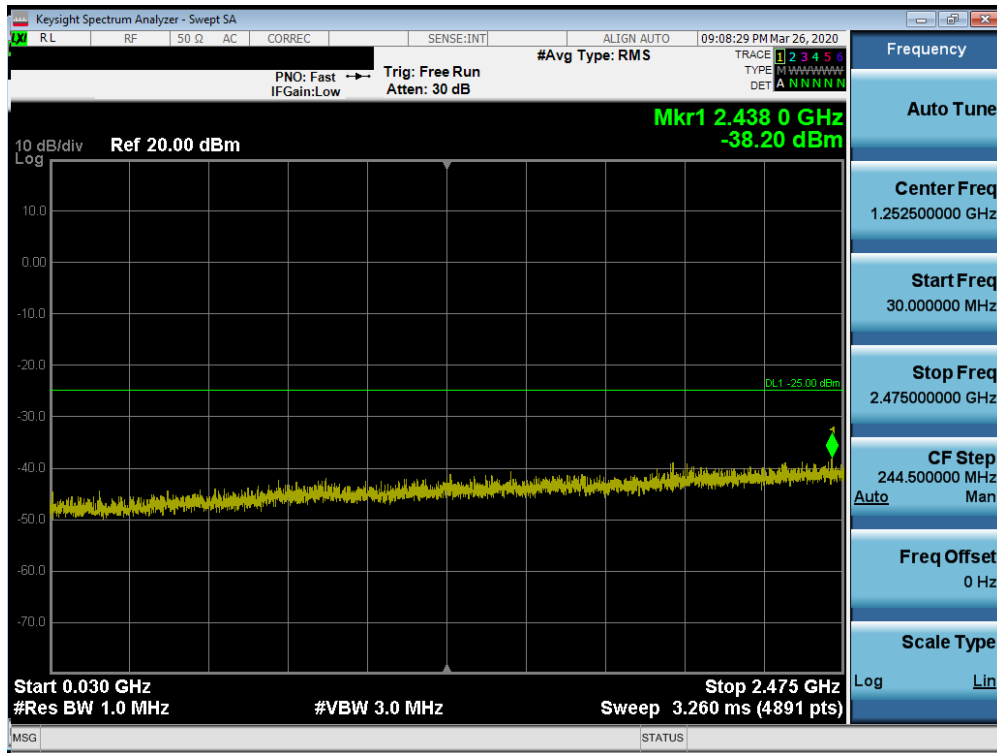
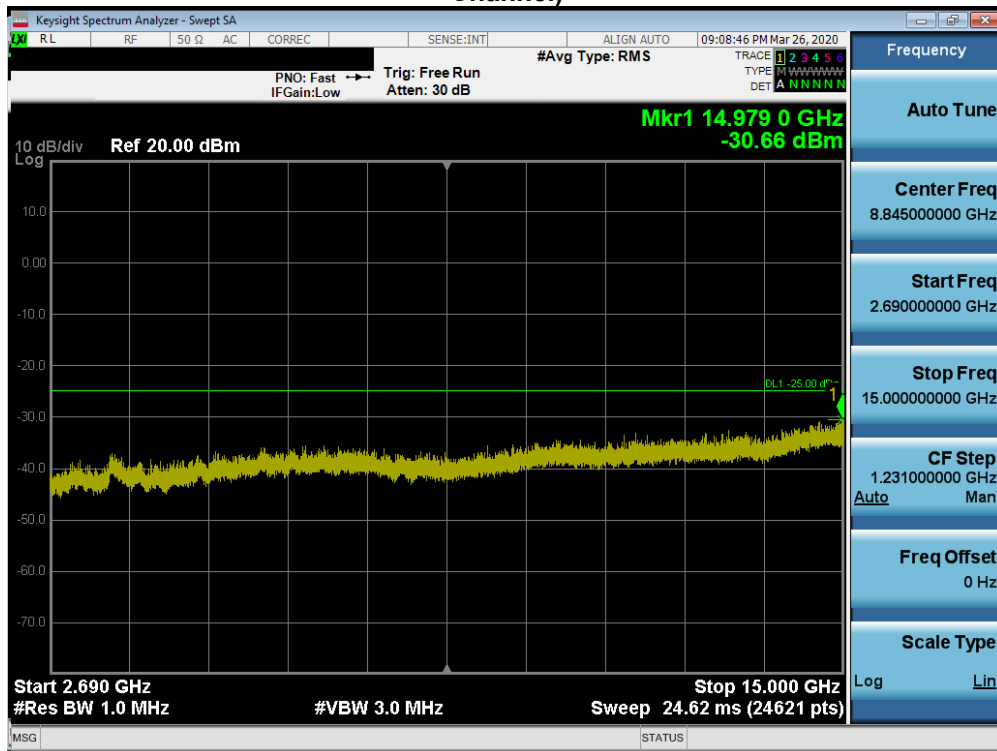




Band 41 PC2

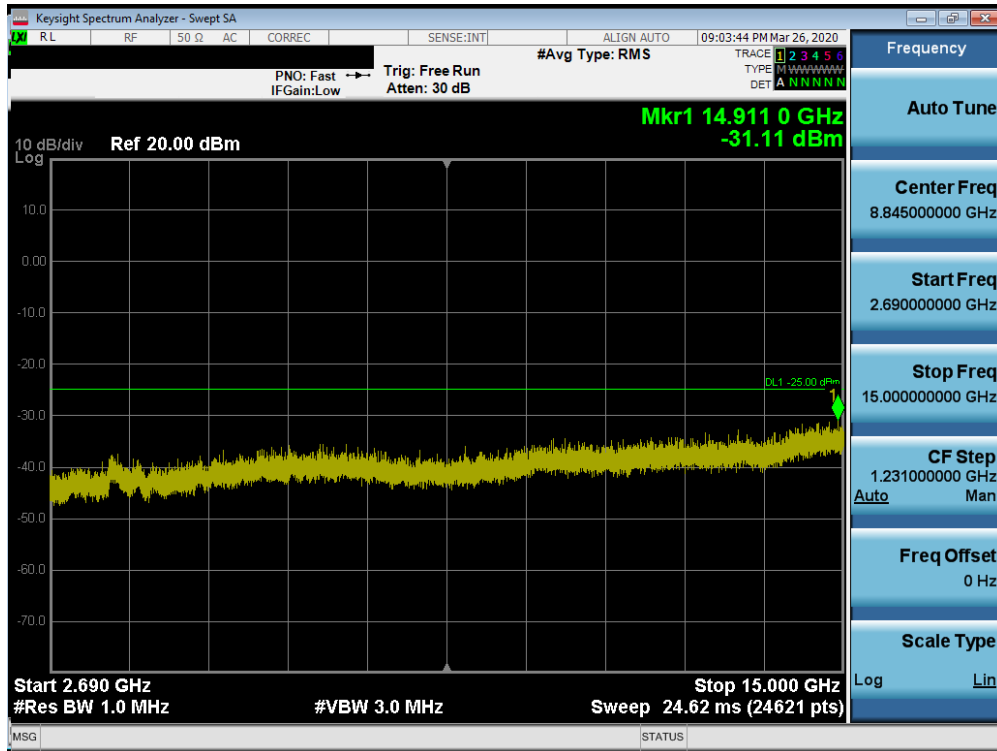


Plot 7-344. Conducted Spurious Plot (Band 41 PC2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

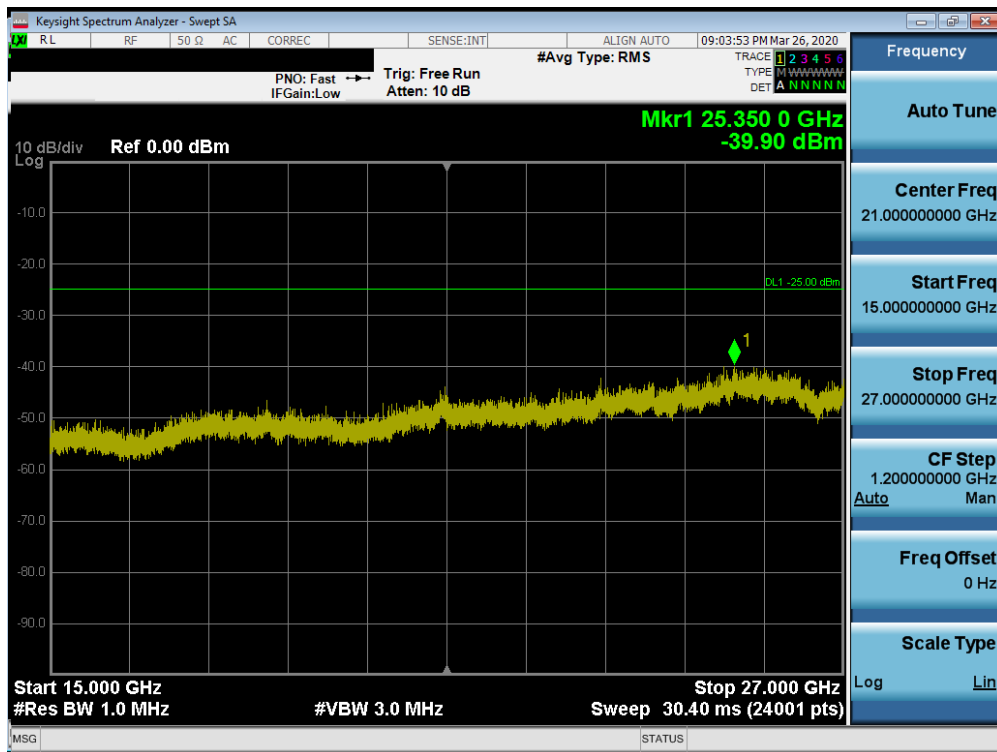


Plot 7-345. Conducted Spurious Plot (Band 41 PC2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 198 of 420

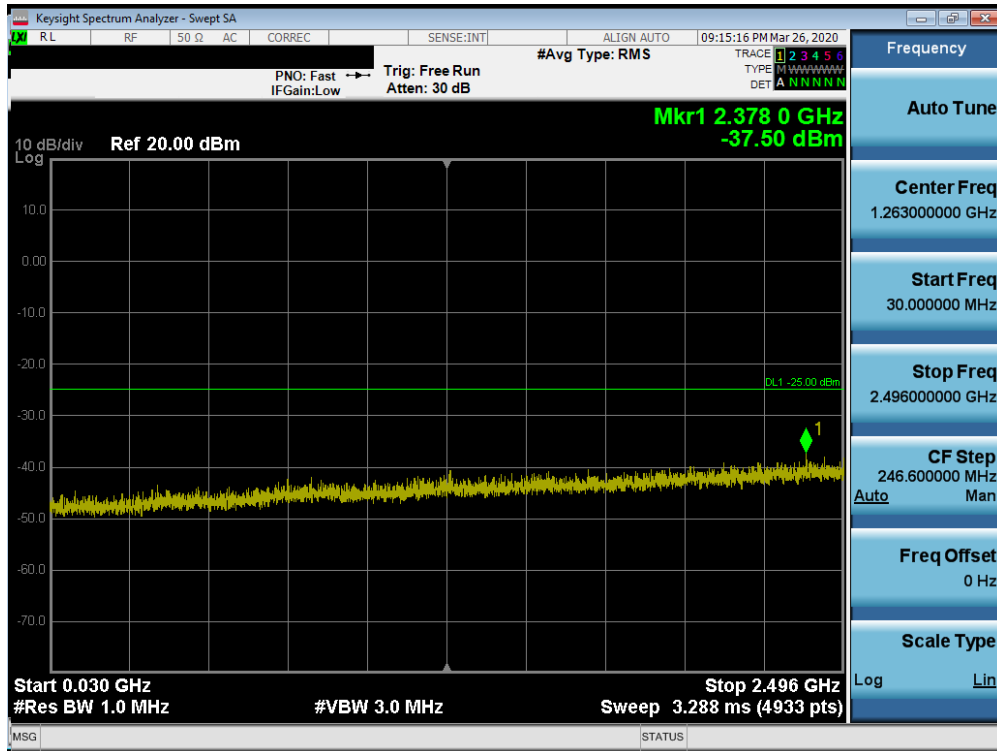


Plot 7-348. Conducted Spurious Plot (Band 41 PC2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

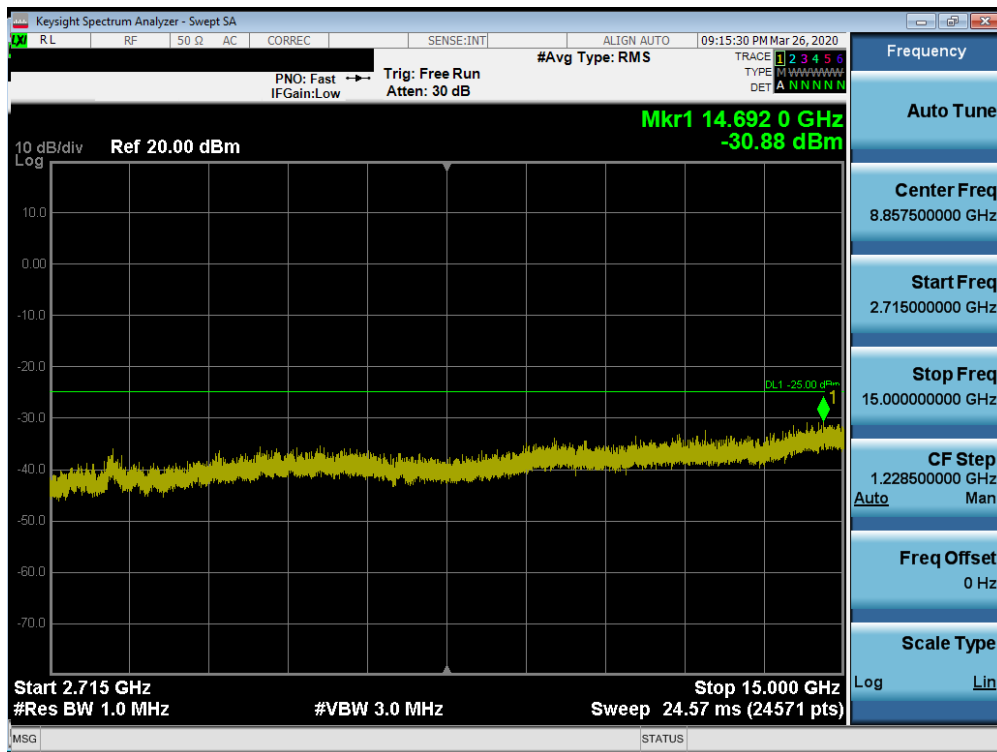


Plot 7-349. Conducted Spurious Plot (Band 41 PC2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 200 of 420

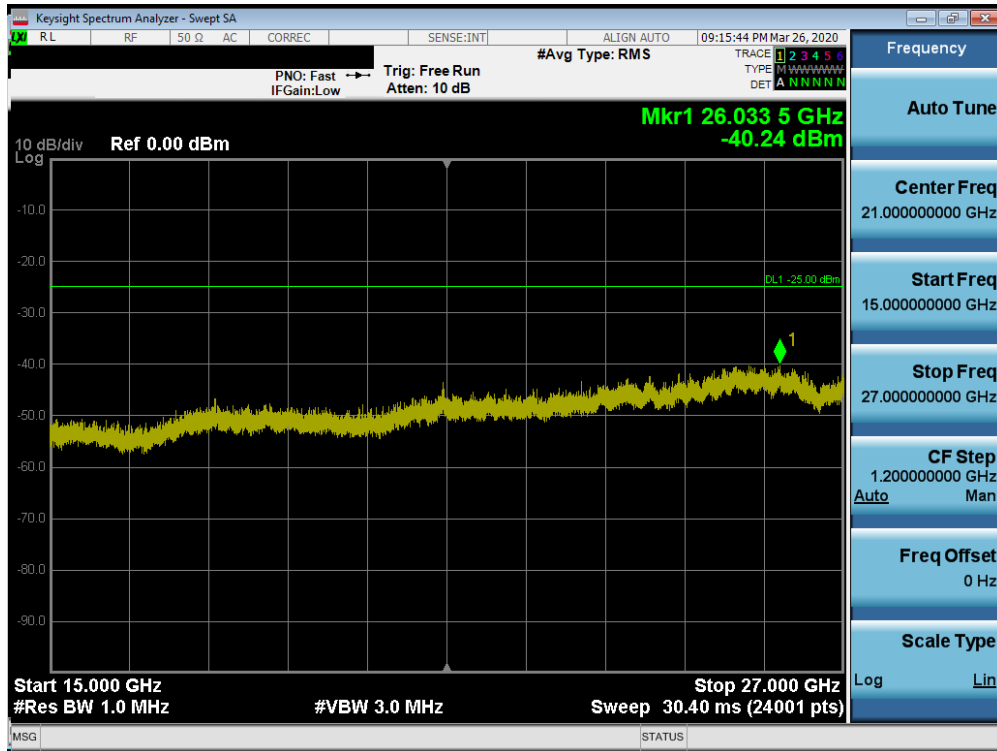


Plot 7-350. Conducted Spurious Plot (Band 41 PC2 - 20.0MHz QPSK - RB Size 1, RB Offset 99 - High Channel)



Plot 7-351. Conducted Spurious Plot (Band 41 PC2 - 20.0MHz QPSK - RB Size 1, RB Offset 99 - High Channel)

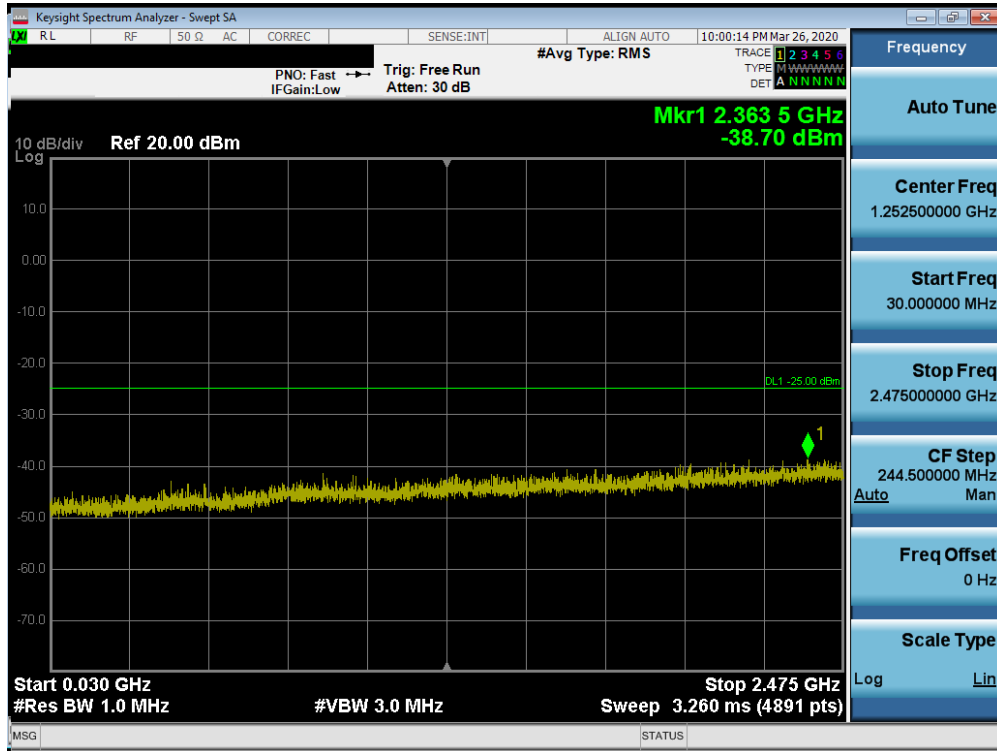
FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 201 of 420



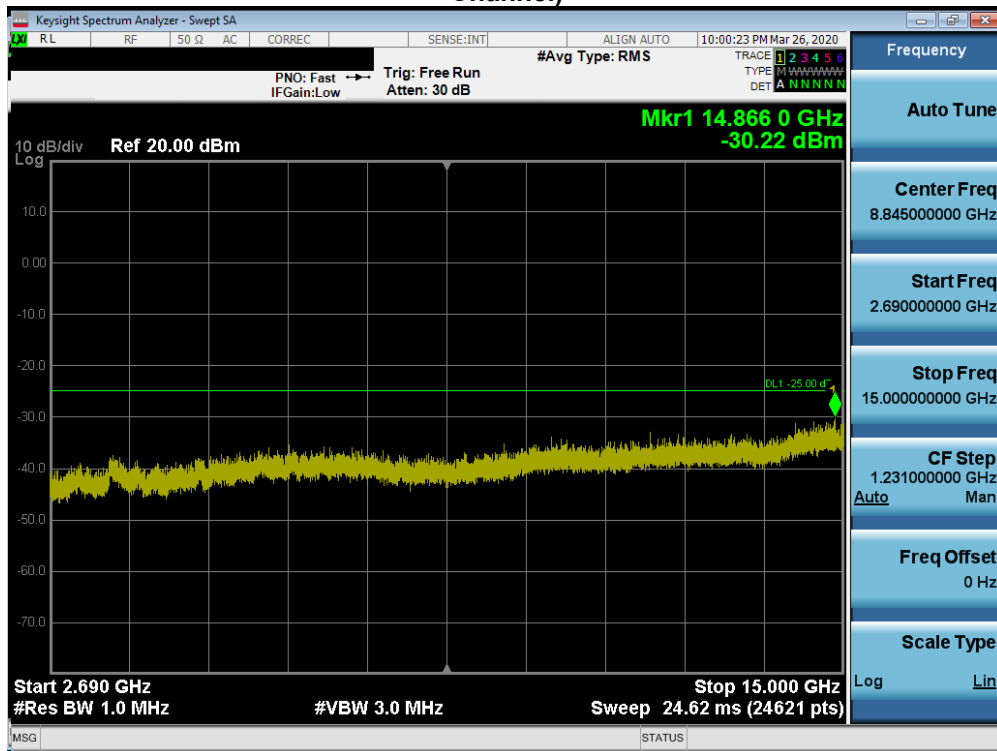
Plot 7-352. Conducted Spurious Plot (Band 41 PC2 - 20.0MHz QPSK - RB Size 1, RB Offset 99 - High Channel)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 202 of 420

Band 41 PC3

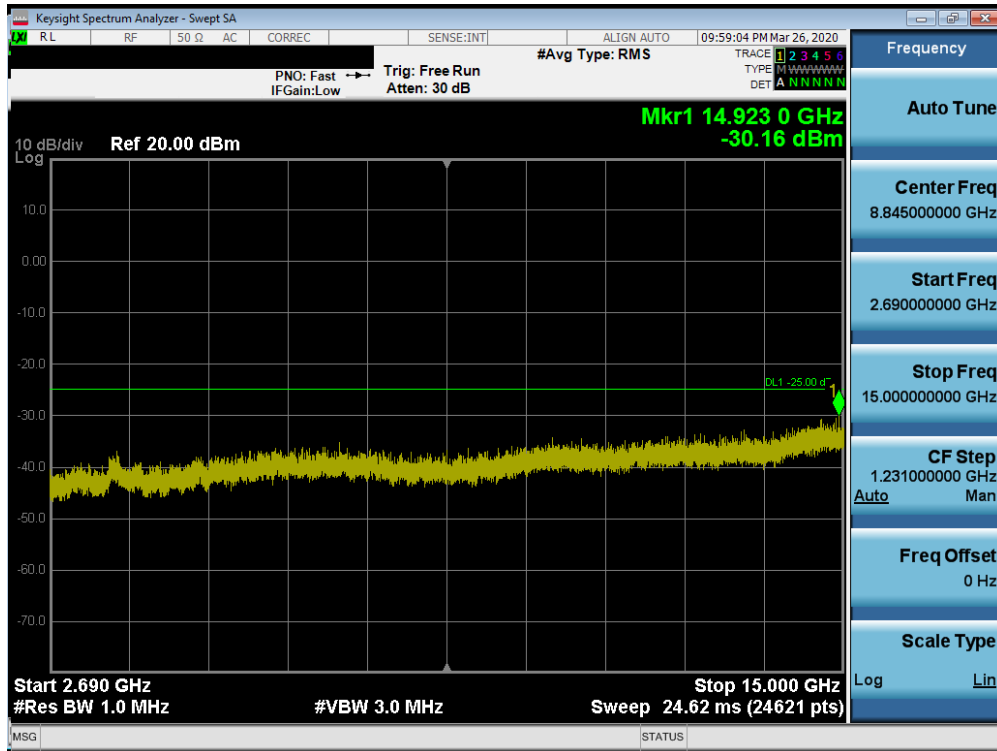


Plot 7-353. Conducted Spurious Plot (Band 41 PC3 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

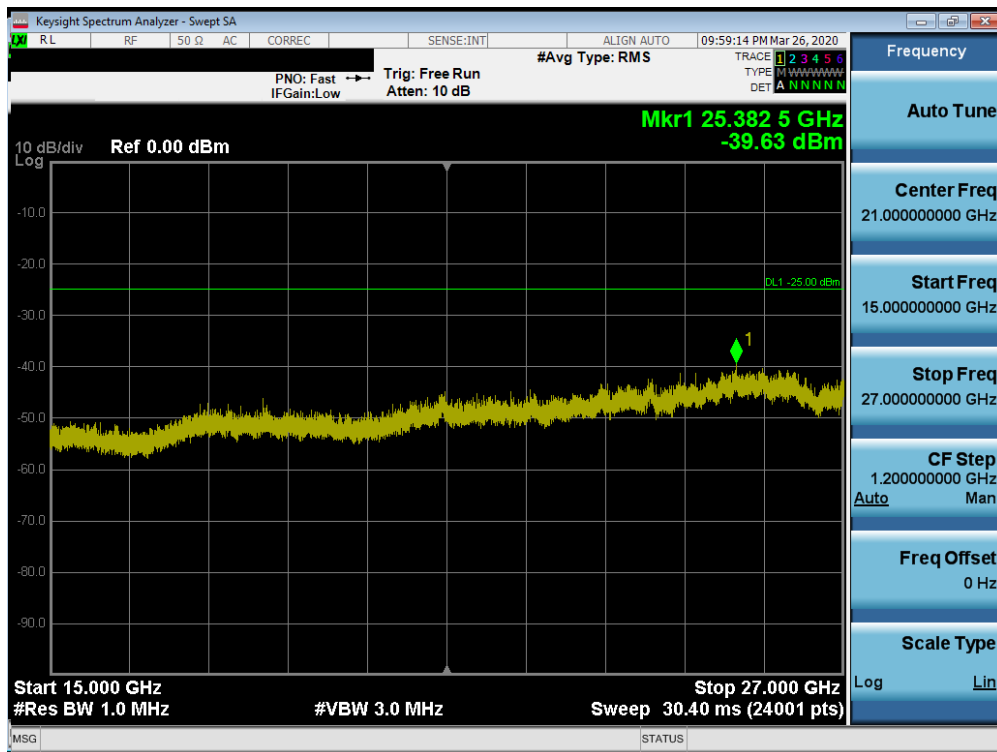


Plot 7-354. Conducted Spurious Plot (Band 41 PC3 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 203 of 420

