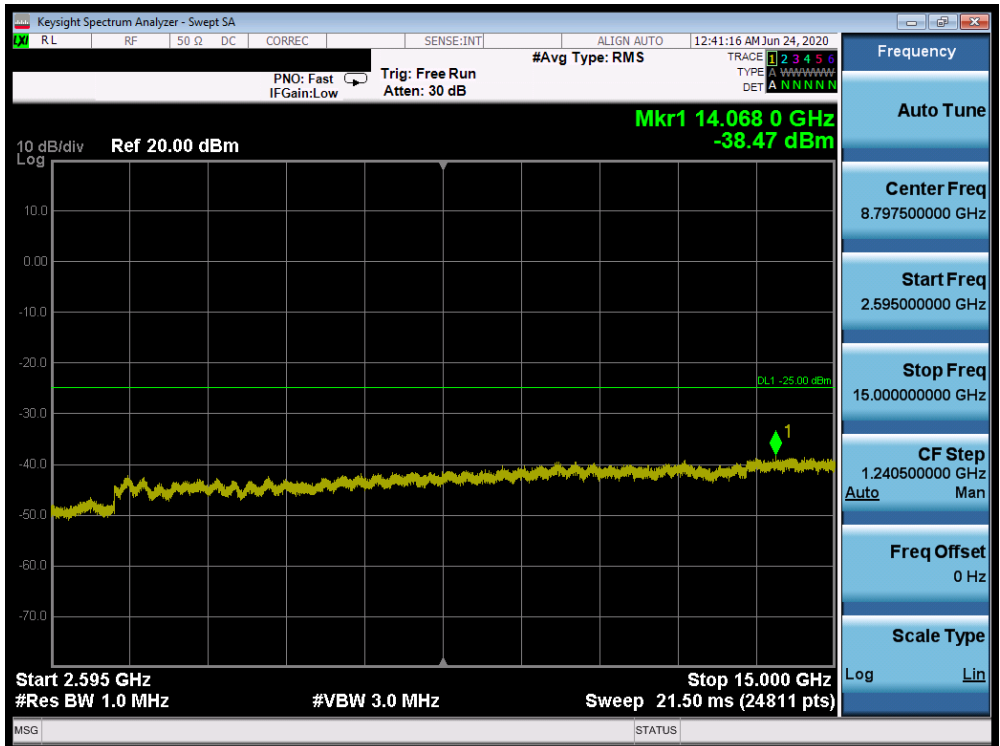
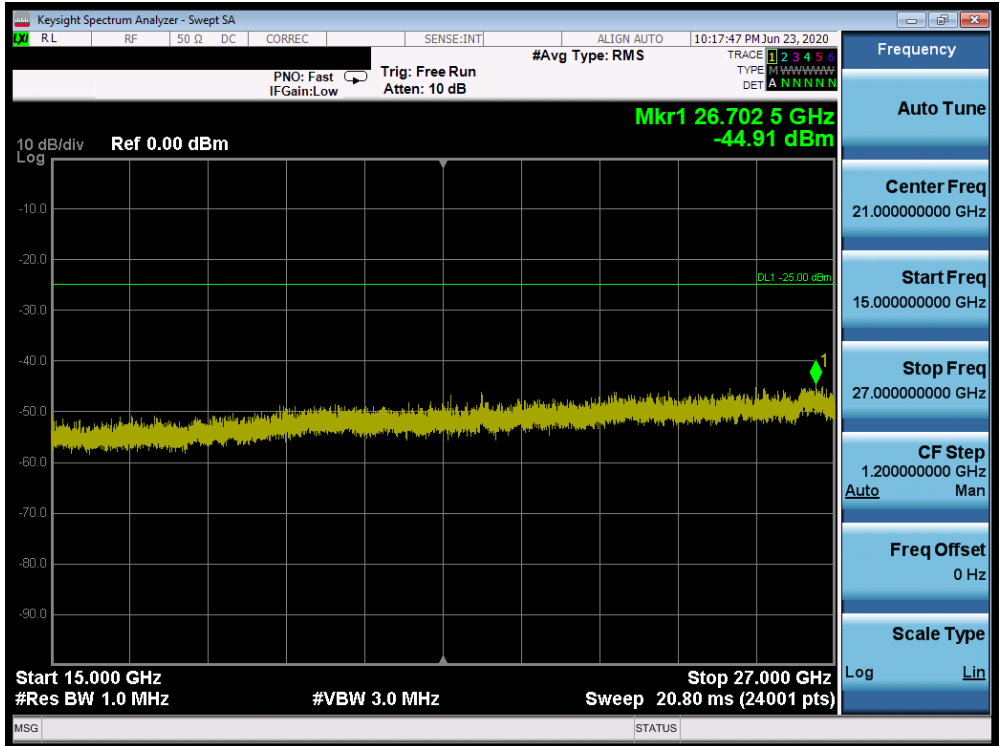


Plot 7-357. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

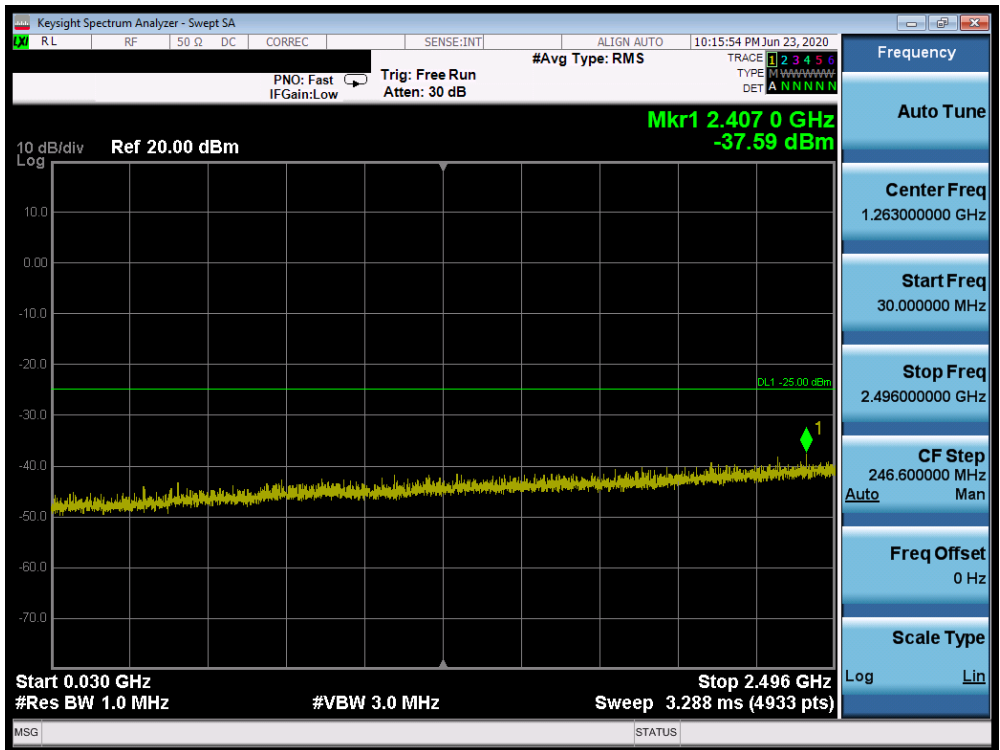


Plot 7-358. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 203 of 466

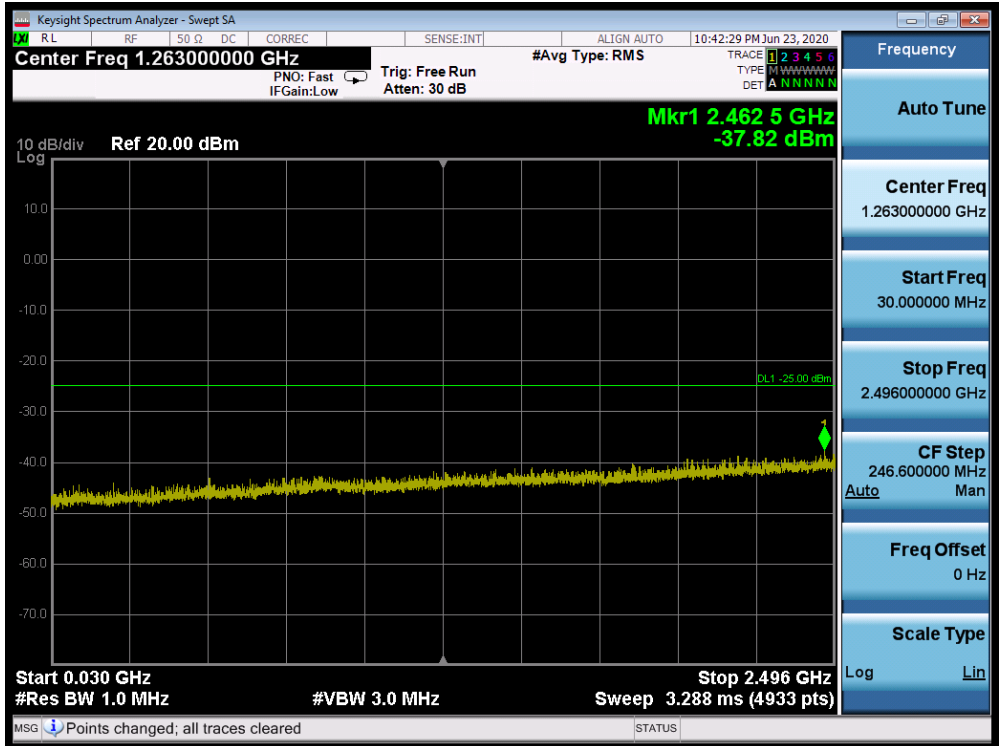


Plot 7-362. Conducted Spurious Plot (Band 41 PC2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

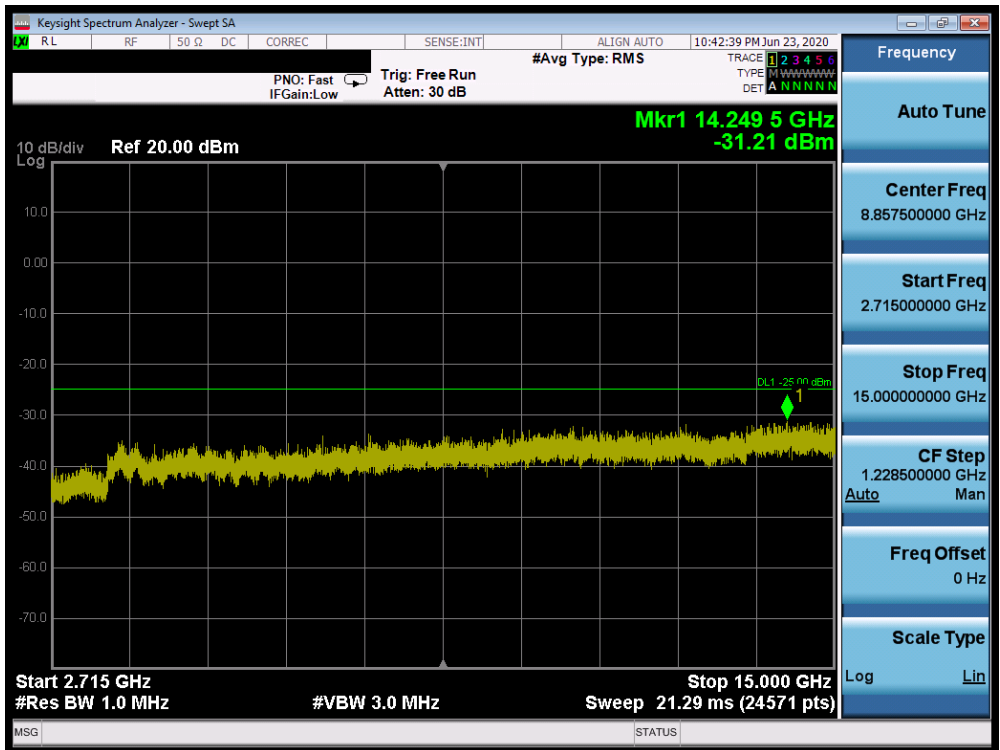


Plot 7-363. Conducted Spurious Plot (Band 41 PC2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 206 of 466

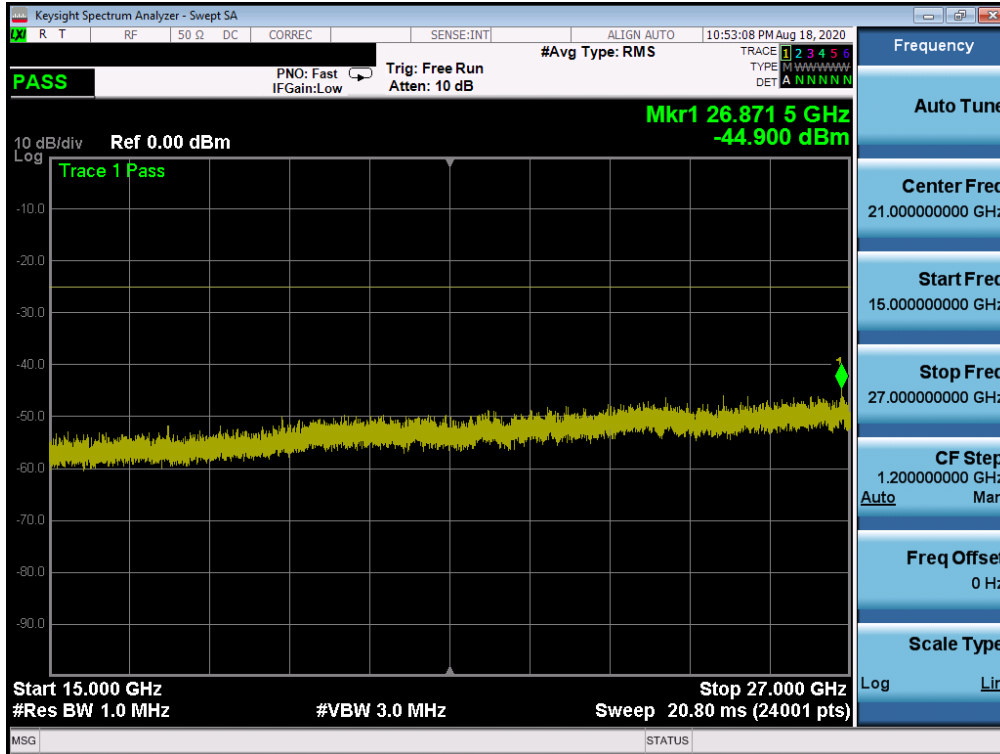


Plot 7-366. Conducted Spurious Plot (Band 41 PC2 - 20.0MHz QPSK - RB Size 1, RB Offset 99 - High Channel)

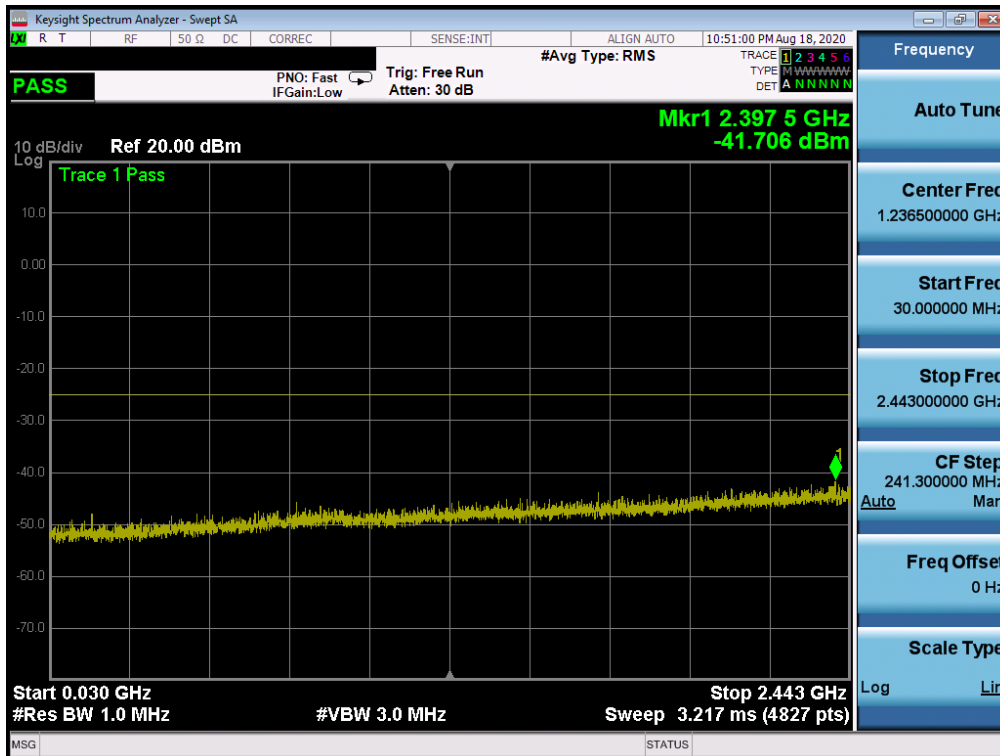


Plot 7-367. Conducted Spurious Plot (Band 41 PC2 - 20.0MHz QPSK - RB Size 1, RB Offset 99 - High Channel)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 208 of 466

