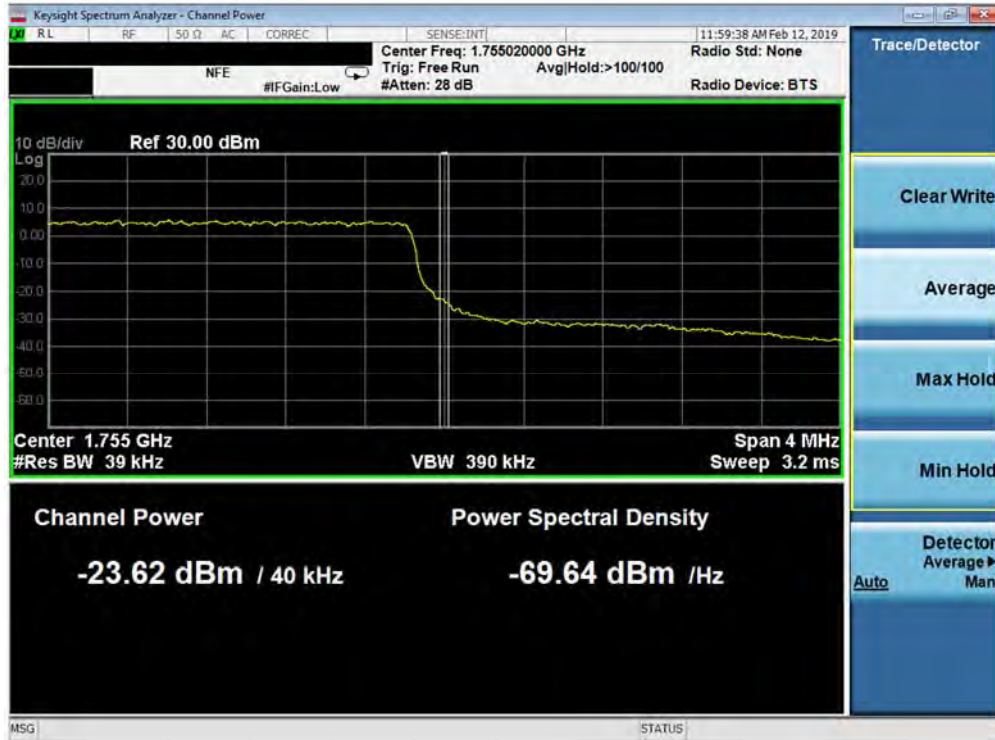
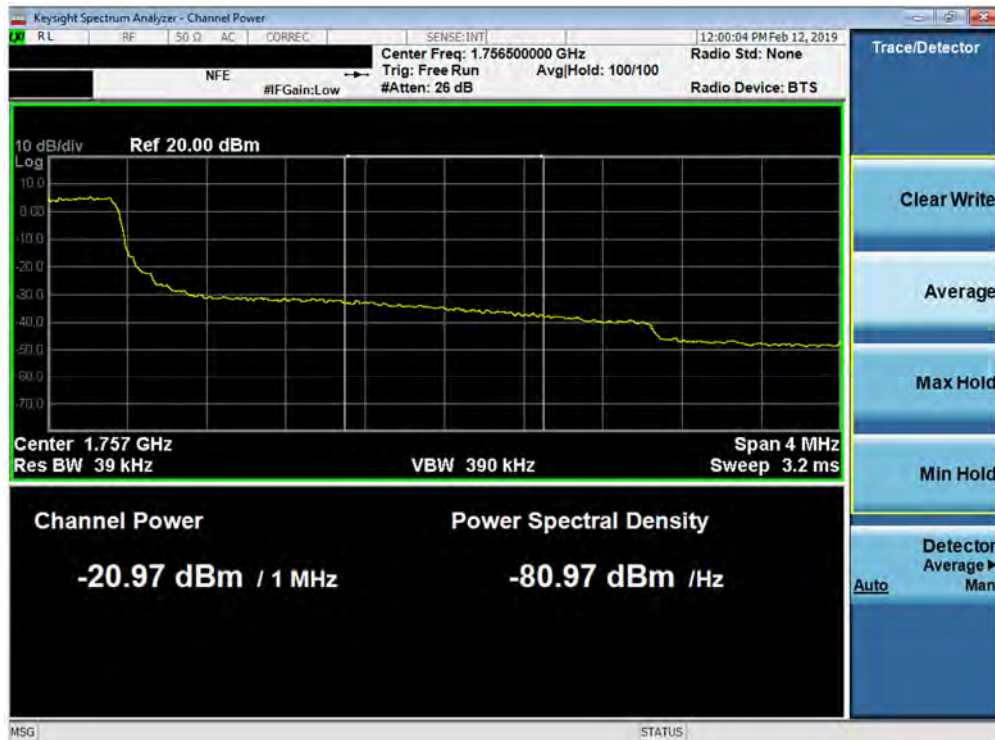


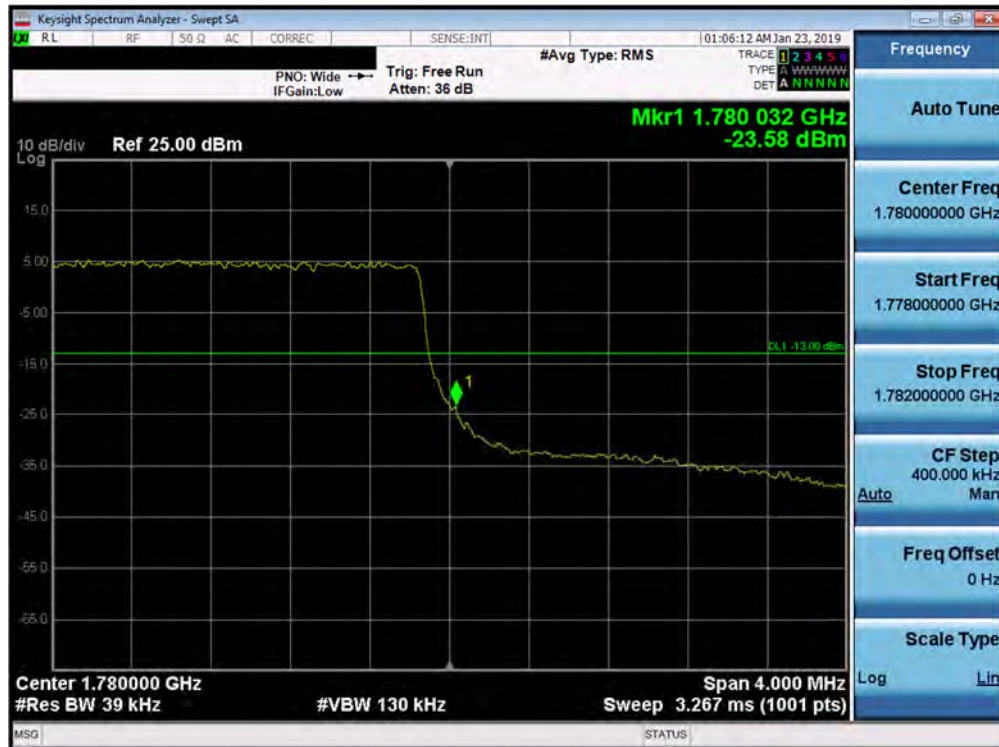


Plot 7-120. Upper Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

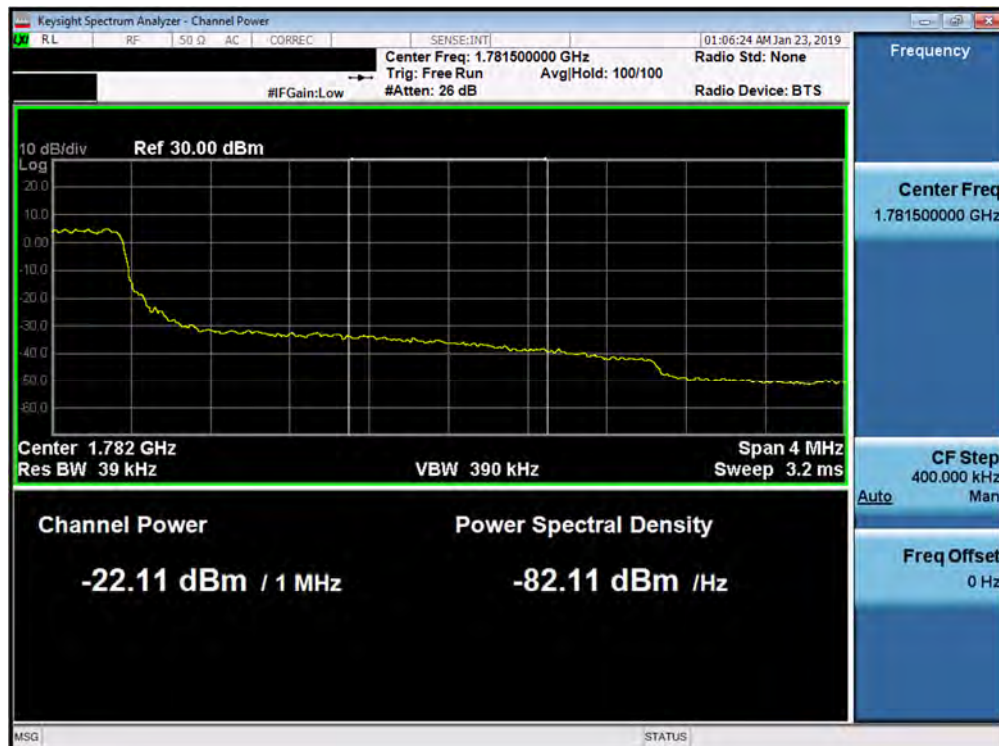


Plot 7-121. Upper Extended Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 82 of 156

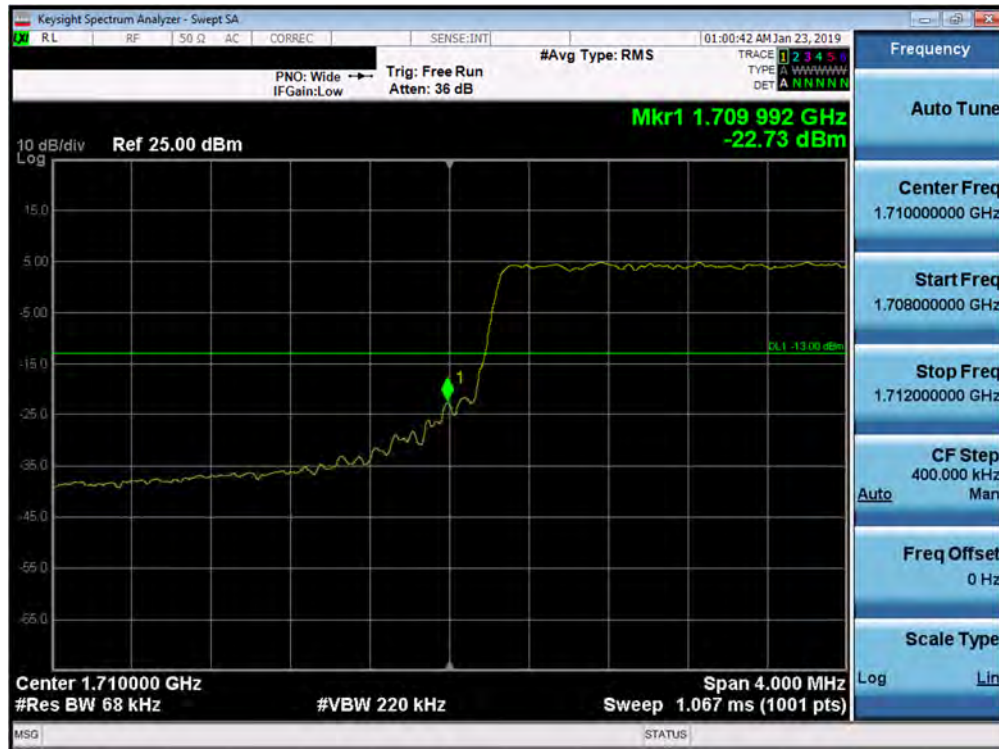


Plot 7-122. Upper Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

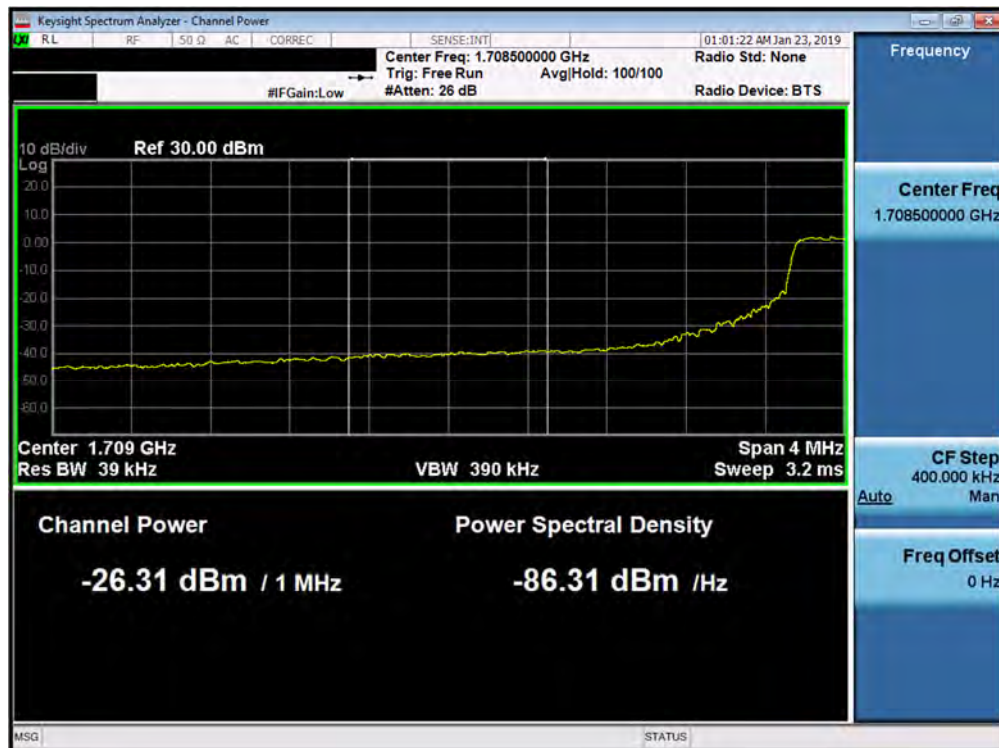


Plot 7-123. Upper Extended Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 83 of 156

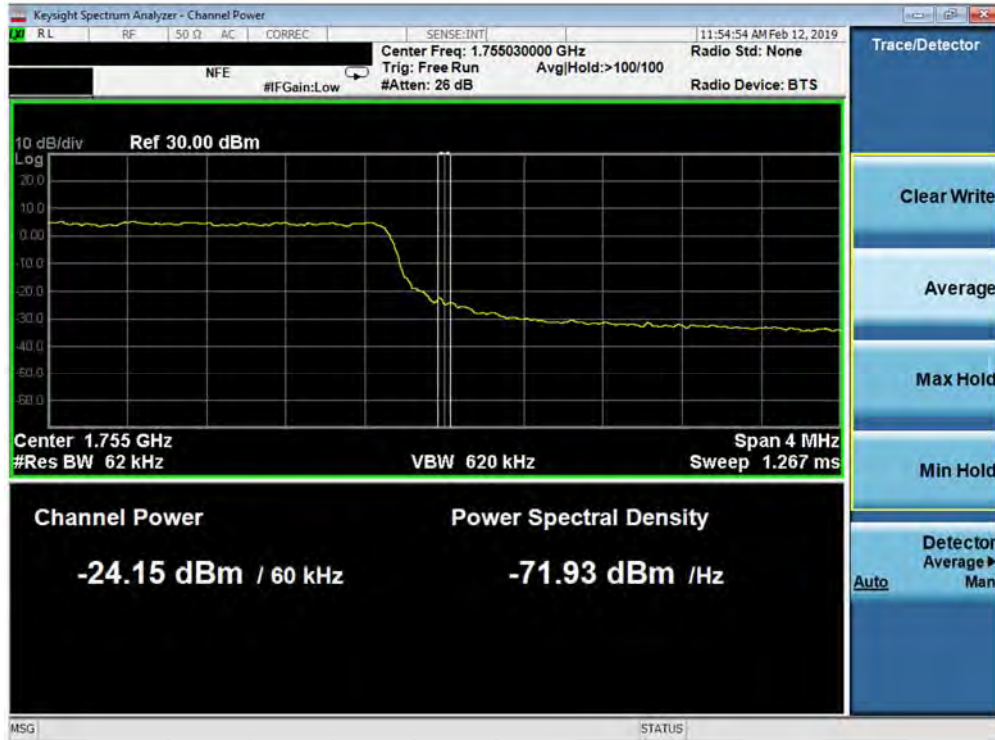


Plot 7-124. Lower Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

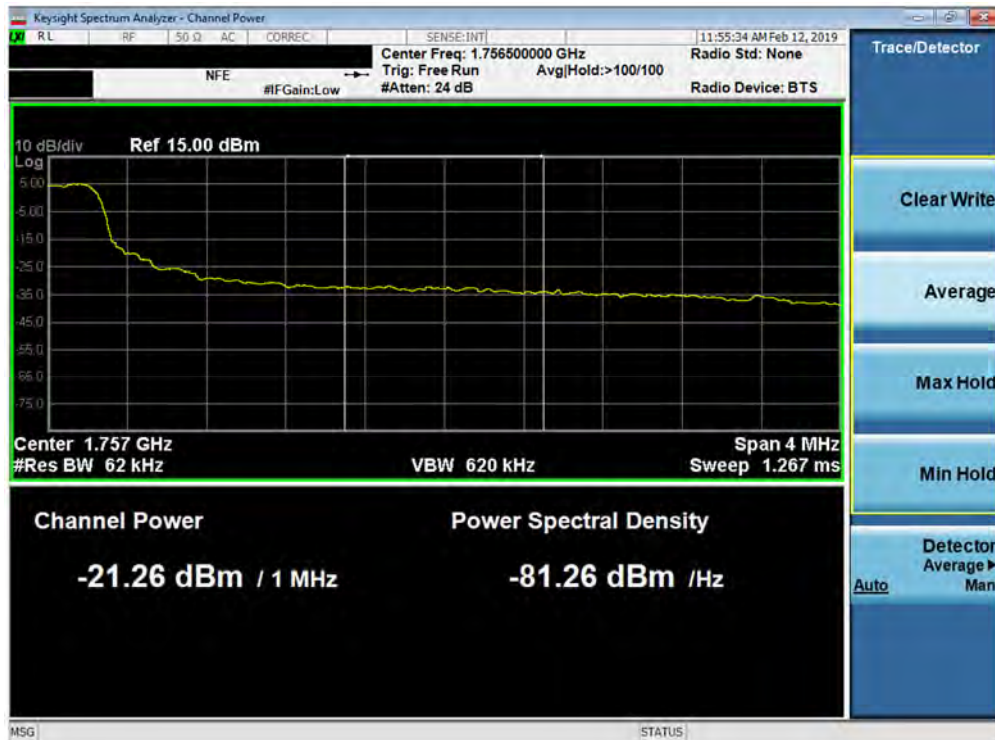


Plot 7-125. Lower Extended Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 84 of 156

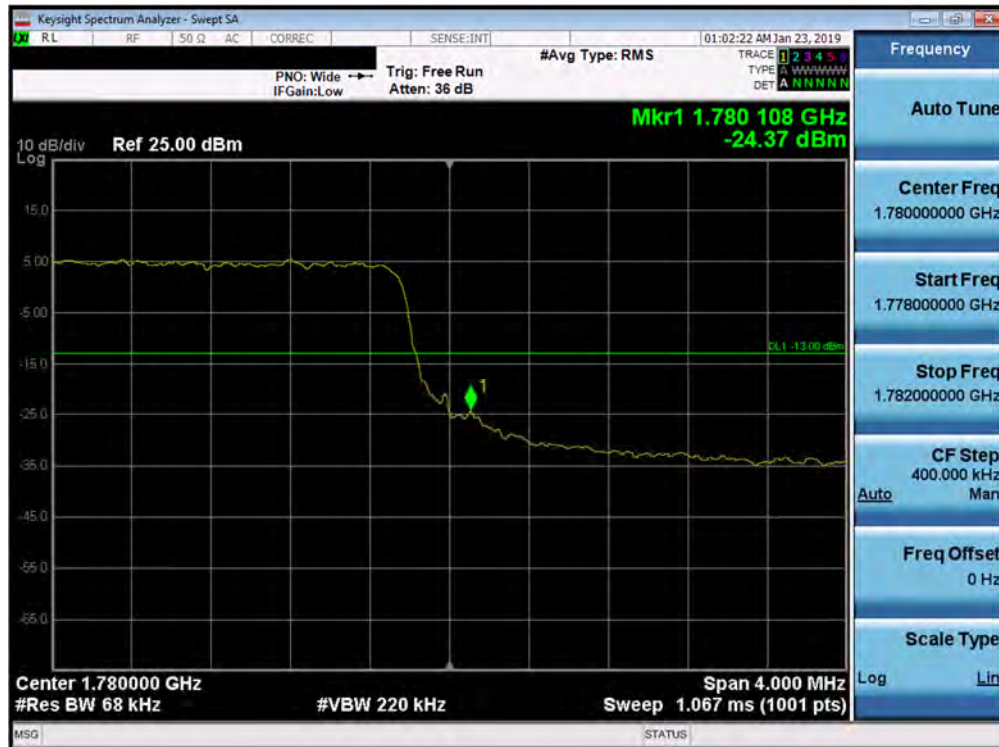


Plot 7-126. Upper Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

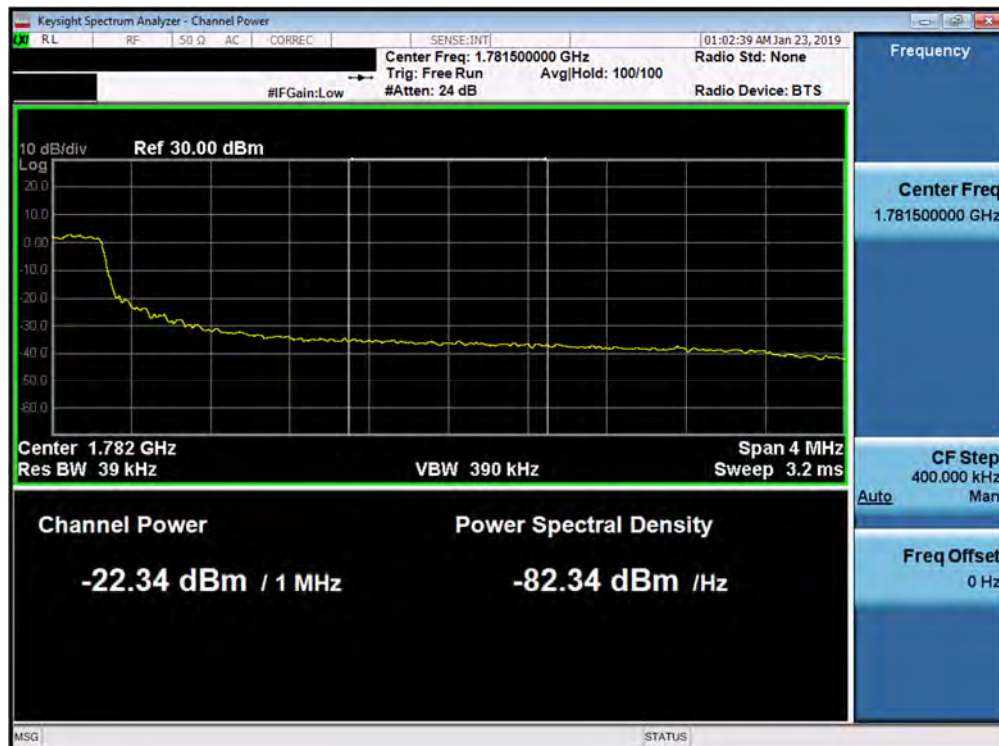


Plot 7-127. Upper Extended Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 85 of 156

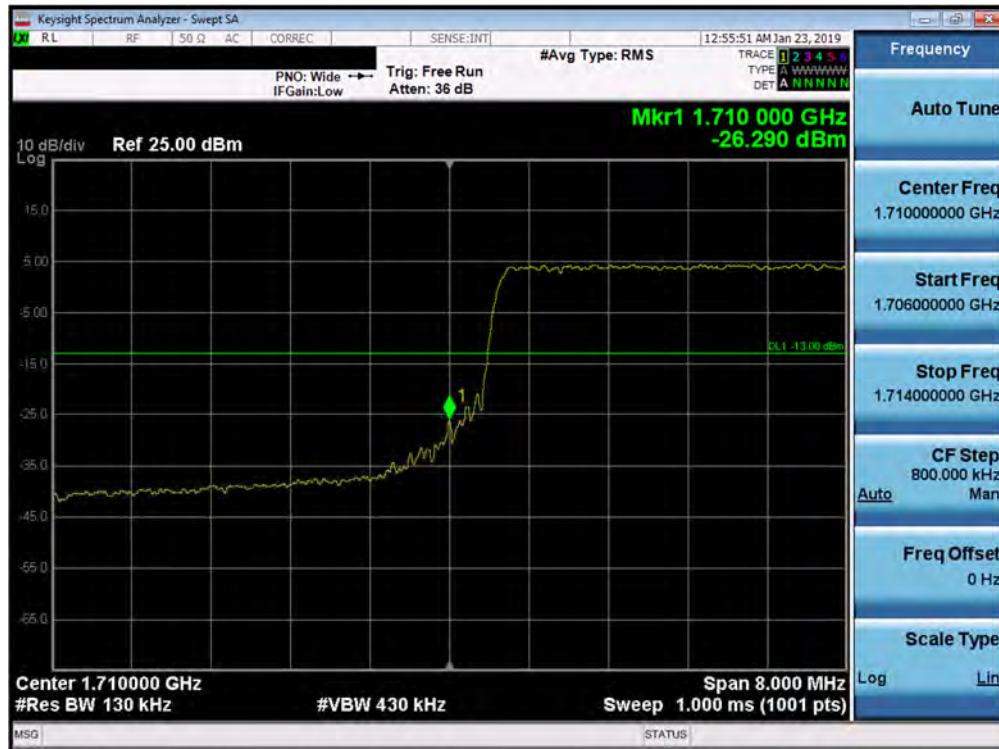


Plot 7-128. Upper Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

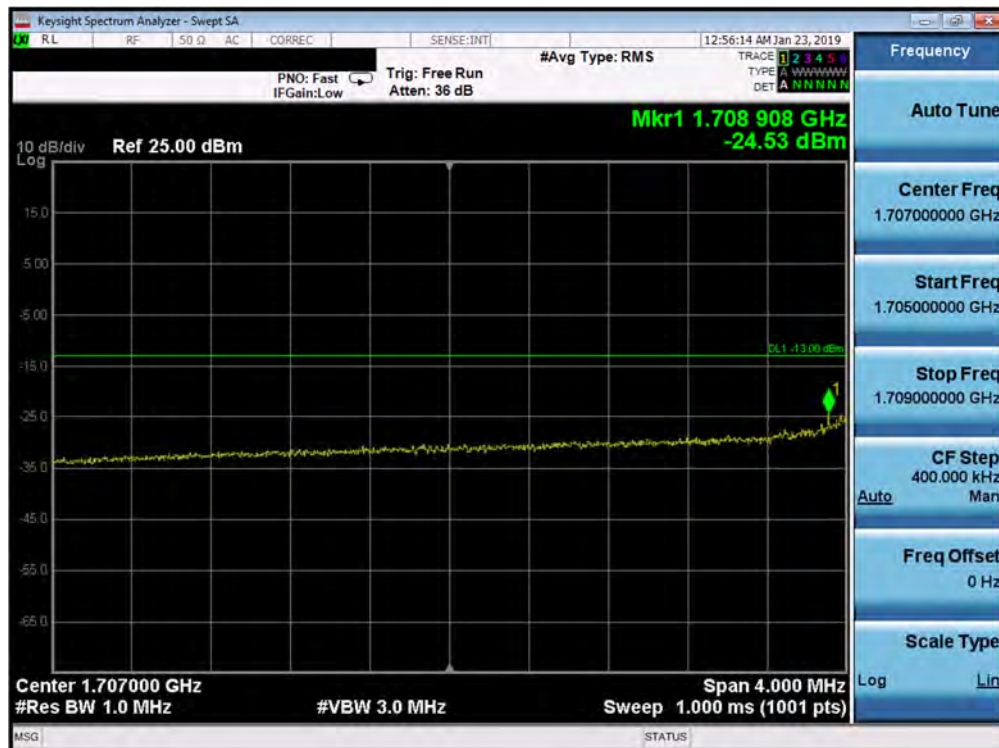


Plot 7-129. Upper Extended Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 86 of 156



Plot 7-130. Lower Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-131. Lower Extended Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 87 of 156