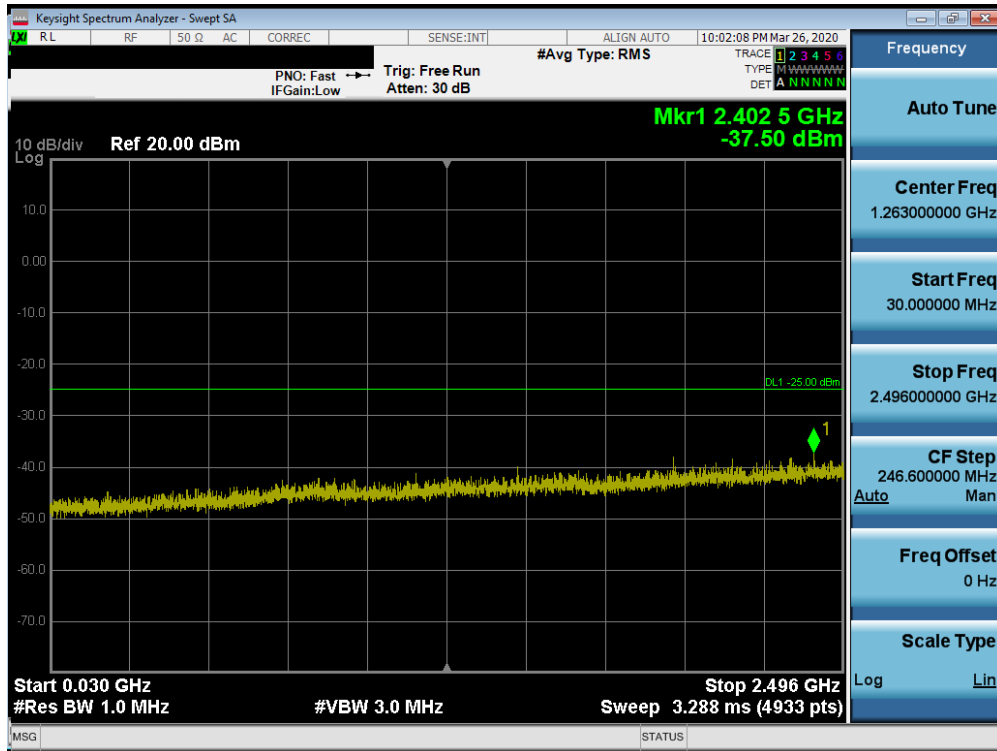


Plot 7-357. Conducted Spurious Plot (Band 41 PC3 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

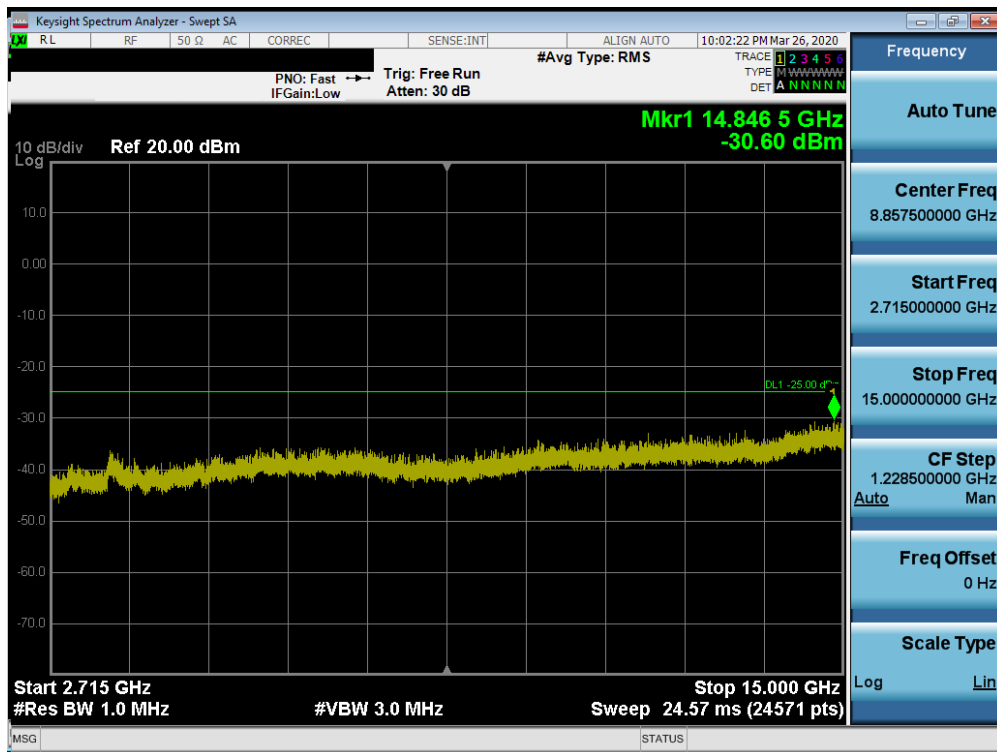


Plot 7-358. Conducted Spurious Plot (Band 41 PC3 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 205 of 420

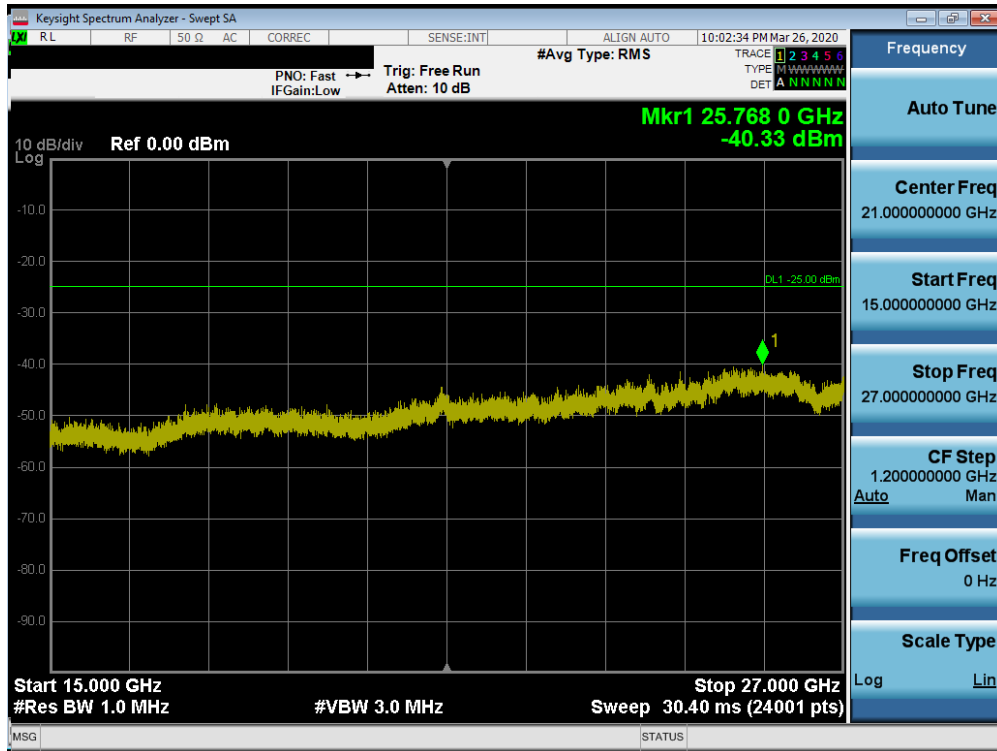


Plot 7-359. Conducted Spurious Plot (Band 41 PC3 - 20.0MHz QPSK - RB Size 1, RB Offset 99 - High Channel)



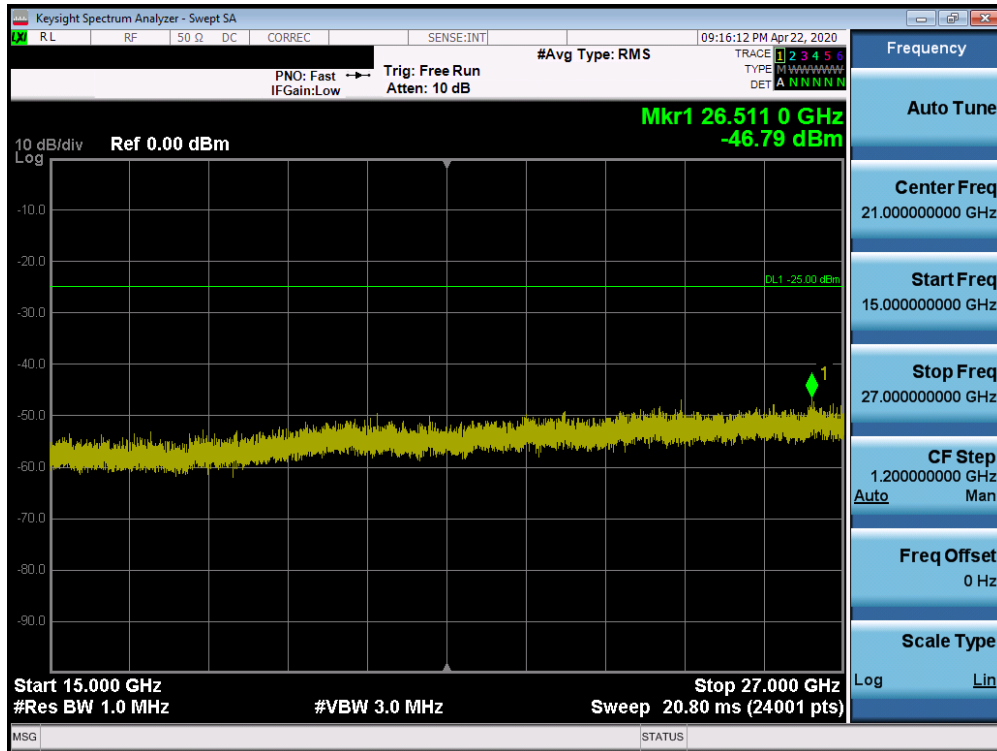
Plot 7-360. Conducted Spurious Plot (Band 41 PC3 - 20.0MHz QPSK - RB Size 1, RB Offset 99 - High Channel)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 206 of 420

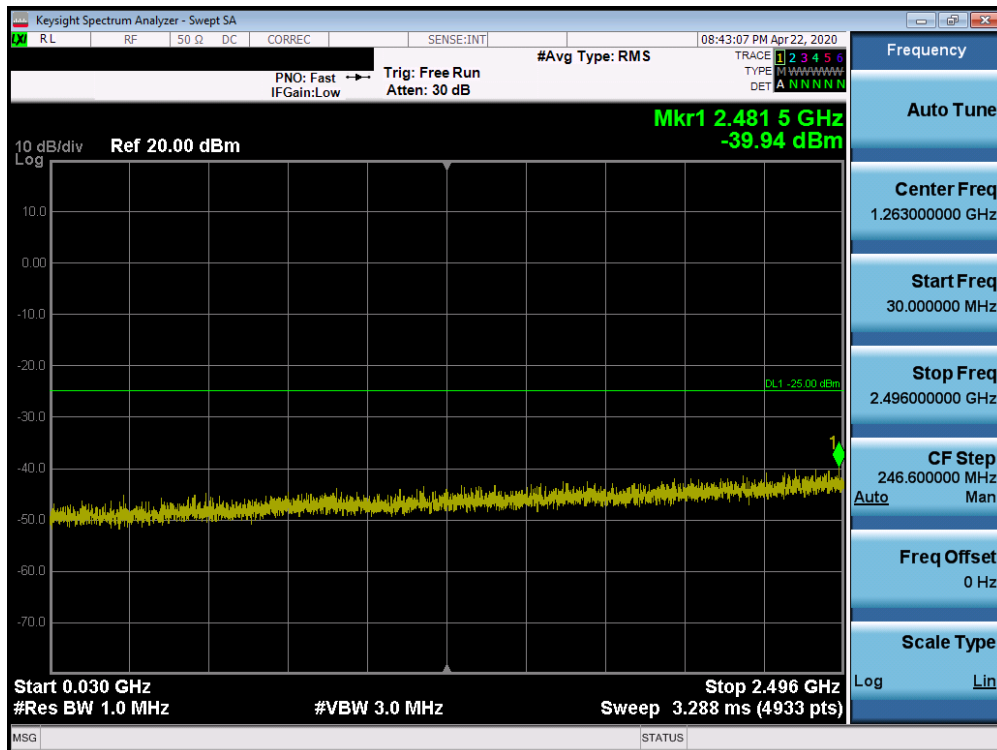


Plot 7-361. Conducted Spurious Plot (Band 41 PC3 - 20.0MHz QPSK - RB Size 1, RB Offset 99 - High Channel)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 207 of 420

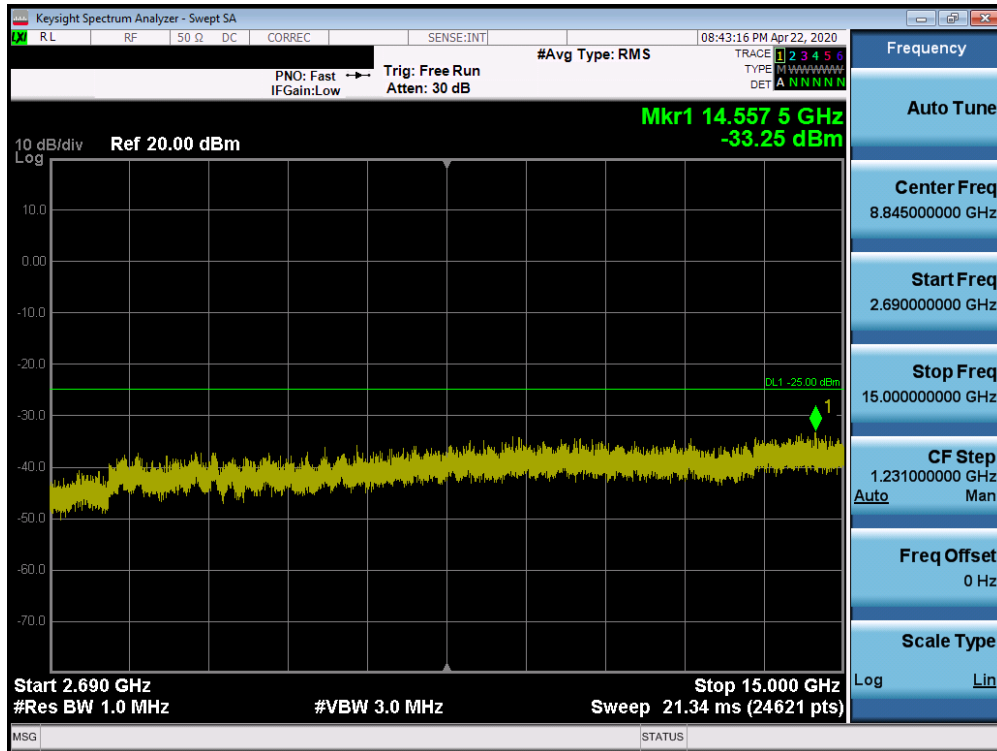


Plot 7-364. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - Low Channel)

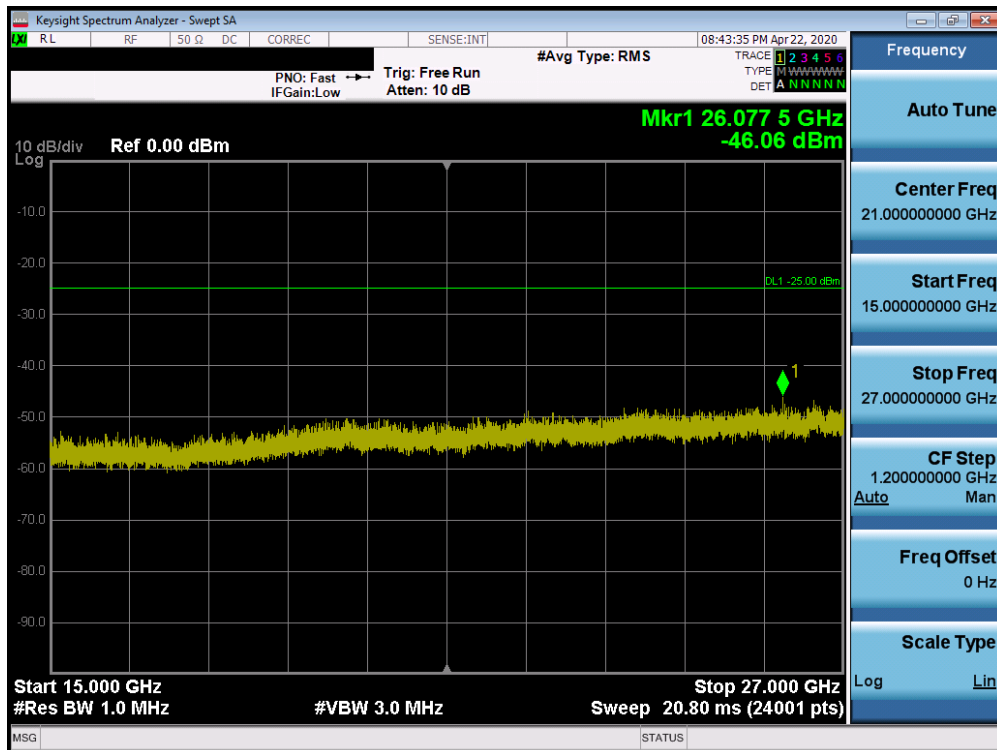


Plot 7-365. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - Mid Channel)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 209 of 420

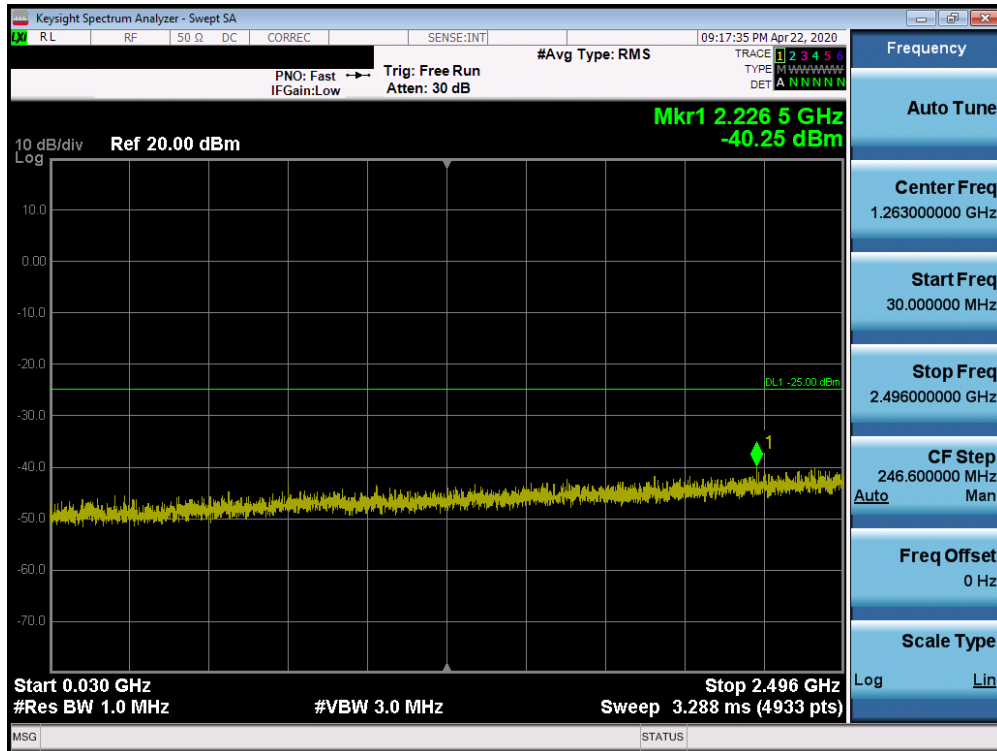


Plot 7-366. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - Mid Channel)

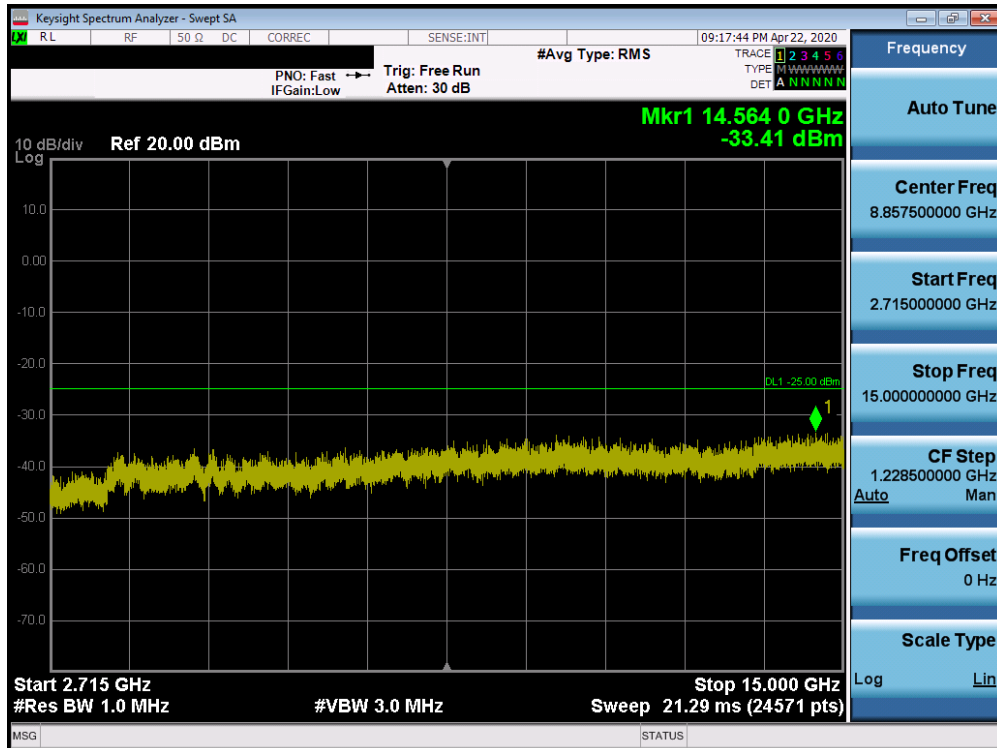


Plot 7-367. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - Mid Channel)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 210 of 420

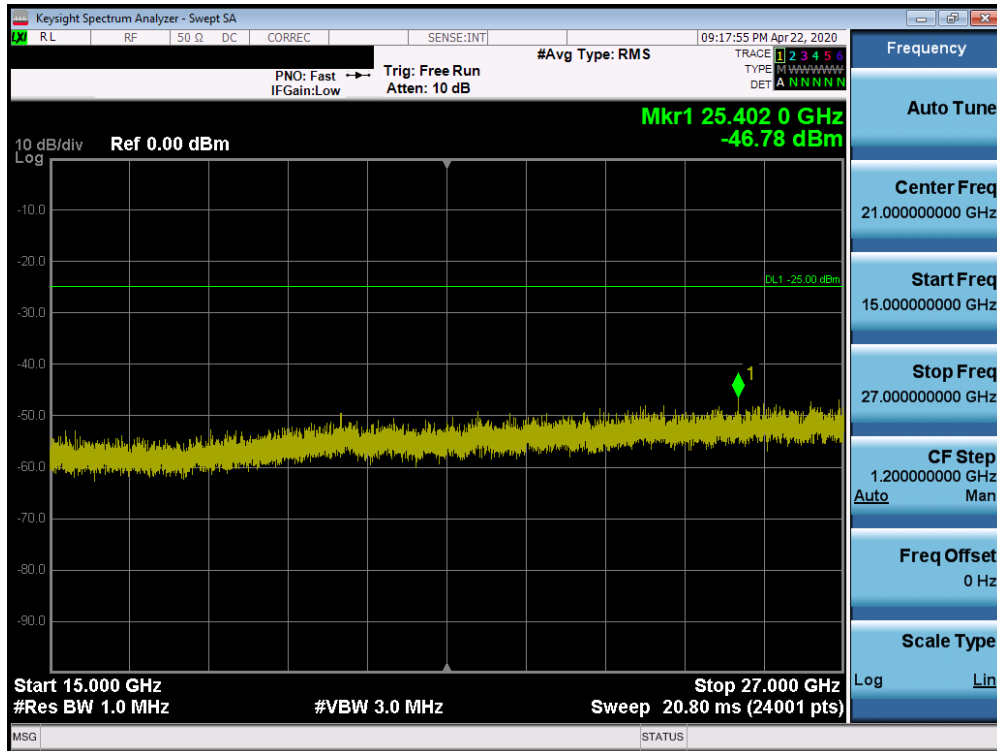


Plot 7-368. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - High Channel)



Plot 7-369. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - High Channel)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 211 of 420



Plot 7-370. Conducted Spurious Plot (n41 - 100MHz DFT-s-OFDM-QPSK - RB Size 1, RB Offset 1 - High Channel)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 212 of 420

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.

The minimum permissible attenuation level for Band 30 is $> 43 + 10 \log_{10}(P_{[Watts]})$ at 2300-2305MHz & 2345-2360MHz, $> 55 + 10 \log_{10}(P_{[Watts]})$ at 2320-2324MHz & 2341-2345MHz, $> 61 + 10 \log_{10}(P_{[Watts]})$ at 2324-2328MHz & 2337-2341MHz, $> 67 + 10 \log_{10}(P_{[Watts]})$ at 2288-2292MHz & 2328-2337MHz, and $> 70 + 10 \log_{10}(P_{[Watts]})$ at frequencies $< 2288\text{MHz}$ & $> 2365\text{MHz}$.