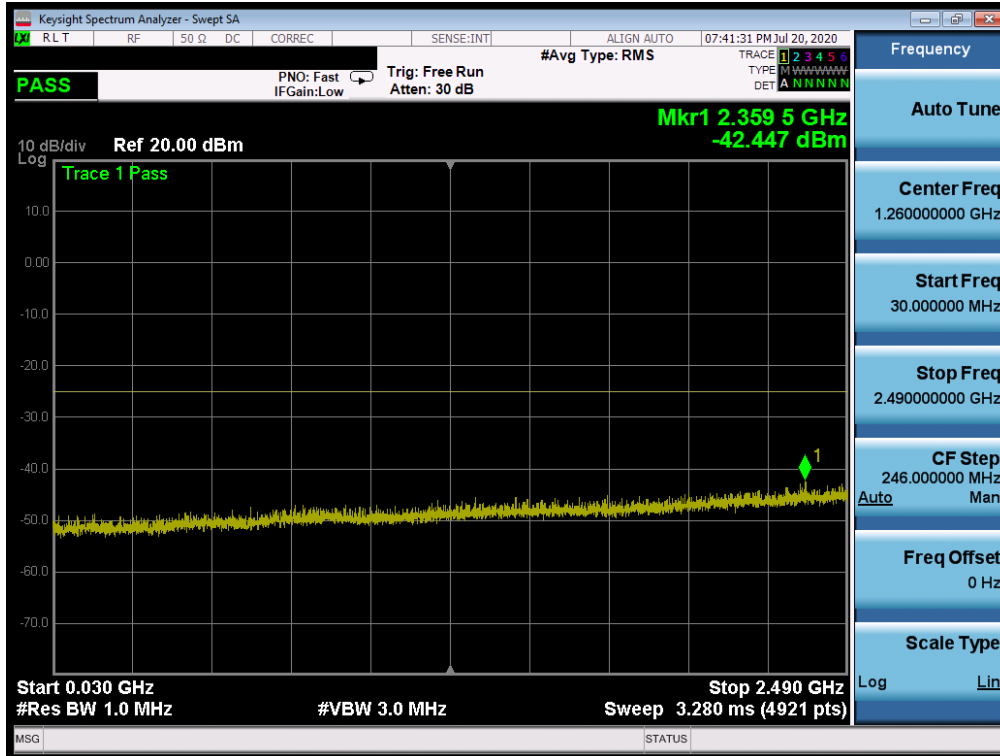


Plot 7-371. Conducted Spurious Plot (NR Band n41 - 100.0MHz - RB Size 1, RB Offset 0 - Low Channel)

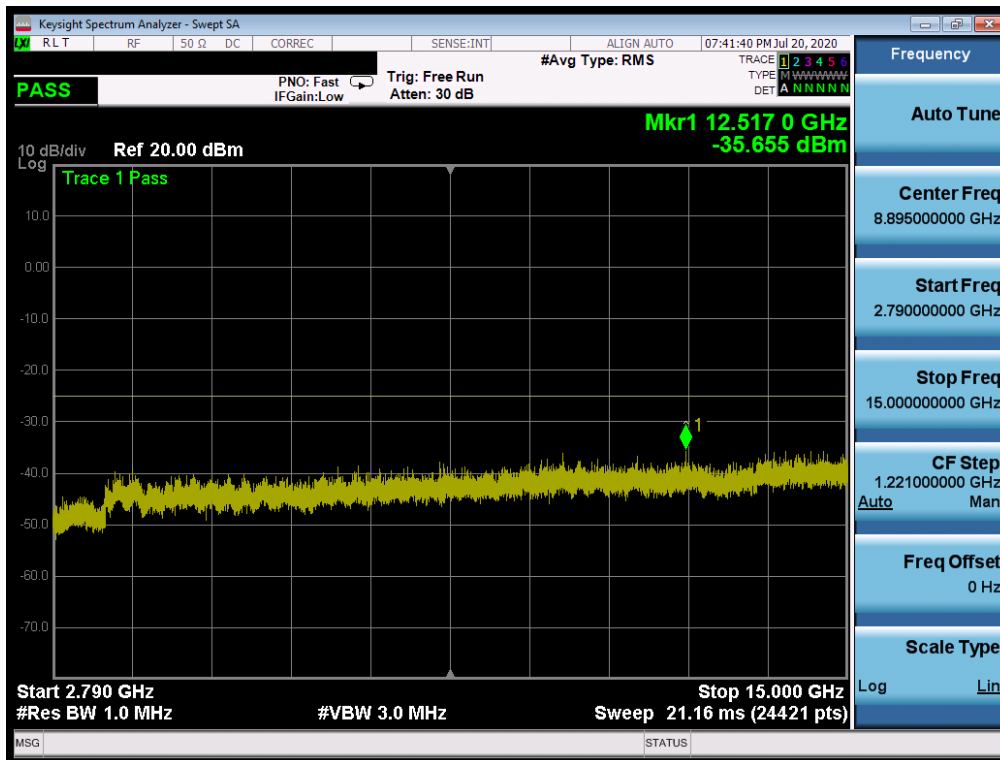


Plot 7-372. Conducted Spurious Plot (NR Band n41 - 100.0MHz - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 211 of 466

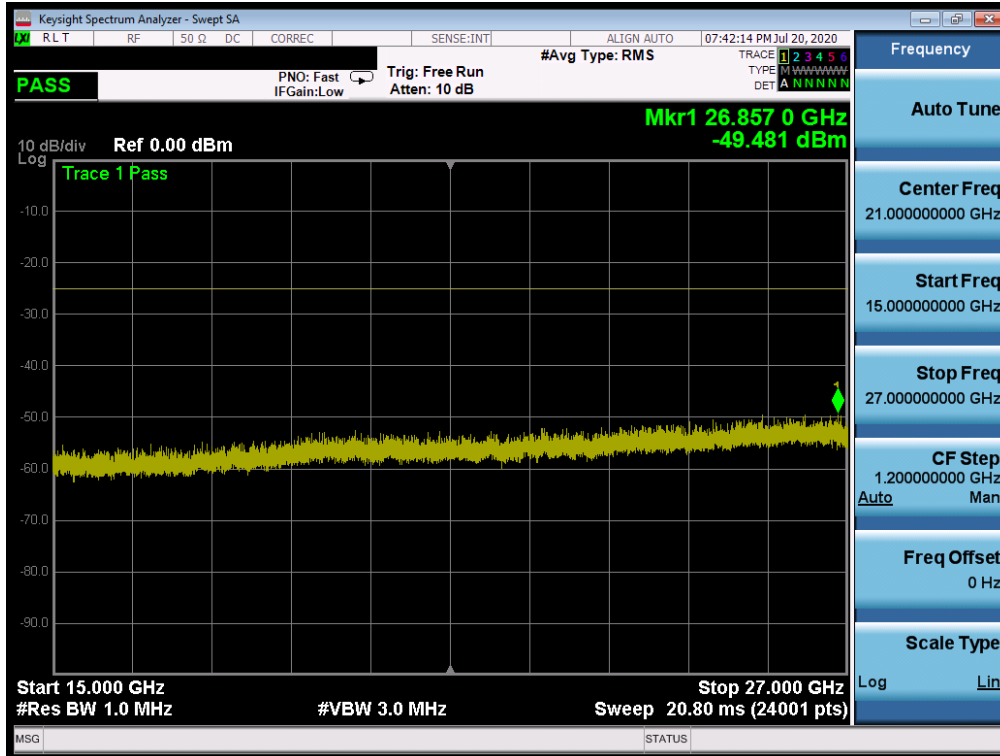


Plot 7-375. Conducted Spurious Plot (NR Band n41 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)



Plot 7-376. Conducted Spurious Plot (NR Band n41 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 213 of 466



Plot 7-377. Conducted Spurious Plot (NR Band n41 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 214 of 466

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

Test Procedure Used

KDB 971168 D01 v03r01 – Section 6.0

Test Settings

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

Test Setup

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

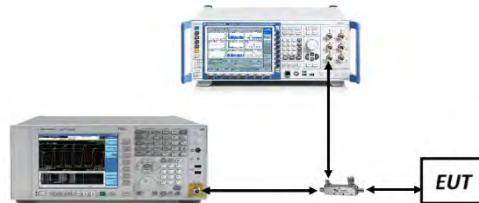


Figure 7-3. Test Instrument & Measurement Setup

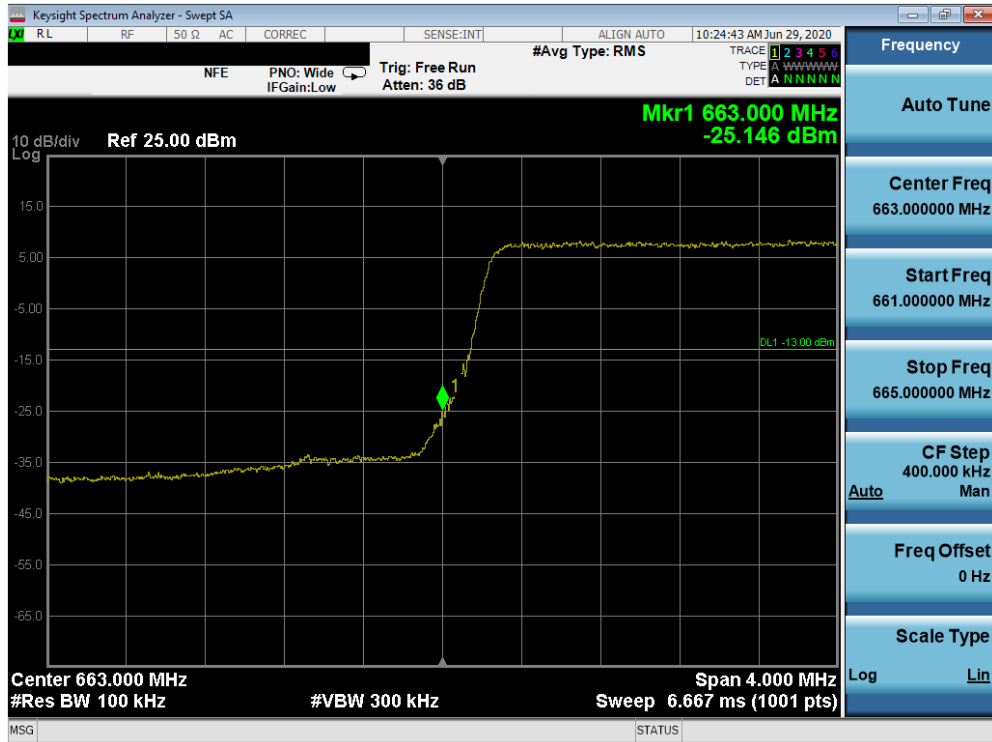
FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 215 of 466

Test Notes

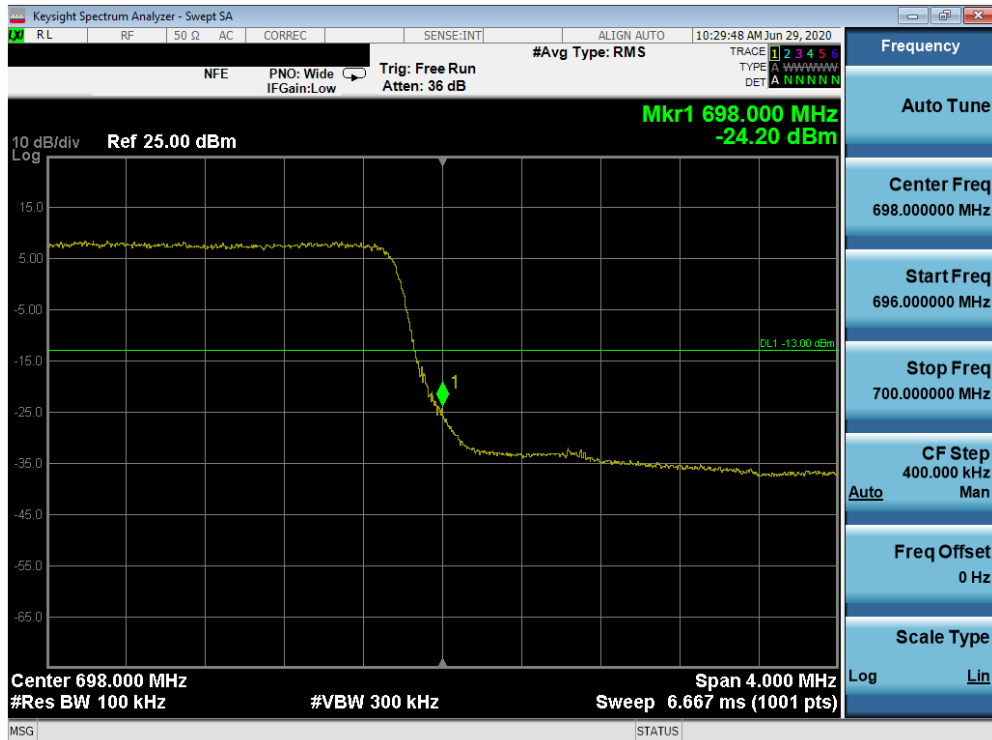
Per 22.917(b) in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit. The emission 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.

FCC ID: A3LSMF916U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 216 of 466

Band 71

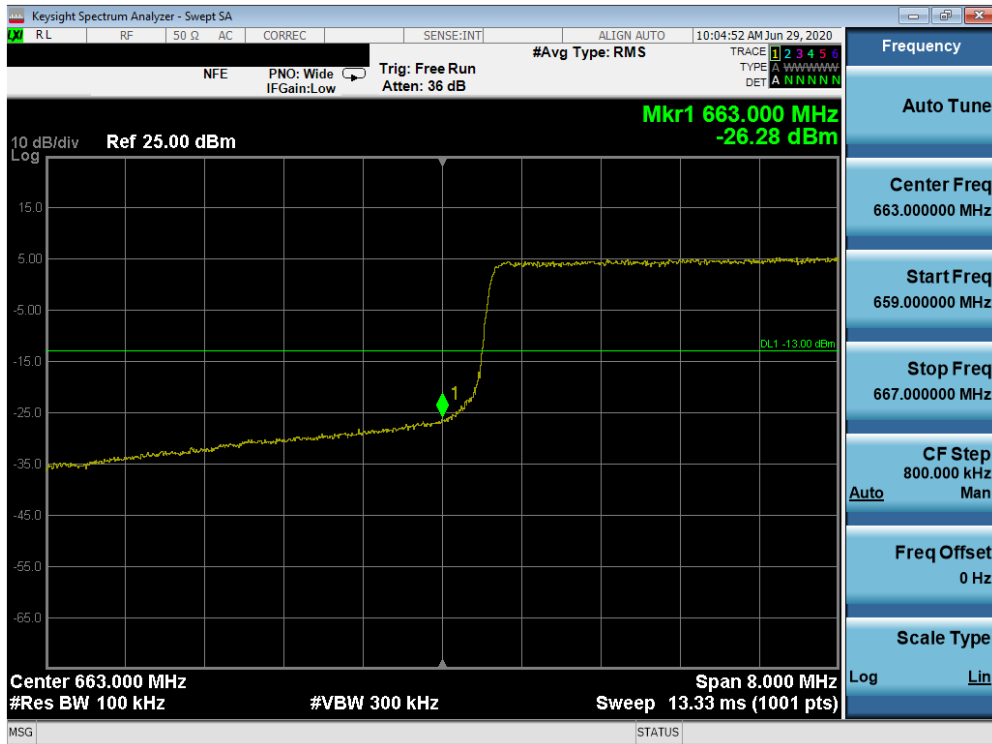


Plot 7-378. Lower Band Edge Plot (Band 71 - 5.0MHz QPSK - Full RB Configuration)