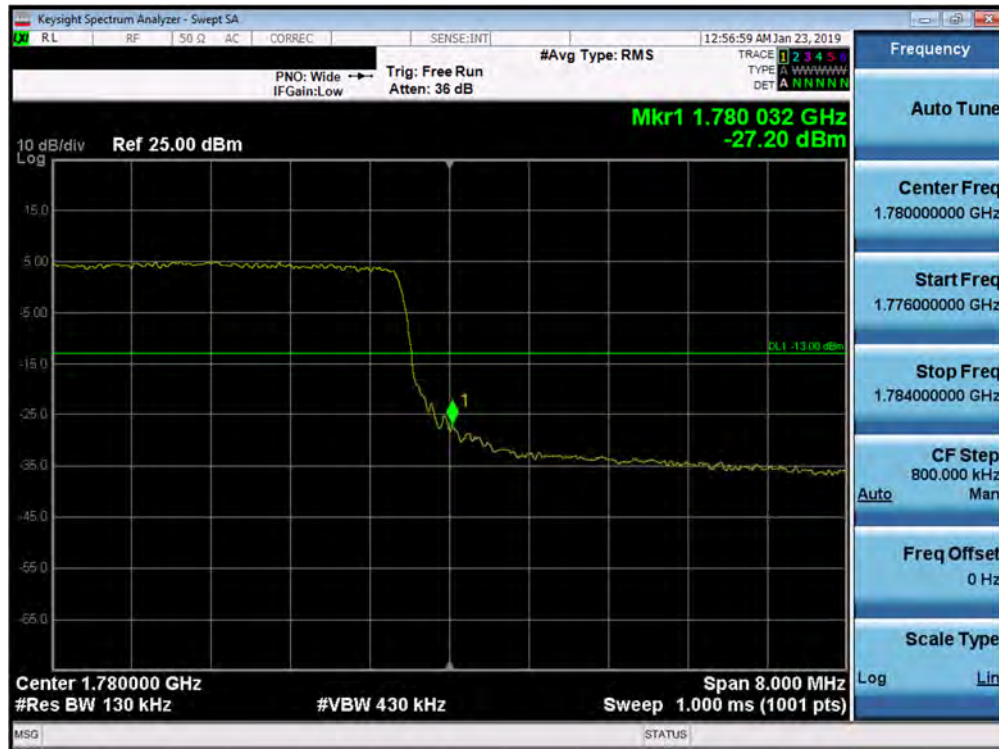


Plot 7-132. Upper Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

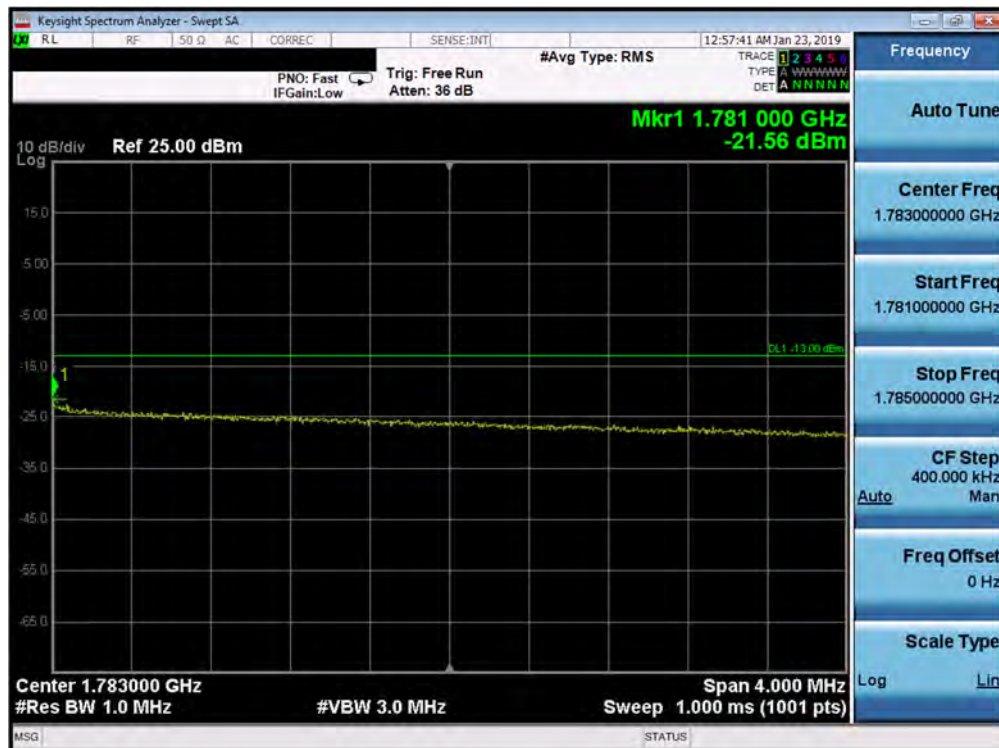


Plot 7-133. Upper Extended Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 88 of 156

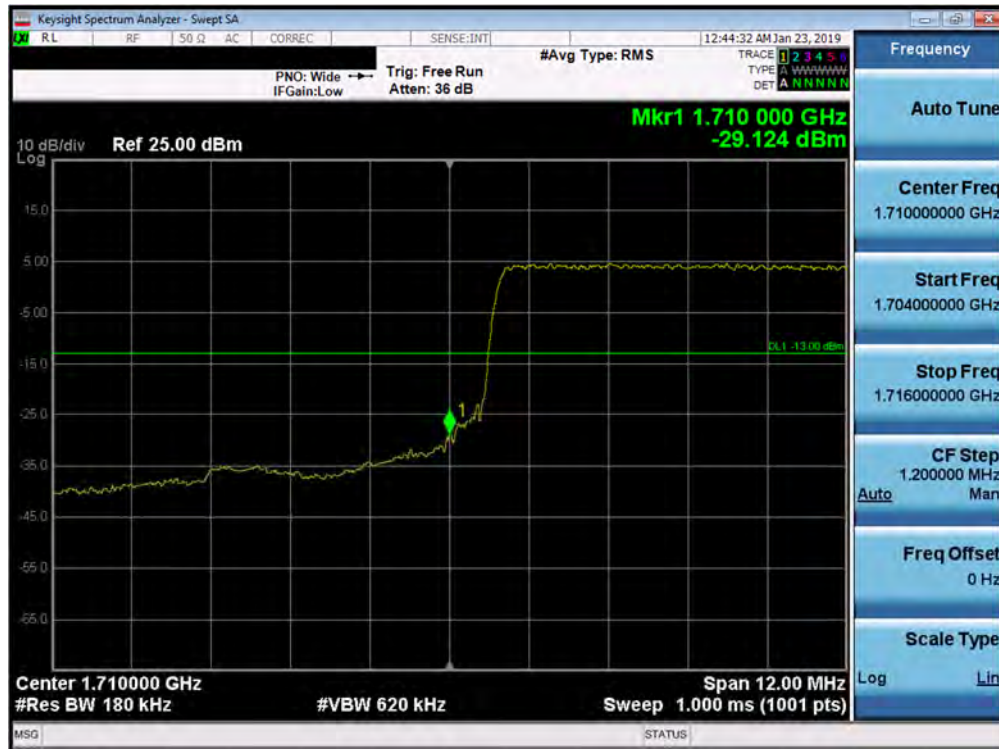


Plot 7-134. Upper Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

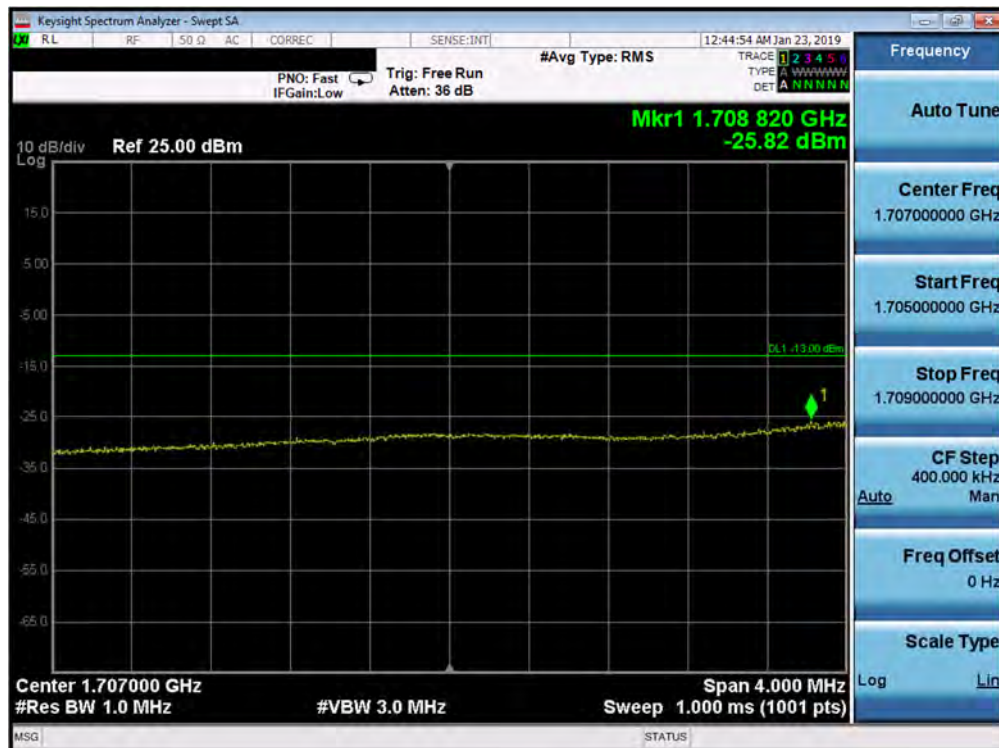


Plot 7-135. Upper Extended Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 89 of 156



Plot 7-136. Lower Band Edge Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-137. Lower Extended Band Edge Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 90 of 156



Plot 7-138. Upper Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

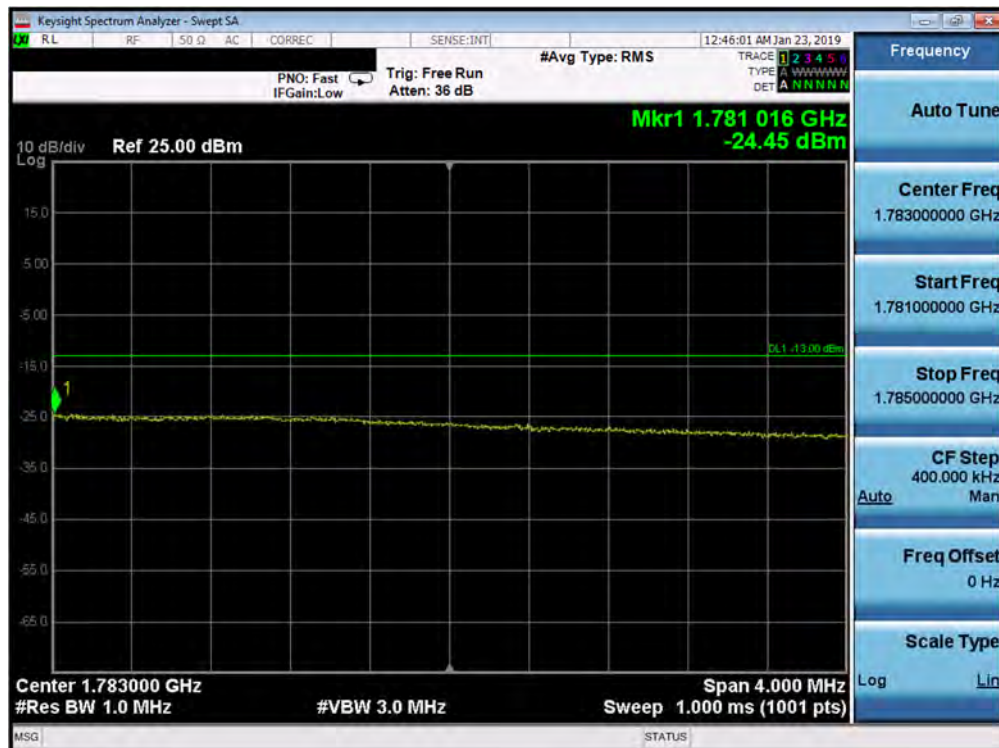


Plot 7-139. Upper Extended Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 91 of 156

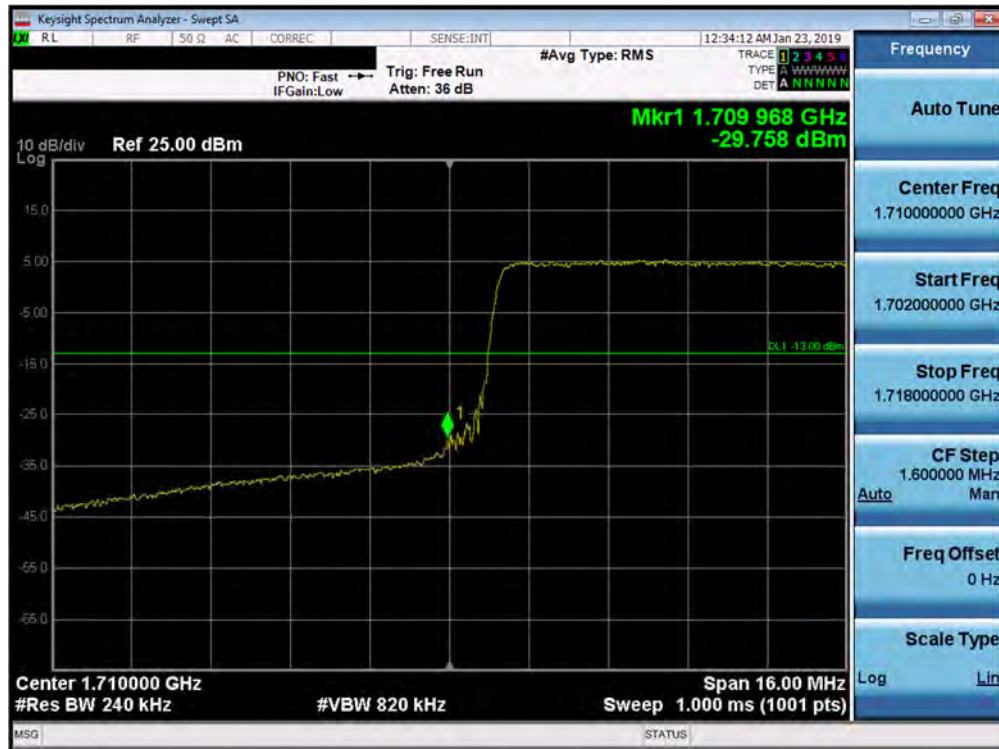


Plot 7-140. Upper Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

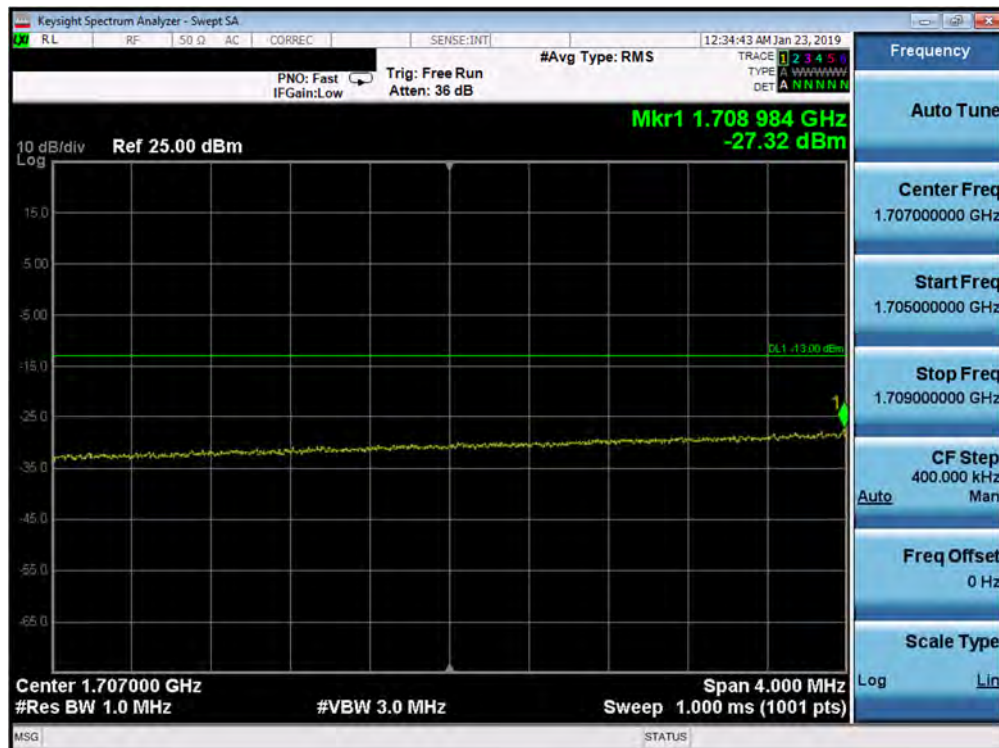


Plot 7-141. Upper Extended Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 92 of 156



Plot 7-142. Lower Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

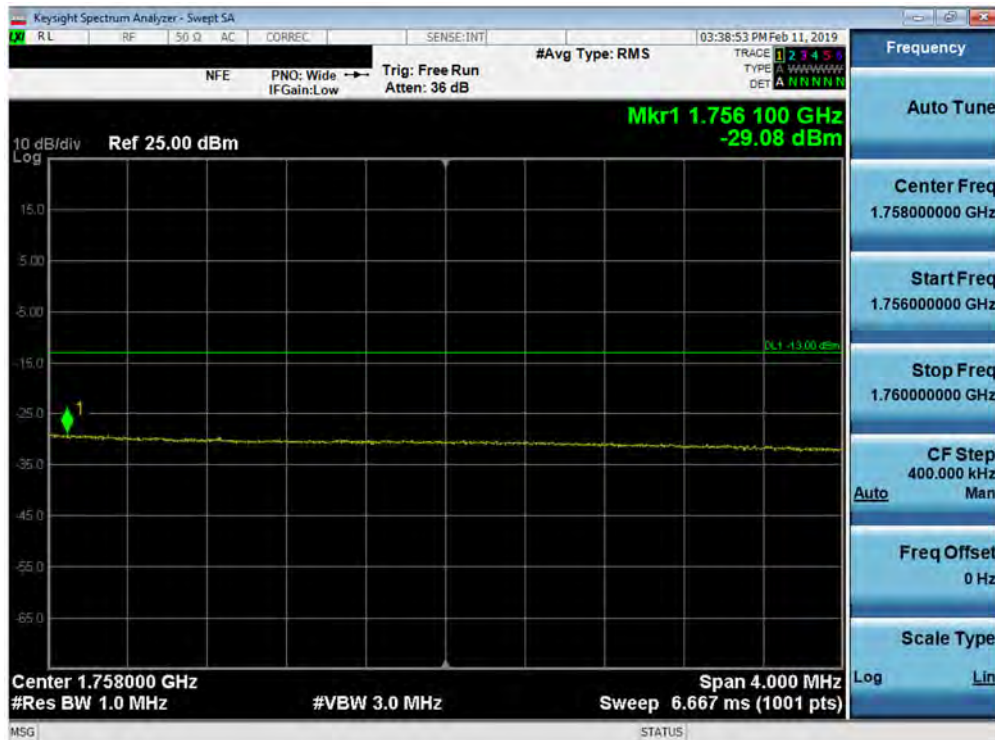


Plot 7-143. Lower Extended Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 93 of 156



Plot 7-144. Upper Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

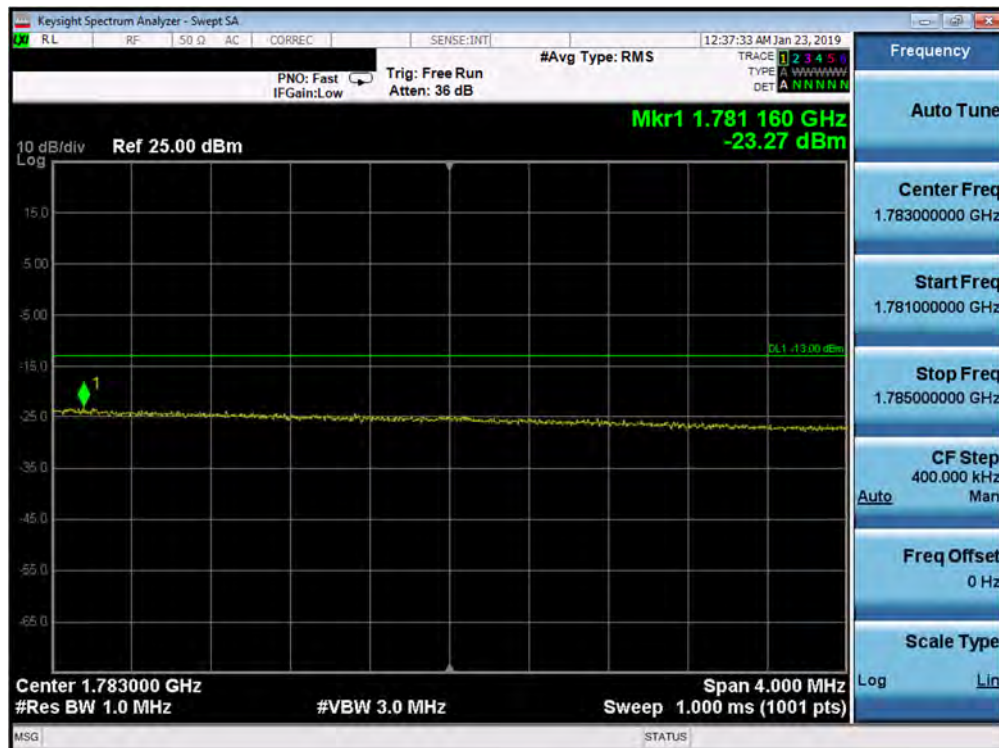


Plot 7-145. Upper Extended Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 94 of 156



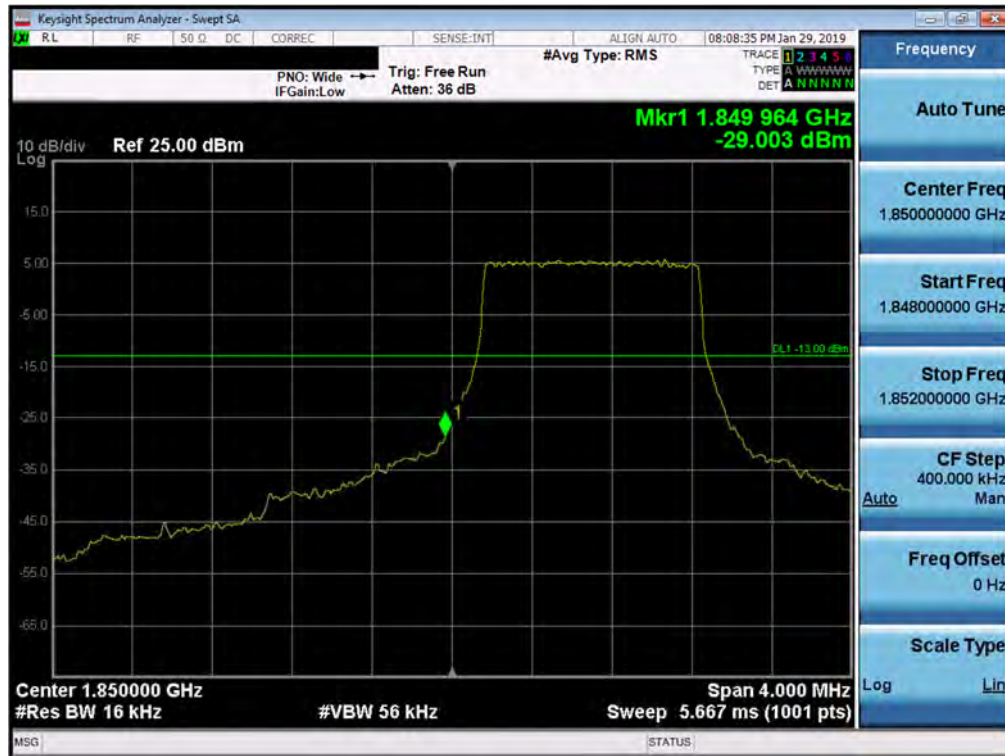
Plot 7-146. Upper Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)



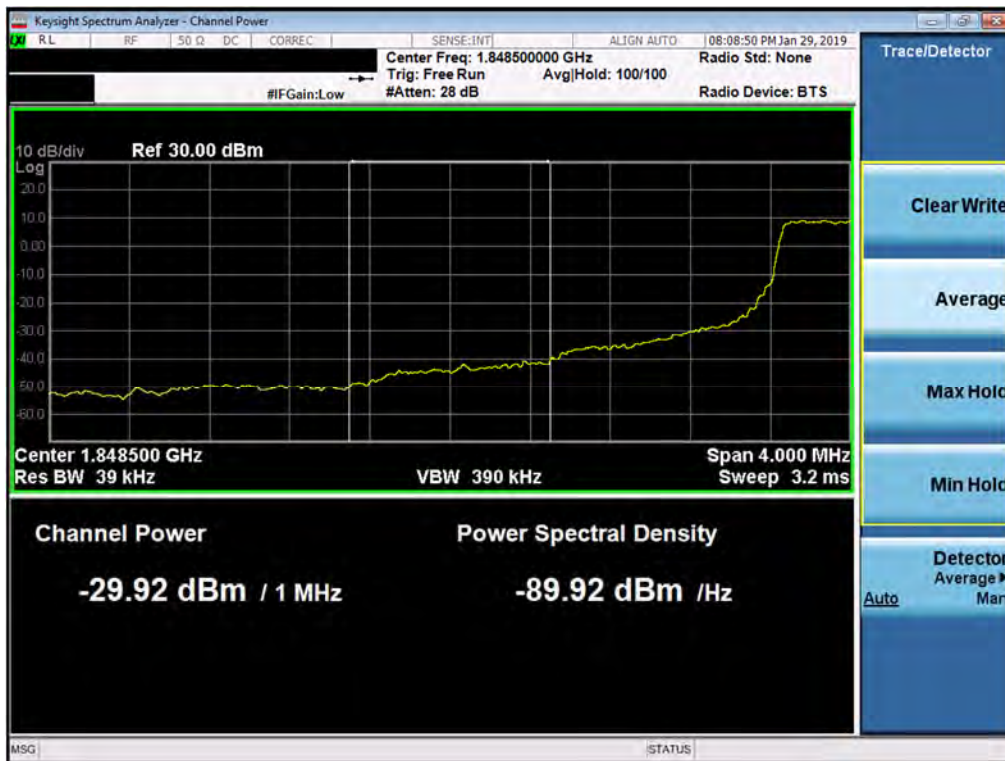
Plot 7-147. Upper Extended Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 95 of 156

Band 2

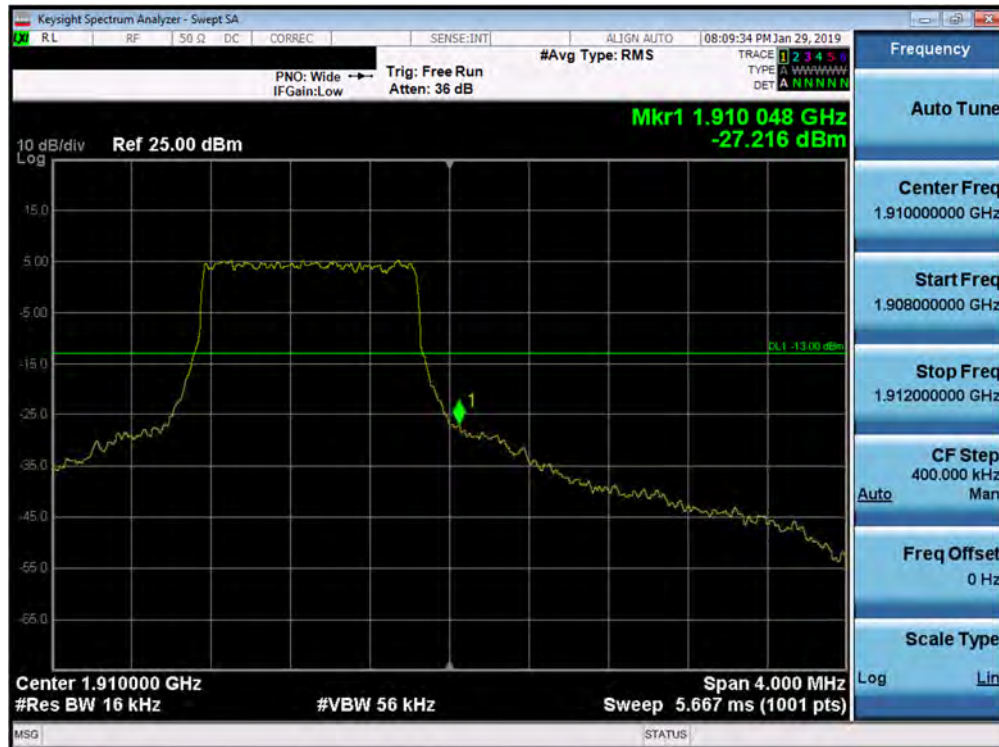


Plot 7-148. Lower Band Edge Plot (Band 2 – 1.4MHz QPSK - Full RB Configuration)

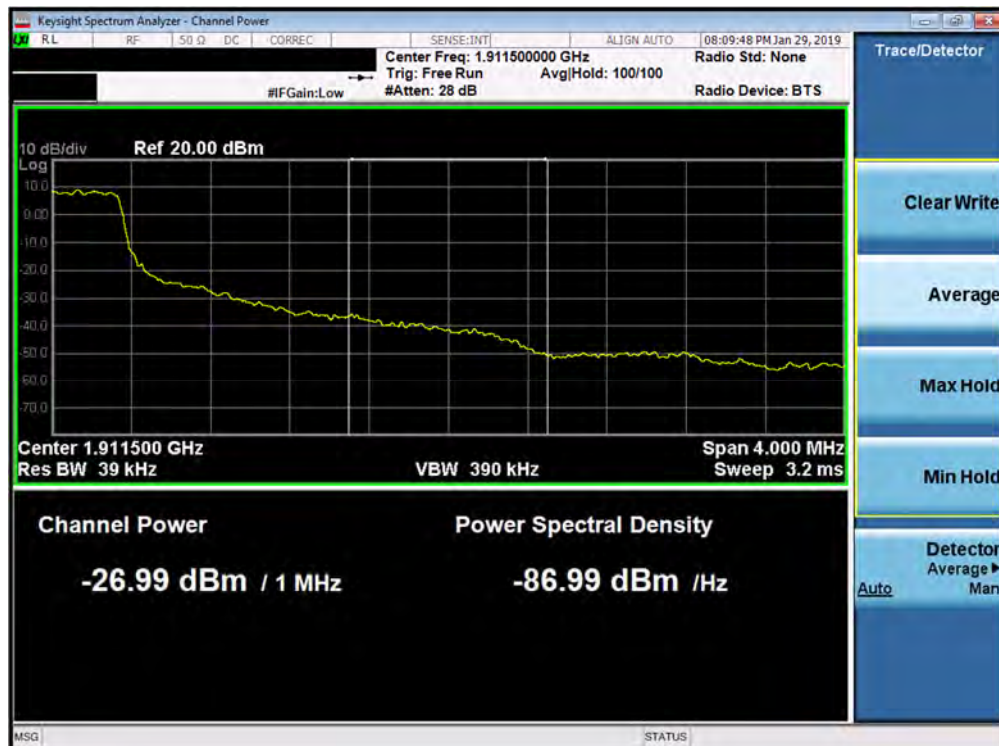


Plot 7-149. Lower Extended Band Edge Plot (Band 2 – 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 96 of 156