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

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 for continuous emissions, max hold for pulse emissions
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Setup

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



Figure 7-3. Test Instrument & Measurement Setup

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 213 of 420

Test Notes

Per 22.917(b) 24.238(a) 27.53(h) in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.

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

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

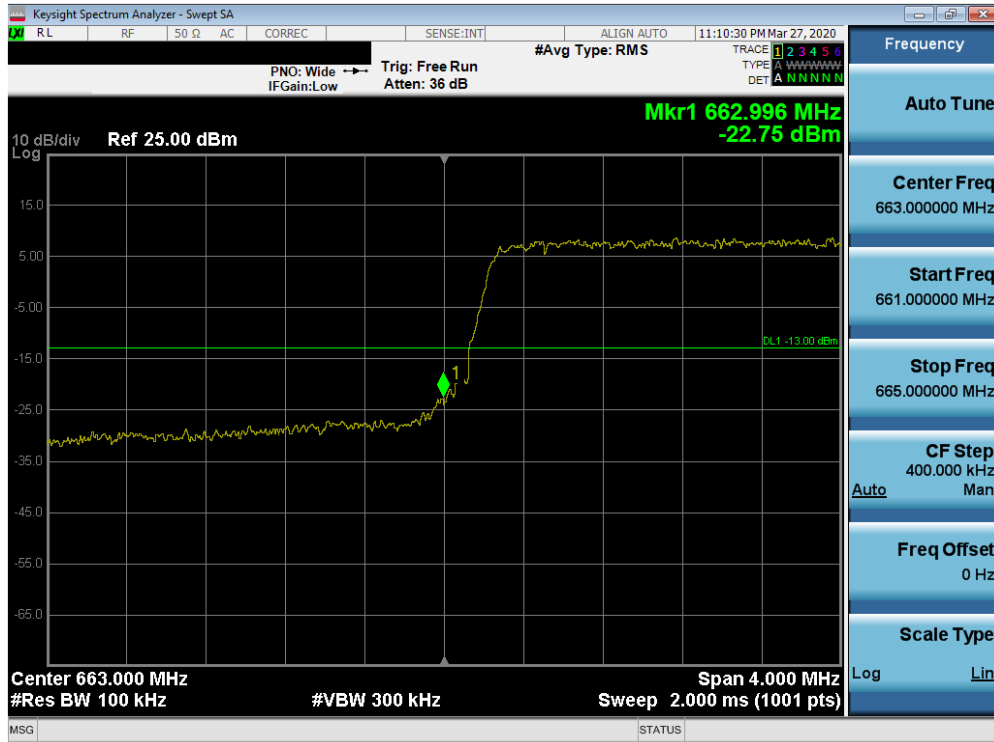
For all plots showing emissions in the 763 – 775MHz and 793 – 805MHz band, the FCC limit per 27.53(c)(4) is $65 + 10 \log_{10}(P) = -35\text{dBm}$ in a 6.25kHz bandwidth.

Per 27.53(a)(5) in the 1 MHz bands immediately outside and adjacent to the channel blocks at 2305, 2310, 2315, 2320, 2345, 2350, 2355, and 2360 MHz, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e., 1 MHz). 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 emissions are attenuated at least 26 dB below the transmitter power.

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

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset	Page 214 of 420	

Band 71

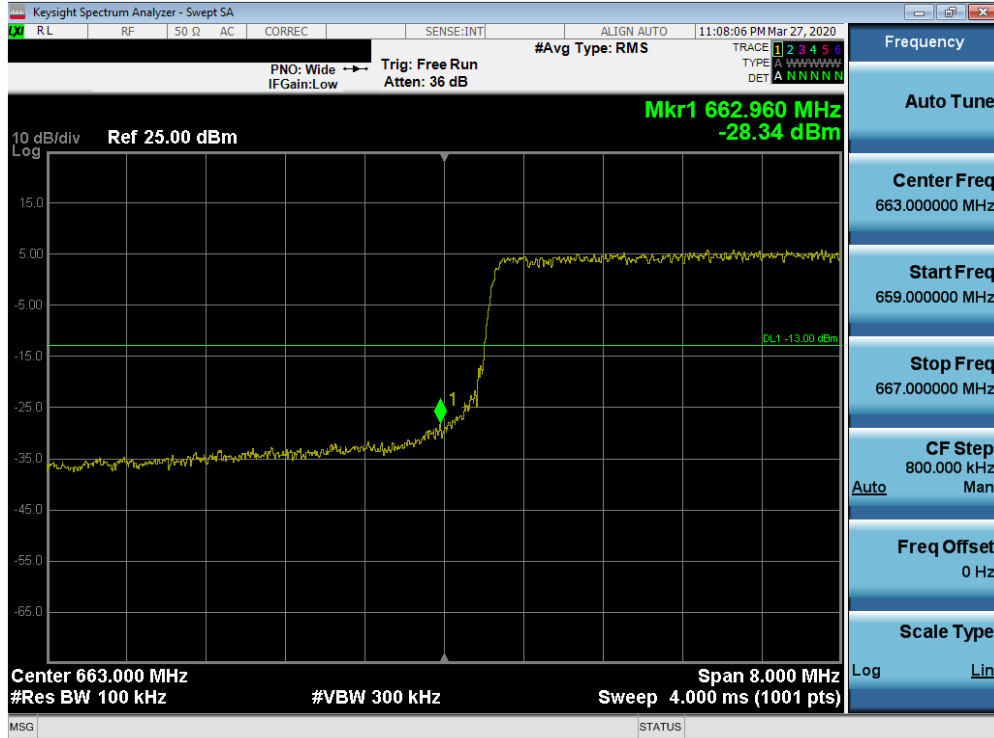


Plot 7-371. Lower Band Edge Plot (Band 71 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-372. Upper Band Edge Plot (Band 71 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 215 of 420

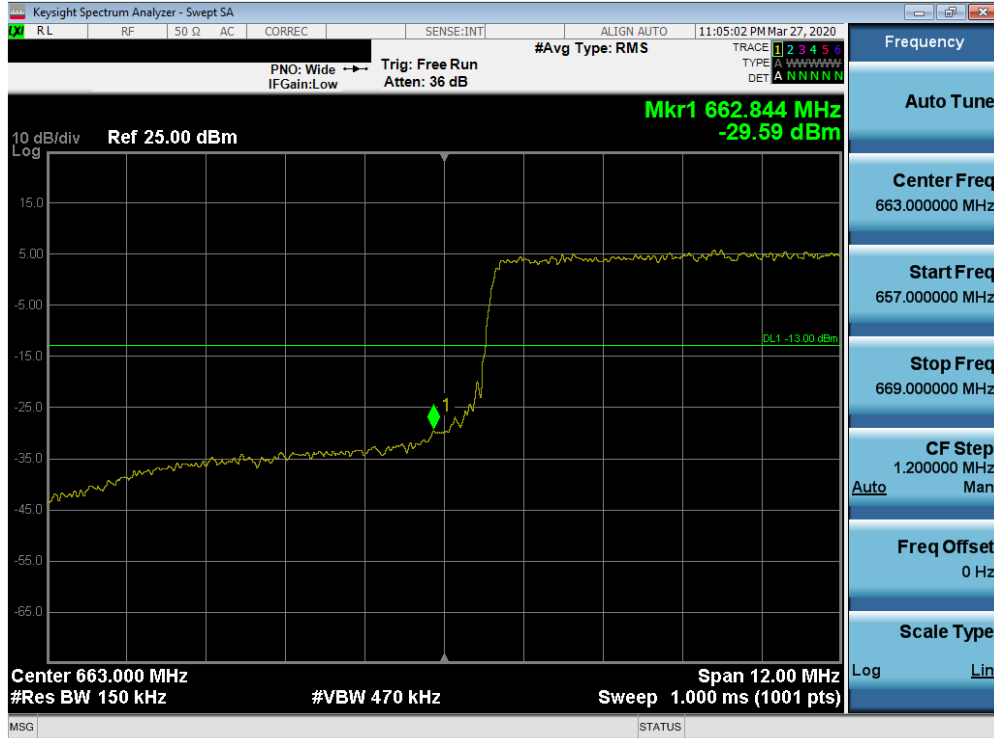


Plot 7-373. Lower Band Edge Plot (Band 71 - 10.0MHz QPSK - Full RB Configuration)

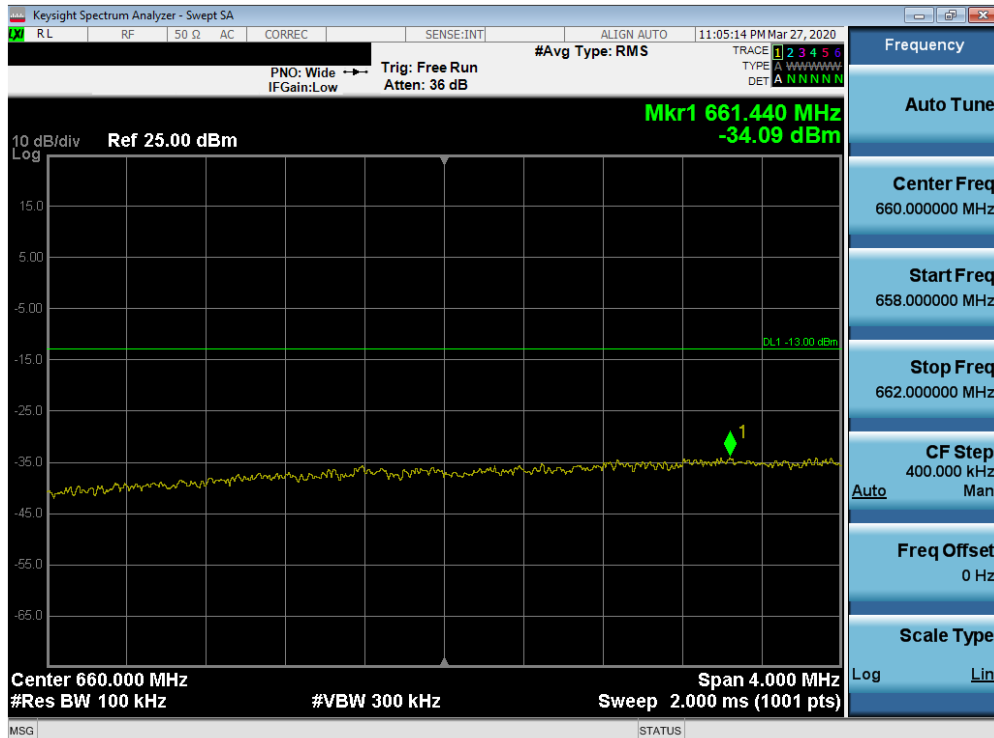


Plot 7-374. Upper Band Edge Plot (Band 71 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 216 of 420

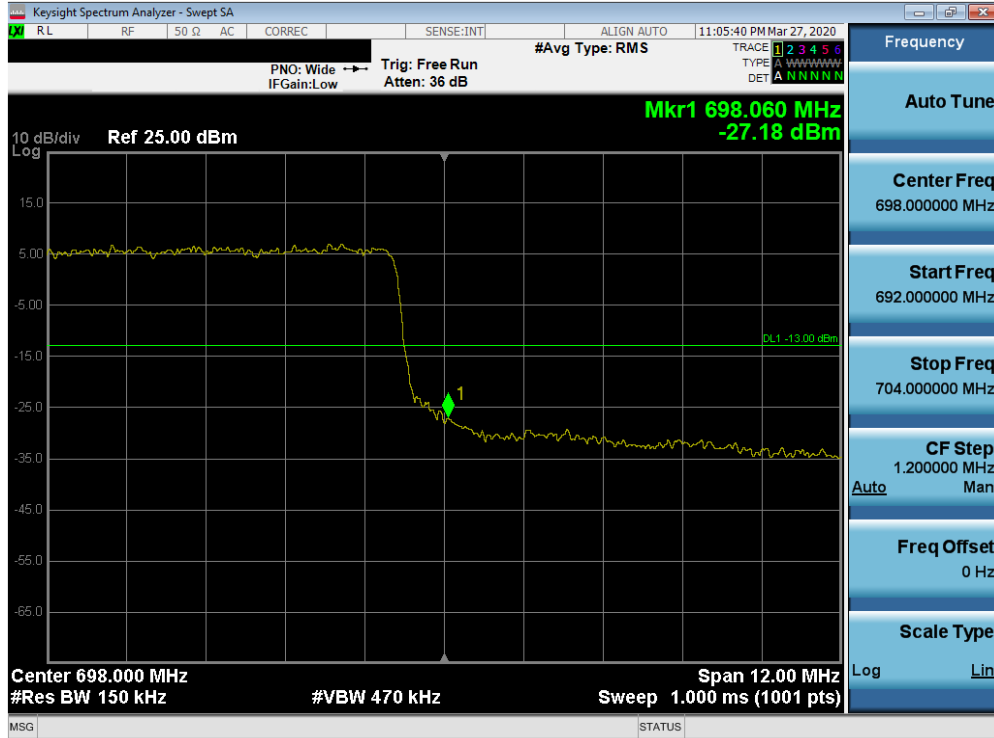


Plot 7-375. Lower Band Edge Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)

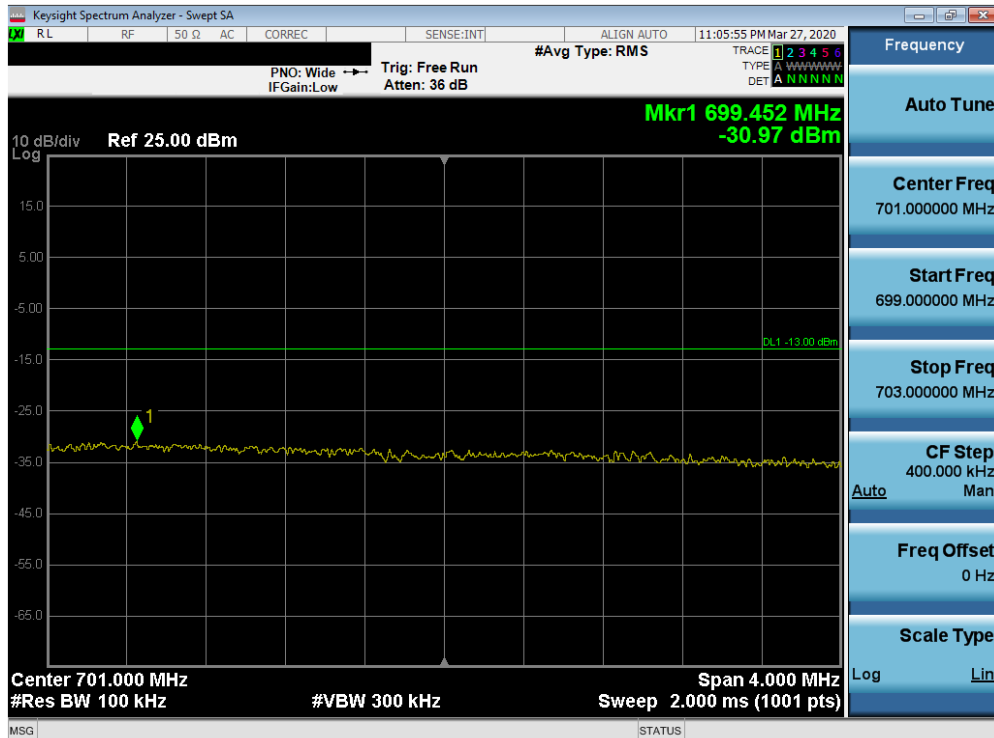


Plot 7-376. Lower Extended Band Edge Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 217 of 420

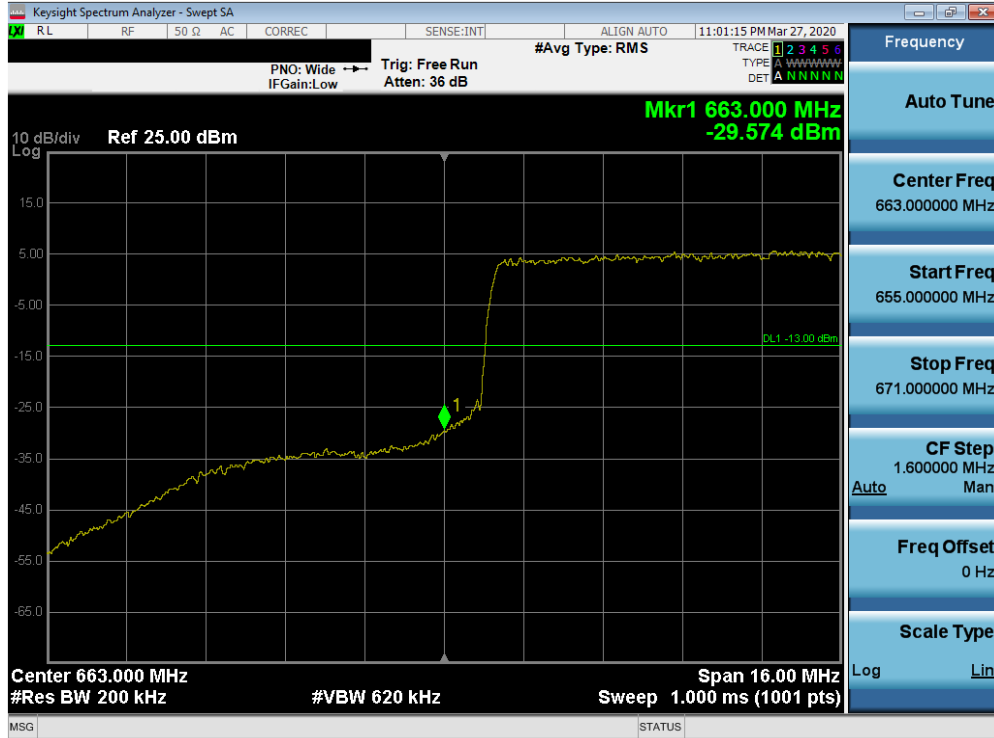


Plot 7-377. Upper Band Edge Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)

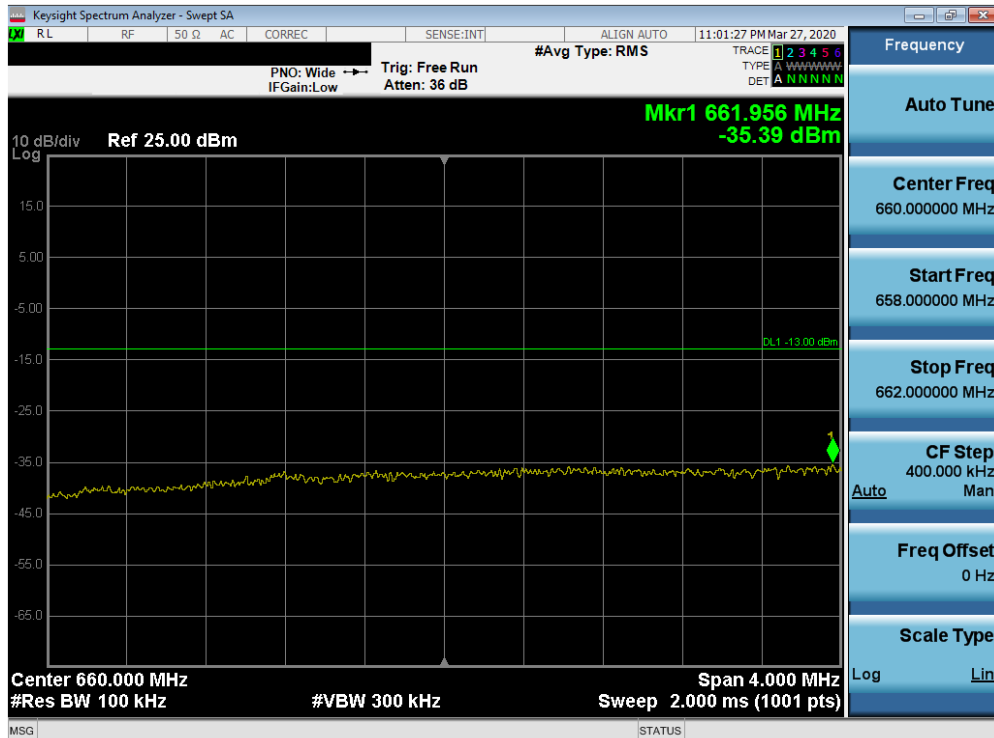


Plot 7-378. Upper Extended Band Edge Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 218 of 420

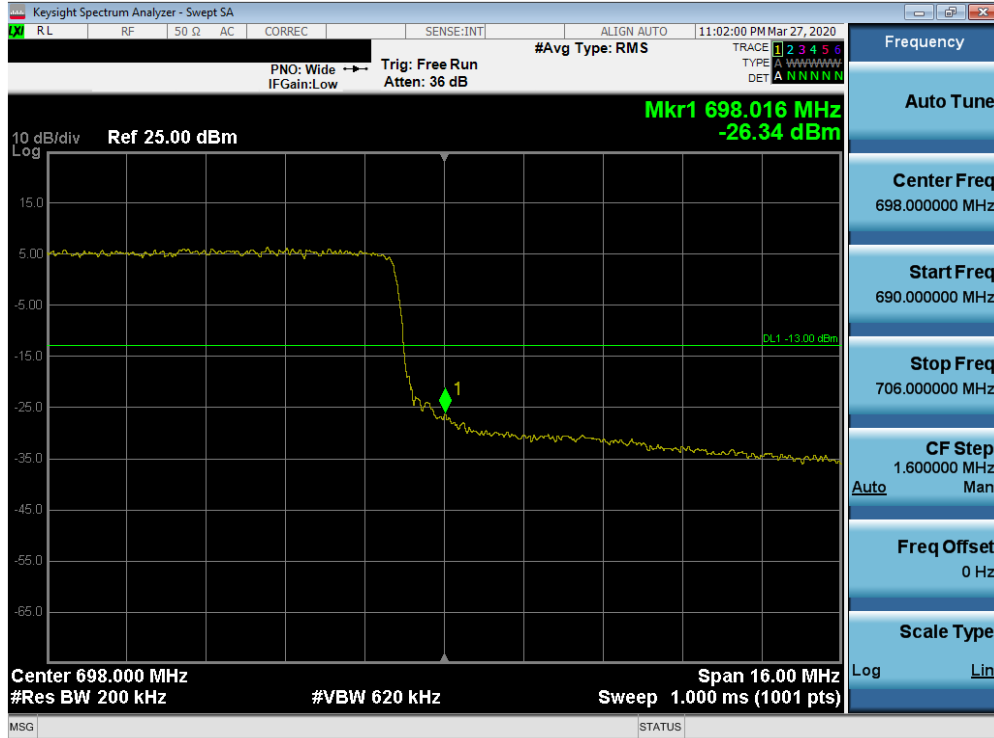


Plot 7-379. Lower Band Edge Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)

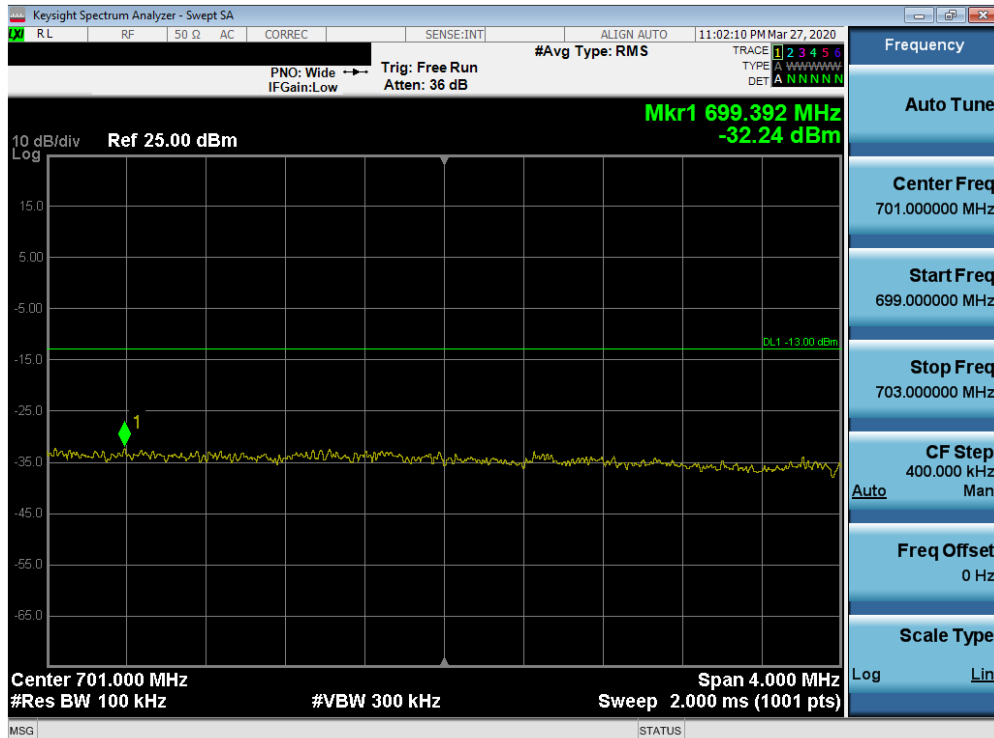


Plot 7-380. Lower Extended Band Edge Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 219 of 420



