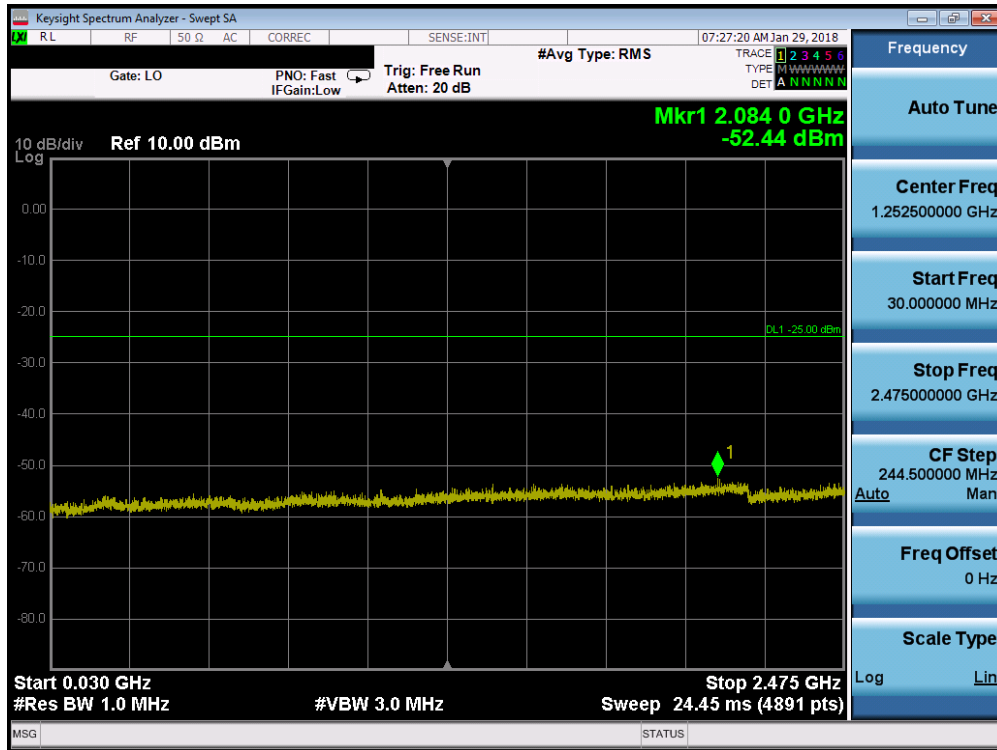
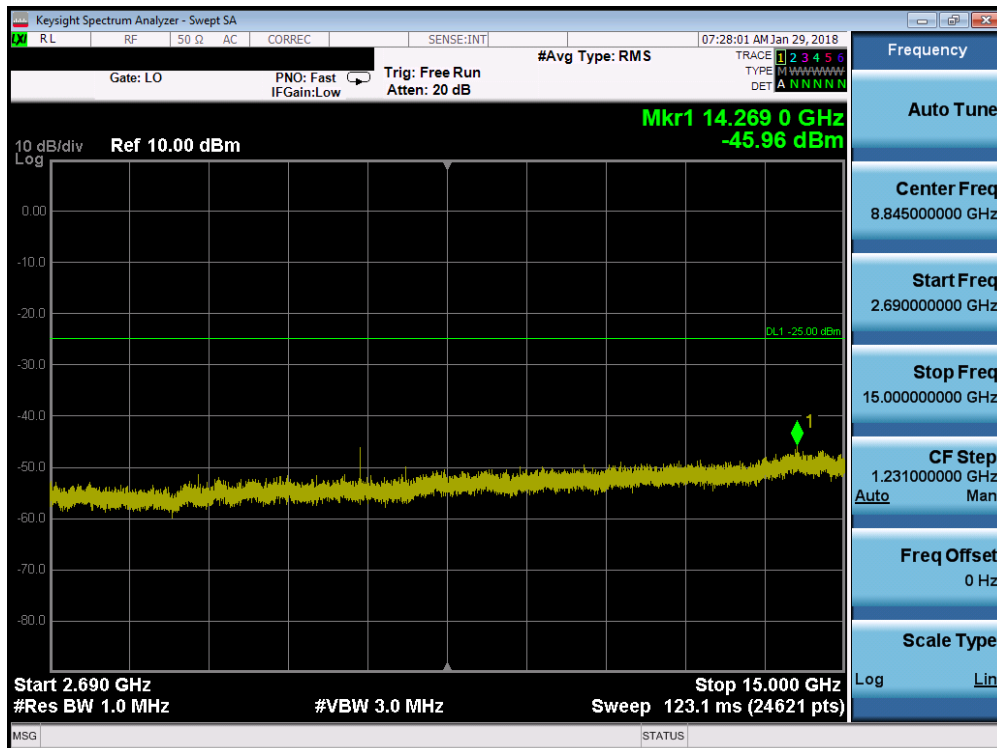


Band 41/38

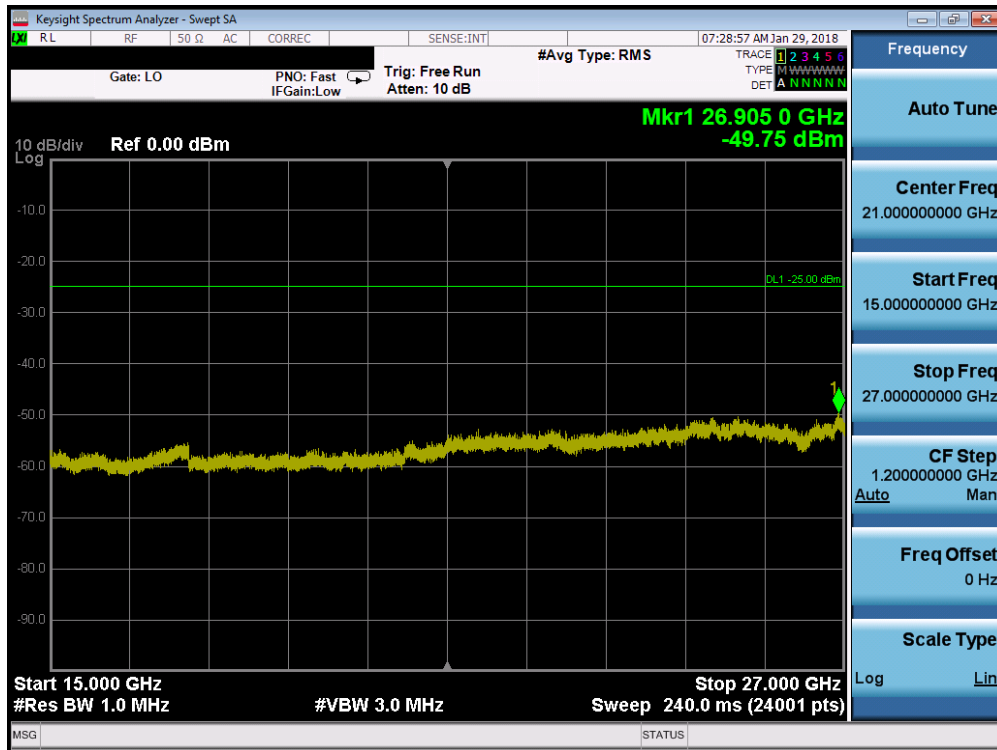


Plot 7-118. Conducted Spurious Plot (Band 41/38 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

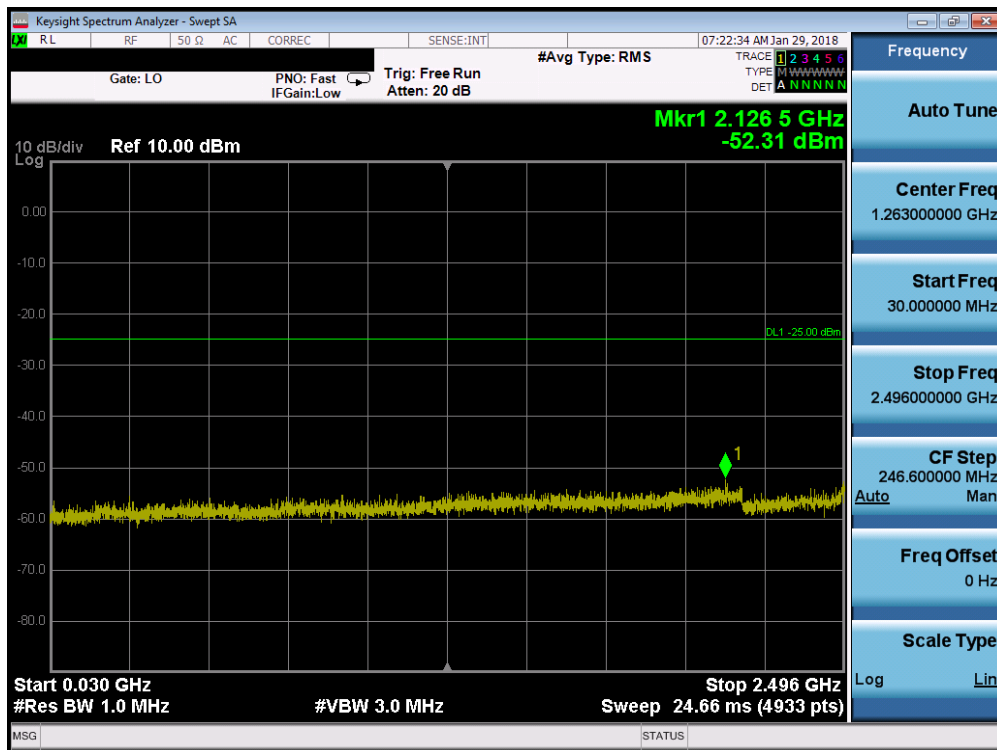


Plot 7-119. Conducted Spurious Plot (Band 41/38 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSC02K	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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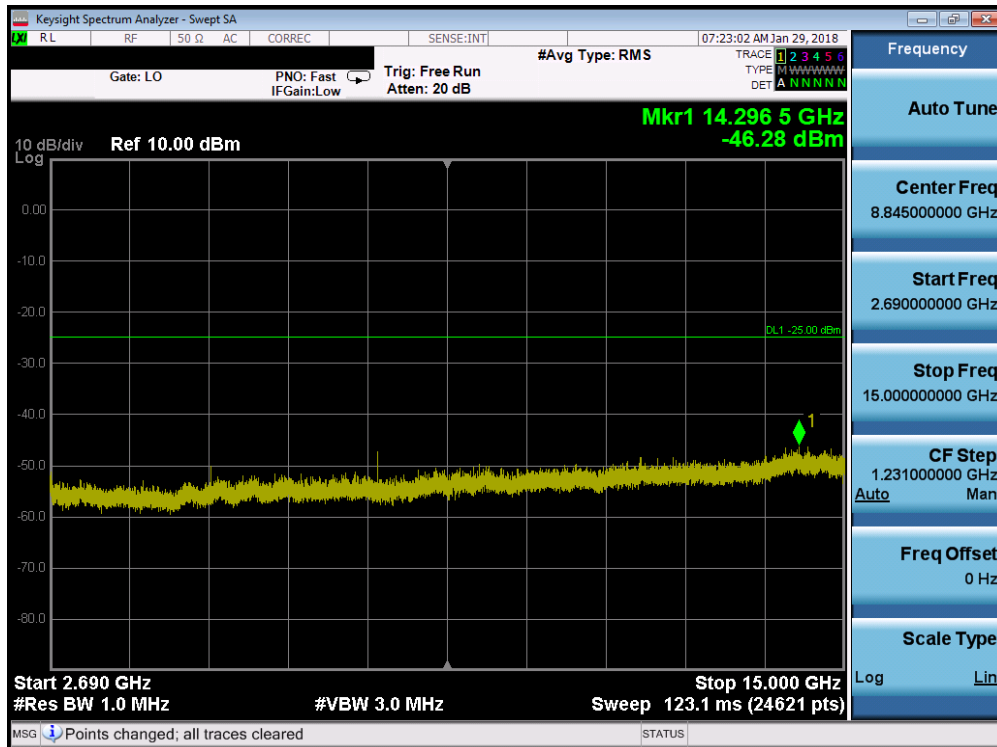


Plot 7-120. Conducted Spurious Plot (Band 41/38 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

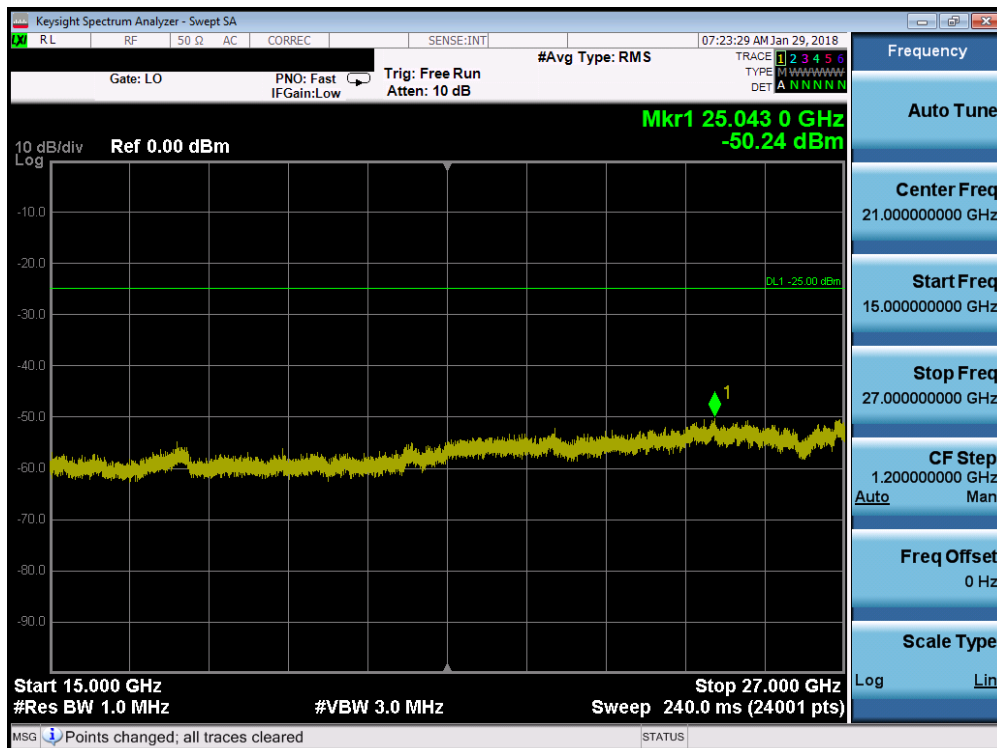


Plot 7-121. Conducted Spurious Plot (Band 41/38 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSC02K	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1801220007-03.A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset		Page 79 of 153

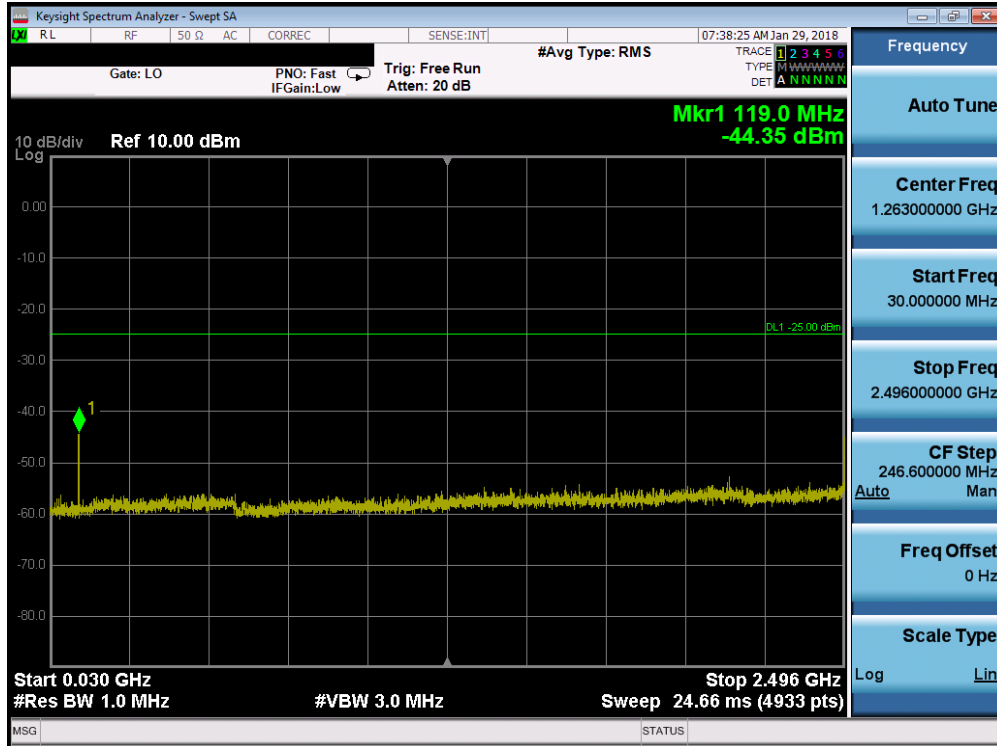


Plot 7-122. Conducted Spurious Plot (Band 41/38 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

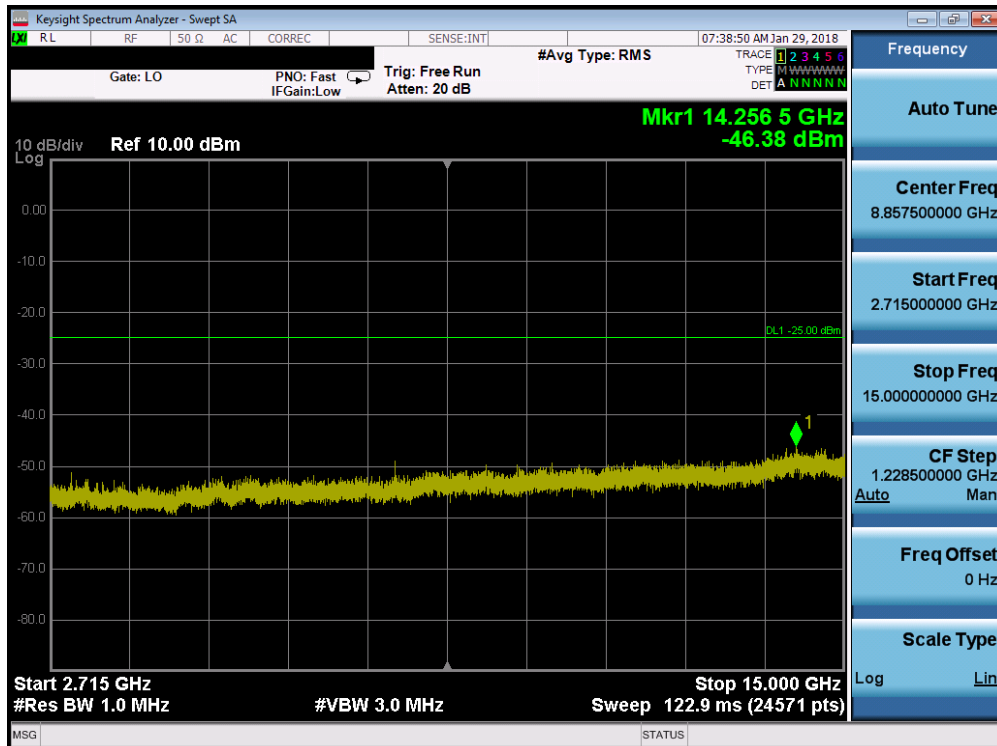


Plot 7-123. Conducted Spurious Plot (Band 41/38 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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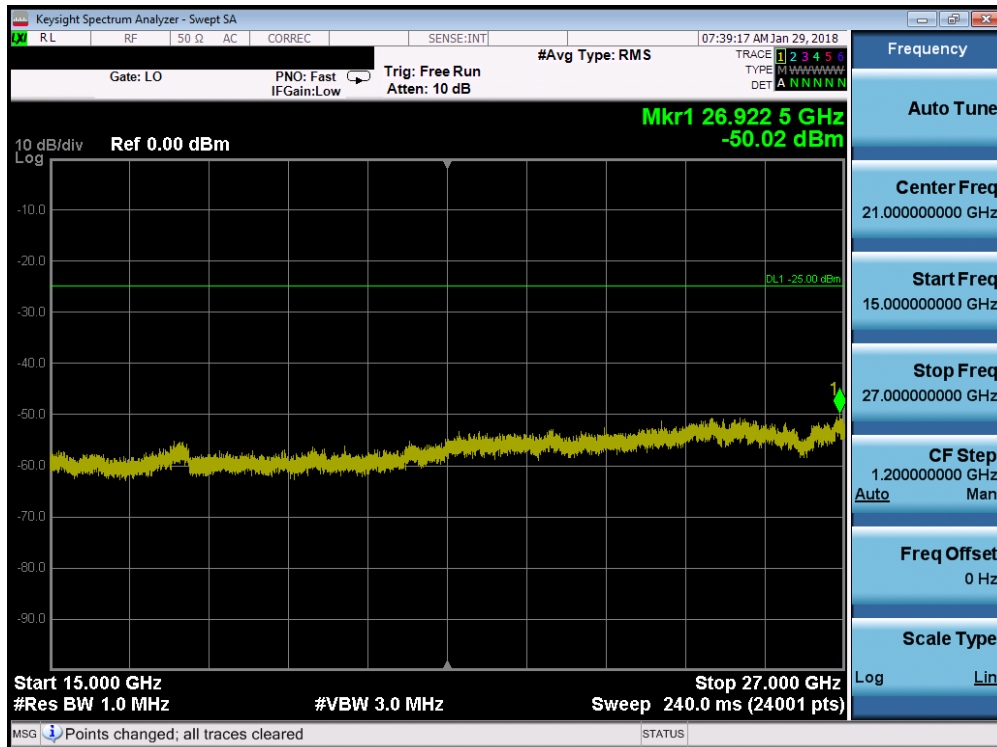


Plot 7-124. Conducted Spurious Plot (Band 41/38 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-125. Conducted Spurious Plot (Band 41/38 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Plot 7-126. Conducted Spurious Plot (Band 41/38 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1801220007-03.A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset	Page 82 of 153

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 $43 + \log_{10}(P_{\text{Watts}})$, where P is the transmitter power in Watts.

The minimum permissible attenuation level for Band 7 and 41/38 is as noted in the Test Notes on the following page.DO

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 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.

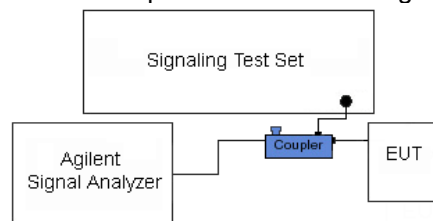


Figure 7-3. Test Instrument & Measurement Setup

FCC ID: A3LSC02K	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Test Notes

Per 22.917(b) 27.53(h) RSS-130(4.6) RSS-132(5.5) RSS-139(6.5) RSS-199(4.5) 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) RSS-130(4.6) 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.

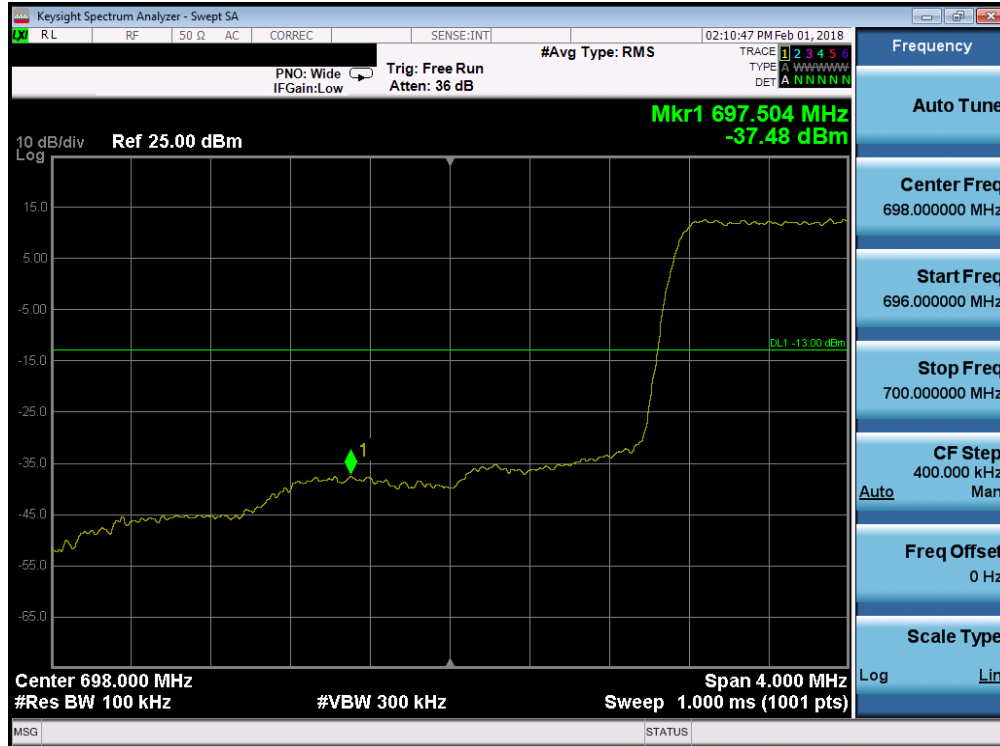
Per 27.53(c)(5) for operations in the 776-788 MHz band, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.

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.

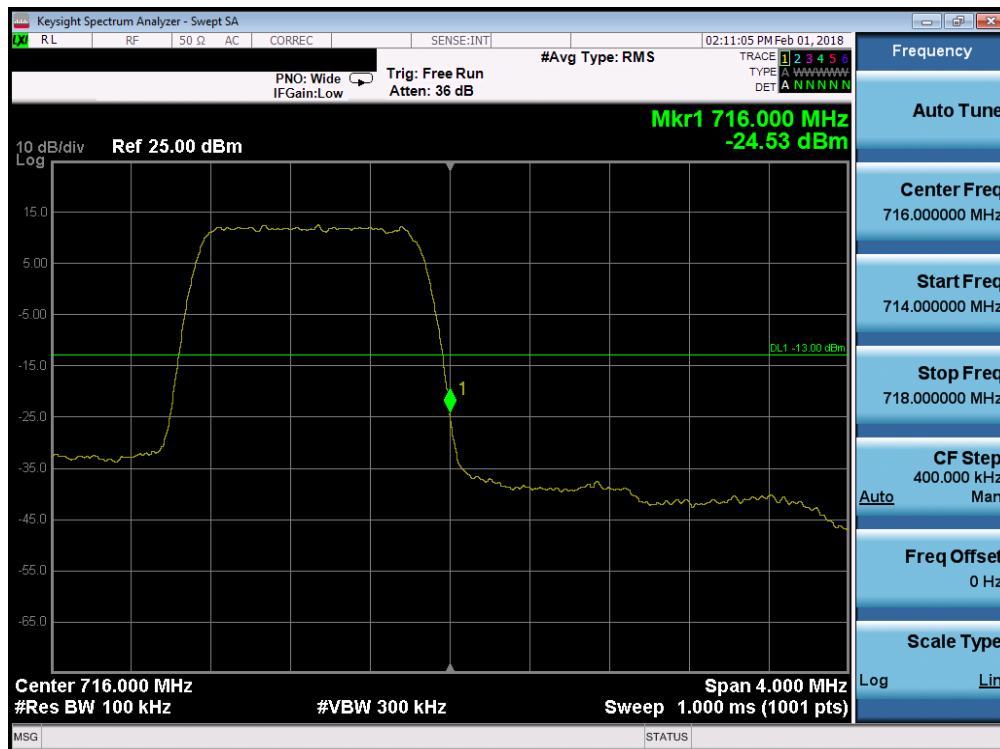
Per 27.53(m) RSS-199(4.5) for operations in the BRS/EBS bands, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth. In addition, the attenuation factor shall not be less that $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz.