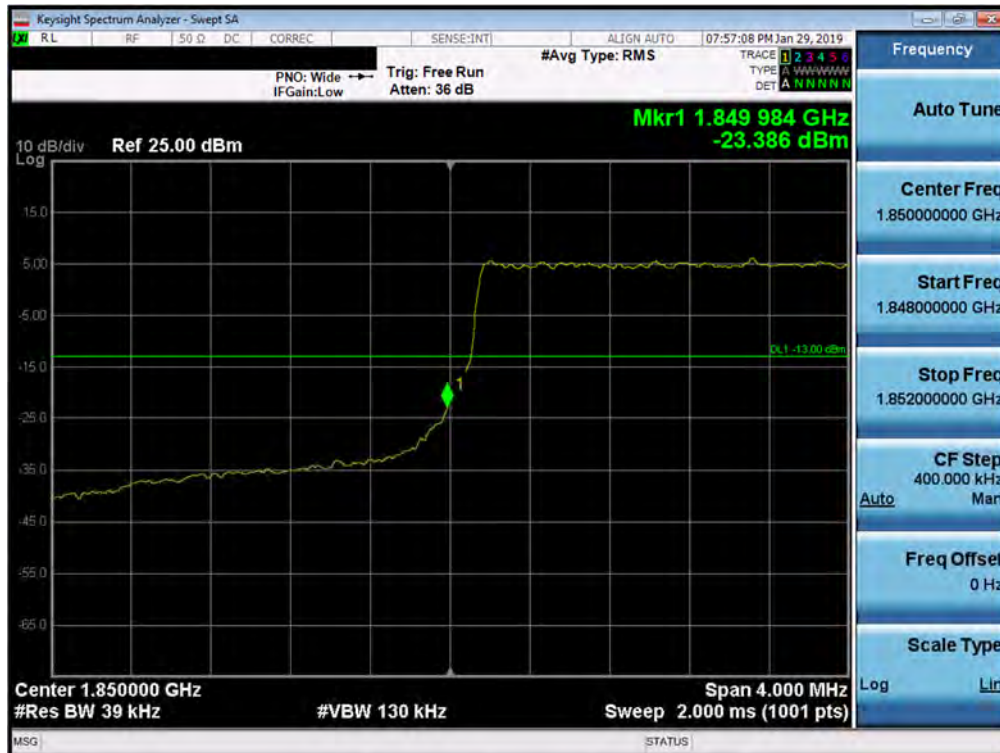


Plot 7-150. Upper Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

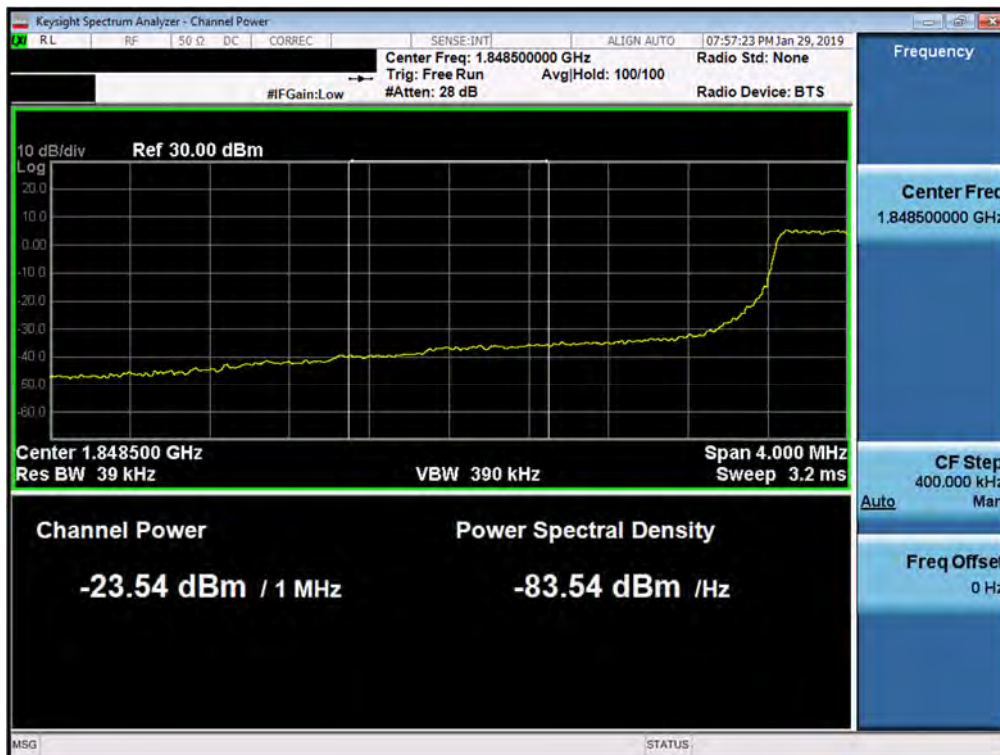


Plot 7-151. Upper Extended Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 97 of 156

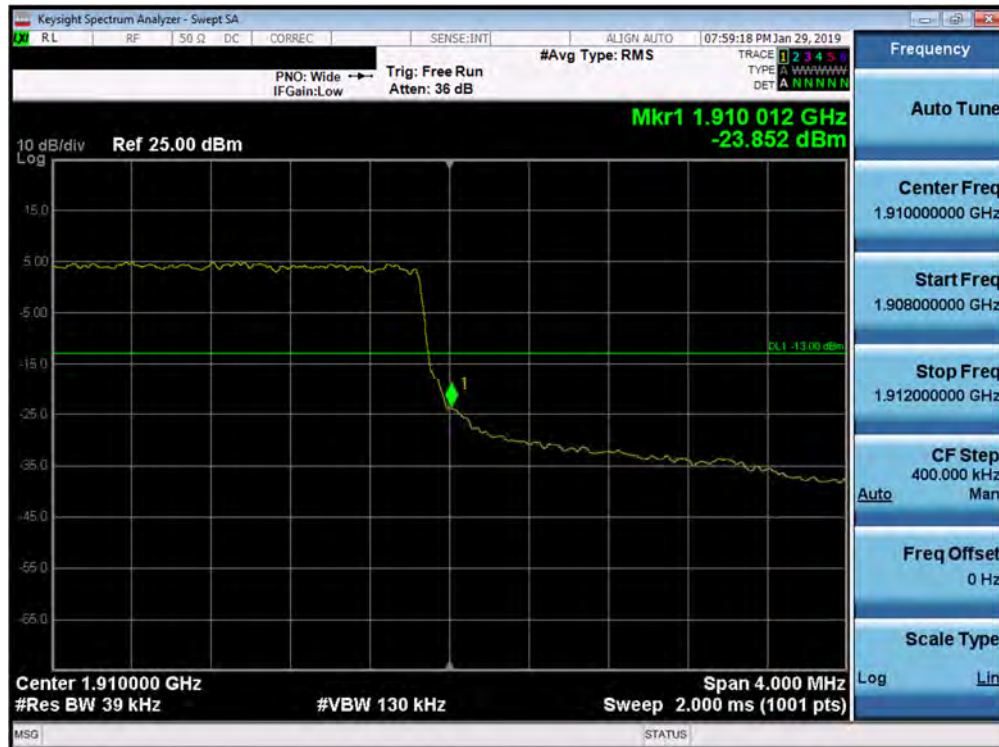


Plot 7-152. Lower Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

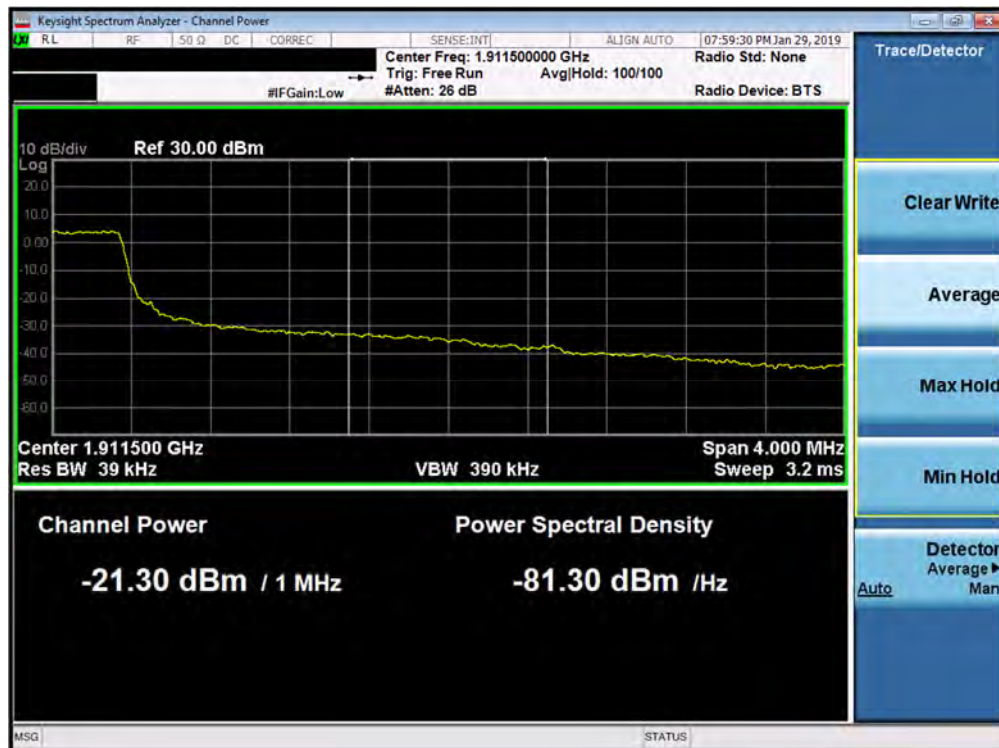


Plot 7-153. Lower Extended Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 98 of 156

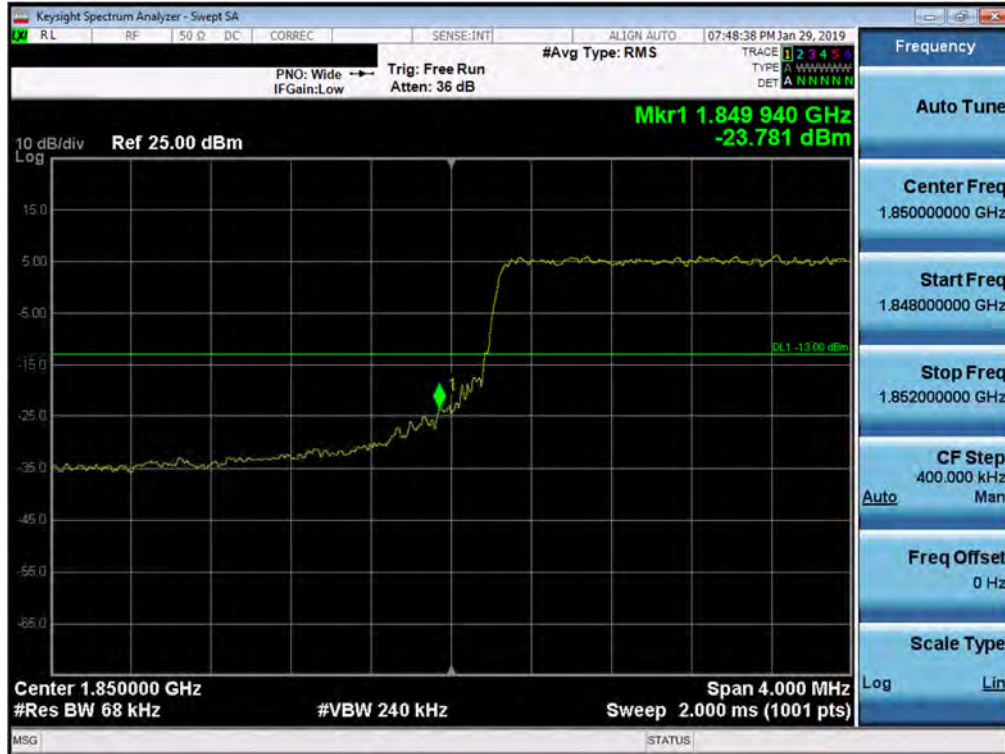


Plot 7-154. Upper Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

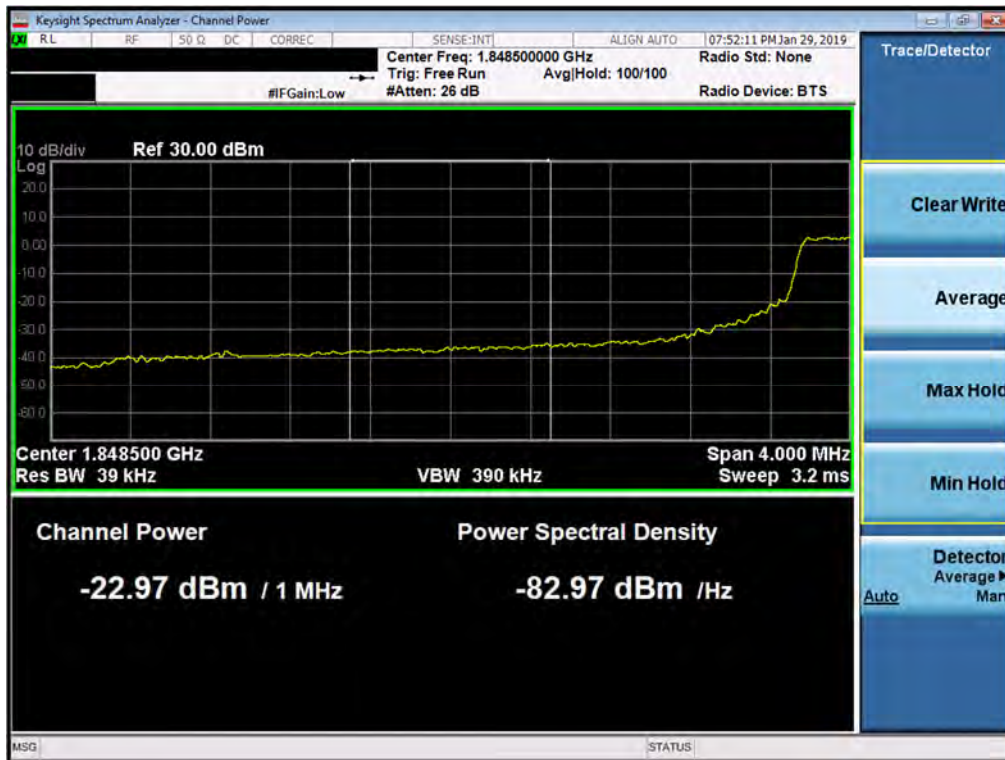


Plot 7-155. Upper Extended Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 99 of 156



Plot 7-156. Lower Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

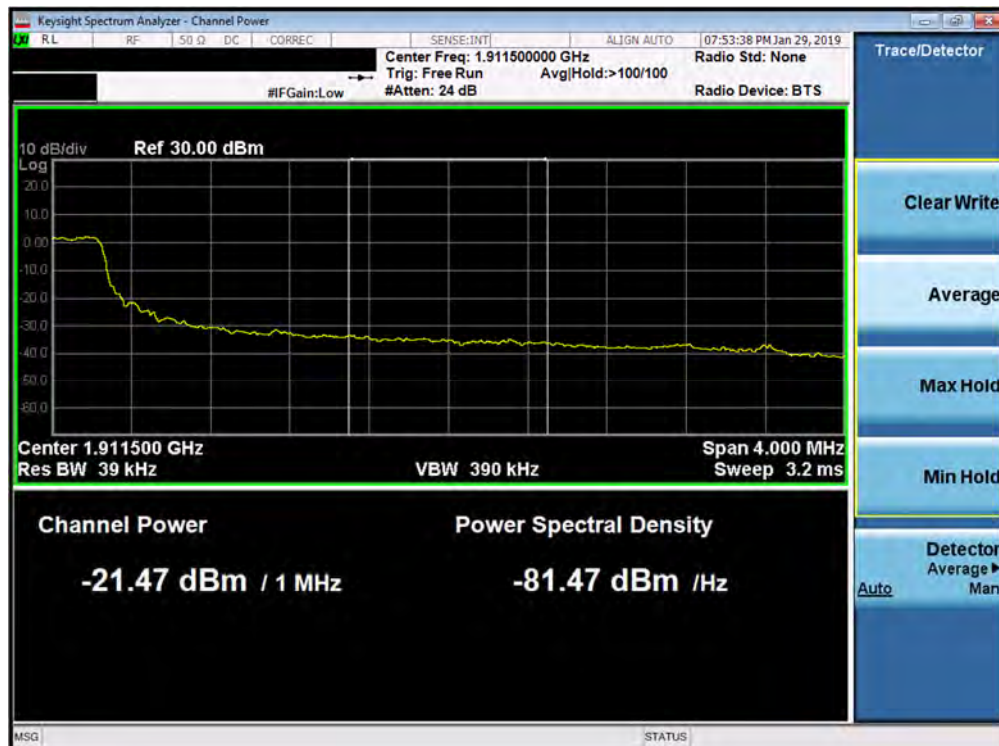


Plot 7-157. Lower Extended Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 100 of 156

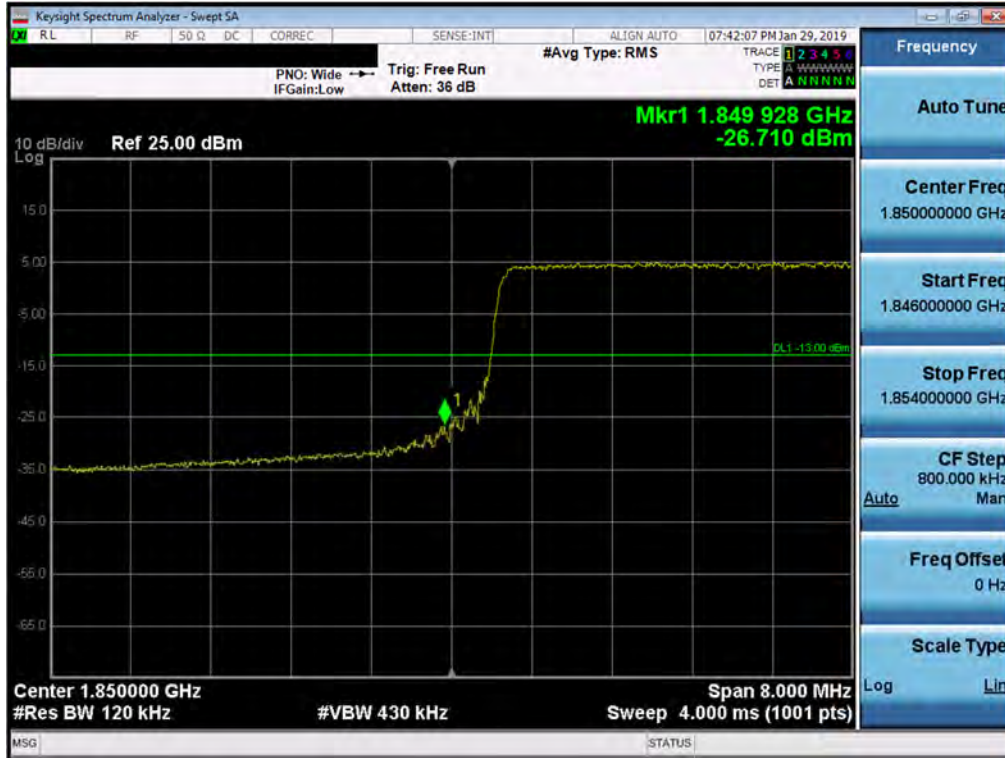


Plot 7-158. Upper Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

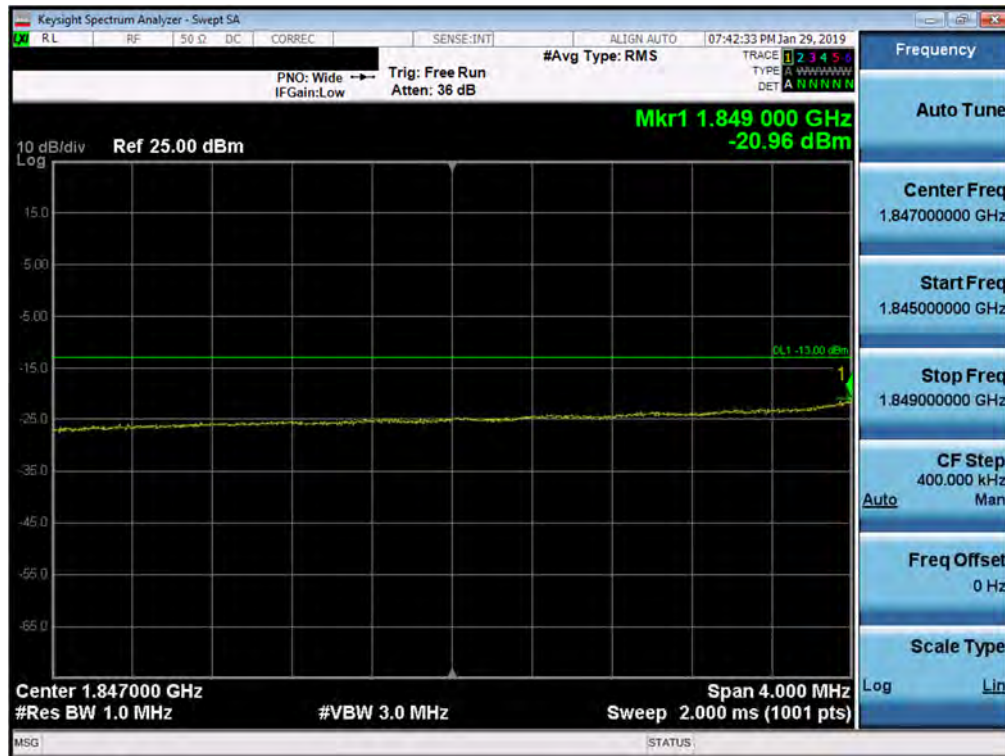


Plot 7-159. Upper Extended Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 101 of 156

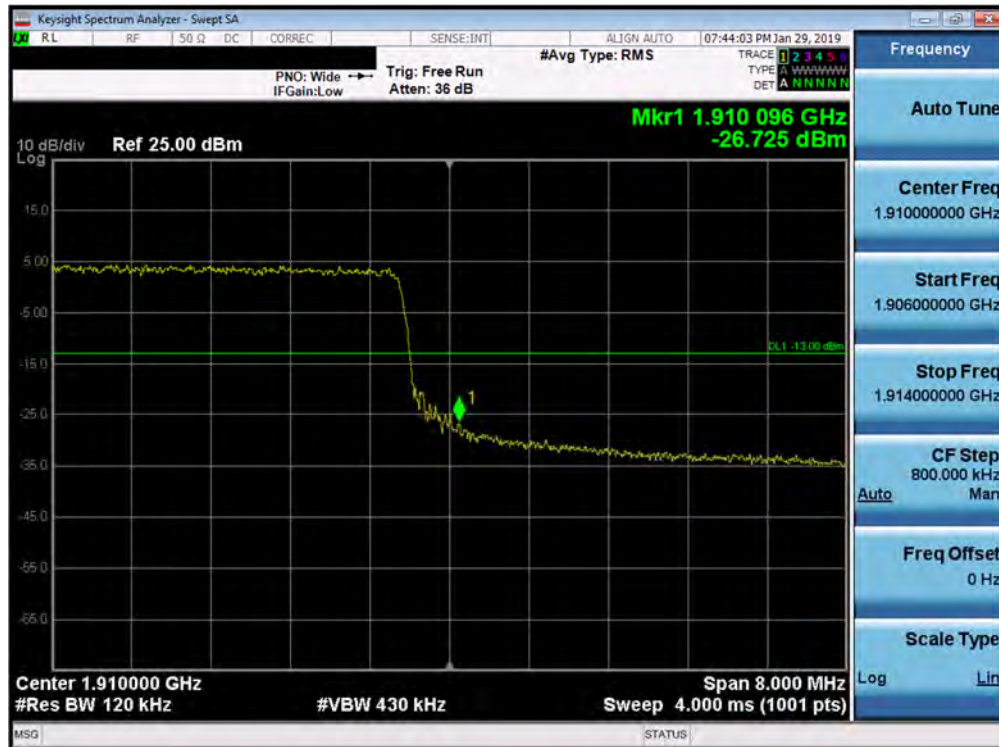


Plot 7-160. Lower Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

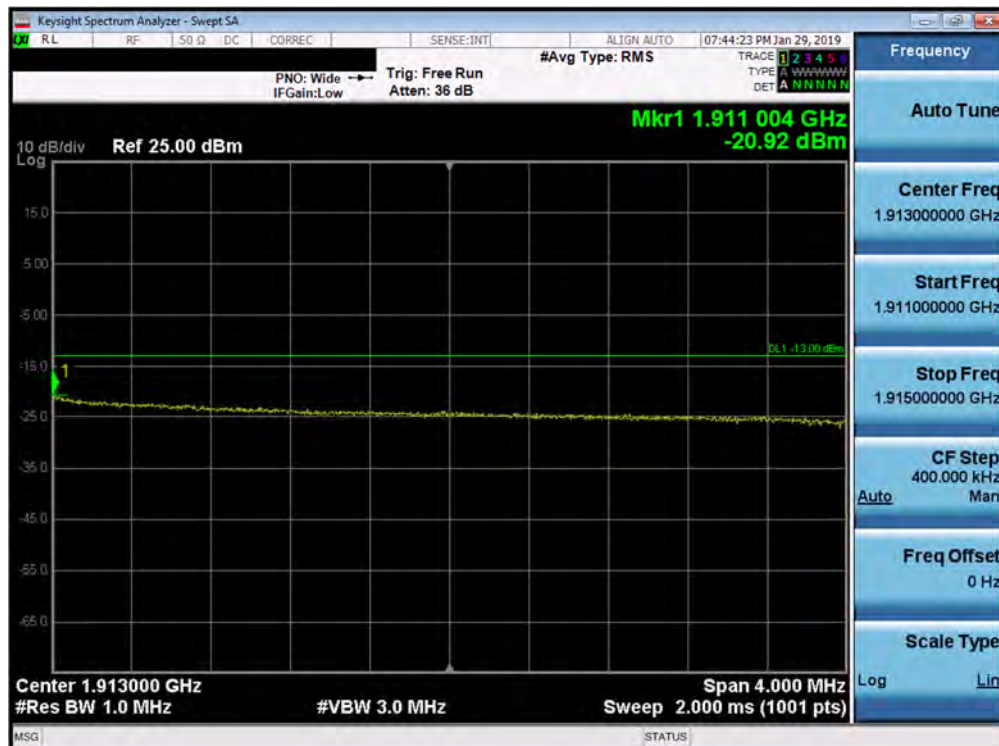


Plot 7-161. Lower Extended Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 102 of 156

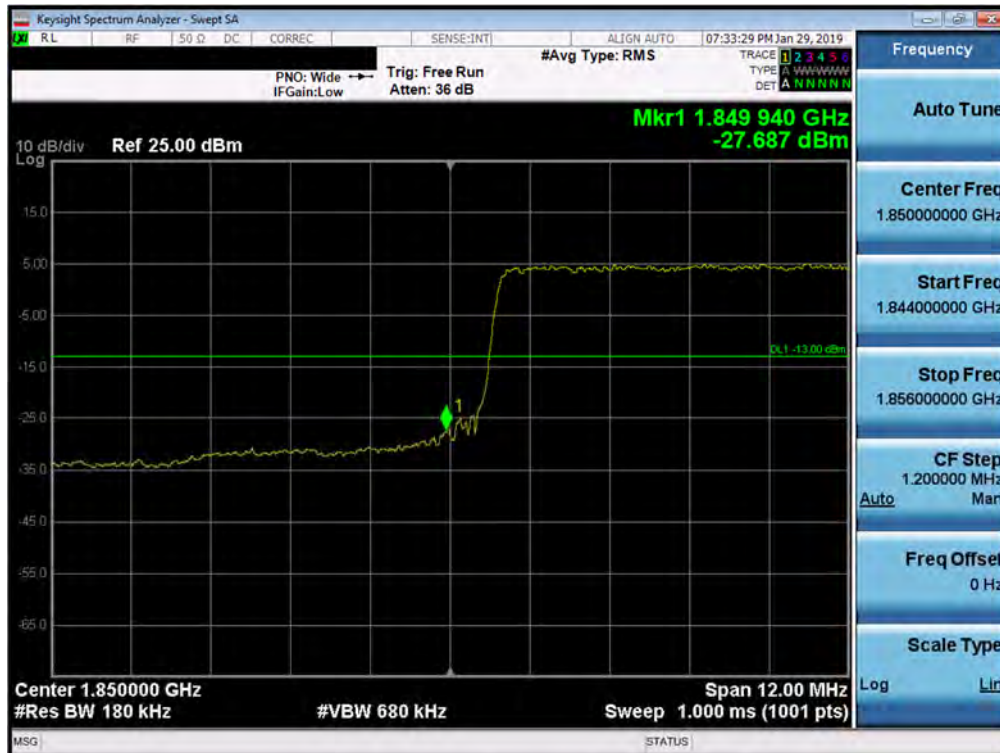


Plot 7-162. Upper Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

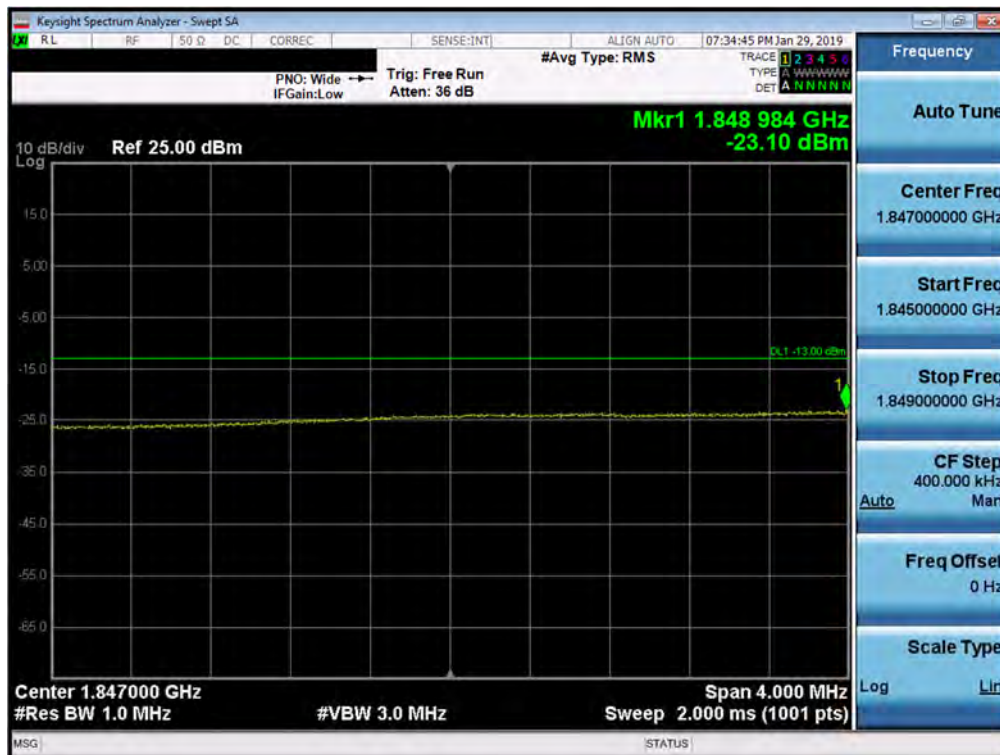


Plot 7-163. Upper Extended Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 103 of 156

