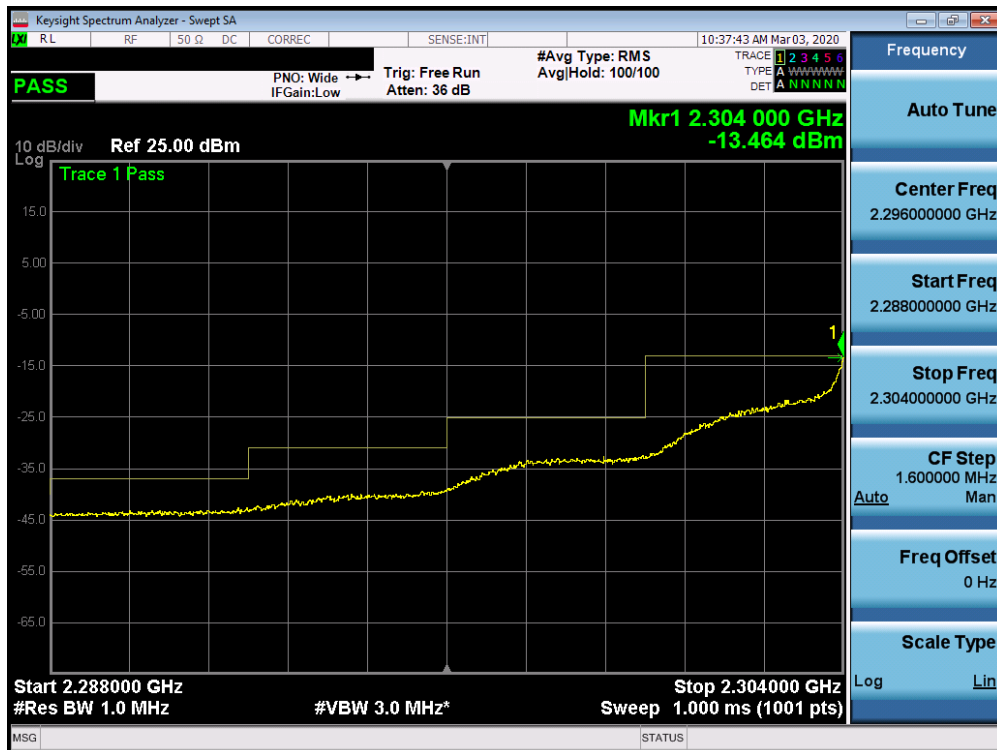
Plot 7-156. Upper Extended Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 98 of 146

### Band 30



Plot 7-157. Lower Band Edge Plot (Band 30 - 5.0MHz QPSK - Full RB Configuration)

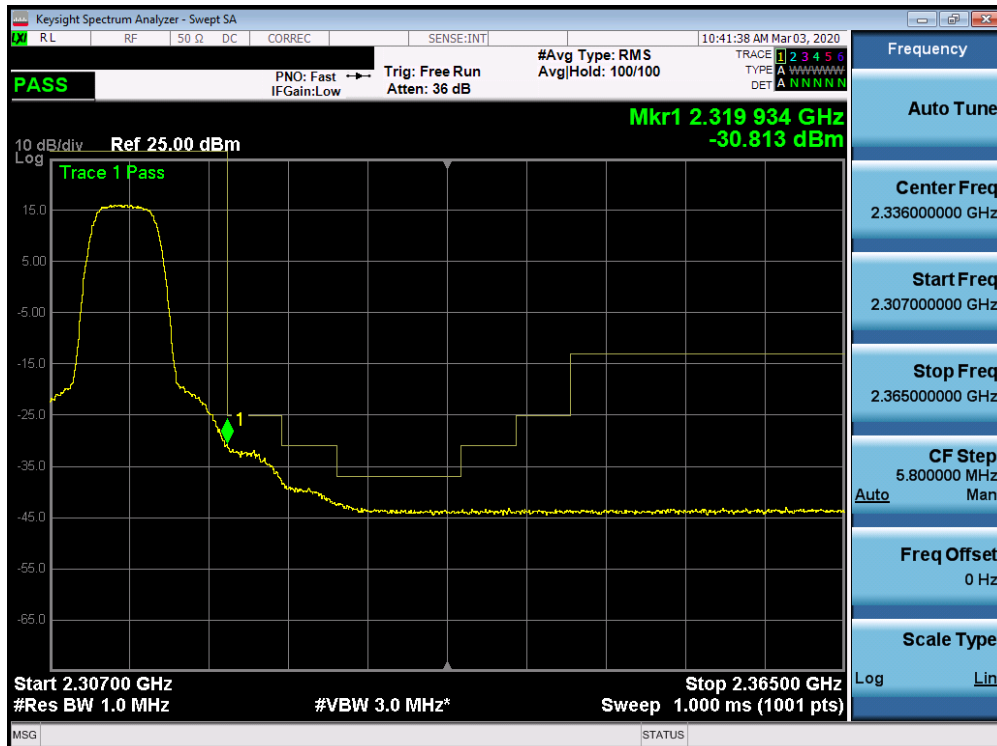


Plot 7-158. Lower Extended Band Edge Plot (Band 30 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 99 of 146

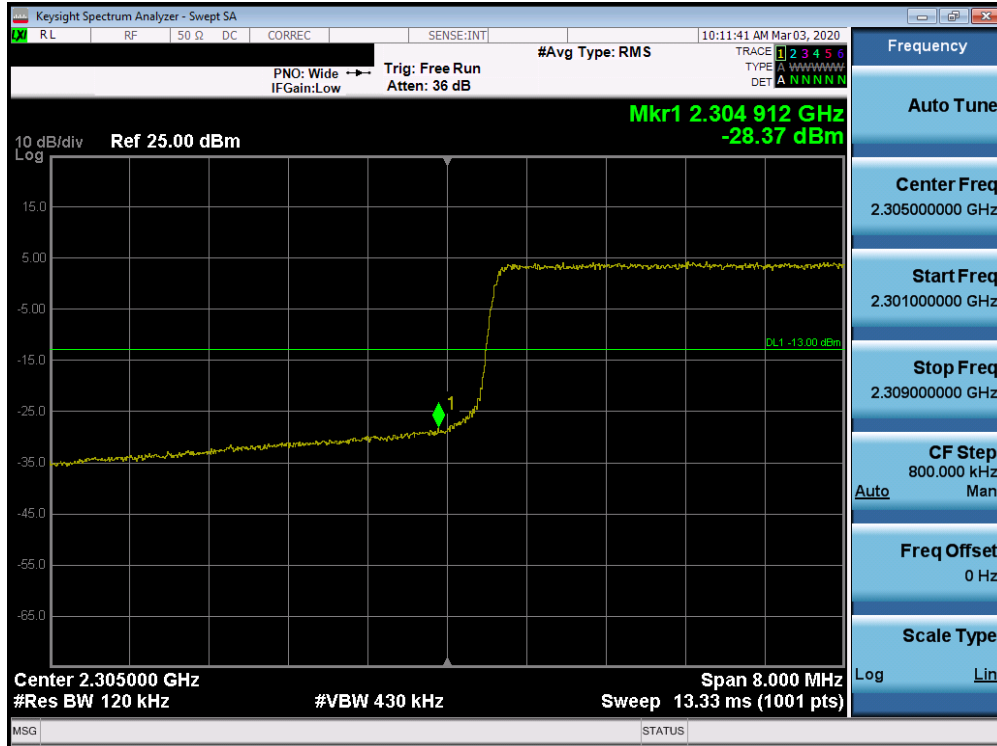


Plot 7-159. Upper Band Edge Plot (Band 30 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-160. Upper Extended Band Edge Plot (Band 30 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 100 of 146