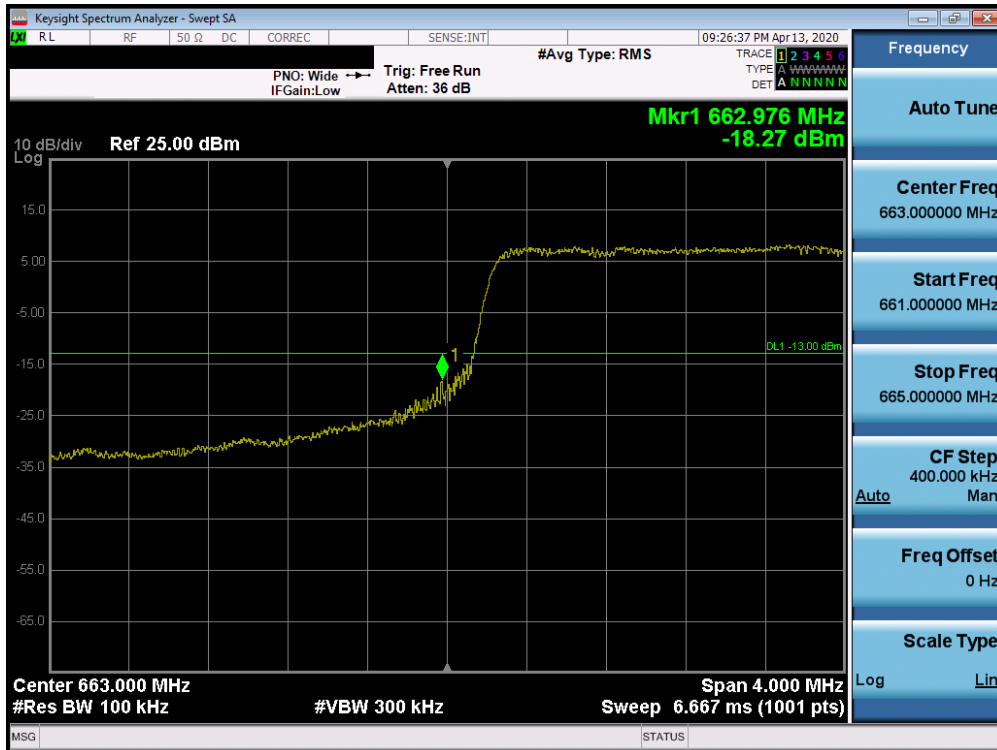
Plot 7-381. Upper Band Edge Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-382. Upper Extended Band Edge Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 220 of 420

NR Band n71

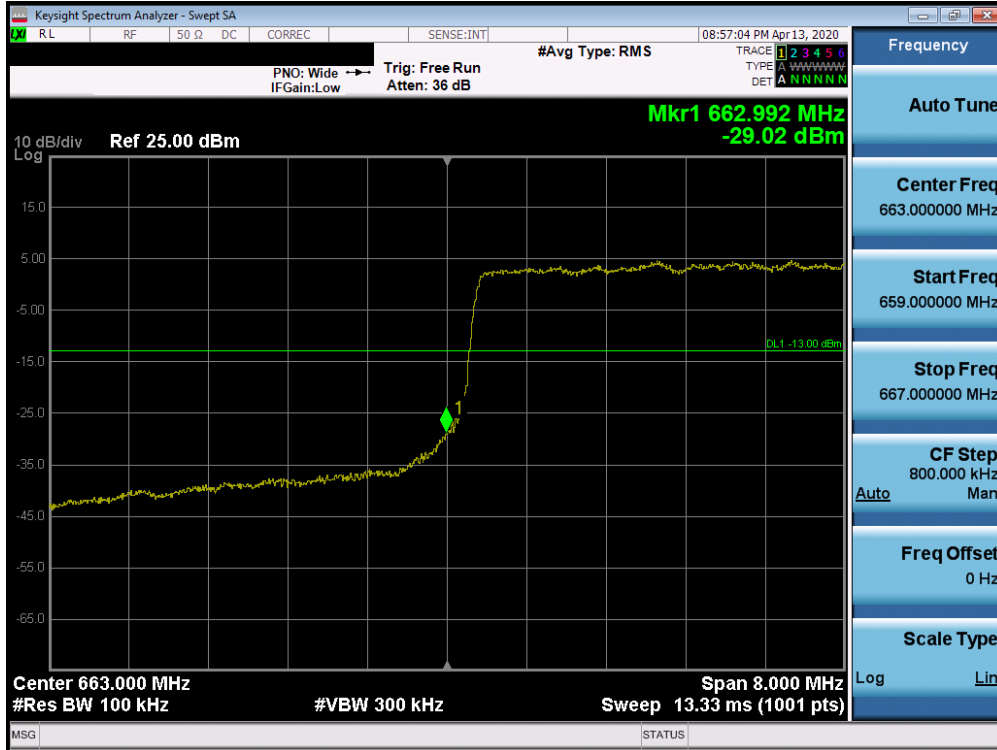


Plot 7-383. Lower Band Edge Plot (n71 - 5MHz DFT-s-OFDM-QPSK - Full RB Configuration)

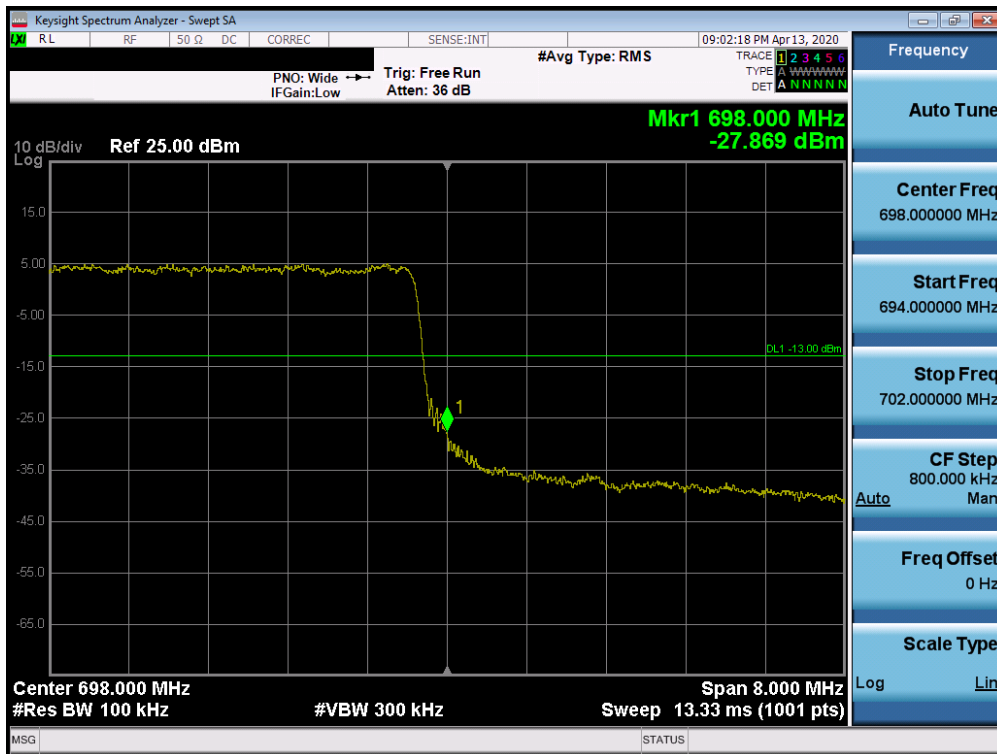


Plot 7-384. Upper Band Edge Plot (n71 - 5MHz DFT-s-OFDM-QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 221 of 420

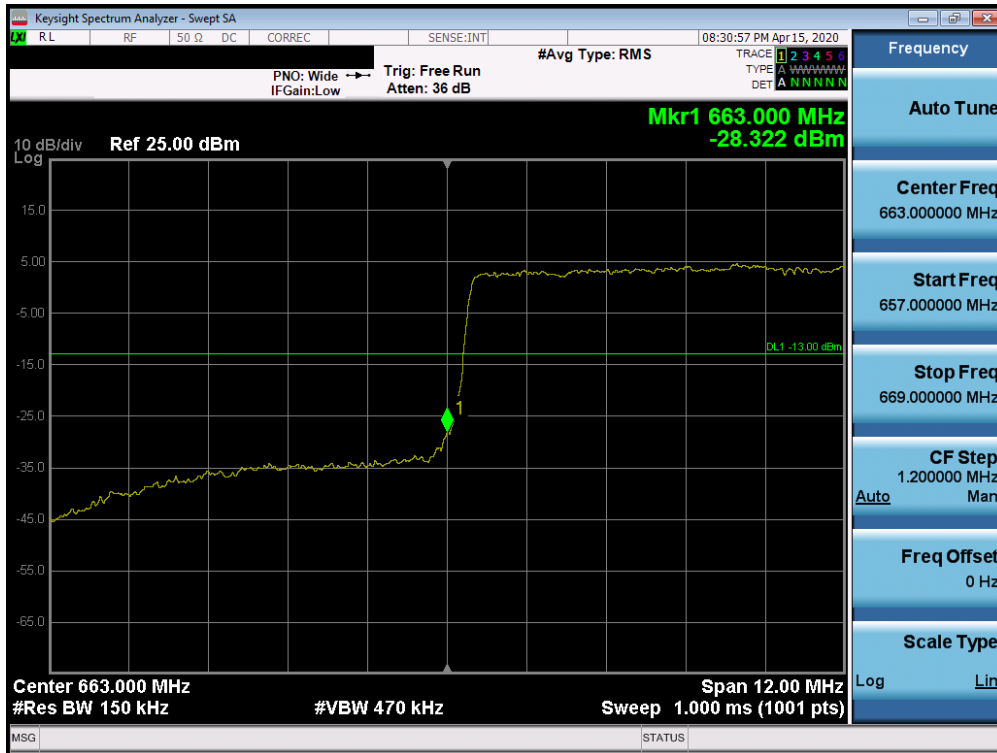


Plot 7-385. Lower Band Edge Plot (n71 - 10MHz DFT-s-OFDM-QPSK - Full RB Configuration)



Plot 7-386. Upper Band Edge Plot (n71 - 10MHz DFT-s-OFDM-QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 222 of 420

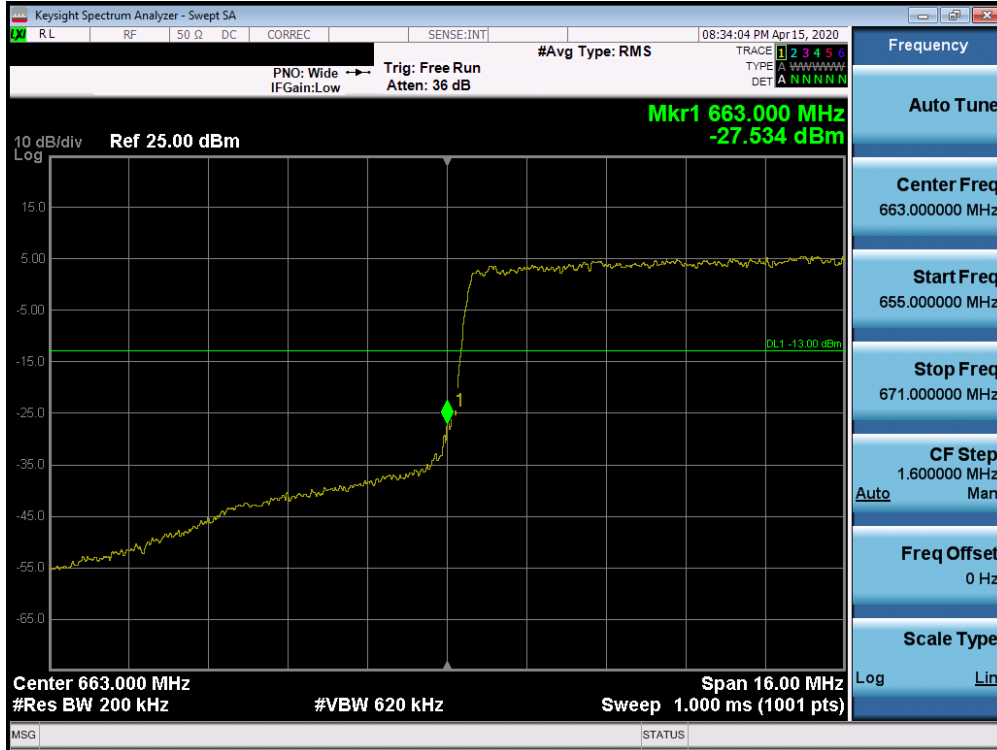


Plot 7-387. Lower Band Edge Plot (n71 - 15MHz DFT-s-OFDM-QPSK - Full RB Configuration)



Plot 7-388. Upper Band Edge Plot (n71 - 15MHz DFT-s-OFDM-QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 223 of 420

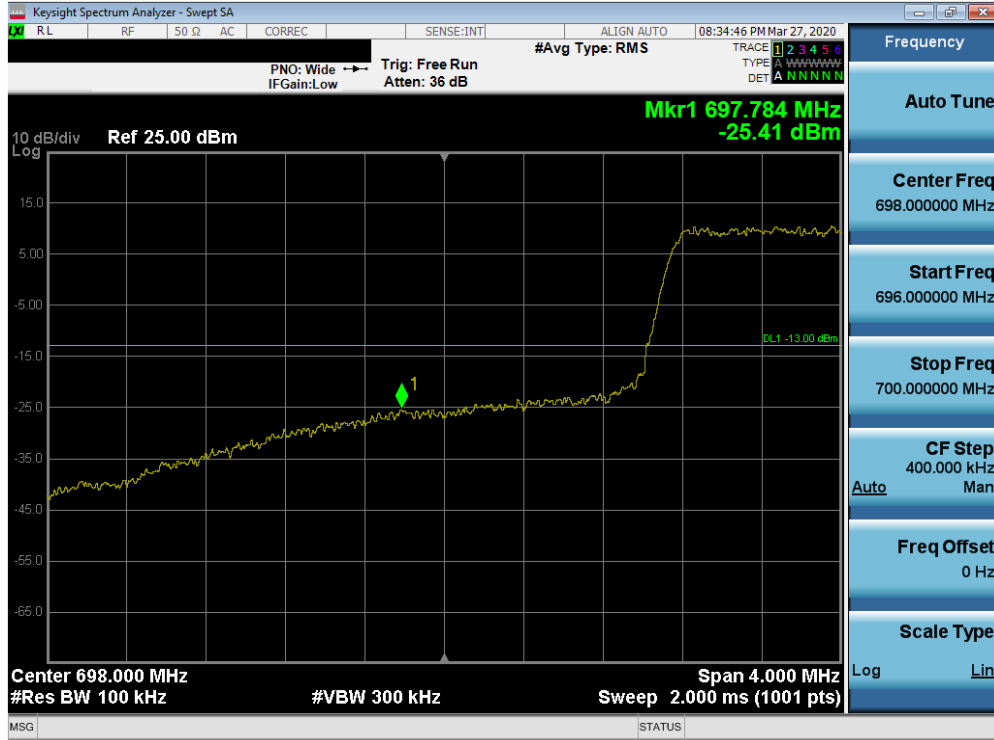


Plot 7-389. Lower Band Edge Plot (n71 - 20MHz DFT-s -OFDM-QPSK - Full RB Configuration)



Plot 7-390. Upper Band Edge Plot (n71 - 20MHz DFT-s -OFDM-QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 224 of 420

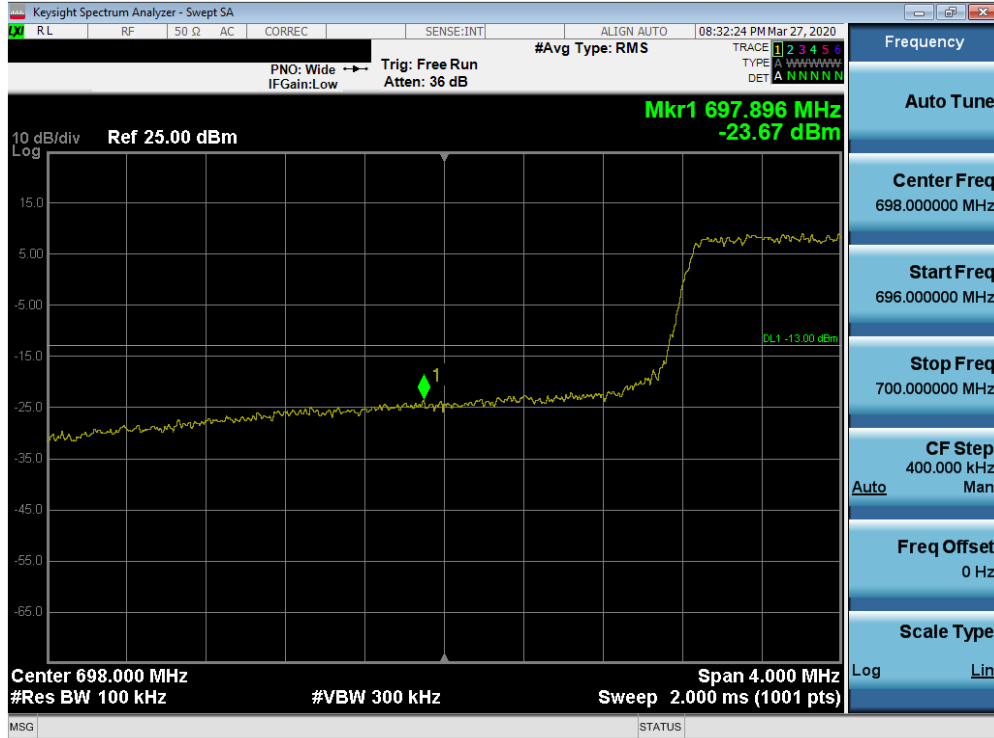


Plot 7-393. Lower Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

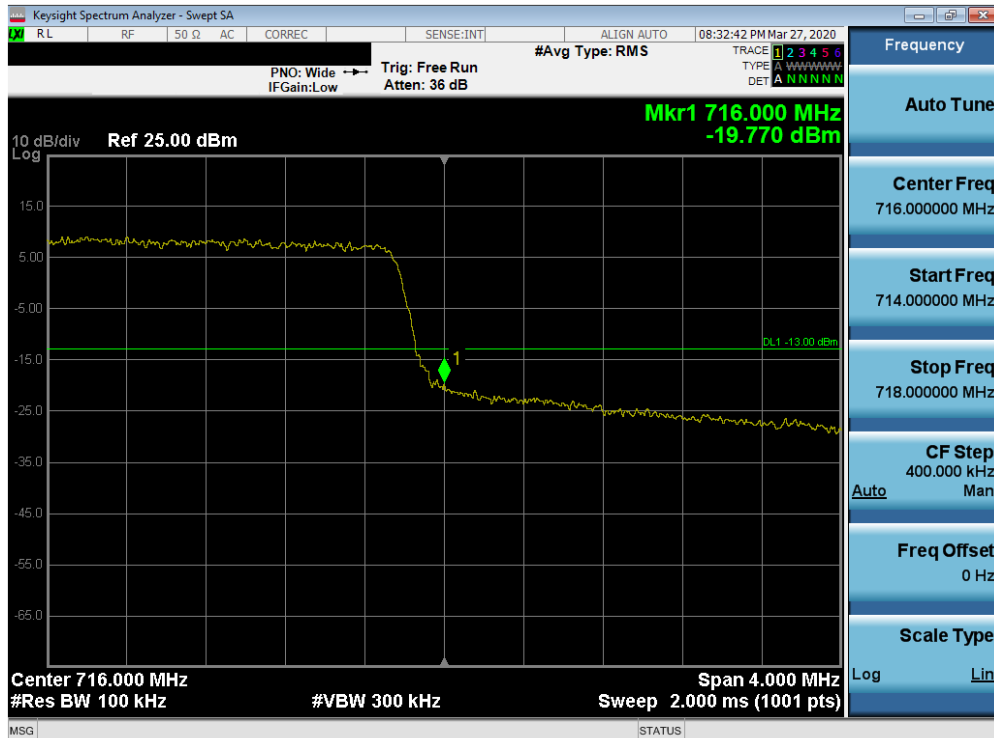


Plot 7-394. Upper Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 226 of 420

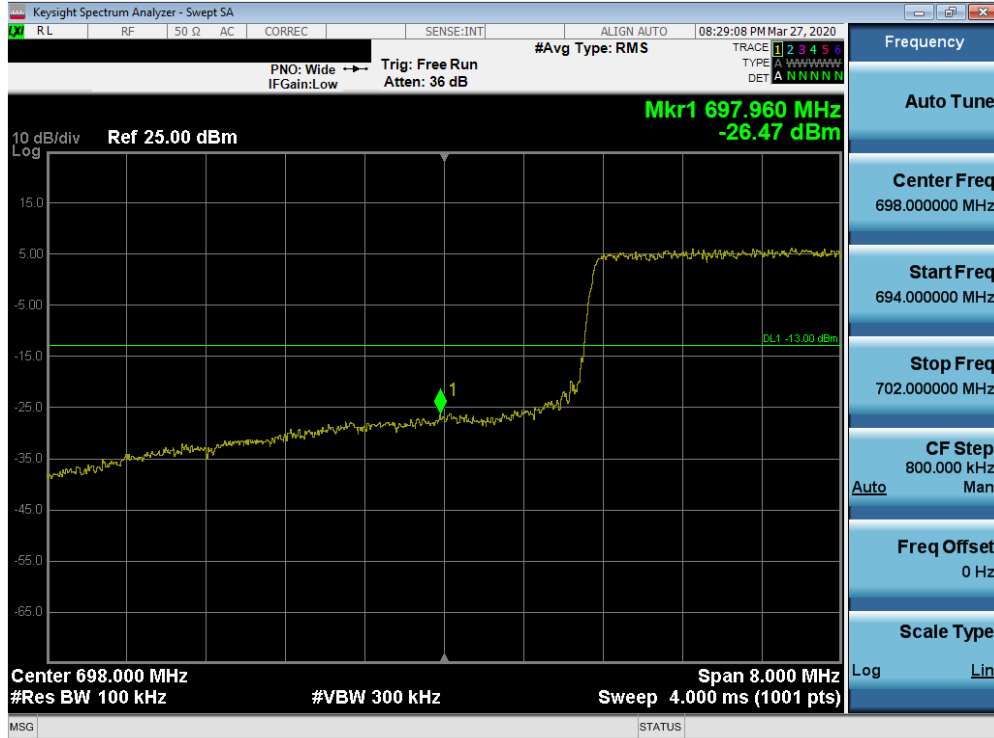


Plot 7-395. Lower Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)

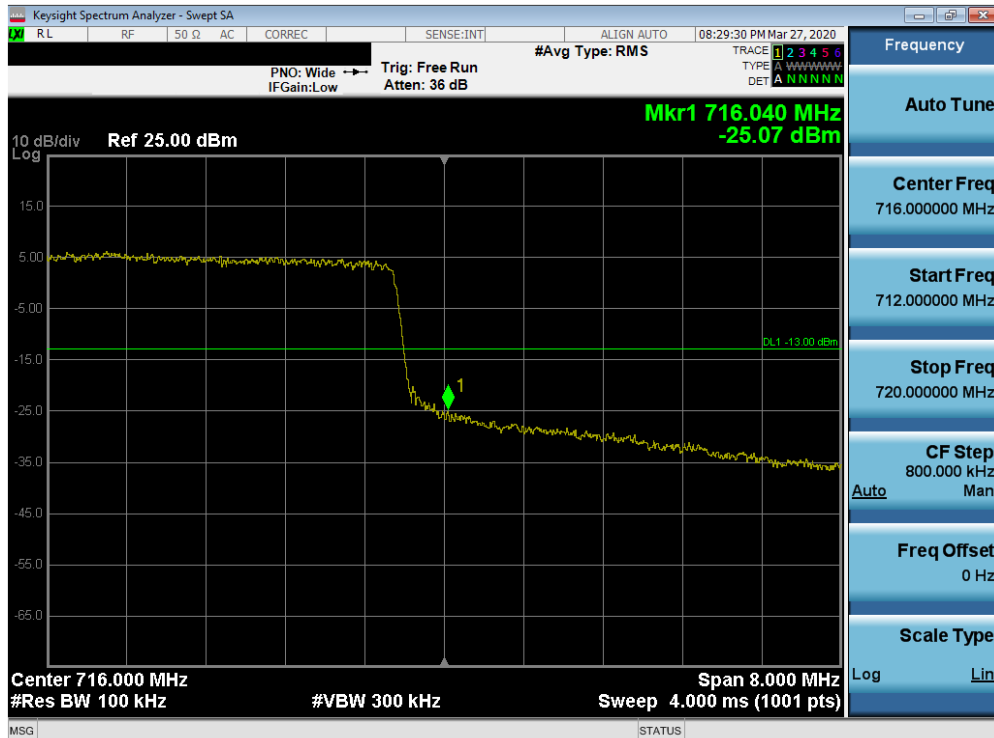


Plot 7-396. Upper Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 227 of 420



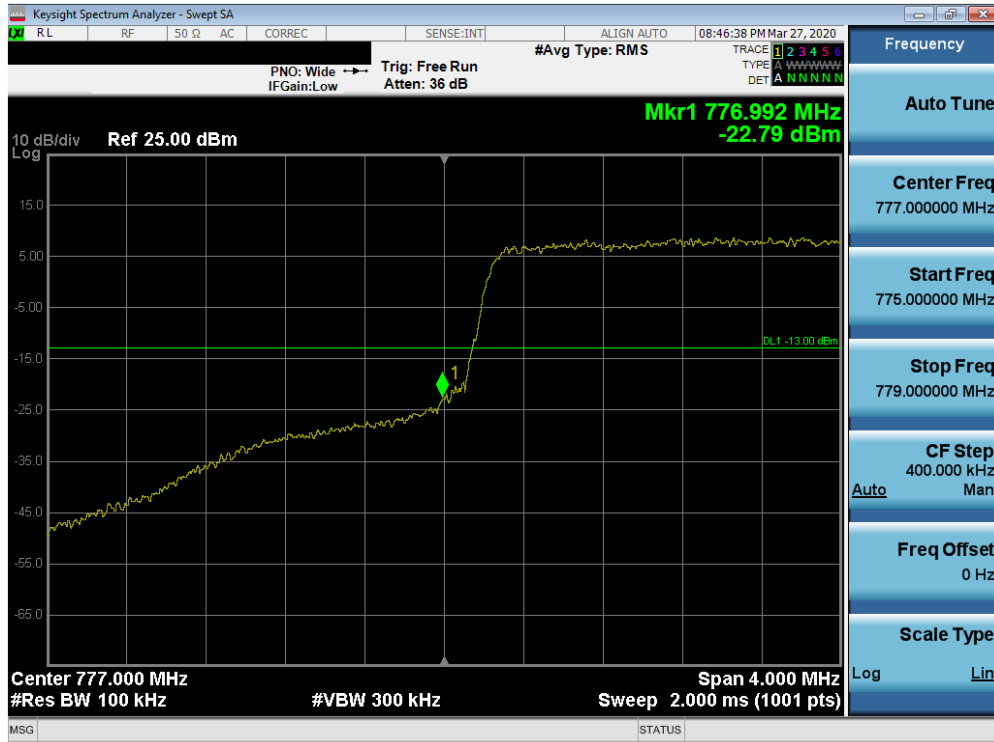
Plot 7-397. Lower Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)