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 12/17

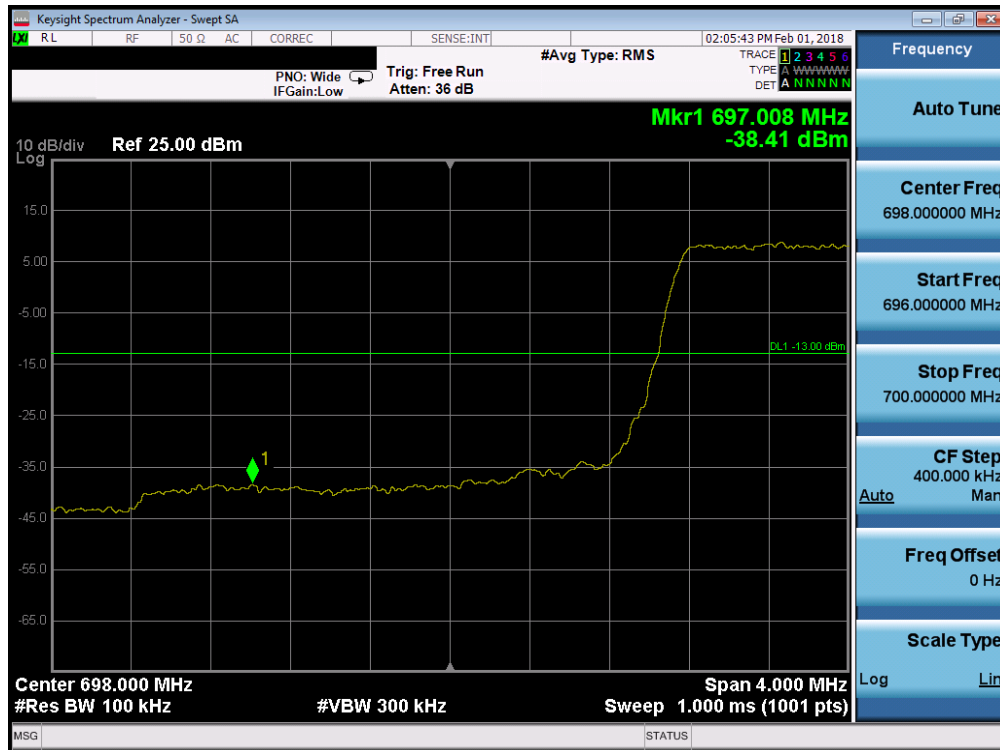


Plot 7-127. Lower Band Edge Plot (Band 12 – 1.4MHz QPSK - Full RB Configuration)



Plot 7-128. Upper Band Edge Plot (Band 12 – 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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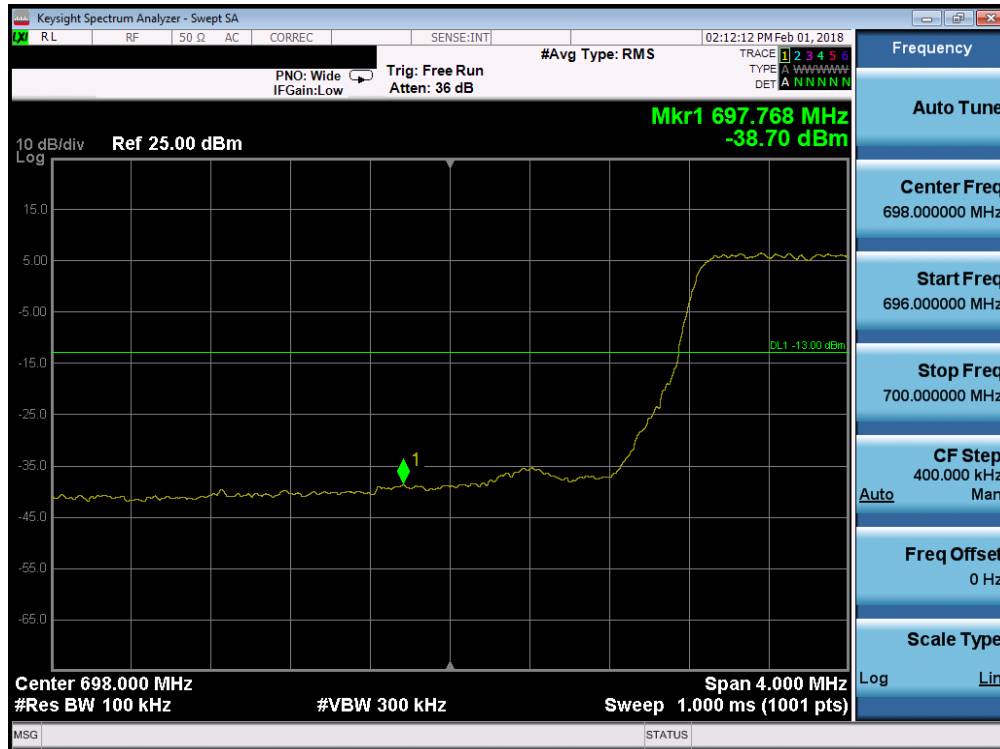


Plot 7-129. Lower Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

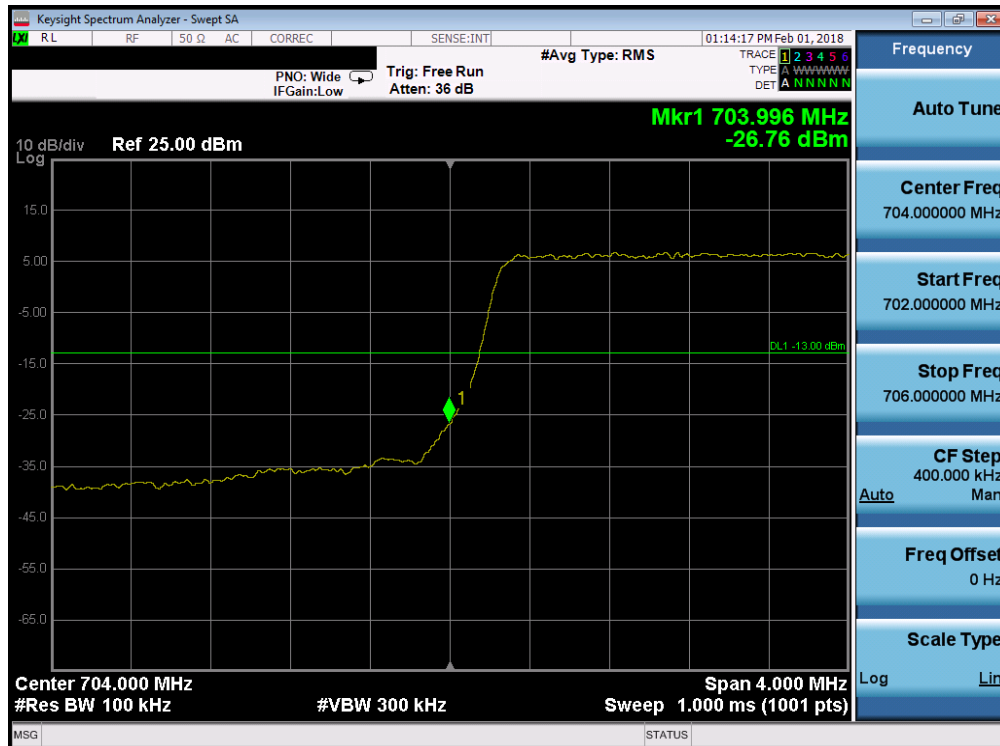


Plot 7-130. Upper Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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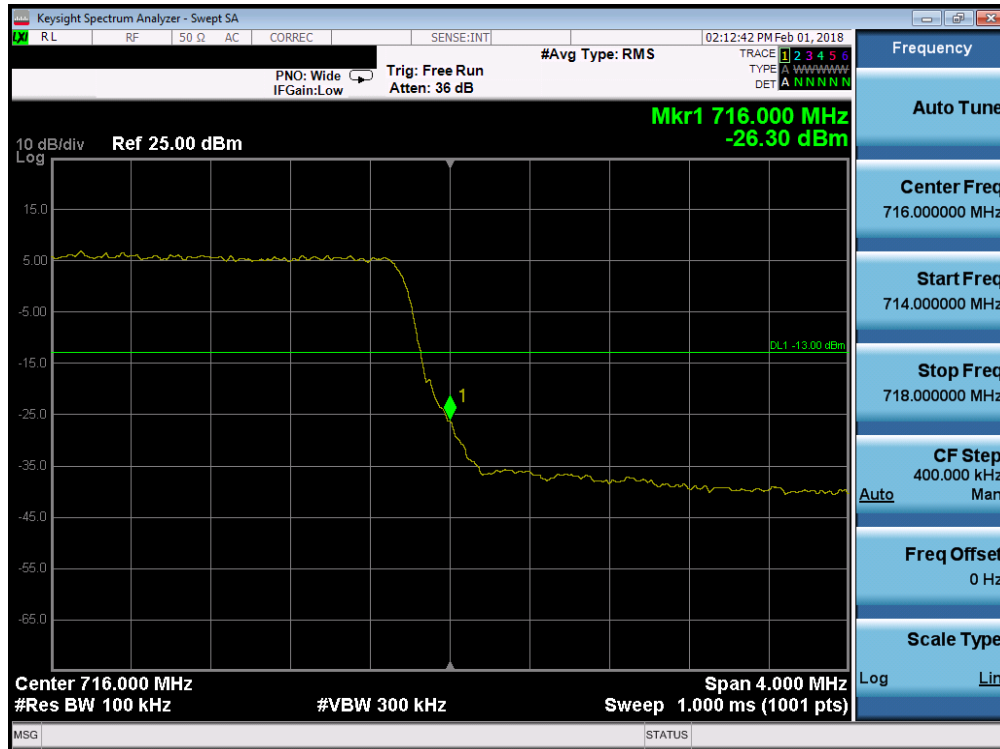


Plot 7-131. Lower Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)

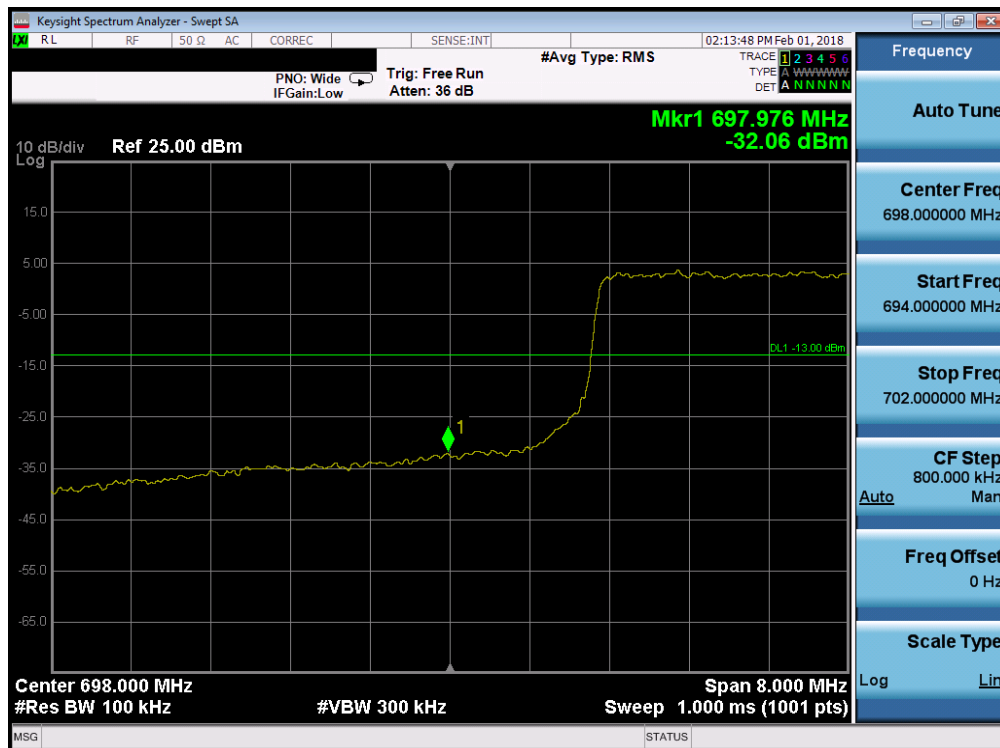


Plot 7-132. Lower Band Edge Plot (Band 17 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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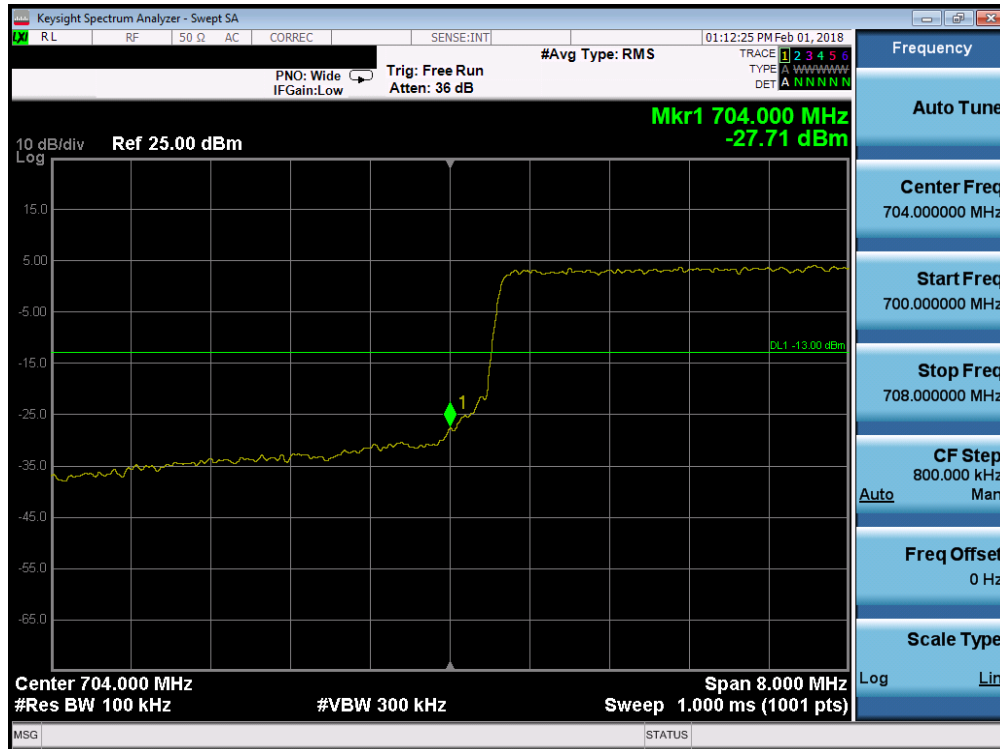


Plot 7-133. Upper Band Edge Plot (Band 12/17 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-134. Lower Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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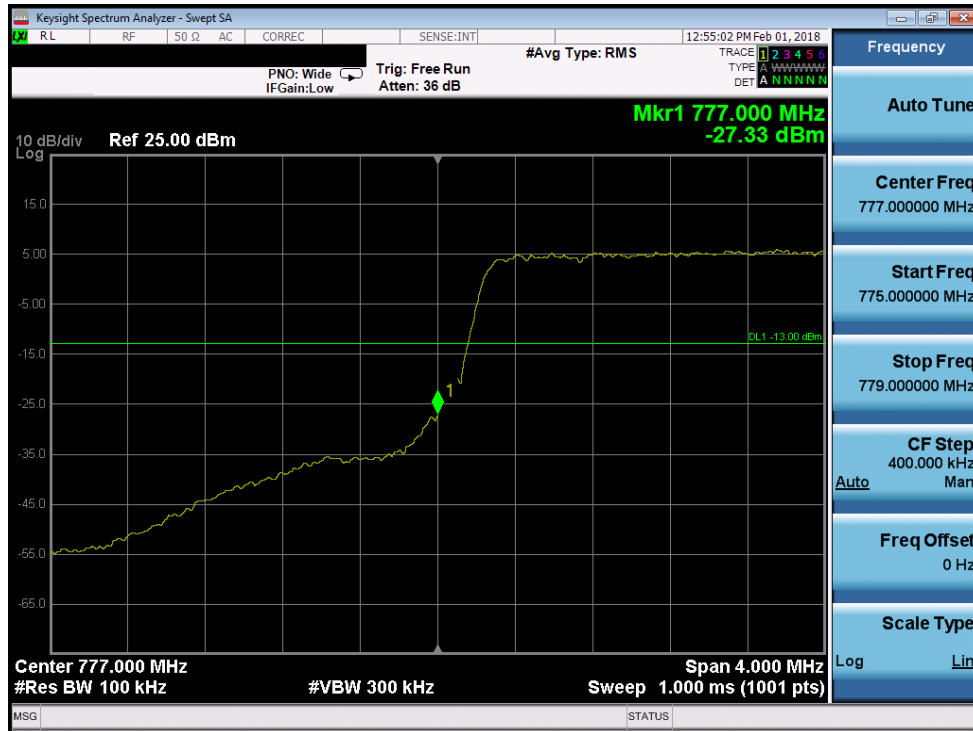
Plot 7-135. Lower Band Edge Plot (Band 17 - 10.0MHz QPSK - Full RB Configuration)



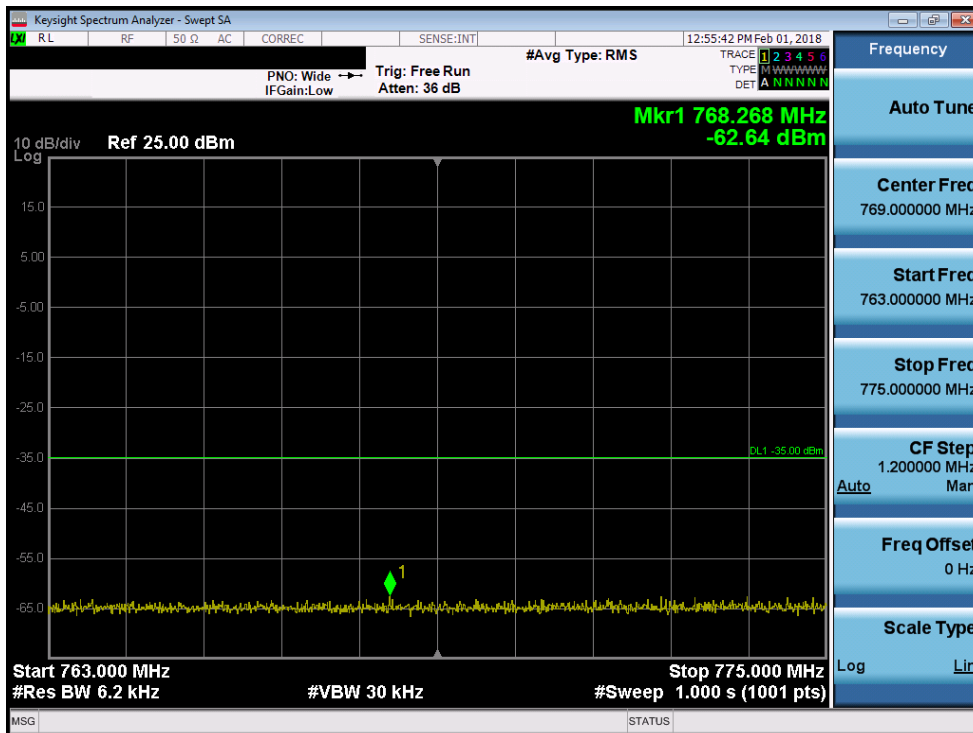
Plot 7-136. Upper Band Edge Plot (Band 12/17 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 13



Plot 7-137. Lower Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

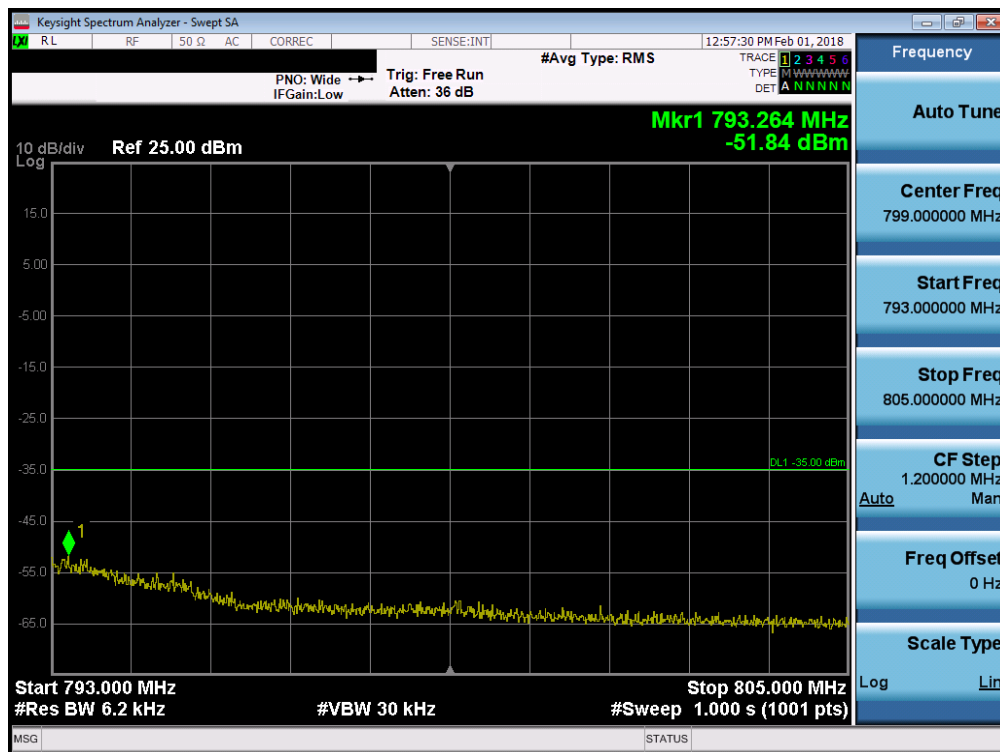


Plot 7-138. Lower Emission Mask Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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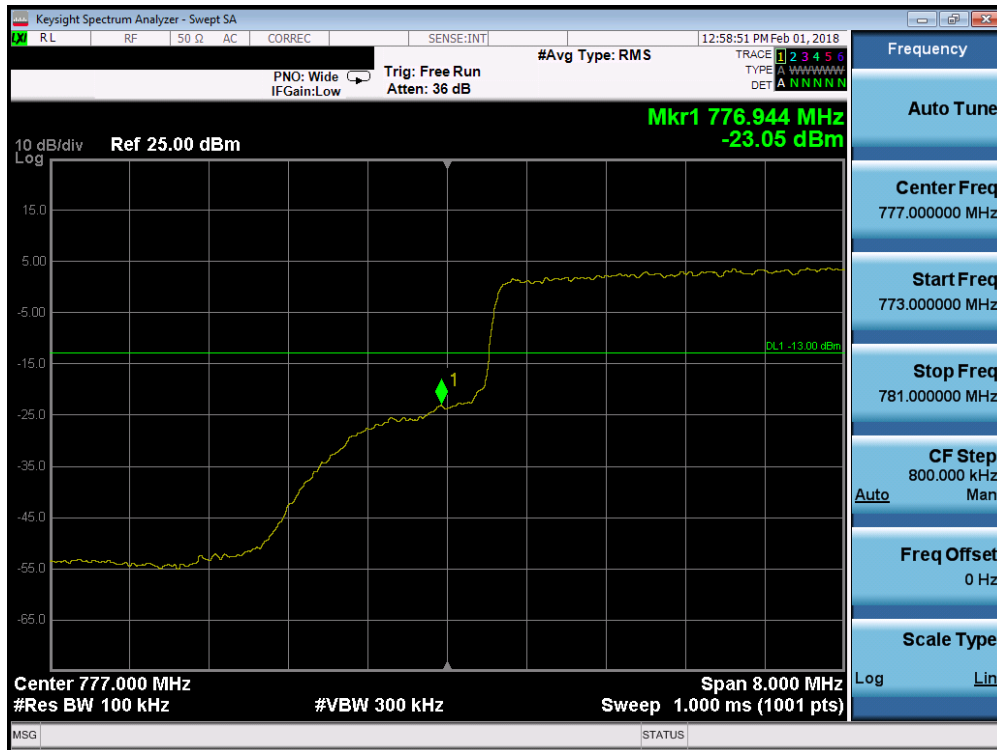


Plot 7-139. Upper Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

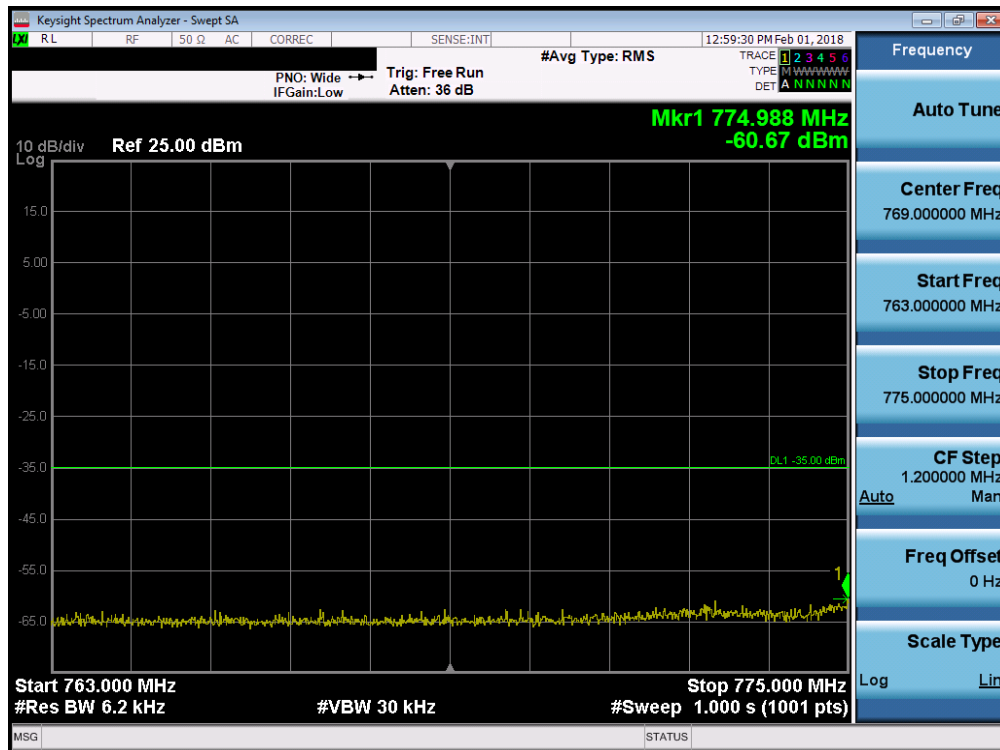


Plot 7-140. Upper Emission Mask Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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Plot 7-141. Lower Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