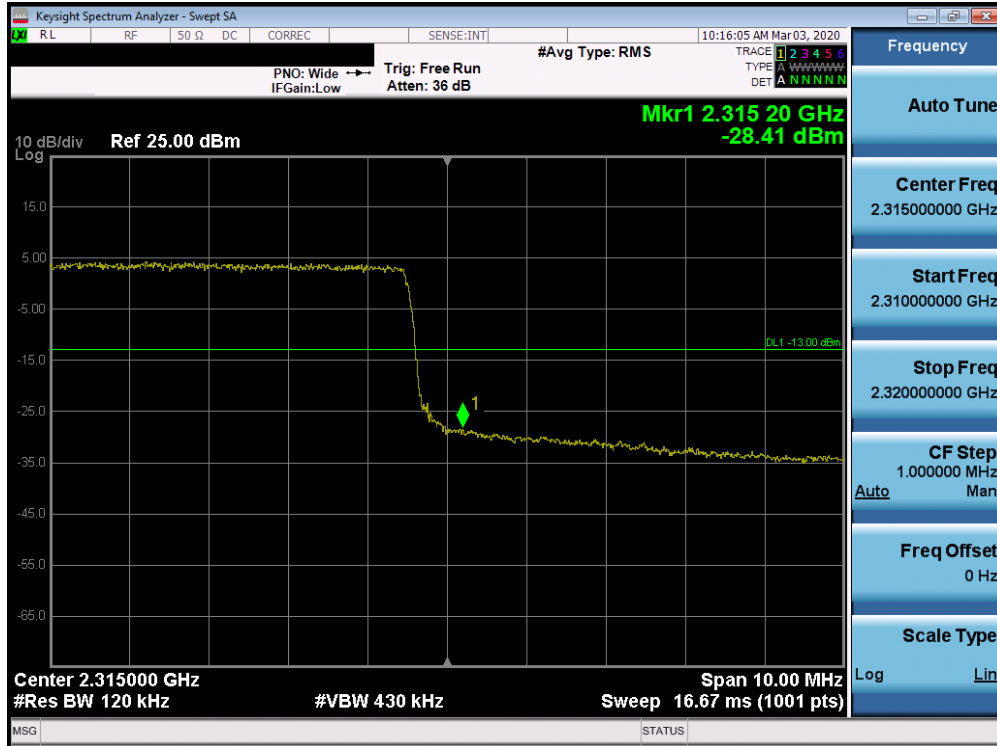


Plot 7-161. Lower Band Edge Plot (Band 30 - 10.0MHz QPSK - Full RB Configuration)

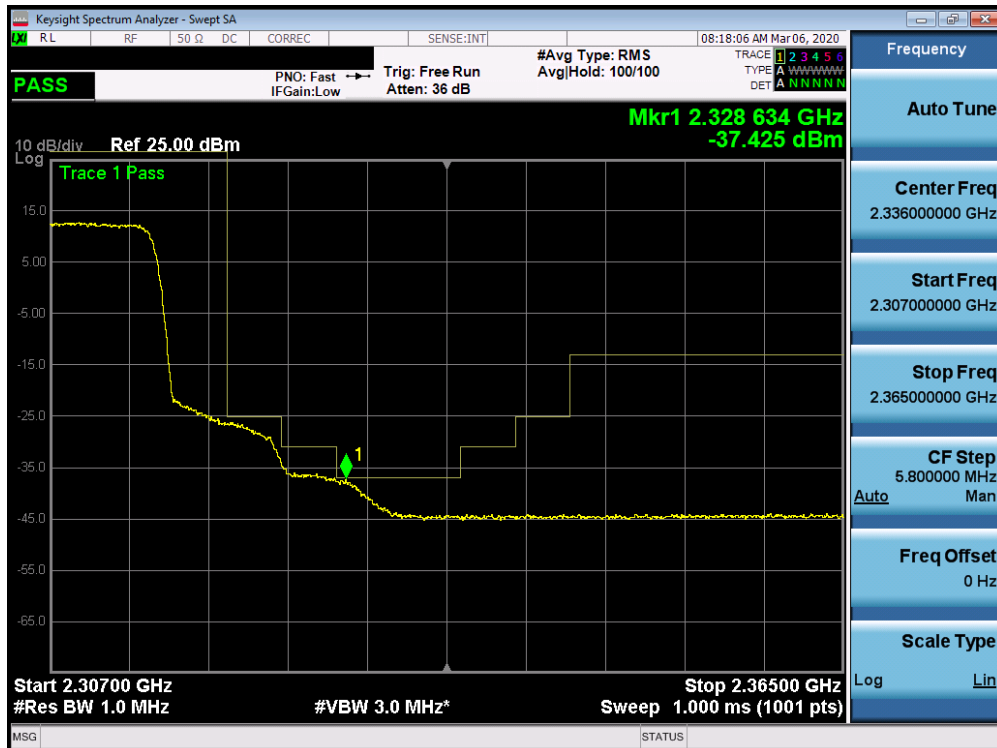


Plot 7-162. Lower Extended Band Edge Plot (Band 30 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 101 of 146



Plot 7-163. Upper Band Edge Plot (Band 30 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-164. Upper Extended Band Edge Plot (Band 30 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFK400AM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 102 of 146

## 7.5 Peak-Average Ratio

### Test Overview

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

### Test Procedure Used

KDB 971168 D01 v03r01 – Section 5.7.1

### Test Settings

1. The signal analyzer's CCDF measurement profile is enabled
2. Frequency = carrier center frequency
3. Measurement BW  $\geq$  OBW or specified reference bandwidth
4. The signal analyzer was set to collect one million samples to generate the CCDF curve
5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms.