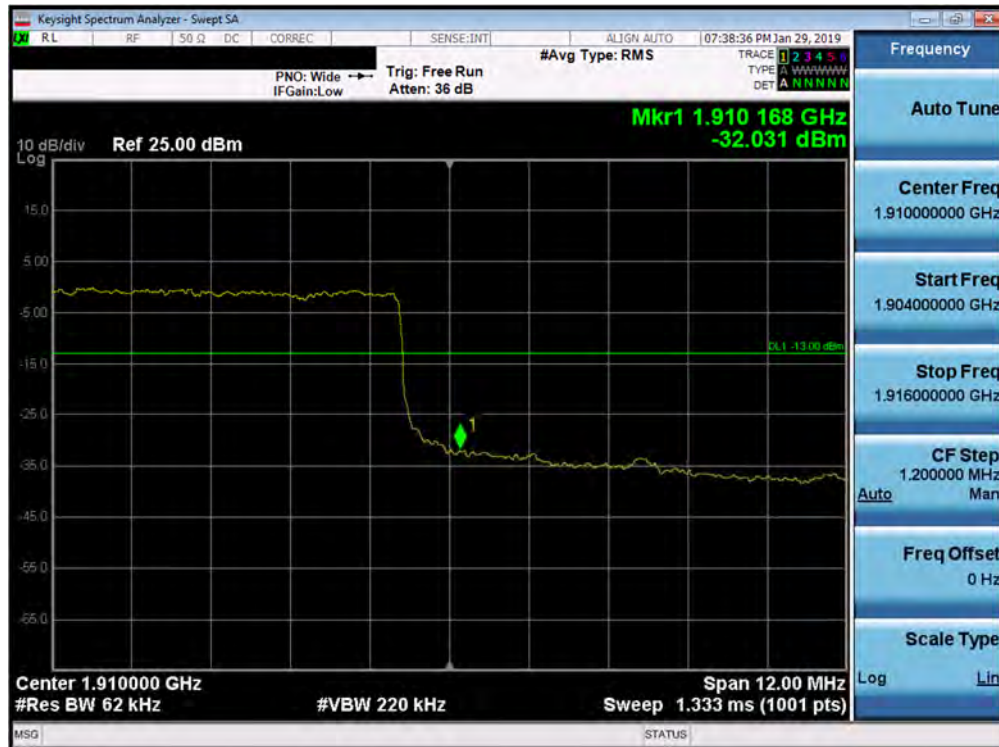


Plot 7-164. Lower Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)

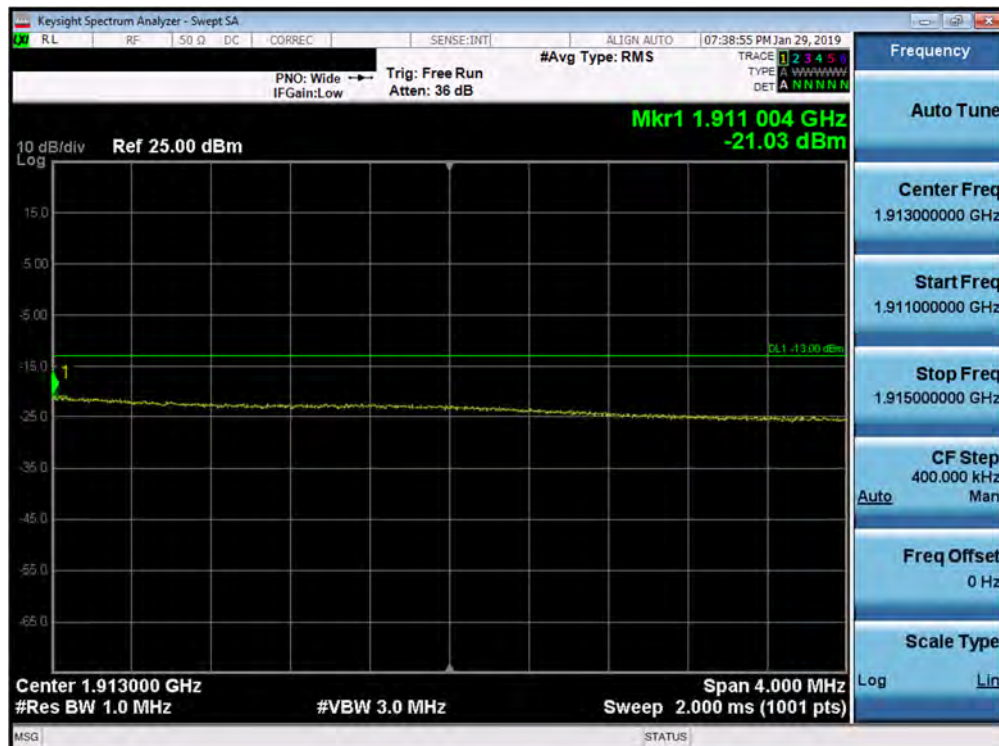


Plot 7-165. Lower Extended Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 104 of 156

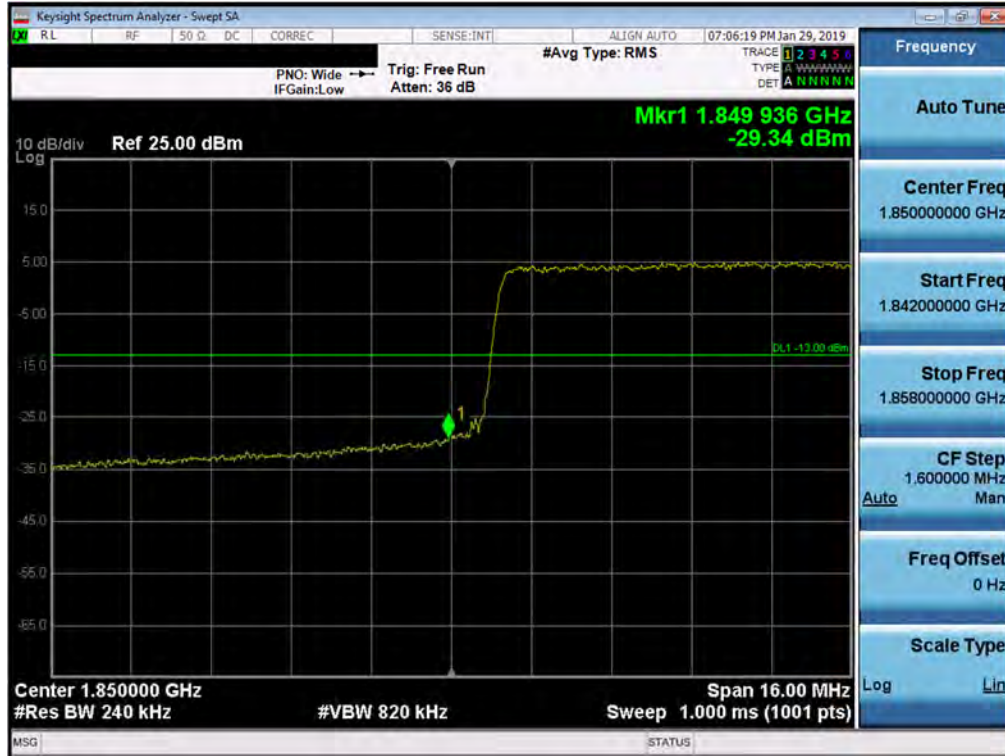


Plot 7-166. Upper Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)

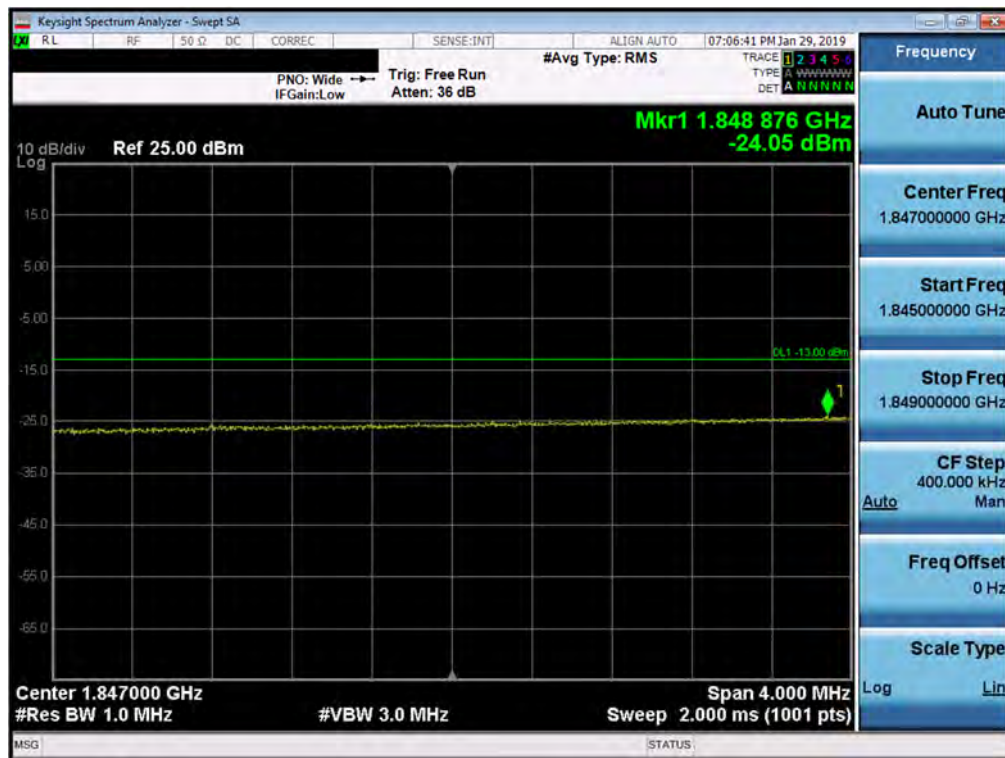


Plot 7-167. Upper Extended Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 105 of 156



Plot 7-168. Lower Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)

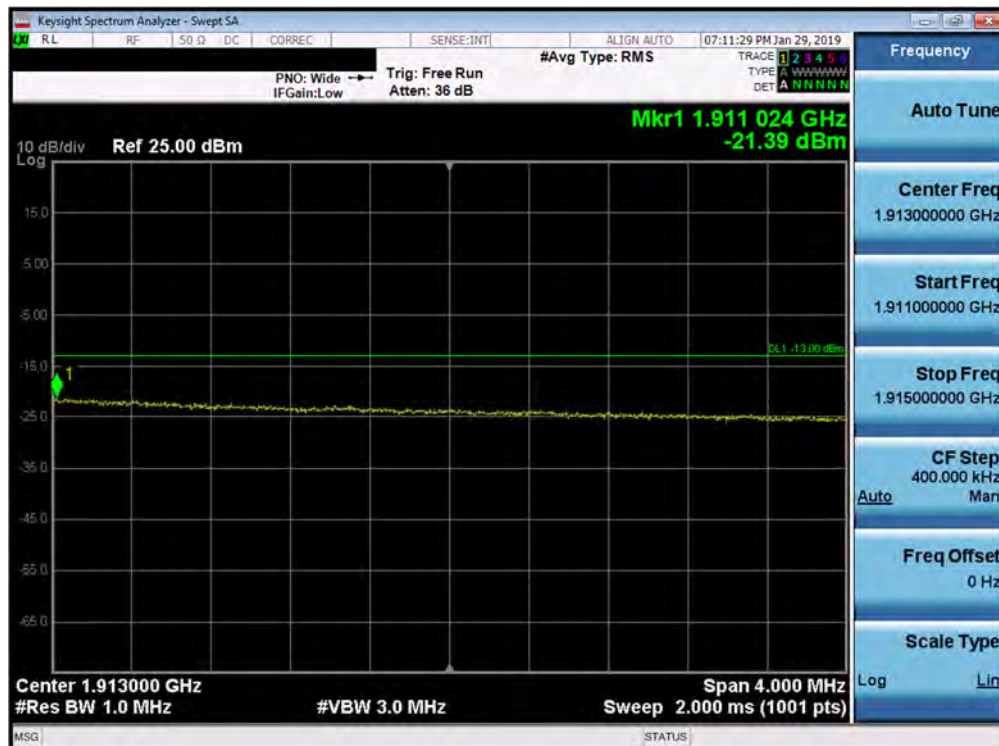


Plot 7-169. Lower Extended Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 106 of 156



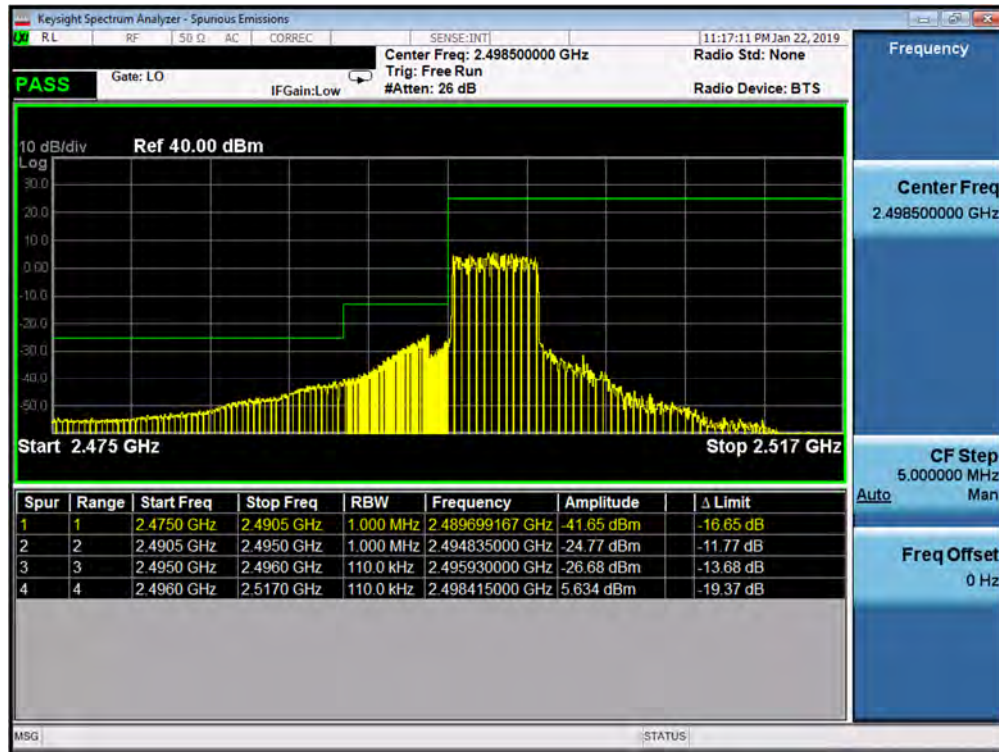
Plot 7-170. Upper Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)



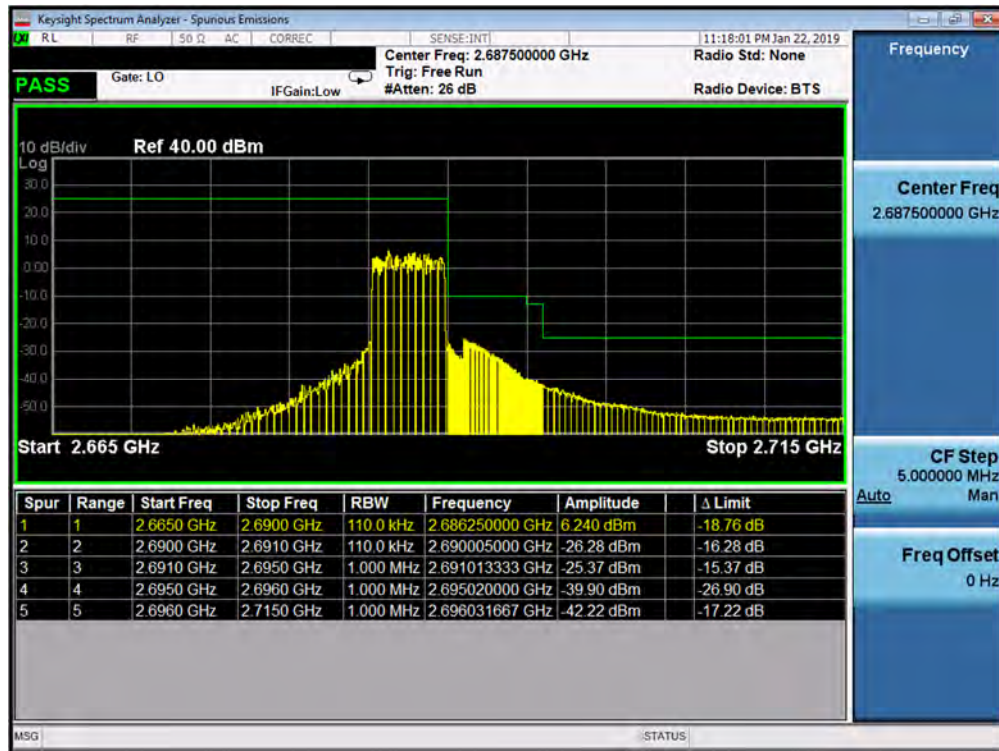
Plot 7-171. Upper Extended Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 107 of 156

Band 41

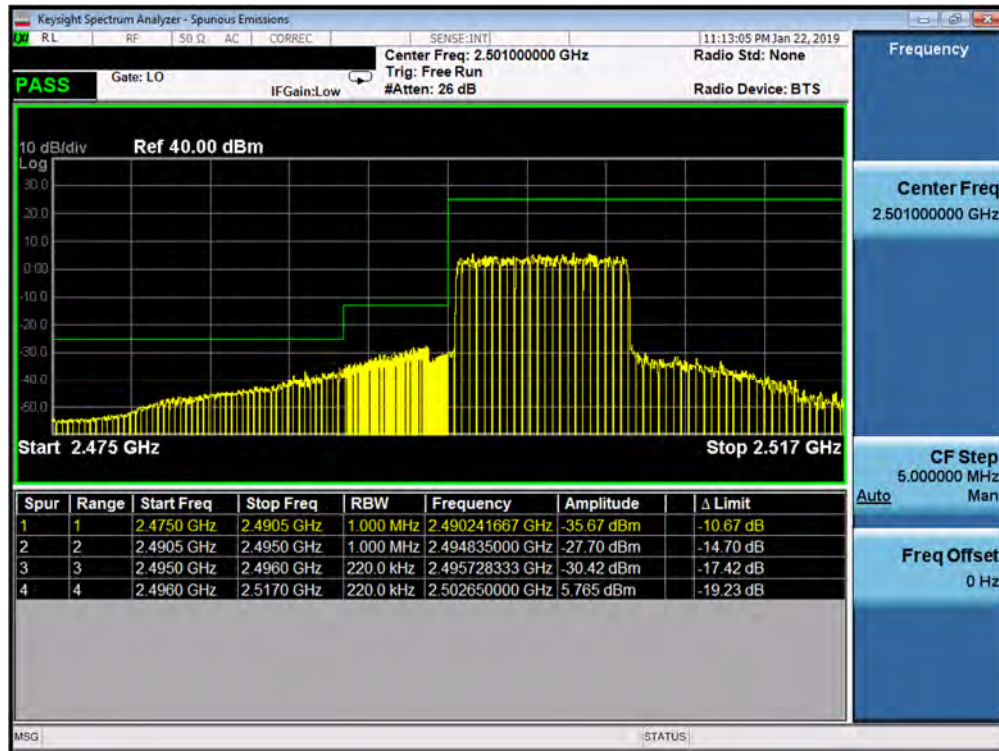


Plot 7-172. Lower ACP Plot at 2496 MHz (Band 41 - 5.0MHz QPSK - Full RB Configuration)

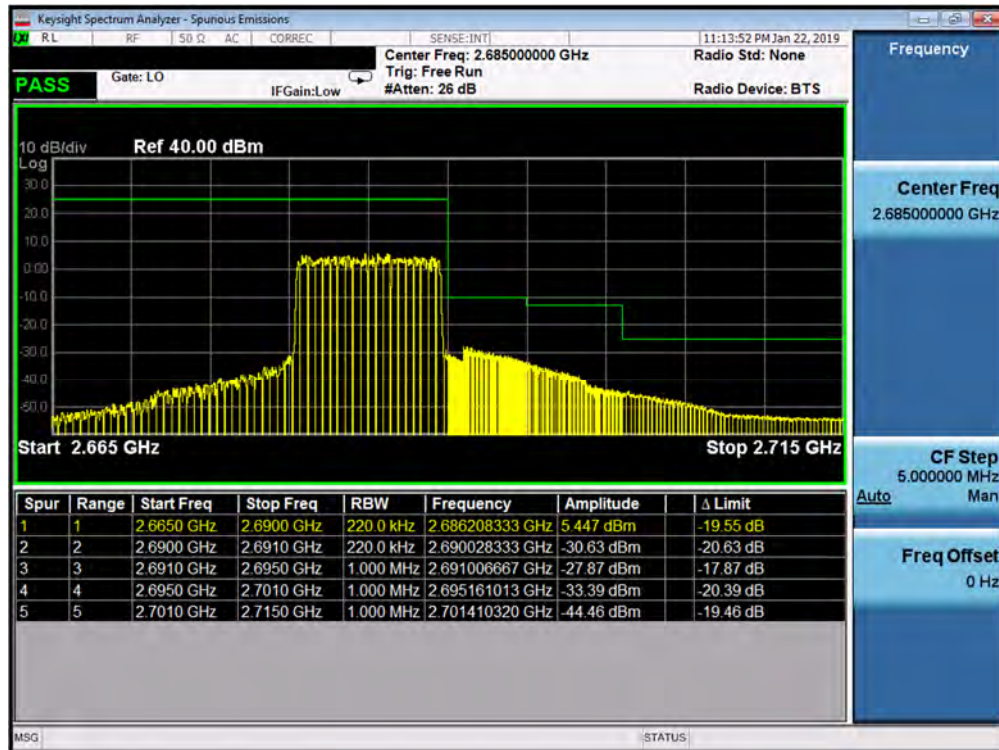


Plot 7-173. Upper ACP Plot (Band 41 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 108 of 156

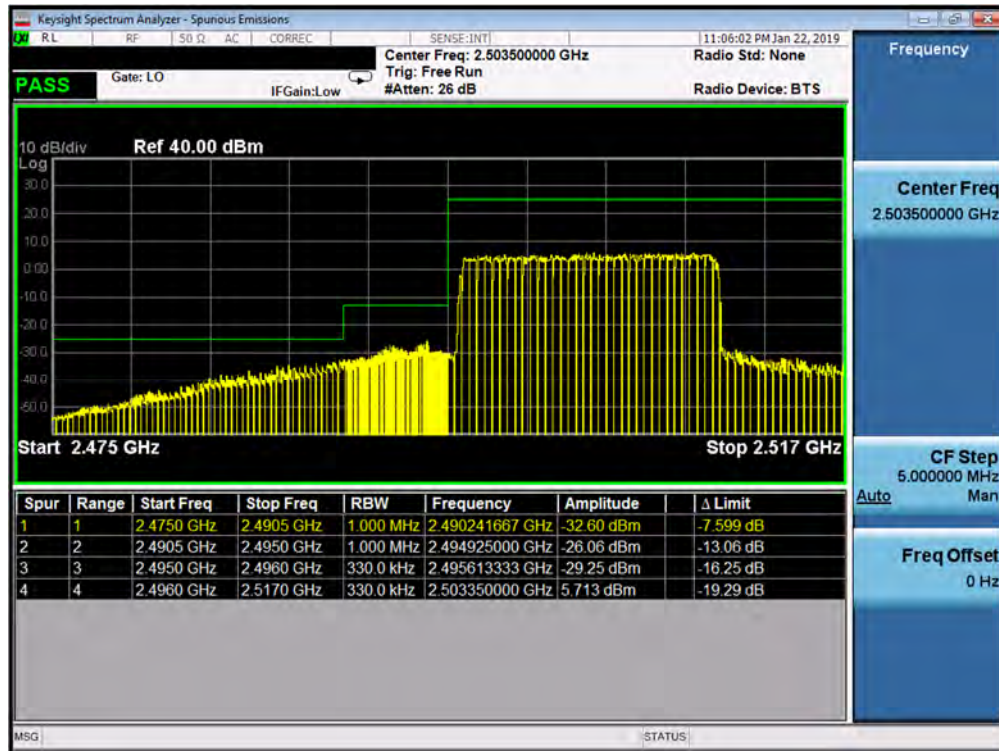


Plot 7-174. Lower ACP Plot at 2496 MHz (Band 41 - 10.0MHz QPSK - Full RB Configuration)

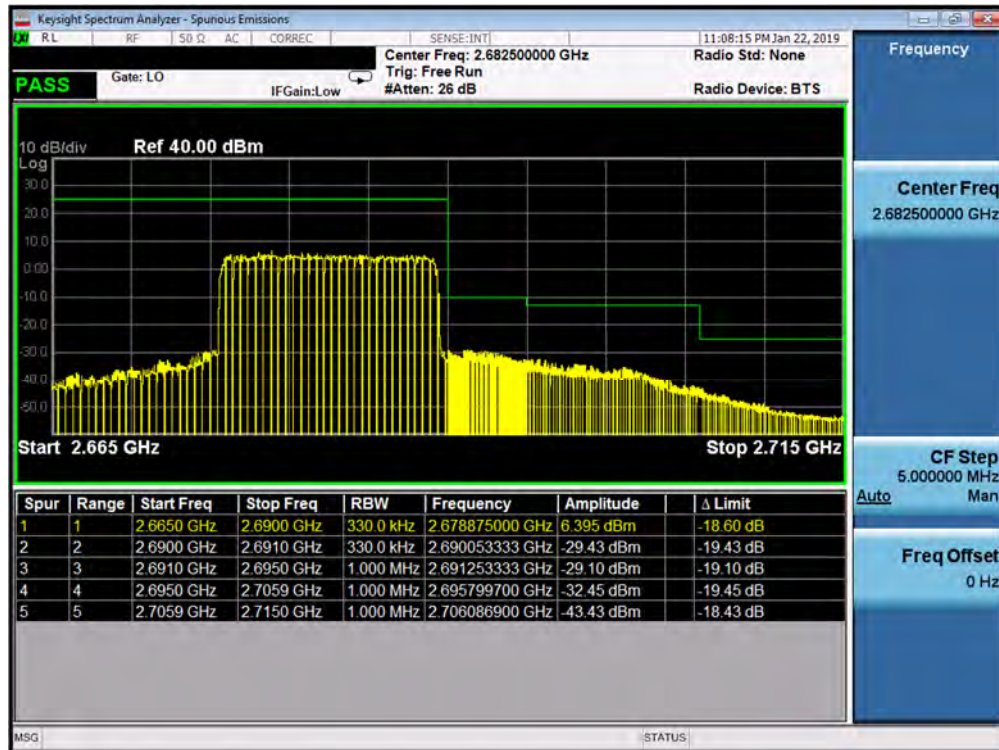


Plot 7-175. Upper ACP Plot (Band 41 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 109 of 156

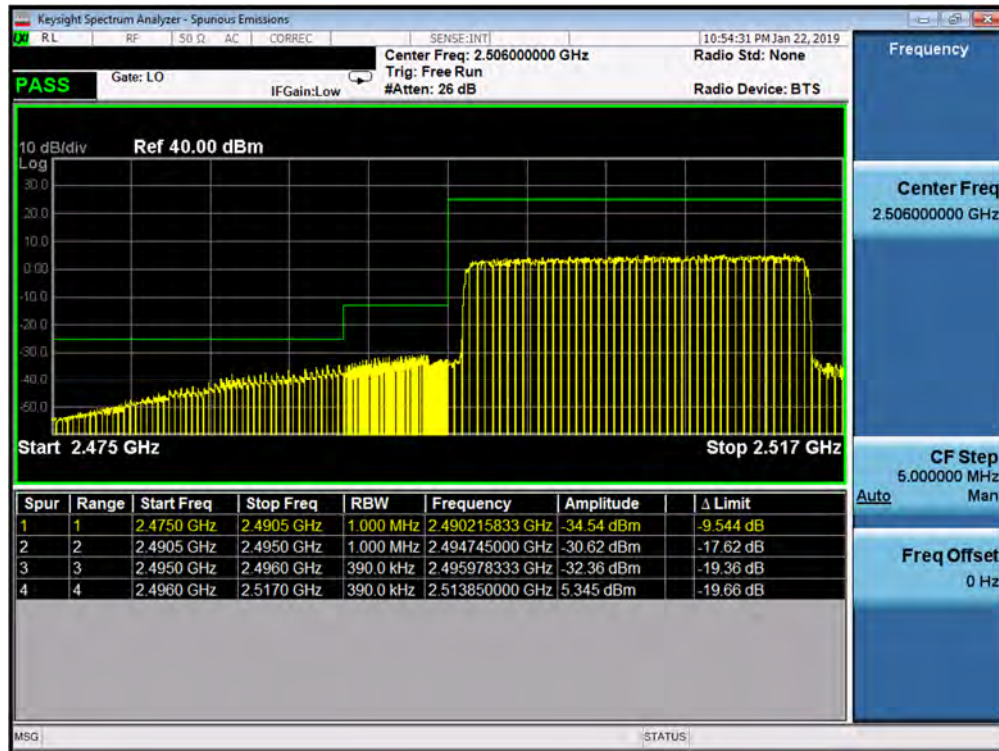


Plot 7-176. Lower ACP Plot at 2496 MHz (Band 41 - 15.0MHz QPSK - Full RB Configuration)

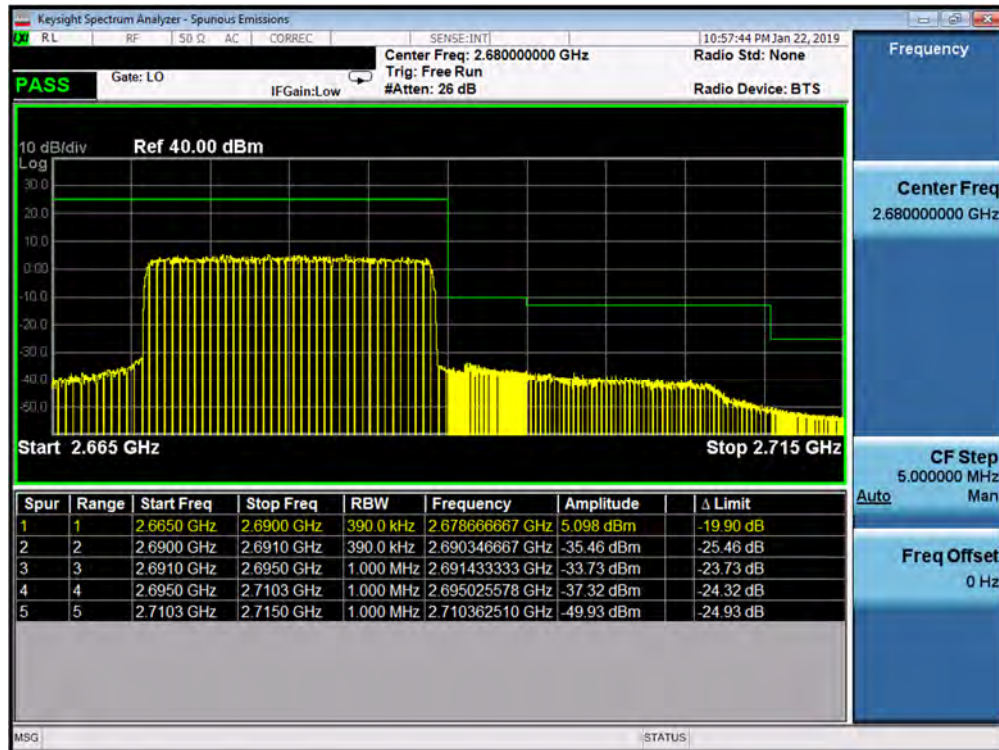


Plot 7-177. Upper ACP Plot (Band 41 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 110 of 156



Plot 7-178. Lower ACP Plot at 2496 MHz (Band 41 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-179. Upper ACP Plot (Band 41 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 111 of 156	

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.