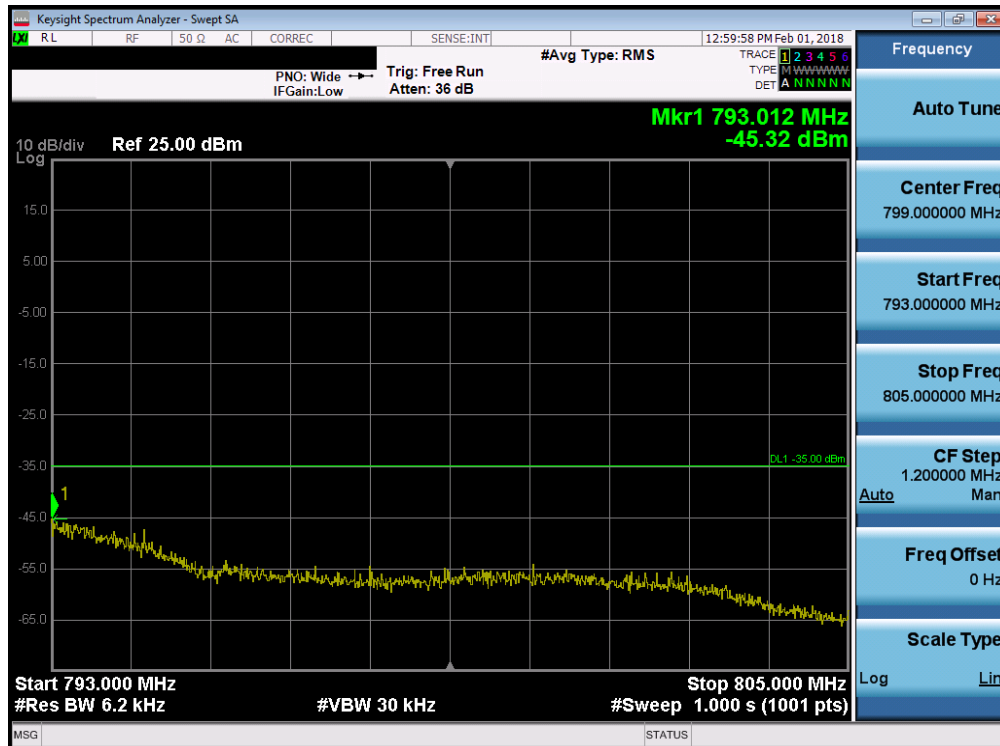


Plot 7-142. Lower Emission Mask Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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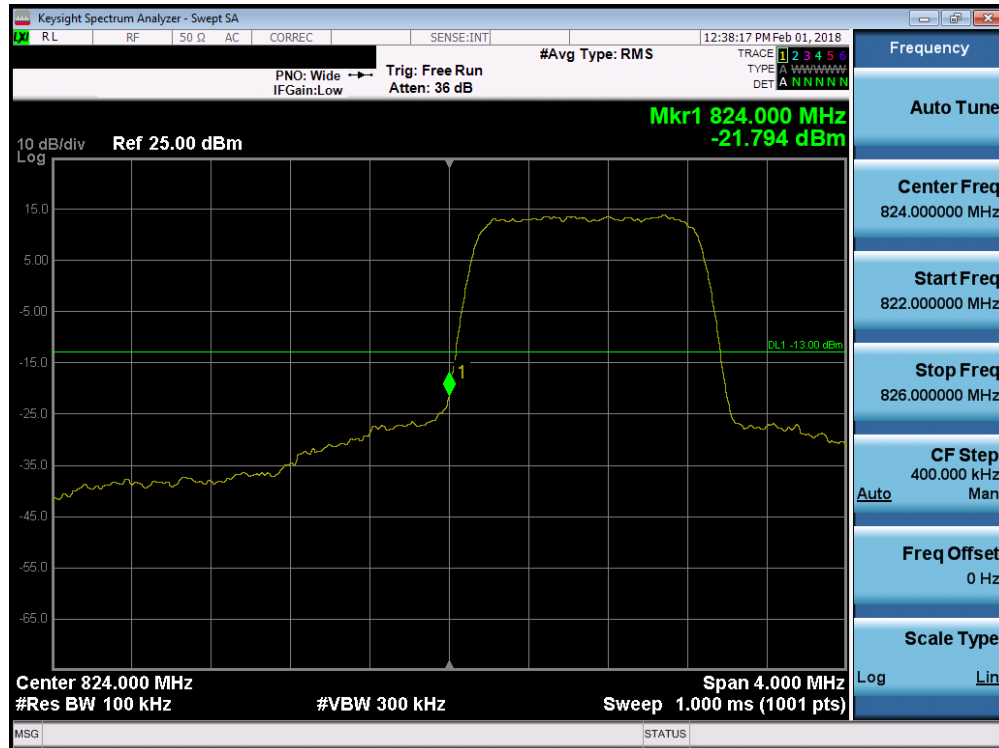
Plot 7-143. Upper Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-144. Upper Emission Mask Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Band 5

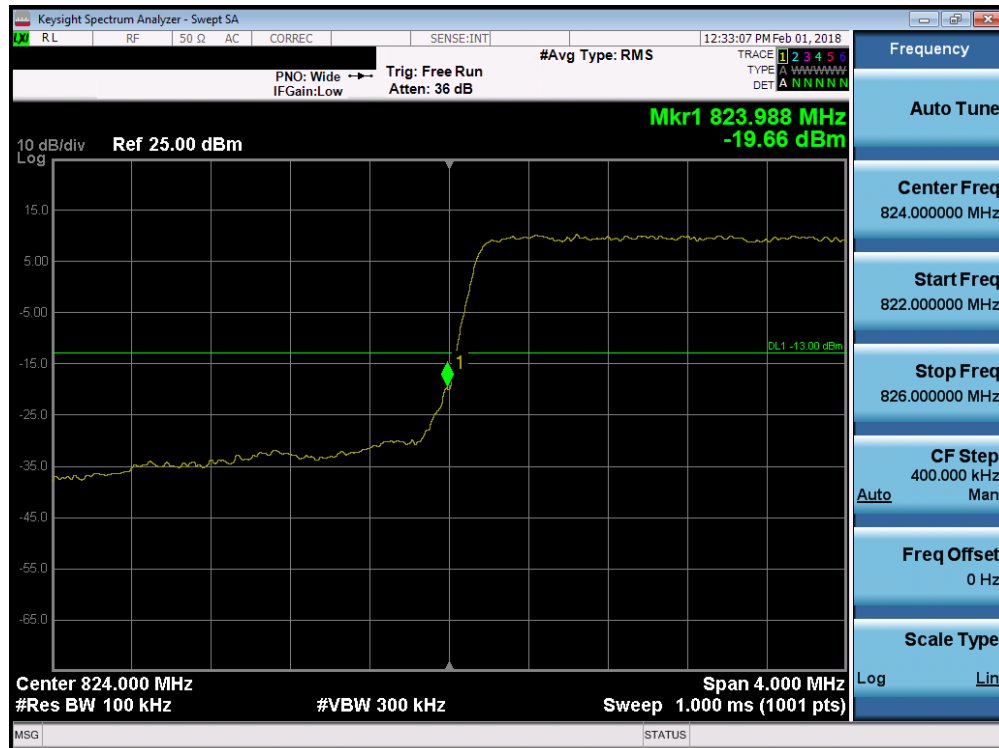


Plot 7-145. Lower Band Edge Plot (Band 5 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-146. Upper Band Edge Plot (Band 5 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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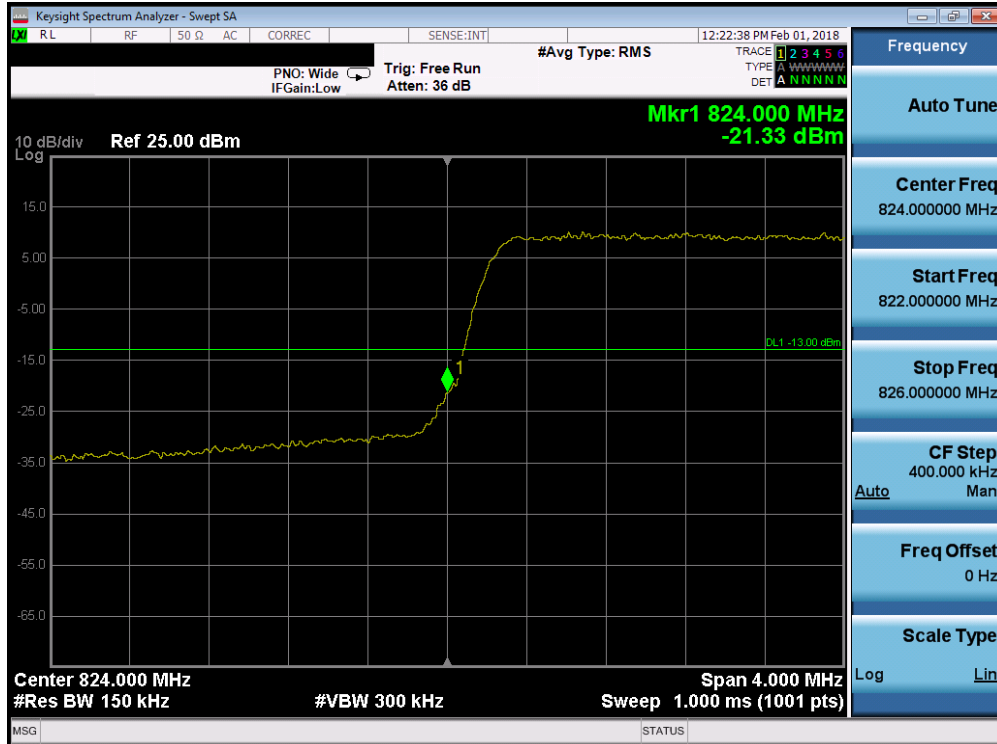


Plot 7-147. Lower Band Edge Plot (Band 5 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-148. Upper Band Edge Plot (Band 5 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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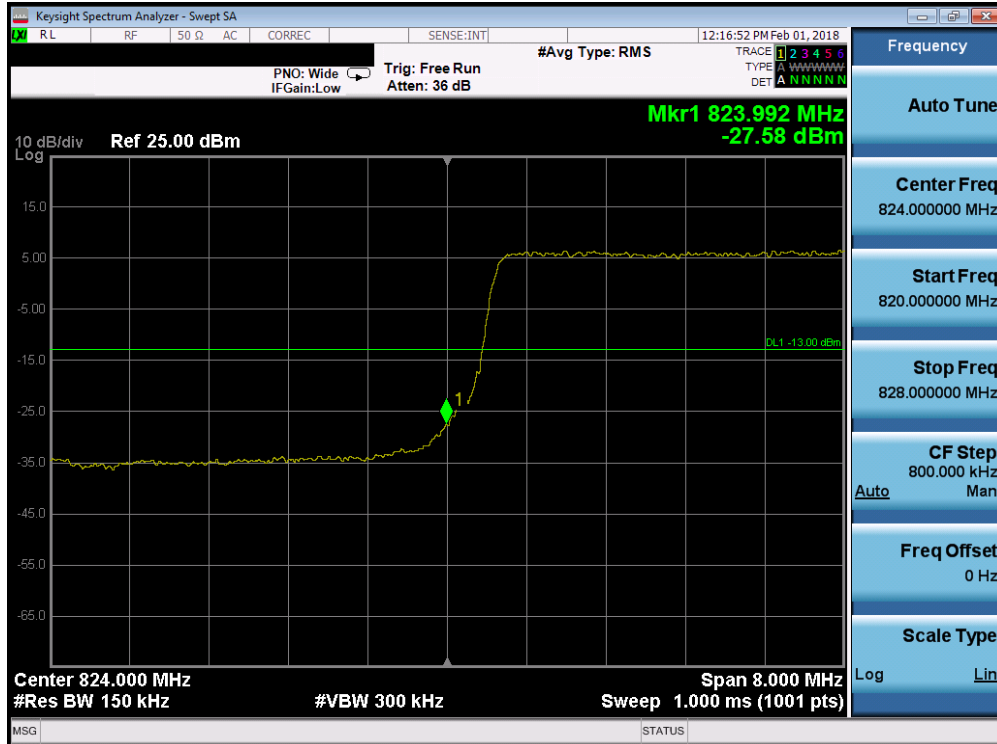


Plot 7-149. Lower Band Edge Plot (Band 5 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-150. Upper Band Edge Plot (Band 5 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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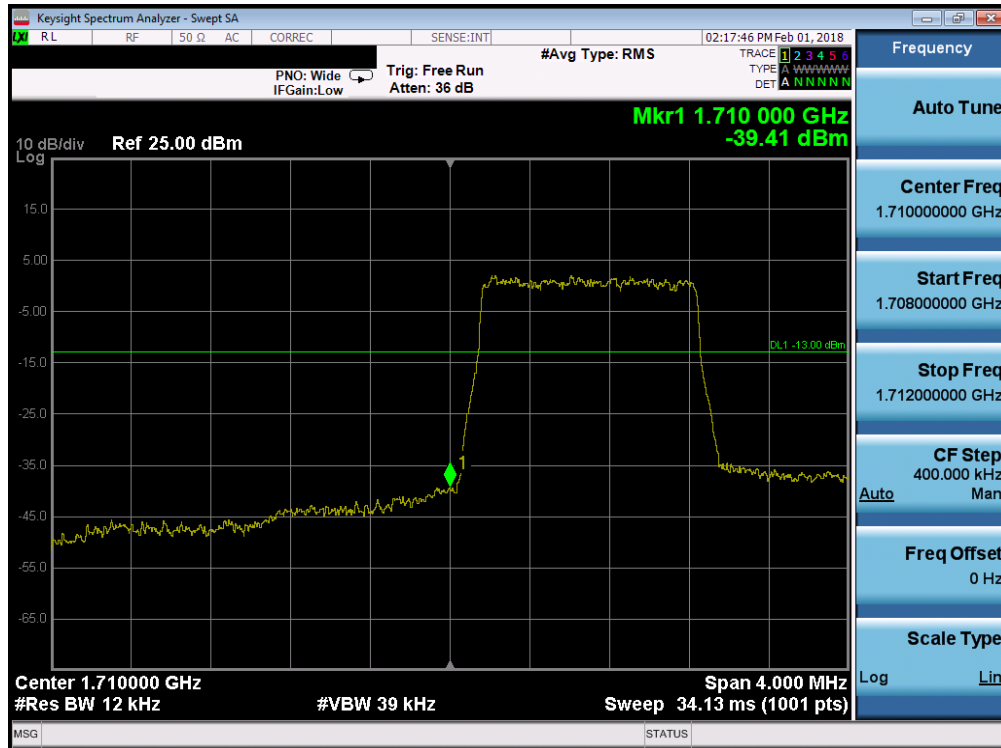
Plot 7-151. Lower Band Edge Plot (Band 5 - 10.0MHz QPSK - Full RB Configuration)



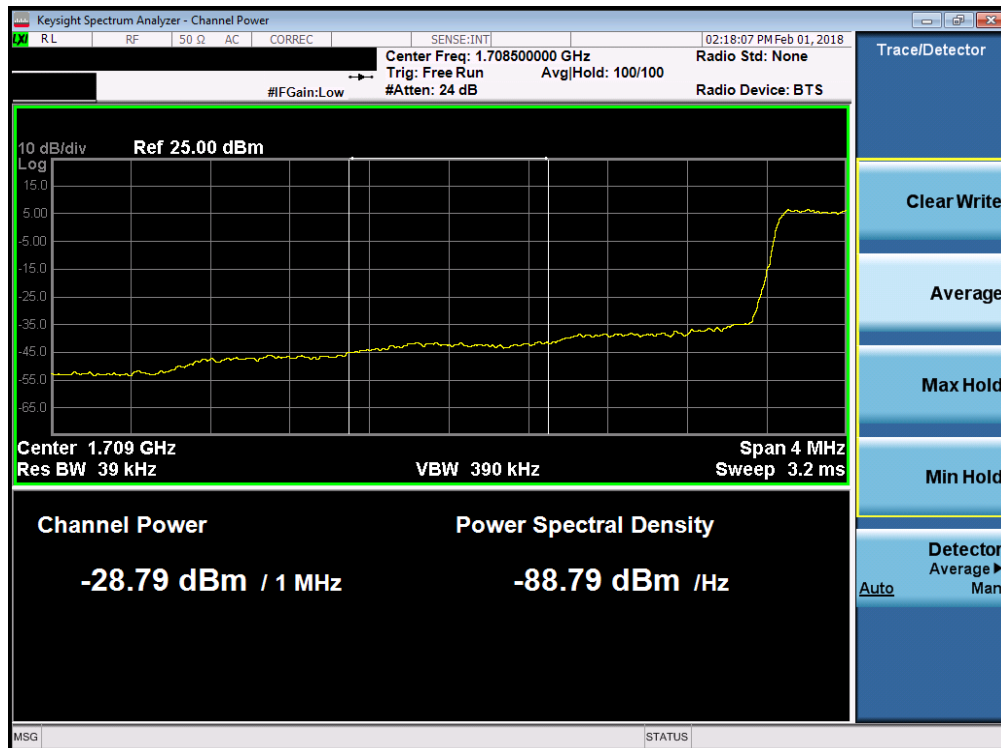
Plot 7-152. Upper Band Edge Plot (Band 5 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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Band 4

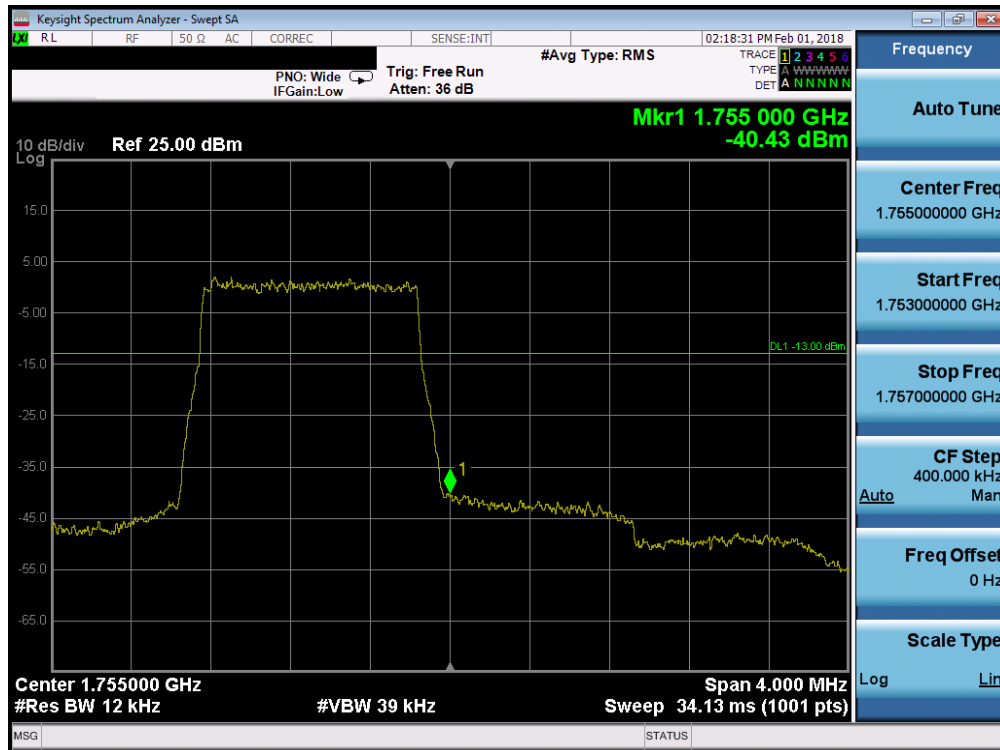


Plot 7-153. Lower Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

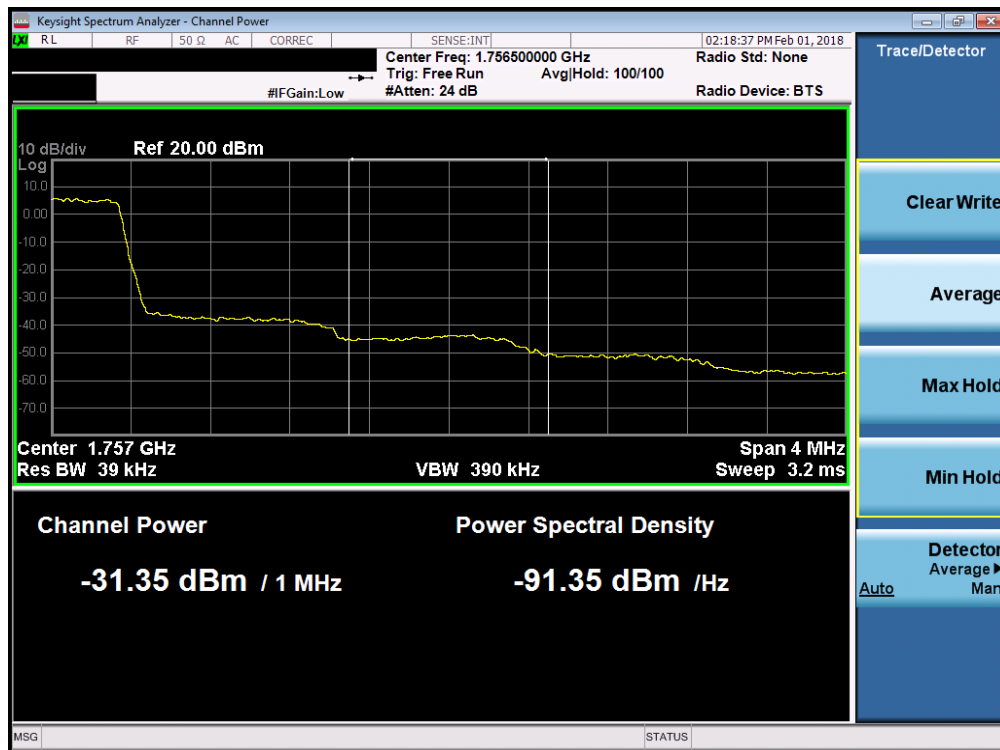


Plot 7-154. Extended Lower Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1801220007-03.A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset		Page 98 of 153

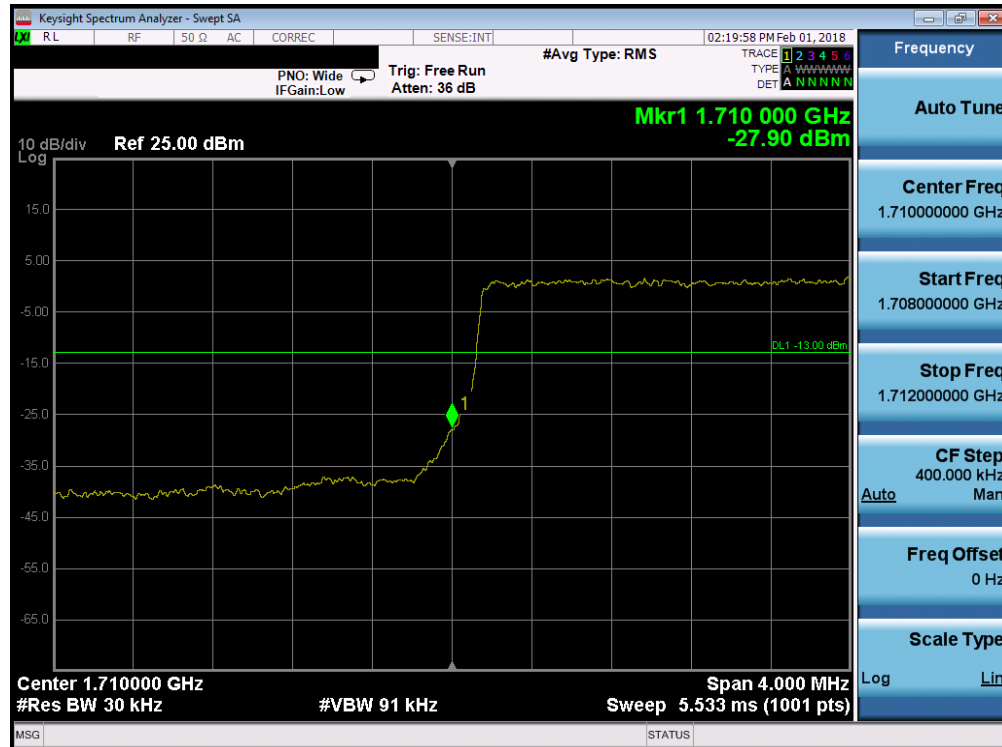


Plot 7-155. Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

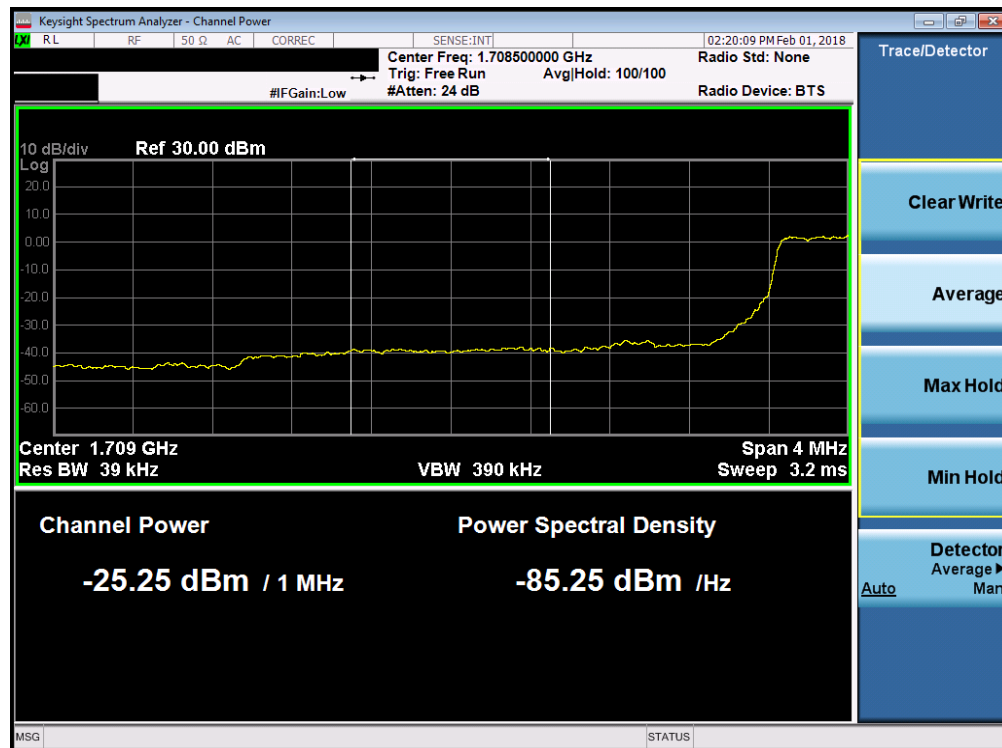


Plot 7-156. Extended Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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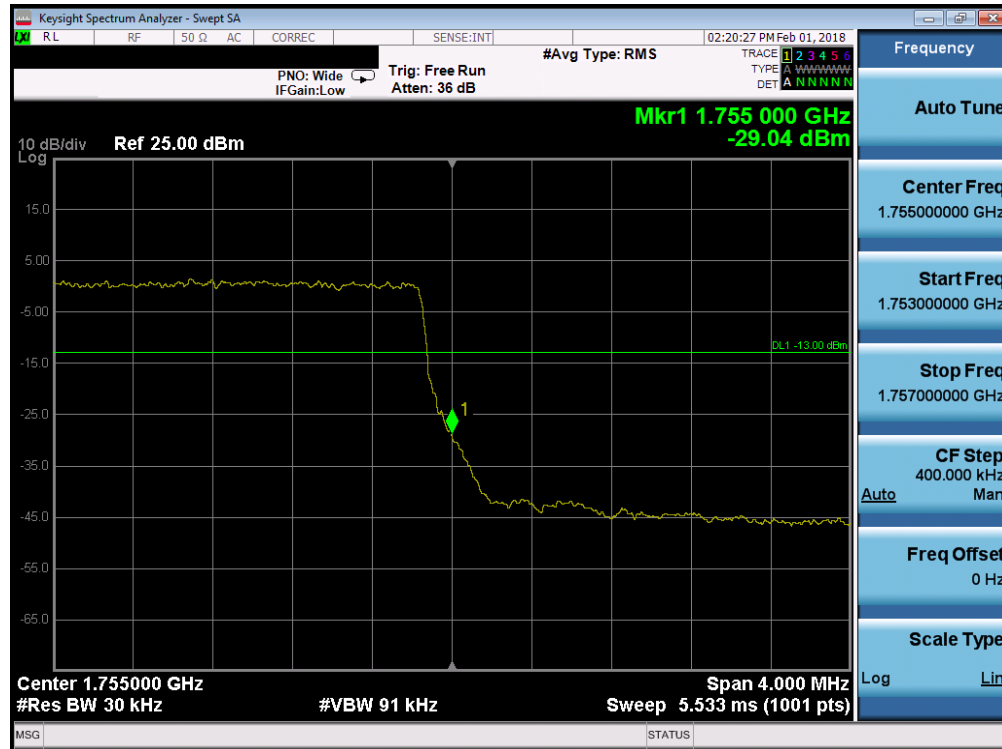


Plot 7-157. Lower Band Edge Plot (Band 4 – 3.0MHz QPSK - Full RB Configuration)