### Test Setup

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

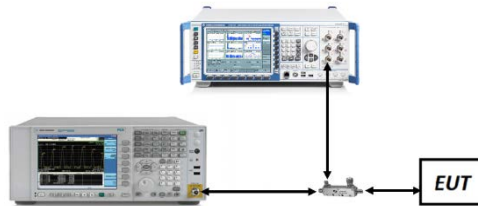


Figure 7-4. Test Instrument & Measurement Setup

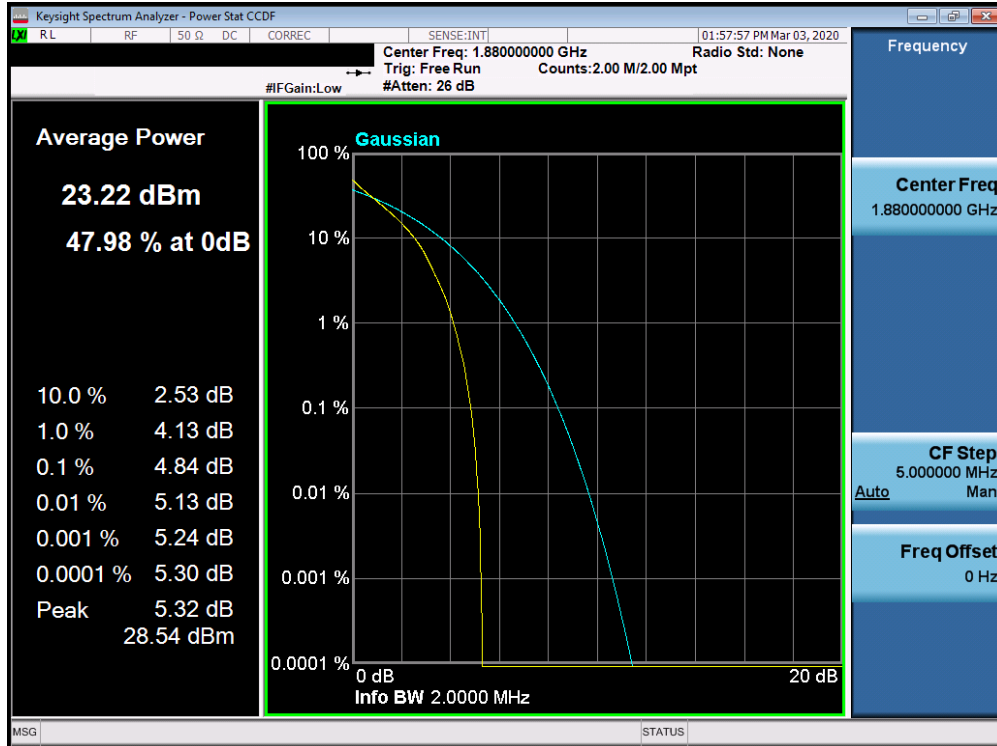
### Test Notes

None.

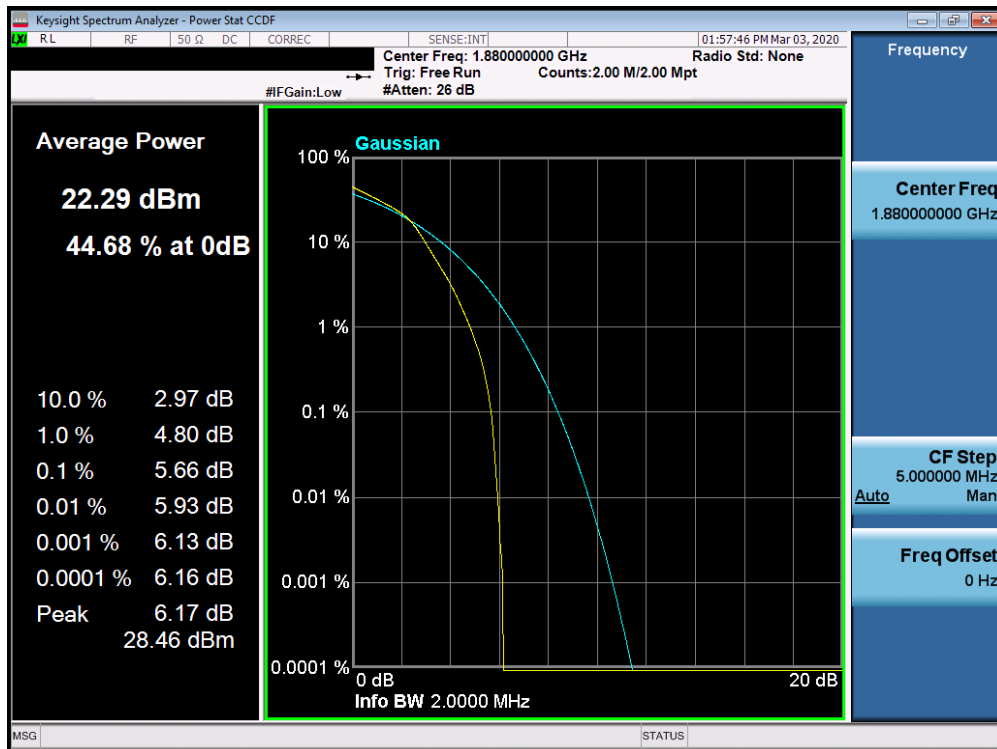
FCC ID: ZNFK400AM	 PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	 LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 103 of 146