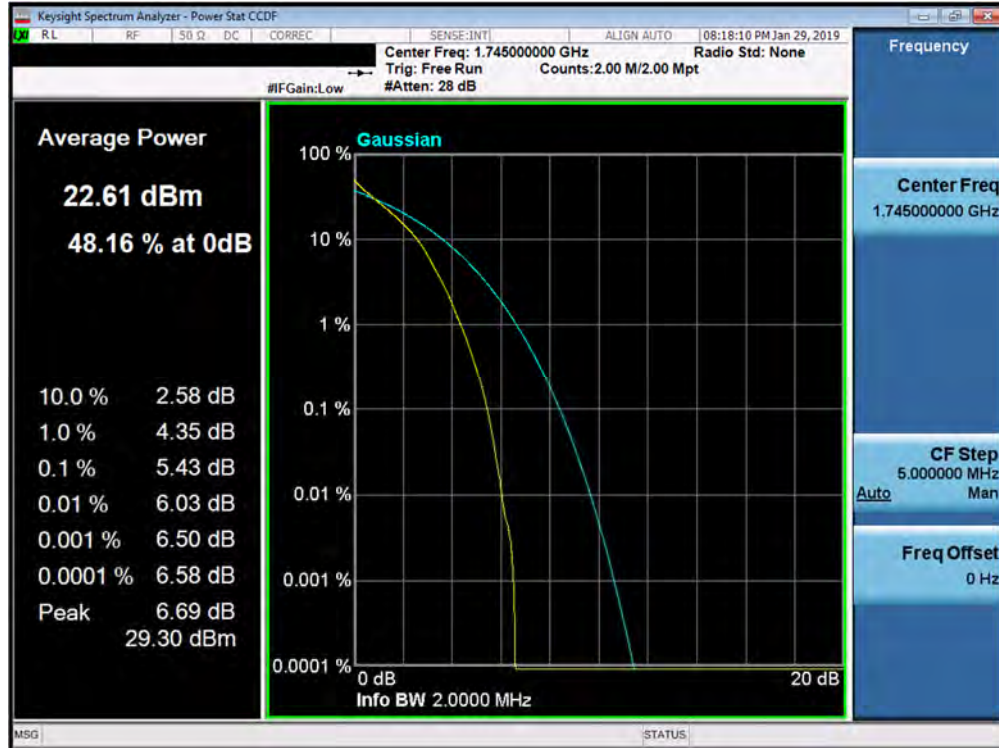
Figure 7-4. Test Instrument & Measurement Setup

Test Notes

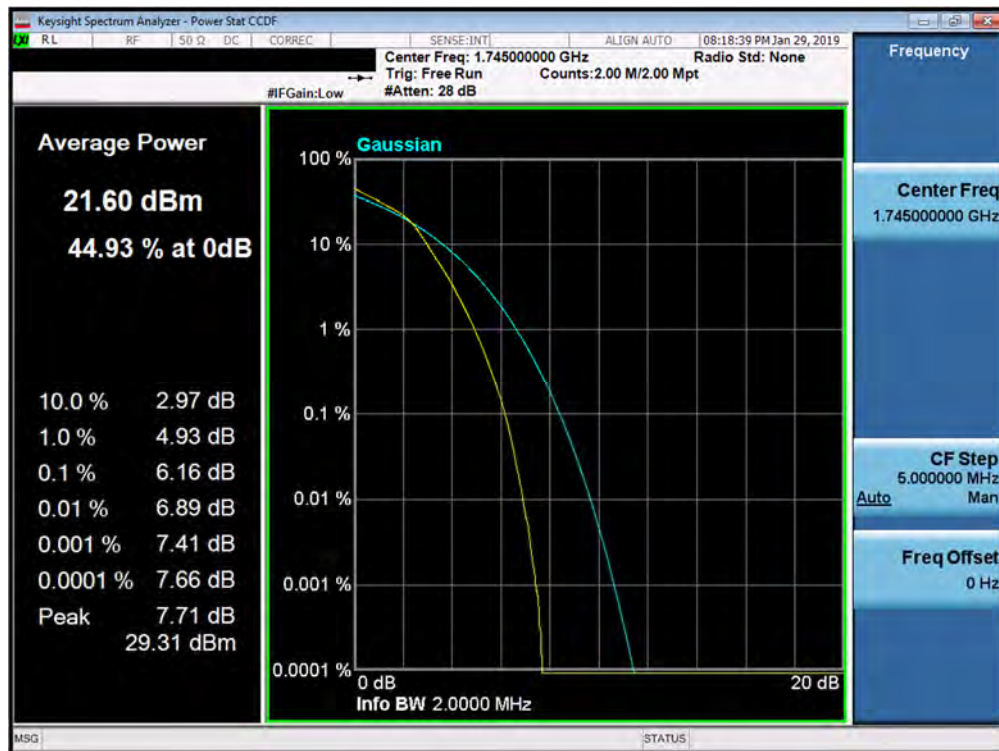
None.

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 112 of 156

Band 66/4

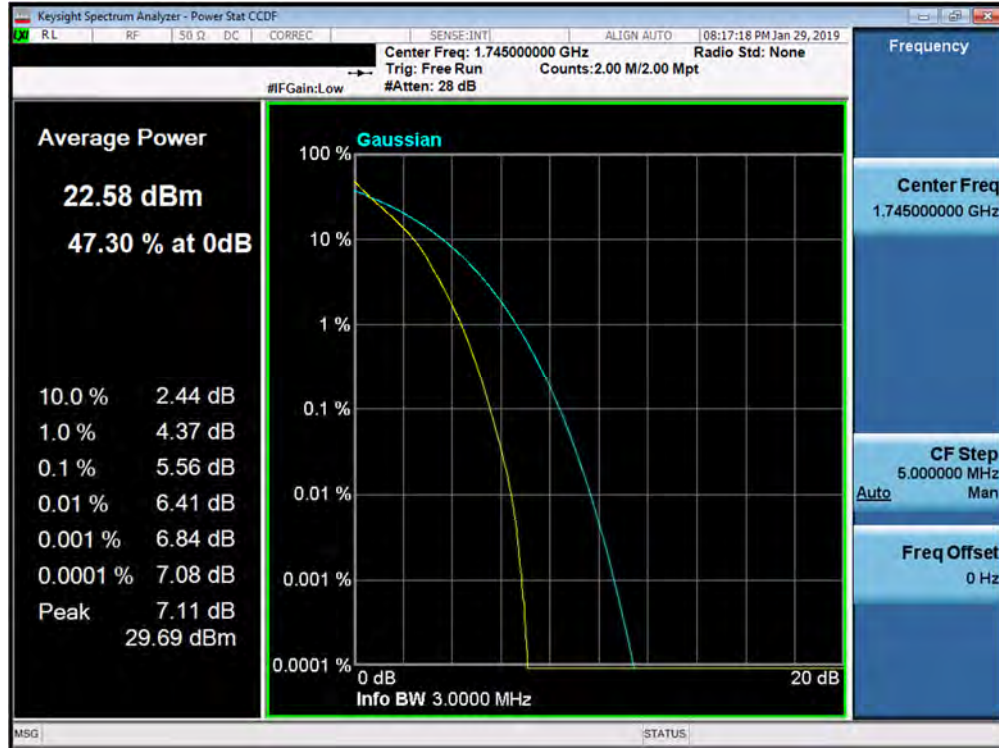


Plot 7-180. PAR Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)

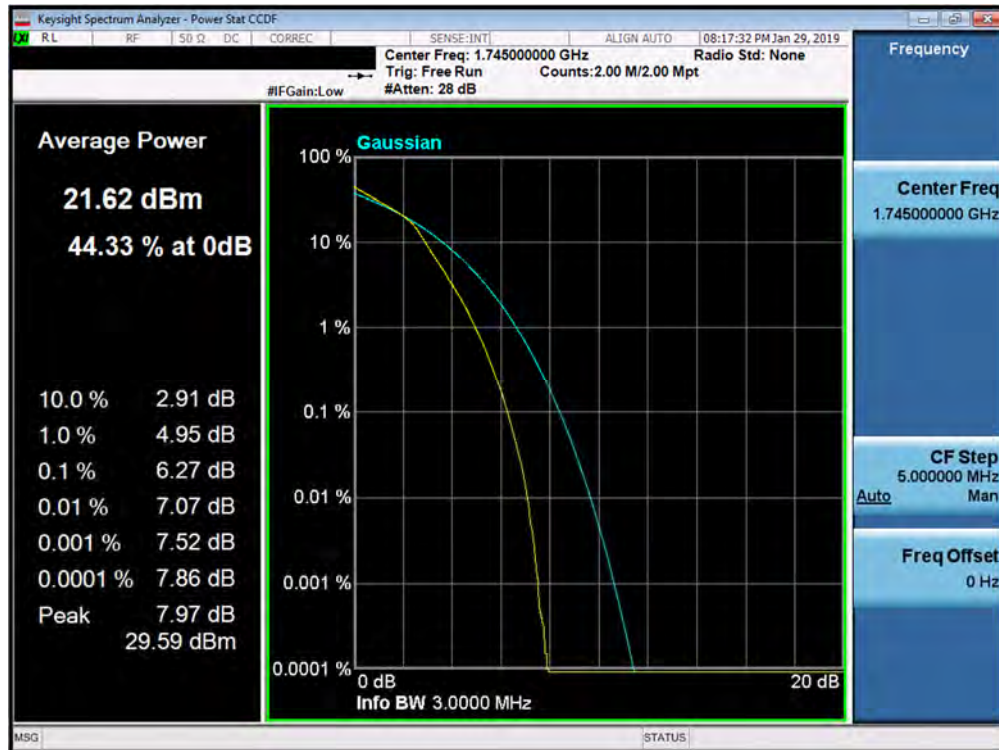


Plot 7-181. PAR Plot (Band 66/4 - 1.4MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 113 of 156

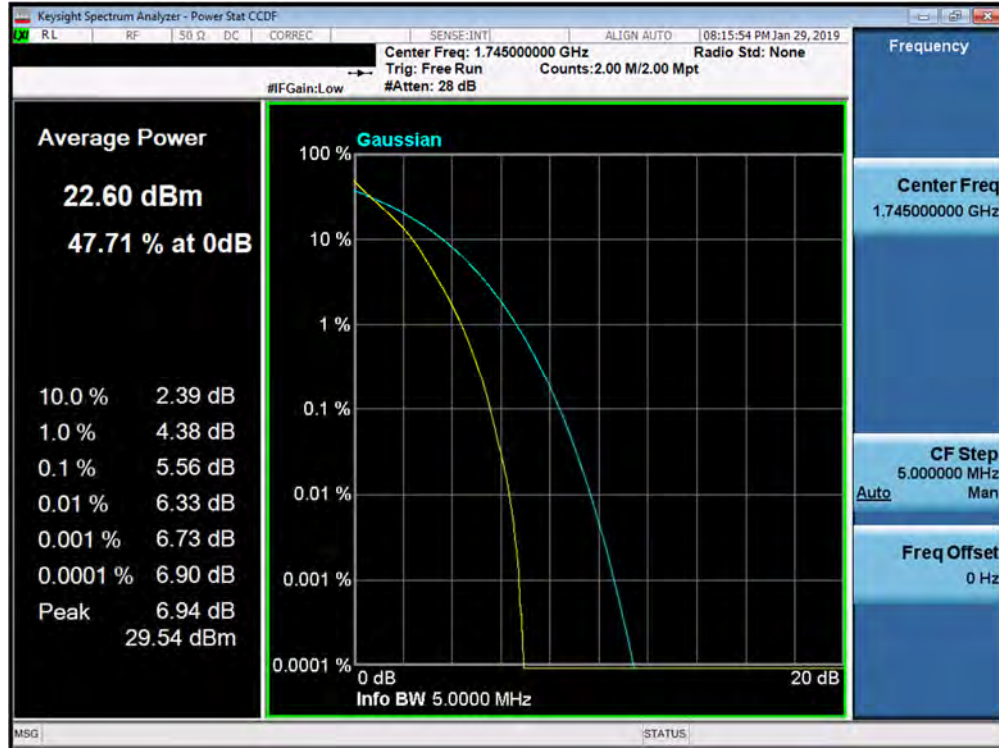


Plot 7-182. PAR Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

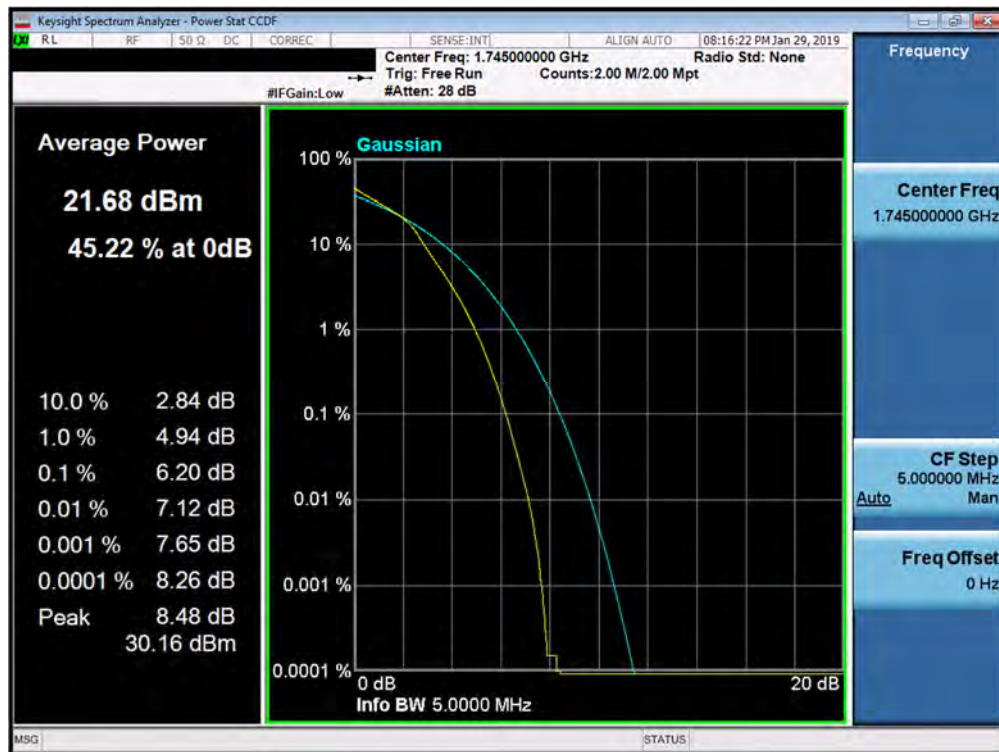


Plot 7-183. PAR Plot (Band 66/4 - 3.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 114 of 156

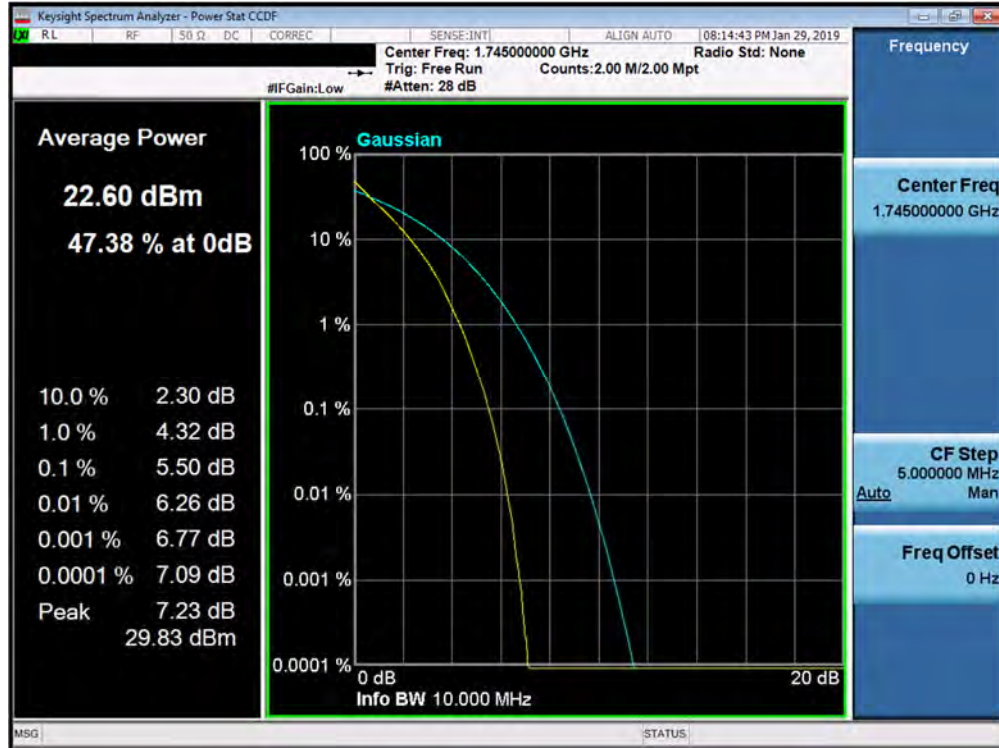


Plot 7-184. PAR Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

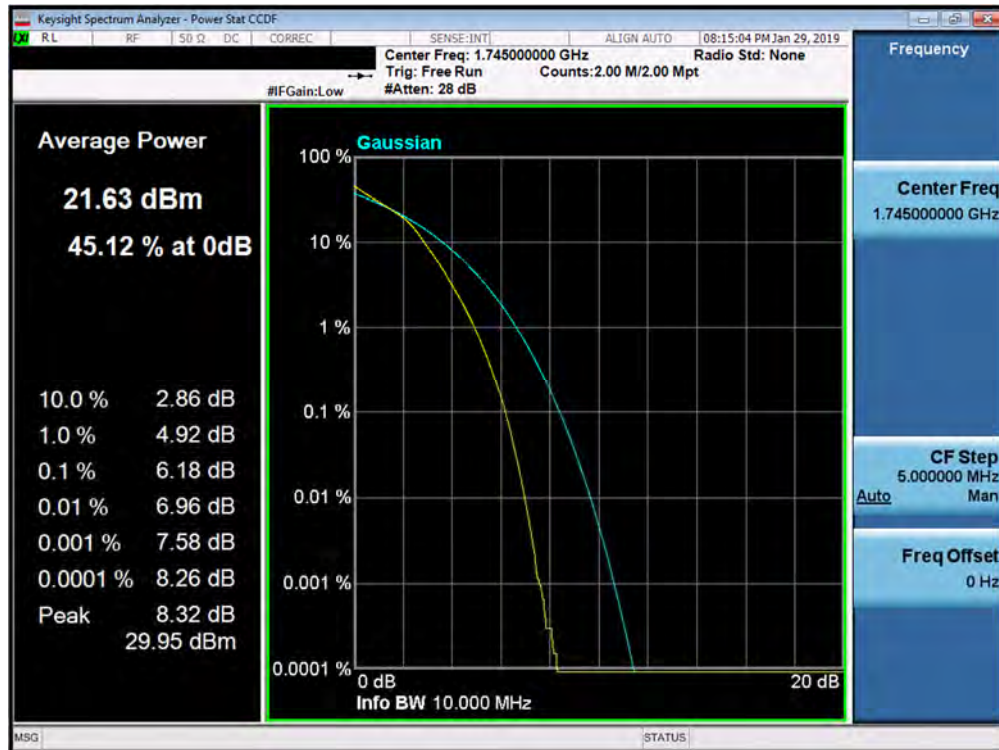


Plot 7-185. PAR Plot (Band 66/4 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 115 of 156

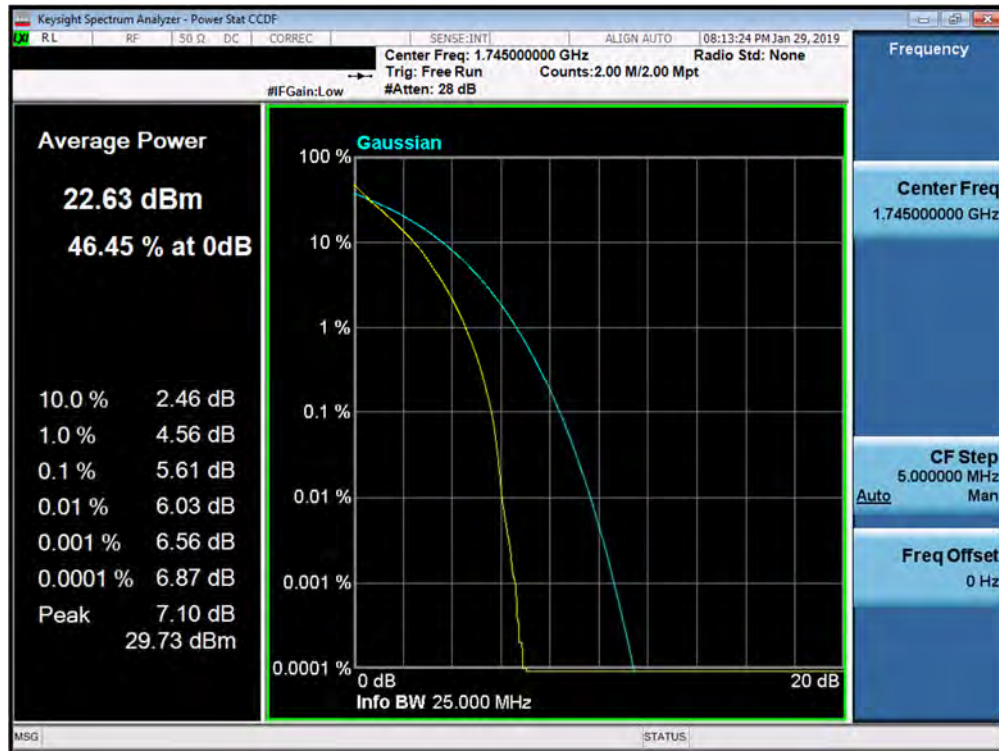


Plot 7-186. PAR Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

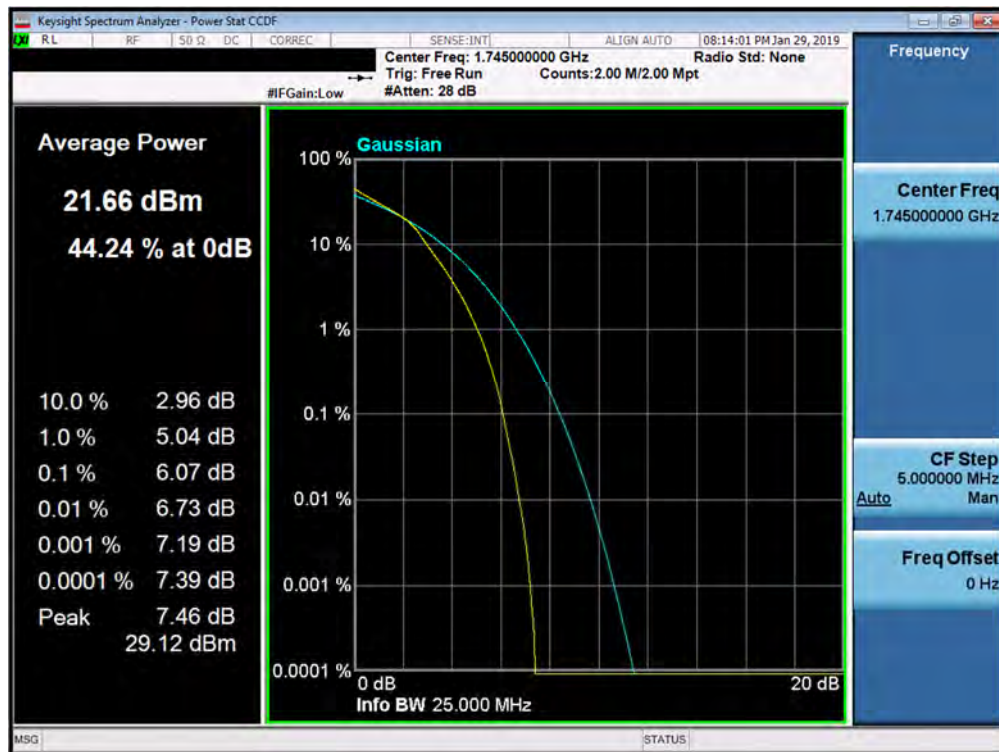


Plot 7-187. PAR Plot (Band 66/4 - 10.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 116 of 156

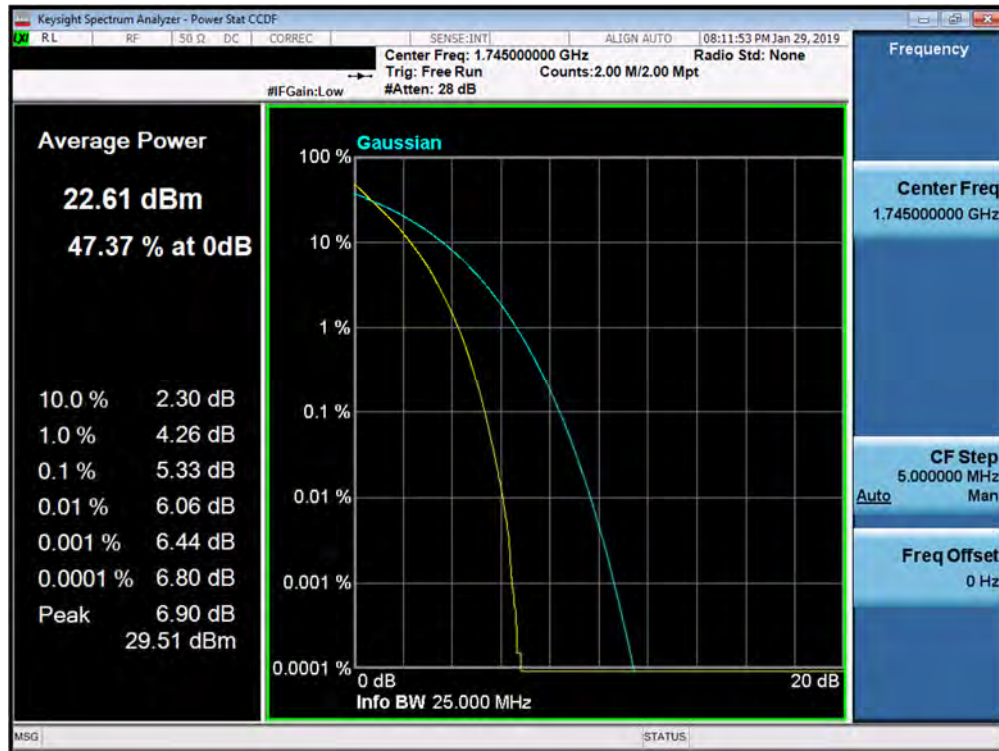


Plot 7-188. PAR Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)

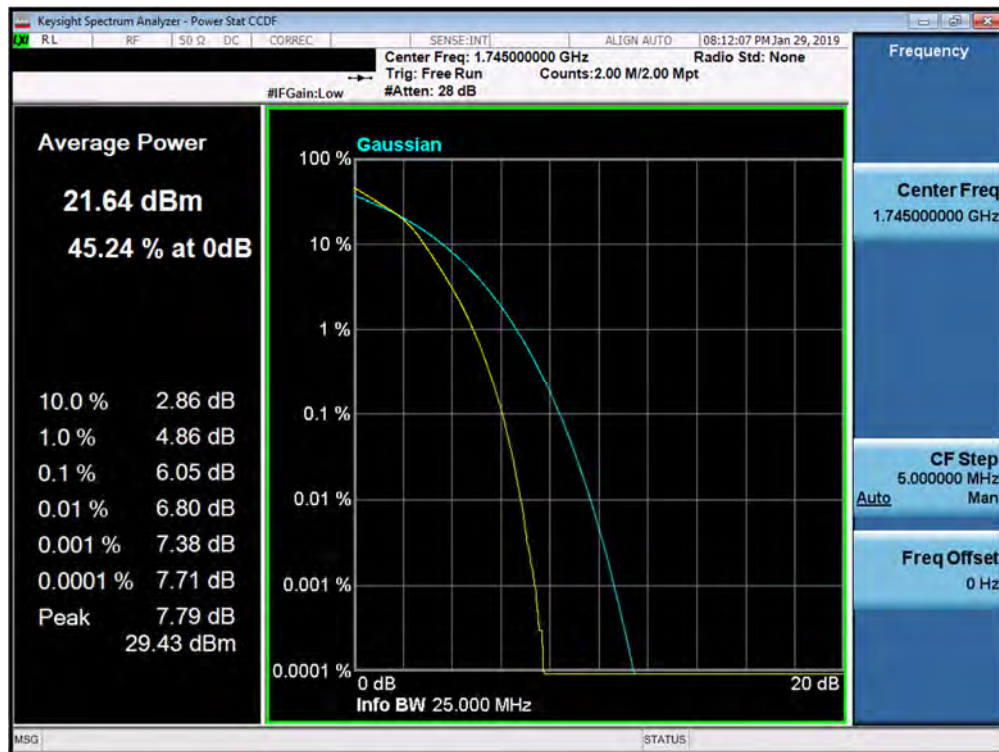


Plot 7-189. PAR Plot (Band 66/4 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 117 of 156



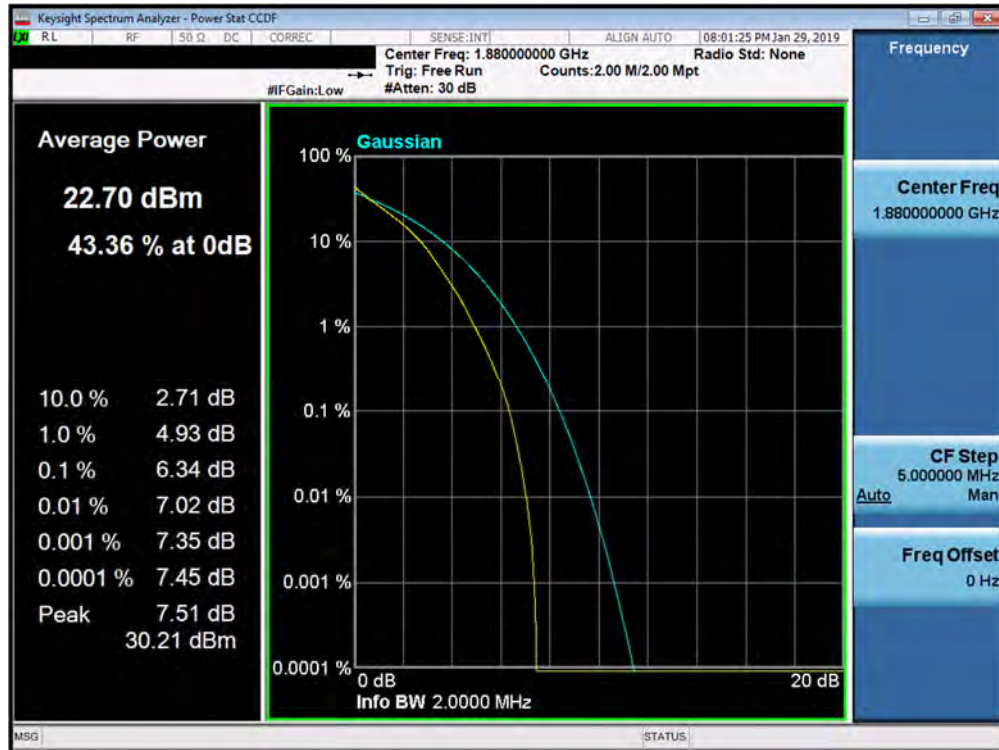
Plot 7-190. PAR Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)