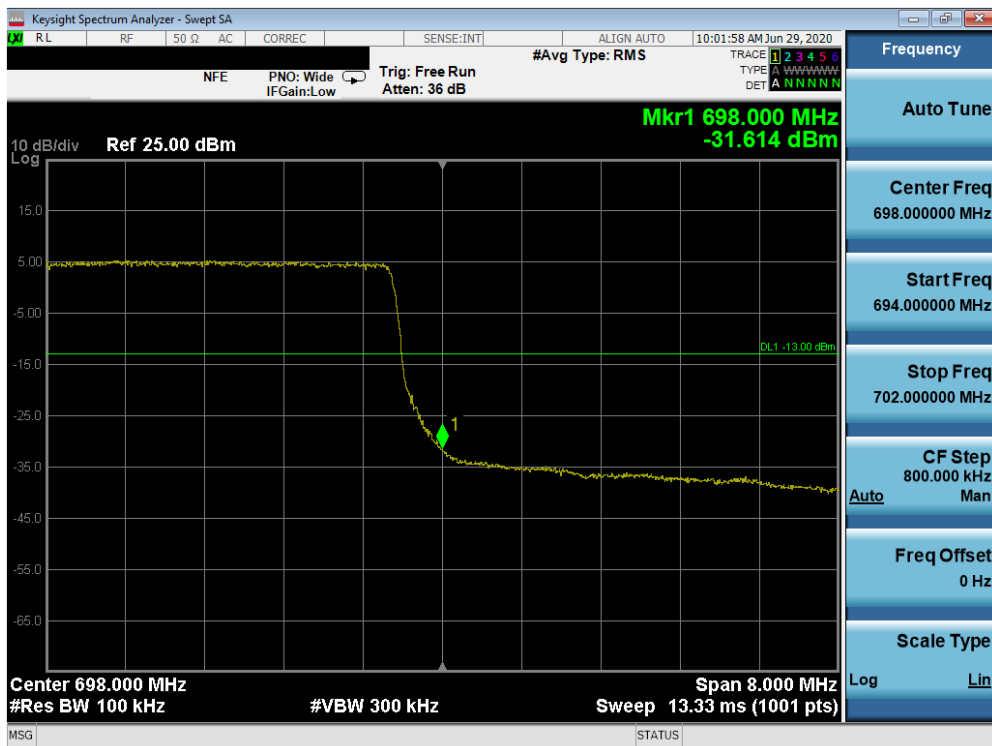


Plot 7-379. Upper Band Edge Plot (Band 71 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 217 of 466

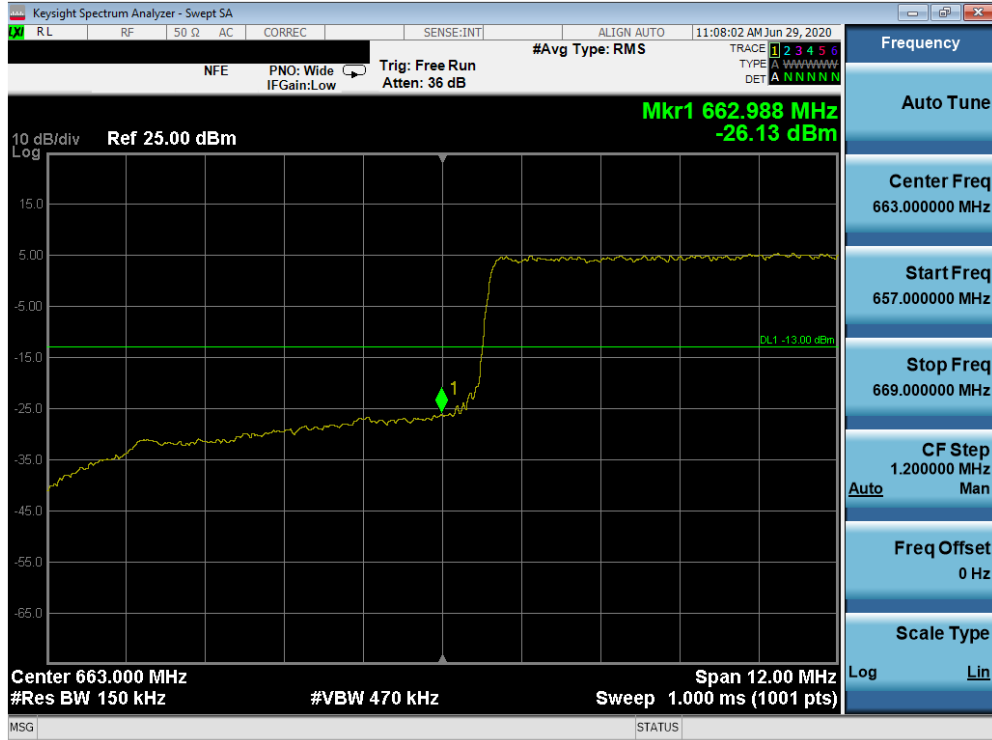


Plot 7-380. Lower Band Edge Plot (Band 71 - 10.0MHz QPSK - Full RB Configuration)

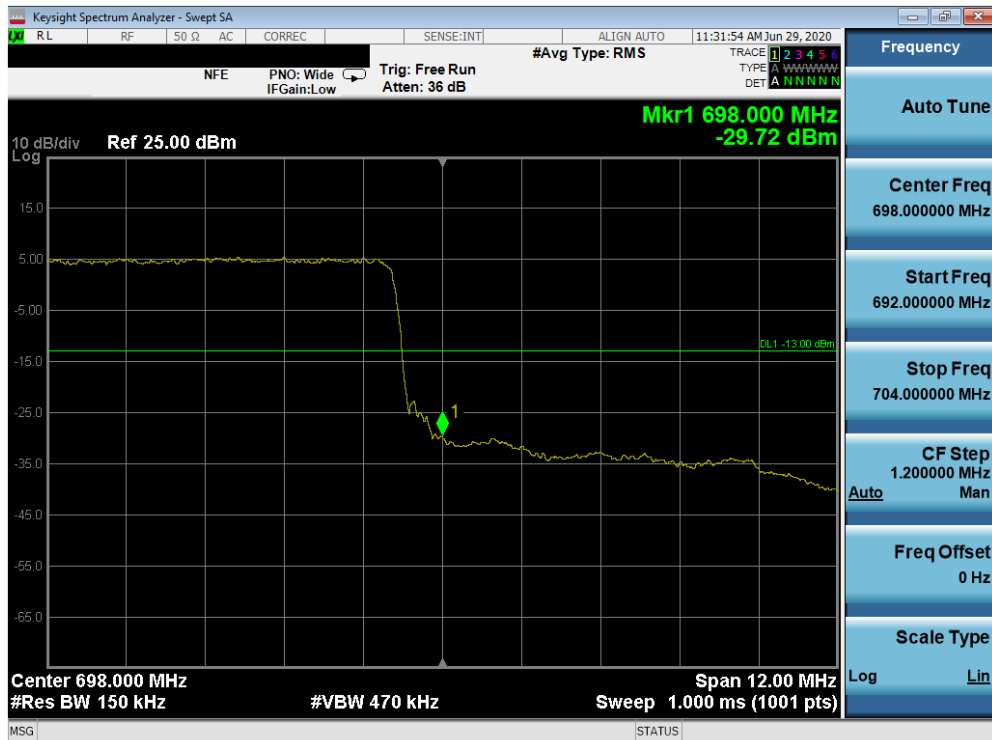


Plot 7-381. Upper Band Edge Plot (Band 71 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 218 of 466

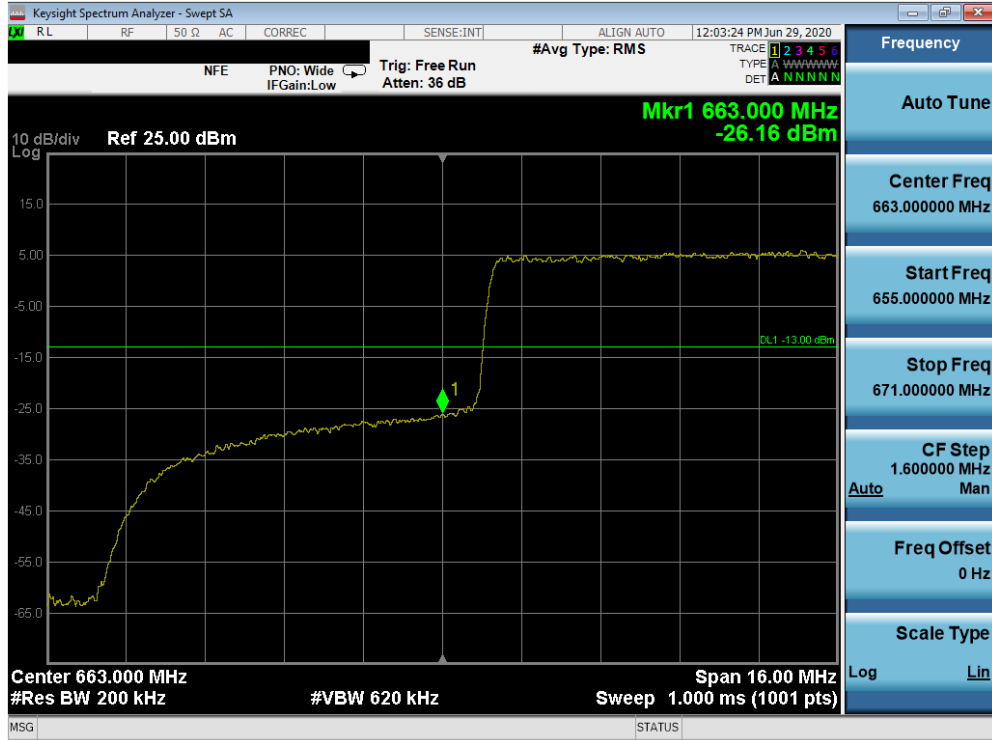


Plot 7-382. Lower Band Edge Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-383. Upper Band Edge Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 219 of 466

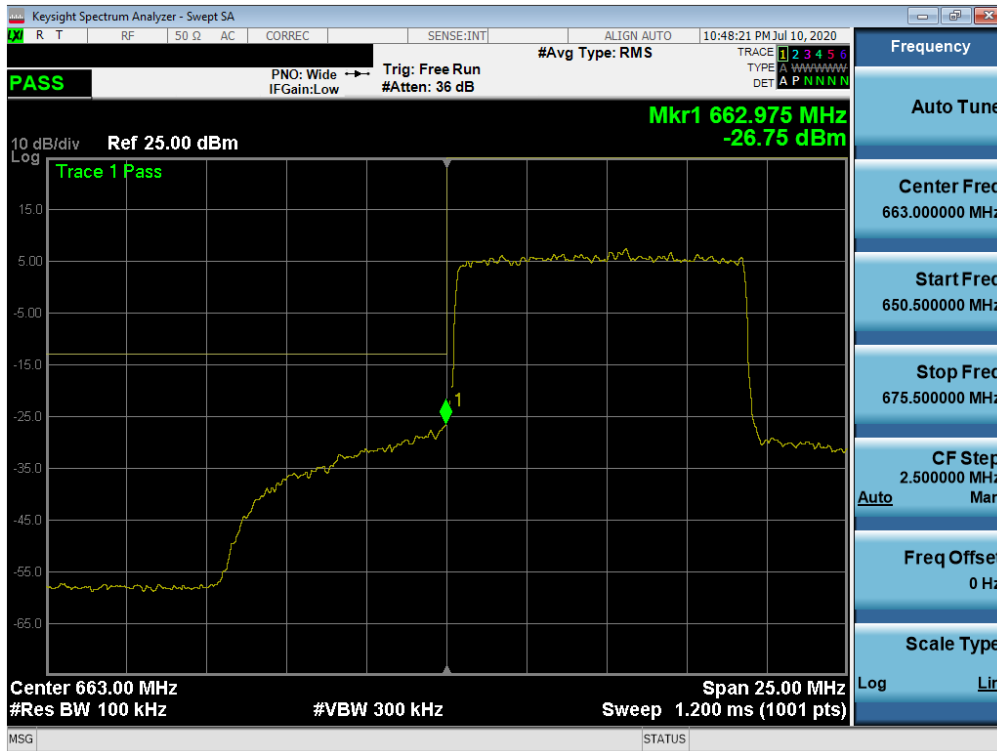


Plot 7-384. Lower Band Edge Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)

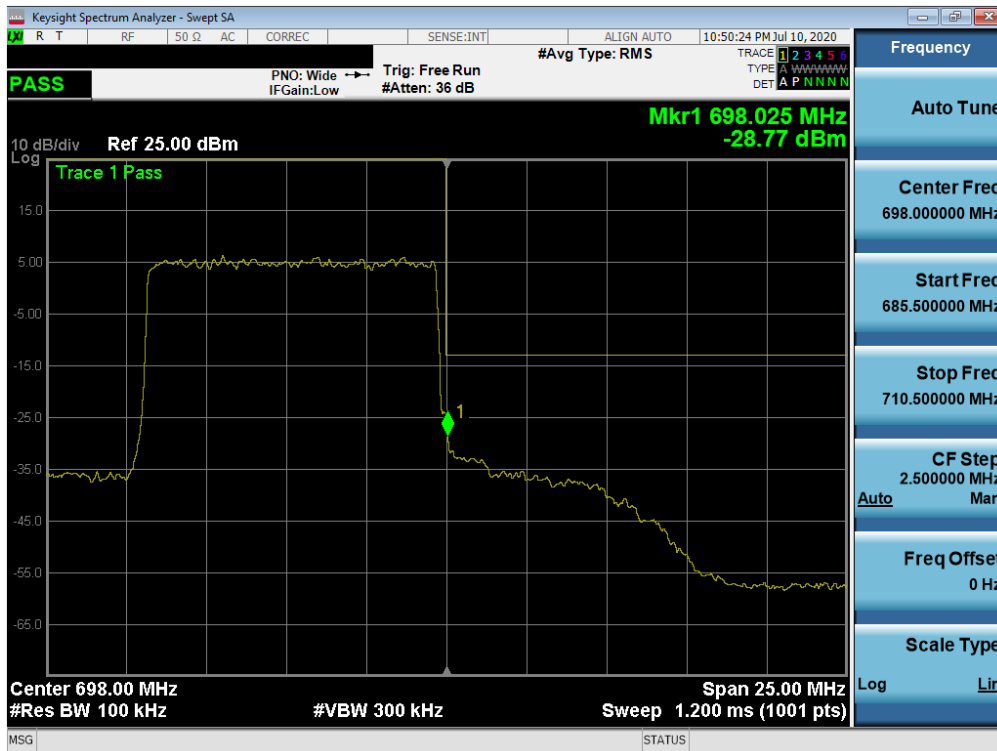


Plot 7-385. Upper Band Edge Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 220 of 466

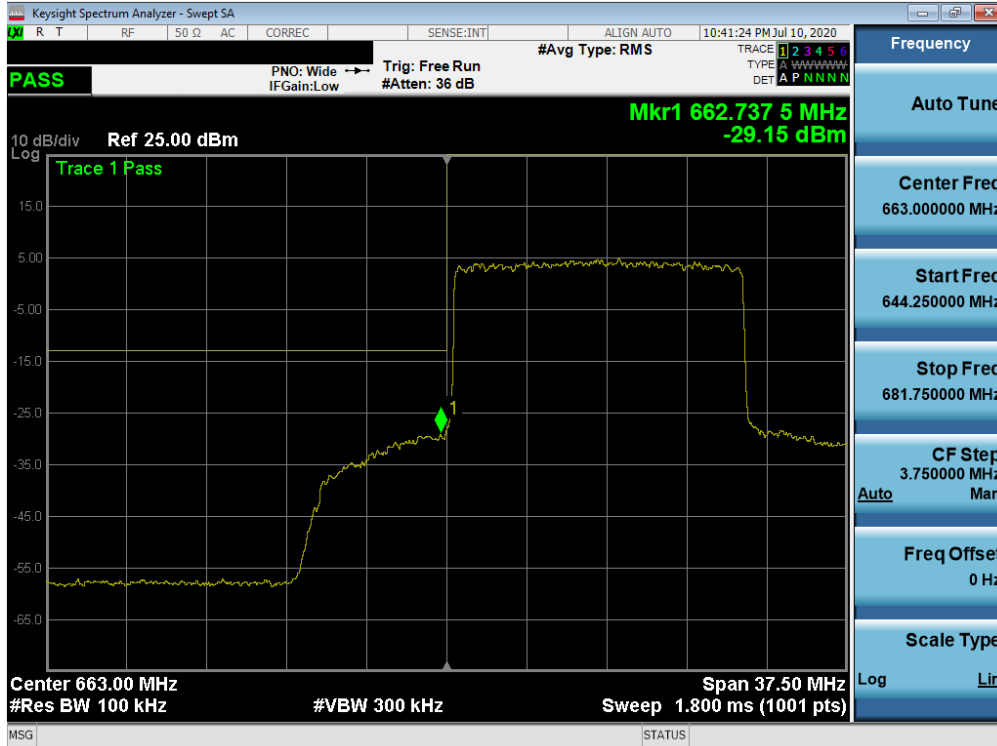


Plot 7-388. Lower Band Edge Plot (NR Band n71 – 10.0MHz - Full RB)



Plot 7-389. Upper Band Edge Plot (NR Band n71 – 10.0MHz - Full RB)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 222 of 466