**Band 2**

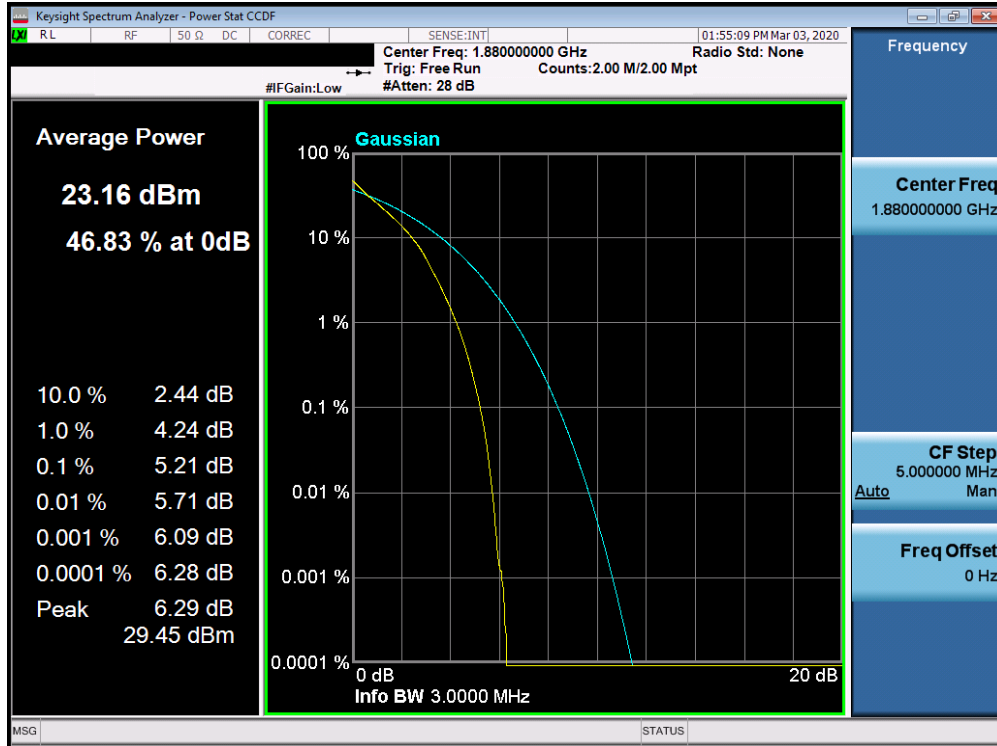


**Plot 7-165. PAR Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)**

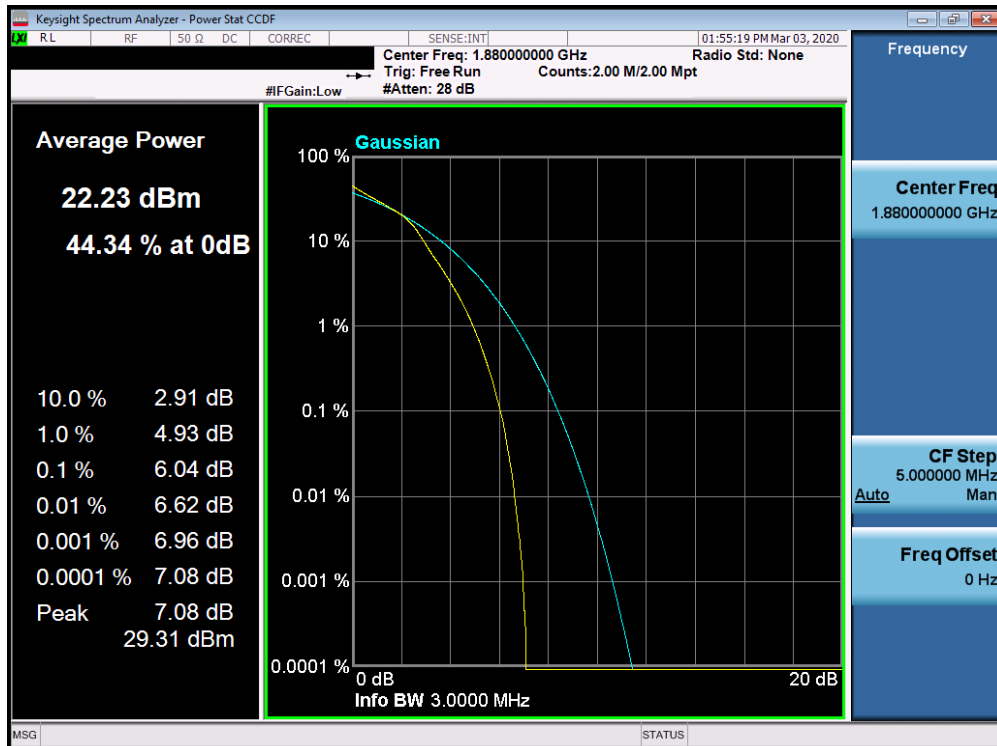


**Plot 7-166. PAR Plot (Band 2 - 1.4MHz 16-QAM - Full RB Configuration)**

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 104 of 146

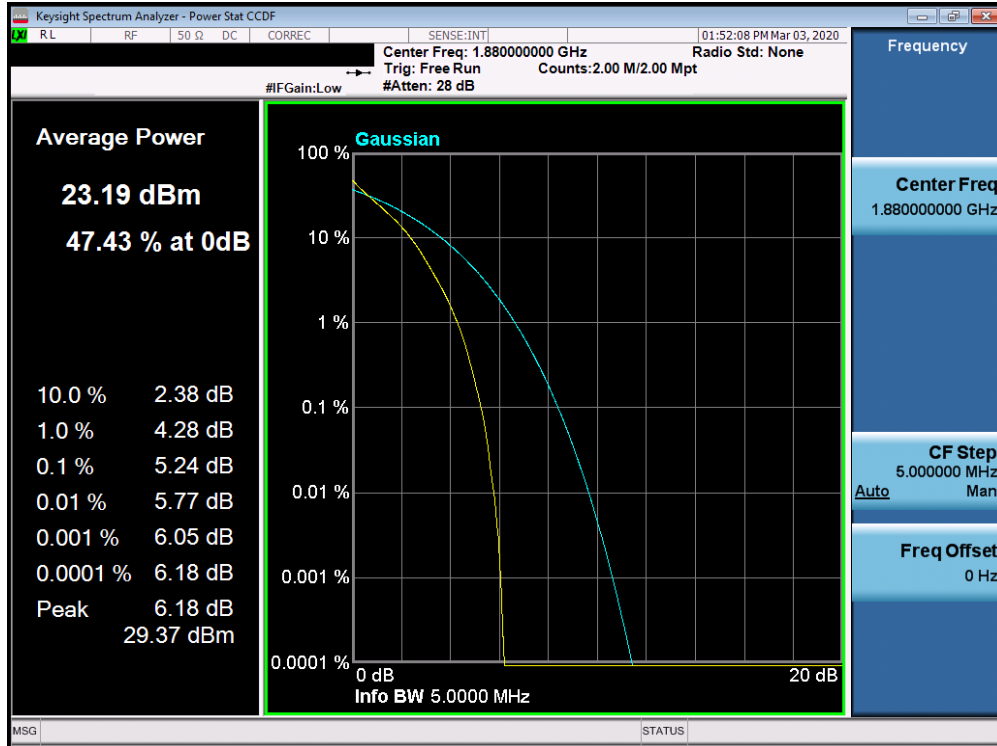


Plot 7-167. PAR Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