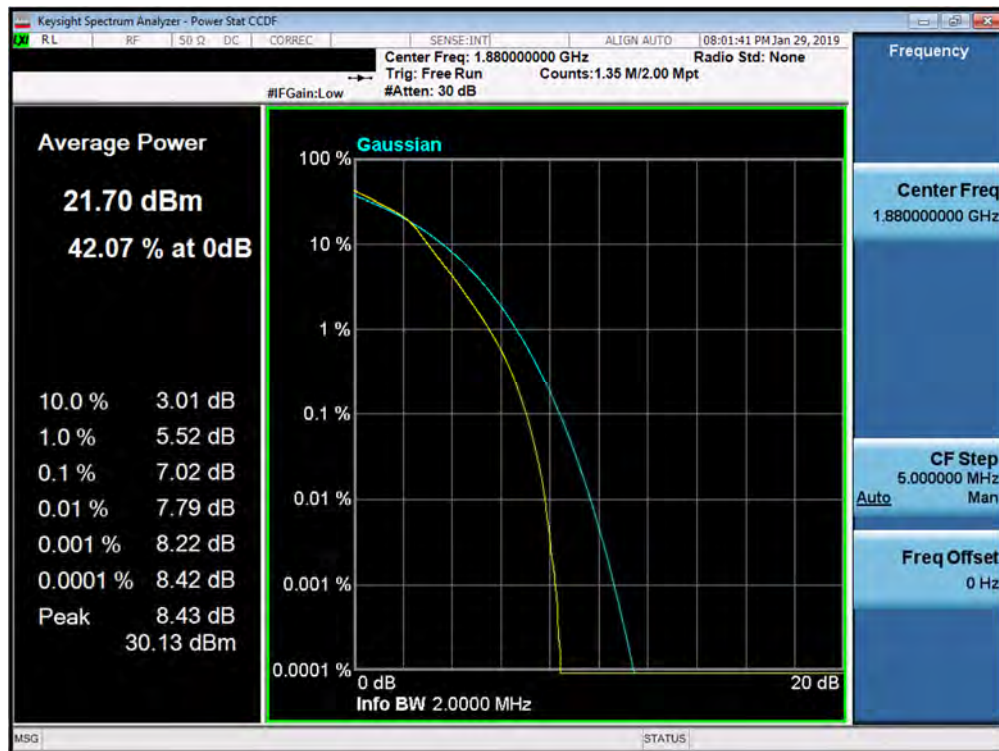
Plot 7-191. PAR Plot (Band 66/4 - 20.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 118 of 156

Band 2

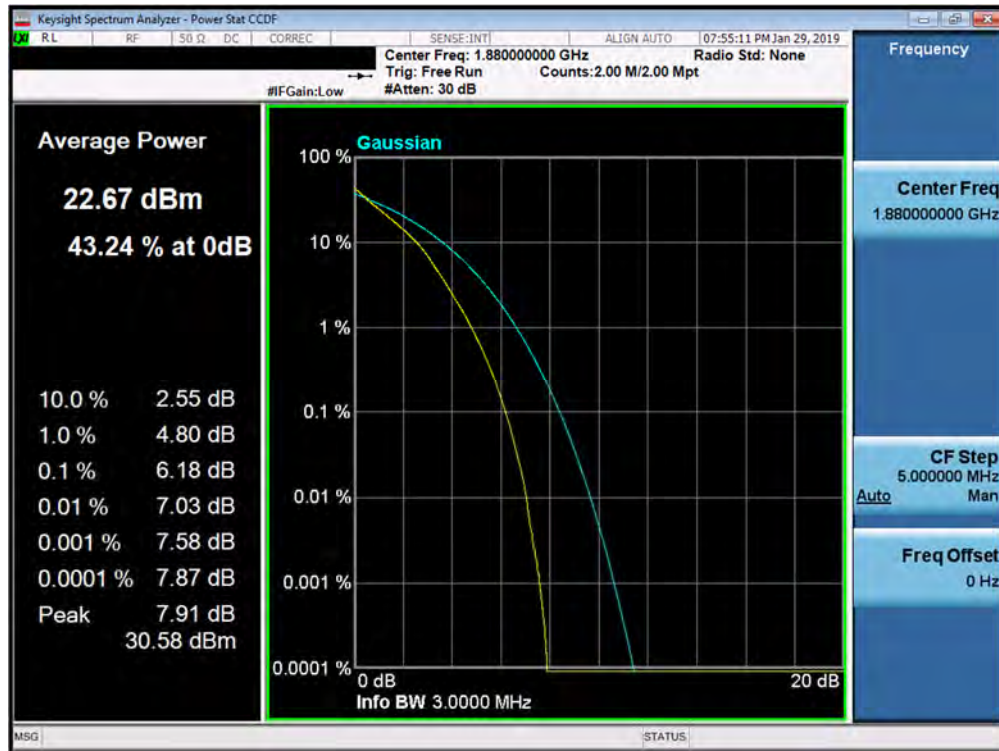


Plot 7-192. PAR Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

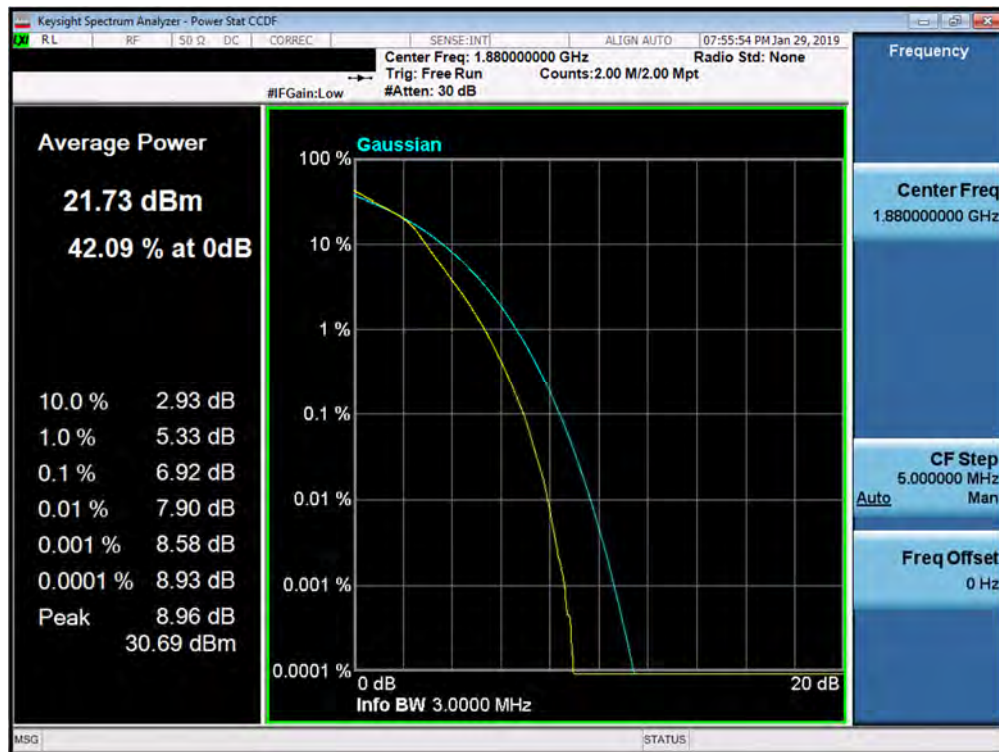


Plot 7-193. PAR Plot (Band 2 - 1.4MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 119 of 156

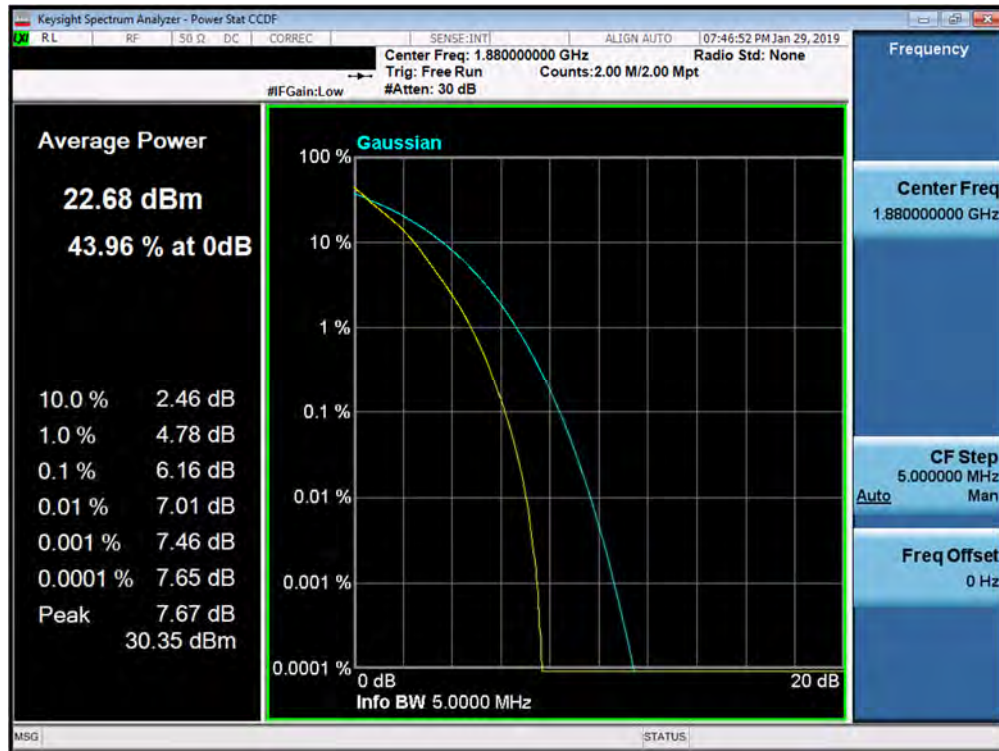


Plot 7-194. PAR Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

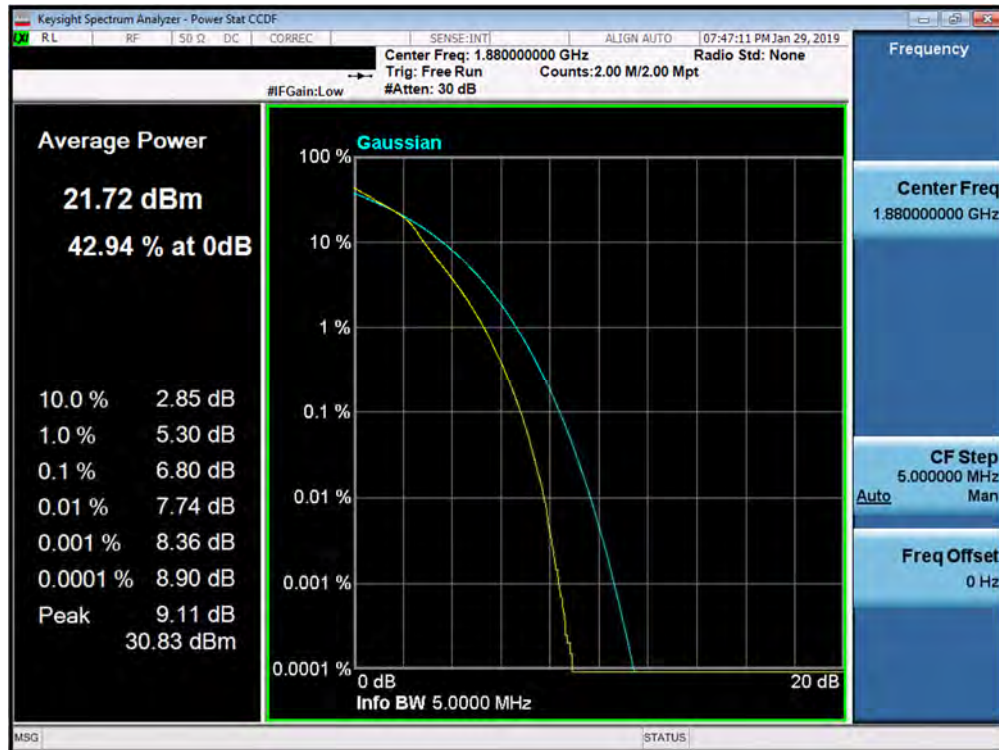


Plot 7-195. PAR Plot (Band 2 - 3.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 120 of 156

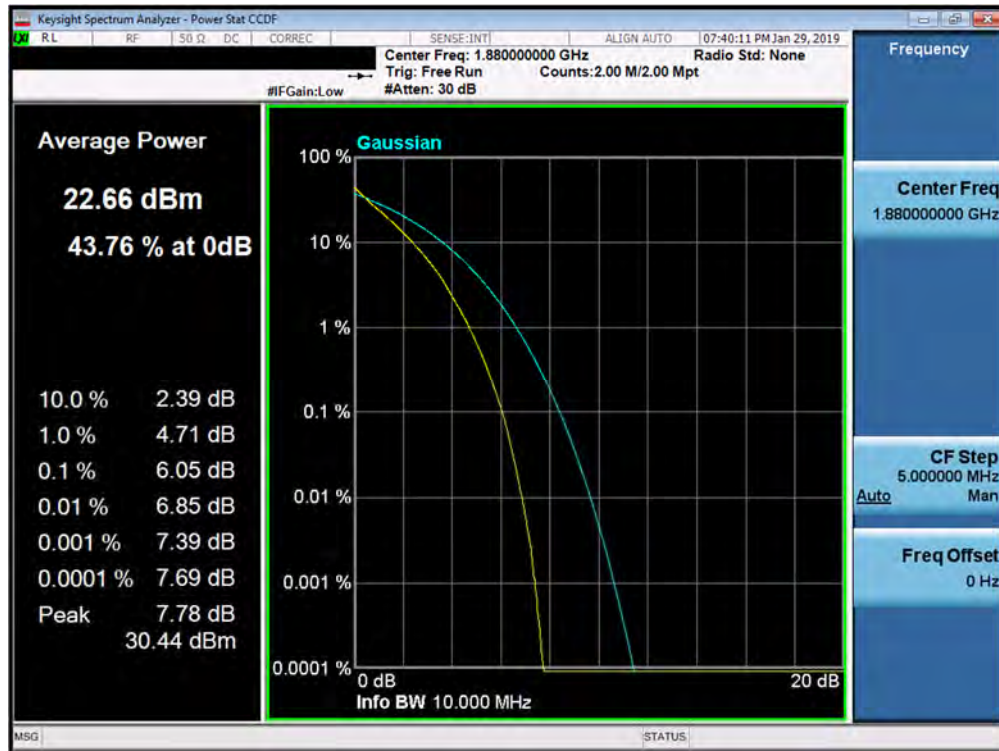


Plot 7-196. PAR Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

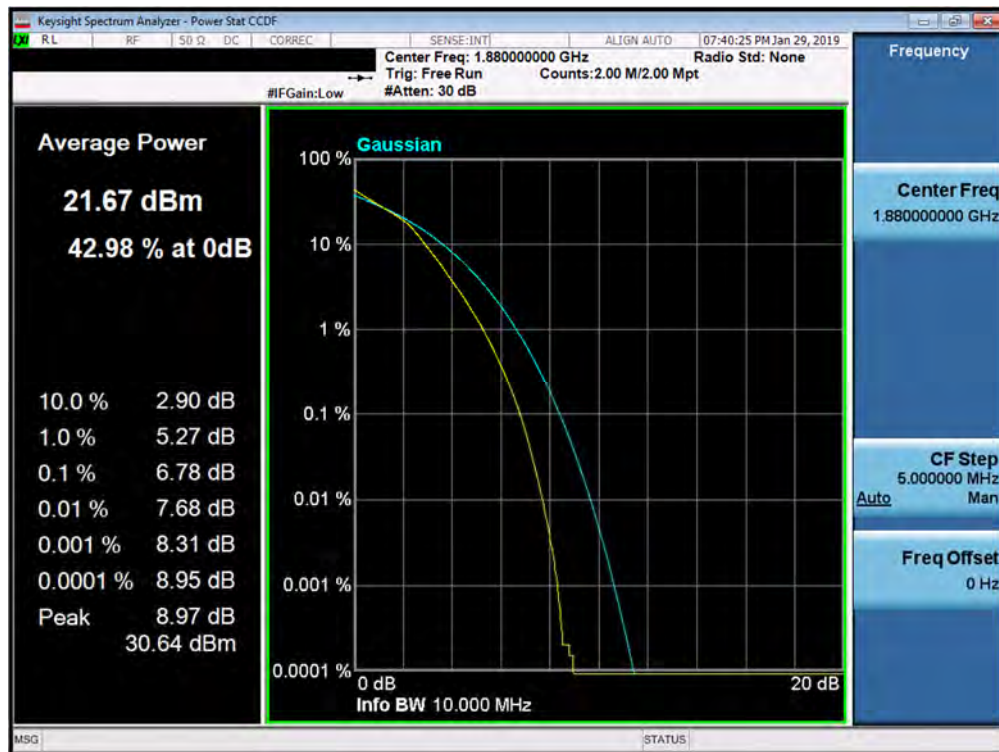


Plot 7-197. PAR Plot (Band 2 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 121 of 156

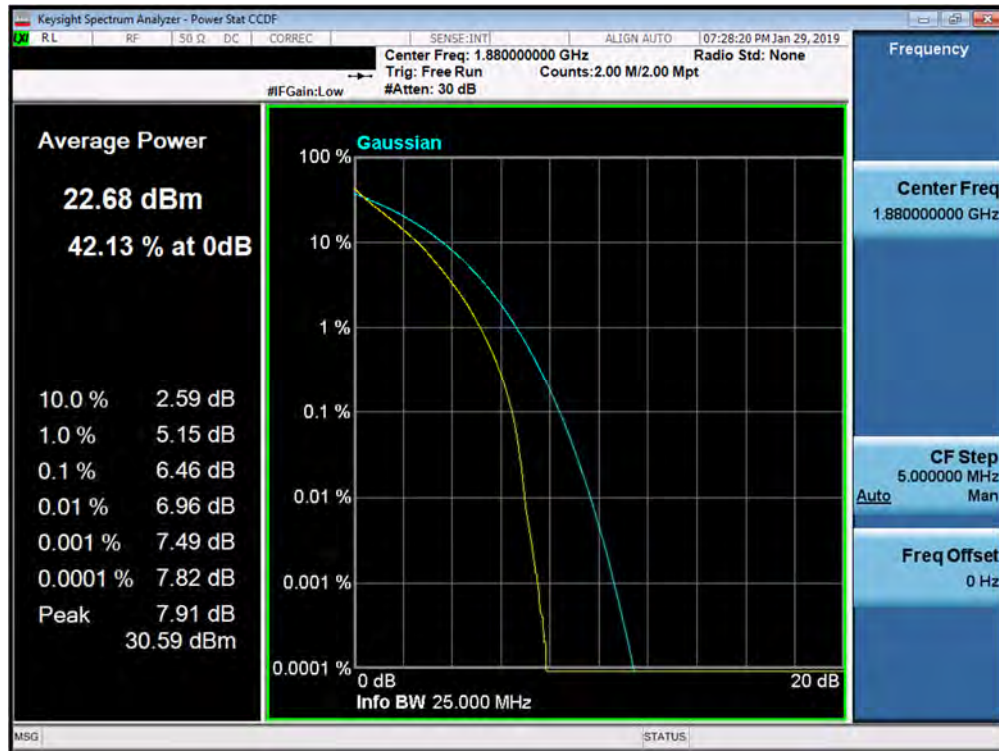


Plot 7-198. PAR Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

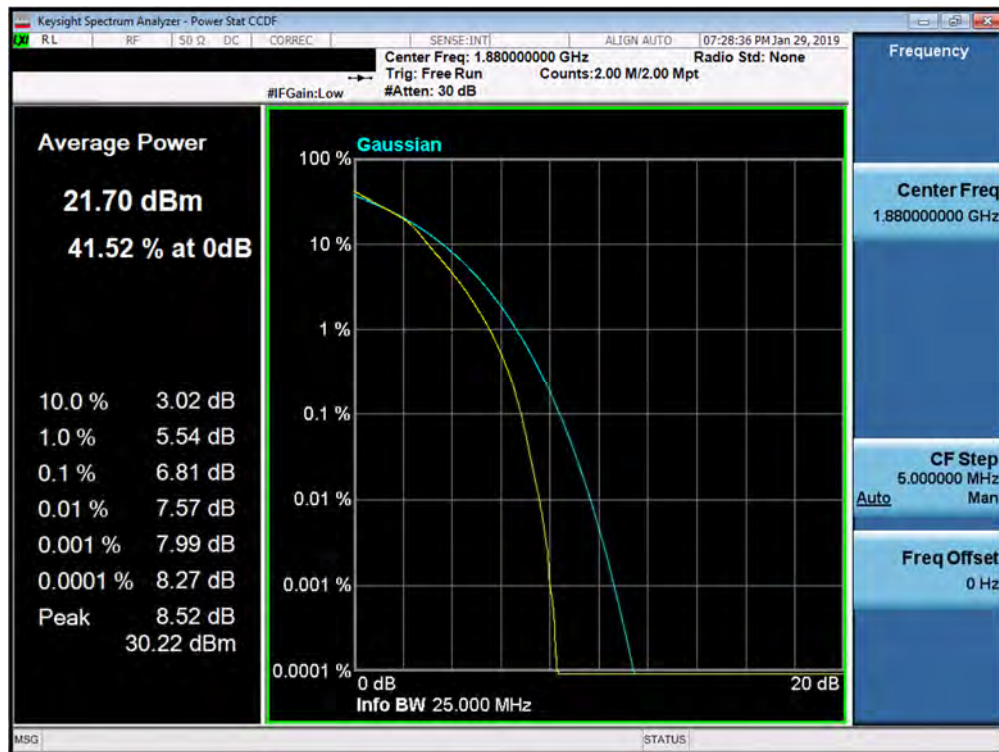


Plot 7-199. PAR Plot (Band 2 - 10.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 122 of 156

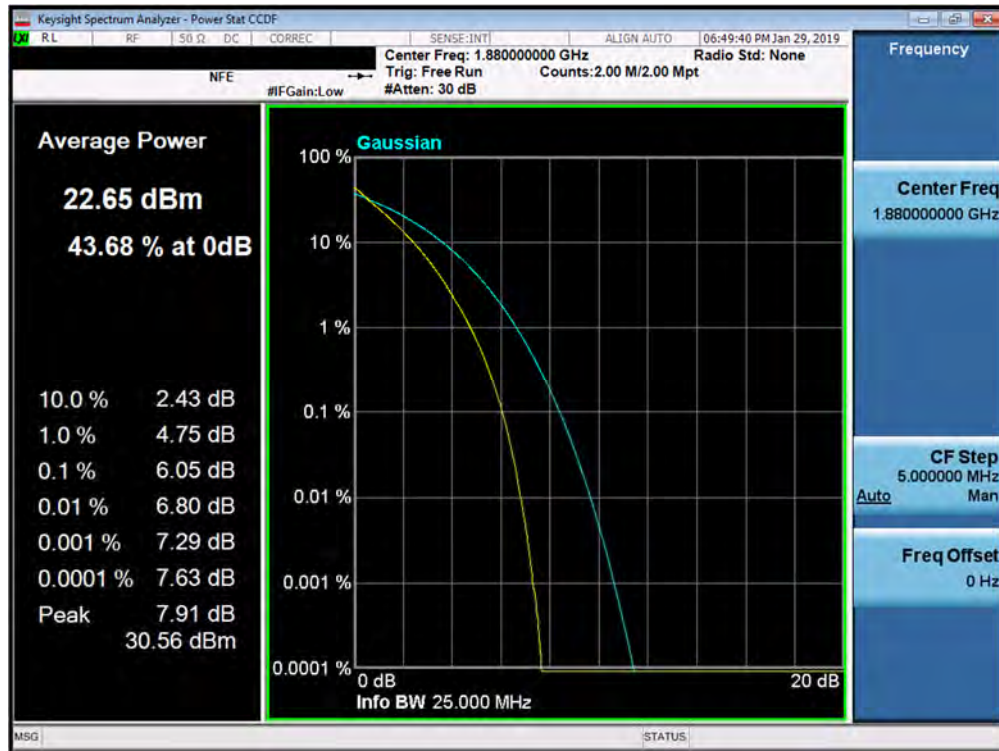


Plot 7-200. PAR Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)

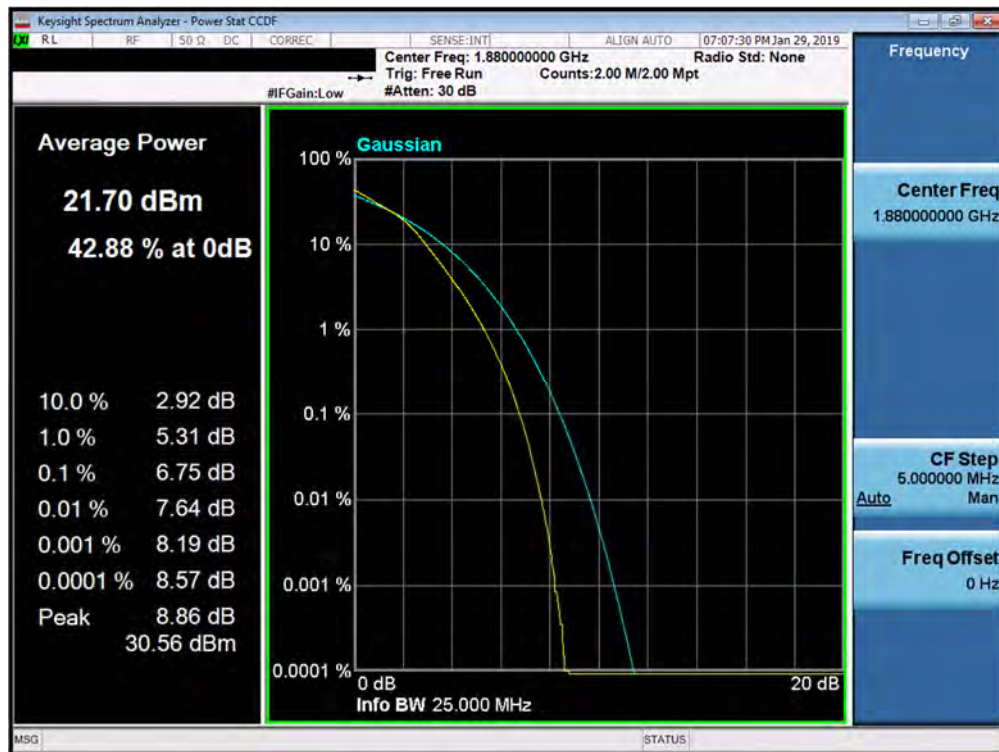


Plot 7-201. PAR Plot (Band 2 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 123 of 156



Plot 7-202. PAR Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-203. PAR Plot (Band 2 - 20.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMP205	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 124 of 156

7.6 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 v03r01 – 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.
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".
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 125 of 156

Test Setup

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

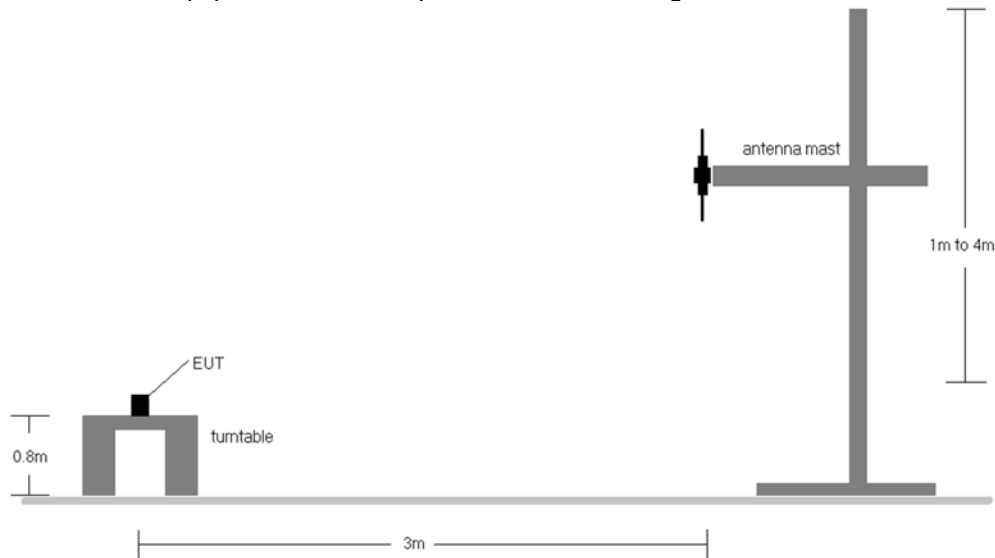


Figure 7-5. Radiated Test Setup <1GHz

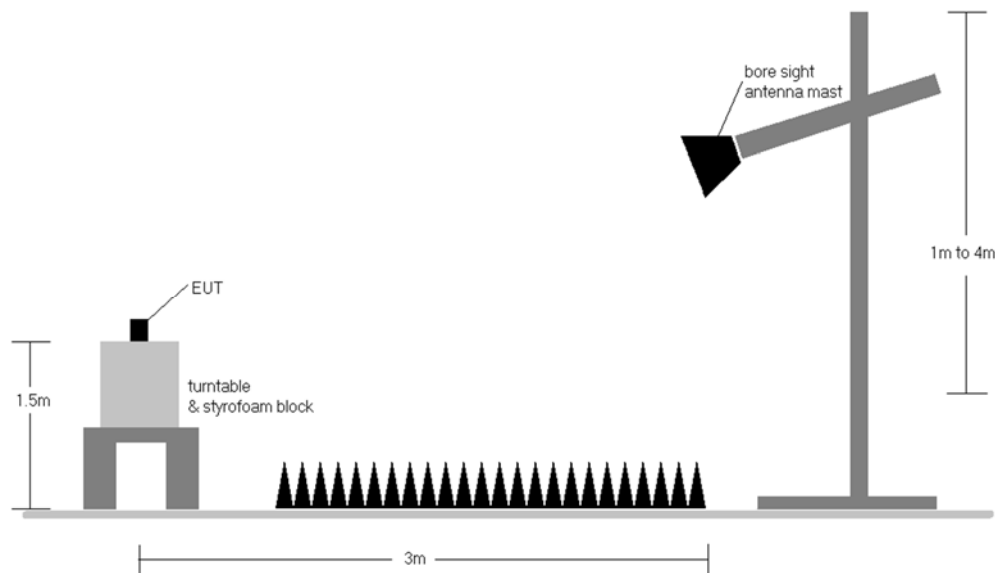


Figure 7-6. Radiated Test Setup >1GHz

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.