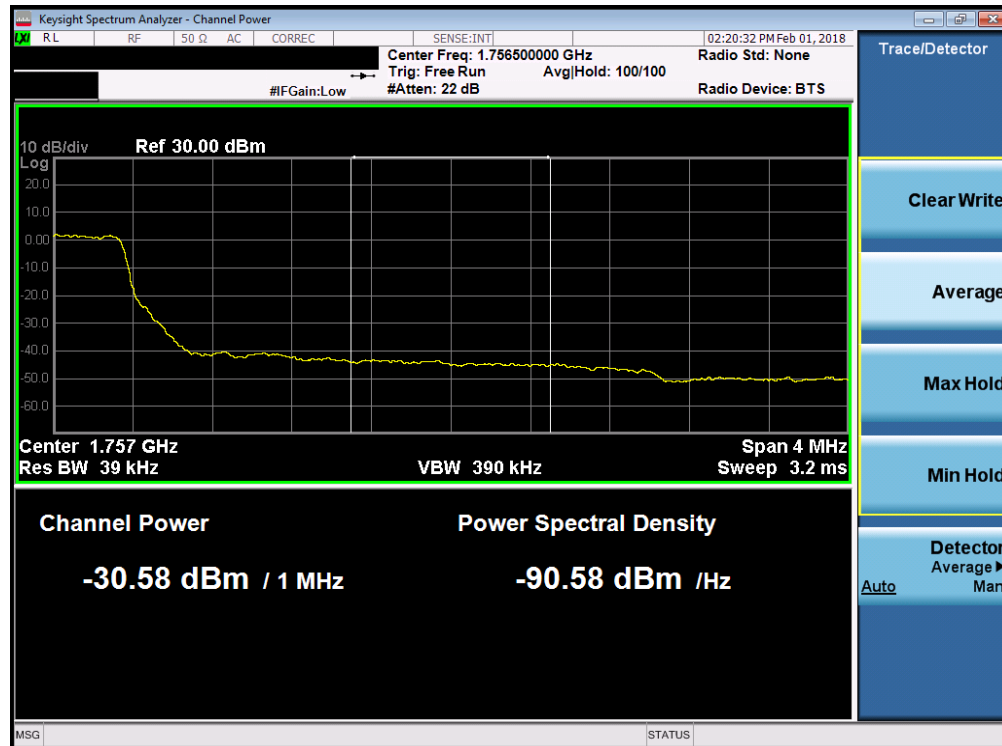


Plot 7-158. Extended Lower Band Edge Plot (Band 4 – 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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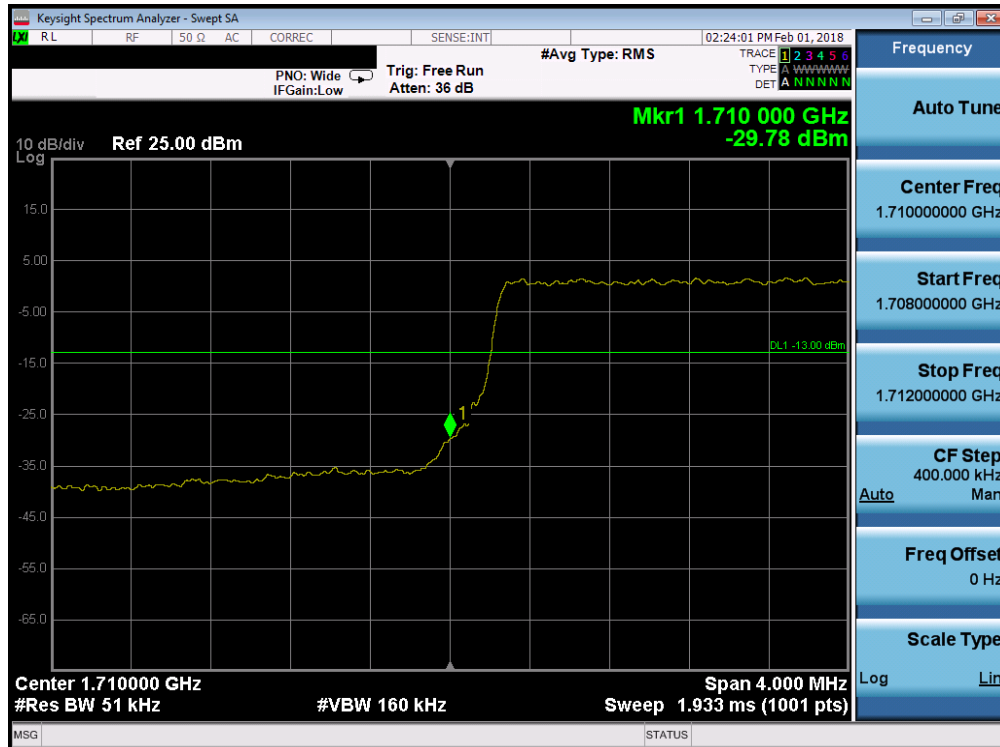


Plot 7-159. Upper Band Edge Plot (Band 4 – 3.0MHz QPSK - Full RB Configuration)

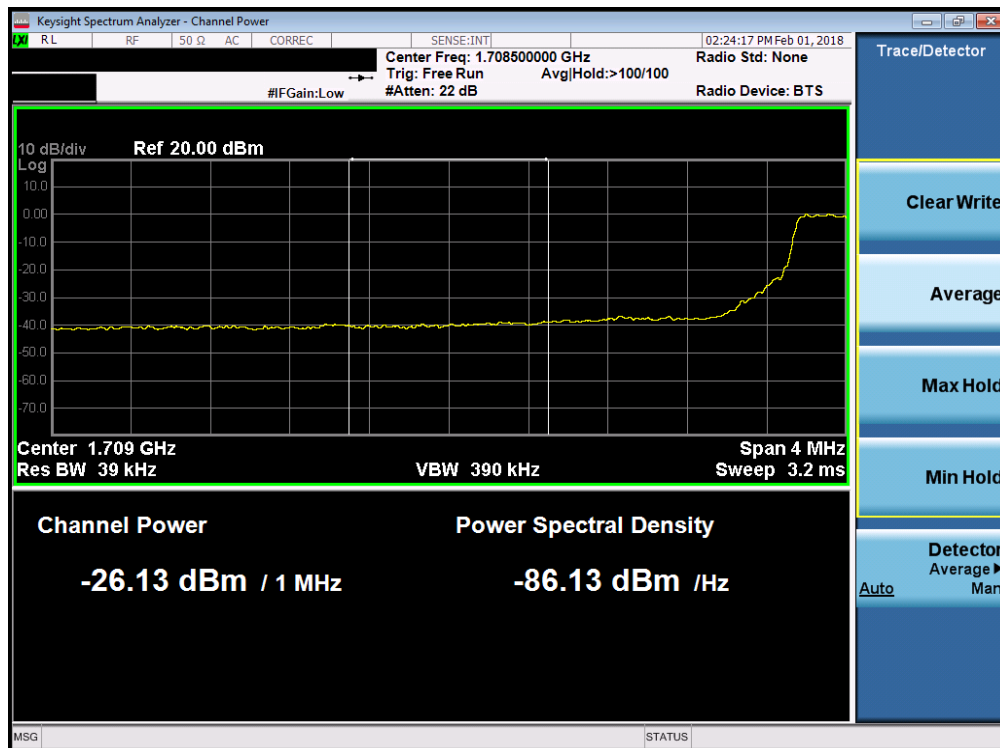


Plot 7-160. Extended Upper Band Edge Plot (Band 4 – 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-161. Lower Band Edge Plot (Band 4 – 5.0MHz QPSK - Full RB Configuration)

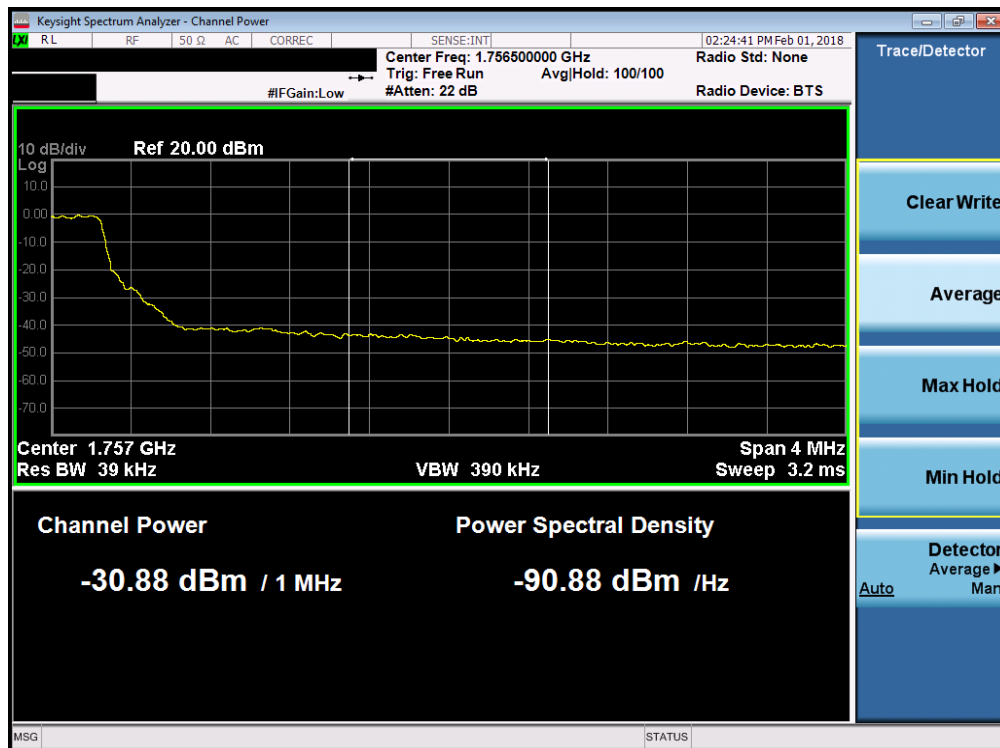


Plot 7-162. Extended Lower Band Edge Plot (Band 4 – 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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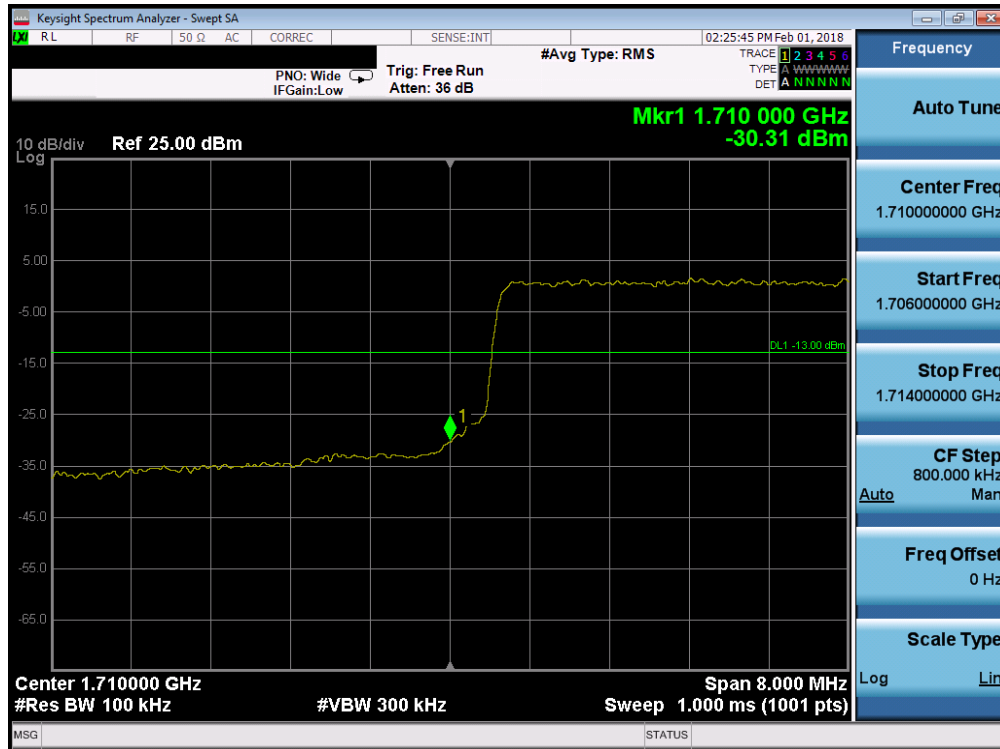


Plot 7-163. Upper Band Edge Plot (Band 4 – 5.0MHz QPSK - Full RB Configuration)

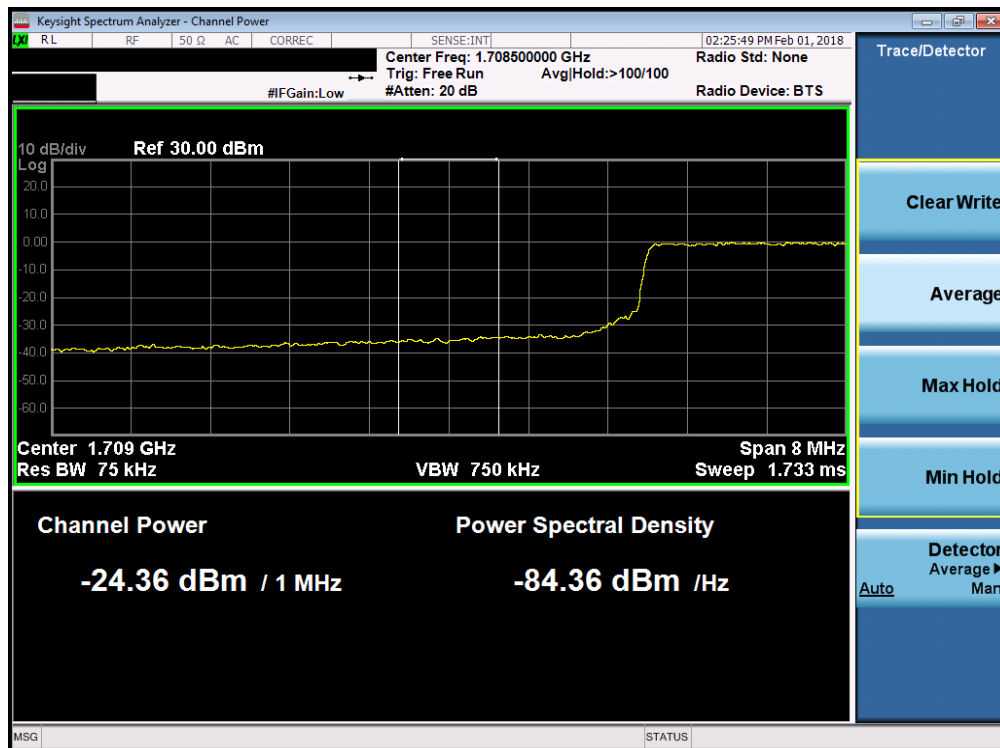


Plot 7-164. Extended Upper Band Edge Plot (Band 4 – 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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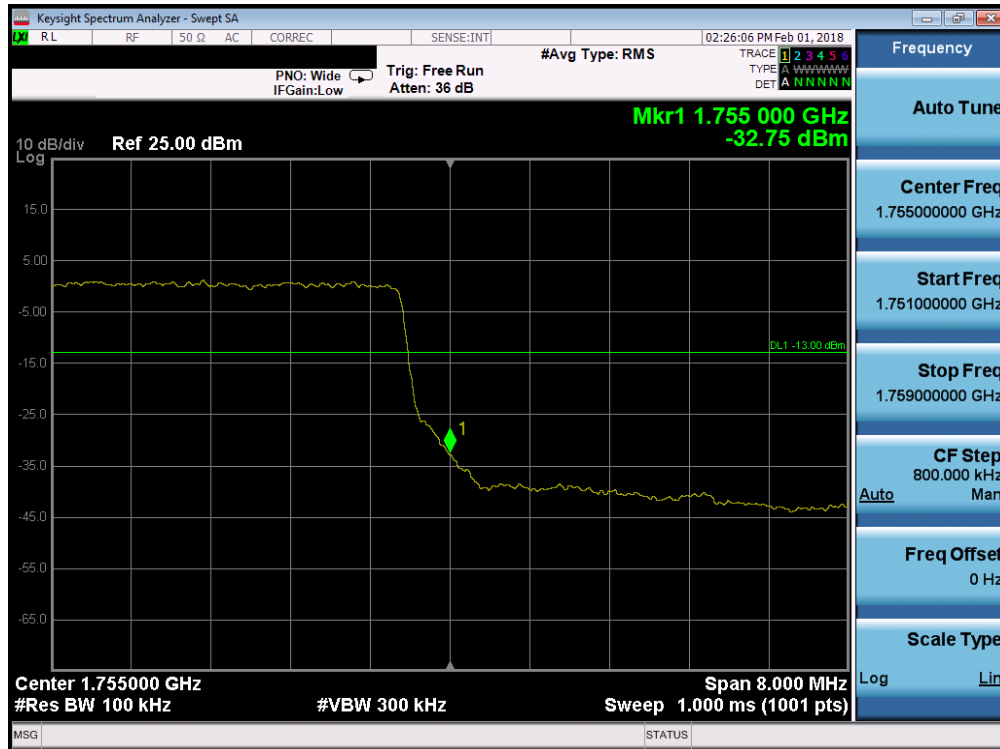


Plot 7-165. Lower Band Edge Plot (Band 4 – 10.0MHz QPSK - Full RB Configuration)

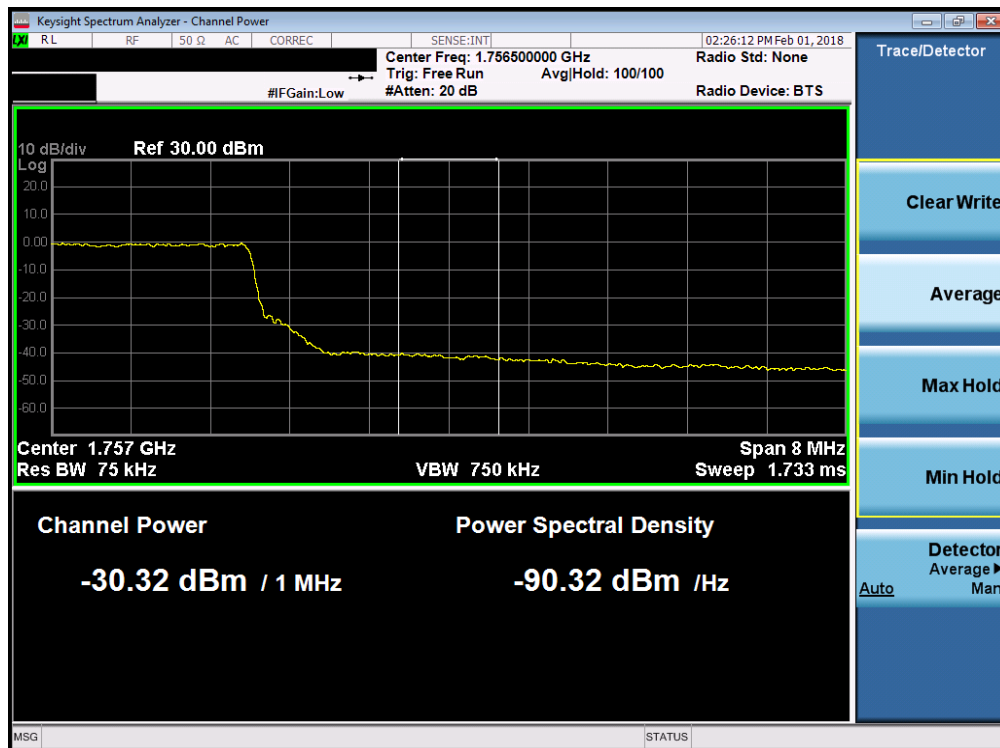


Plot 7-166. Extended Lower Band Edge Plot (Band 4 – 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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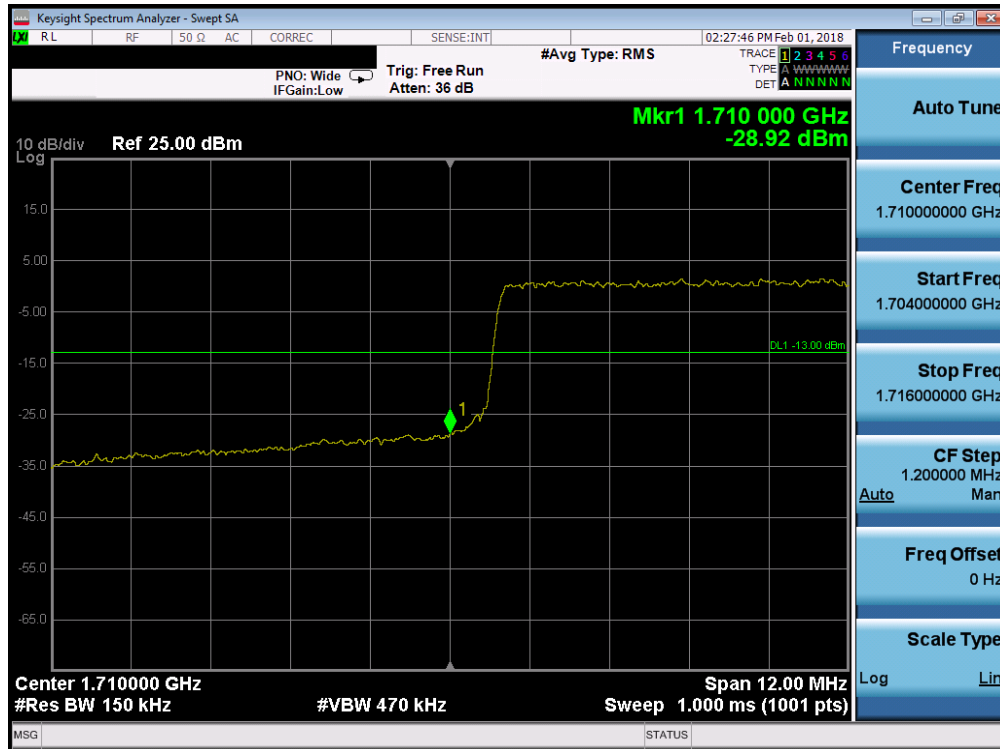


Plot 7-167. Upper Band Edge Plot (Band 4 – 10.0MHz QPSK - Full RB Configuration)

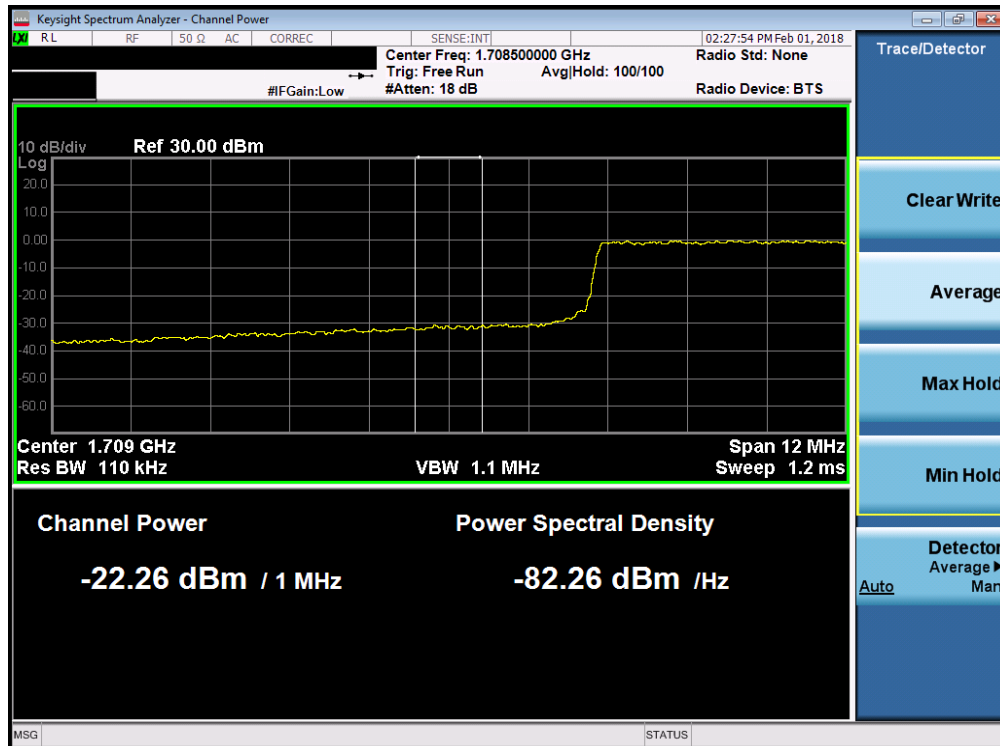


Plot 7-168. Extended Upper Band Edge Plot (Band 4 – 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1801220007-03-A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset	Page 105 of 153

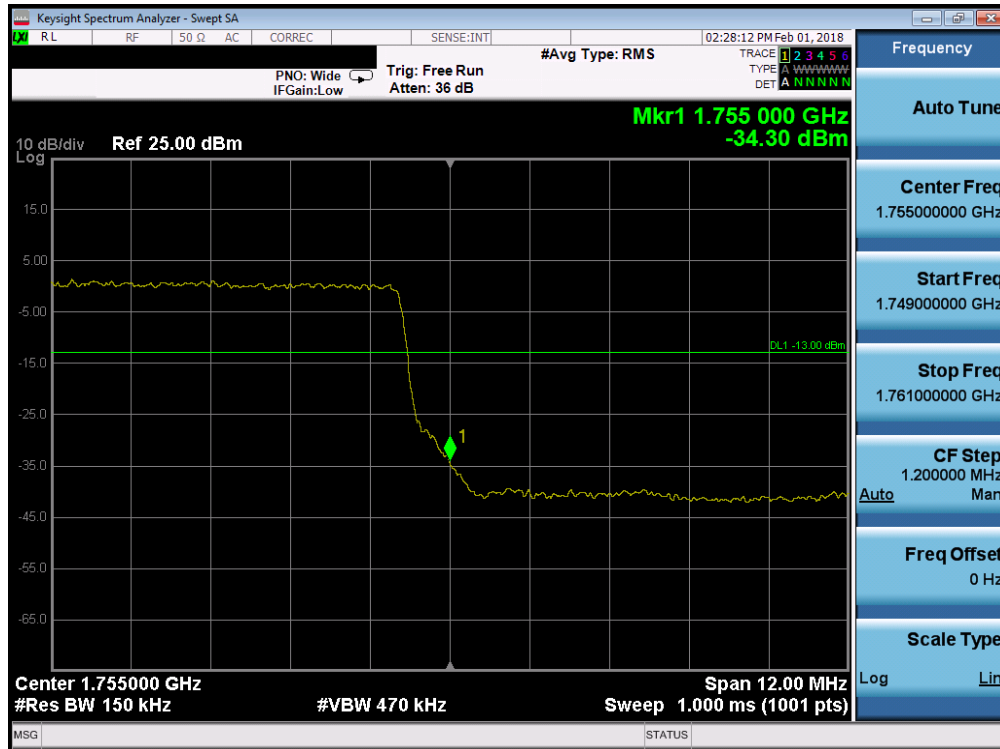


Plot 7-169. Lower Band Edge Plot (Band 4 – 15.0MHz QPSK - Full RB Configuration)