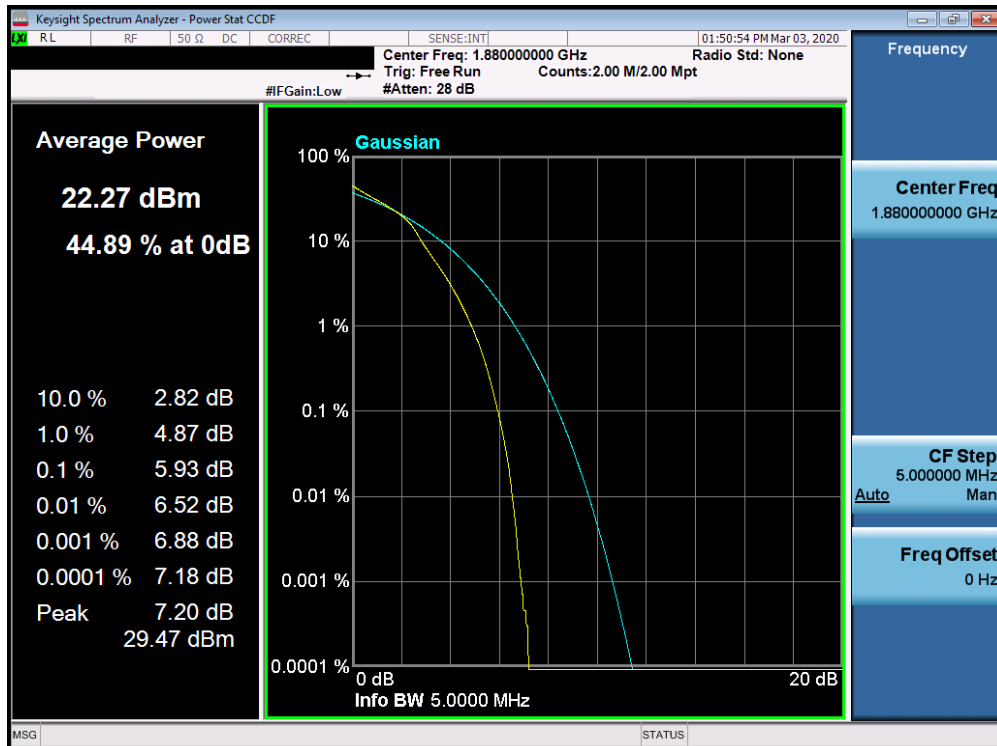


Plot 7-168. PAR Plot (Band 2 - 3.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 105 of 146

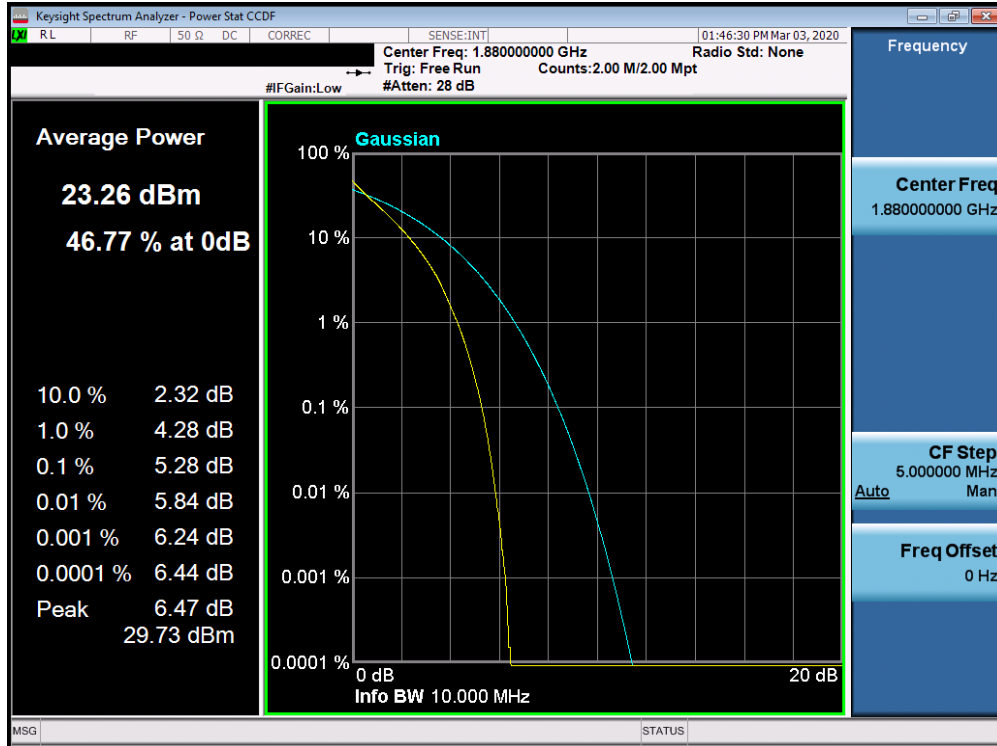


Plot 7-169. PAR Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

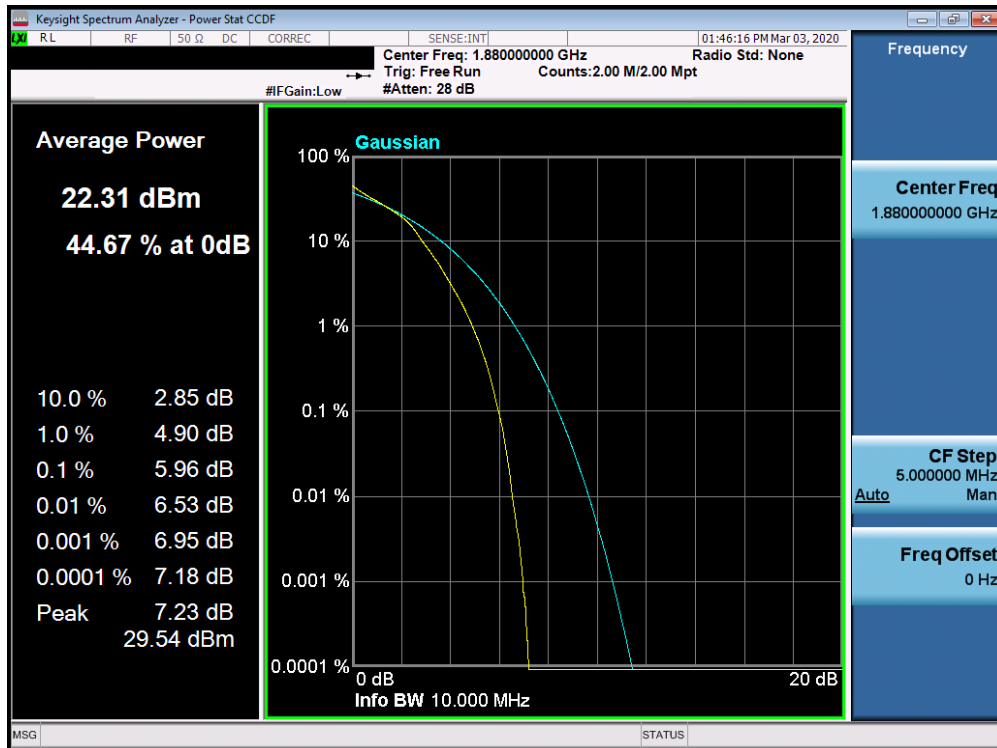


Plot 7-170. PAR Plot (Band 2 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 106 of 146