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 126 of 156

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	123	264	1 / 0	21.75	1.40	21.00	0.126	34.77	-13.77	23.15	0.207	36.99	-13.84
707.50	1.4	QPSK	H	127	263	1 / 0	21.30	1.43	20.58	0.114	34.77	-14.19	22.73	0.188	36.99	-14.26
715.30	1.4	QPSK	H	123	263	1 / 0	20.90	1.46	20.21	0.105	34.77	-14.56	22.36	0.172	36.99	-14.62
699.70	1.4	16-QAM	H	123	264	1 / 0	20.68	1.40	19.93	0.098	34.77	-14.84	22.08	0.162	36.99	-14.91
700.50	3	QPSK	H	123	271	1 / 0	21.53	1.40	20.78	0.120	34.77	-13.99	22.93	0.196	36.99	-14.06
707.50	3	QPSK	H	120	263	1 / 0	20.94	1.43	20.22	0.105	34.77	-14.55	22.37	0.173	36.99	-14.62
714.50	3	QPSK	H	122	266	1 / 0	21.85	1.46	21.16	0.131	34.77	-13.61	23.31	0.214	36.99	-13.68
714.50	3	16-QAM	H	122	266	1 / 0	20.75	1.46	20.06	0.101	34.77	-14.71	22.21	0.166	36.99	-14.78
714.50	3	QPSK	V	105	312	1 / 0	18.46	1.46	17.77	0.060	34.77	-17.00	19.92	0.098	36.99	-17.07

Table 7-3. ERP Data (Band 12)

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]
701.50	5	QPSK	H	120	256	1 / 0	21.31	1.41	20.57	0.114	34.77	-14.20	22.72	0.187	36.99	-14.27
707.50	5	QPSK	H	124	266	1 / 0	21.06	1.43	20.34	0.108	34.77	-14.43	22.49	0.177	36.99	-14.50
713.50	5	QPSK	H	124	266	1 / 0	21.78	1.46	21.09	0.128	34.77	-13.68	23.24	0.211	36.99	-13.75
713.50	5	16-QAM	H	124	266	1 / 0	20.54	1.46	19.85	0.097	34.77	-14.92	22.00	0.158	36.99	-14.99
704.00	10	QPSK	H	129	265	1 / 0	21.25	1.42	20.52	0.113	34.77	-14.25	22.67	0.185	36.99	-14.32
707.50	10	QPSK	H	131	267	1 / 0	21.09	1.43	20.37	0.109	34.77	-14.40	22.52	0.179	36.99	-14.47
711.00	10	QPSK	H	126	262	1 / 0	21.57	1.45	20.87	0.122	34.77	-13.90	23.02	0.200	36.99	-13.97
711.00	10	16-QAM	H	126	262	1 / 0	20.56	1.45	19.86	0.097	34.77	-14.91	22.01	0.159	36.99	-14.98

Table 7-4. ERP Data (Band 12/17)

/

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 127 of 156	

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	H	105	91	1 / 5	19.71	1.65	19.21	0.083	38.45	-19.25	21.36	0.137	40.61	-19.25
836.50	1.4	QPSK	H	107	92	1 / 5	21.72	1.57	21.14	0.130	38.45	-17.31	23.29	0.213	40.61	-17.31
848.30	1.4	QPSK	H	105	90	1 / 5	20.54	1.50	19.89	0.098	38.45	-18.56	22.04	0.160	40.61	-18.57
836.50	1.4	16-QAM	H	107	92	1 / 5	20.54	1.57	19.96	0.099	38.45	-18.49	22.11	0.163	40.61	-18.49
825.50	3	QPSK	H	109	98	1 / 14	20.03	1.64	19.52	0.090	38.45	-18.93	21.67	0.147	40.61	-18.94
836.50	3	QPSK	H	100	96	1 / 14	21.52	1.57	20.94	0.124	38.45	-17.51	23.09	0.204	40.61	-17.51
847.50	3	QPSK	H	108	97	1 / 14	20.73	1.51	20.09	0.102	38.45	-18.36	22.24	0.167	40.61	-18.37
836.50	3	16-QAM	H	100	96	1 / 14	20.43	1.57	19.85	0.097	38.45	-18.60	22.00	0.159	40.61	-18.60
826.50	5	QPSK	H	104	91	1 / 24	20.65	1.63	20.13	0.103	38.45	-18.32	22.28	0.169	40.61	-18.32
836.50	5	QPSK	H	103	92	1 / 24	21.83	1.57	21.25	0.133	38.45	-17.20	23.40	0.219	40.61	-17.20
846.50	5	QPSK	H	103	91	1 / 24	20.57	1.51	19.93	0.098	38.45	-18.52	22.08	0.162	40.61	-18.52
836.50	5	16-QAM	H	103	92	1 / 24	20.70	1.57	20.12	0.103	38.45	-18.33	22.27	0.169	40.61	-18.33
829.00	10	QPSK	H	100	96	1 / 49	20.11	1.62	19.58	0.091	38.45	-18.87	21.73	0.149	40.61	-18.88
836.50	10	QPSK	H	100	93	1 / 49	21.65	1.57	21.07	0.128	38.45	-17.38	23.22	0.210	40.61	-17.38
844.00	10	QPSK	H	100	95	1 / 49	20.37	1.53	19.75	0.094	38.45	-18.70	21.90	0.155	40.61	-18.71
836.50	10	16-QAM	H	100	93	1 / 49	20.63	1.57	20.05	0.101	38.45	-18.40	22.20	0.166	40.61	-18.40
836.50	5	QPSK	V	132	235	1 / 24	20.72	1.57	20.14	0.103	38.45	-18.31	22.29	0.170	40.61	-18.31

Table 7-5. ERP Data (Band 5)

FCC ID: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 128 of 156

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	104	351	3 / 2	15.48	8.23	23.71	0.235	30.00	-6.29
1745.00	1.4	QPSK	H	101	351	3 / 2	16.28	7.97	24.25	0.266	30.00	-5.75
1779.30	1.4	QPSK	H	162	349	3 / 2	14.61	7.71	22.32	0.171	30.00	-7.68
1745.00	1.4	16-QAM	H	101	351	3 / 2	15.00	7.97	22.97	0.198	30.00	-7.03
1711.50	3	QPSK	H	104	352	8 / 4	15.15	8.22	23.37	0.217	30.00	-6.63
1745.00	3	QPSK	H	100	354	8 / 4	15.26	7.97	23.23	0.210	30.00	-6.77
1778.50	3	QPSK	H	162	350	8 / 4	12.09	7.72	19.81	0.096	30.00	-10.19
1711.50	3	16-QAM	H	104	352	8 / 4	14.11	8.22	22.33	0.171	30.00	-7.67
1712.50	5	QPSK	H	100	351	12 / 6	14.78	8.21	22.99	0.199	30.00	-7.01
1745.00	5	QPSK	H	100	353	12 / 6	15.28	7.97	23.25	0.211	30.00	-6.75
1777.50	5	QPSK	H	132	352	12 / 6	11.58	7.72	19.31	0.085	30.00	-10.69
1745.00	5	16-QAM	H	100	353	12 / 6	14.21	7.97	22.18	0.165	30.00	-7.82
1715.00	10	QPSK	H	106	355	25 / 12	15.49	8.19	23.69	0.234	30.00	-6.31
1745.00	10	QPSK	H	100	353	25 / 12	15.15	7.97	23.12	0.205	30.00	-6.88
1775.00	10	QPSK	H	133	351	25 / 12	13.37	7.74	21.12	0.129	30.00	-8.88
1715.00	10	16-QAM	H	106	355	25 / 12	14.44	8.19	22.64	0.183	30.00	-7.36
1717.50	15	QPSK	H	104	354	36 / 18	14.87	8.17	23.05	0.202	30.00	-6.95
1745.00	15	QPSK	H	100	356	36 / 18	14.99	7.97	22.96	0.198	30.00	-7.04
1772.50	15	QPSK	H	135	350	36 / 18	14.06	7.76	21.82	0.152	30.00	-8.18
1717.50	15	16-QAM	H	104	354	36 / 18	13.80	8.17	21.98	0.158	30.00	-8.02
1720.00	20	QPSK	H	100	357	50 / 25	14.13	8.15	22.29	0.169	30.00	-7.71
1745.00	20	QPSK	H	100	359	50 / 25	14.91	7.97	22.88	0.194	30.00	-7.12
1770.00	20	QPSK	H	133	354	50 / 25	14.02	7.78	21.80	0.151	30.00	-8.20
1745.00	20	16-QAM	H	100	359	50 / 25	13.87	7.97	21.84	0.153	30.00	-8.16
1745.00	1	QPSK	V	135	208	3 / 2	12.90	7.97	20.86	0.122	30.00	-9.14

Table 7-6. EIRP Data (Band 66/4)

FCC ID: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 129 of 156

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]
1850.70	1.4	QPSK	H	100	346	1 / 0	13.66	7.71	21.37	0.137	33.01	-11.64
1880.00	1.4	QPSK	H	151	350	1 / 0	16.56	7.80	24.36	0.273	33.01	-8.65
1909.30	1.4	QPSK	H	120	347	1 / 0	15.08	7.88	22.96	0.198	33.01	-10.05
1880.00	1.4	16-QAM	H	151	350	1 / 0	16.01	7.80	23.81	0.241	33.01	-9.20
1851.50	3	QPSK	H	189	350	1 / 0	12.87	7.72	20.59	0.114	33.01	-12.42
1880.00	3	QPSK	H	151	341	1 / 0	16.25	7.80	24.05	0.254	33.01	-8.96
1908.50	3	QPSK	H	100	350	1 / 0	13.93	7.88	21.81	0.152	33.01	-11.20
1880.00	3	16-QAM	H	151	341	1 / 0	15.71	7.80	23.51	0.224	33.01	-9.50
1852.50	5	QPSK	H	121	350	1 / 0	12.94	7.72	20.66	0.116	33.01	-12.35
1880.00	5	QPSK	H	152	340	1 / 0	16.30	7.80	24.10	0.257	33.01	-8.91
1907.50	5	QPSK	H	121	349	1 / 0	15.93	7.88	23.81	0.240	33.01	-9.20
1880.00	5	16-QAM	H	152	340	1 / 0	15.87	7.80	23.67	0.233	33.01	-9.34
1855.00	10	QPSK	H	154	358	1 / 0	10.36	7.73	18.09	0.064	33.01	-14.92
1880.00	10	QPSK	H	149	5	1 / 0	15.47	7.80	23.27	0.212	33.01	-9.74
1905.00	10	QPSK	H	121	350	1 / 0	15.94	7.87	23.81	0.241	33.01	-9.20
1905.00	10	16-QAM	H	121	350	1 / 0	15.42	7.87	23.29	0.213	33.01	-9.72
1857.50	15	QPSK	H	100	345	1 / 0	13.13	7.73	20.86	0.122	33.01	-12.15
1880.00	15	QPSK	H	152	350	1 / 0	16.14	7.80	23.94	0.248	33.01	-9.07
1902.50	15	QPSK	H	100	360	1 / 0	12.97	7.87	20.84	0.121	33.01	-12.17
1880.00	15	16-QAM	H	152	350	1 / 0	15.58	7.80	23.38	0.218	33.01	-9.63
1860.00	20	QPSK	H	100	351	1 / 0	12.89	7.74	20.63	0.116	33.01	-12.38
1880.00	20	QPSK	H	100	1	1 / 0	14.81	7.80	22.61	0.182	33.01	-10.40
1900.00	20	QPSK	H	100	350	1 / 0	12.44	7.86	20.30	0.107	33.01	-12.71
1880.00	20	16-QAM	H	100	1	1 / 0	14.32	7.80	22.12	0.163	33.01	-10.89
1880.00	1	QPSK	V	127	165	1 / 0	12.96	7.80	20.76	0.119	33.01	-12.25

Table 7-7. EIRP Data (Band 2)

FCC ID: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 130 of 156

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	100	315	1 / 0	12.09	8.80	20.89	0.123	33.01	-12.12
2593.00	5	QPSK	H	100	316	1 / 0	11.88	8.81	20.69	0.117	33.01	-12.33
2687.50	5	QPSK	H	121	118	1 / 0	6.54	9.05	15.59	0.036	33.01	-17.42
2498.50	5	16-QAM	H	100	315	1 / 0	10.83	8.80	19.63	0.092	33.01	-13.38
2501.00	10	QPSK	H	100	315	1 / 0	12.42	8.81	21.23	0.133	33.01	-11.78
2593.00	10	QPSK	H	100	312	1 / 0	10.92	8.81	19.73	0.094	33.01	-13.29
2685.00	10	QPSK	H	145	87	1 / 0	6.87	9.04	15.91	0.039	33.01	-17.10
2501.00	10	16-QAM	H	100	315	1 / 0	11.30	8.81	20.11	0.102	33.01	-12.90
2503.50	15	QPSK	H	100	313	1 / 0	12.41	8.81	21.22	0.132	33.01	-11.79
2593.00	15	QPSK	H	100	314	1 / 0	10.79	8.81	19.60	0.091	33.01	-13.42
2682.50	15	QPSK	H	159	325	1 / 0	6.58	9.04	15.62	0.036	33.01	-17.40
2503.50	15	16-QAM	H	100	313	1 / 0	11.15	8.81	19.96	0.099	33.01	-13.05
2506.00	20	QPSK	H	100	314	1 / 0	12.56	8.81	21.37	0.137	33.01	-11.64
2593.00	20	QPSK	H	100	317	1 / 0	11.10	8.81	19.91	0.098	33.01	-13.11
2680.00	20	QPSK	H	162	324	1 / 0	7.55	9.03	16.58	0.045	33.01	-16.43
2506.00	20	16-QAM	H	100	314	1 / 0	11.15	8.81	19.96	0.099	33.01	-13.05
2510.00	20	QPSK	V	137	262	1 / 0	12.02	8.81	20.83	0.121	33.01	-12.18

Table 7-8. EIRP Data (Band 41)

FCC ID: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 131 of 156

7.7 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 v03r01 – 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

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 132 of 156

Test Setup

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

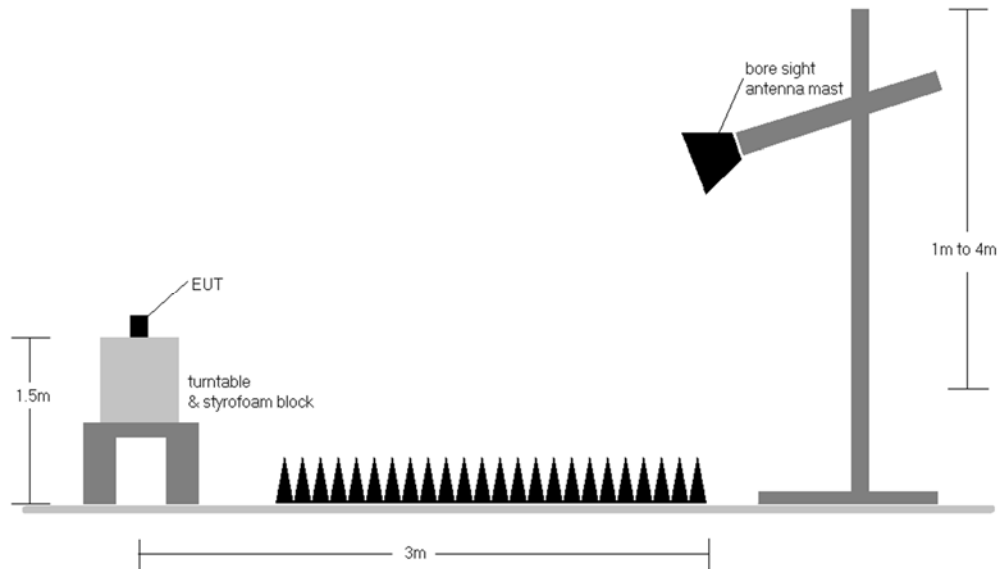


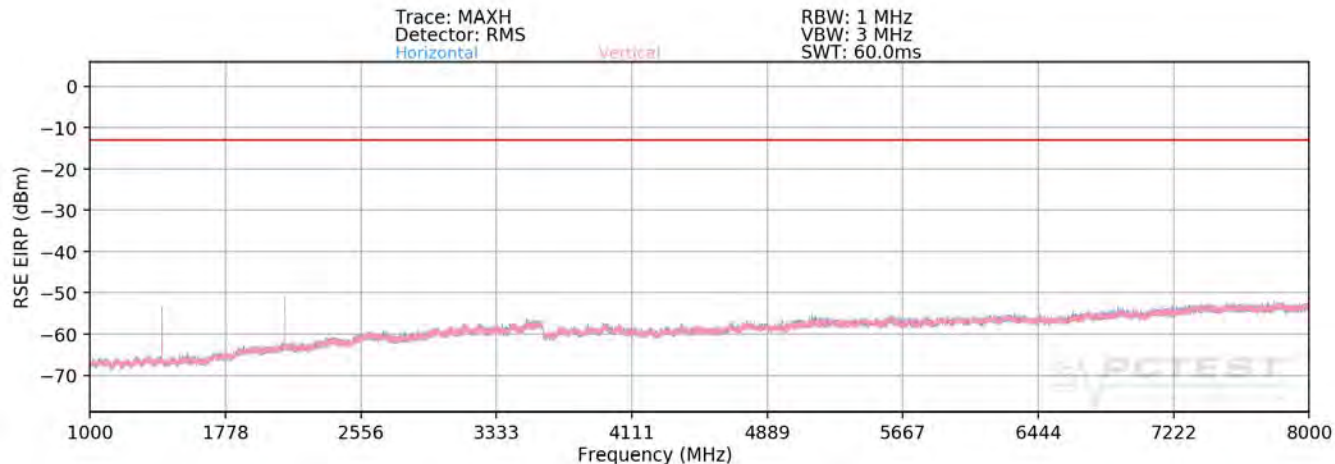
Figure 7-7. Test Instrument & Measurement Setup

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.

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 133 of 156

Band 12



Plot 7-204. Radiated Spurious Plot above 1GHz (Band 12)

OPERATING FREQUENCY: 700.50 MHz
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 3.0 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]
1401.00	H	105	110	-56.51	7.78	-48.73	-35.7
2101.50	H	100	109	-57.74	8.80	-48.94	-35.9
2802.00	H	-	-	-59.24	9.30	-49.94	-36.9
3502.50	H	-	-	-55.95	8.92	-47.03	-34.0

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

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 134 of 156

OPERATING FREQUENCY: 707.50 MHz
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 3.0 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]
1415.00	H	100	100	-54.60	7.87	-46.73	-33.7
2122.50	H	119	334	-53.43	8.89	-44.54	-31.5
2830.00	H	-	-	-59.52	9.28	-50.23	-37.2
3537.50	H	-	-	-55.97	8.93	-47.04	-34.0

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

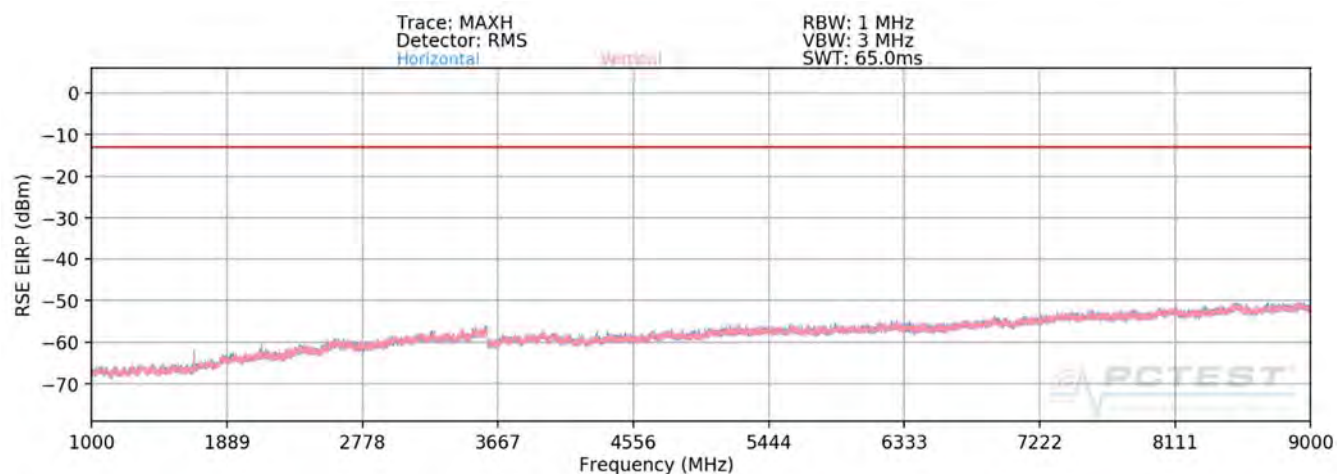
OPERATING FREQUENCY: 714.50 MHz
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 3.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

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]
1429.00	H	100	98	-58.12	7.95	-50.17	-37.2
2143.50	H	153	77	-57.18	8.98	-48.20	-35.2
2858.00	H	-	-	-59.34	9.27	-50.08	-37.1
3572.50	H	-	-	-55.53	8.95	-46.59	-33.6

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

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 135 of 156

Band 5



Plot 7-205. Radiated Spurious Plot above 1GHz (Band 5)

OPERATING FREQUENCY: 826.50 MHz
 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	169	115	-61.20	8.58	-52.61	-39.6
2479.50	H	100	350	-58.87	8.79	-50.09	-37.1
3306.00	H	-	-	-55.58	8.53	-47.06	-34.1
4132.50	H	-	-	-54.30	9.47	-44.83	-31.8

Table 7-12. Radiated Spurious Data (Band 5 – Low Channel)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 136 of 156

OPERATING FREQUENCY: 836.50 MHz
 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	100	106	-59.59	8.46	-51.12	-38.1
2509.50	H	100	5	-57.43	8.81	-48.63	-35.6
3346.00	H	-	-	-55.73	8.65	-47.09	-34.1
4182.50	H	-	-	-53.92	9.77	-44.15	-31.1

Table 7-13. Radiated Spurious Data (Band 5 – Mid Channel)

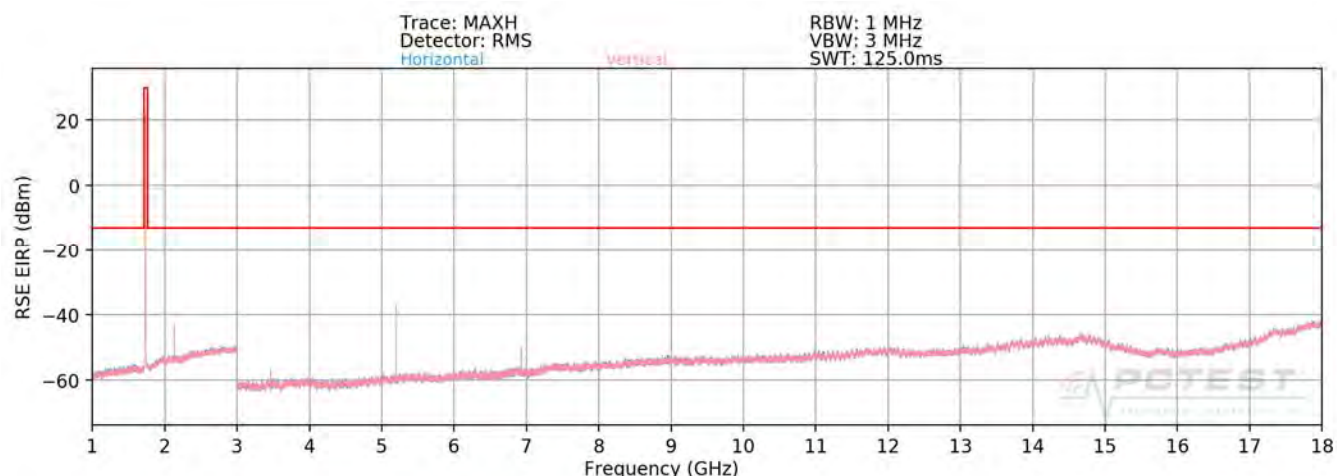
OPERATING FREQUENCY: 846.50 MHz
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 5.0 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

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	-	-	-61.72	8.35	-53.37	-40.4
2539.50	H	-	-	-59.01	8.81	-50.21	-37.2

Table 7-14. Radiated Spurious Data (Band 5 – High Channel)

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 137 of 156

Band 66/4



Plot 7-206. Radiated Spurious Plot above 1GHz (Band 66/4)

OPERATING FREQUENCY: 1710.70 MHz
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 1.4 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]
3421.40	H	114	24	-50.22	8.83	-41.39	-28.4
5132.10	H	112	59	-42.33	10.66	-31.68	-18.7
6842.80	H	106	273	-46.65	10.20	-36.45	-23.4
8553.50	H	-	-	-48.24	11.48	-36.77	-23.8
10264.20	H	-	-	-47.23	12.53	-34.71	-21.7

Table 7-15. Radiated Spurious Data (Band 66/4 – Low Channel)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 138 of 156

OPERATING FREQUENCY: 1732.50 MHz
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 1.4 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	100	19	-51.82	8.88	-42.94	-29.9
5197.50	H	101	62	-40.35	10.33	-30.02	-17.0
6930.00	H	110	286	-47.77	10.53	-37.24	-24.2
8662.50	H	-	-	-47.95	11.35	-36.60	-23.6
10395.00	H	-	-	-46.93	12.58	-34.35	-21.4

Table 7-16. Radiated Spurious Data (Band 66/4 – Mid Channel)

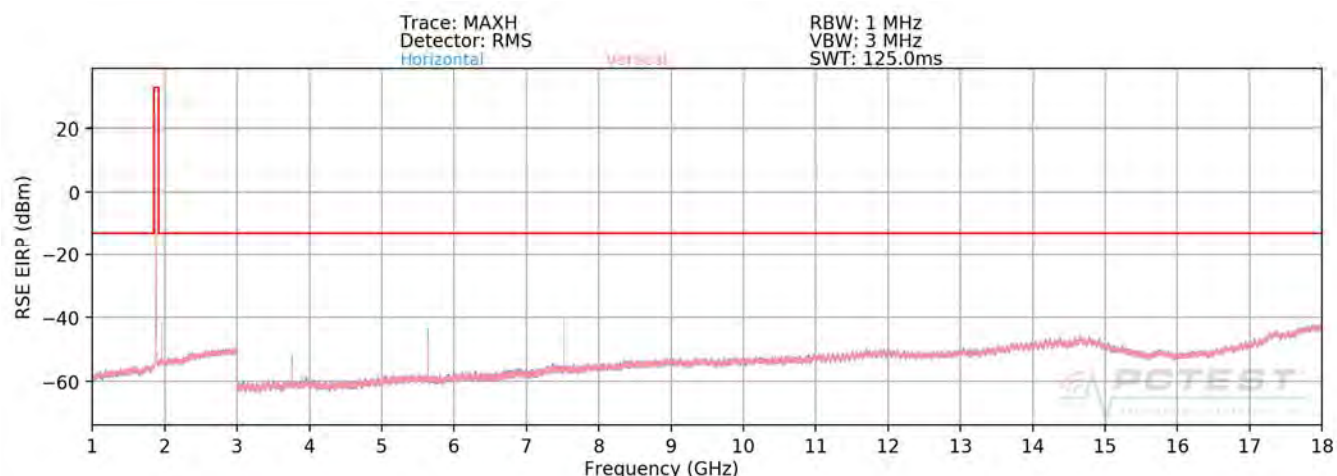
OPERATING FREQUENCY: 1754.30 MHz
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 1.4 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

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]
3508.60	H	111	13	-50.26	8.92	-41.34	-28.3
5262.90	H	111	282	-38.54	10.38	-28.16	-15.2
7017.20	H	108	285	-48.38	10.51	-37.87	-24.9
8771.50	H	-	-	-48.87	11.80	-37.06	-24.1
10525.80	H	-	-	-46.96	12.30	-34.66	-21.7

Table 7-17. Radiated Spurious Data (Band 66/4 – High Channel)

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 139 of 156

Band 2



Plot 7-207. Radiated Spurious Plot above 1GHz (Band 2)

OPERATING FREQUENCY: 1850.70 MHz
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 1.4 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]
3701.40	H	103	5	-46.61	8.82	-37.79	-24.8
5552.10	H	203	350	-44.06	10.45	-33.61	-20.6
7402.80	H	203	47	-47.21	10.36	-36.86	-23.9
9253.50	H	-	-	-49.04	11.91	-37.13	-24.1
11104.20	H	-	-	-45.91	12.98	-32.94	-19.9

Table 7-18. Radiated Spurious Data (Band 2 – Low Channel)

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)		SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet			Page 140 of 156

OPERATING FREQUENCY: 1880.00 MHz
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 1.4 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]
3760.00	H	100	7	-47.72	8.44	-39.28	-26.3
5640.00	H	111	83	-43.86	10.64	-33.23	-20.2
7520.00	H	100	310	-42.96	11.10	-31.86	-18.9
9400.00	H	-	-	-48.73	12.77	-35.96	-23.0
11280.00	H	-	-	-44.95	12.95	-31.99	-19.0

Table 7-19. Radiated Spurious Data (Band 2 – Mid Channel)

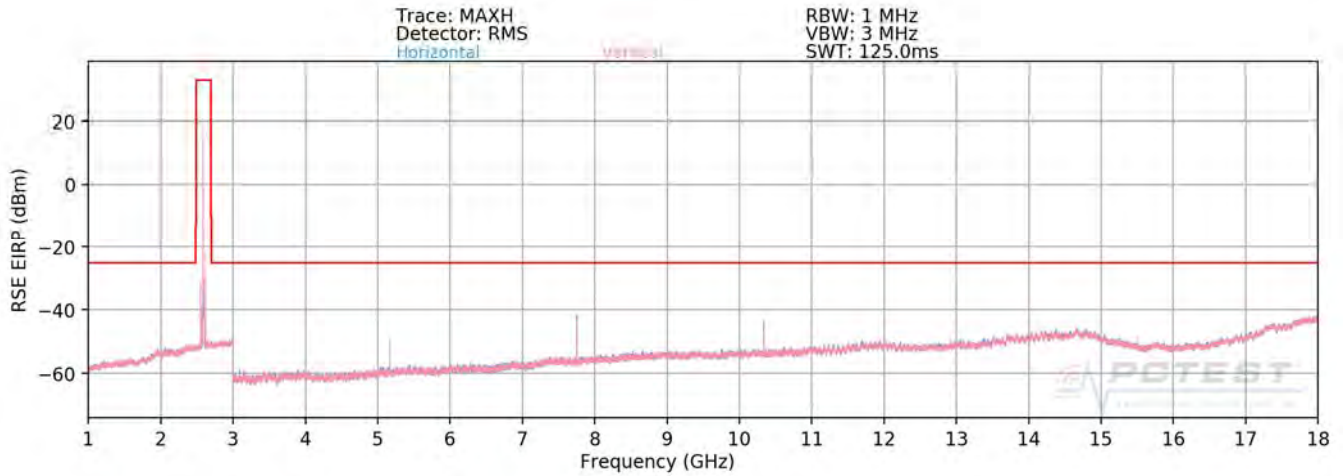
OPERATING FREQUENCY: 1909.30 MHz
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 1.4 MHz
 DISTANCE: 3 meters
 LIMIT: -13 dBm