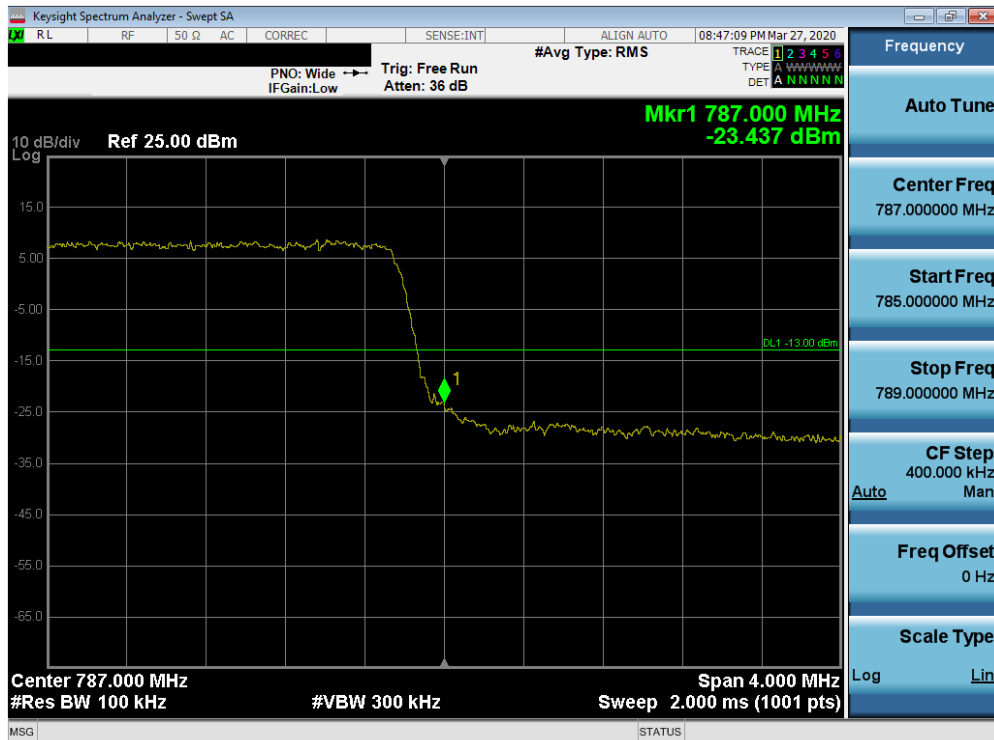
Plot 7-398. Upper Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 228 of 420

Band 13

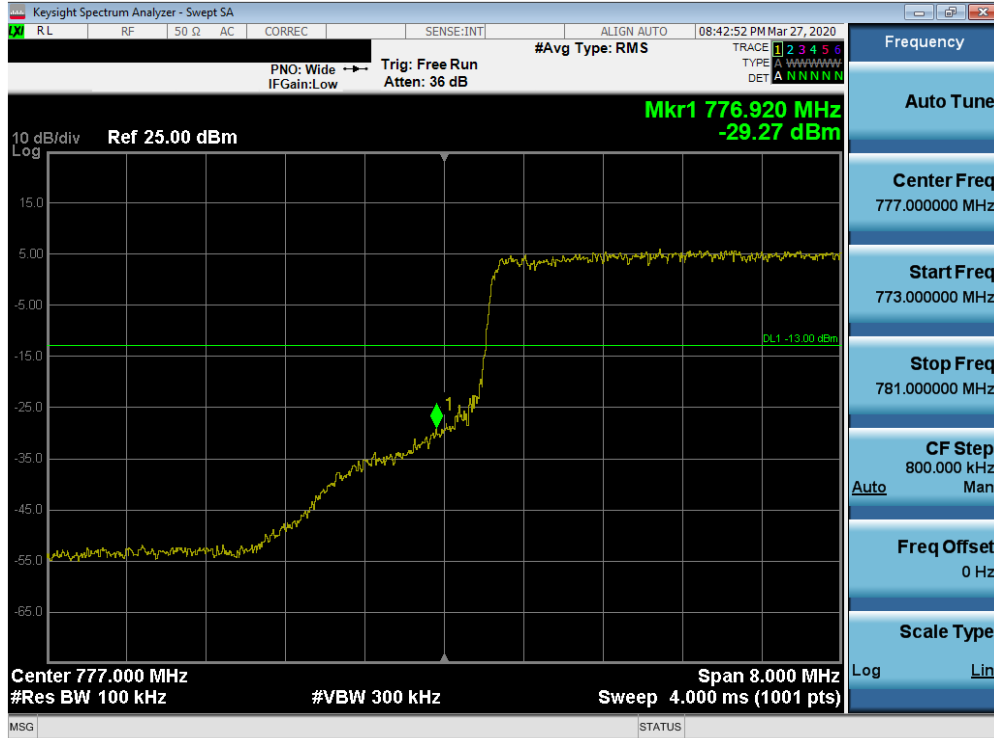


Plot 7-399. Lower Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

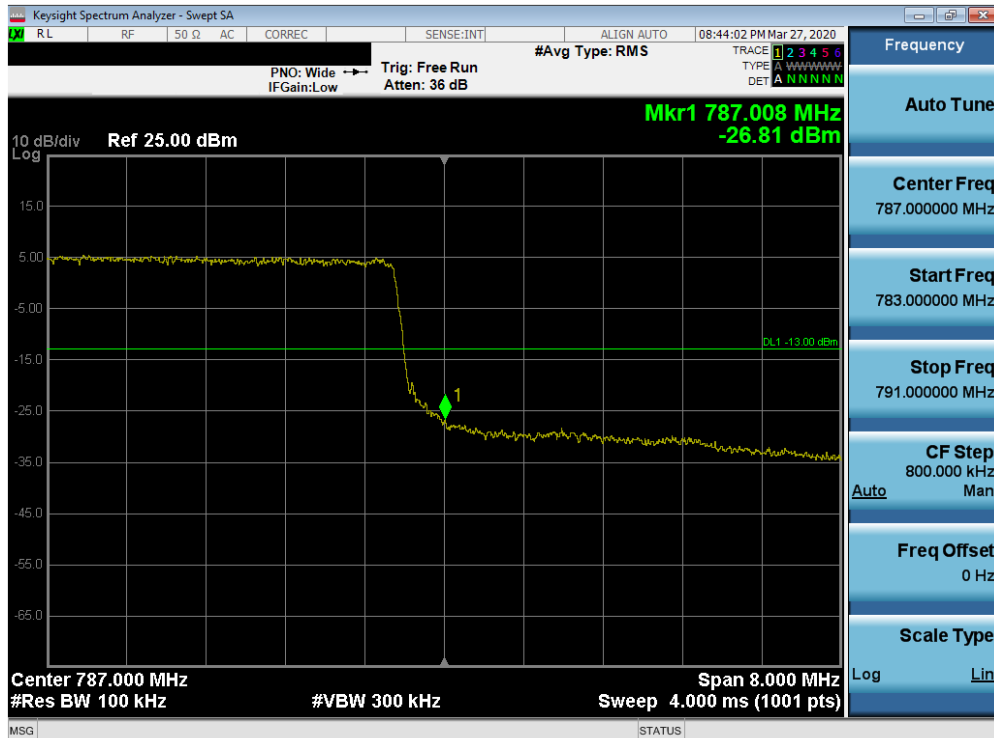


Plot 7-400. Upper Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 229 of 420



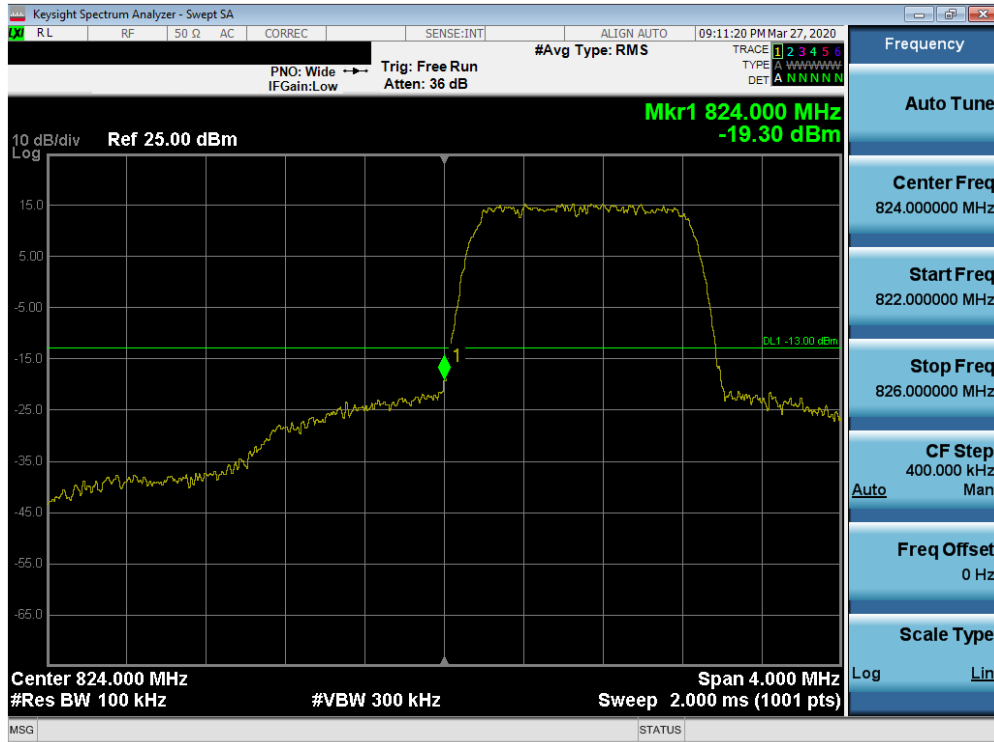
Plot 7-401. Lower Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-402. Upper Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 230 of 420

Band 26/5

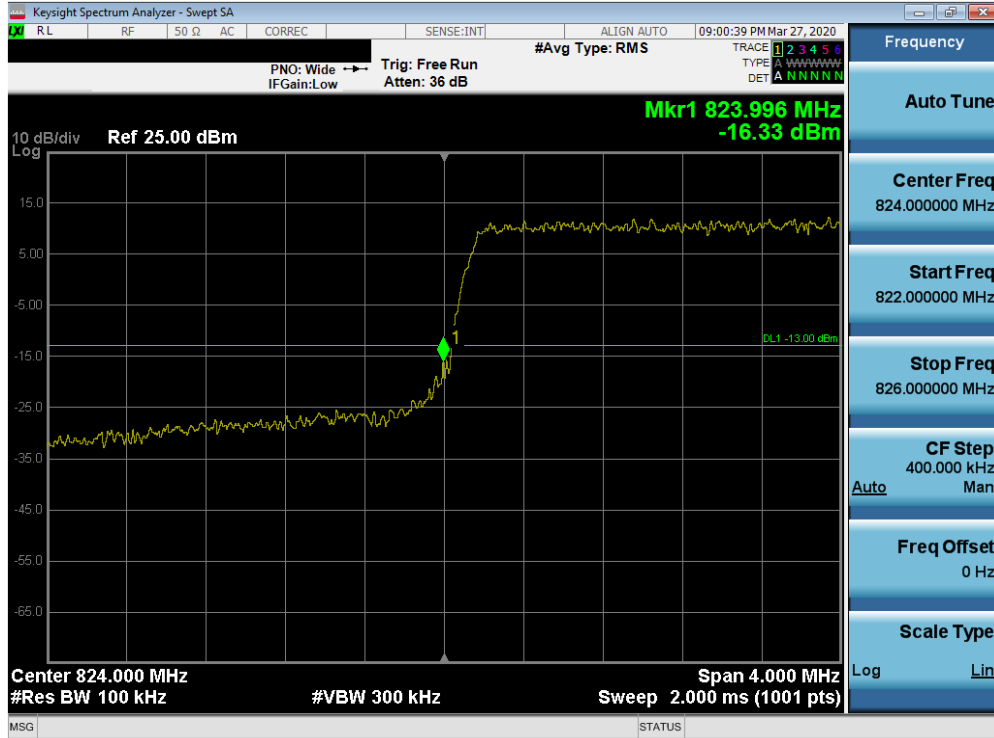


Plot 7-403. Lower Band Edge Plot (Band 26/5 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-404. Upper Band Edge Plot (Band 26/5 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 231 of 420

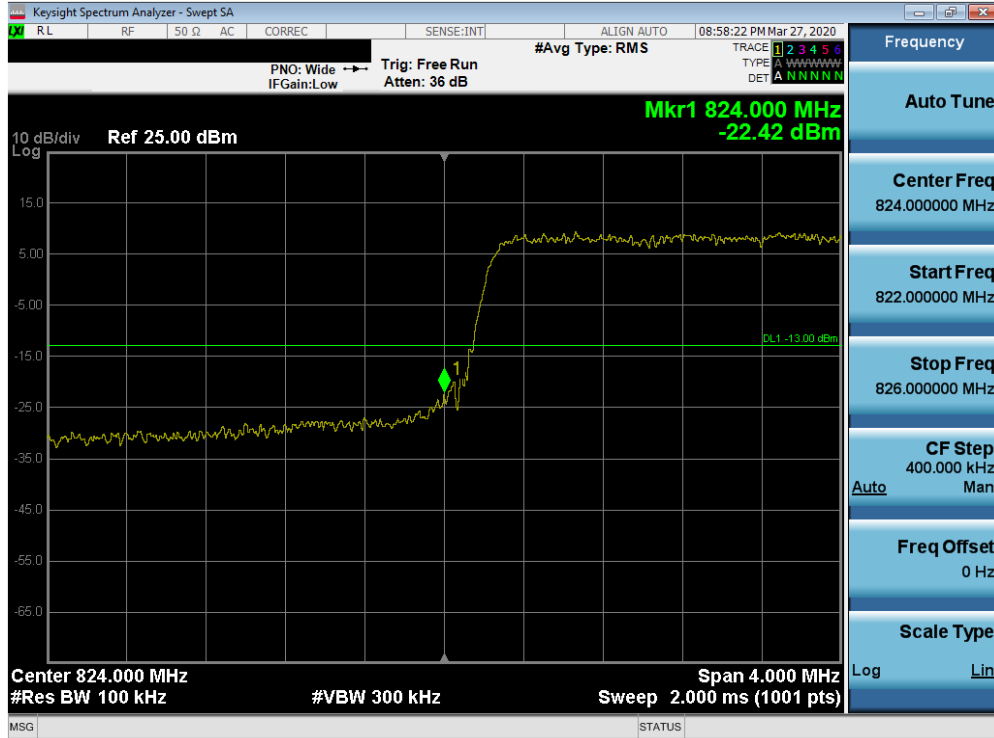


Plot 7-405. Lower Band Edge Plot (Band 26/5 - 3.0MHz QPSK - Full RB Configuration)

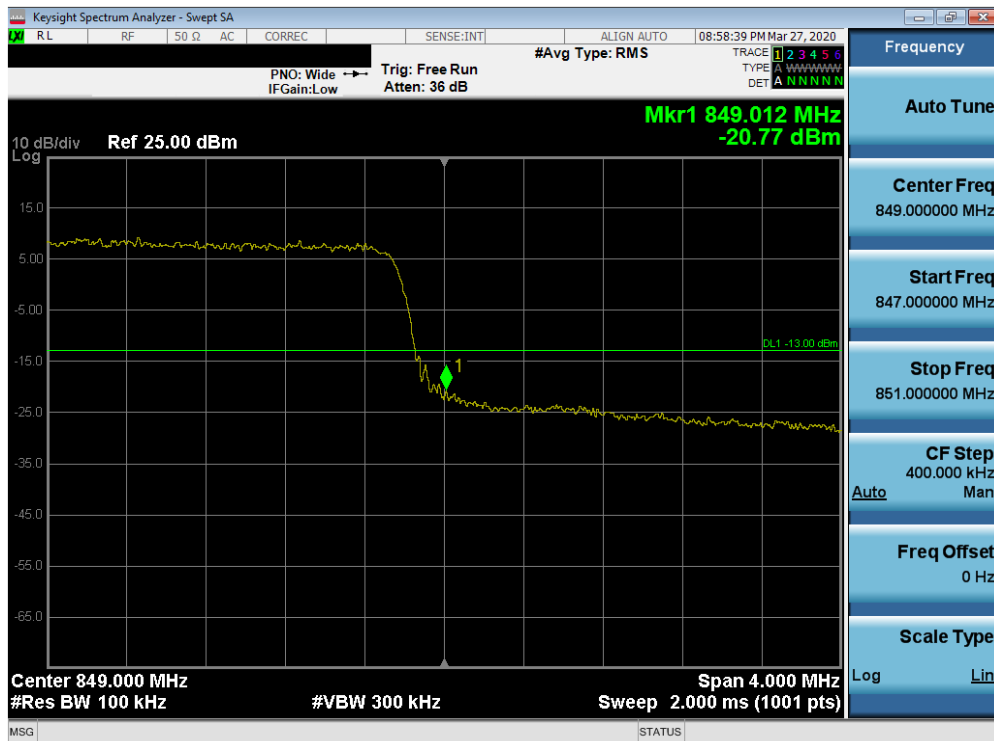


Plot 7-406. Upper Band Edge Plot (Band 26/5 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 232 of 420

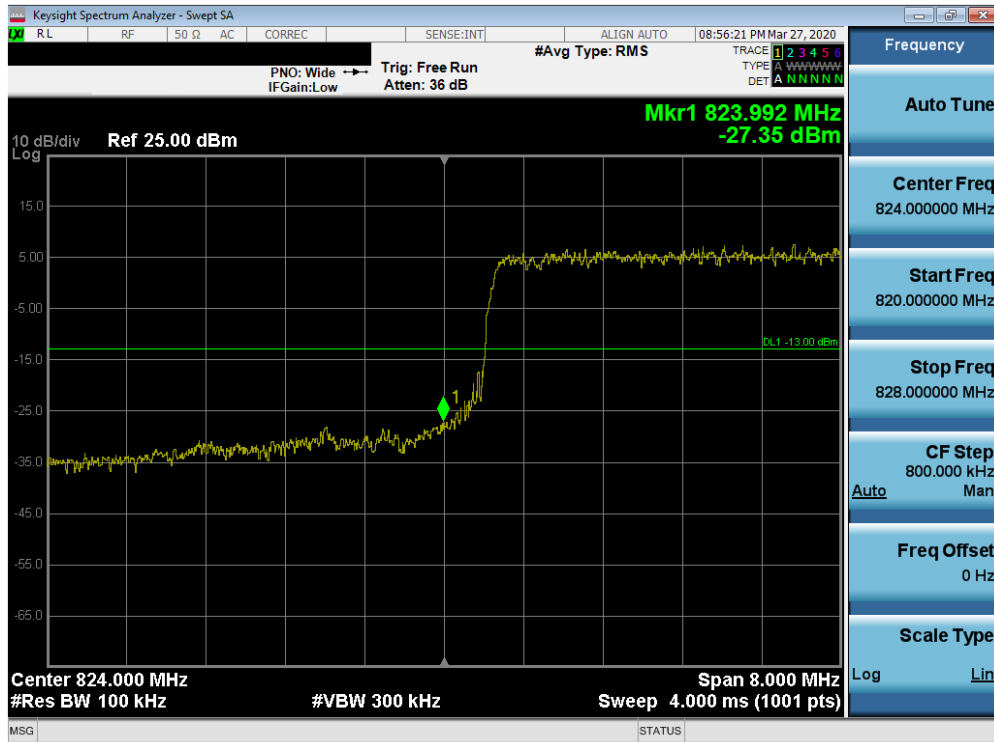


Plot 7-407. Lower Band Edge Plot (Band 26/5 - 5.0MHz QPSK - Full RB Configuration)

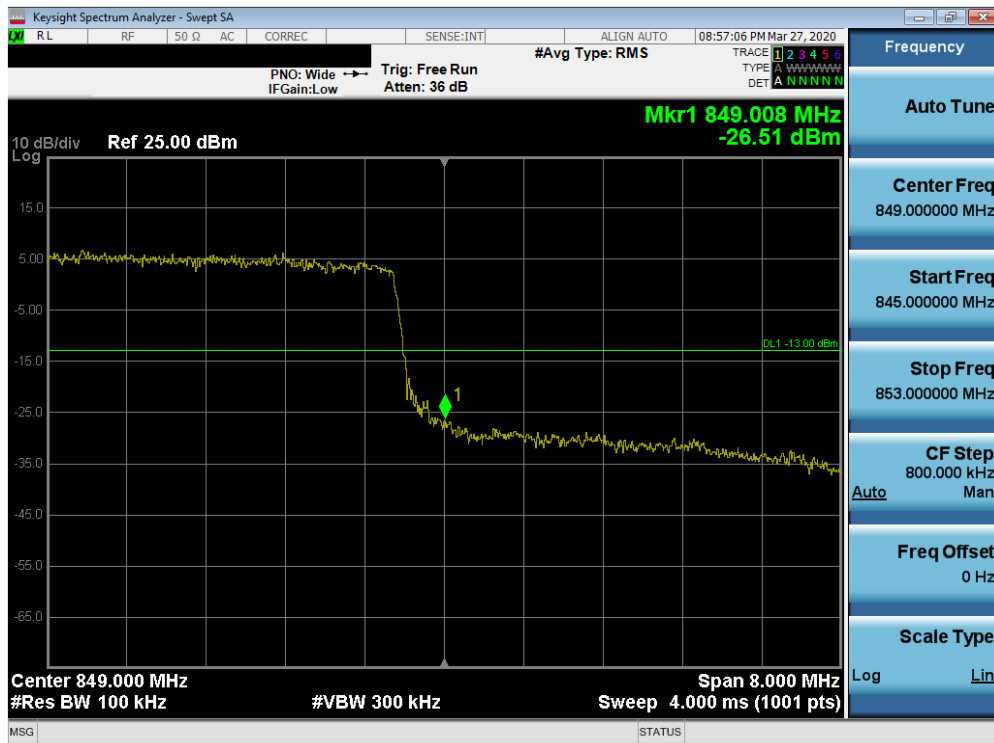


Plot 7-408. Upper Band Edge Plot (Band 26/5 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 233 of 420

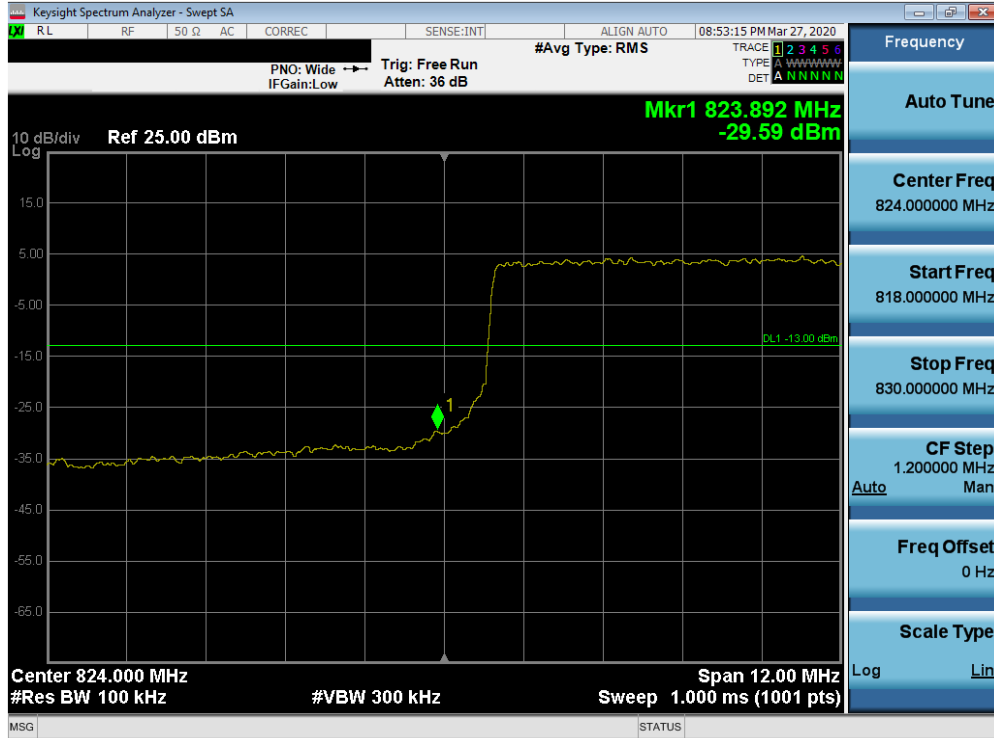


Plot 7-409. Lower Band Edge Plot (Band 26/5 - 10.0MHz QPSK - Full RB Configuration)

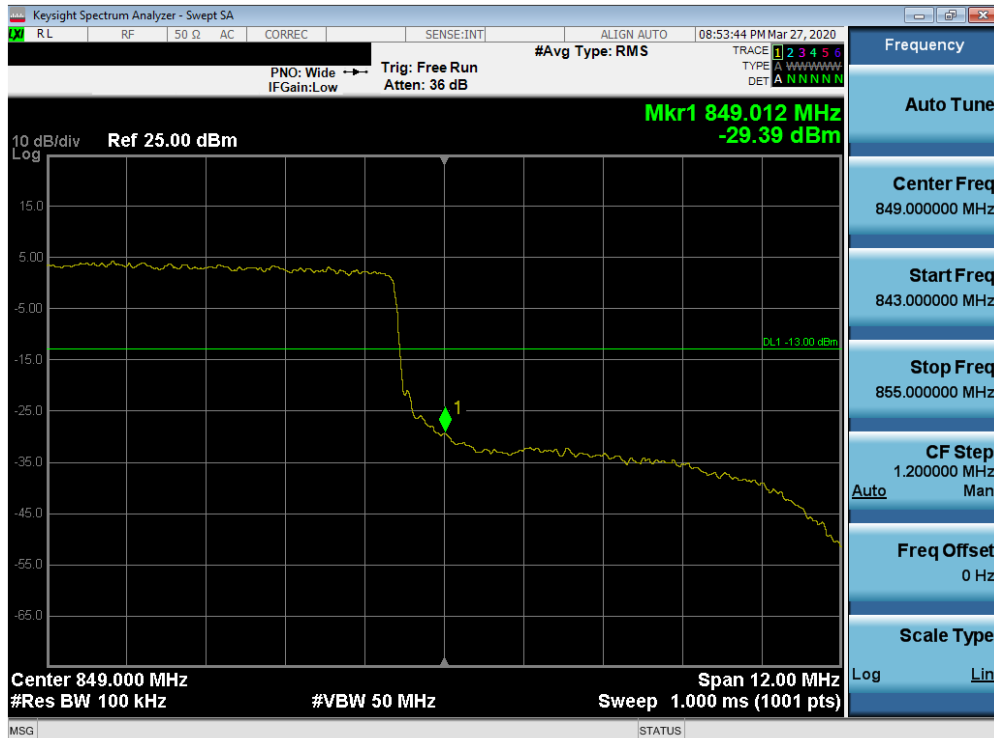


Plot 7-410. Upper Band Edge Plot (Band 26/5 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 234 of 420