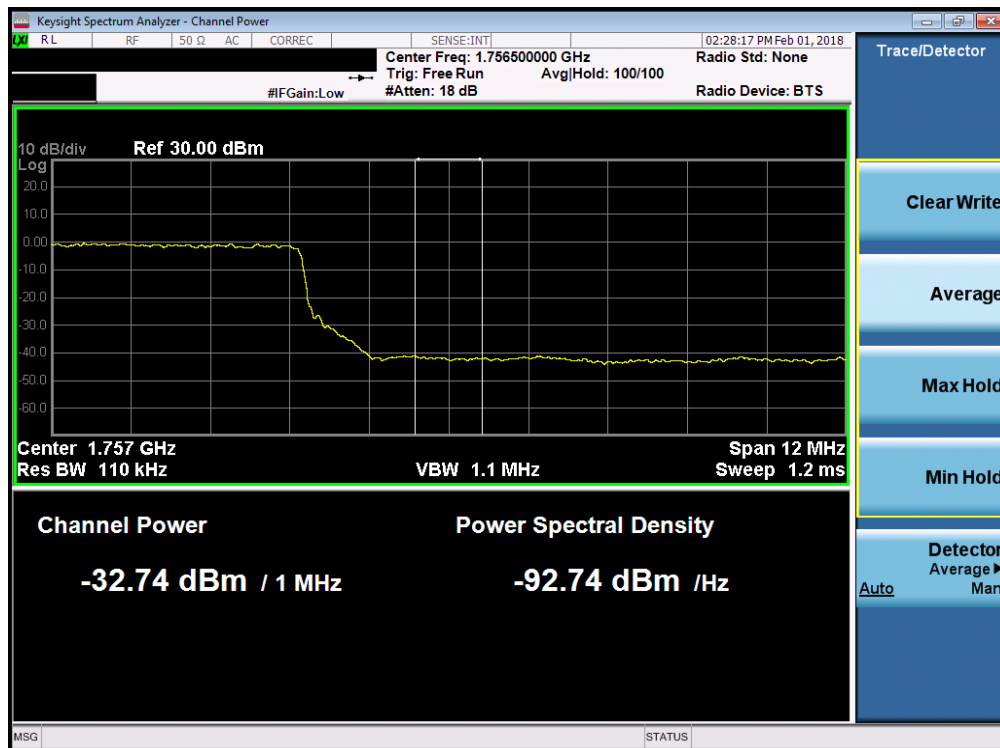


Plot 7-170. Extended Lower Band Edge Plot (Band 4 – 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1801220007-03.A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset	Page 106 of 153

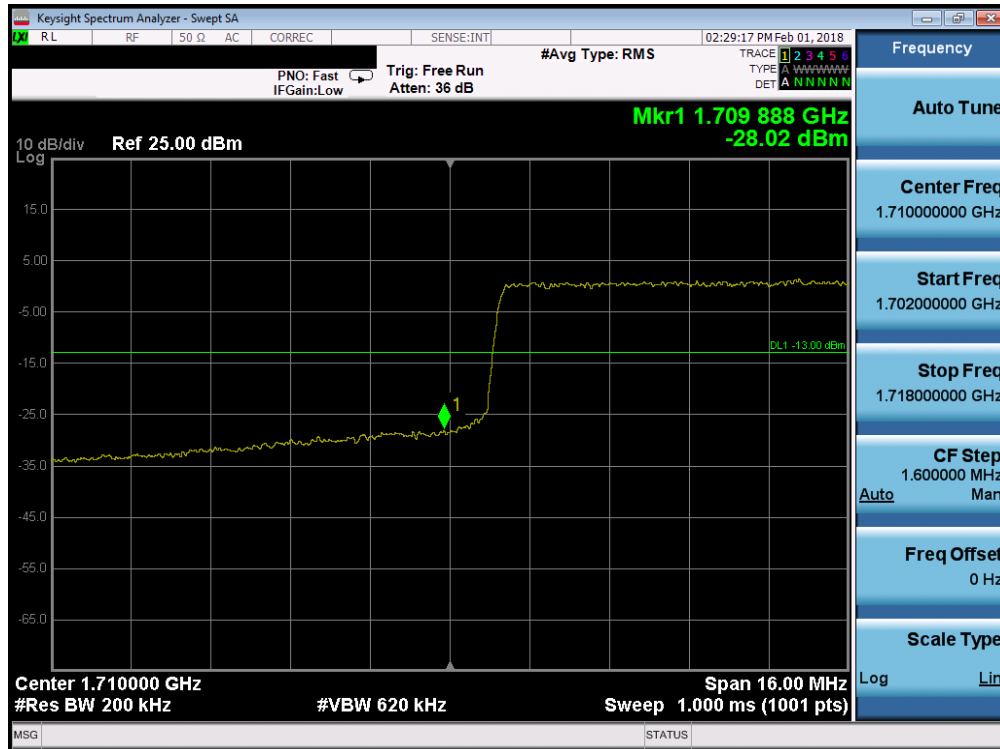


Plot 7-171. Upper Band Edge Plot (Band 4 – 15.0MHz QPSK - Full RB Configuration)

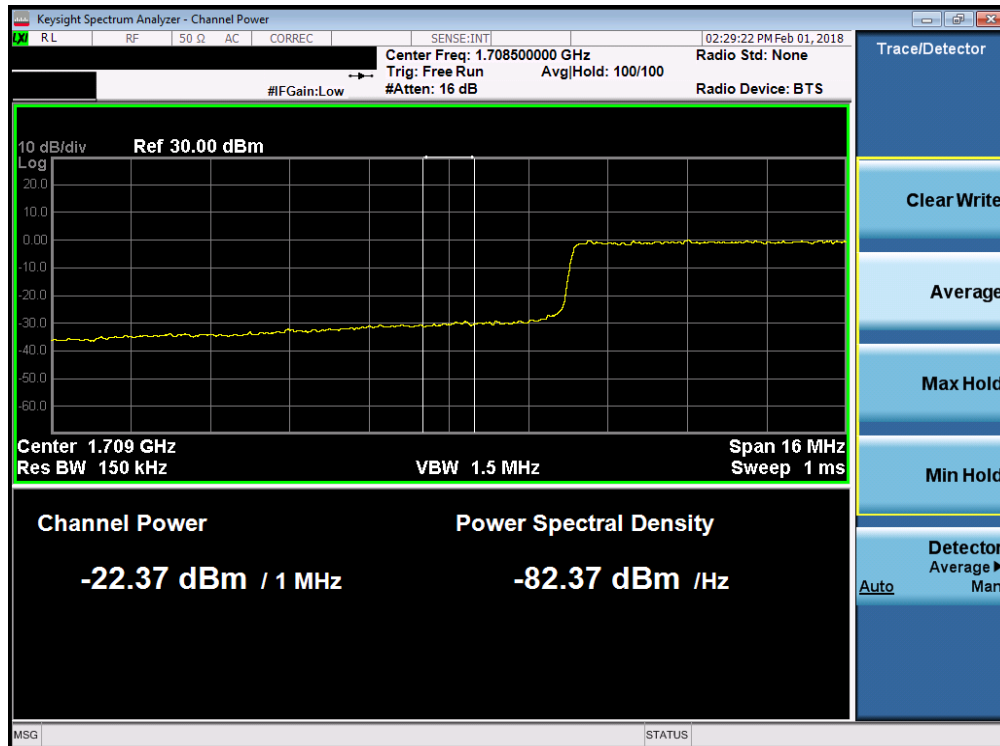


Plot 7-172. Extended Upper Band Edge Plot (Band 4 – 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1801220007-03.A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset		Page 107 of 153

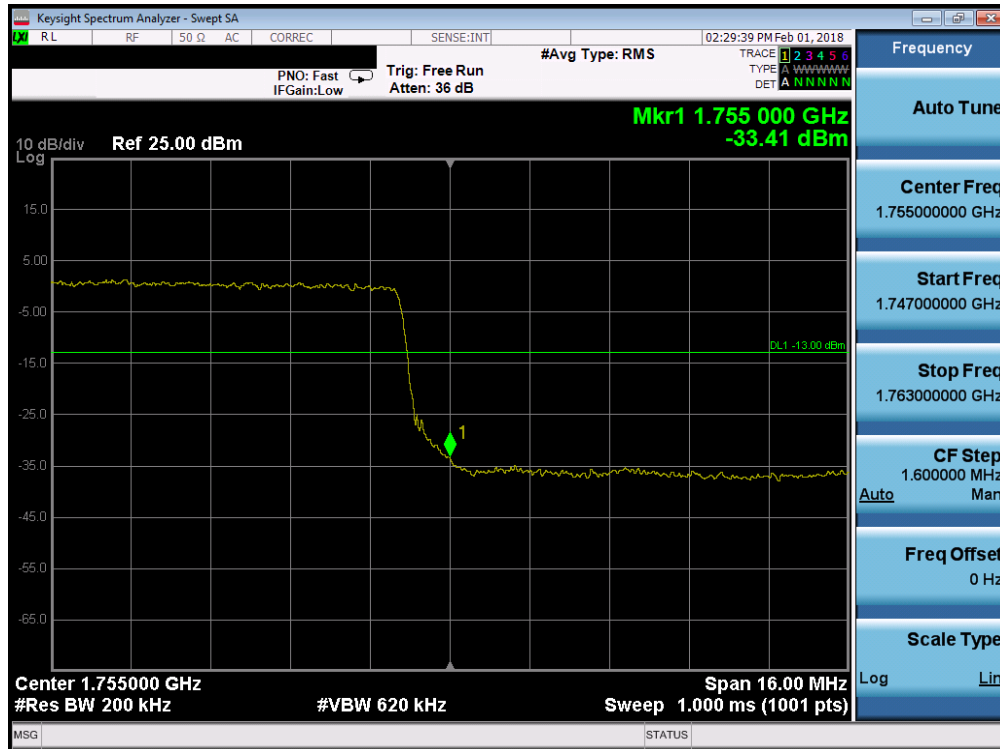


Plot 7-173. Lower Band Edge Plot (Band 4 – 20.0MHz QPSK - Full RB Configuration)

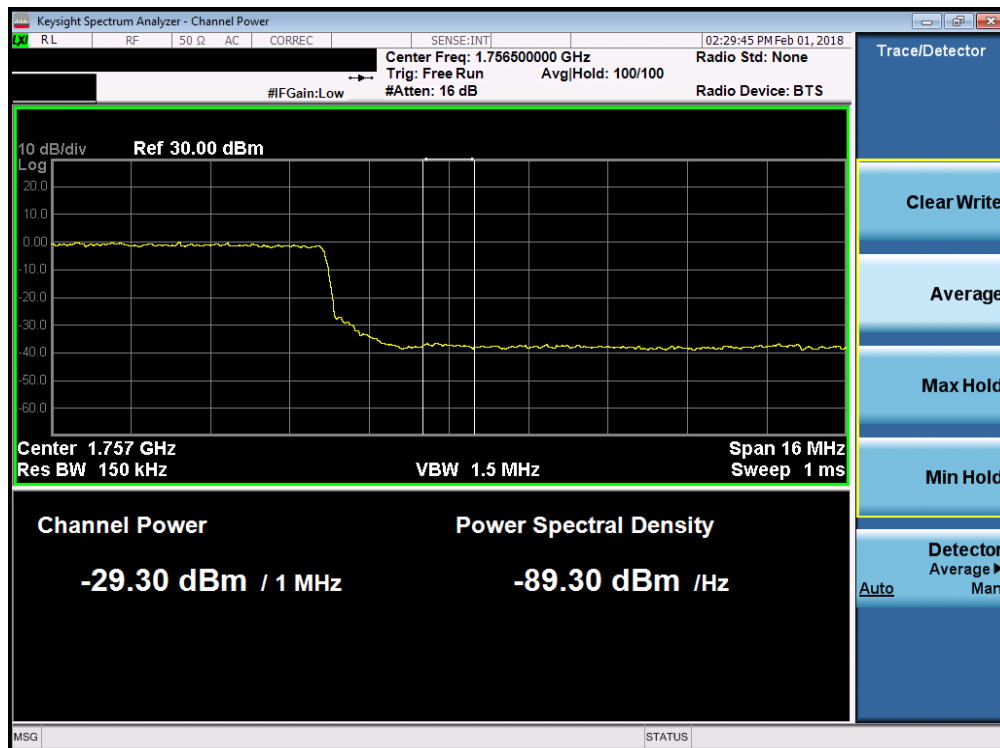


Plot 7-174. Extended Lower Band Edge Plot (Band 4 – 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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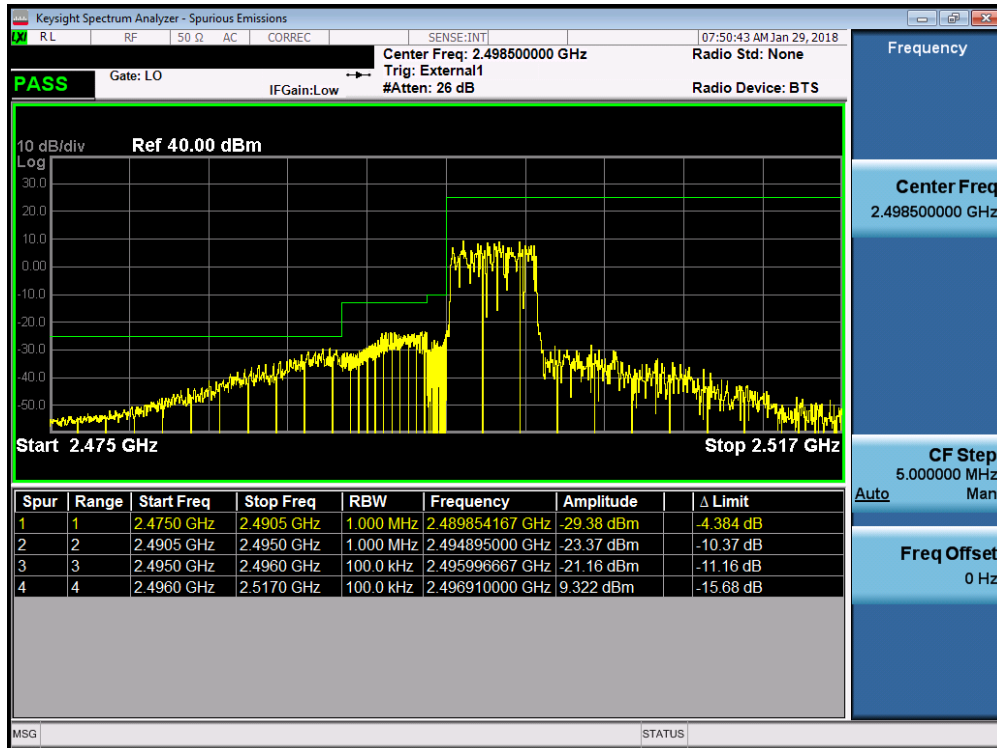
Plot 7-175. Upper Band Edge Plot (Band 4 – 20.0MHz QPSK - Full RB Configuration)



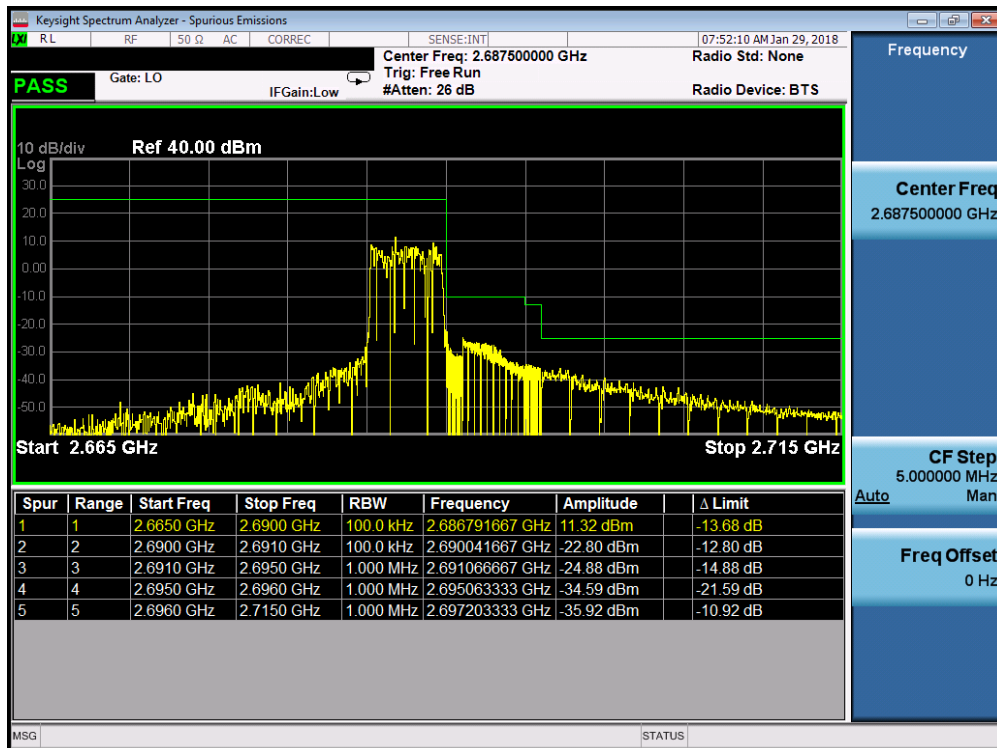
Plot 7-176. Extended Upper Band Edge Plot (Band 4 – 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 41

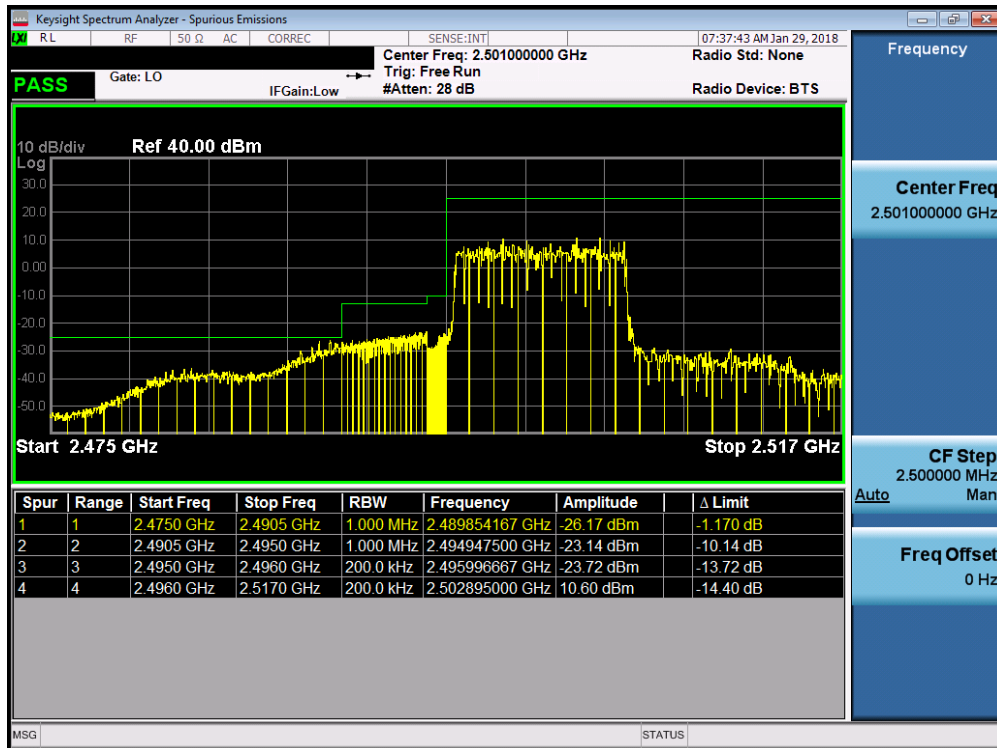


Plot 7-177. Lower ACP Plot at 2496 MHz (Band 41 - 5.0MHz QPSK - RB Size 25)

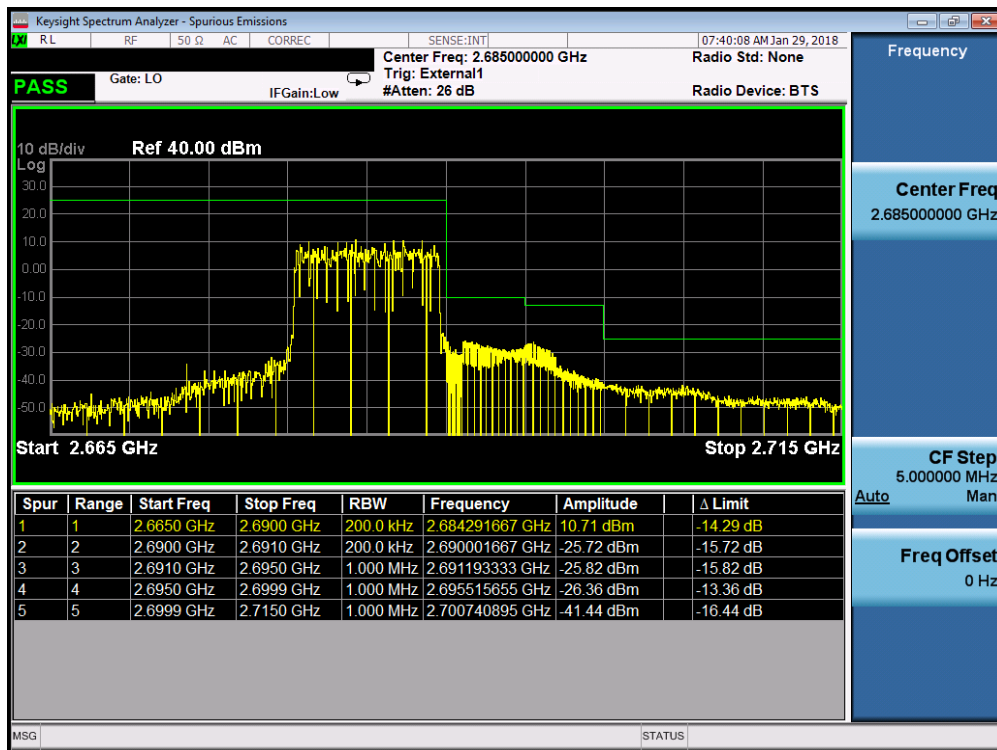


Plot 7-178. Upper ACP Plot (Band 41 - 5.0MHz QPSK - RB Size 25)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1801220007-03.A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset	Page 110 of 153	

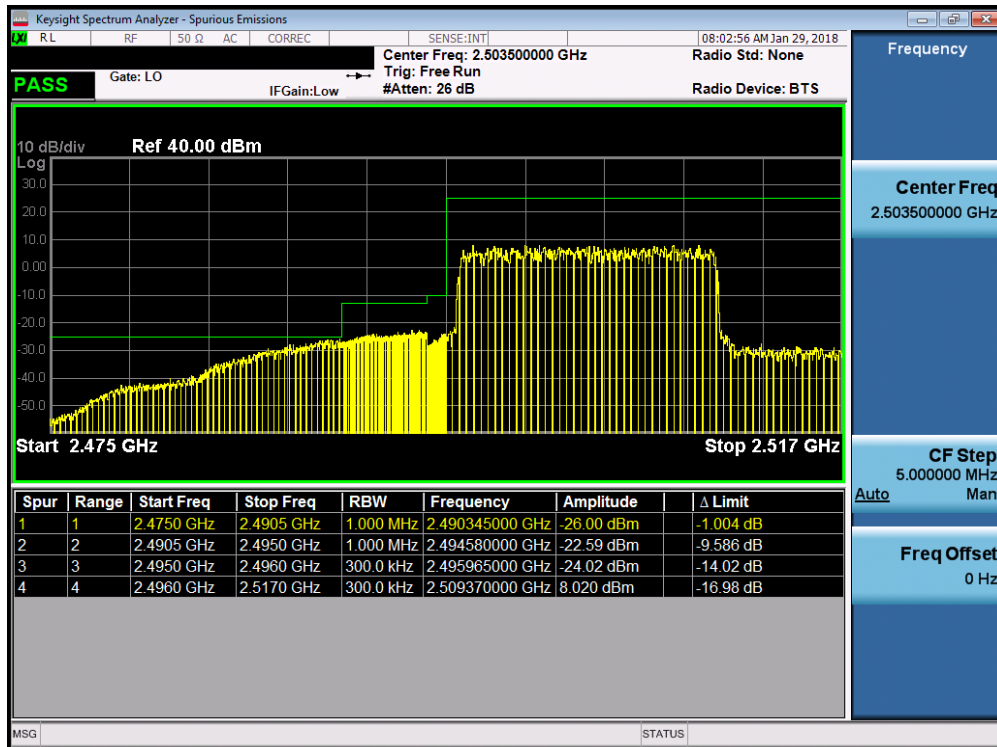


Plot 7-179. Lower ACP Plot at 2496 MHz (Band 41 - 10.0MHz QPSK - RB Size 25)

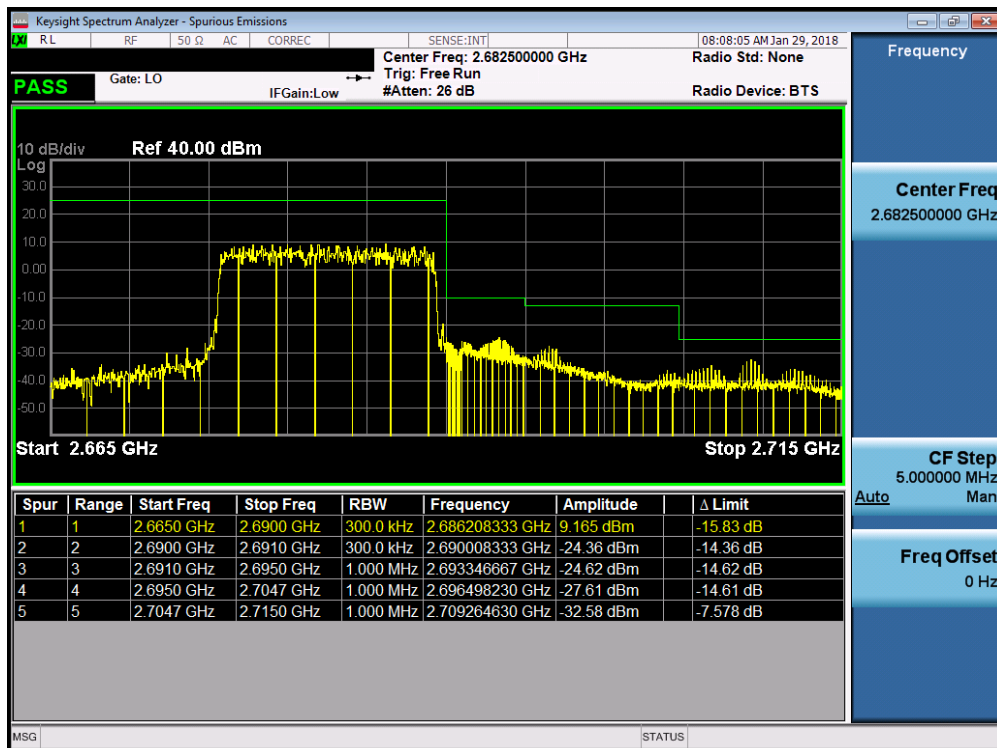


Plot 7-180. Upper ACP Plot (Band 41 - 10.0MHz QPSK - RB Size 25)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1801220007-03.A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset		Page 111 of 153

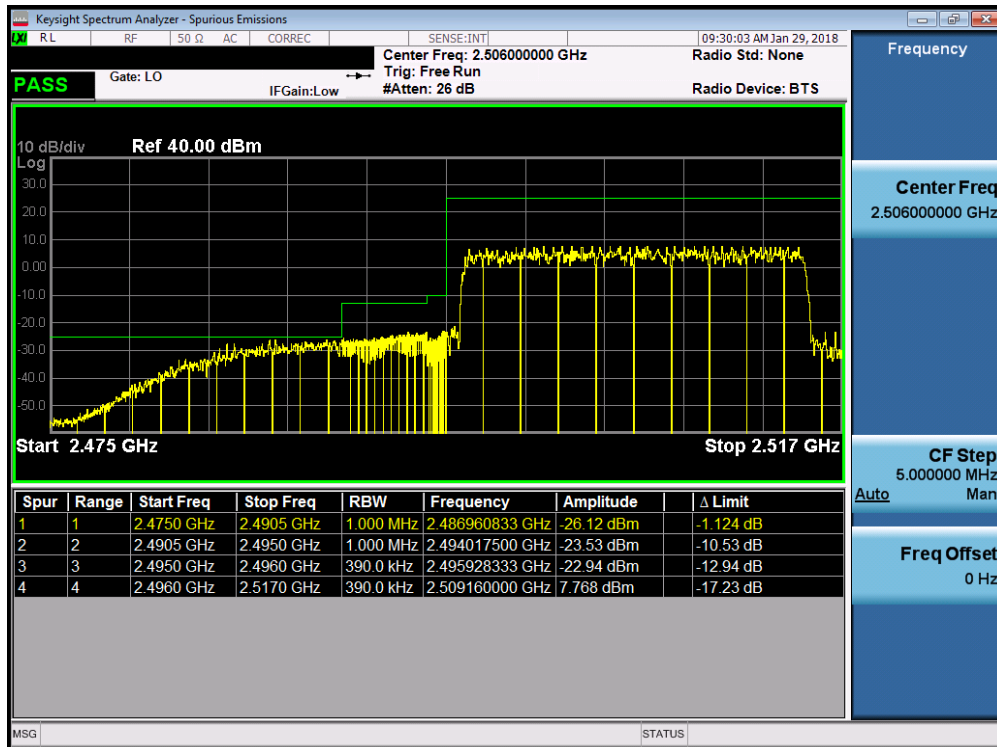


Plot 7-181. Lower ACP Plot at 2496 MHz (Band 41 - 15.0MHz QPSK - RB Size 25)