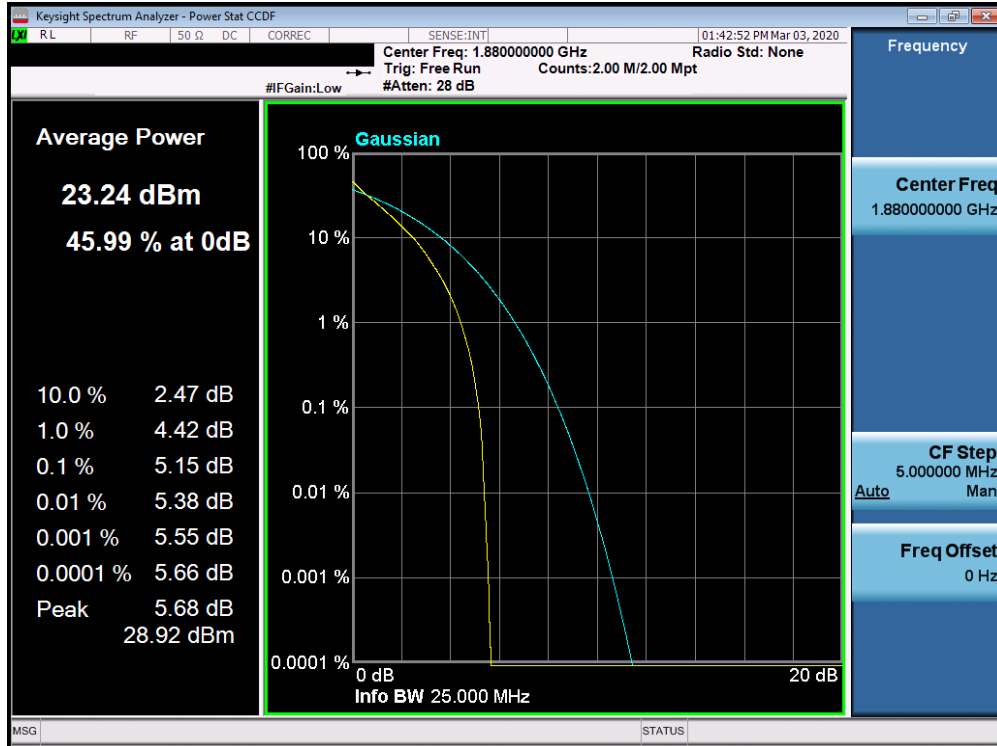


**Plot 7-171. PAR Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)**

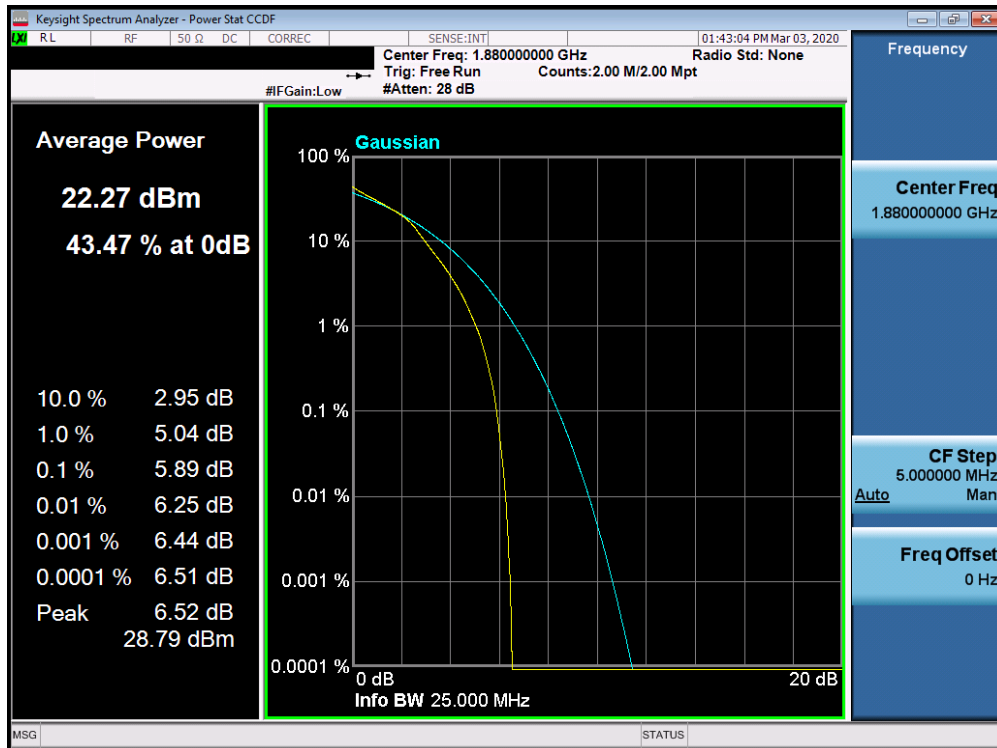


**Plot 7-172. PAR Plot (Band 2 - 10.0MHz 16-QAM - Full RB Configuration)**

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 107 of 146

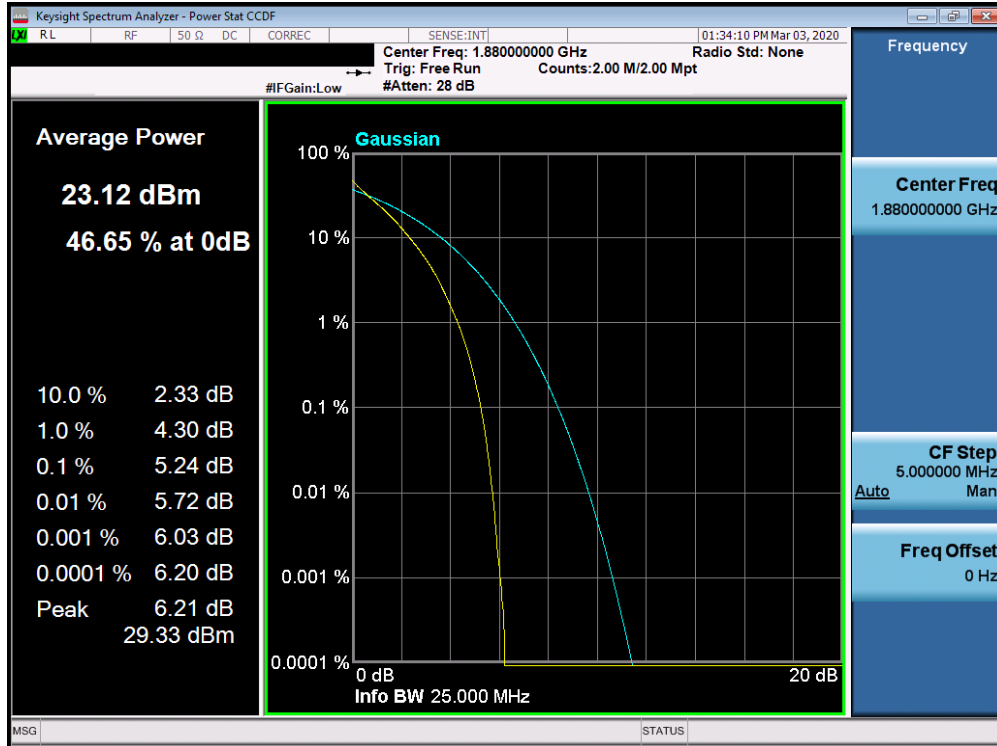


Plot 7-173. PAR Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)