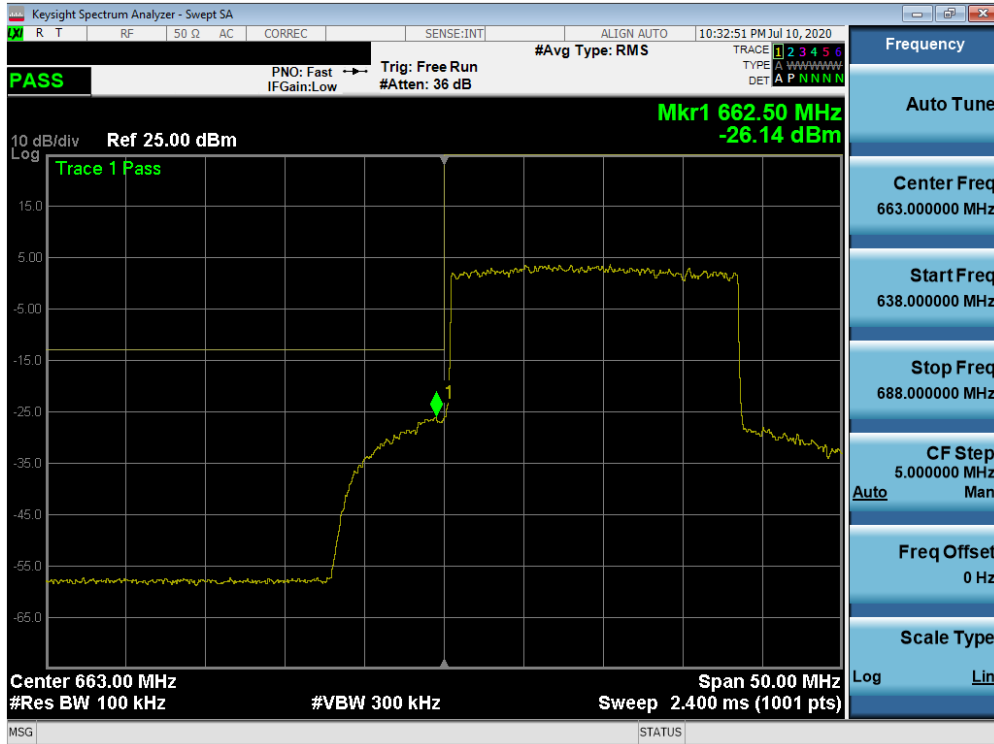


Plot 7-390. Lower Band Edge Plot (NR Band n71 – 15.0MHz - Full RB)

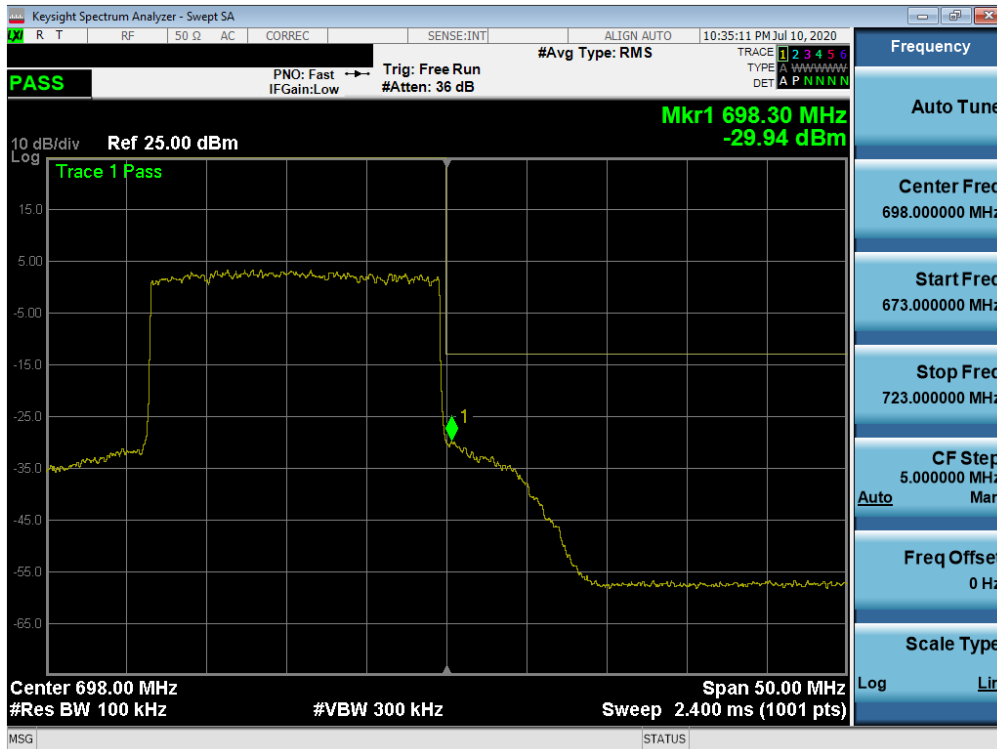


Plot 7-391. Upper Band Edge Plot (NR Band n71 – 15.0MHz - Full RB)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 223 of 466



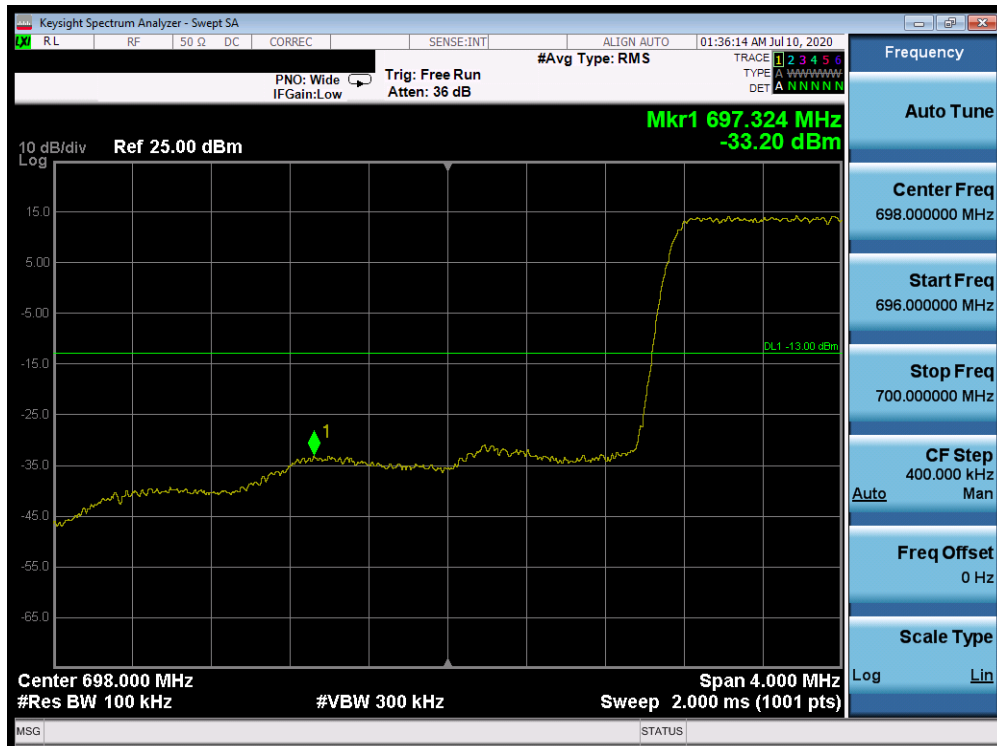
Plot 7-392. Lower Band Edge Plot (NR Band n71 – 20.0MHz - Full RB)



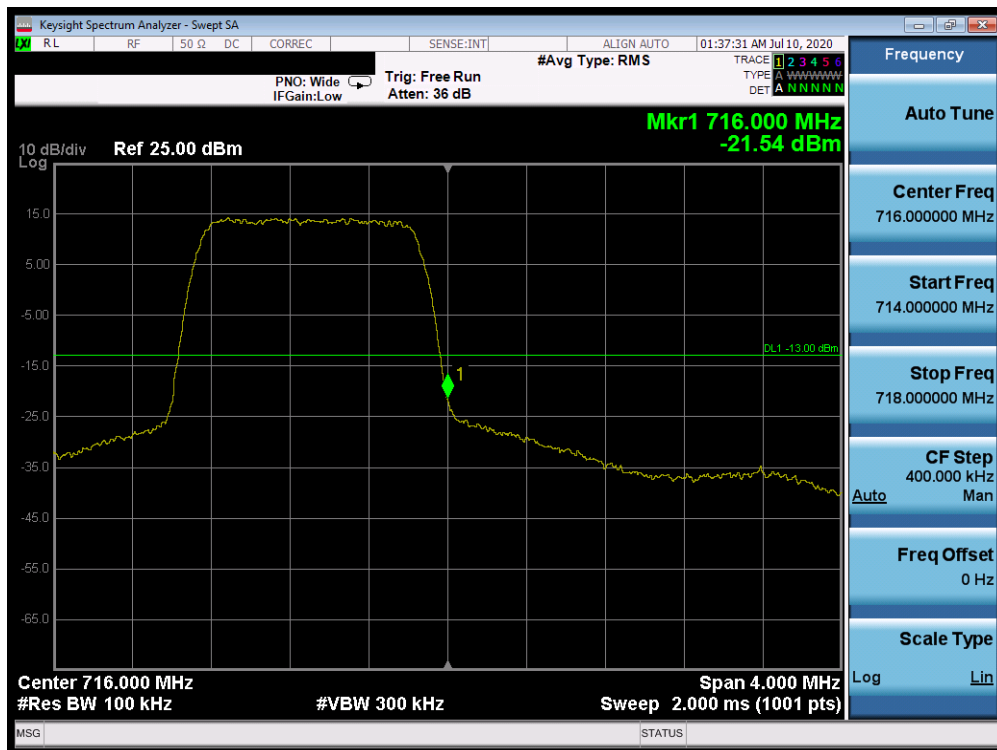
Plot 7-393. Upper Band Edge Plot (NR Band n71 – 20.0MHz - Full RB)

Band 12

FCC ID: A3LSMF916U	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset	Page 224 of 466

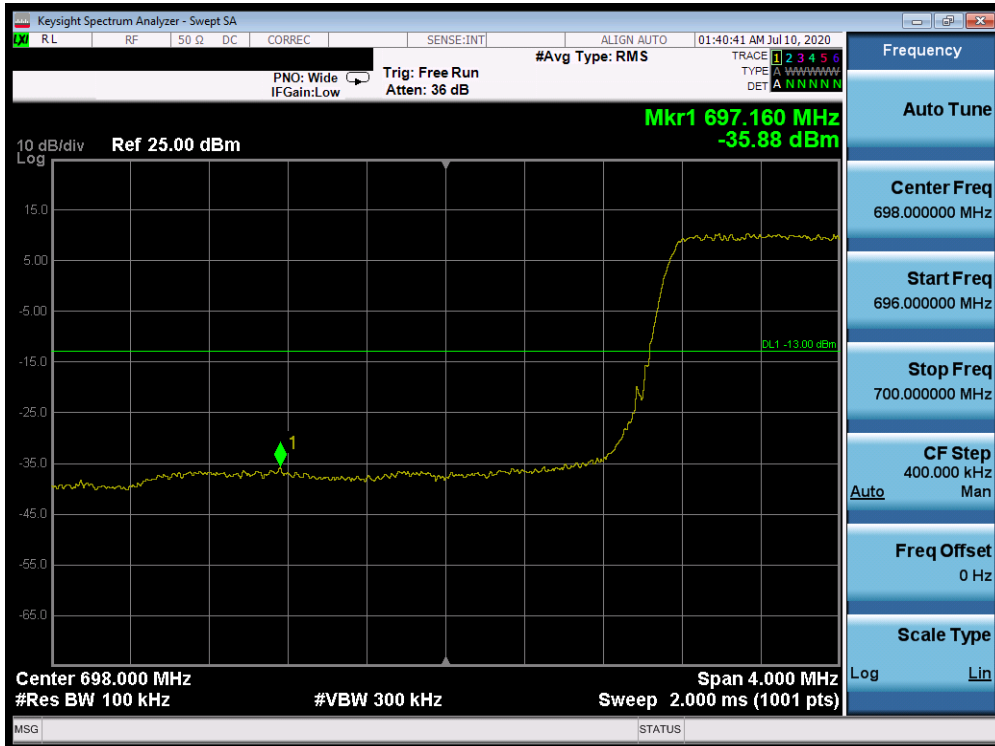


Plot 7-394. Lower Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-395. Upper Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 225 of 466

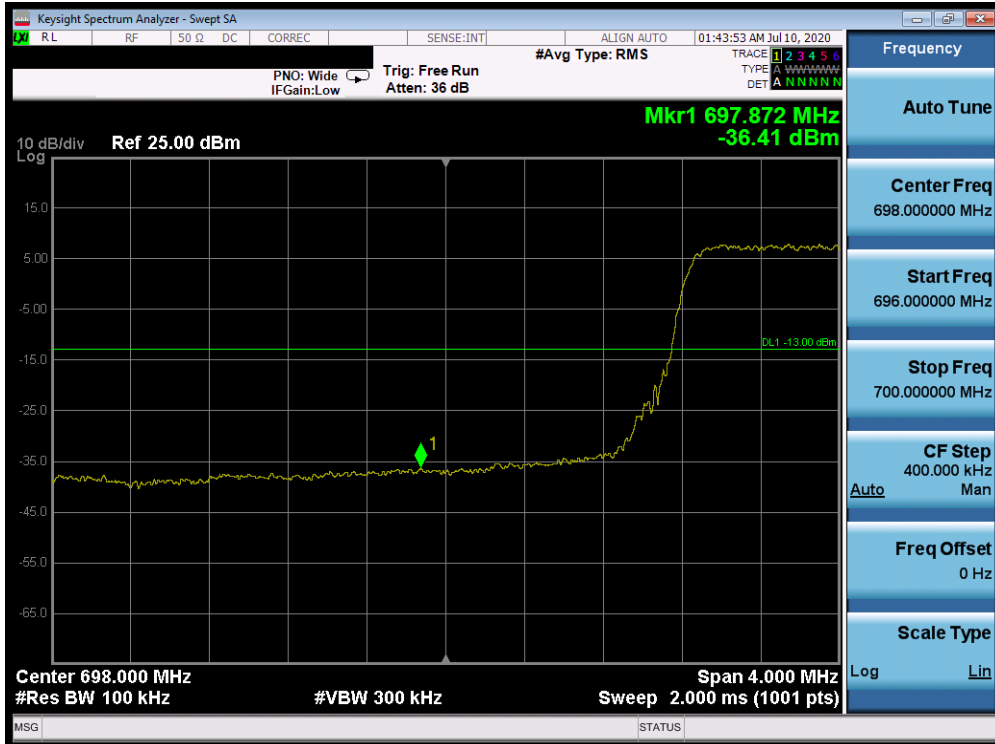


Plot 7-396. Lower Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-397. Upper Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 226 of 466



Plot 7-398. Lower Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)

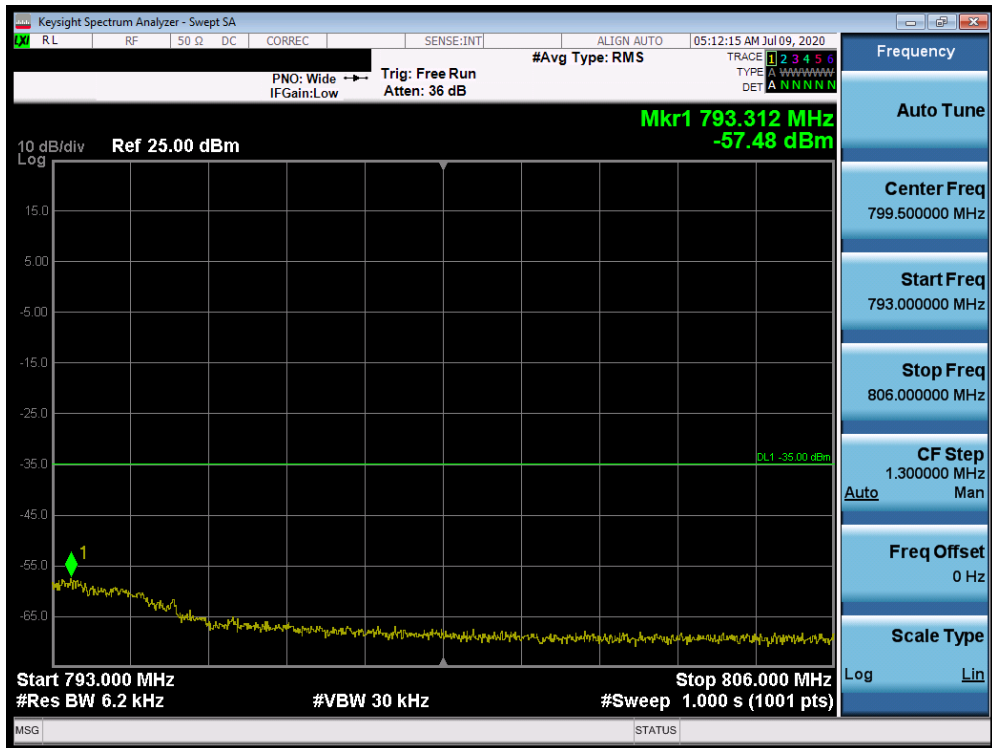


Plot 7-399. Upper Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 227 of 466