Plot 7-411. Lower Band Edge Plot (Band 26 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-412. Upper Band Edge Plot (Band 26 - 15.0MHz QPSK - Full RB Configuration)

NR Band n5

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 235 of 420

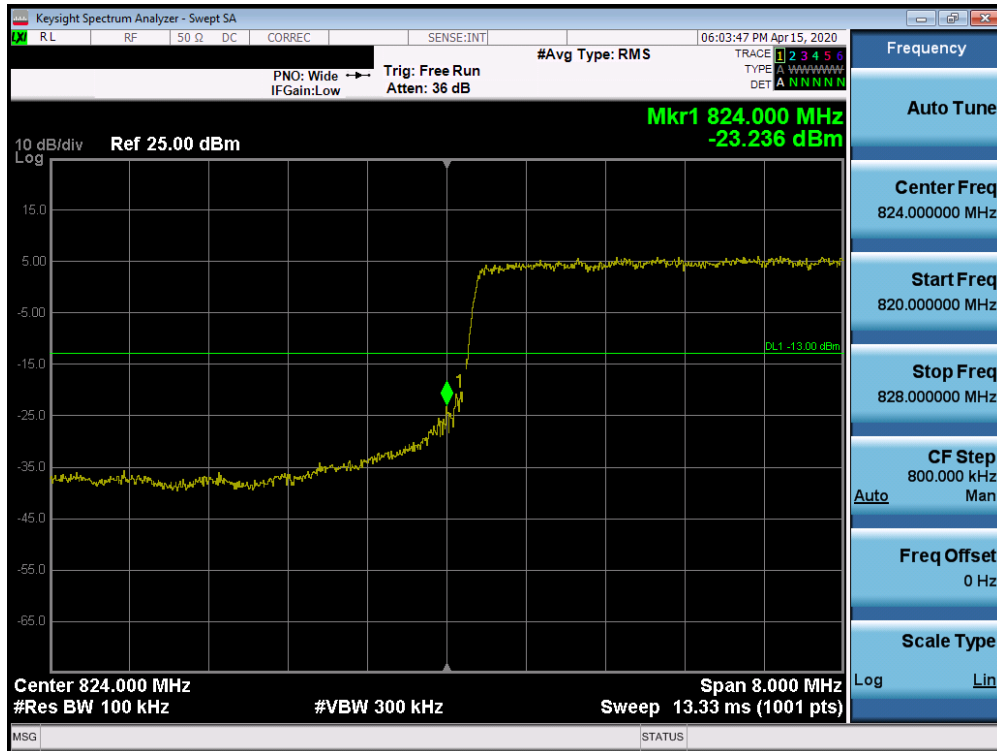


Plot 7-413. Lower Band Edge Plot (n5 – 5.0MHz DFT-s-OFDM BPSK - Full RB Configuration)



Plot 7-414. Upper Band Edge Plot (n5 – 5.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 236 of 420

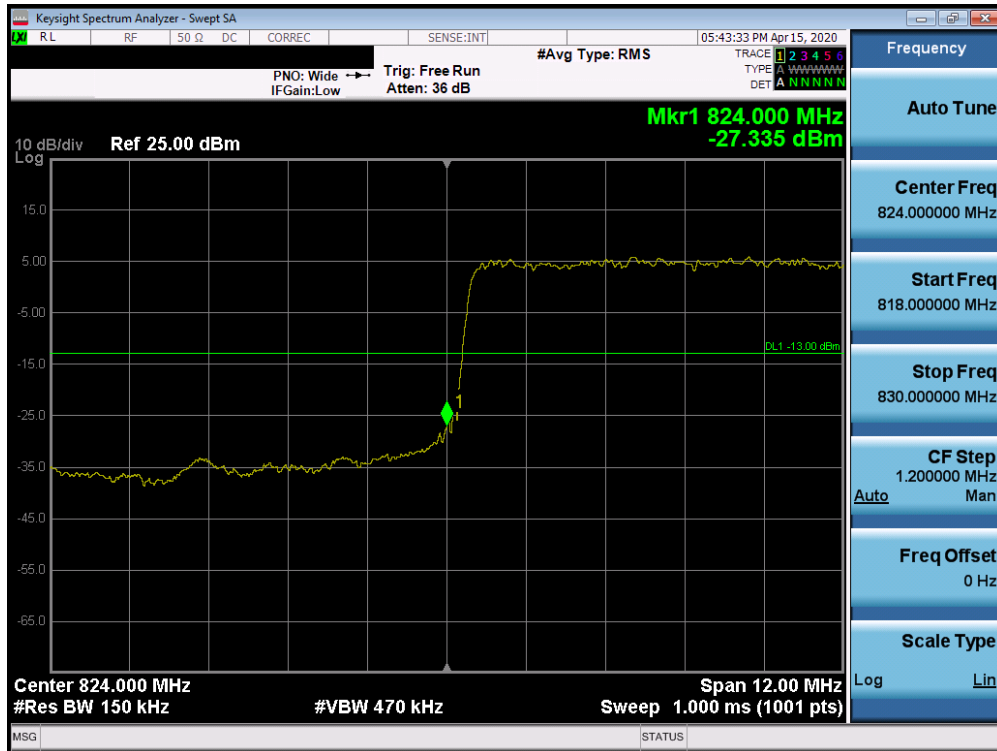


Plot 7-415. Lower Band Edge Plot (n5 – 10.0MHz DFT-s-OFDM BPSK - Full RB Configuration)



Plot 7-416. Upper Band Edge Plot (n5 – 10.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 237 of 420

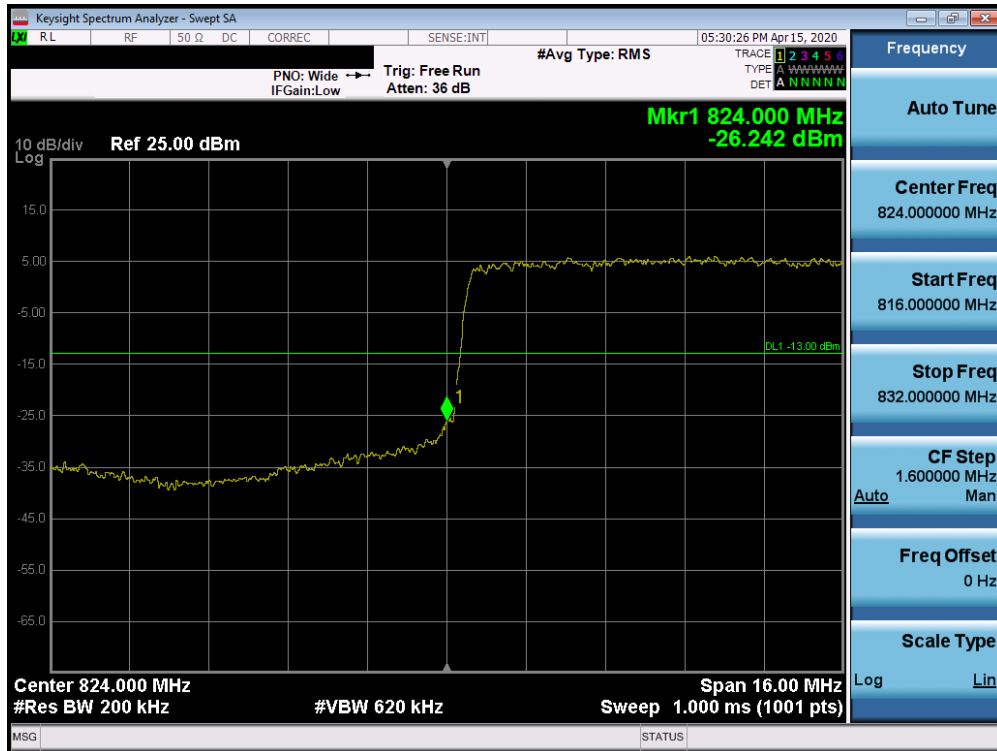


Plot 7-417. Lower Band Edge Plot (n5 – 15.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

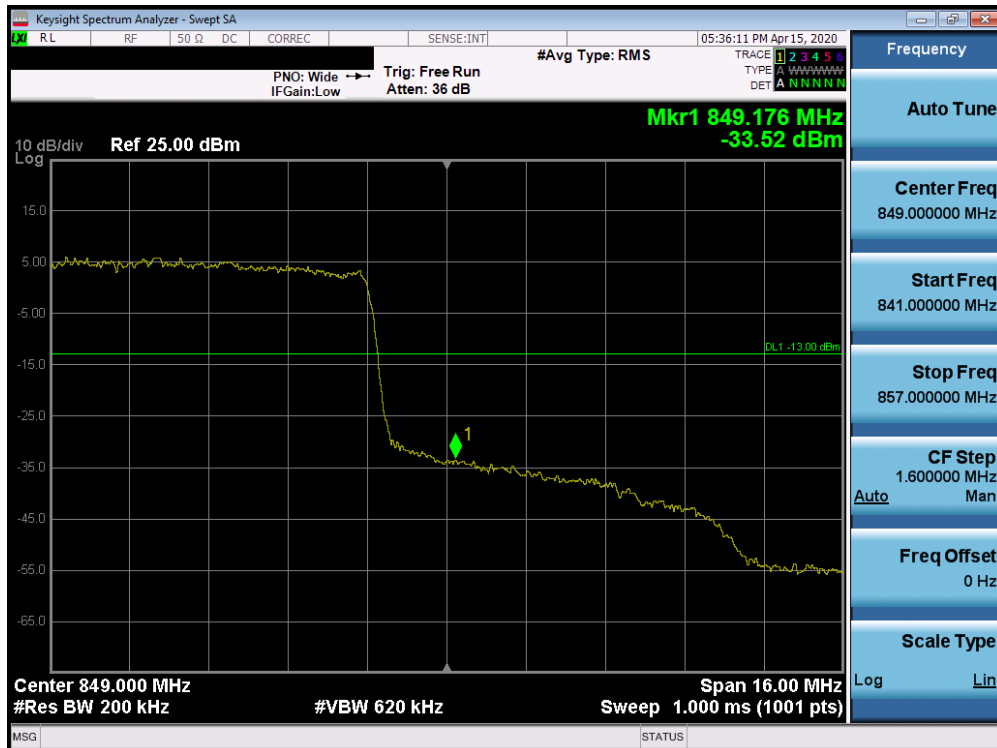


Plot 7-418. Upper Band Edge Plot (n5 – 15.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 238 of 420



Plot 7-419. Lower Band Edge Plot (n5 – 20.0MHz DFT-s-OFDM BPSK - Full RB Configuration)



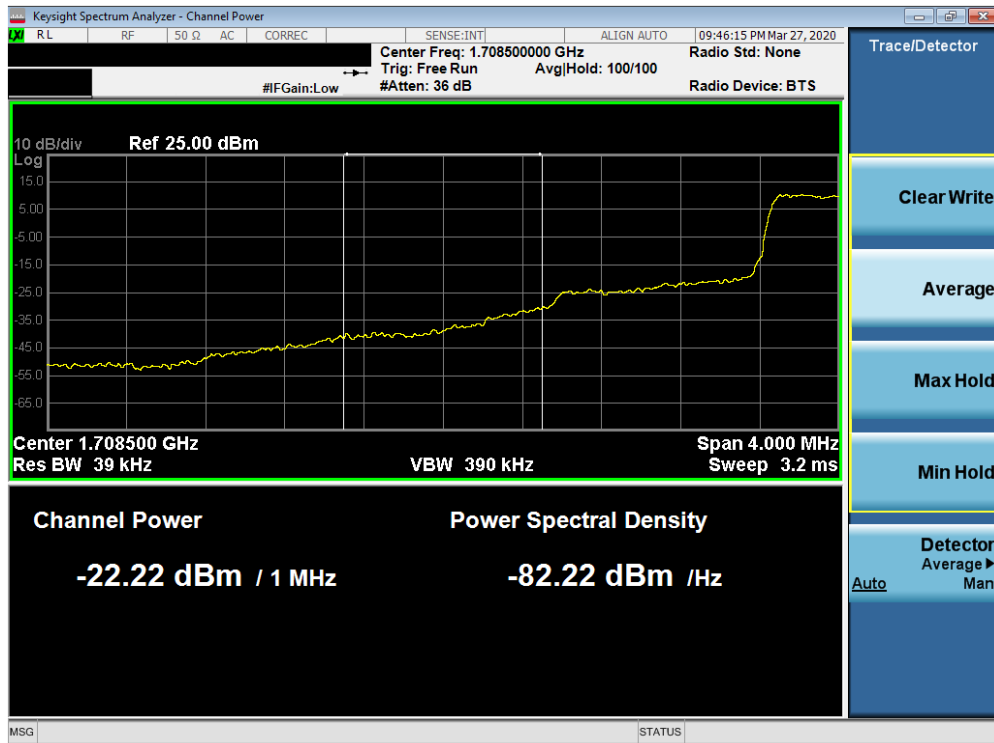
Plot 7-420. Upper Band Edge Plot (n5 – 20.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 239 of 420

Band 66/4



Plot 7-421. Lower Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)

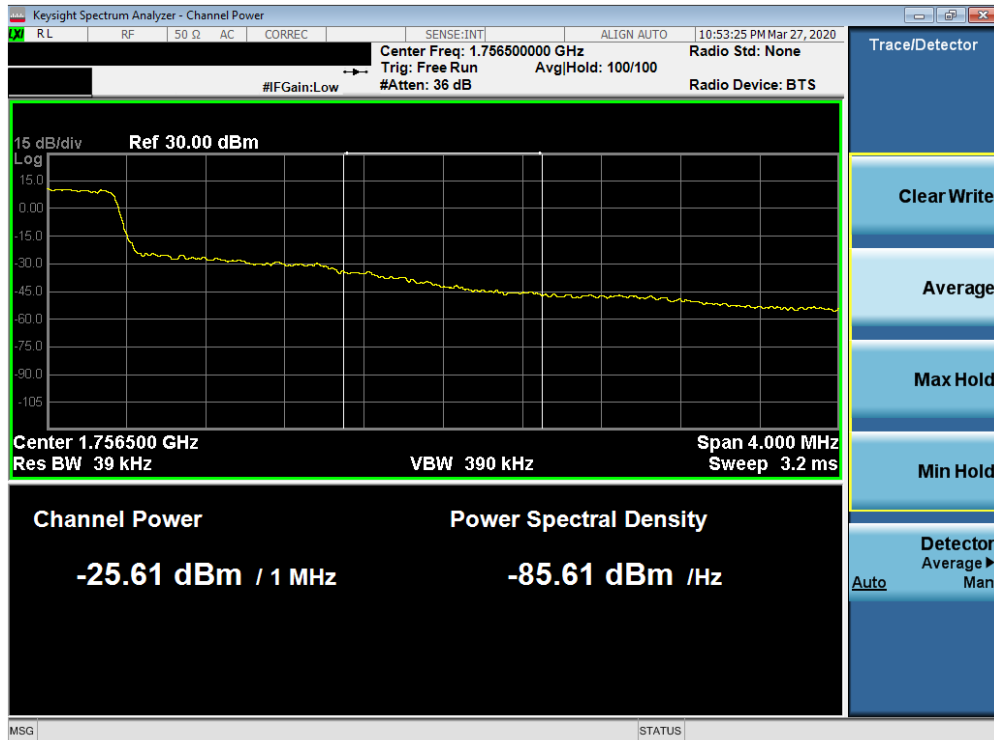


Plot 7-422. Lower Extended Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 240 of 420

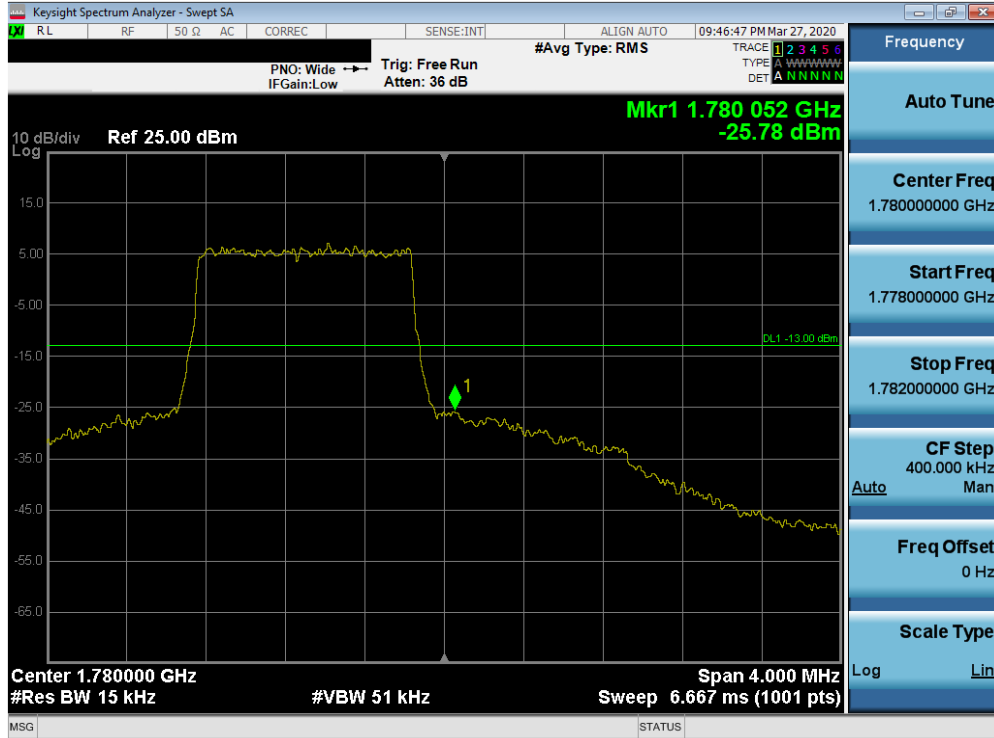


Plot 7-423. Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

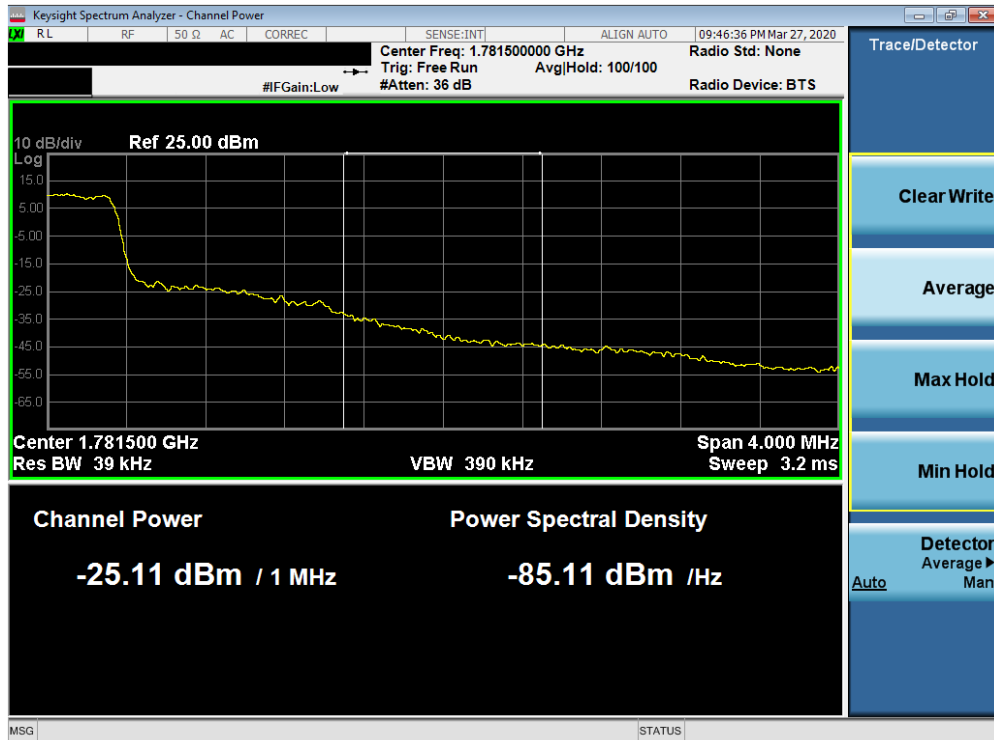


Plot 7-424. Upper Extended Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 241 of 420

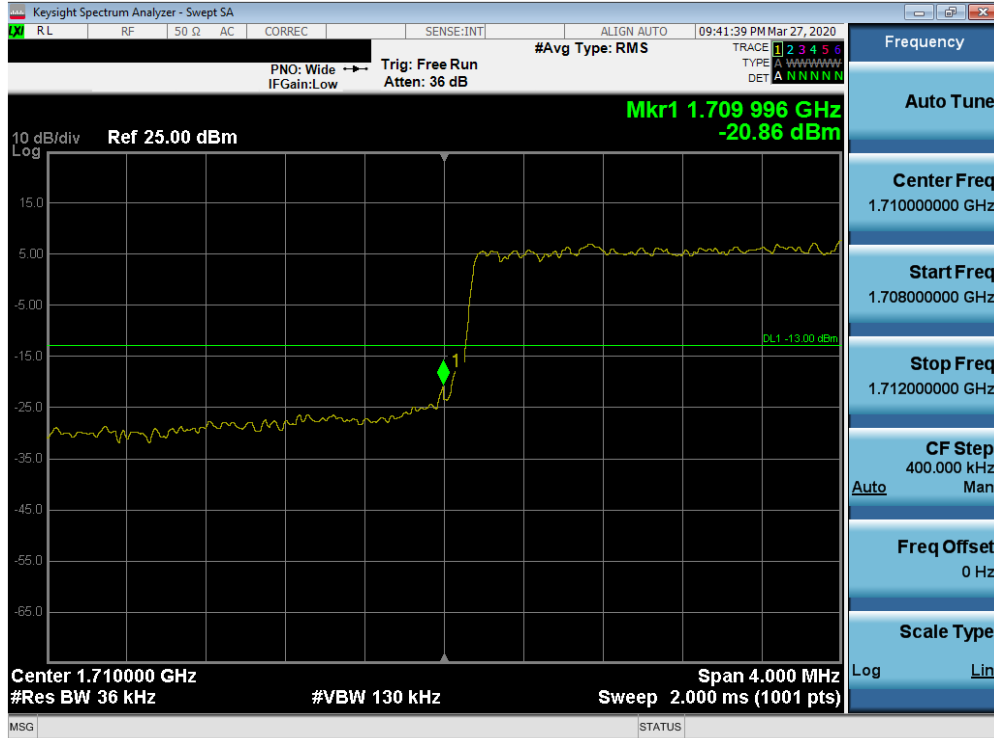


Plot 7-425. Upper Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

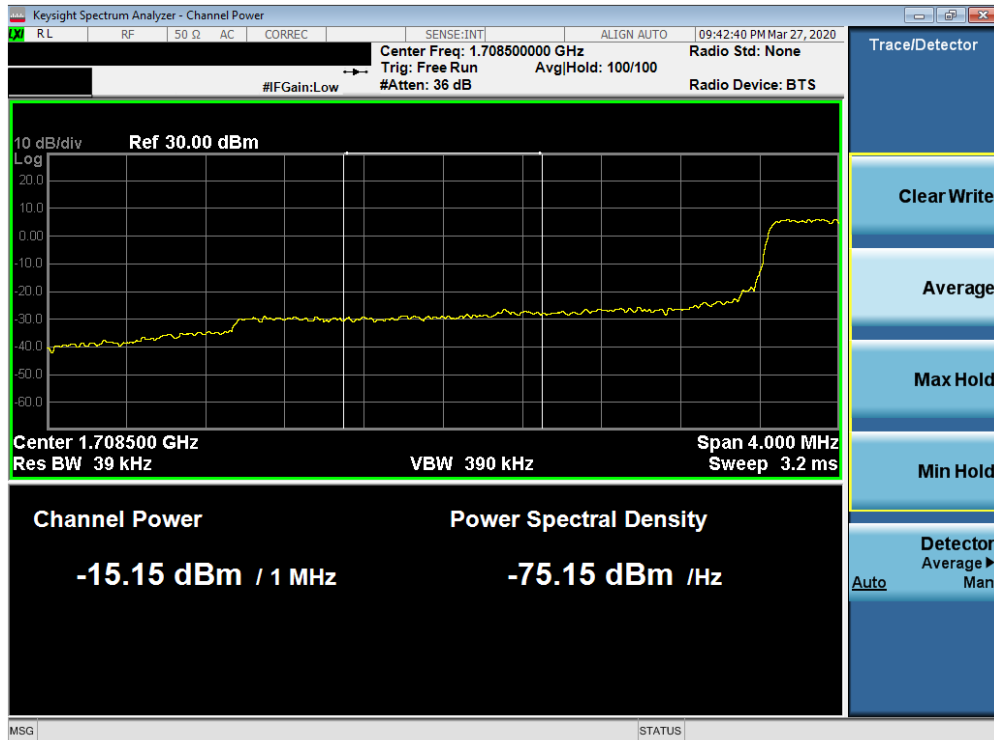


Plot 7-426. Upper Extended Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 242 of 420