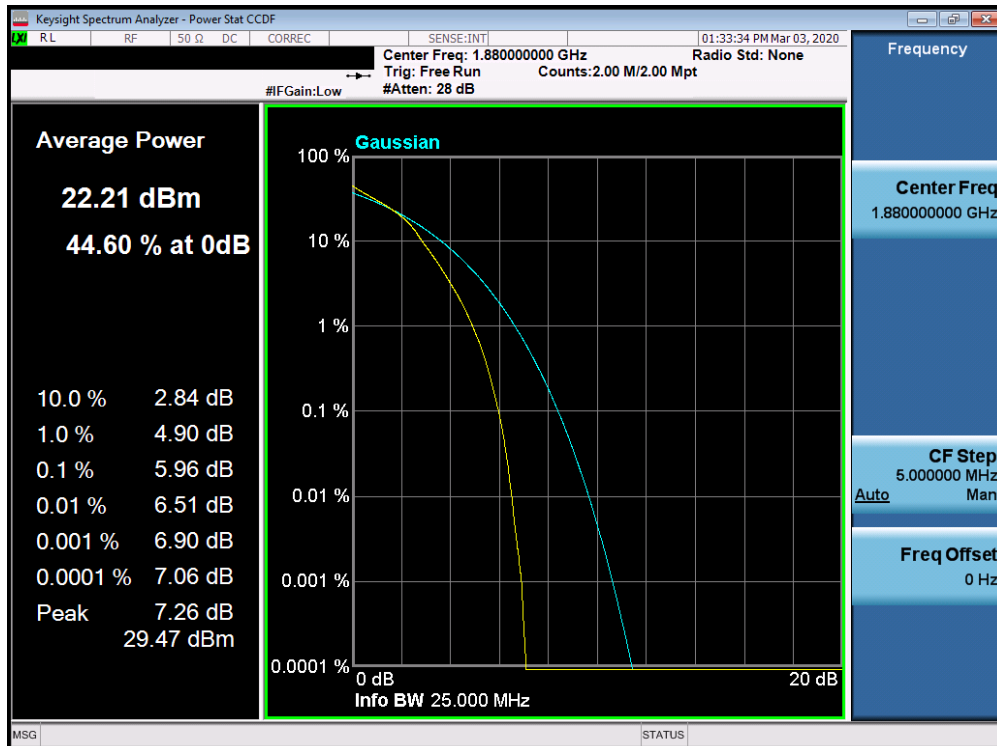


Plot 7-174. PAR Plot (Band 2 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 108 of 146



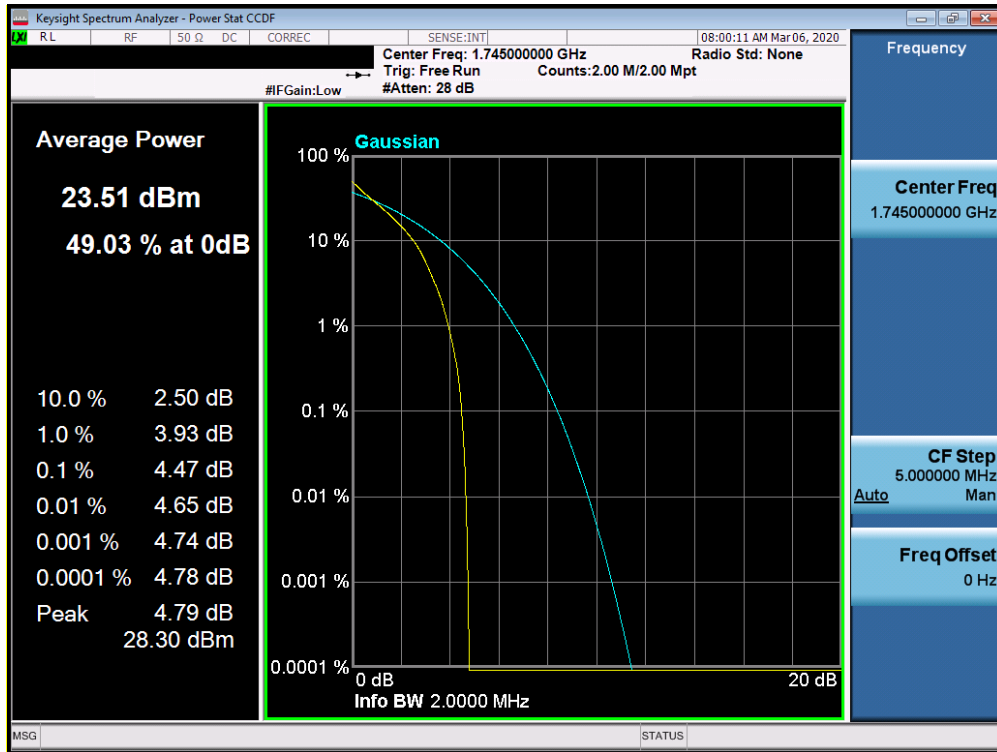
Plot 7-175. PAR Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)