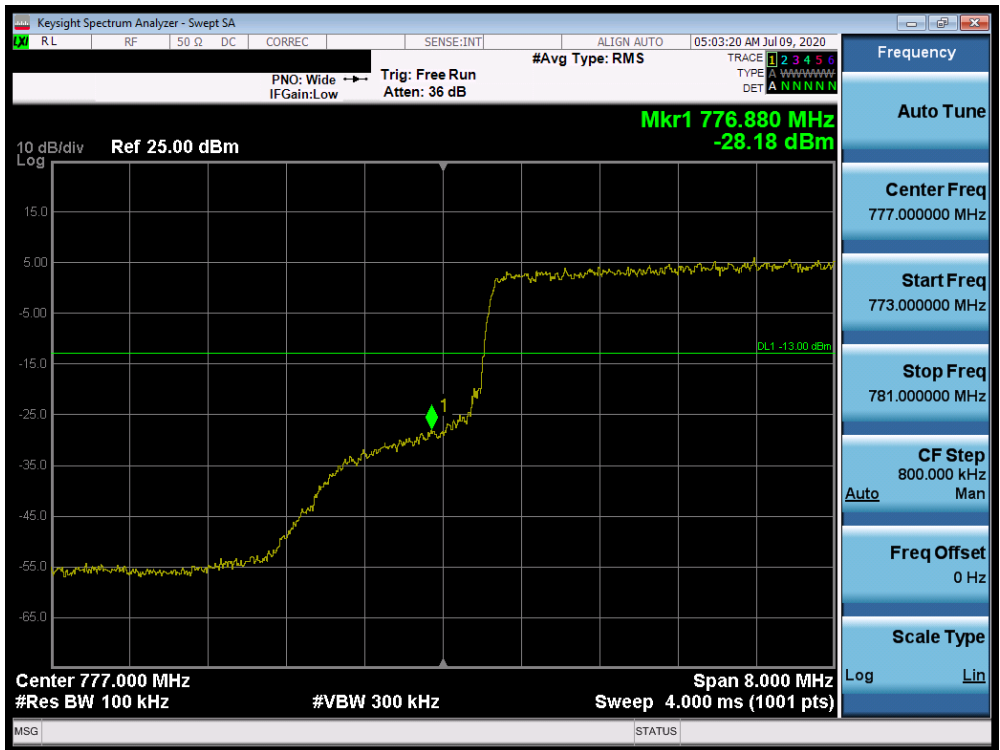


Plot 7-404. Upper Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

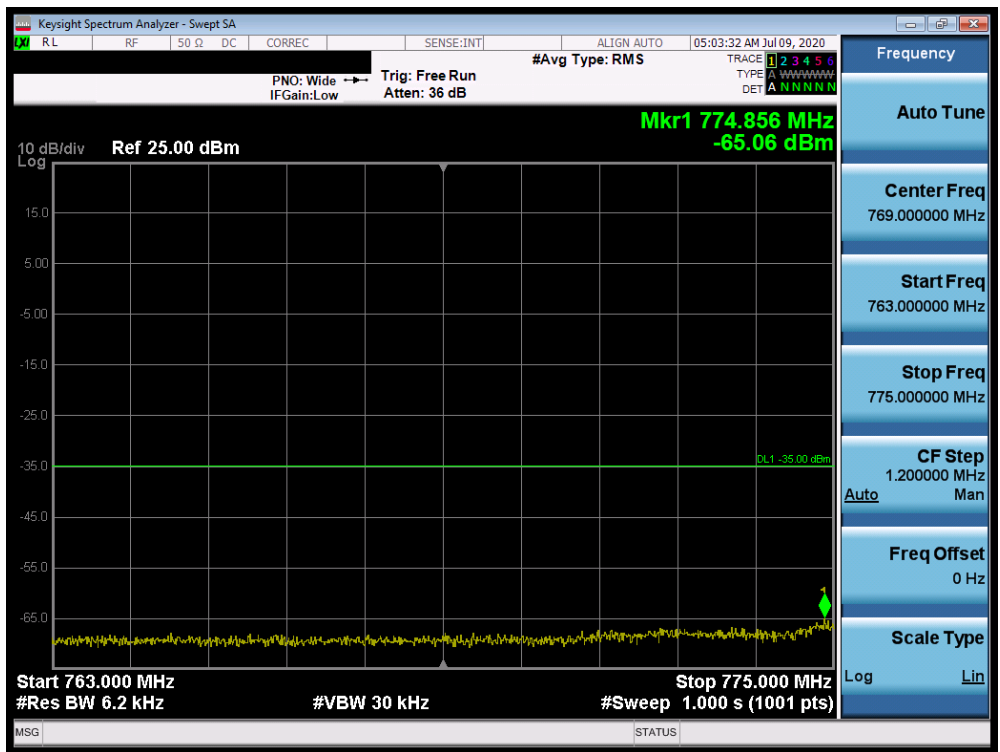


Plot 7-405. Upper Emission Mask Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 230 of 466



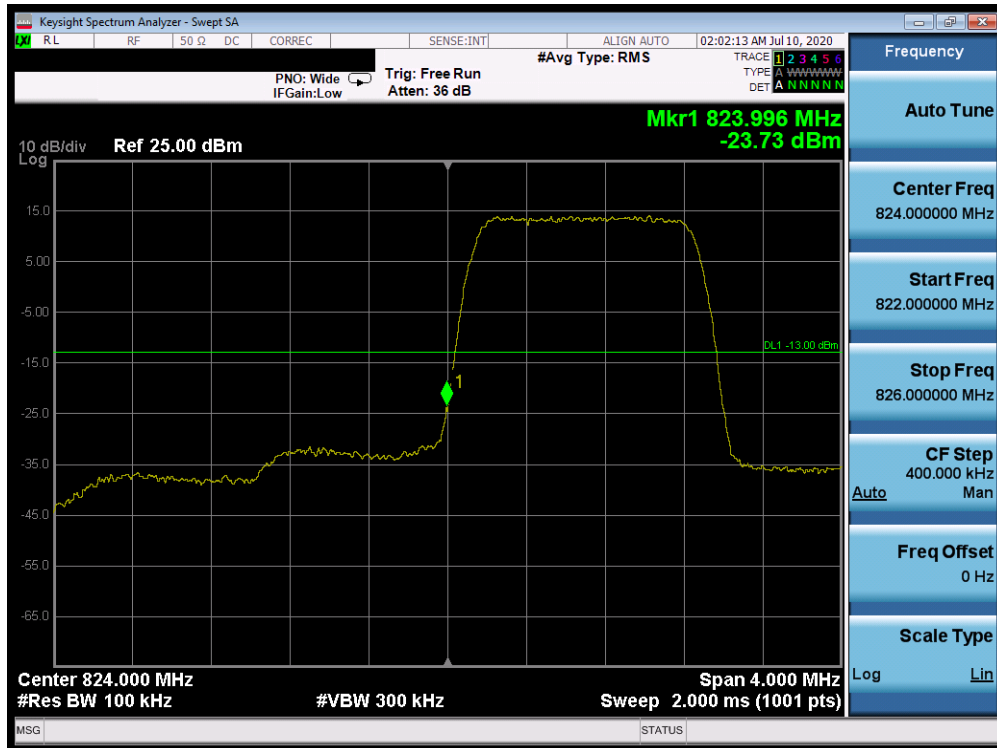
Plot 7-406. Lower Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)



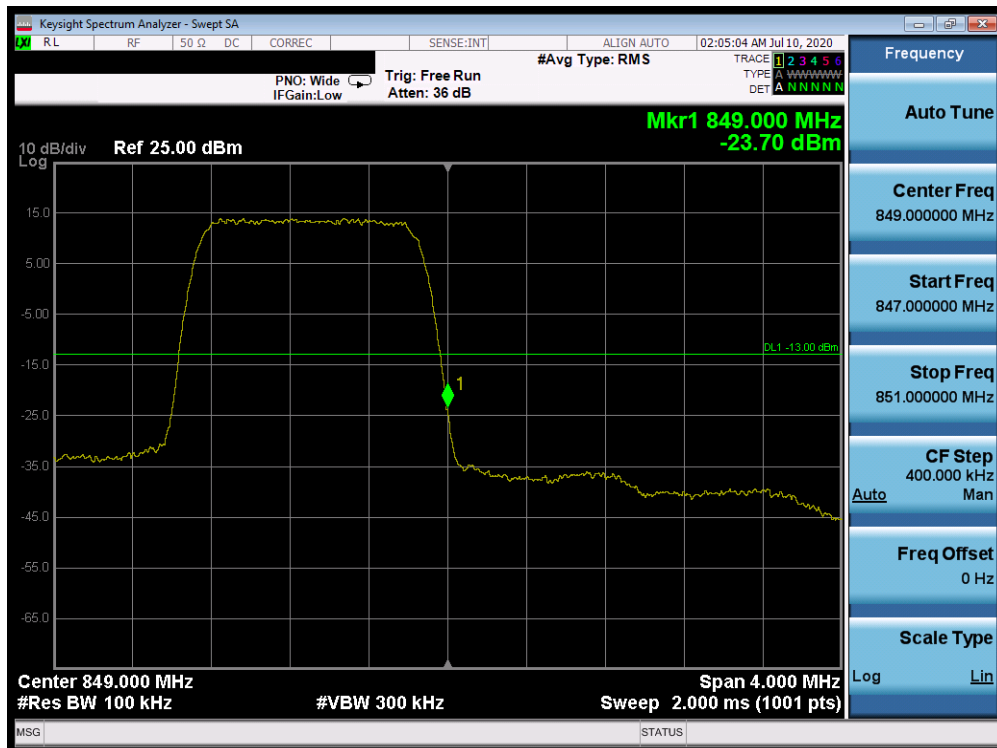
Plot 7-407. Lower Emission Mask Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 231 of 466

Band 26/5

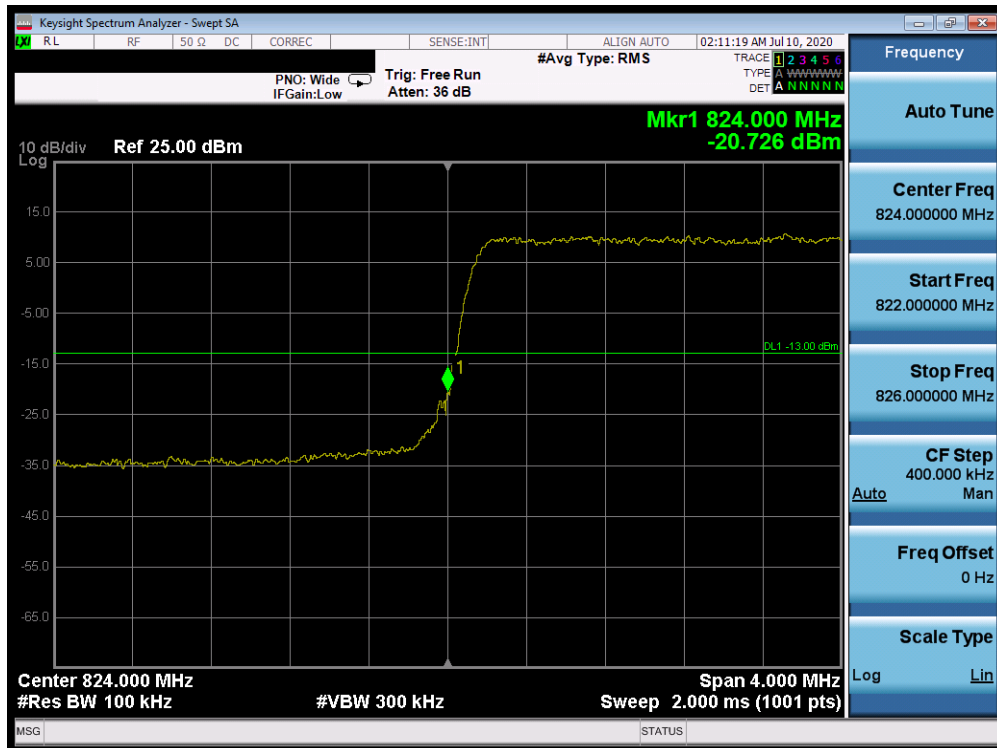


Plot 7-410. Lower Band Edge Plot (Band 26/5 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-411. Upper Band Edge Plot (Band 26/5 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 233 of 466

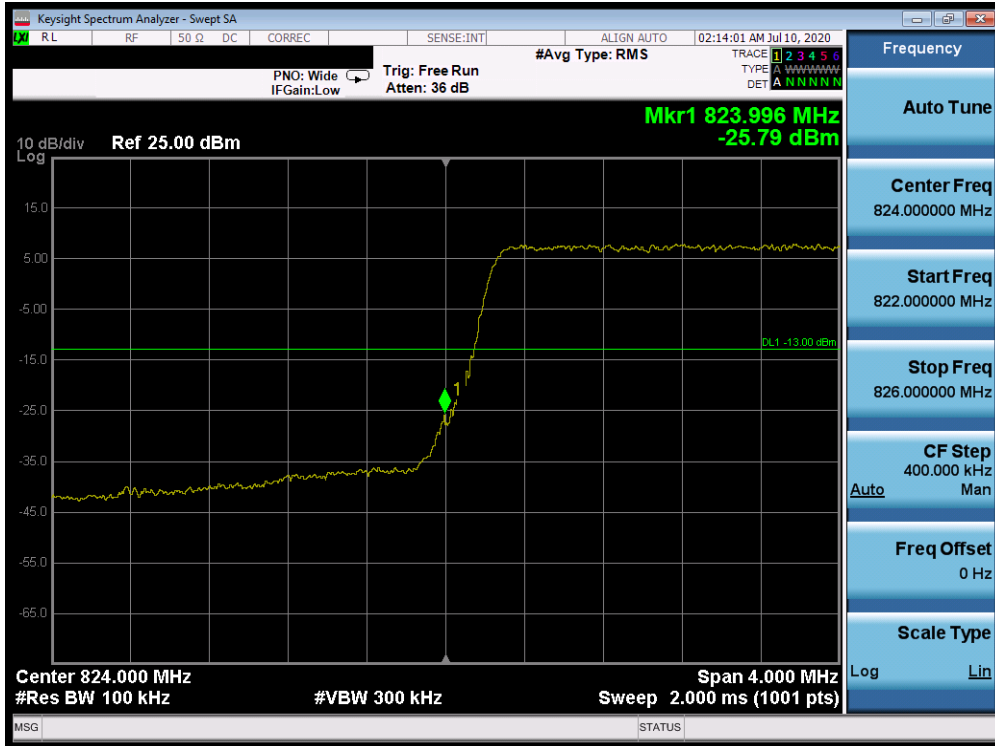


Plot 7-412. Lower Band Edge Plot (Band 26/5 - 3.0MHz QPSK - Full RB Configuration)

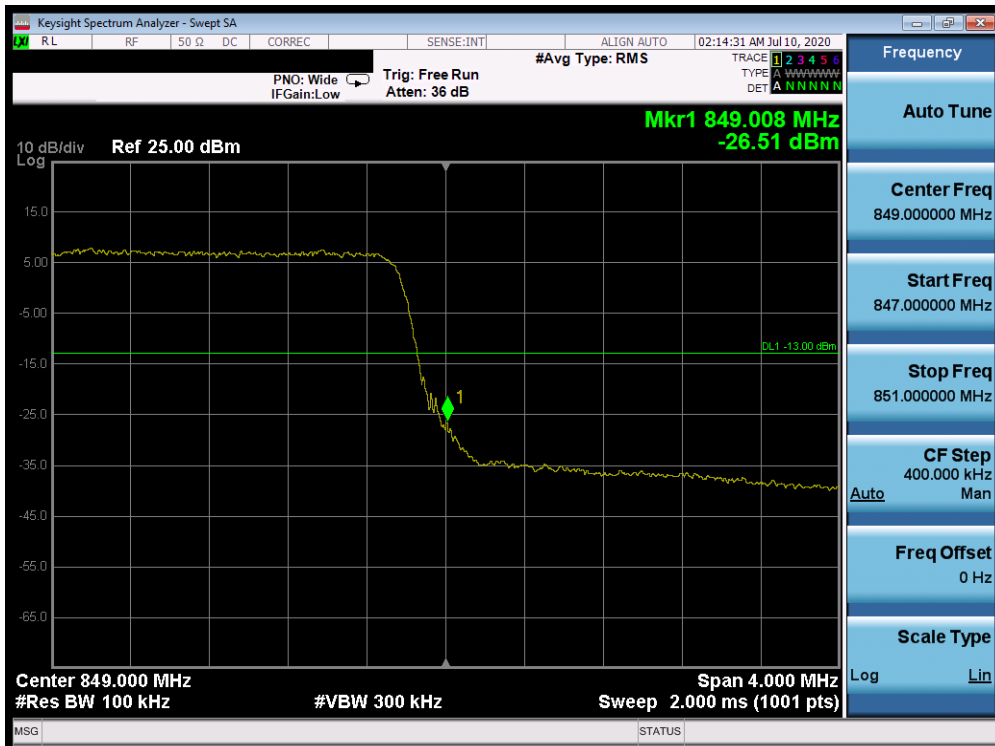


Plot 7-413. Upper Band Edge Plot (Band 26/5 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 234 of 466