Plot 7-427. Lower Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

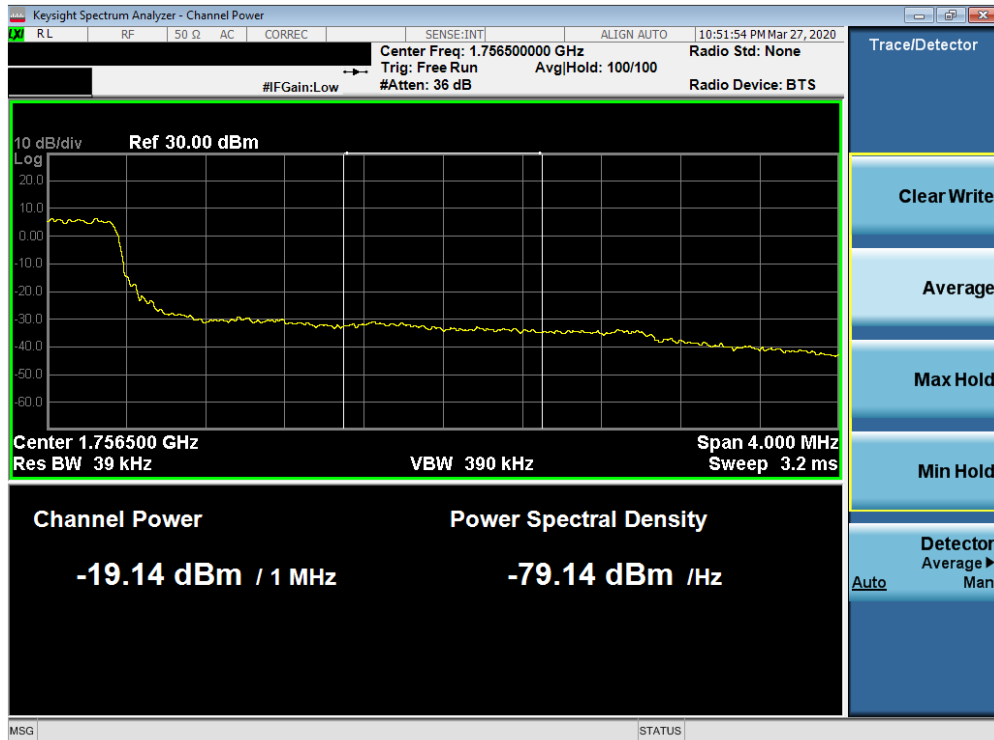


Plot 7-428. Lower Extended Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 243 of 420



Plot 7-429. Upper Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

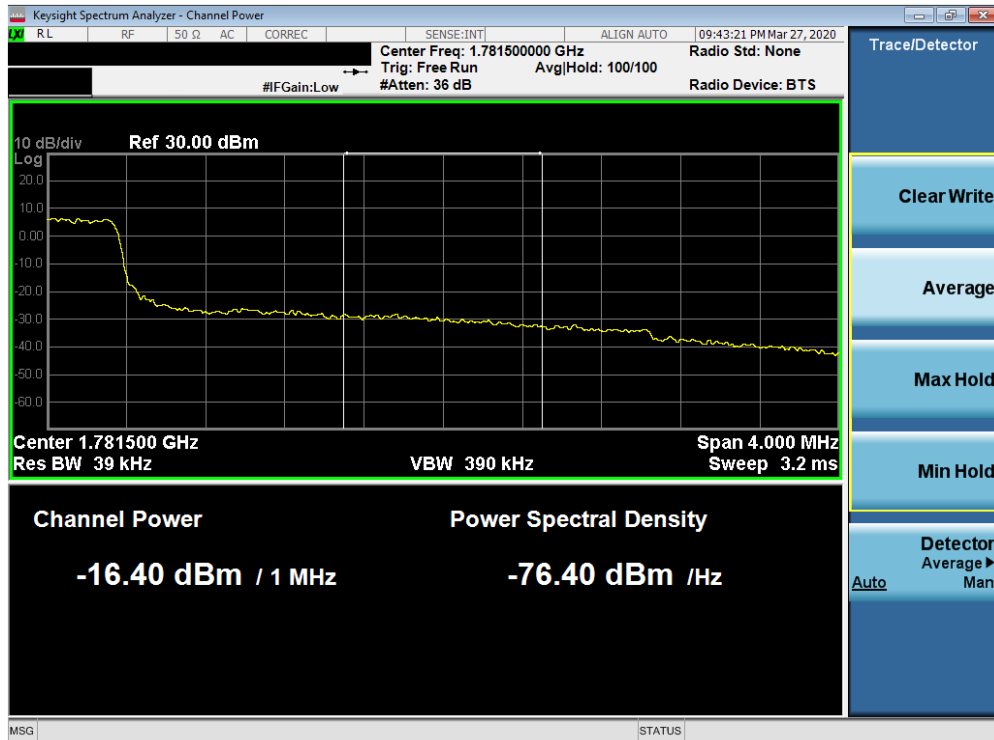


Plot 7-430. Upper Extended Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 244 of 420

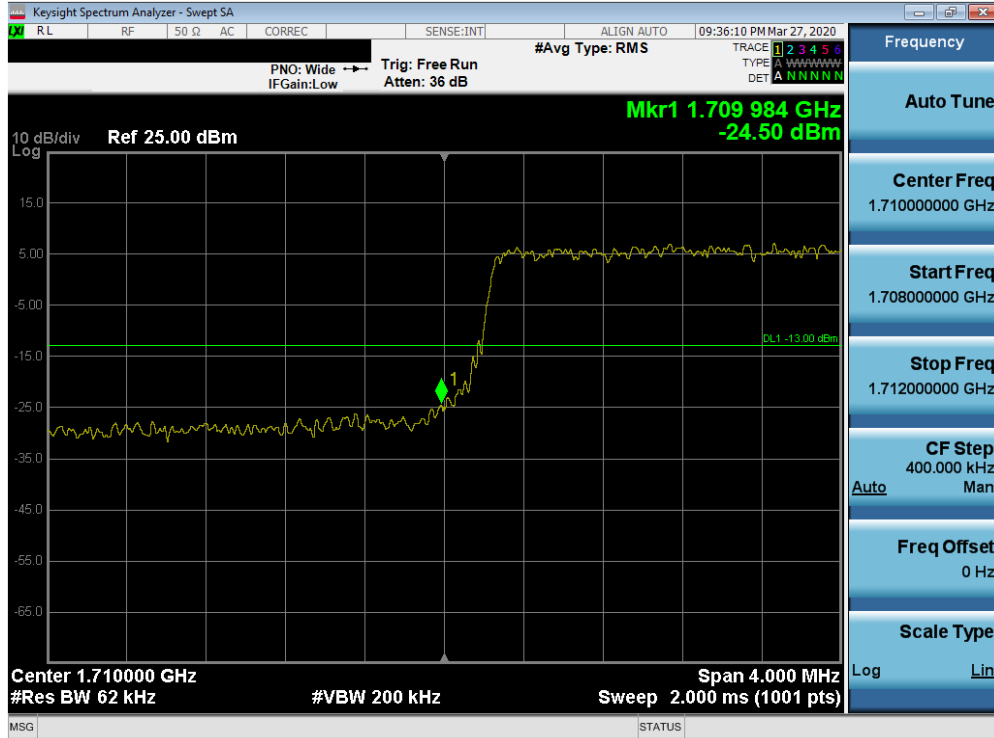


Plot 7-431. Upper Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

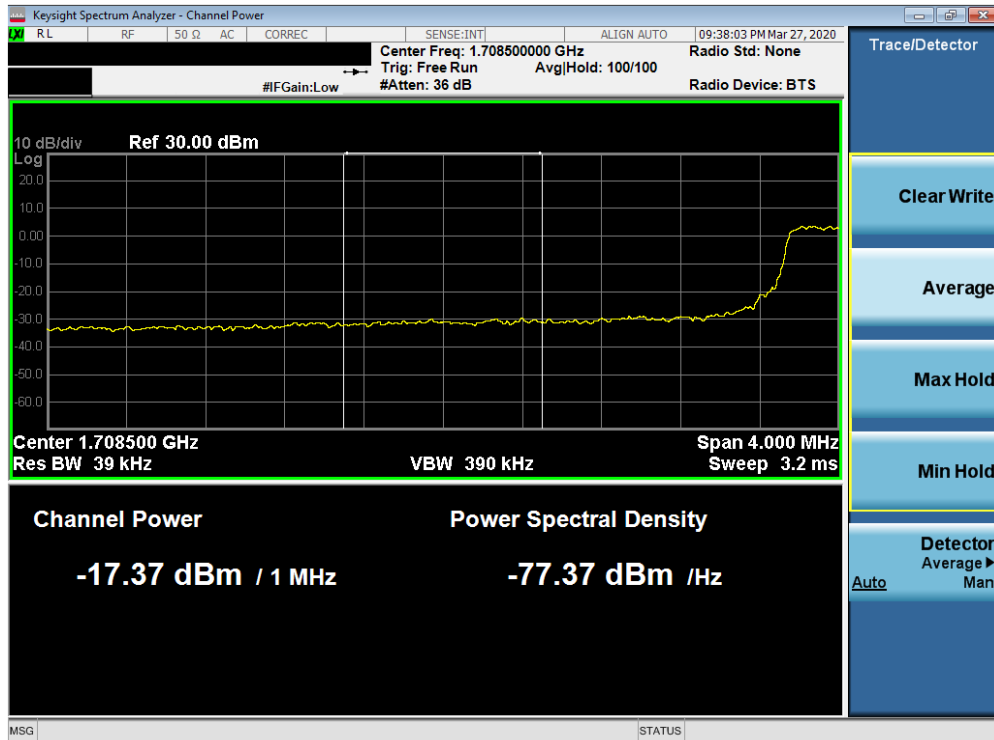


Plot 7-432. Upper Extended Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 245 of 420

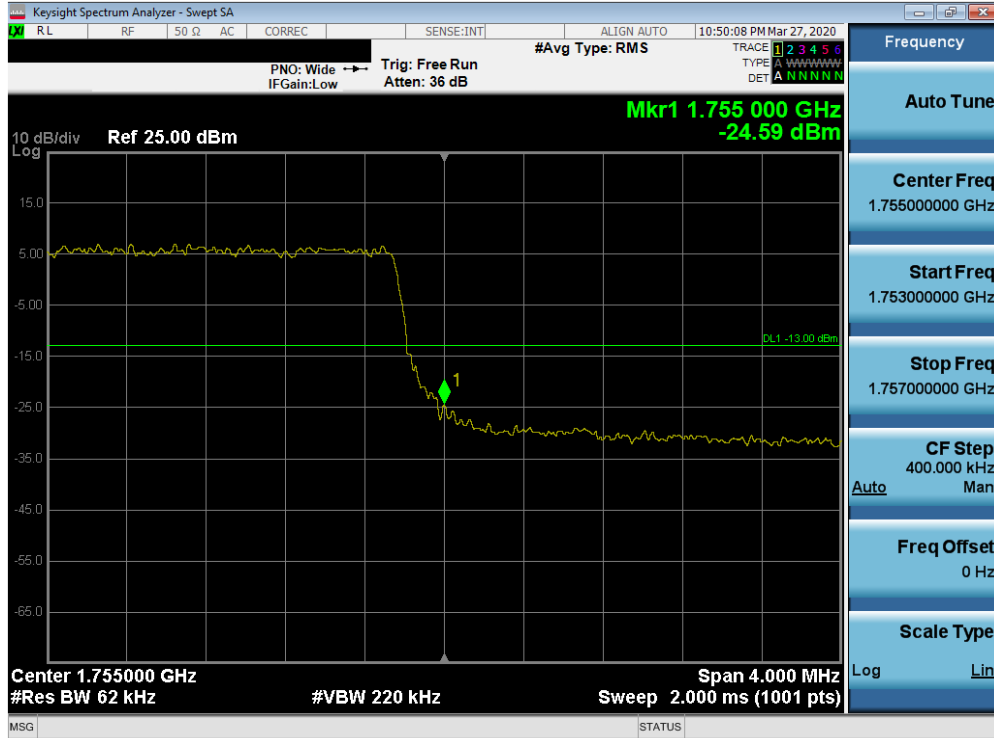


Plot 7-433. Lower Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

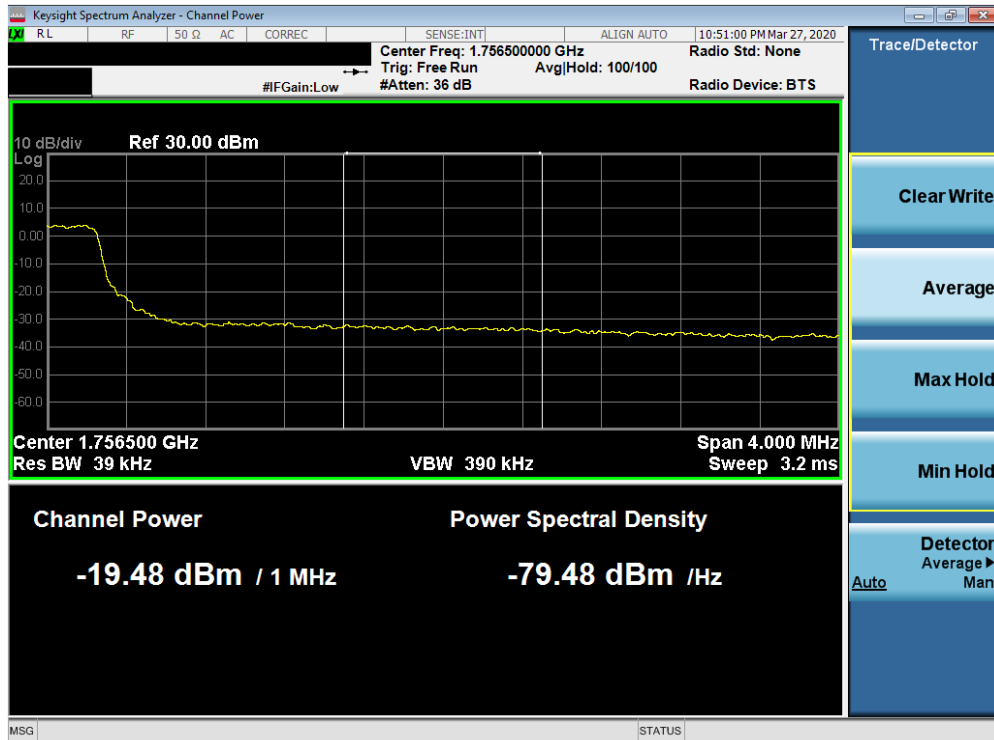


Plot 7-434. Lower Extended Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 246 of 420



Plot 7-435. Upper Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

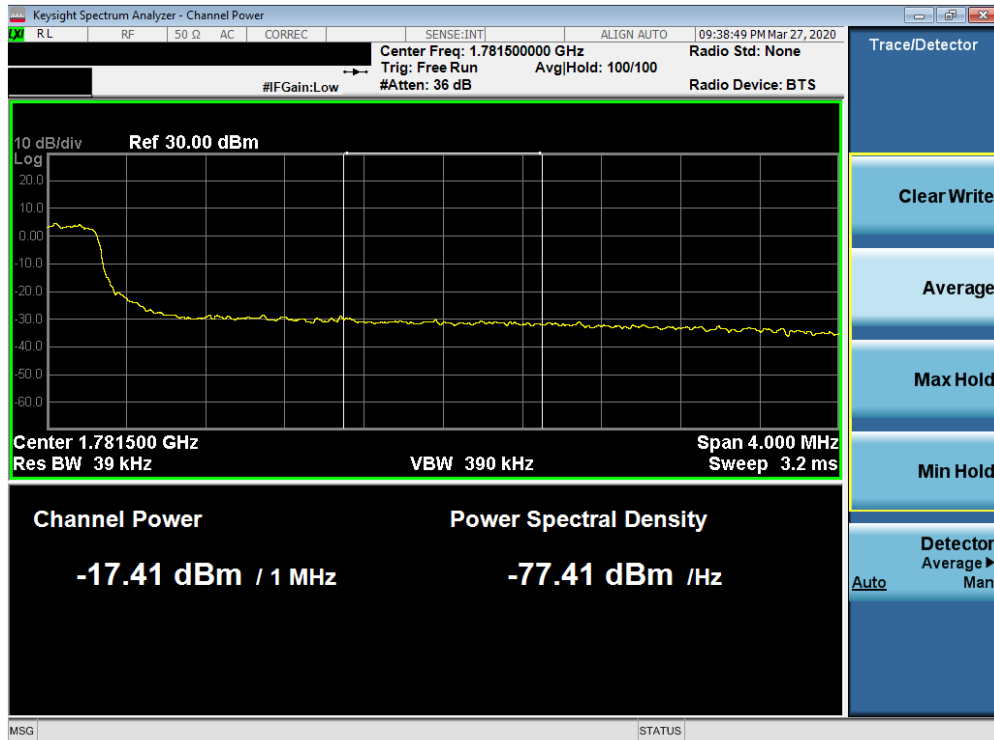


Plot 7-436. Upper Extended Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 247 of 420

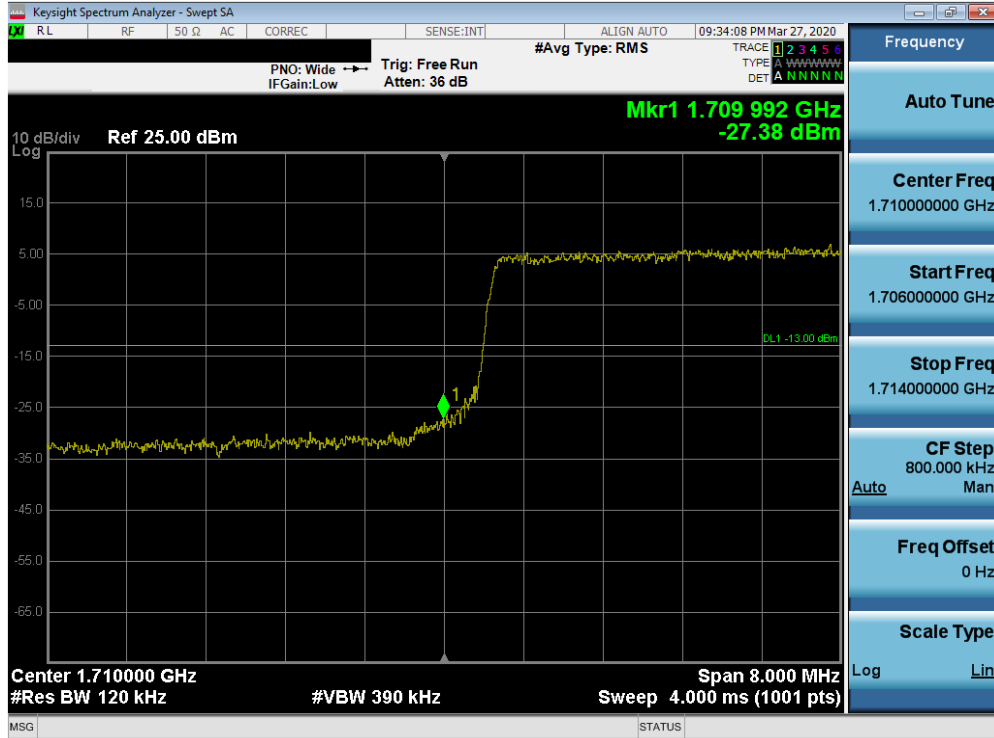


Plot 7-437. Upper Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

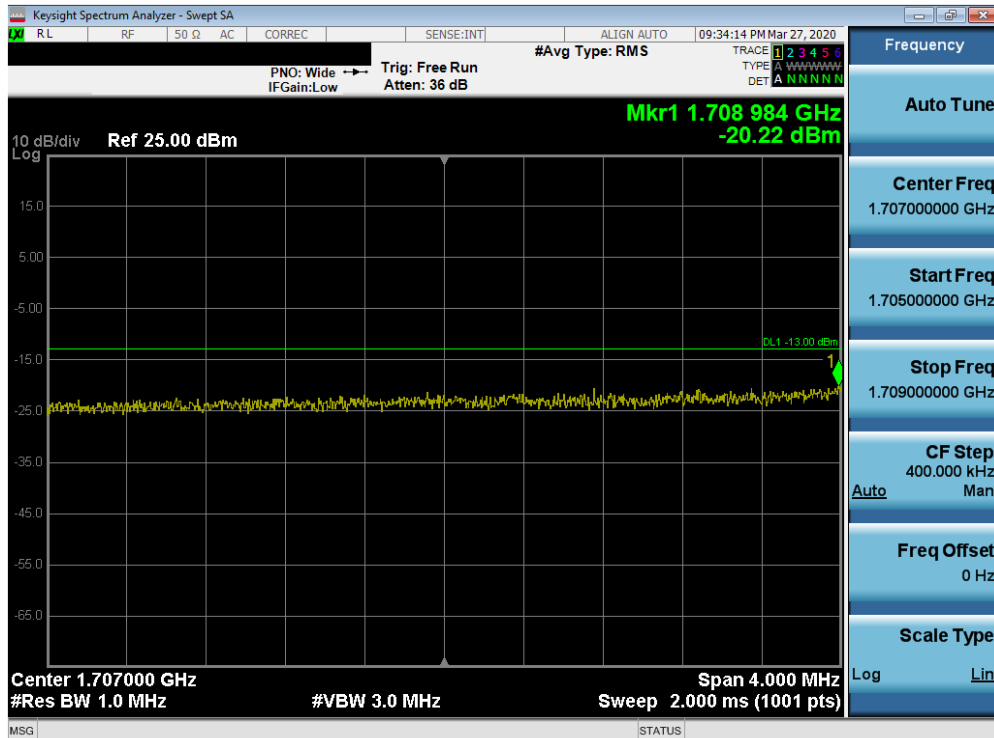


Plot 7-438. Upper Extended Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 248 of 420



Plot 7-439. Lower Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

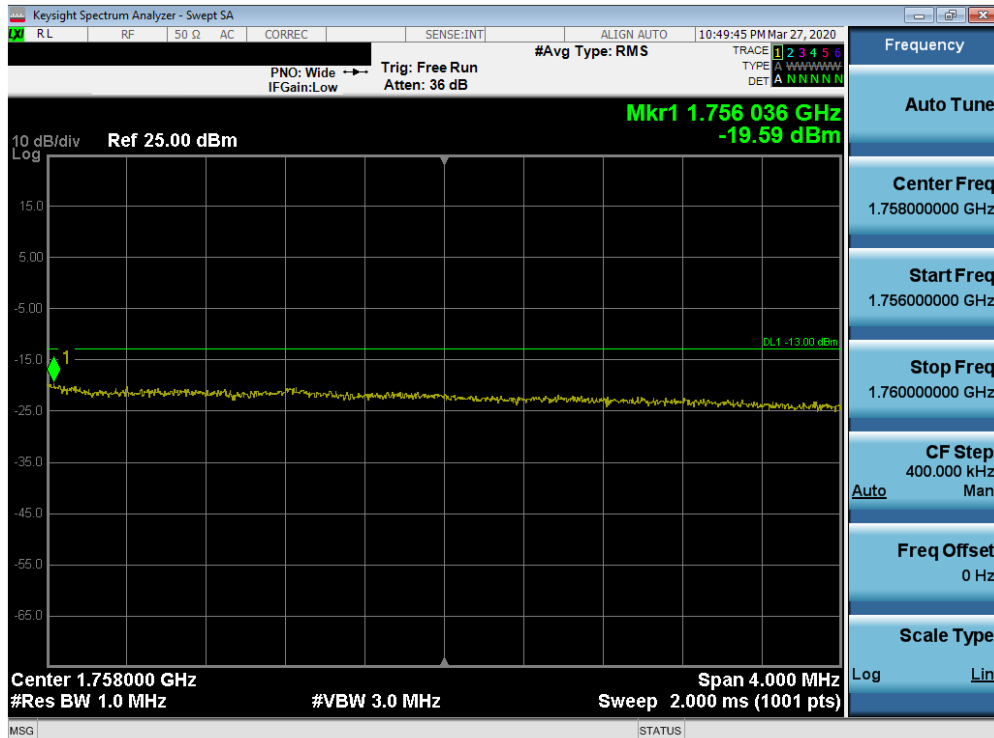


Plot 7-440. Lower Extended Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 249 of 420



Plot 7-441. Upper Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

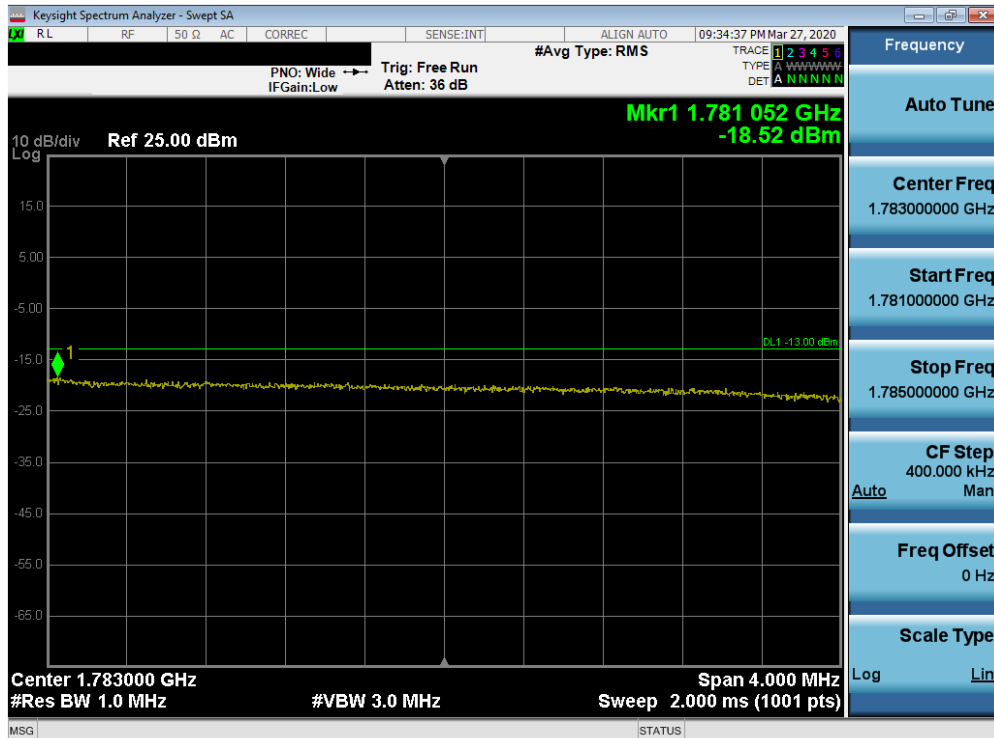


Plot 7-442. Upper Extended Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 250 of 420