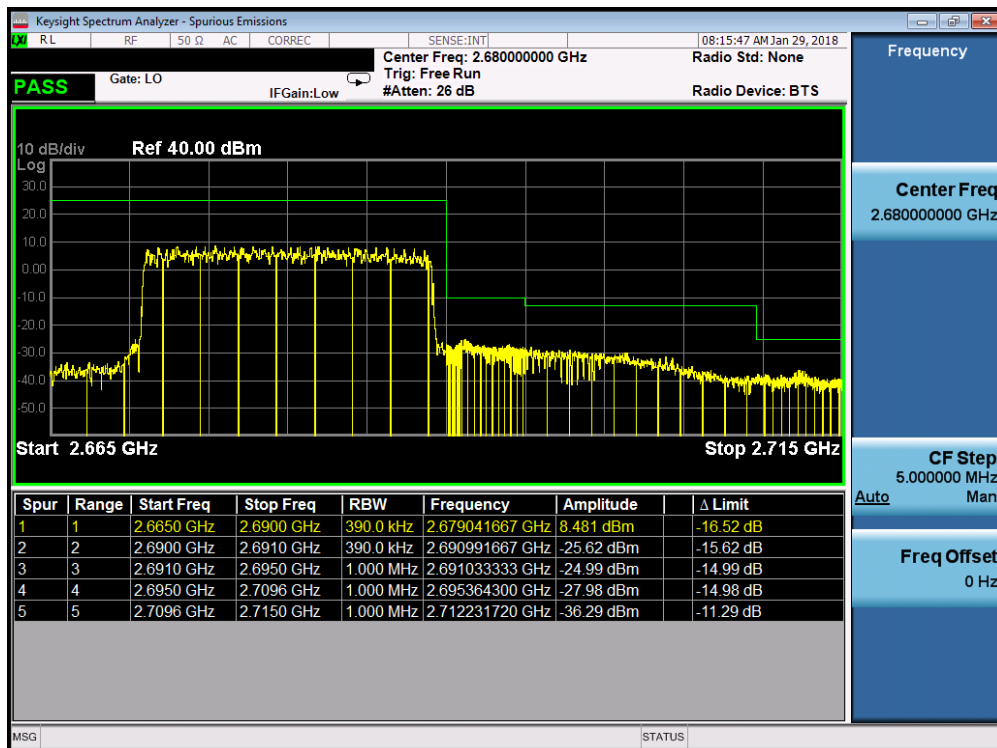


Plot 7-182. Upper ACP Plot (Band 41 - 15.0MHz QPSK - RB Size 25)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1801220007-03-A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset	Page 112 of 153	



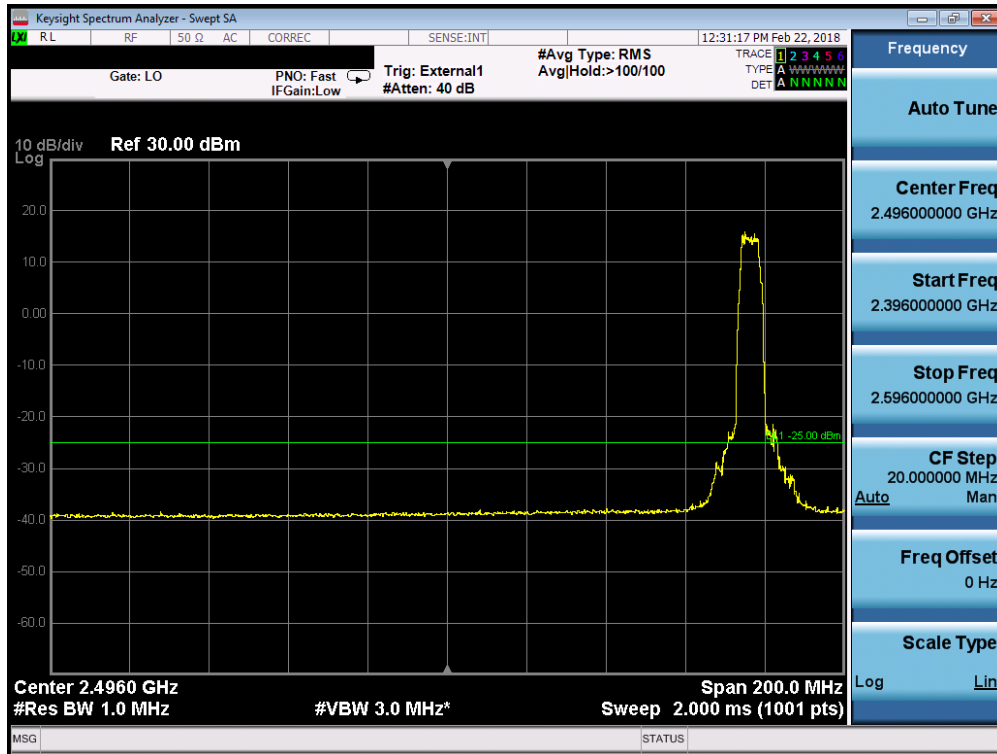
Plot 7-183. Lower ACP Plot at 2496 MHz (Band 41 - 20.0MHz QPSK - RB Size 25)



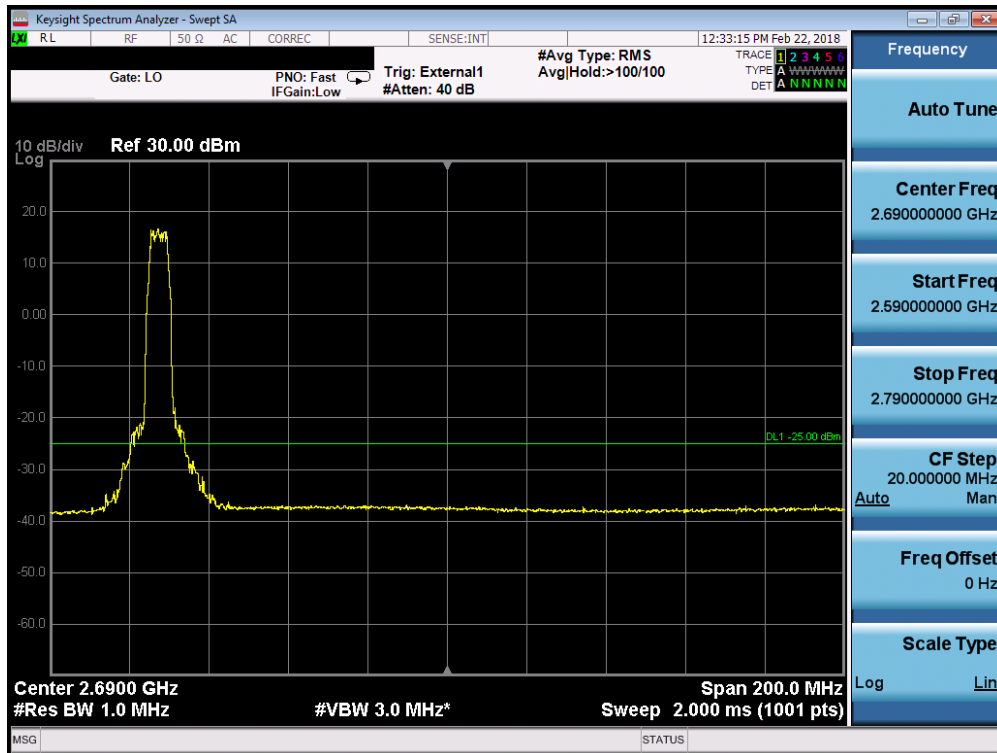
Plot 7-184. Upper ACP Plot (Band 41 - 20.0MHz QPSK - RB Size 25)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1801220007-03.A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset	Page 113 of 153	

Band 38

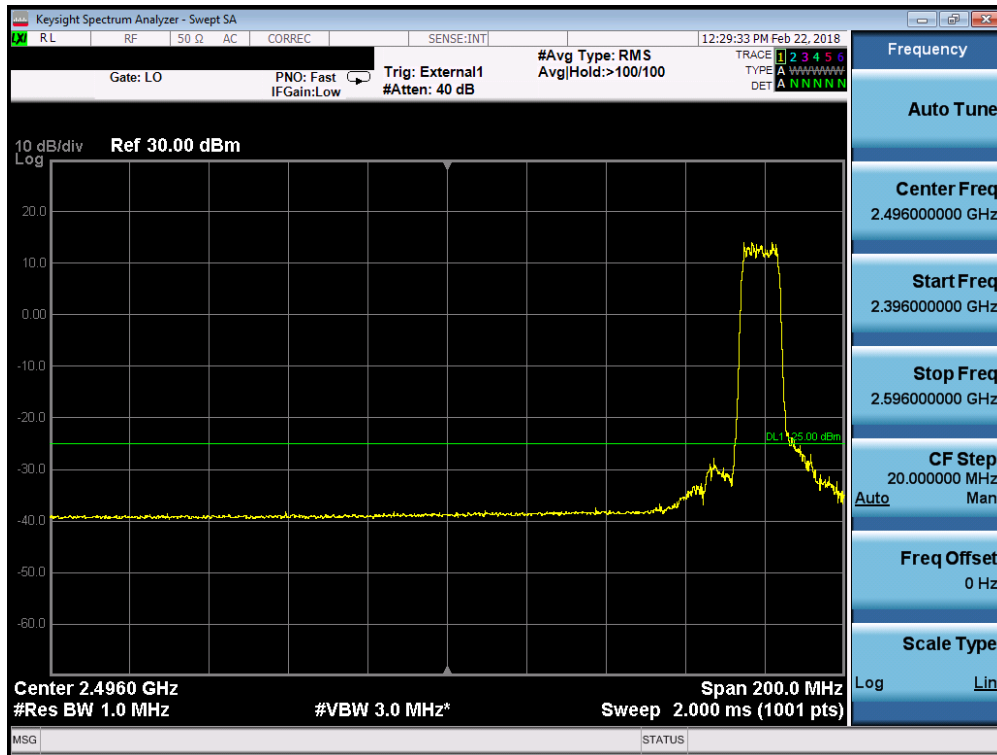


Plot 7-185. Lower Band Edge Plot (Band 38 - 5.0MHz QPSK - RB Size 25)

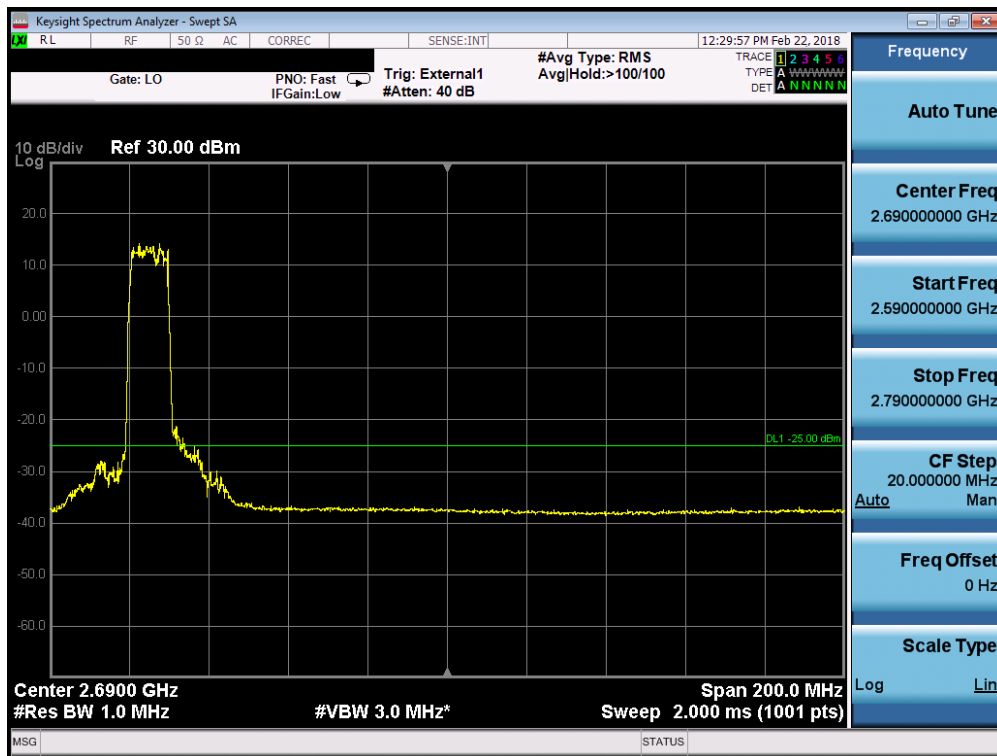


Plot 7-186. Upper Band Edge Plot (Band 38 - 5.0MHz QPSK - RB Size 25)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1801220007-03.A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset	Page 114 of 153	

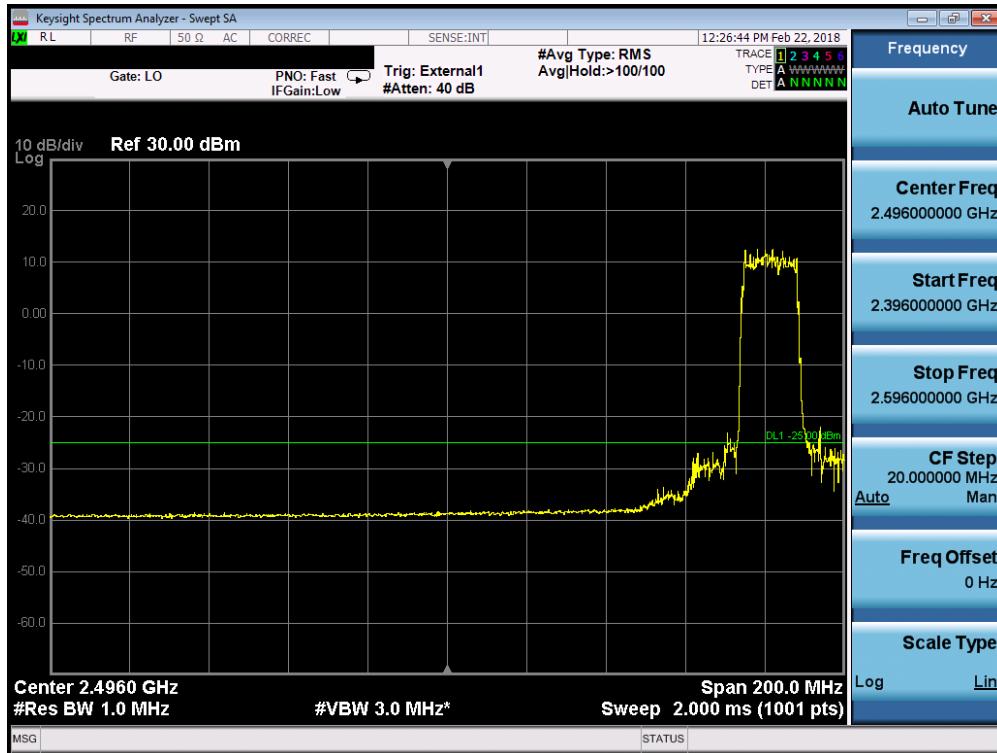


Plot 7-187. Lower Band Edge Plot (Band 38 - 10.0MHz QPSK - RB Size 50)

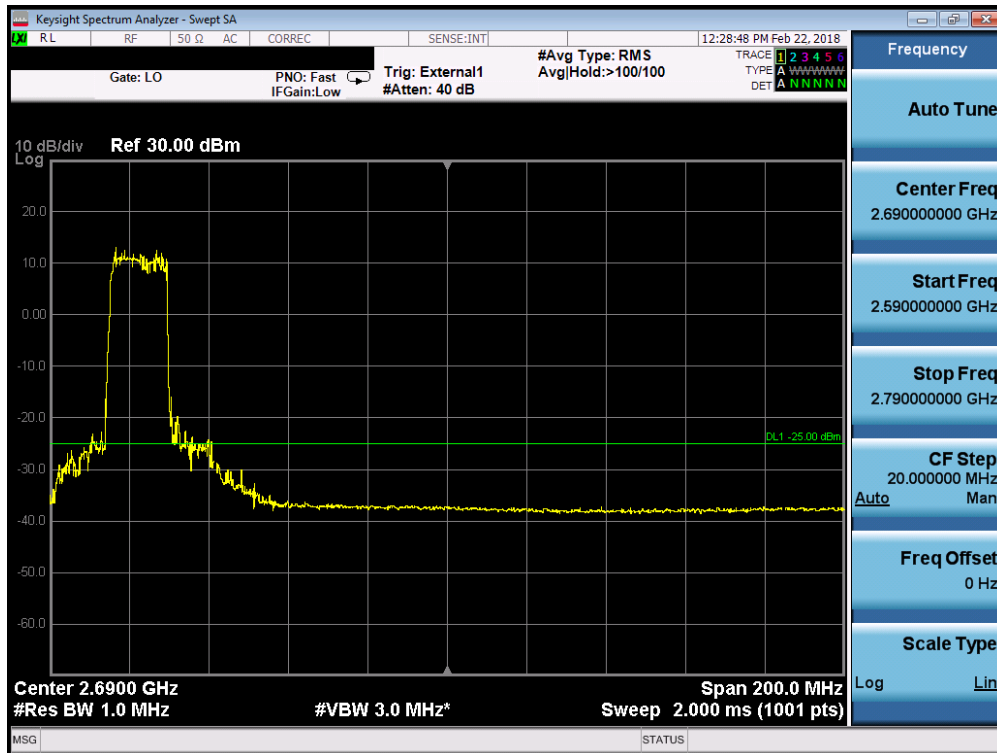


Plot 7-188. Upper Band Edge Plot (Band 38 - 10.0MHz QPSK - RB Size 50)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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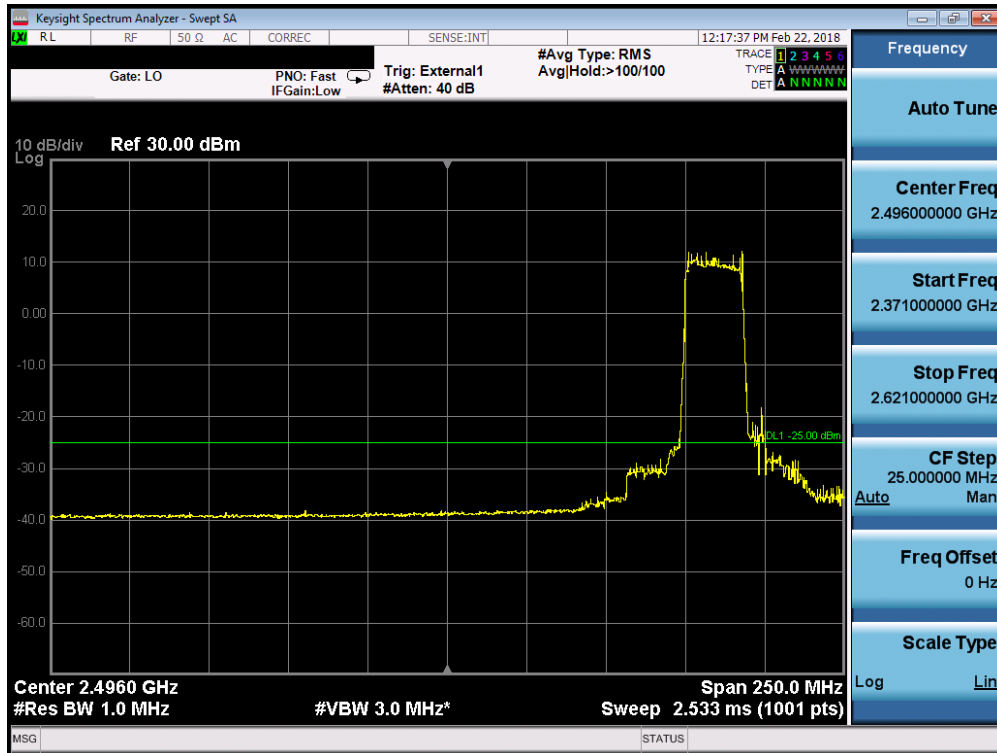


Plot 7-189. Lower Band Edge Plot (Band 38 - 15.0MHz QPSK - RB Size 75)

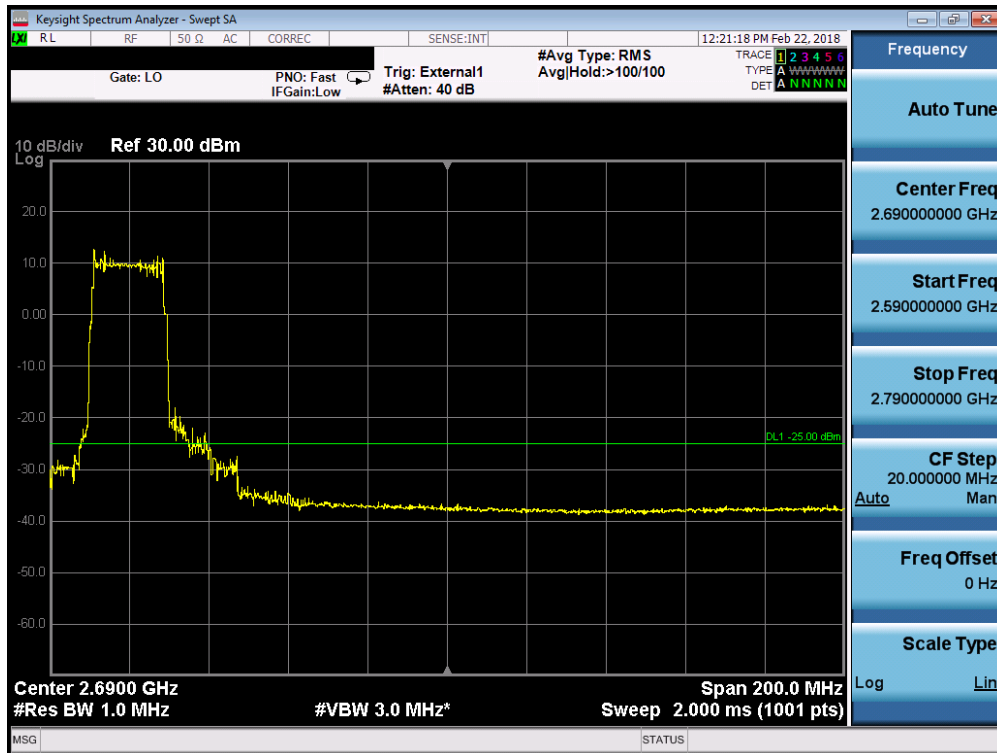


Plot 7-190. Upper Band Edge Plot (Band 38 - 15.0MHz QPSK - RB Size 75)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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Plot 7-191. Lower Band Edge Plot (Band 38 - 20.0MHz QPSK - RB Size 100)



Plot 7-192. Upper Band Edge Plot (Band 38 - 20.0MHz QPSK - RB Size 100)

FCC ID: A3LSC02K	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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7.5 Radiated Power (ERP/EIRP)

Test Overview

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03 – Section 5.2.1

ANSI/TIA-603-E-2016 – Section 2.2.17

Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation. For signals with burst transmission, the signal analyzer's "time domain power" measurement capability is used
2. RBW = 1 – 5% of the expected OBW, not to exceed 1MHz
3. VBW $\geq 3 \times$ RBW
4. Span = 1.5 times the OBW
5. No. of sweep points $\geq 2 \times$ span / RBW
6. Detector = RMS
7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto". Trigger is set to enable triggering only on full power bursts with the sweep time set less than or equal to the transmission burst duration
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation. For signals with burst transmission, the "gating" function was enabled to ensure that measurements are performed during times in which the transmitter is operating at its maximum power
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize

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Test Setup

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

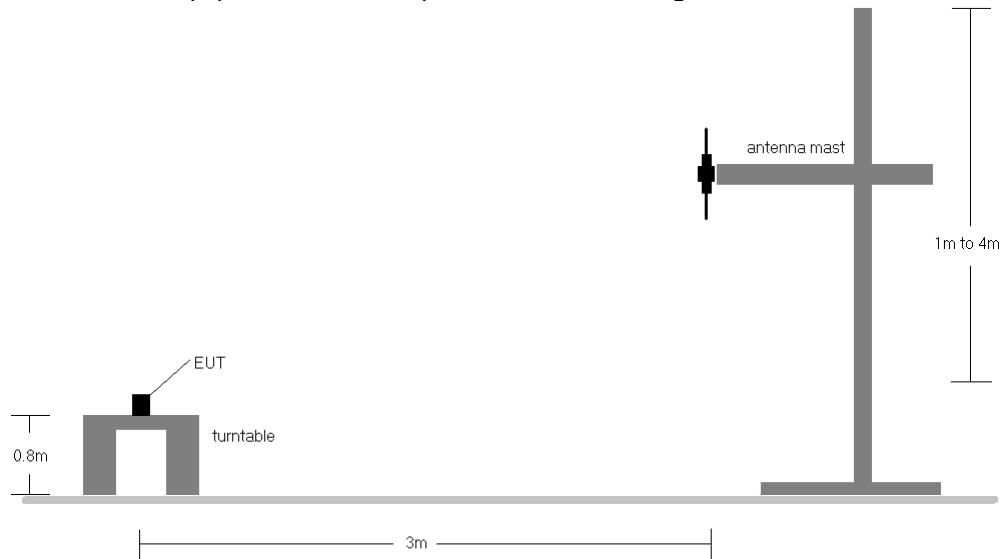


Figure 7-4. Radiated Test Setup <1GHz

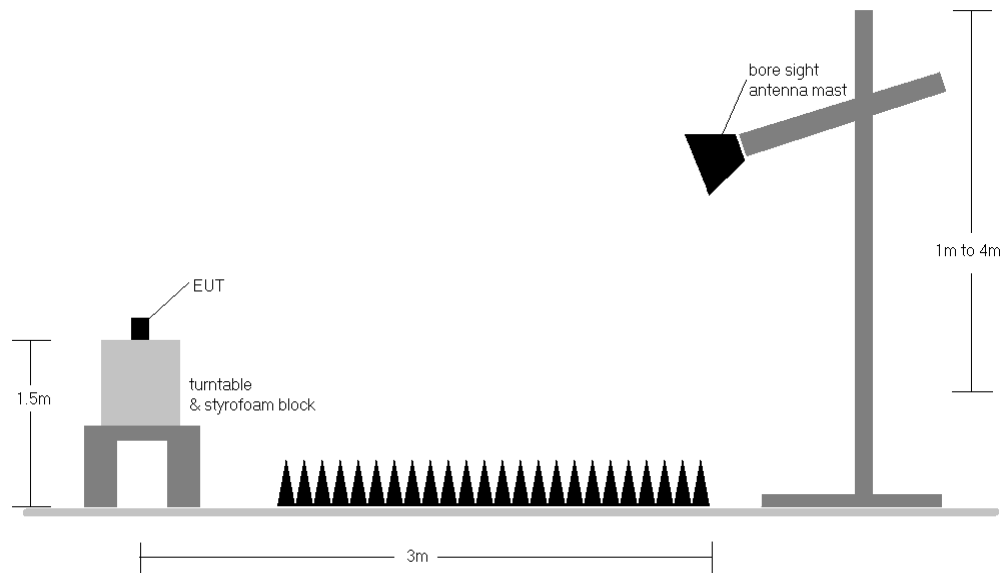


Figure 7-5. Radiated Test Setup >1GHz

Test Notes

- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 2) This unit was tested with its standard battery.