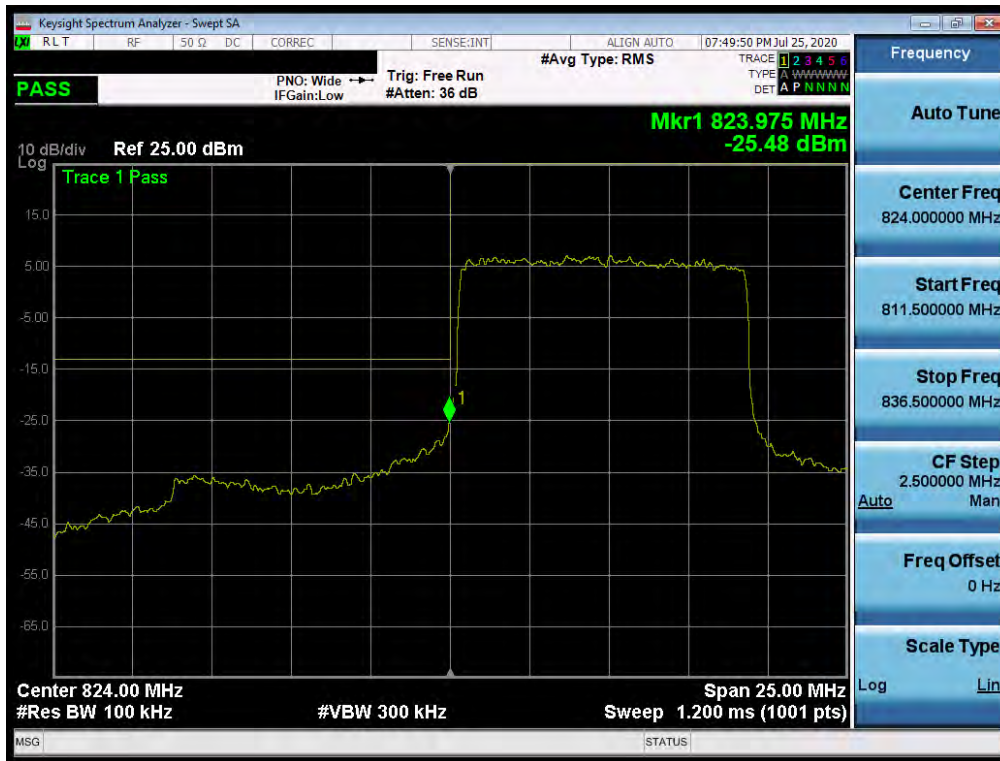


Plot 7-414. Lower Band Edge Plot (Band 26/5 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-415. Upper Band Edge Plot (Band 26/5 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 235 of 466



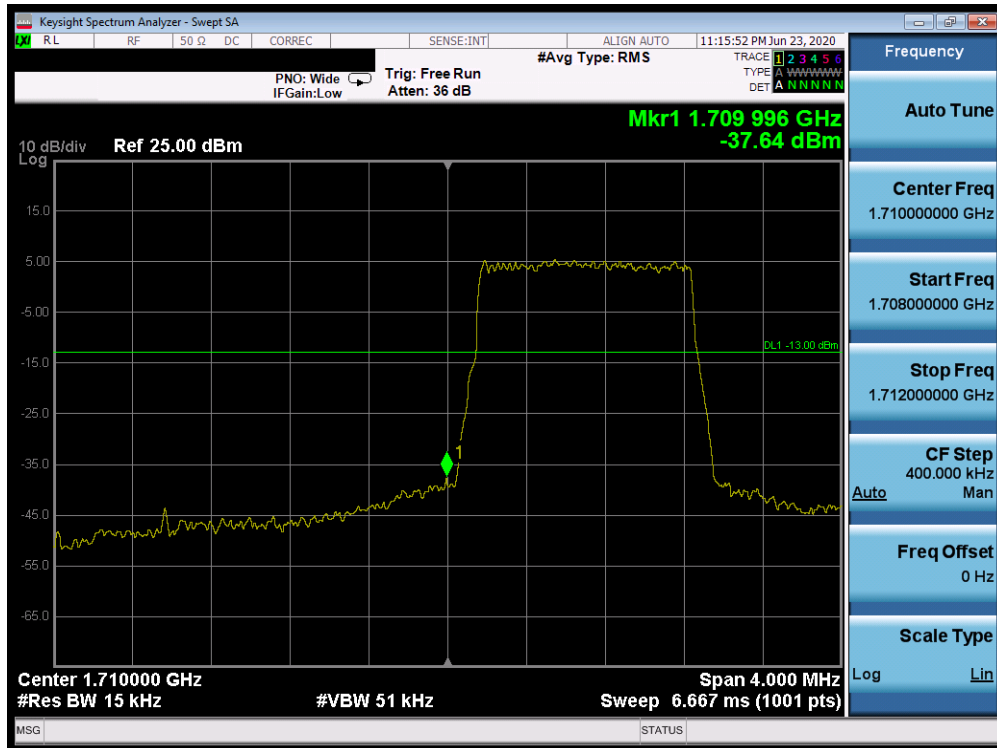
Plot 7-420. Lower Band Edge Plot (NR Band n5 – 10.0MHz - Full RB)



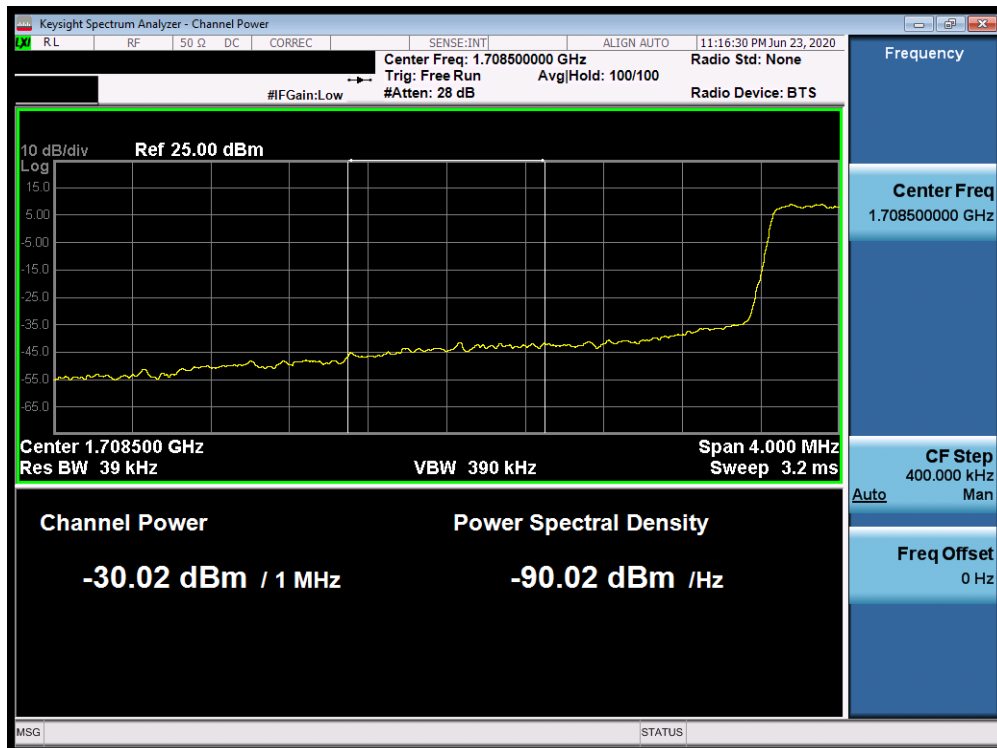
Plot 7-421. Upper Band Edge Plot (NR Band n5 – 10.0MHz - Full RB)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 238 of 466

Band 66/4

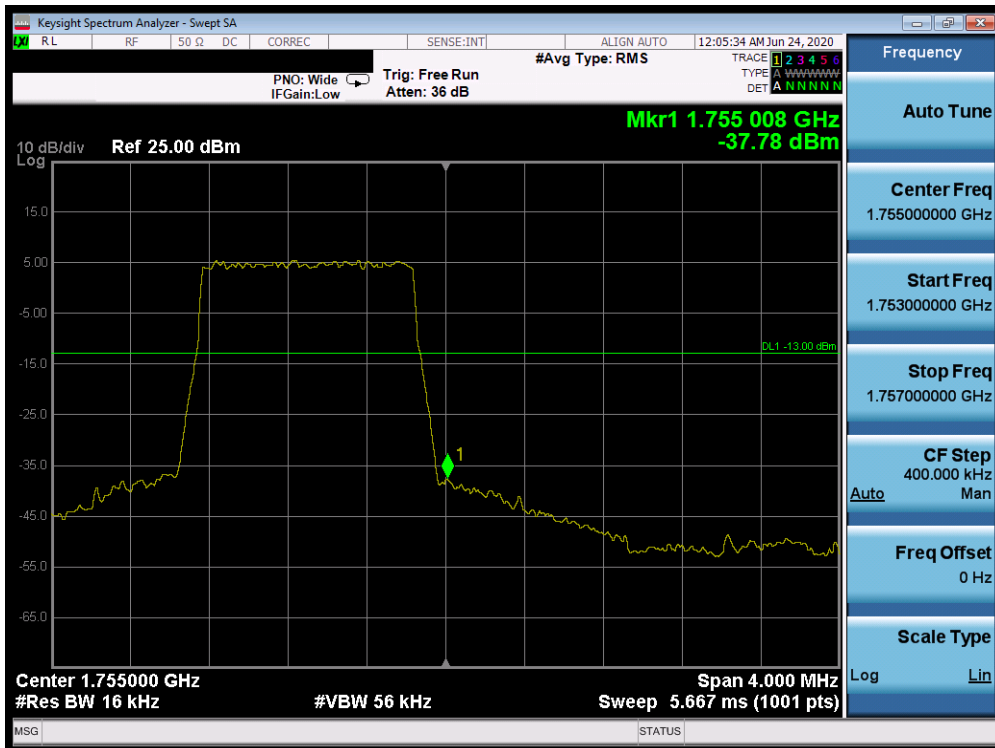


Plot 7-426. Lower Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)

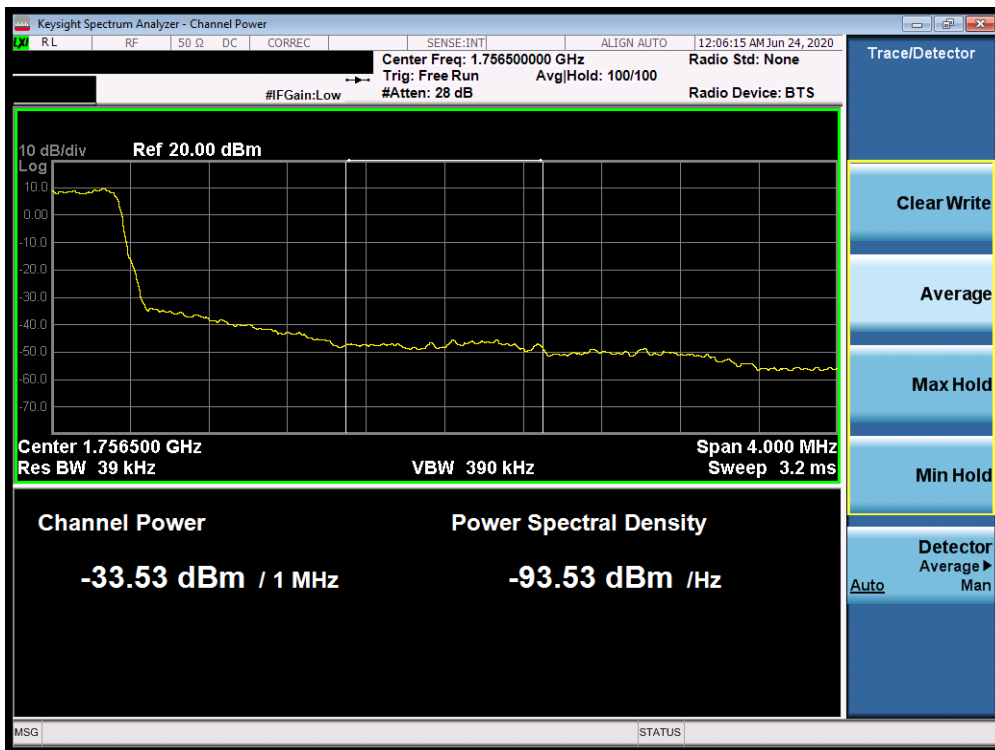


Plot 7-427. Lower Extended Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 241 of 466

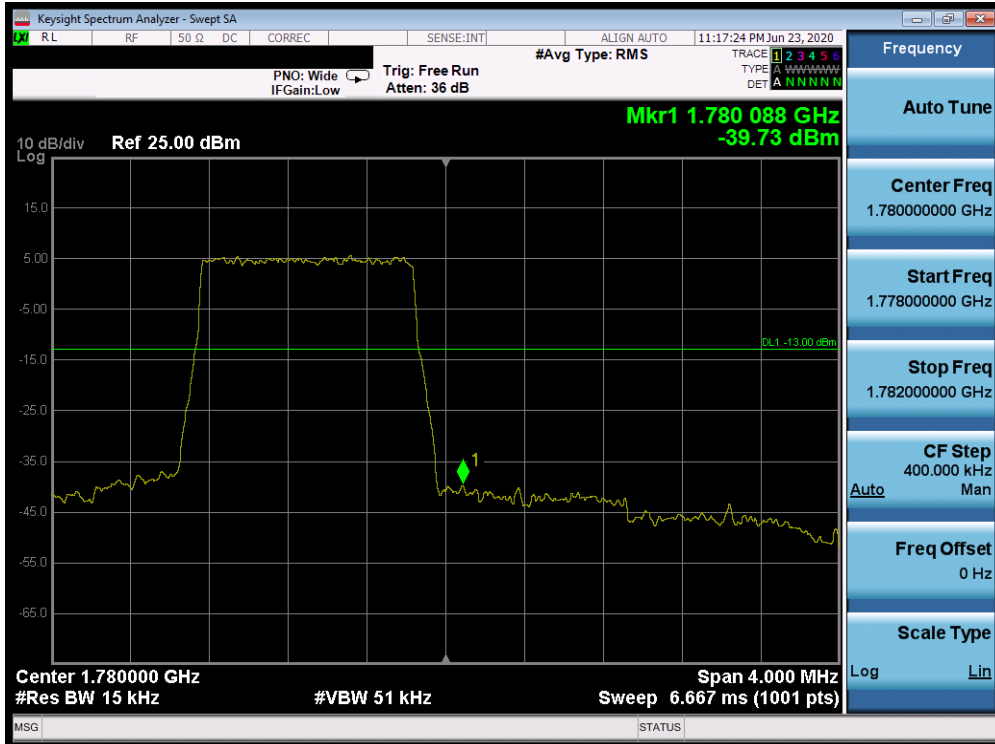


Plot 7-428. Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

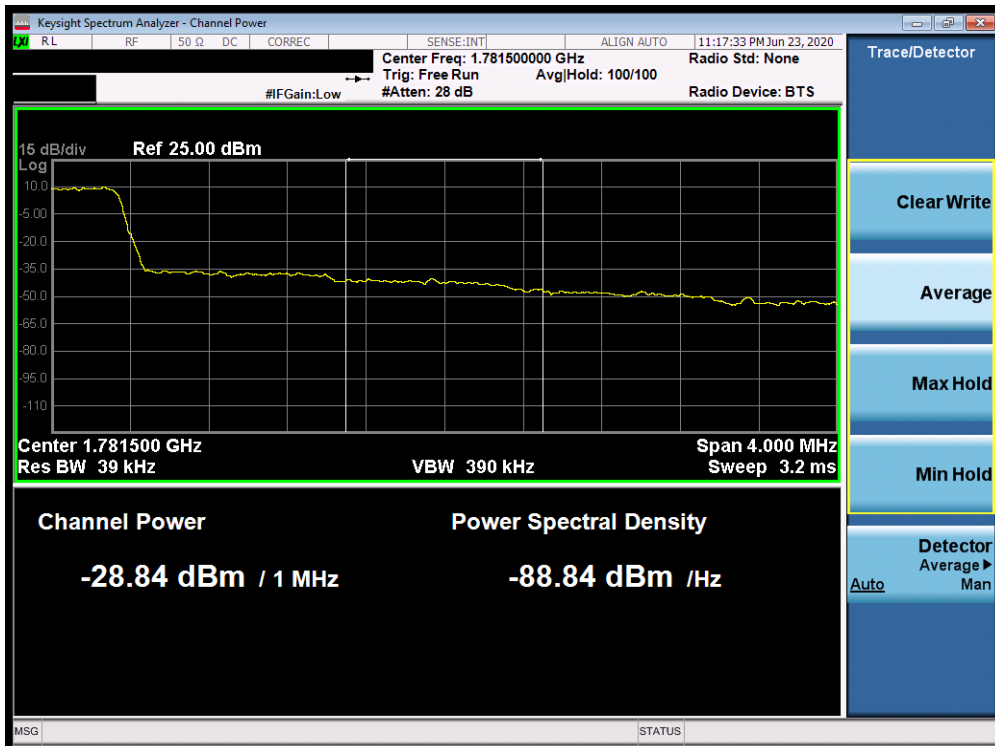


Plot 7-429. Upper Extended Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 242 of 466