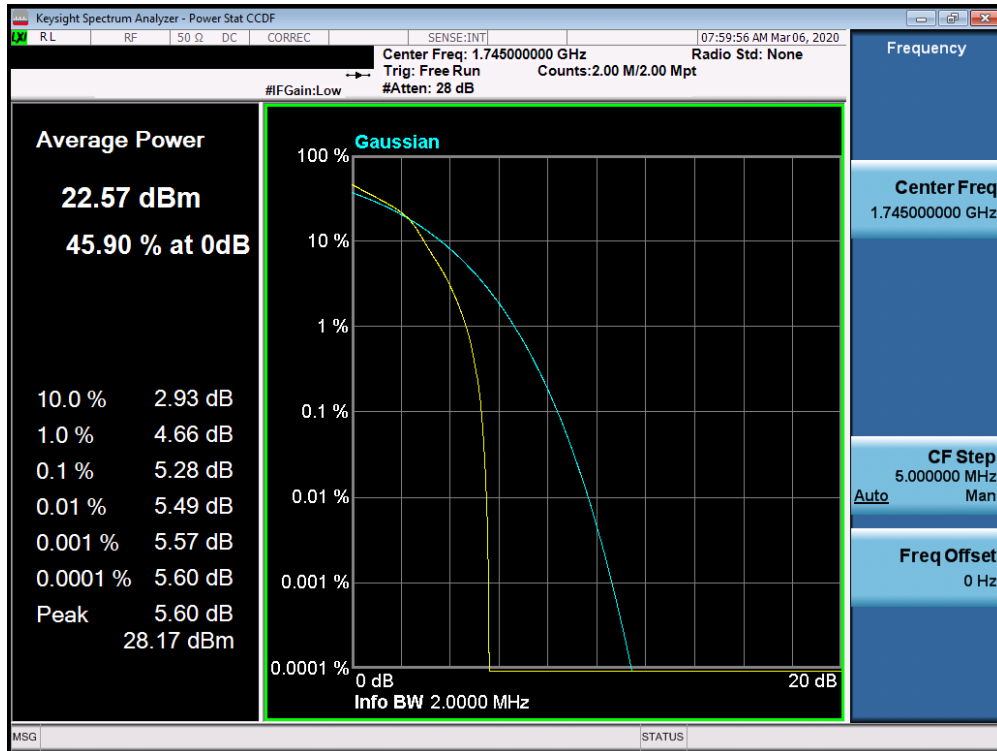
Plot 7-176. PAR Plot (Band 2 - 20.0MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 109 of 146

**Band 66/4**

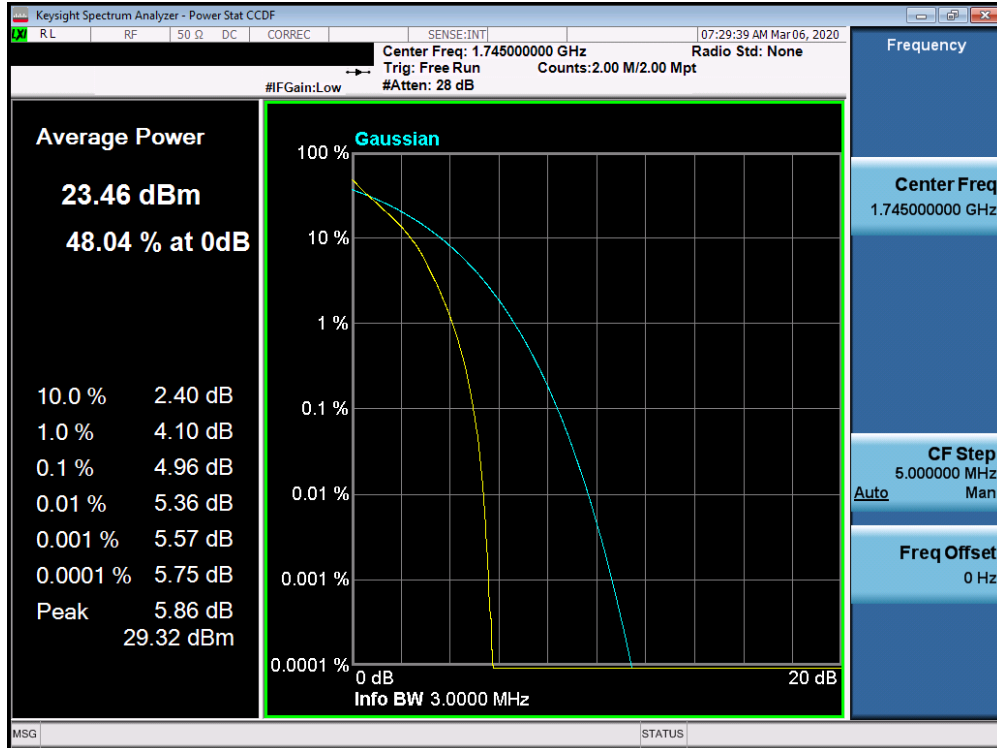


**Plot 7-177. PAR Plot (Band 66/4 – 1.4MHz QPSK - Full RB Configuration)**

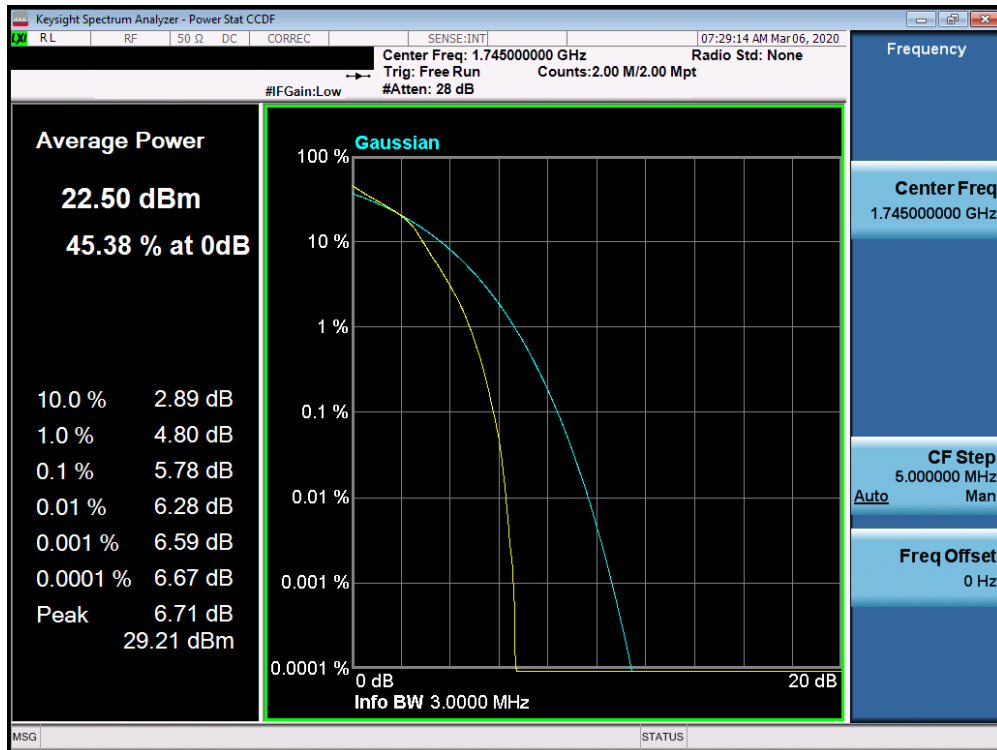


**Plot 7-178. PAR Plot (Band 66/4 – 1.4MHz 16-QAM - Full RB Configuration)**

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 110 of 146



Plot 7-179. PAR Plot (Band 66/4 – 3MHz QPSK - Full RB Configuration)



Plot 7-180. PAR Plot (Band 66/4 – 3MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFK400AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2003020032-08-R1.ZNF	Test Dates: 3/2 - 4/1/2020	EUT Type: Portable Handset		Page 111 of 146