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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
699.70	1.4	QPSK	H	150	288	1 / 0	15.95	1.10	14.90	0.031	34.77	-19.87	17.05	0.051	36.99	-19.94
707.50	1.4	QPSK	H	150	297	1 / 0	16.19	1.13	15.17	0.033	34.77	-19.60	17.32	0.054	36.99	-19.67
715.30	1.4	QPSK	H	150	287	1 / 5	14.97	1.16	13.98	0.025	34.77	-20.79	16.13	0.041	36.99	-20.86
707.50	1.4	16-QAM	H	150	297	1 / 0	15.25	1.13	14.23	0.026	34.77	-20.54	16.38	0.043	36.99	-20.61
707.50	1.4	64-QAM	H	150	297	1 / 0	14.23	1.13	13.21	0.021	34.77	-21.56	15.36	0.034	36.99	-21.63
700.50	3	QPSK	H	150	269	1 / 0	15.97	1.10	14.92	0.031	34.77	-19.85	17.07	0.051	36.99	-19.92
707.50	3	QPSK	H	150	274	1 / 0	16.12	1.13	15.10	0.032	34.77	-19.67	17.25	0.053	36.99	-19.74
714.50	3	QPSK	H	150	290	1 / 0	15.15	1.16	14.16	0.026	34.77	-20.61	16.31	0.043	36.99	-20.68
707.50	3	16-QAM	H	150	274	1 / 0	15.27	1.13	14.25	0.027	34.77	-20.52	16.40	0.044	36.99	-20.59
707.50	3	64-QAM	H	150	274	1 / 0	14.26	1.13	13.24	0.021	34.77	-21.53	15.39	0.035	36.99	-21.60
701.50	5	QPSK	H	150	287	1 / 0	16.10	1.11	15.06	0.032	34.77	-19.72	17.21	0.053	36.99	-19.78
707.50	5	QPSK	H	150	292	1 / 0	16.32	1.13	15.30	0.034	34.77	-19.47	17.45	0.056	36.99	-19.54
713.50	5	QPSK	H	150	257	1 / 24	15.24	1.15	14.24	0.027	34.77	-20.53	16.39	0.044	36.99	-20.60
707.50	5	16-QAM	H	150	292	1 / 0	15.65	1.13	14.63	0.029	34.77	-20.14	16.78	0.048	36.99	-20.21
707.50	5	64-QAM	H	150	292	1 / 0	14.46	1.13	13.44	0.022	34.77	-21.33	15.59	0.036	36.99	-21.40
704.00	10	QPSK	H	150	243	25 / 12	15.00	1.12	13.97	0.025	34.77	-20.80	16.12	0.041	36.99	-20.87
707.50	10	QPSK	H	150	277	1 / 0	15.82	1.13	14.80	0.030	34.77	-19.97	16.95	0.050	36.99	-20.04
711.00	10	QPSK	H	150	298	1 / 0	16.27	1.14	15.26	0.034	34.77	-19.51	17.41	0.055	36.99	-19.58
711.00	10	16-QAM	H	150	298	1 / 0	15.54	1.14	14.53	0.028	34.77	-20.24	16.68	0.047	36.99	-20.31
711.00	10	64-QAM	H	150	298	1 / 0	14.51	1.14	13.50	0.022	34.77	-21.27	15.65	0.037	36.99	-21.34
707.50	5	QPSK	V	150	117	1 / 0	15.83	1.13	14.81	0.030	34.77	-19.96	16.96	0.050	36.99	-20.03
707.50	5 (WCP)	QPSK	H	150	339	1 / 0	12.29	1.13	11.27	0.013	34.77	-23.50	13.42	0.022	36.99	-23.57

Table 7-3. ERP/EIRP Data (Band 12/17)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
779.50	5	QPSK	H	150	271	1 / 24	18.44	1.32	17.61	0.058	34.77	-17.16	19.76	0.095	36.99	-17.23
782.00	5	QPSK	H	150	285	1 / 24	19.13	1.33	18.31	0.068	34.77	-16.46	20.46	0.111	36.99	-16.53
784.50	5	QPSK	H	150	278	1 / 24	19.31	1.34	18.50	0.071	34.77	-16.27	20.65	0.116	36.99	-16.34
784.50	5	16-QAM	H	150	278	1 / 24	18.31	1.34	17.50	0.056	34.77	-17.27	19.65	0.092	36.99	-17.34
784.50	5	64-QAM	H	150	278	1 / 24	17.33	1.34	16.52	0.045	34.77	-18.25	18.67	0.074	36.99	-18.32
782.00	10	QPSK	H	150	289	1 / 49	19.22	1.33	18.40	0.069	34.77	-16.37	20.55	0.113	36.99	-16.44
782.00	10	16-QAM	H	150	289	1 / 49	18.08	1.33	17.26	0.053	34.77	-17.51	19.41	0.087	36.99	-17.58
782.00	10	64-QAM	H	150	289	1 / 49	17.44	1.33	16.62	0.046	34.77	-18.15	18.77	0.075	36.99	-18.22
784.50	5	QPSK	V	150	247	1 / 74	17.50	1.34	16.69	0.047	34.77	-18.08	18.84	0.077	36.99	-18.15
784.50	5 (WCP)	QPSK	V	150	339	1 / 49	14.15	1.34	13.34	0.022	34.77	-21.43	15.49	0.035	36.99	-21.50

Table 7-4. ERP/EIRP Data (Band 13)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
824.70	1.4	QPSK	V	150	260	1 / 3	20.21	1.50	19.56	0.090	38.45	-18.89	21.71	0.148	40.61	-18.90
836.50	1.4	QPSK	V	150	248	1 / 3	20.14	1.50	19.49	0.089	38.45	-18.96	21.64	0.146	40.61	-18.97
848.30	1.4	QPSK	V	150	262	1 / 3	19.25	1.50	18.60	0.072	38.45	-19.85	20.75	0.119	40.61	-19.86
824.70	1.4	16-QAM	V	150	260	1 / 3	19.33	1.50	18.68	0.074	38.45	-19.77	20.83	0.121	40.61	-19.78
824.70	1.4	64-QAM	V	150	260	1 / 3	18.42	1.50	17.77	0.060	38.45	-20.68	19.92	0.098	40.61	-20.69
825.50	3	QPSK	V	150	245	1 / 0	20.80	1.50	20.15	0.104	38.45	-18.30	22.30	0.170	40.61	-18.31
836.50	3	QPSK	V	150	244	1 / 0	20.18	1.50	19.53	0.090	38.45	-18.92	21.68	0.147	40.61	-18.93
847.50	3	QPSK	V	150	253	1 / 0	19.73	1.50	19.08	0.081	38.45	-19.37	21.23	0.133	40.61	-19.38
825.50	3	16-QAM	V	150	245	1 / 0	19.75	1.50	19.10	0.081	38.45	-19.35	21.25	0.133	40.61	-19.36
825.50	3	64-QAM	V	150	245	1 / 0	18.67	1.50	18.02	0.063	38.45	-20.43	20.17	0.104	40.61	-20.44
826.50	5	QPSK	V	150	257	1 / 12	20.48	1.50	19.83	0.096	38.45	-18.62	21.98	0.158	40.61	-18.63
836.50	5	QPSK	V	150	259	1 / 0	20.15	1.50	19.50	0.089	38.45	-18.95	21.65	0.146	40.61	-18.96
846.50	5	QPSK	V	150	259	1 / 0	19.54	1.50	18.89	0.077	38.45	-19.56	21.04	0.127	40.61	-19.57
826.50	5	16-QAM	V	150	257	1 / 12	19.57	1.50	18.92	0.078	38.45	-19.53	21.07	0.128	40.61	-19.54
826.50	5	64-QAM	V	150	257	1 / 12	18.64	1.50	17.99	0.063	38.45	-20.46	20.14	0.103	40.61	-20.47
829.00	10	QPSK	V	150	256	1 / 0	20.15	1.50	19.50	0.089	38.45	-18.95	21.65	0.146	40.61	-18.96
836.50	10	QPSK	V	150	248	1 / 0	20.37	1.50	19.72	0.094	38.45	-18.73	21.87	0.154	40.61	-18.74
844.00	10	QPSK	V	150	247	1 / 0	19.87	1.50	19.22	0.084	38.45	-19.23	21.37	0.137	40.61	-19.24
836.50	10	16-QAM	V	150	248	1 / 0	19.65	1.50	19.00	0.079	38.45	-19.45	21.15	0.130	40.61	-19.46
829.00	10	64-QAM	V	150	256	1 / 0	18.62	1.50	17.97	0.063	38.45	-20.48	20.12	0.103	40.61	-20.49
825.50	3	QPSK	H	150	66	1 / 0	19.44	1.50	18.79	0.076	38.45	-19.66	20.94	0.124	40.61	-19.67
825.50	3 (WCP)	QPSK	V	150	233	1 / 0	14.77	1.50	14.12	0.026	38.45	-24.33	16.27	0.042	40.61	-24.34

Table 7-5. ERP/EIRP Data (Band 5)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1801220007-03.A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset	Page 121 of 153

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1710.70	1.4	QPSK	H	150	189	1 / 0	15.50	5.56	21.06	0.128	30.00	-8.94
1732.50	1.4	QPSK	H	150	194	1 / 0	14.52	5.41	19.93	0.098	30.00	-10.07
1754.30	1.4	QPSK	H	150	190	1 / 0	14.58	5.26	19.84	0.096	30.00	-10.16
1710.70	1.4	16-QAM	H	150	189	1 / 0	14.60	5.56	20.16	0.104	30.00	-9.84
1732.50	1.4	64-QAM	H	150	194	1 / 0	12.76	5.41	18.17	0.066	30.00	-11.83
1711.50	3	QPSK	H	150	185	1 / 0	16.00	5.55	21.55	0.143	30.00	-8.45
1732.50	3	QPSK	H	150	185	1 / 0	14.67	5.41	20.08	0.102	30.00	-9.92
1753.50	3	QPSK	H	150	191	1 / 0	14.93	5.26	20.19	0.105	30.00	-9.81
1711.50	3	16-QAM	H	150	185	1 / 0	14.88	5.55	20.43	0.110	30.00	-9.57
1732.50	3	64-QAM	H	150	185	1 / 0	12.73	5.41	18.14	0.065	30.00	-11.86
1712.50	5	QPSK	H	150	188	1 / 0	16.08	5.55	21.63	0.145	30.00	-8.37
1732.50	5	QPSK	H	150	198	1 / 24	15.16	5.41	20.57	0.114	30.00	-9.43
1752.50	5	QPSK	H	150	192	1 / 0	15.02	5.27	20.29	0.107	30.00	-9.71
1712.50	5	16-QAM	H	150	188	1 / 0	15.00	5.55	20.55	0.113	30.00	-9.45
1732.50	5	64-QAM	H	150	198	1 / 24	13.23	5.41	18.64	0.073	30.00	-11.36
1715.00	10	QPSK	H	150	198	1 / 0	15.84	5.53	21.37	0.137	30.00	-8.63
1732.50	10	QPSK	H	150	193	1 / 0	15.08	5.41	20.49	0.112	30.00	-9.51
1750.00	10	QPSK	H	150	201	25 / 12	15.20	5.29	20.49	0.112	30.00	-9.51
1715.00	10	16-QAM	H	150	198	1 / 0	15.10	5.53	20.63	0.116	30.00	-9.37
1732.50	10	64-QAM	H	150	193	1 / 0	13.40	5.41	18.81	0.076	30.00	-11.19
1717.50	15	QPSK	H	150	192	1 / 0	15.94	5.51	21.45	0.140	30.00	-8.55
1732.50	15	QPSK	H	150	191	1 / 74	15.46	5.41	20.87	0.122	30.00	-9.13
1747.50	15	QPSK	H	150	156	1 / 0	15.36	5.31	20.67	0.117	30.00	-9.33
1717.50	15	16-QAM	H	150	192	1 / 0	15.18	5.51	20.69	0.117	30.00	-9.31
1732.50	15	64-QAM	H	150	191	1 / 74	13.54	5.41	18.95	0.078	30.00	-11.05
1720.00	20	QPSK	H	150	184	1 / 99	15.48	5.49	20.97	0.125	30.00	-9.03
1732.50	20	QPSK	H	150	193	1 / 99	15.34	5.41	20.75	0.119	30.00	-9.25
1745.00	20	QPSK	H	150	198	1 / 99	15.26	5.32	20.58	0.114	30.00	-9.42
1732.50	20	16-QAM	H	150	193	1 / 99	14.67	5.41	20.08	0.102	30.00	-9.92
1732.50	20	64-QAM	H	150	193	1 / 99	13.59	5.41	19.00	0.079	30.00	-11.00
1712.50	5	QPSK	V	150	227	1 / 0	15.16	5.41	20.57	0.114	30.00	-9.43
1712.50	5 (WCP)	QPSK	H	150	214	1 / 0	15.21	5.41	20.62	0.115	30.00	-9.38

Table 7-6. EIRP Data (Band 4)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 			Approved by: Quality Manager
Test Report S/N: 1M1801220007-03.A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset		Page 122 of 153

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2502.50	5	QPSK	H	150	316	1 / 24	16.02	5.74	21.76	0.150	33.01	-11.25
2535.00	5	QPSK	H	150	316	1 / 0	16.60	5.86	22.46	0.176	33.01	-10.55
2567.50	5	QPSK	H	150	316	1 / 24	17.03	5.98	23.01	0.200	33.01	-10.00
2567.50	5	16-QAM	H	150	316	1 / 24	16.40	5.98	22.38	0.173	33.01	-10.63
2567.50	5	64-QAM	H	150	316	1 / 24	15.27	5.98	21.25	0.133	33.01	-11.76
2505.00	10	QPSK	H	150	358	1 / 49	16.04	5.75	21.79	0.151	33.01	-11.22
2535.00	10	QPSK	H	150	358	1 / 49	16.70	5.86	22.56	0.180	33.01	-10.45
2565.00	10	QPSK	H	150	358	1 / 0	17.31	5.97	23.28	0.213	33.01	-9.73
2565.00	10	16-QAM	H	150	358	1 / 0	16.53	5.97	22.50	0.178	33.01	-10.51
2565.00	10	64-QAM	H	150	358	1 / 0	15.58	5.97	21.55	0.143	33.01	-11.46
2507.50	15	QPSK	H	150	318	1 / 74	16.07	5.76	21.83	0.152	33.01	-11.18
2535.00	15	QPSK	H	150	318	1 / 74	16.45	5.86	22.31	0.170	33.01	-10.70
2562.50	15	QPSK	H	150	318	1 / 74	16.85	5.96	22.81	0.191	33.01	-10.20
2562.50	15	16-QAM	H	150	318	1 / 74	16.10	5.96	22.06	0.161	33.01	-10.95
2562.50	15	64-QAM	H	150	318	1 / 74	15.12	5.96	21.08	0.128	33.01	-11.93
2510.00	20	QPSK	H	150	316	1 / 99	16.31	5.77	22.08	0.161	33.01	-10.93
2535.00	20	QPSK	H	150	316	1 / 99	16.71	5.86	22.57	0.181	33.01	-10.44
2560.00	20	QPSK	H	150	316	1 / 0	17.11	5.95	23.06	0.202	33.01	-9.95
2560.00	20	16-QAM	H	150	316	1 / 99	16.27	5.95	22.22	0.167	33.01	-10.79
2560.00	20	64-QAM	H	150	316	1 / 99	15.25	5.95	21.20	0.132	33.01	-11.81
2565.00	10	QPSK	V	150	12	1 / 99	15.19	6.07	21.26	0.134	33.01	-11.75
2565.00	10 (WCP)	QPSK	H	150	60	1 / 0	15.07	5.86	20.93	0.124	33.01	-12.08

Table 7-7. EIRP Data (Band 7)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	RB Size/Offset	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
2498.50	5	QPSK	H	150	25	1 / 24	15.88	5.73	21.61	0.145	33.01	-11.40
2593.00	5	QPSK	H	150	23	1 / 0	18.14	6.07	24.21	0.264	33.01	-8.80
2687.50	5	QPSK	H	150	23	1 / 0	15.42	6.48	21.90	0.155	33.01	-11.11
2593.00	5	16-QAM	H	150	23	1 / 0	17.26	6.07	23.33	0.215	33.01	-9.68
2593.00	5	64-QAM	H	150	23	1 / 0	16.59	6.07	22.66	0.185	33.01	-10.35
2501.00	10	QPSK	H	150	8	1 / 0	17.20	5.73	22.93	0.197	33.01	-10.08
2593.00	10	QPSK	H	150	16	1 / 0	18.80	6.07	24.87	0.307	33.01	-8.14
2685.00	10	QPSK	H	150	14	1 / 0	15.71	6.47	22.18	0.165	33.01	-10.83
2593.00	10	16-QAM	H	150	16	1 / 0	18.03	6.07	24.10	0.257	33.01	-8.91
2593.00	10	64-QAM	H	150	16	1 / 0	16.82	6.07	22.89	0.195	33.01	-10.12
2503.50	15	QPSK	H	150	23	1 / 74	16.51	5.74	22.25	0.168	33.01	-10.76
2593.00	15	QPSK	H	150	23	1 / 0	18.15	6.07	24.22	0.264	33.01	-8.79
2682.50	15	QPSK	H	150	23	1 / 0	16.19	6.46	22.65	0.184	33.01	-10.36
2593.00	15	16-QAM	H	150	23	1 / 0	17.50	6.07	23.57	0.228	33.01	-9.44
2593.00	15	64-QAM	H	150	23	1 / 0	16.28	6.07	22.35	0.172	33.01	-10.66
2506.00	20	QPSK	H	150	25	1 / 99	16.32	5.75	22.07	0.161	33.01	-10.94
2593.00	20	QPSK	H	150	25	1 / 0	17.89	6.07	23.96	0.249	33.01	-9.05
2680.00	20	QPSK	H	150	25	1 / 0	16.26	6.45	22.71	0.187	33.01	-10.30
2593.00	20	16-QAM	H	150	25	1 / 0	17.12	6.07	23.19	0.209	33.01	-9.82
2593.00	20	64-QAM	H	150	25	1 / 0	16.42	6.07	22.49	0.178	33.01	-10.52
2593.00	10	QPSK	V	150	243	1 / 0	16.16	6.27	22.43	0.175	33.01	-10.58
2593.00	10 (WCP)	QPSK	H	150	331	1 / 0	16.98	6.07	23.05	0.202	33.01	-9.96

Table 7-8. EIRP Data (Band 41/38)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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7.6 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas.

Test Procedures Used

KDB 971168 D01 v03 – Section 5.8

ANSI/TIA-603-E-2016 – Section 2.2.12

Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW $\geq 3 \times$ RBW
3. Span = 1.5 times the OBW
4. No. of sweep points $\geq 2 \times$ span / RBW
5. Detector = RMS
6. Trace mode = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize

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Test Setup

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

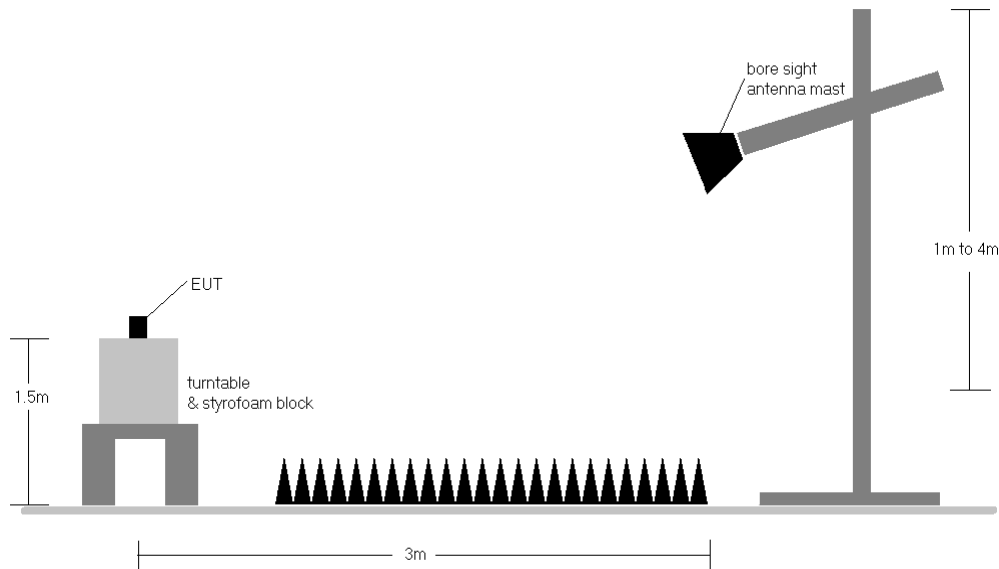


Figure 7-6. Test Instrument & Measurement Setup

Test Notes

- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 2) This unit was tested with its standard battery.
- 3) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 4) Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
- 5) The "-" shown in the following RSE tables are used to denote a noise floor measurement.

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Band 12/17

OPERATING FREQUENCY: 706.50 MHz
 CHANNEL: 23755
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1413.00	H	150	337	-64.44	3.89	-60.56	-47.6
2119.50	H	150	43	-61.67	4.79	-56.88	-43.9
2826.00	H	-	-	-62.21	5.72	-56.49	-43.5

Table 7-9. Radiated Spurious Data (Band 12/17 – Low Channel)

OPERATING FREQUENCY: 710.00 MHz
 CHANNEL: 23790
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1420.00	H	150	98	-64.47	3.95	-60.52	-47.5
2130.00	H	150	109	-61.34	4.78	-56.56	-43.6
2840.00	H	-	-	-61.85	5.76	-56.09	-43.1

Table 7-10. Radiated Spurious Data (Band 12/17 – Mid Channel)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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OPERATING FREQUENCY: 713.50 MHz
 CHANNEL: 23825
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1427.00	H	150	54	-65.43	4.01	-61.42	-48.4
2140.50	H	150	355	-59.64	4.77	-54.87	-41.9
2854.00	H	-	-	-61.97	5.79	-56.18	-43.2

Table 7-11. Radiated Spurious Data (Band 12/17 – High Channel)

OPERATING FREQUENCY: 710.00 MHz
 CHANNEL: 23790
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1420.00	H	150	95	-64.03	3.95	-60.08	-47.1
2130.00	H	150	110	-61.89	4.78	-57.11	-44.1
2840.00	H	-	-	-61.99	5.76	-56.23	-43.2

Table 7-12. Radiated Spurious Data with WCP (Band 12/17 – Mid Channel)

FCC ID: A3LSC02K		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Band 13

OPERATING FREQUENCY: 779.50 MHz
 CHANNEL: 23205
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2338.50	H	-	-	-62.10	4.86	-57.24	-44.2
3118.00	H	-	-	-60.95	5.99	-54.97	-42.0

Table 7-13. Radiated Spurious Data (Band 13 – Low Channel)

OPERATING FREQUENCY: 782.00 MHz
 CHANNEL: 23230
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2346.00	H	-	-	-60.99	4.88	-56.11	-43.1
3128.00	H	-	-	-61.12	6.02	-55.11	-42.1

Table 7-14. Radiated Spurious Data (Band 13 – Mid Channel)

FCC ID: A3LSC02K		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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OPERATING FREQUENCY: 784.50 MHz
 CHANNEL: 23255
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2353.50	H	-	-	-60.61	4.90	-55.71	-42.7
3138.00	H	-	-	-61.32	6.05	-55.27	-42.3

Table 7-15. Radiated Spurious Data (Band 13 – High Channel)

MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.00 MHz
 DISTANCE: 3 meters
 NARROWBAND EMISSION LIMIT: -50 dBm
 WIDEBAND EMISSION LIMIT: -40 dBm/MHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1559.00	H	150	245	-64.53	4.47	-60.06	-20.1
1564.00	H	150	242	-64.03	4.50	-59.54	-19.5
1569.00	H	150	241	-63.64	4.53	-59.11	-19.1

Table 7-16. Radiated Spurious Data (Band 13 – 1559-1610MHz Band)

FCC ID: A3LSC02K		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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OPERATING FREQUENCY: 784.50 MHz
 CHANNEL: 23255
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2353.50	H	-	-	-61.45	4.90	-56.55	-43.6
3138.00	H	-	-	-61.08	6.05	-55.03	-42.0

Table 7-17. Radiated Spurious Data with WCP (Band 13 – High Channel)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 5

OPERATING FREQUENCY: 826.50 MHz
 CHANNEL: 26815
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1653.00	H	150	324	-64.69	4.82	-59.87	-46.9
2479.50	H	-	-	-61.12	5.01	-56.12	-43.1
3306.00	H	-	-	-60.56	6.25	-54.31	-41.3

Table 7-18. Radiated Spurious Data (Band 5 – Low Channel)

OPERATING FREQUENCY: 836.50 MHz
 CHANNEL: 26915
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1673.00	H	150	39	-64.12	4.86	-59.26	-46.3
2509.50	H	-	-	-61.43	5.10	-56.33	-43.3
3346.00	H	-	-	-60.97	6.25	-54.71	-41.7

Table 7-19. Radiated Spurious Data (Band 5 – Mid Channel)

FCC ID: A3LSC02K		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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OPERATING FREQUENCY: 846.50 MHz
CHANNEL: 27015
MODULATION SIGNAL: QPSK
BANDWIDTH: 5.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1693.00	H	150	45	-64.40	4.90	-59.49	-46.5
2539.50	H	-	-	-61.69	5.25	-56.45	-43.4
3386.00	H	-	-	-61.23	6.36	-54.86	-41.9

Table 7-20. Radiated Spurious Data (Band 5 – High Channel)

OPERATING FREQUENCY: 825.50 MHz
CHANNEL: 26805
MODULATION SIGNAL: QPSK
BANDWIDTH: 5.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1651.00	H	150	36	-65.16	4.82	-60.35	-47.3
2476.50	H	-	-	-61.57	5.00	-56.57	-43.6
3302.00	H	-	-	-59.93	6.25	-53.68	-40.7

Table 7-21. Radiated Spurious Data with WCP (Band 5 – Low Channel)

FCC ID: A3LSC02K		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1801220007-03.A3L	Test Dates: 1/22 - 3/8/2018	EUT Type: Portable Handset		Page 133 of 153

Band 4

OPERATING FREQUENCY: 1712.50 MHz
 CHANNEL: 19975
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3425.00	H	150	311	-62.03	6.47	-55.56	-42.6
5137.50	H	150	59	-61.02	8.43	-52.59	-39.6
6850.00	H	-	-	-59.24	8.71	-50.53	-37.5

Table 7-22. Radiated Spurious Data (Band 4 – Low Channel)

OPERATING FREQUENCY: 1732.50 MHz
 CHANNEL: 20175
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3465.00	H	150	299	-61.46	6.56	-54.90	-41.9
5197.50	H	150	57	-61.53	8.45	-53.08	-40.1
6930.00	H	-	-	-58.69	8.67	-50.02	-37.0

Table 7-23. Radiated Spurious Data (Band 4 – Mid Channel)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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OPERATING FREQUENCY: 1752.50 MHz
 CHANNEL: 20375
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3505.00	H	150	329	-62.02	6.59	-55.43	-42.4
5257.50	H	150	70	-61.96	8.41	-53.55	-40.6
7010.00	H	-	-	-58.05	8.58	-49.48	-36.5

Table 7-24. Radiated Spurious Data (Band 4 – High Channel)

OPERATING FREQUENCY: 1712.50 MHz
 CHANNEL: 19975
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3425.00	H	150	98	-63.29	6.47	-56.82	-43.8
5137.50	H	150	277	-61.42	8.43	-52.99	-40.0
6850.00	H	-	-	-58.25	8.71	-49.54	-36.5