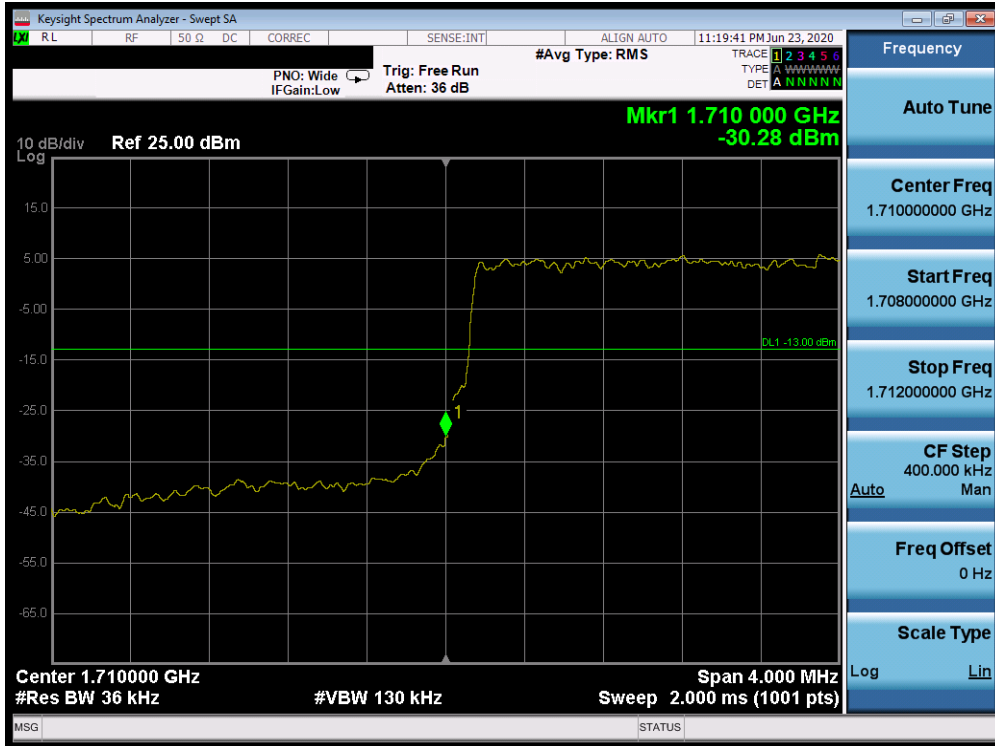


Plot 7-430. Upper Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

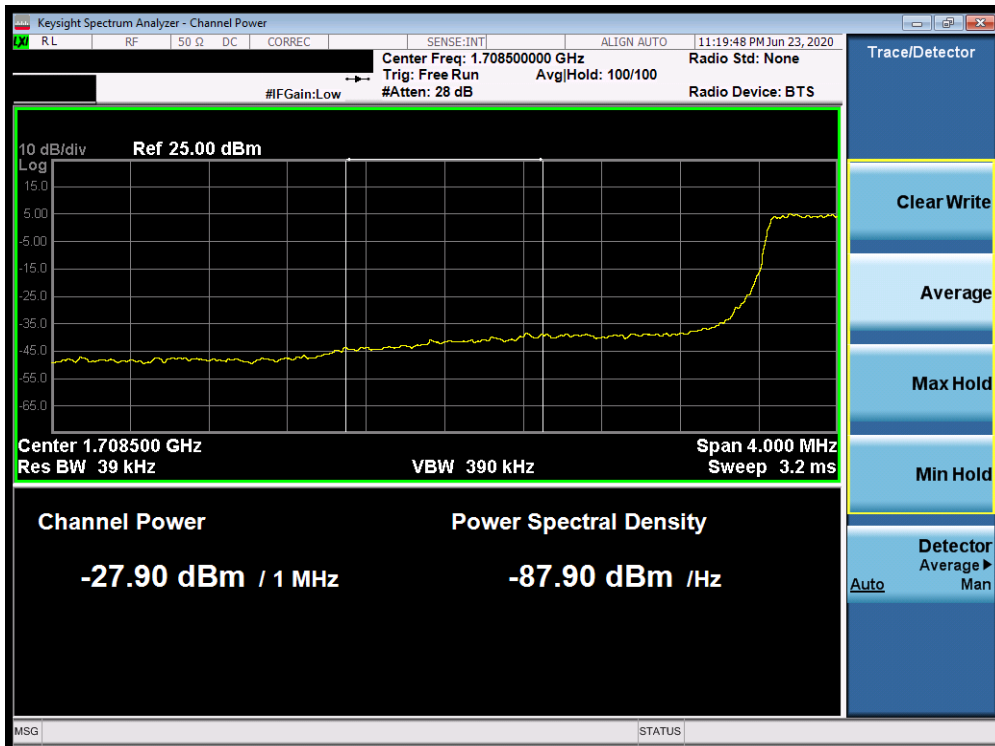


Plot 7-431. Upper Extended Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 243 of 466



Plot 7-432. Lower Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

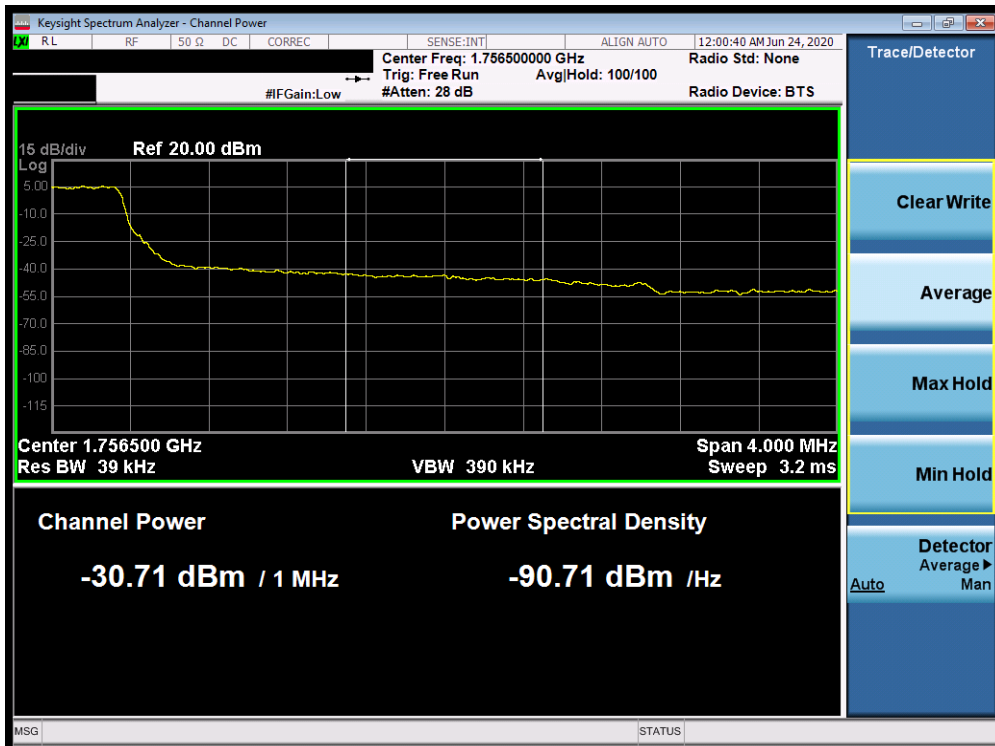


Plot 7-433. Lower Extended Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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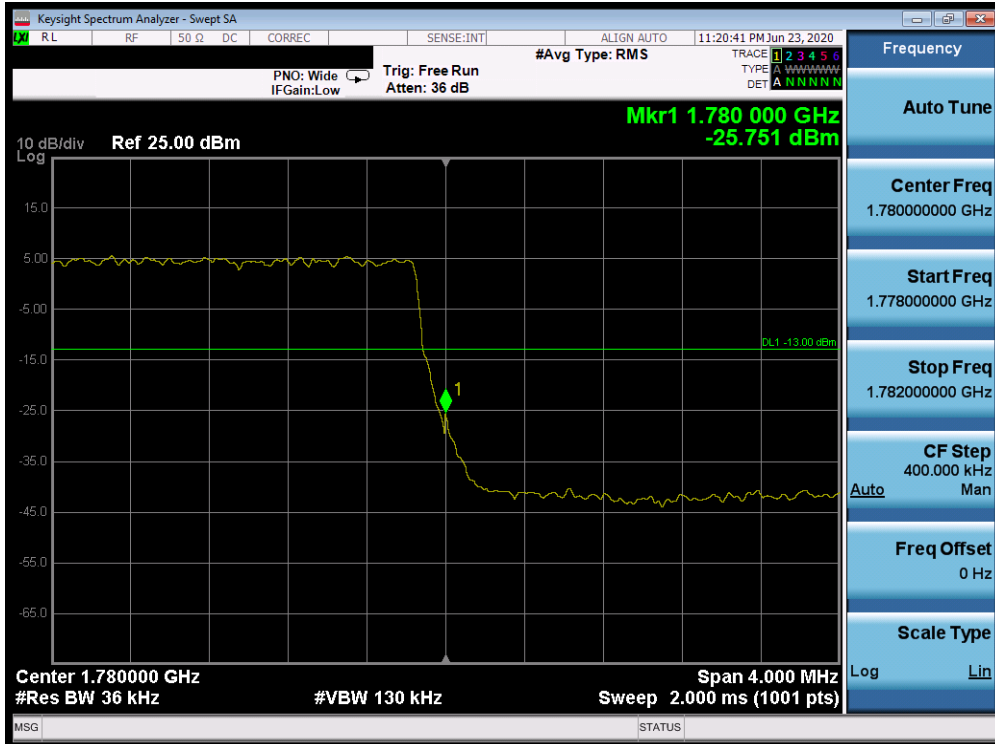


Plot 7-434. Upper Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

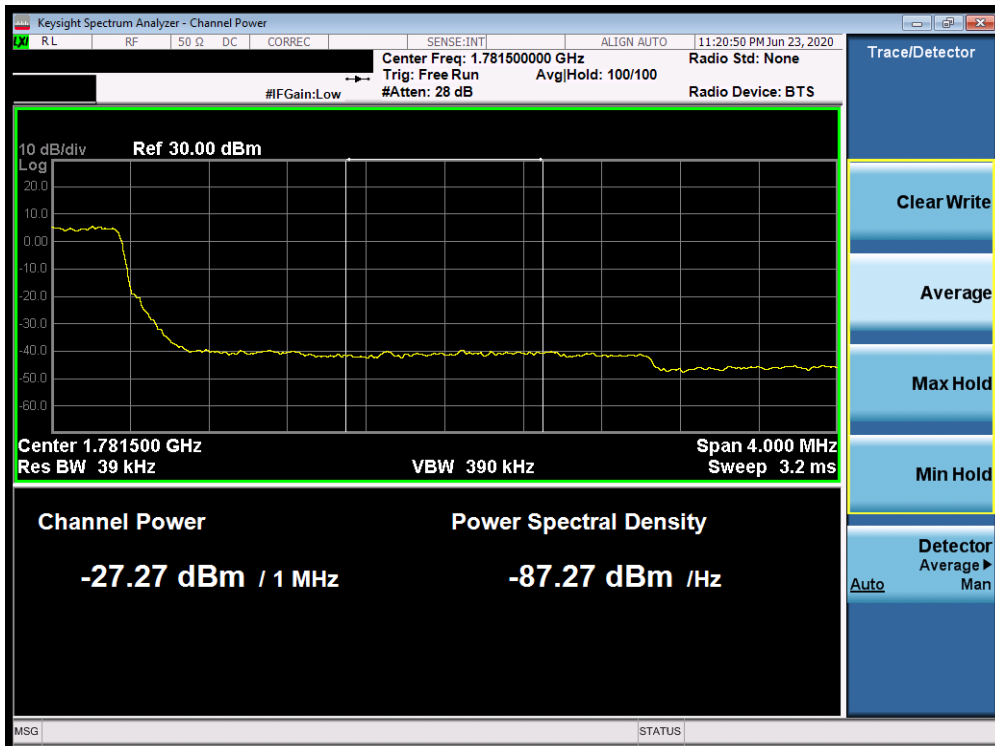


Plot 7-435. Upper Extended Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 245 of 466

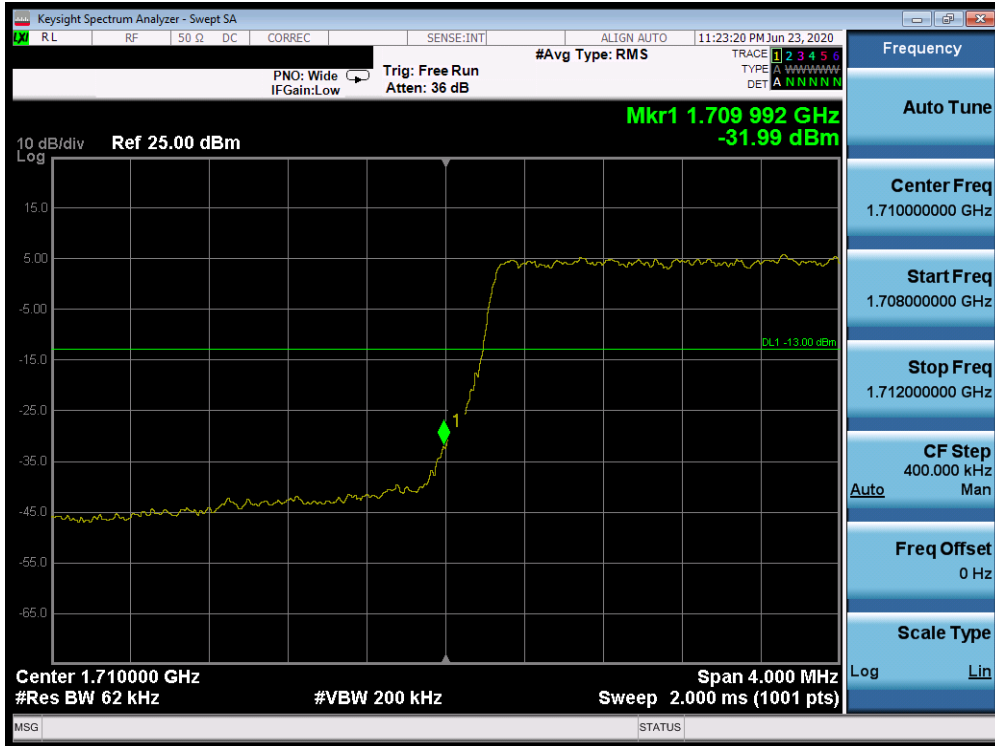


Plot 7-436. Upper Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

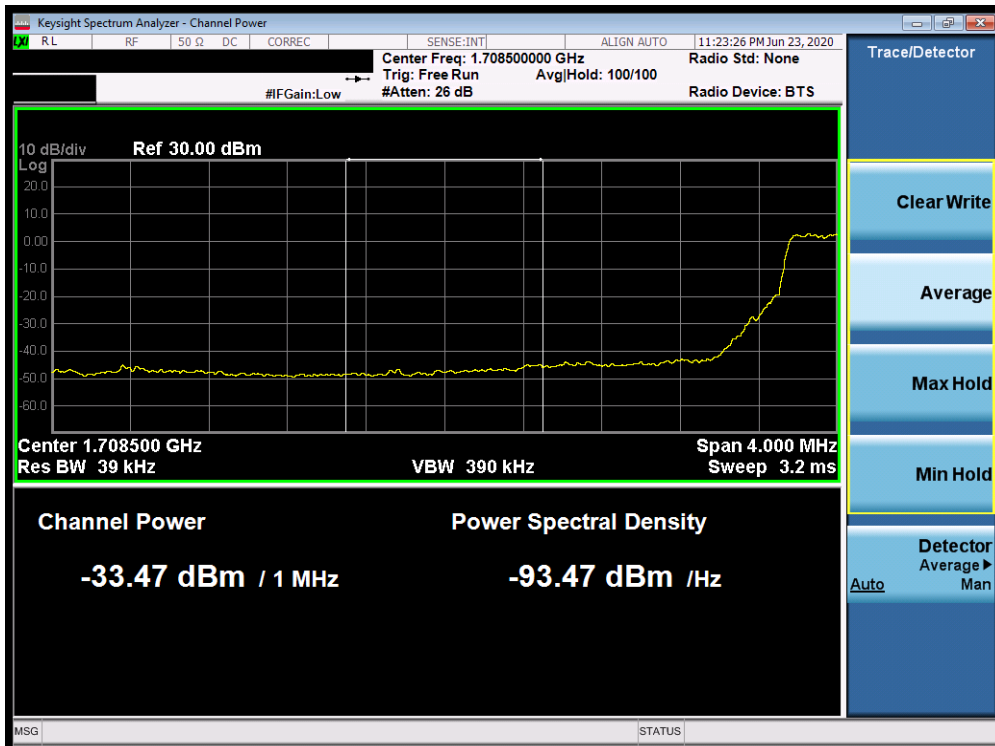


Plot 7-437. Upper Extended Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 246 of 466