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]
3818.60	H	100	314	-50.92	8.21	-42.70	-29.7
5727.90	H	100	89	-47.61	10.40	-37.21	-24.2
7637.20	H	127	322	-45.21	11.22	-33.99	-21.0
9546.50	H	-	-	-48.70	12.34	-36.36	-23.4
11455.80	H	-	-	-45.07	12.99	-32.08	-19.1

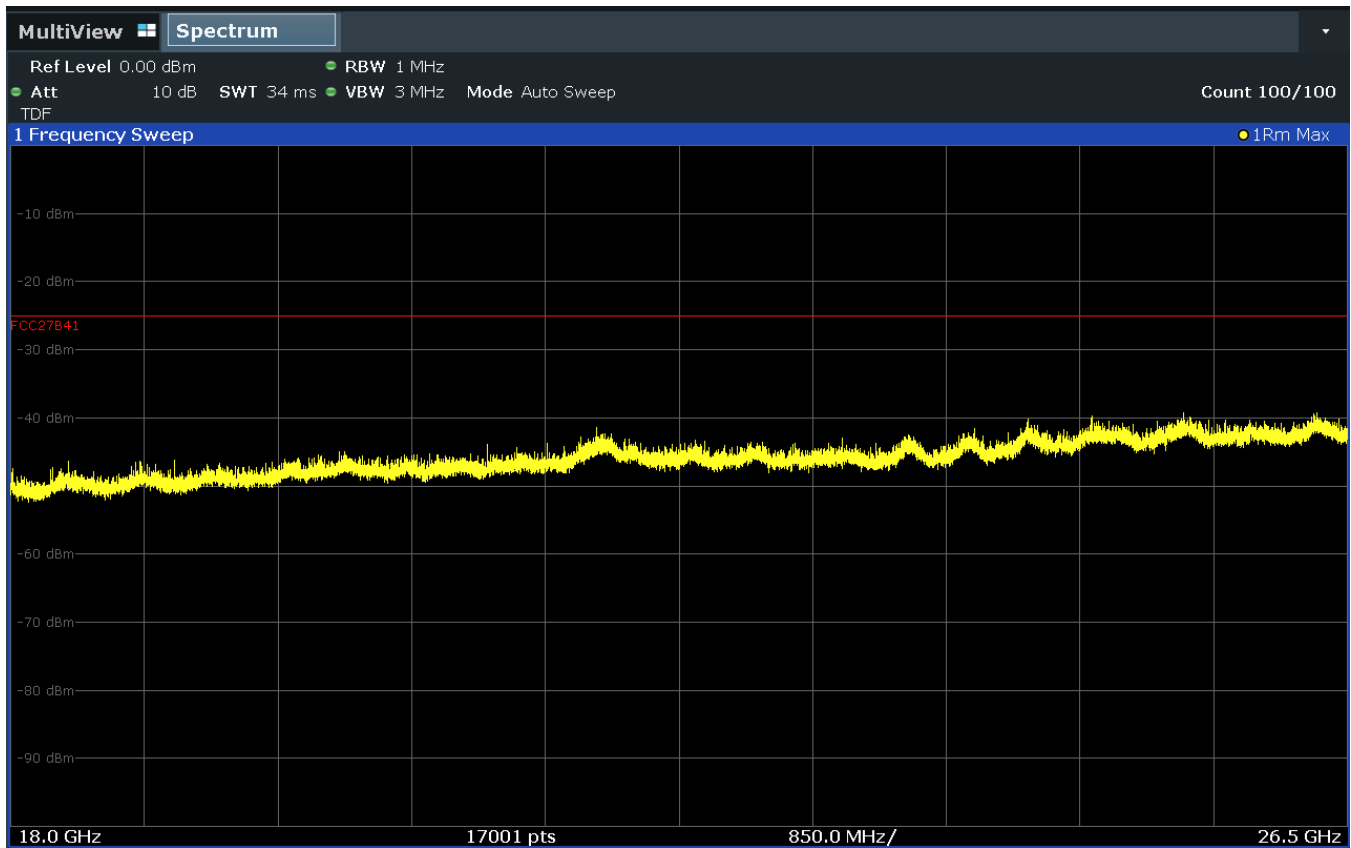
Table 7-20. Radiated Spurious Data (Band 2 – High Channel)

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 141 of 156

Band 41

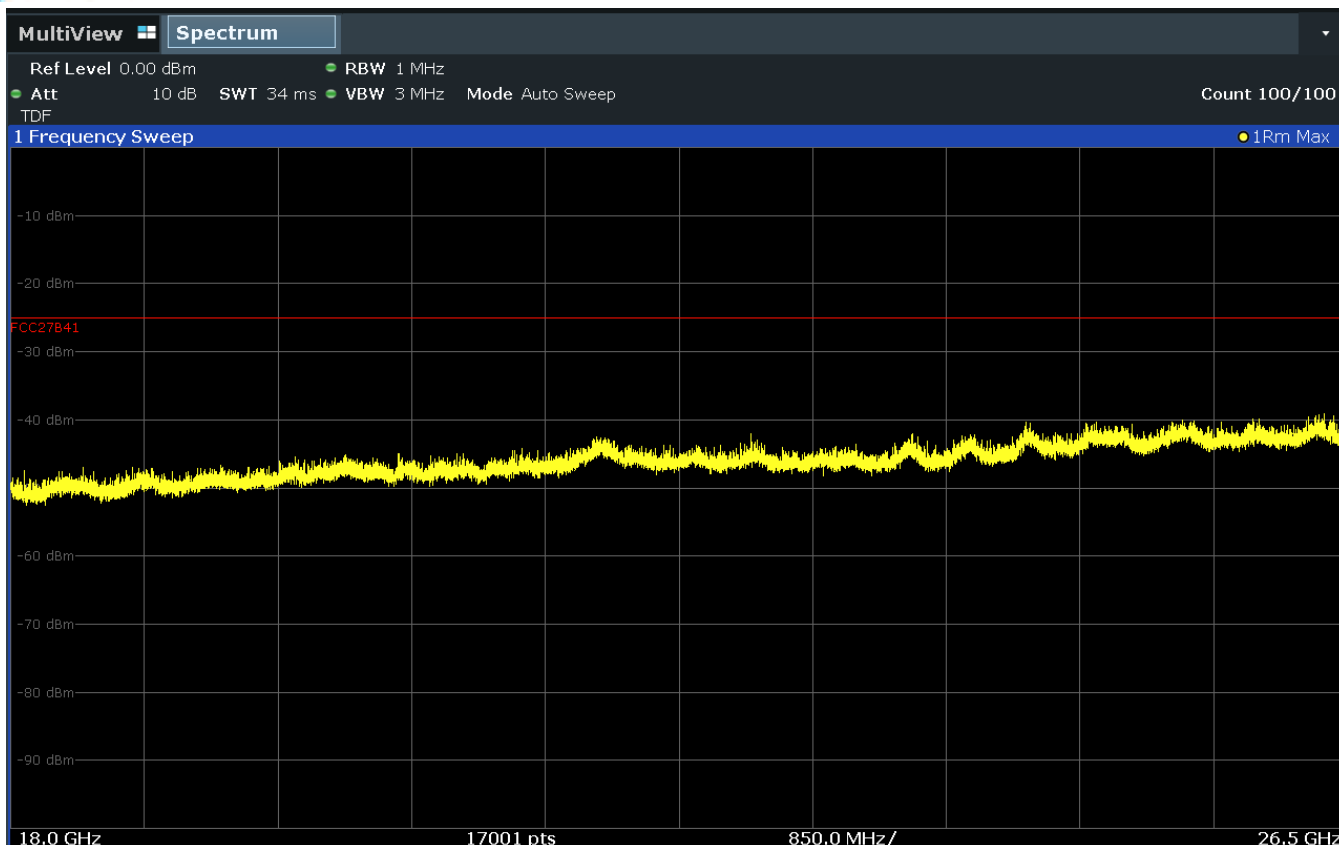


Plot 7-208. Radiated Spurious Plot 1GHz - 18GHz (Band 41)



Plot 7-209. Radiated Spurious Plot 18GHz – 26.5GHz (Band 41) - H

FCC ID: A3LSMP205	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 142 of 156



Plot 7-210. Radiated Spurious Plot 18GHz – 26.5GHz (Band 41) - V

OPERATING FREQUENCY: 2510.00 MHz
MODULATION SIGNAL: QPSK
BANDWIDTH: 20.0 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]
5020.00	H	149	341	-58.59	10.52	-48.07	-23.1
7530.00	H	143	129	-50.78	11.11	-39.67	-14.7
10040.00	H	163	118	-53.01	12.47	-40.53	-15.5
12550.00	H	-	-	-55.41	12.79	-42.62	-17.6
15060.00	H	-	-	-51.65	12.15	-39.49	-14.5

Table 7-21. Radiated Spurious Data (Band 41 – Low Channel)

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 143 of 156

OPERATING FREQUENCY: 2593.00 MHz
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 20.0 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	105	357	-56.87	10.39	-46.48	-21.5
7779.00	H	166	264	-52.62	11.83	-40.80	-15.8
10372.00	H	124	312	-56.94	12.55	-44.39	-19.4
12965.00	H	-	-	-55.66	12.94	-42.71	-17.7
15558.00	H	-	-	-51.74	12.94	-38.80	-13.8

Table 7-22. Radiated Spurious Data (Band 41 – Mid Channel)

OPERATING FREQUENCY: 2680.00 MHz
 MODULATION SIGNAL: QPSK
 BANDWIDTH: 20.0 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]
5360.00	H	144	356	-51.42	10.27	-41.15	-16.2
8040.00	H	163	298	-51.04	11.28	-39.76	-14.8
10720.00	H	185	46	-54.89	12.89	-42.00	-17.0
13400.00	H	-	-	-55.58	14.00	-41.59	-16.6
16080.00	H	-	-	-49.99	12.23	-37.76	-12.8

Table 7-23. Radiated Spurious Data (Band 41 – High Channel)

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 144 of 156

7.8 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, the frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ (± 2.5 ppm) of the center frequency.

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

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 145 of 156

Band 12 Frequency Stability Measurements

OPERATING FREQUENCY: 2,593,000,000 Hz
 CHANNEL: 40620
 REFERENCE VOLTAGE: 5.00 VDC
 DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	5.00	- 30	2,592,999,756	-244	-0.0000094
100 %		- 20	2,593,000,053	53	0.0000020
100 %		- 10	2,593,000,081	81	0.0000031
100 %		0	2,593,000,191	191	0.0000074
100 %		+ 10	2,593,000,358	358	0.0000138
100 %		+ 20	2,592,999,709	-291	-0.0000112
100 %		+ 30	2,592,999,684	-316	-0.0000122
100 %		+ 40	2,592,999,739	-261	-0.0000101
100 %		+ 50	2,592,999,813	-187	-0.0000072
85 %		+ 20	2,593,000,059	59	0.0000023
BATT. ENDPOINT	3.40	+ 20	2,593,000,024	24	0.0000009

Table 7-24. Frequency Stability Data (Band 12)

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: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 146 of 156

Band 12 Frequency Stability Measurements

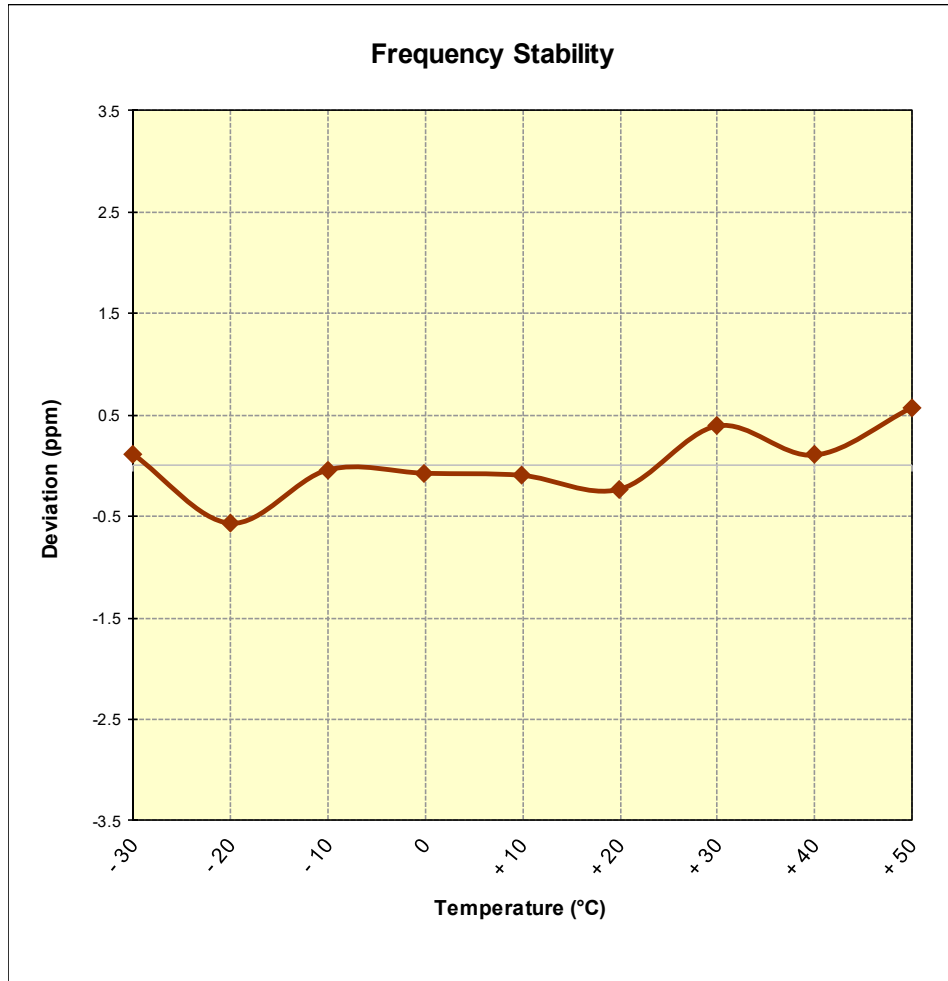


Figure 7-8. Frequency Stability Graph (Band 12)

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 147 of 156

Band 5 Frequency Stability Measurements

OPERATING FREQUENCY: 836,500,000 Hz
 CHANNEL: 20525
 REFERENCE VOLTAGE: 5.00 VDC
 DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	5.00	- 30	836,500,193	193	0.0000231
100 %		- 20	836,499,975	-25	-0.0000030
100 %		- 10	836,499,927	-73	-0.0000087
100 %		0	836,499,950	-50	-0.0000060
100 %		+ 10	836,500,358	358	0.0000428
100 %		+ 20	836,499,988	-12	-0.0000014
100 %		+ 30	836,500,120	120	0.0000143
100 %		+ 40	836,500,057	57	0.0000068
100 %		+ 50	836,500,177	177	0.0000212
85 %		+ 20	836,500,059	59	0.0000071
BATT. ENDPOINT	3.40	+ 20	836,499,909	-91	-0.0000109

Table 7-25. Frequency Stability Data (Band 5)

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: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 148 of 156

Band 5 Frequency Stability Measurements

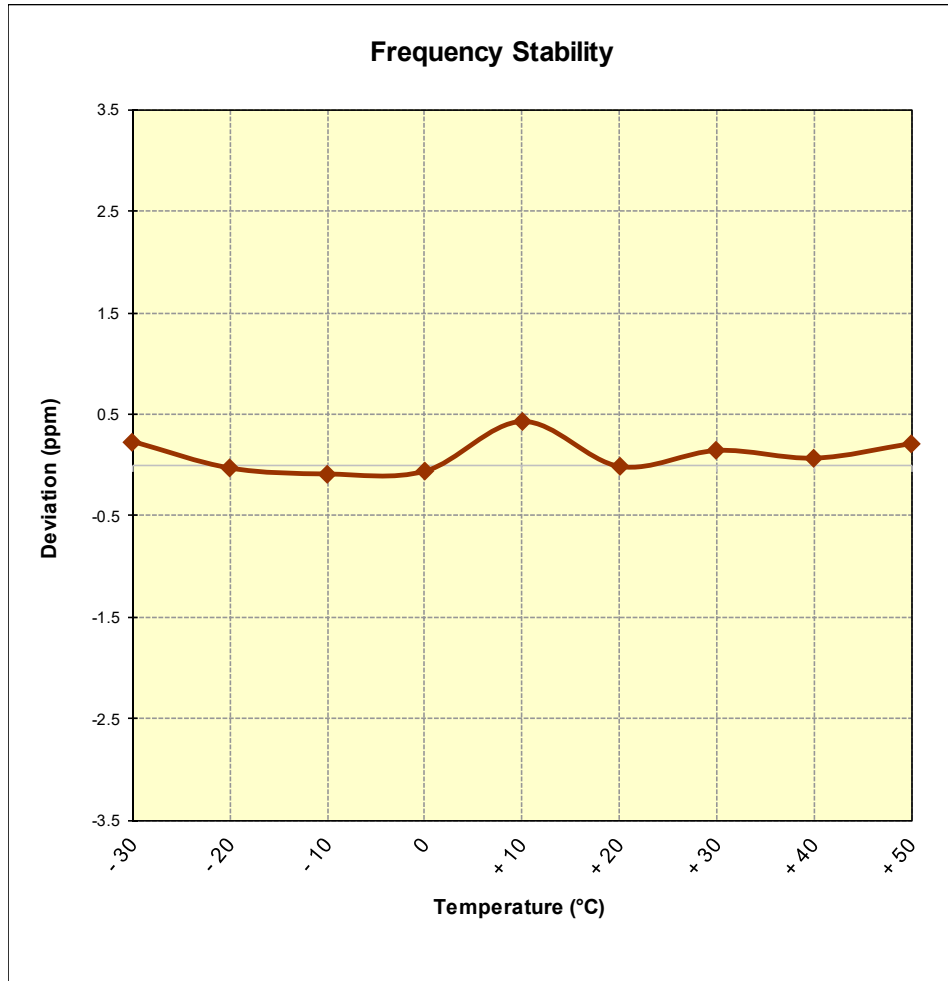


Figure 7-9. Frequency Stability Graph (Band 5)

FCC ID: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 149 of 156

Band 66 Frequency Stability Measurements

OPERATING FREQUENCY: 1,745,000,000 Hz
 CHANNEL: 132322
 REFERENCE VOLTAGE: 5.00 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	5.00	- 30	1,745,000,457	457	0.0000262
100 %		- 20	1,744,999,732	-268	-0.0000154
100 %		- 10	1,744,999,600	-400	-0.0000229
100 %		0	1,745,000,083	83	0.0000048
100 %		+ 10	1,745,000,006	6	0.0000003
100 %		+ 20	1,745,000,345	345	0.0000198
100 %		+ 30	1,745,000,108	108	0.0000062
100 %		+ 40	1,745,000,011	11	0.0000006
100 %		+ 50	1,745,000,228	228	0.0000131
85 %		+ 20	1,745,000,067	67	0.0000038
BATT. ENDPOINT	3.40	+ 20	1,744,999,891	-109	-0.0000062

Table 7-26. Frequency Stability Data (Band 66)

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: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 150 of 156

Band 66 Frequency Stability Measurements

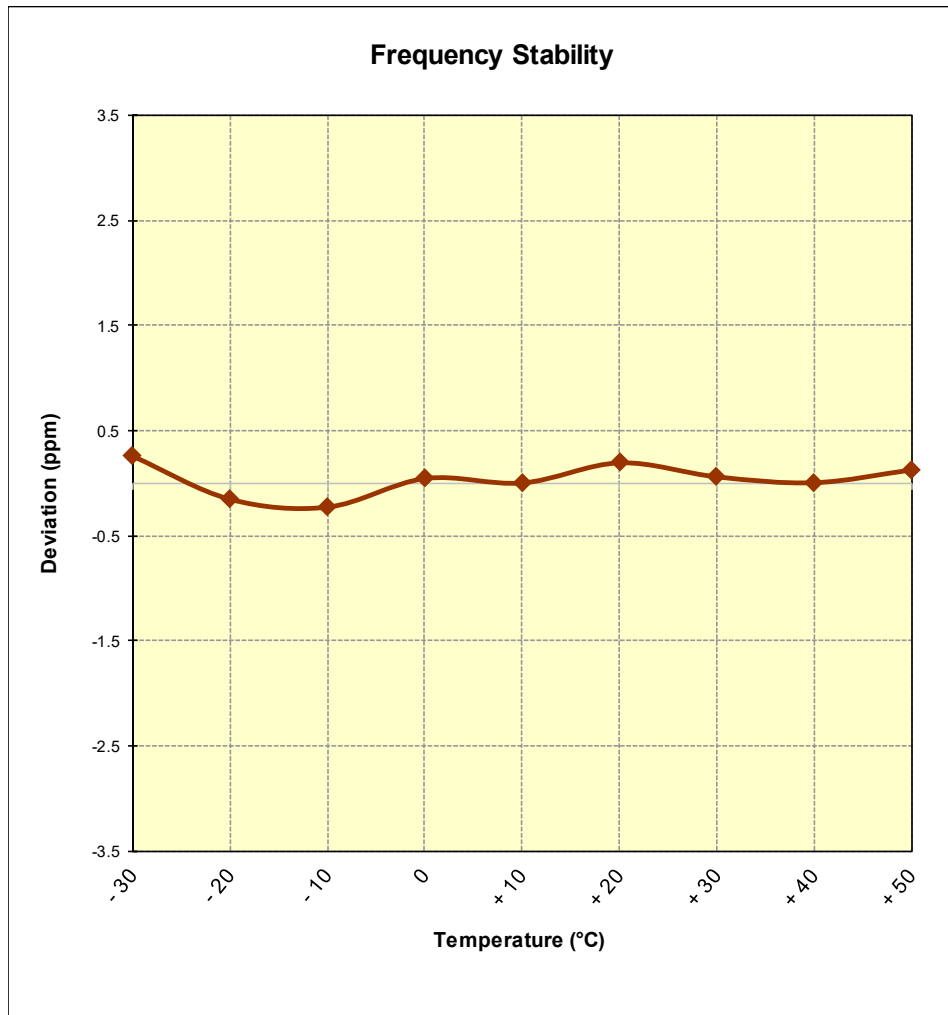


Figure 7-10. Frequency Stability Graph (Band 66)

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 151 of 156

Band 2 Frequency Stability Measurements

OPERATING FREQUENCY: 1,880,000,000 Hz
 CHANNEL: 18900
 REFERENCE VOLTAGE: 5.00 VDC
 DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	5.00	- 30	1,879,999,794	-206	-0.0000110
100 %		- 20	1,879,999,944	-56	-0.0000030
100 %		- 10	1,879,999,683	-317	-0.0000169
100 %		0	1,879,999,982	-18	-0.0000010
100 %		+ 10	1,879,999,936	-64	-0.0000034
100 %		+ 20	1,879,999,781	-219	-0.0000116
100 %		+ 30	1,879,999,869	-131	-0.0000070
100 %		+ 40	1,880,000,018	18	0.0000010
100 %		+ 50	1,880,000,231	231	0.0000123
85 %		+ 20	1,879,999,924	-76	-0.0000040
BATT. ENDPOINT	3.40	+ 20	1,879,999,939	-61	-0.0000032

Table 7-27. Frequency Stability Data (Band 2)

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: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 152 of 156

Band 2 Frequency Stability Measurements

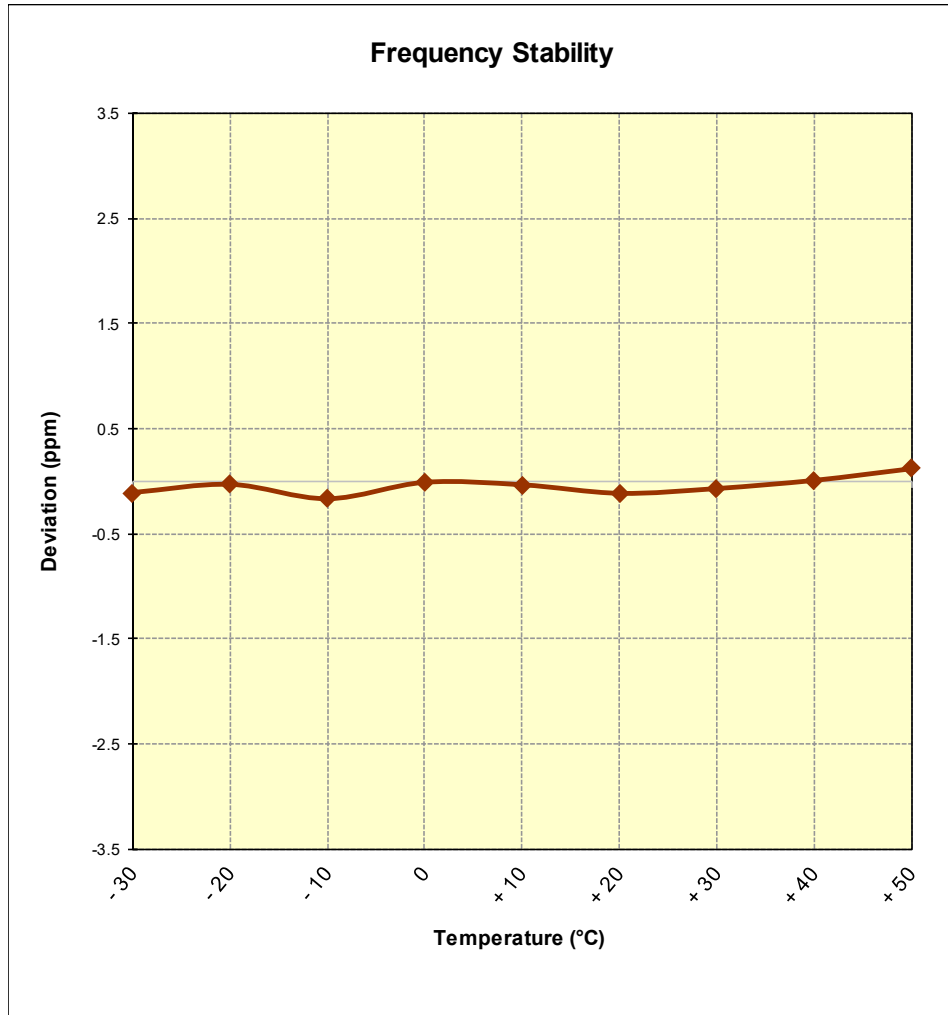


Figure 7-11. Frequency Stability Graph (Band 2)

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 153 of 156

Band 41 Frequency Stability Measurements

OPERATING FREQUENCY: 2,593,000,000 Hz
 CHANNEL: 40620
 REFERENCE VOLTAGE: 5.00 VDC
 DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	5.00	- 30	2,592,999,756	-244	-0.0000094
100 %		- 20	2,593,000,053	53	0.0000020
100 %		- 10	2,593,000,081	81	0.0000031
100 %		0	2,593,000,191	191	0.0000074
100 %		+ 10	2,593,000,358	358	0.0000138
100 %		+ 20	2,592,999,709	-291	-0.0000112
100 %		+ 30	2,592,999,684	-316	-0.0000122
100 %		+ 40	2,592,999,739	-261	-0.0000101
100 %		+ 50	2,592,999,813	-187	-0.0000072
85 %		+ 20	2,593,000,059	59	0.0000023
BATT. ENDPOINT	3.40	+ 20	2,593,000,024	24	0.0000009

Table 7-28. Frequency Stability Data (Band 41)

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: A3LSMP205	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet	Page 154 of 156

Band 41 Frequency Stability Measurements

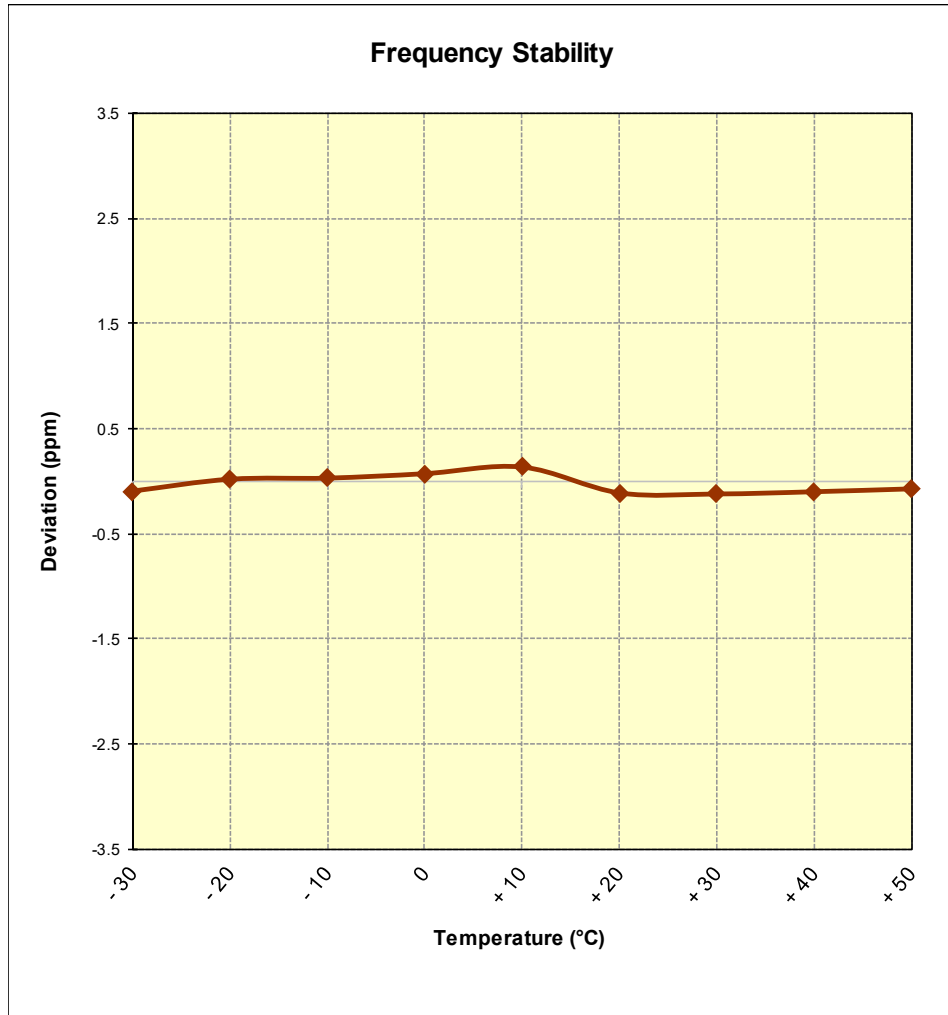


Figure 7-12. Frequency Stability Graph (Band 41)

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 155 of 156

8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Tablet FCC ID: A3LSMP205** complies with all the requirements of Part 22, 24, & 27 of the FCC Rules for LTE operation only.

FCC ID: A3LSMP205		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901170008-03.A3L	Test Dates: Jan 22 - Feb 21, 2019	EUT Type: Portable Tablet		Page 156 of 156