Table 7-25. Radiated Spurious Data with WCP (Band 4 – High Channel)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 7

OPERATING FREQUENCY: 2505.00 MHz
 CHANNEL: 20800
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 10.0 MHz
 DISTANCE: 3 meters
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5010.00	H	150	248	-47.01	8.34	-38.67	-13.7
7515.00	H	150	115	-42.64	8.44	-34.20	-9.2
10020.00	H	-	-	-54.17	9.87	-44.30	-19.3

Table 7-26. Radiated Spurious Data (Band 7 – Low Channel)

OPERATING FREQUENCY: 2535.00 MHz
 CHANNEL: 21100
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 10.0 MHz
 DISTANCE: 3 meters
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5070.00	H	150	312	-40.73	8.39	-32.34	-7.3
7605.00	H	150	112	-41.92	8.51	-33.41	-8.4
10140.00	H	-	-	-51.71	9.70	-42.01	-17.0

Table 7-27. Radiated Spurious Data (Band 7 – Mid Channel)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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OPERATING FREQUENCY: 2565.00 MHz
 CHANNEL: 21400
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 10.0 MHz
 DISTANCE: 3 meters
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5130.00	H	150	322	-43.55	8.43	-35.12	-10.1
7695.00	H	150	117	-48.95	8.66	-40.29	-15.3
10260.00	H	-	-	-57.62	9.72	-47.90	-22.9

Table 7-28. Radiated Spurious Data (Band 7 – High Channel)

OPERATING FREQUENCY: 2565.00 MHz
 CHANNEL: 21400
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 10.0 MHz
 DISTANCE: 3 meters
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5130.00	H	150	295	-41.36	8.43	-32.93	-7.9
7695.00	H	150	272	-43.29	8.66	-34.63	-9.6
10260.00	H	-	-	-51.37	9.72	-41.65	-16.7

Table 7-29. Radiated Spurious Data with WCP (Band 7 – High Channel)

FCC ID: A3LSC02K		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Band 41/38

OPERATING FREQUENCY: 2505.00 MHz
 CHANNEL: 39740
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 10.0 MHz
 DISTANCE: 3 meters
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5010.00	H	150	12	-55.49	8.34	-47.15	-22.2
7515.00	H	150	116	-42.66	8.44	-34.23	-9.2
10020.00	H	-	-	-53.56	9.87	-43.70	-18.7

Table 7-30. Radiated Spurious Data (Band 41/38 – Low Channel)

OPERATING FREQUENCY: 2593.00 MHz
 CHANNEL: 40620
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 10.0 MHz
 DISTANCE: 3 meters
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	H	150	83	-48.04	8.45	-39.59	-14.6
7779.00	H	150	72	-43.75	8.75	-35.00	-10.0
10372.00	H	-	-	-50.80	9.73	-41.07	-16.1

Table 7-31. Radiated Spurious Data (Band 41/38 – Mid Channel)

FCC ID: A3LSC02K		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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OPERATING FREQUENCY: 2685.00 MHz
 CHANNEL: 41540
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 10.0 MHz
 DISTANCE: 3 meters
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5370.00	H	150	13	-53.41	8.40	-45.01	-20.0
8055.00	H	-	-	-52.87	9.21	-43.65	-18.7
10740.00	H	-	-	-50.76	9.51	-41.24	-16.2

Table 7-32. Radiated Spurious Data (Band 41/38 – High Channel)

OPERATING FREQUENCY: 2593.00 MHz
 CHANNEL: 40620
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 10.0 MHz
 DISTANCE: 3 meters
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	H	150	202	-50.08	8.45	-41.63	-16.6
7779.00	H	150	53	-48.61	8.75	-39.86	-14.9
10372.00	H	-	-	-52.63	9.73	-42.91	-17.9

Table 7-33. Radiated Spurious Data with WCP (Band 41/38 – Mid Channel)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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7.7 Frequency Stability / Temperature Variation

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI/TIA-603-E-2016. The frequency stability of the transmitter is measured by:

- a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

For Part 22, RSS-132, the frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ (± 2.5 ppm) of the center frequency. For Part 24, Part 27, RSS-130, RSS-139, RSS-199, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Procedure Used

ANSI/TIA-603-E-2016

Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a "standby" condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

Test Setup

The EUT was connected via an RF cable to a spectrum analyzer with the EUT placed inside an environmental chamber.

Test Notes

None

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Band 12/17 Frequency Stability Measurements

OPERATING FREQUENCY: 710,000,000 Hz
 CHANNEL: 23090
 REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	+ 20 (Ref)	710,000,034	34	0.0000048
100 %		- 30	709,999,944	-56	-0.0000079
100 %		- 20	709,999,989	-11	-0.0000015
100 %		- 10	709,999,750	-250	-0.0000352
100 %		0	710,000,155	155	0.0000218
100 %		+ 10	710,000,137	137	0.0000193
100 %		+ 20	709,999,787	-213	-0.0000300
100 %		+ 30	709,999,961	-39	-0.0000055
100 %		+ 40	709,999,965	-35	-0.0000049
100 %		+ 50	710,000,098	98	0.0000138
BATT. ENDPOINT	3.40	+ 20	710,000,114	114	0.0000161

Table 7-34. Frequency Stability Data (Band 12/17)

Note:

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 12/17 Frequency Stability Measurements

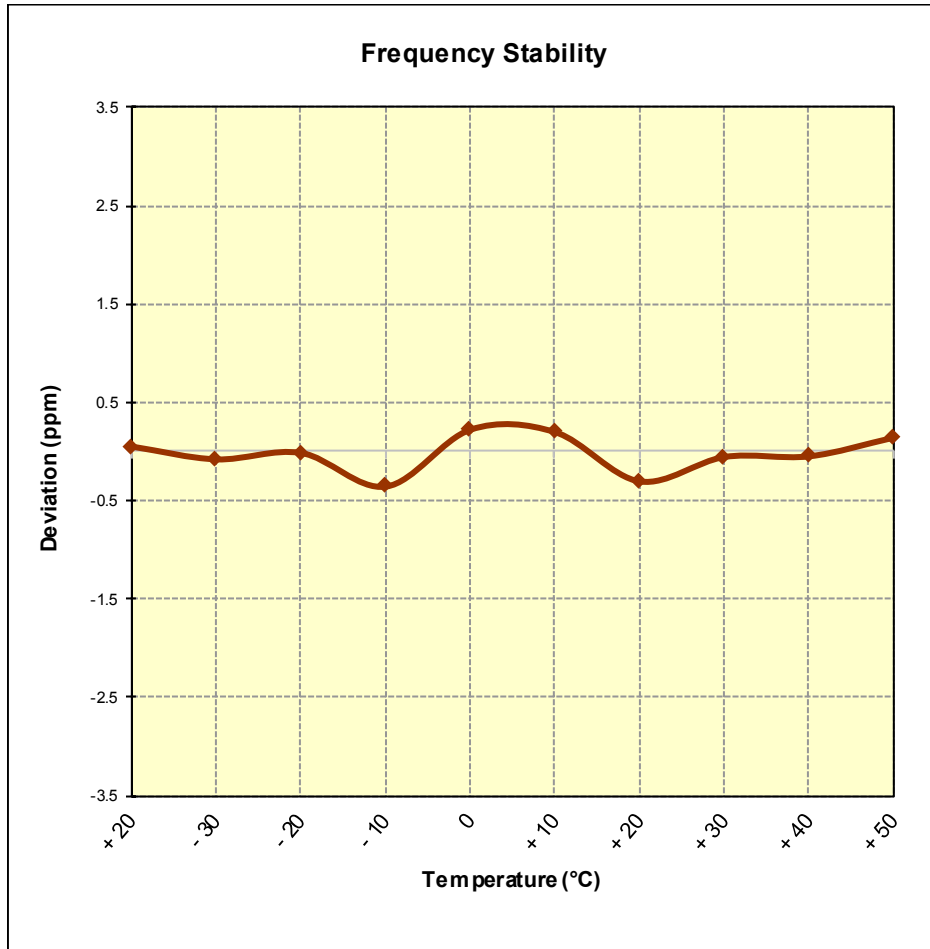


Figure 7-7. Frequency Stability Graph (Band 12/17)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 13 Frequency Stability Measurements

OPERATING FREQUENCY: 782,000,000 Hz
 CHANNEL: 23230
 REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	+ 20 (Ref)	782,000,018	18	0.0000023
100 %		- 30	781,999,635	-365	-0.0000467
100 %		- 20	782,000,309	309	0.0000395
100 %		- 10	781,999,816	-184	-0.0000235
100 %		0	781,999,893	-107	-0.0000137
100 %		+ 10	781,999,802	-198	-0.0000253
100 %		+ 20	782,000,386	386	0.0000494
100 %		+ 30	782,000,065	65	0.0000083
100 %		+ 40	781,999,957	-43	-0.0000055
100 %		+ 50	782,000,015	15	0.0000019
BATT. ENDPOINT	3.40	+ 20	782,000,013	13	0.0000017

Table 7-35. Frequency Stability Data (Band 13)

Note:

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 13 Frequency Stability Measurements

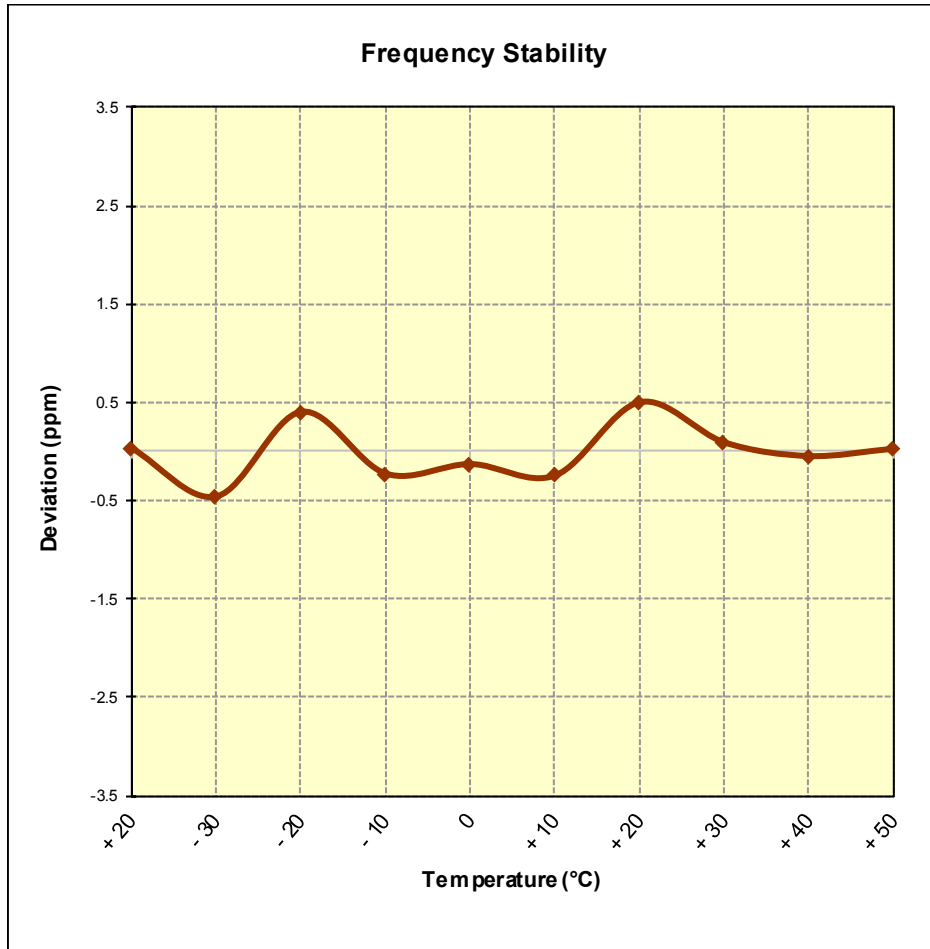


Figure 7-8. Frequency Stability Graph (Band 13)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 5 Frequency Stability Measurements

OPERATING FREQUENCY: 831,500,000 Hz

CHANNEL: 26865

REFERENCE VOLTAGE: 3.80 VDC

DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	+ 20 (Ref)	831,499,850	-150	-0.0000180
100 %		- 30	831,500,280	280	0.0000337
100 %		- 20	831,499,954	-46	-0.0000055
100 %		- 10	831,499,984	-16	-0.0000019
100 %		0	831,499,994	-6	-0.0000007
100 %		+ 10	831,499,934	-66	-0.0000079
100 %		+ 20	831,500,127	127	0.0000153
100 %		+ 30	831,499,737	-263	-0.0000316
100 %		+ 40	831,500,141	141	0.0000170
100 %		+ 50	831,499,691	-309	-0.0000372
BATT. ENDPOINT	3.40	+ 20	831,499,810	-190	-0.0000229

Table 7-36. Frequency Stability Data (Band 5)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 5 Frequency Stability Measurements

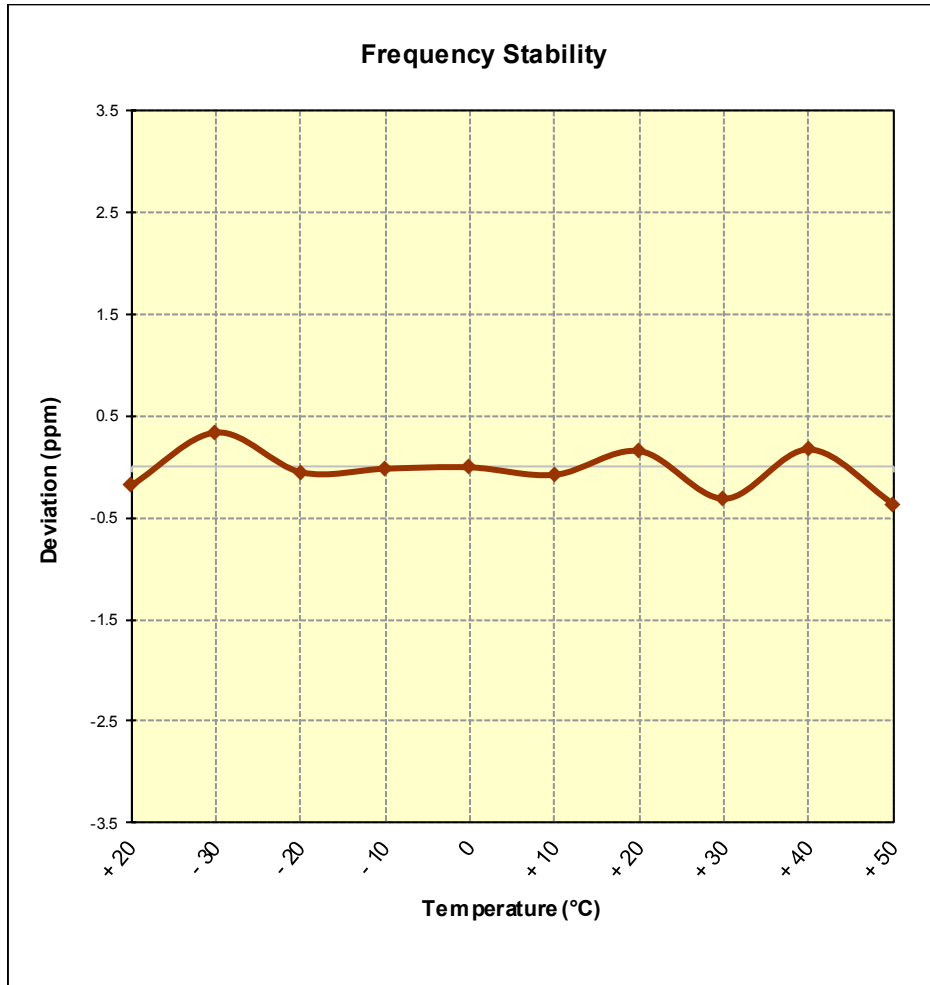


Figure 7-9. Frequency Stability Graph (Band 5)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 4 Frequency Stability Measurements

OPERATING FREQUENCY: 1,732,500,000 Hz
 CHANNEL: 20175
 REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	+ 20 (Ref)	1,732,499,956	-44	-0.0000025
100 %		- 30	1,732,499,921	-79	-0.0000046
100 %		- 20	1,732,500,016	16	0.0000009
100 %		- 10	1,732,499,988	-12	-0.0000007
100 %		0	1,732,499,951	-49	-0.0000028
100 %		+ 10	1,732,499,708	-292	-0.0000169
100 %		+ 20	1,732,499,669	-331	-0.0000191
100 %		+ 30	1,732,499,793	-207	-0.0000119
100 %		+ 40	1,732,499,877	-123	-0.0000071
100 %		+ 50	1,732,500,119	119	0.0000069
BATT. ENDPOINT	3.40	+ 20	1,732,499,853	-147	-0.0000085

Table 7-37. Frequency Stability Data (Band 4)

Note:

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 4 Frequency Stability Measurements

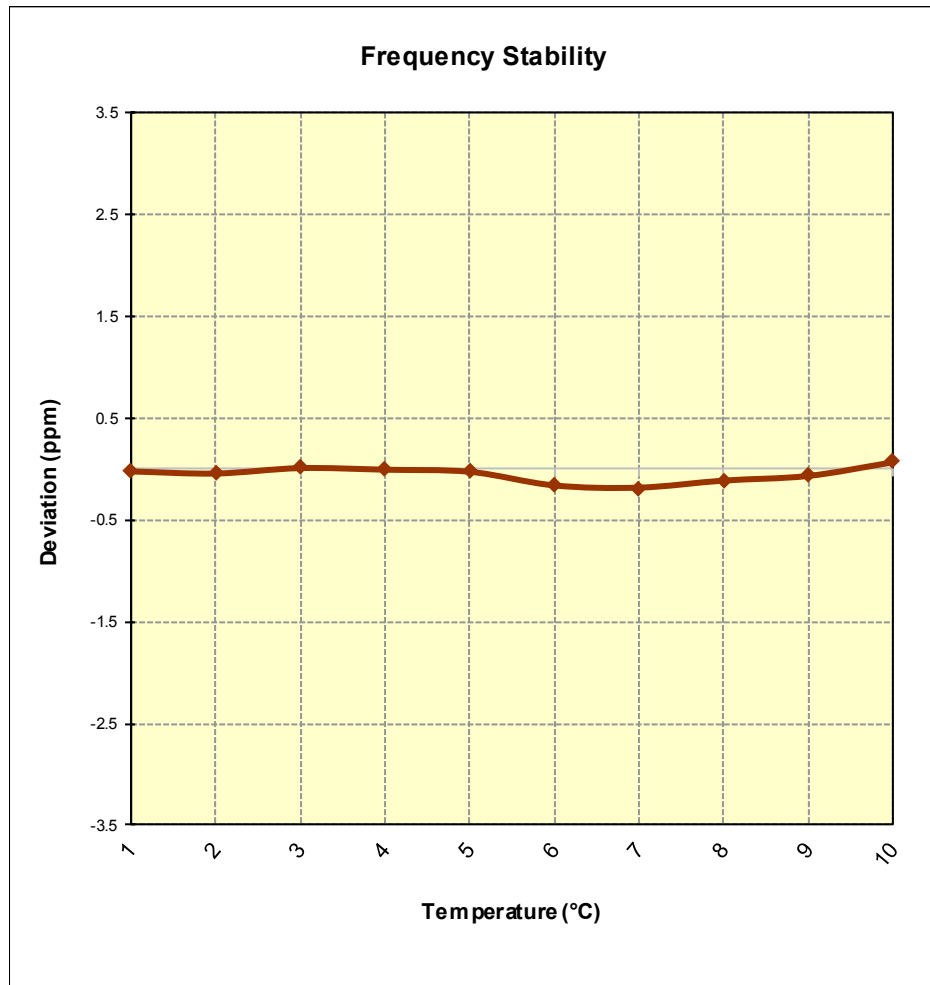


Figure 7-10. Frequency Stability Graph (Band 4)

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 7 Frequency Stability Measurements

OPERATING FREQUENCY: 2,535,000,000 Hz
 CHANNEL: 21100
 REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	+ 20 (Ref)	2,535,000,330	330	0.0000130
100 %		- 30	2,535,000,297	297	0.0000117
100 %		- 20	2,535,000,339	339	0.0000134
100 %		- 10	2,535,000,028	28	0.0000011
100 %		0	2,535,000,109	109	0.0000043
100 %		+ 10	2,535,000,259	259	0.0000102
100 %		+ 20	2,534,999,777	-223	-0.0000088
100 %		+ 30	2,534,999,670	-330	-0.0000130
100 %		+ 40	2,534,999,640	-360	-0.0000142
100 %		+ 50	2,534,999,738	-262	-0.0000103
BATT. ENDPOINT	3.40	+ 20	2,534,999,864	-136	-0.0000054

Table 7-38. Frequency Stability Data (Band 7)

Note:

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 7 Frequency Stability Measurements

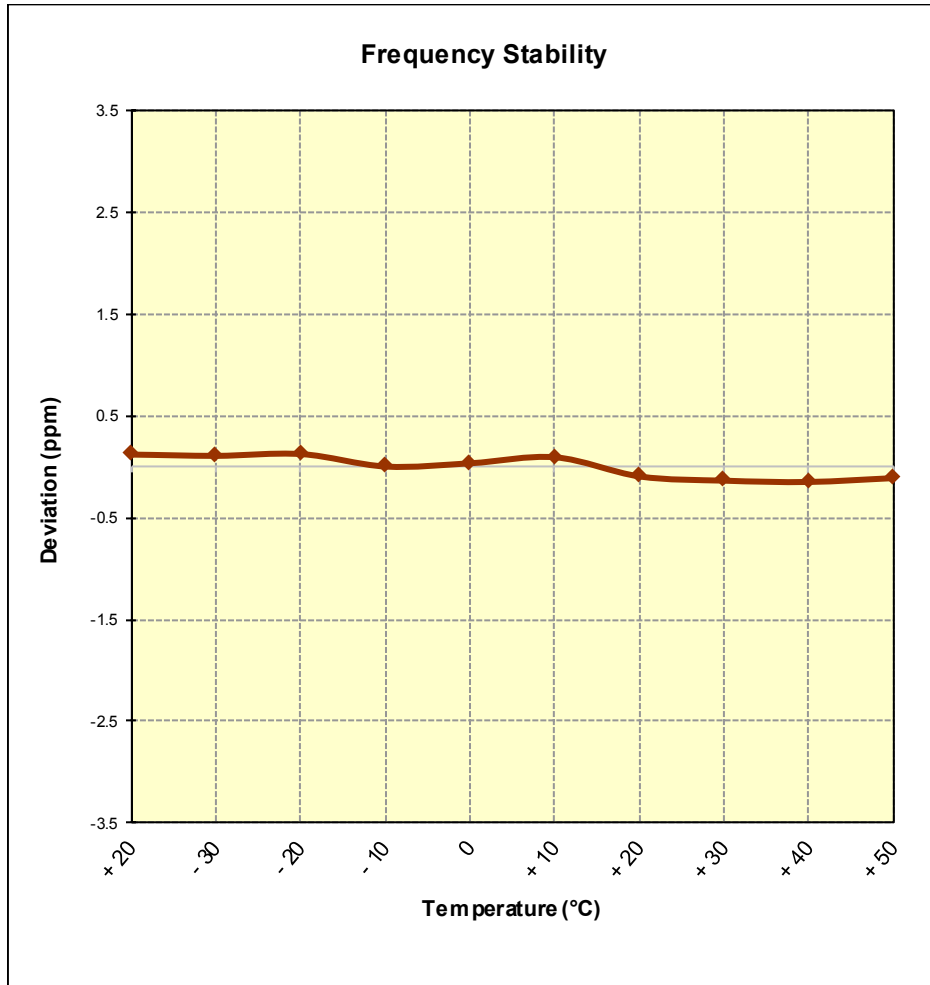


Figure 7-11. Frequency Stability Graph (Band 7)

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Band 41/38 Frequency Stability Measurements

OPERATING FREQUENCY: 2,593,000,000 Hz
 CHANNEL: 40620
 REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	+ 20 (Ref)	2,593,000,186	186	0.0000072
100 %		- 30	2,593,000,094	94	0.0000036
100 %		- 20	2,592,999,552	-448	-0.0000173
100 %		- 10	2,593,000,176	176	0.0000068
100 %		0	2,593,000,157	157	0.0000061
100 %		+ 10	2,592,999,940	-60	-0.0000023
100 %		+ 20	2,593,000,024	24	0.0000009
100 %		+ 30	2,593,000,079	79	0.0000030
100 %		+ 40	2,593,000,125	125	0.0000048
100 %		+ 50	2,593,000,052	52	0.0000020
BATT. ENDPOINT	3.40	+ 20	2,593,000,048	48	0.0000019

Table 7-39. Frequency Stability Data (Band 41/38)

Note:

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: A3LSC02K	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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Band 41/38 Frequency Stability Measurements

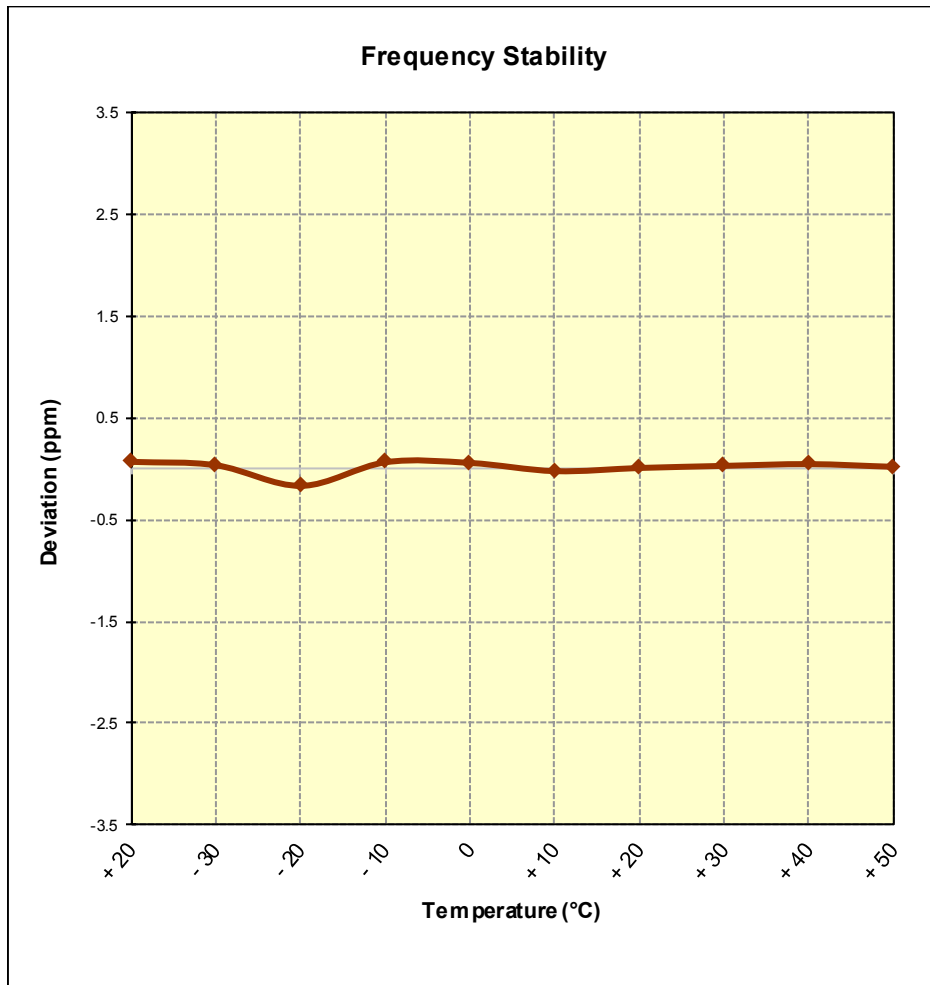


Figure 7-12. Frequency Stability Graph (Band 41/38)

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8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSC02K** complies with all the requirements of Part 22 & 27 of the FCC Rules for LTE operation only.

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