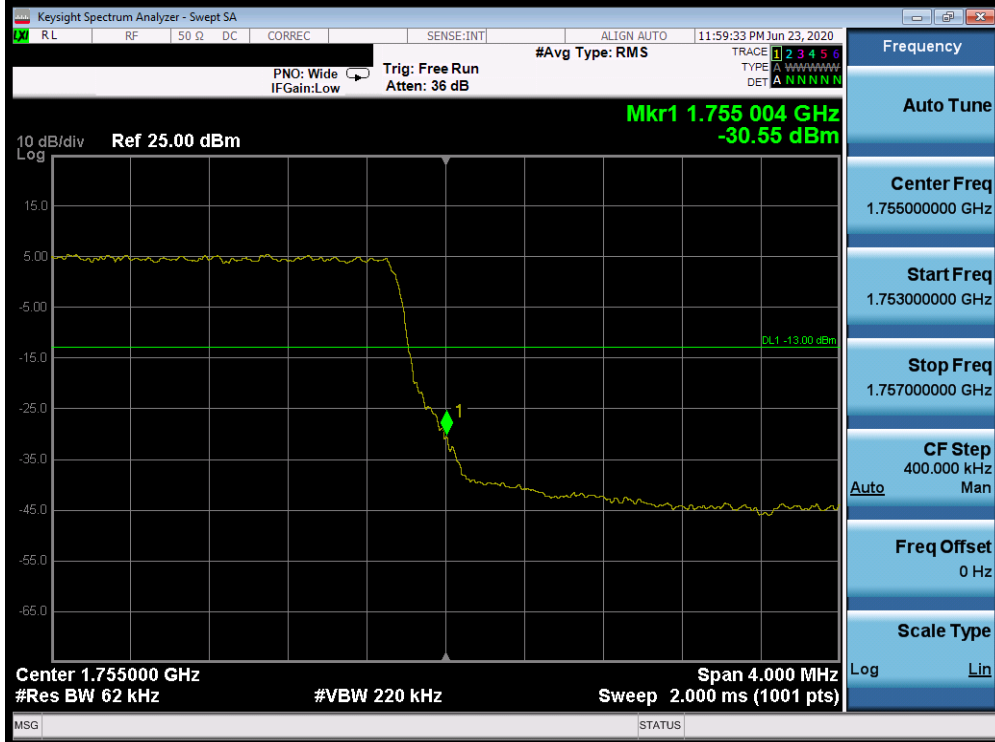


Plot 7-438. Lower Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

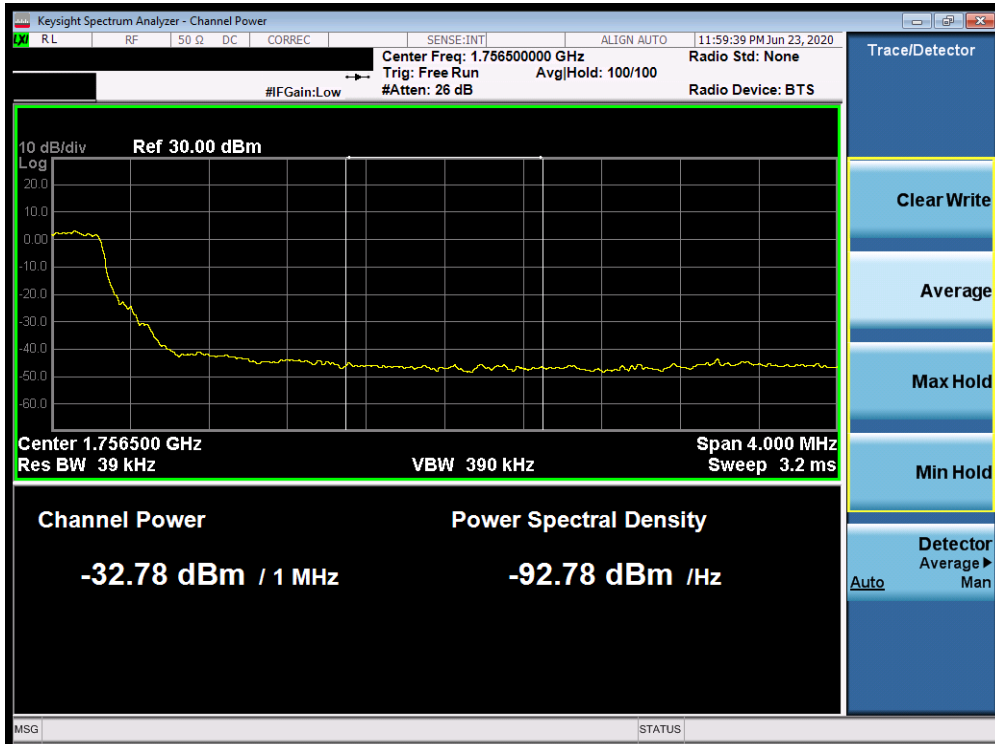


Plot 7-439. Lower Extended Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 247 of 466

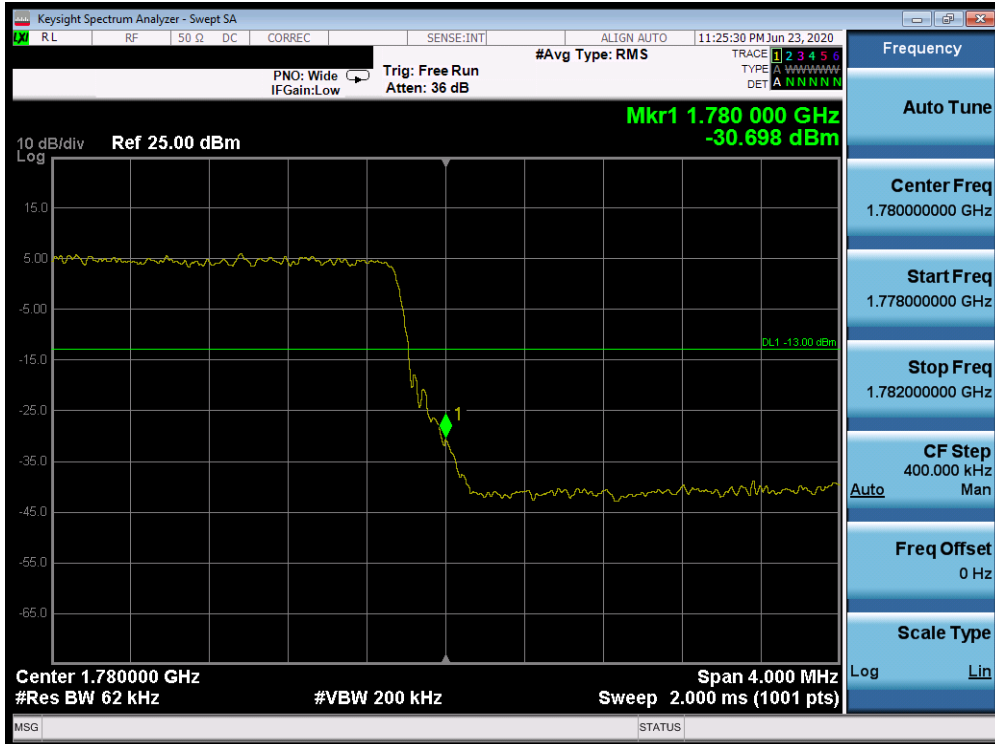


Plot 7-440. Upper Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

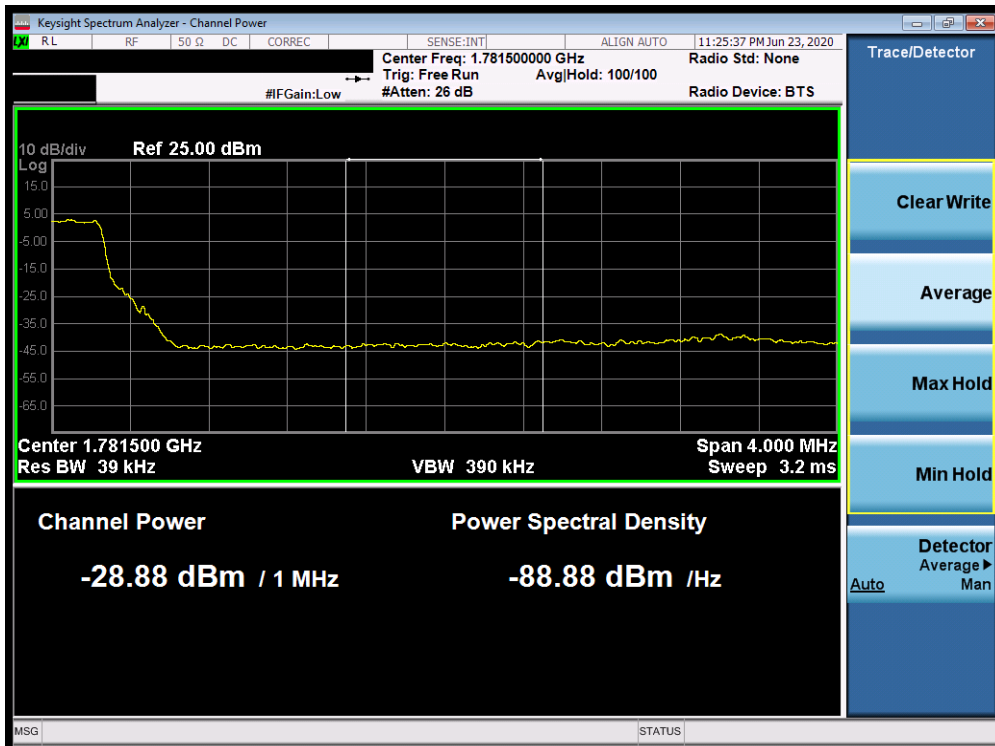


Plot 7-441. Upper Extended Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 248 of 466

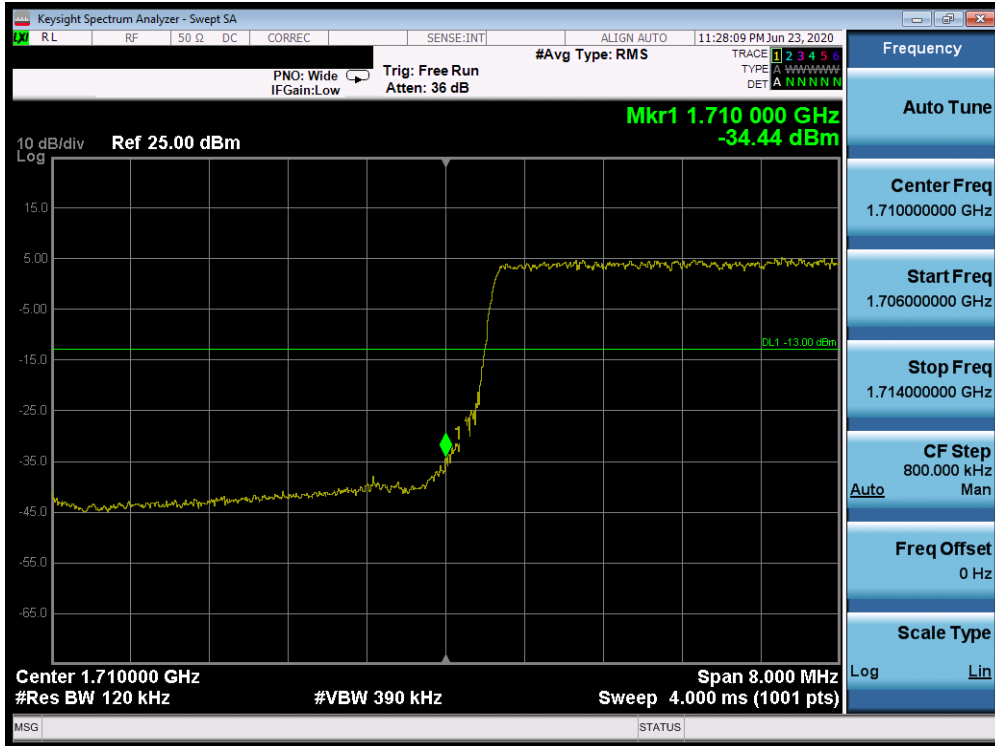


Plot 7-442. Upper Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

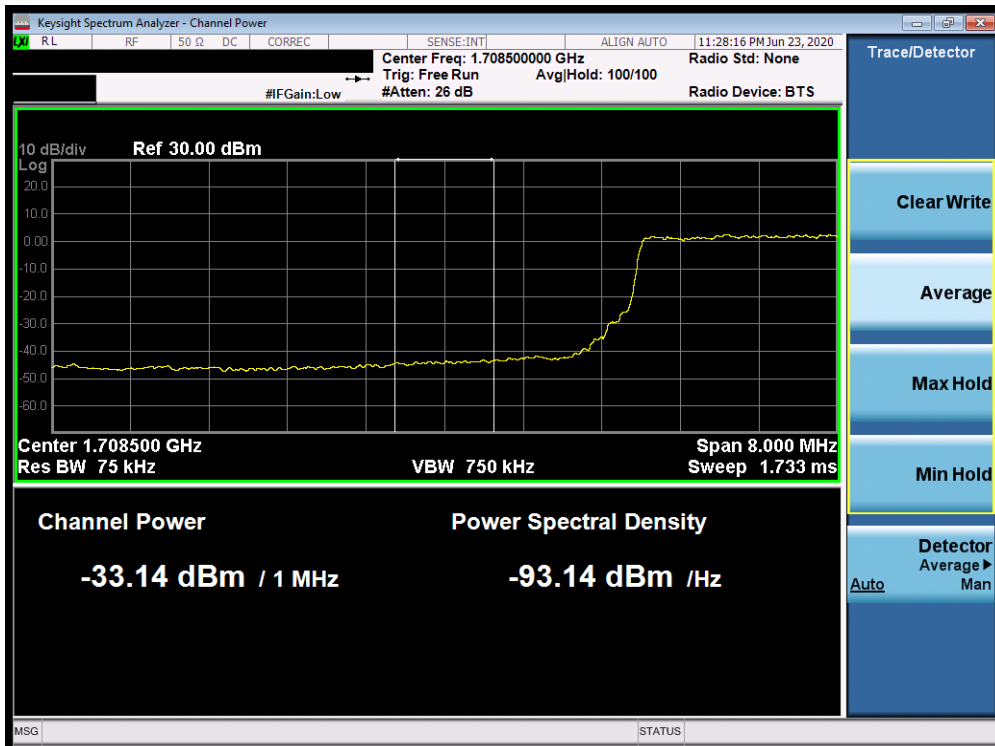


Plot 7-443. Upper Extended Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 249 of 466



Plot 7-444. Lower Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-445. Lower Extended Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMF916U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2005200087-03.A3L	Test Dates: 6/11 - 8/19/2020	EUT Type: Portable Handset		Page 250 of 466