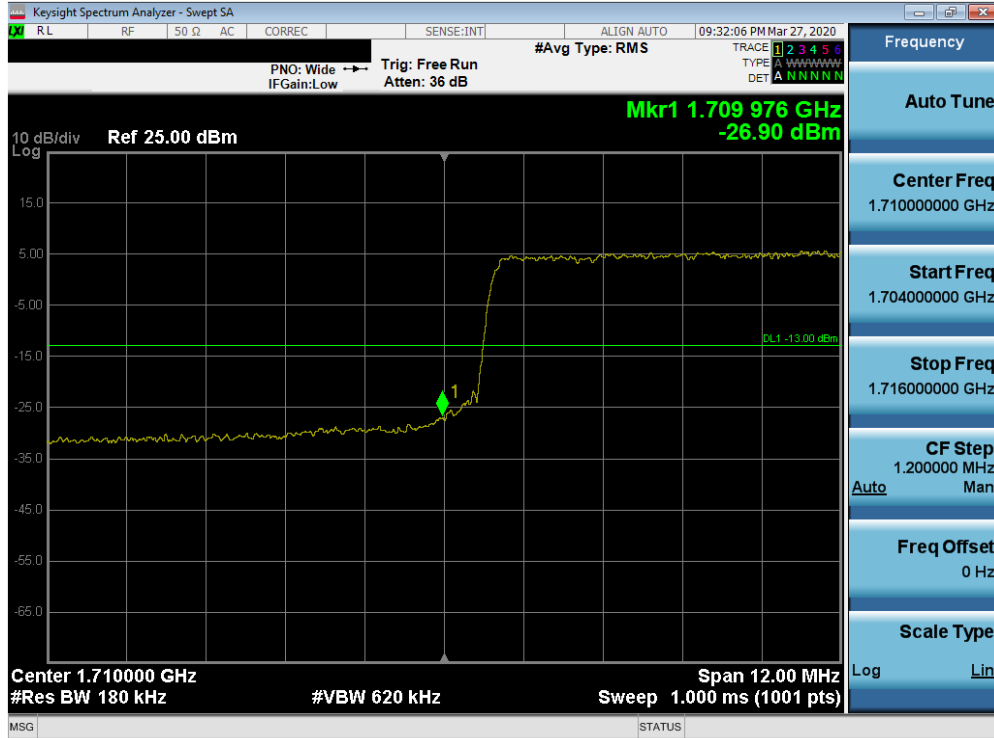


Plot 7-443. Upper Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

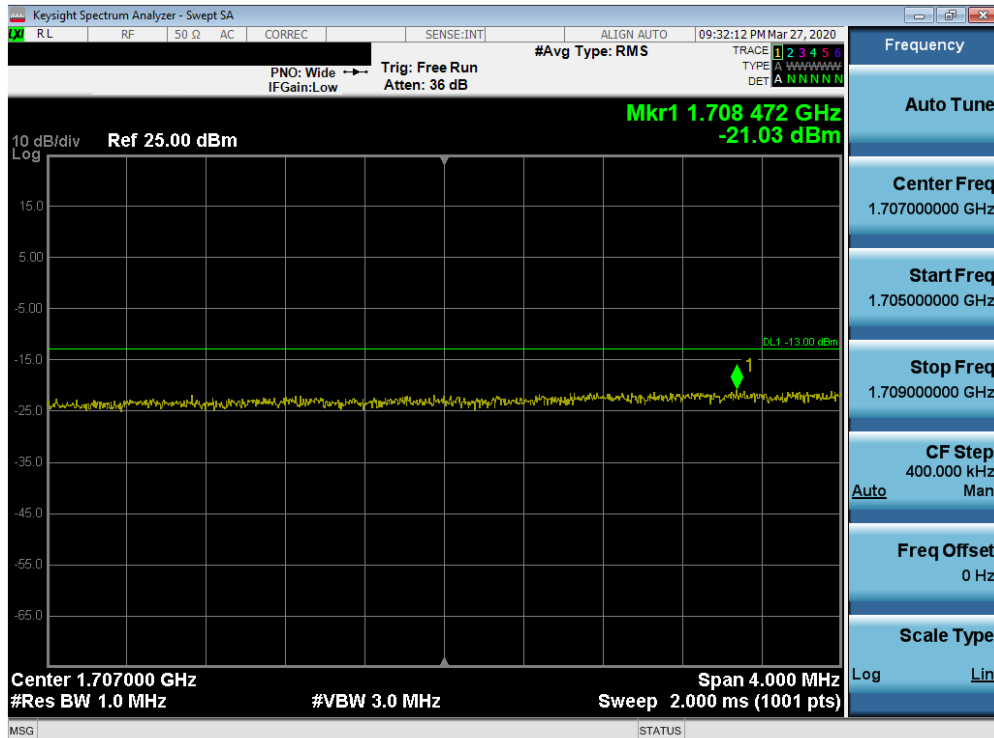


Plot 7-444. Upper Extended Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 251 of 420

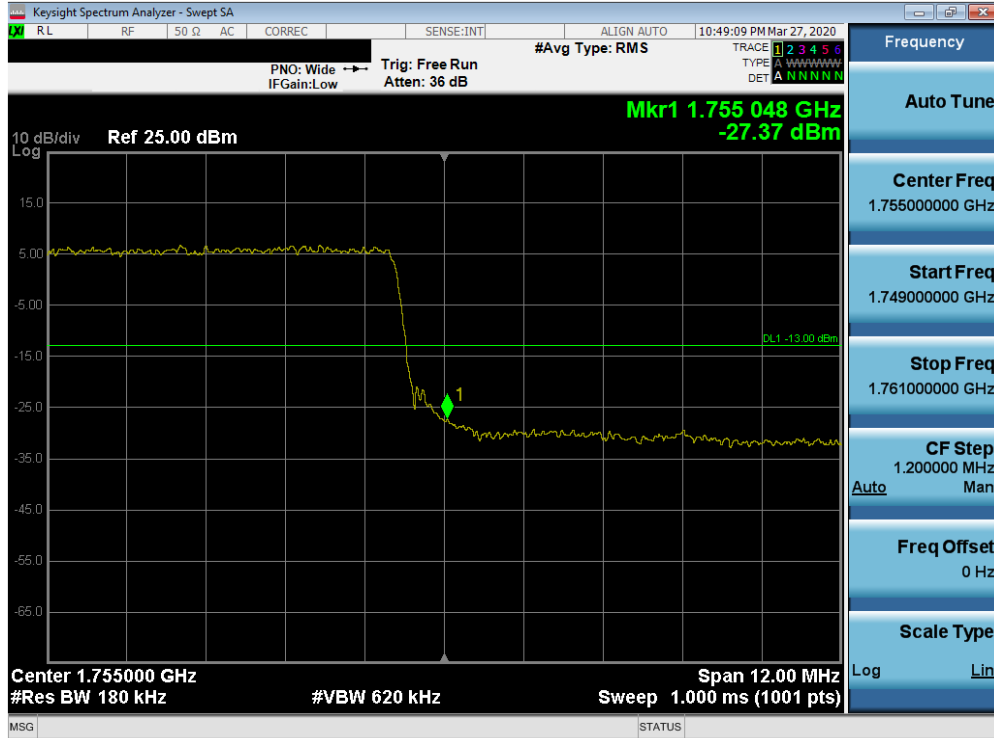


Plot 7-445. Lower Band Edge Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)

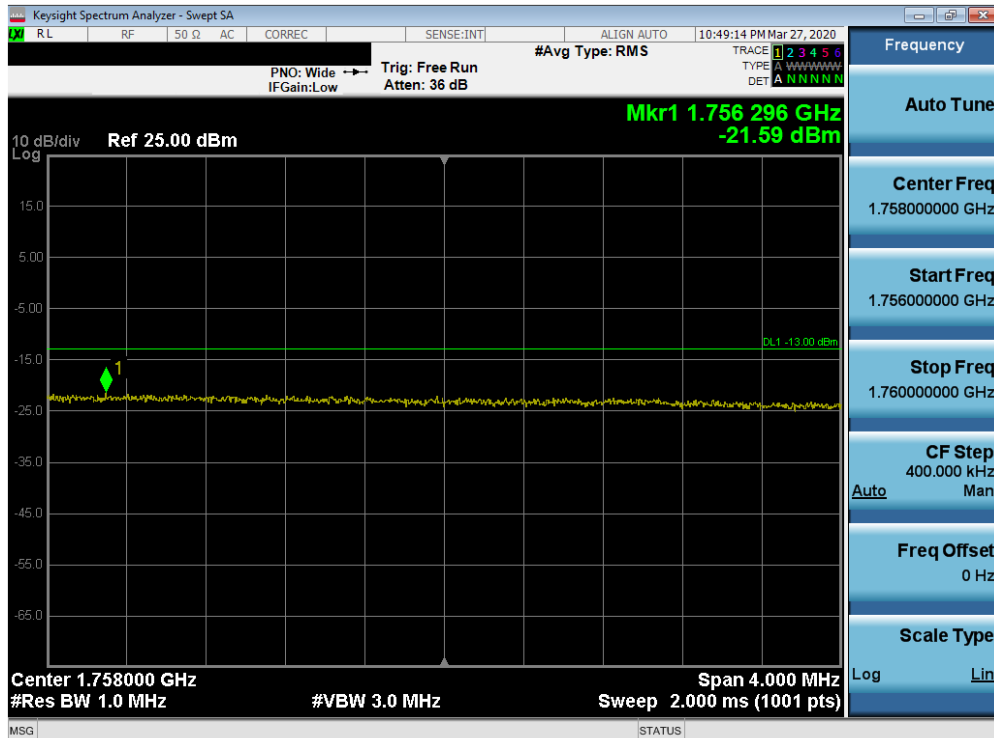


Plot 7-446. Lower Extended Band Edge Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 252 of 420



Plot 7-447. Upper Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

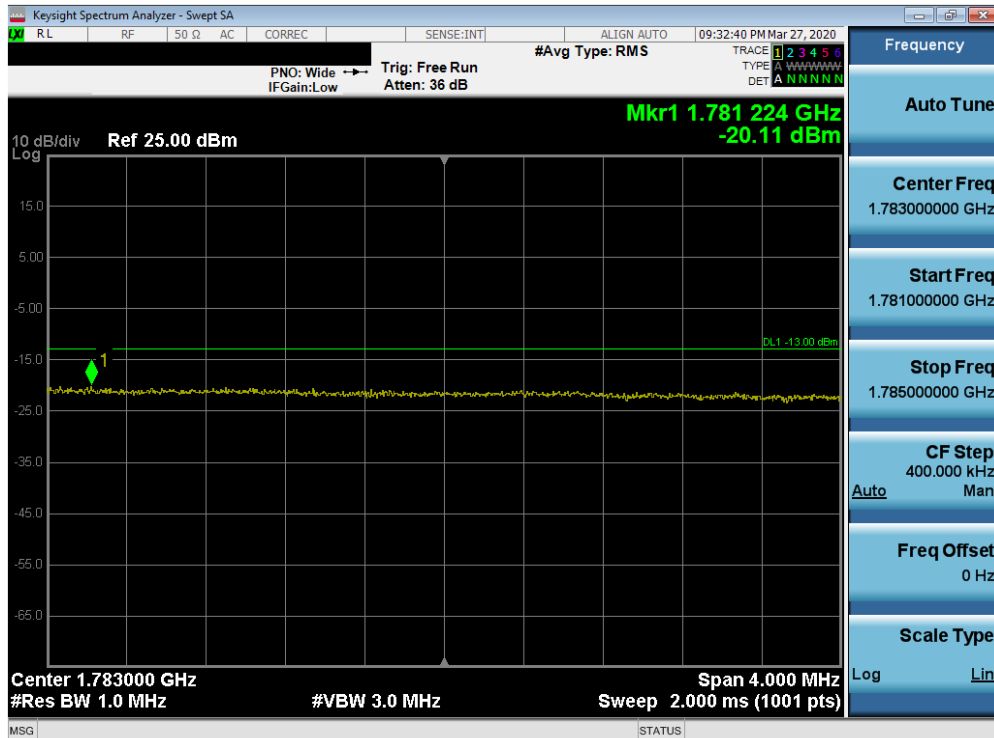


Plot 7-448. Upper Extended Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 253 of 420

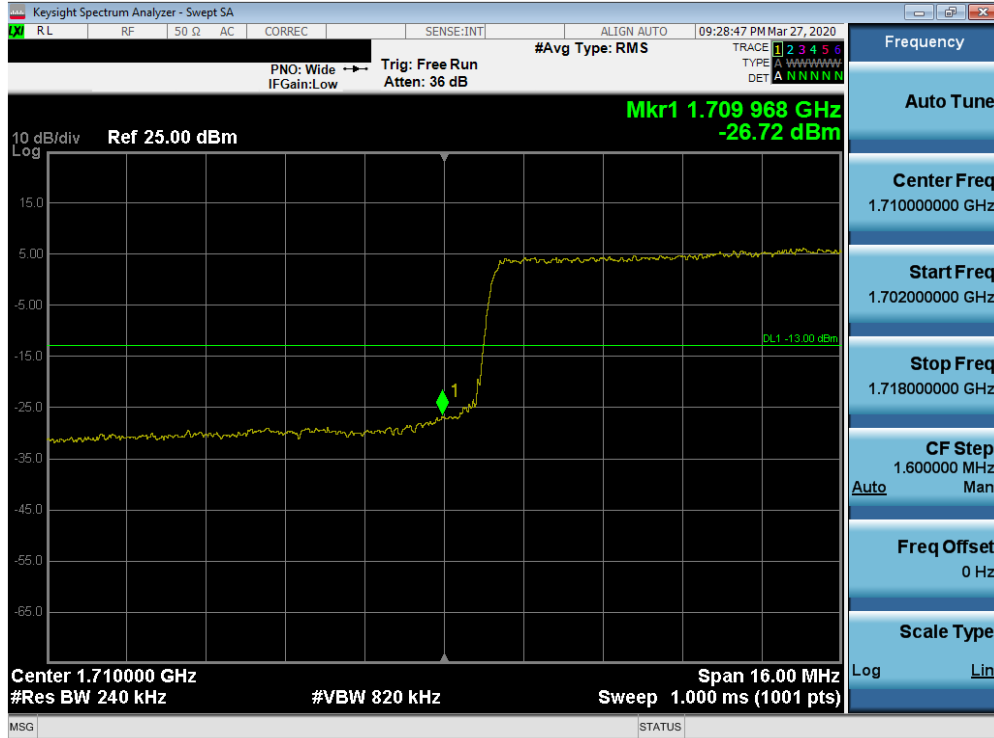


Plot 7-449. Upper Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

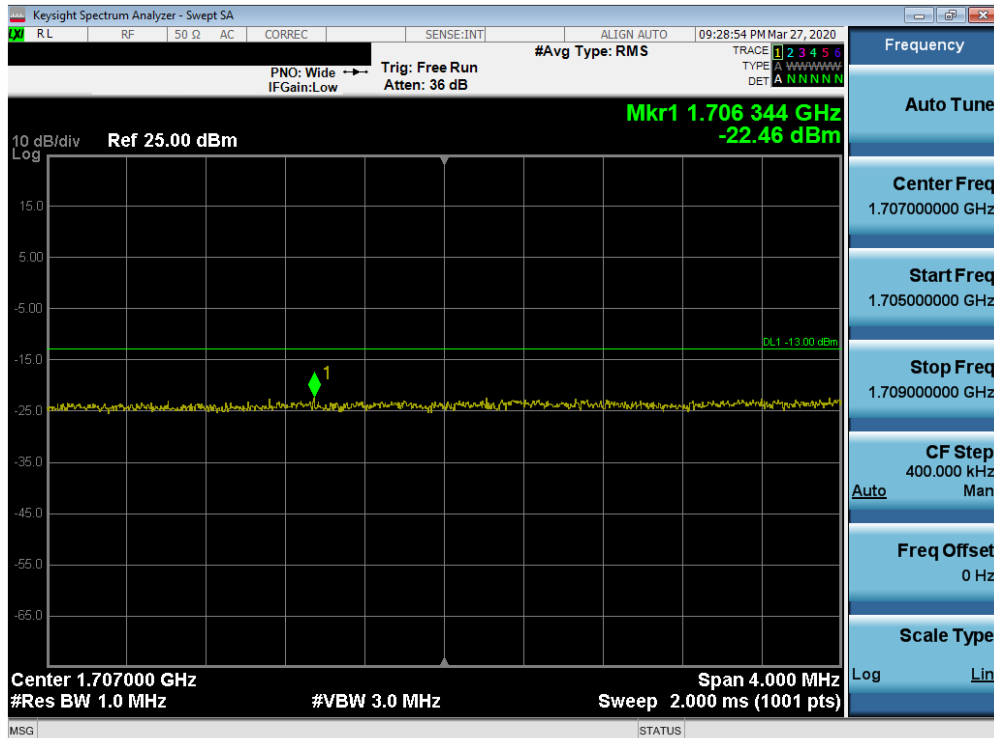


Plot 7-450. Upper Extended Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 254 of 420



Plot 7-451. Lower Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

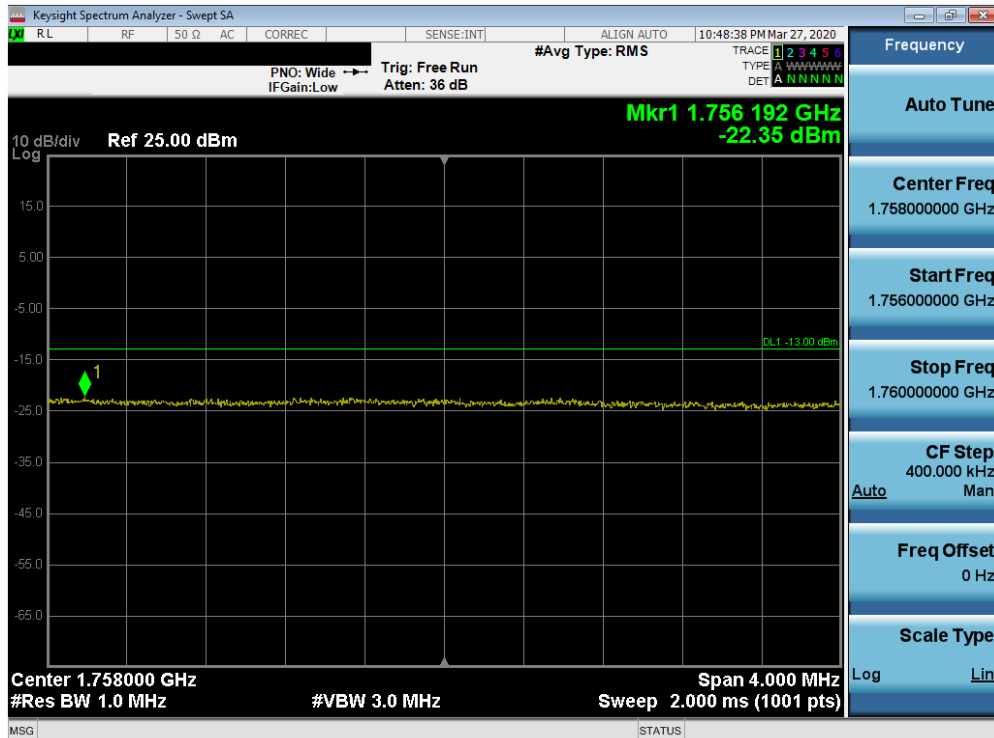


Plot 7-452. Lower Extended Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 255 of 420

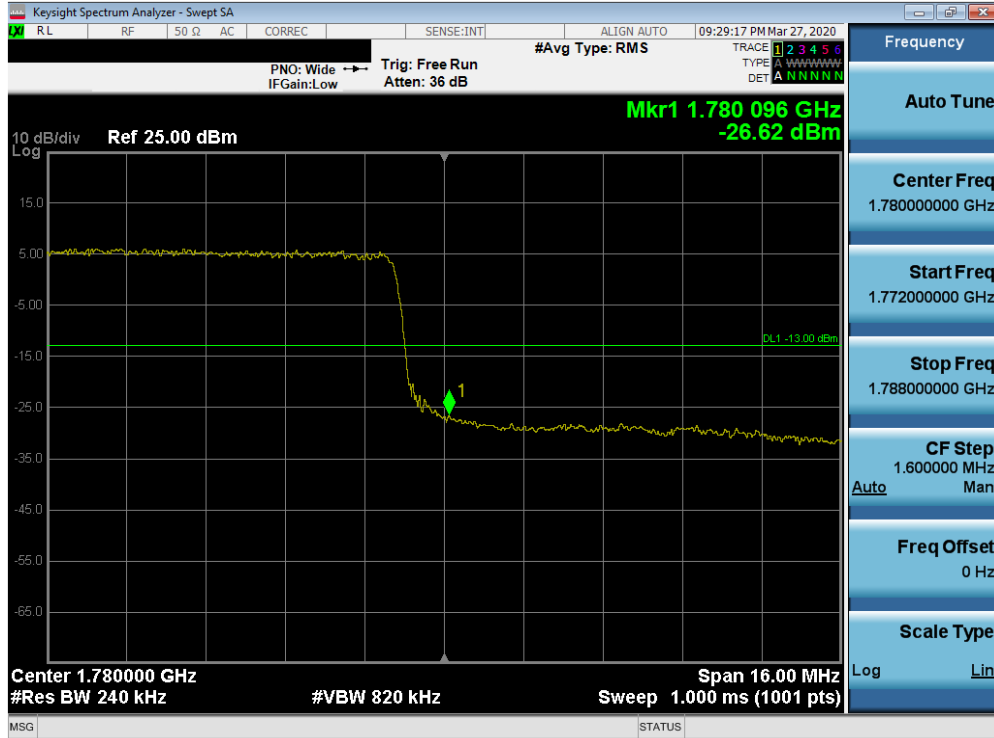


Plot 7-453. Upper Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

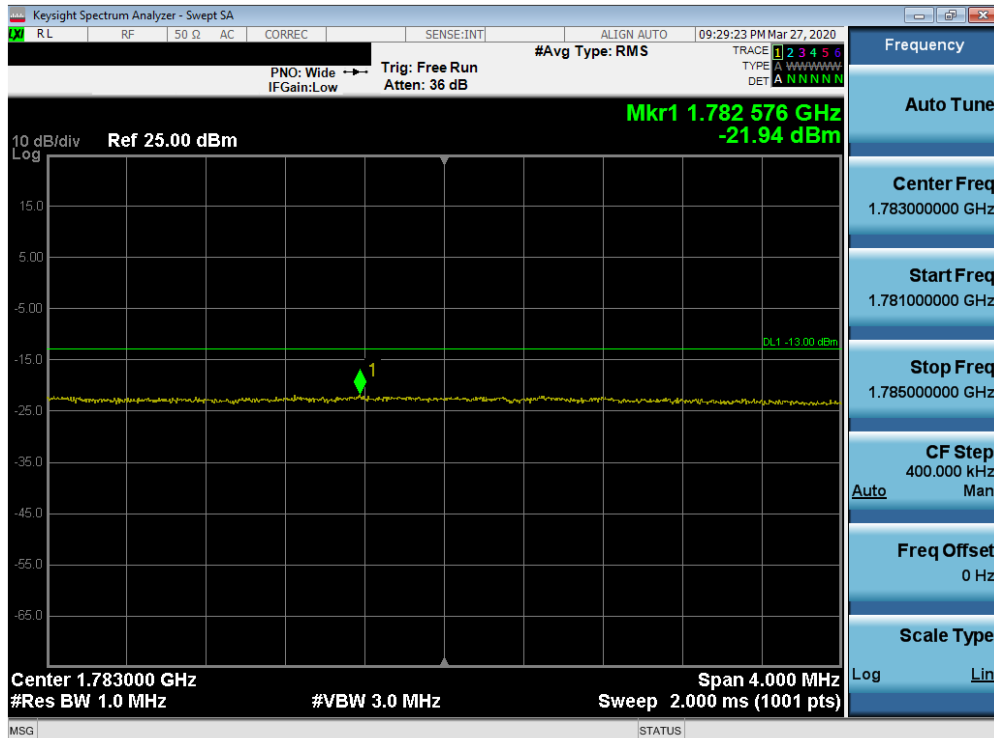


Plot 7-454. Upper Extended Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 256 of 420



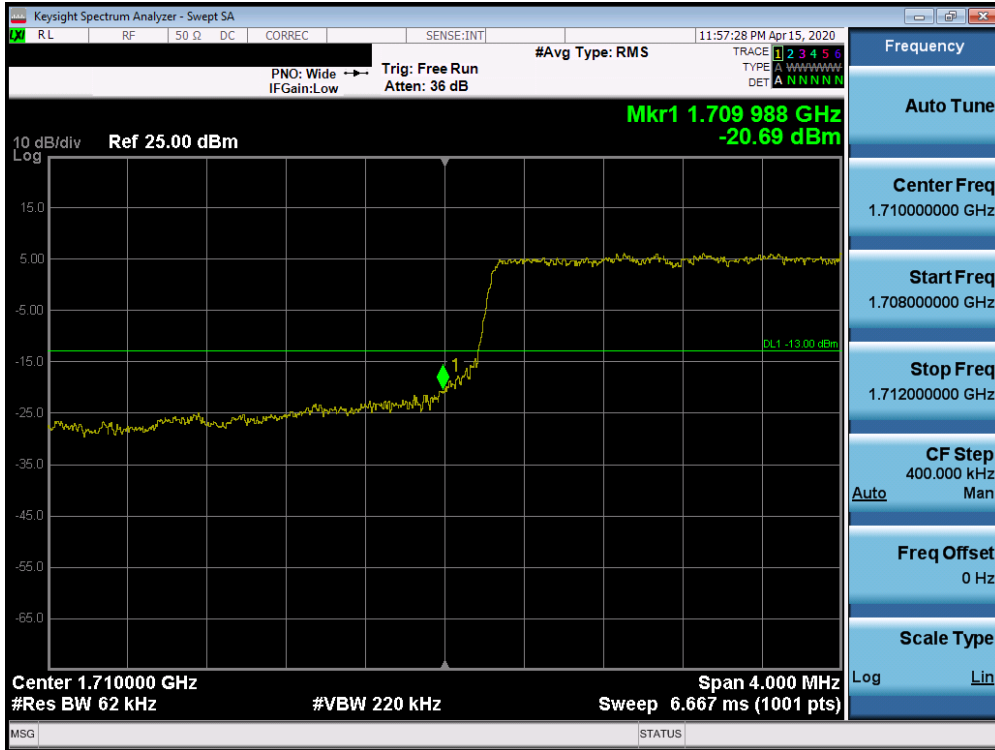
Plot 7-455. Upper Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)



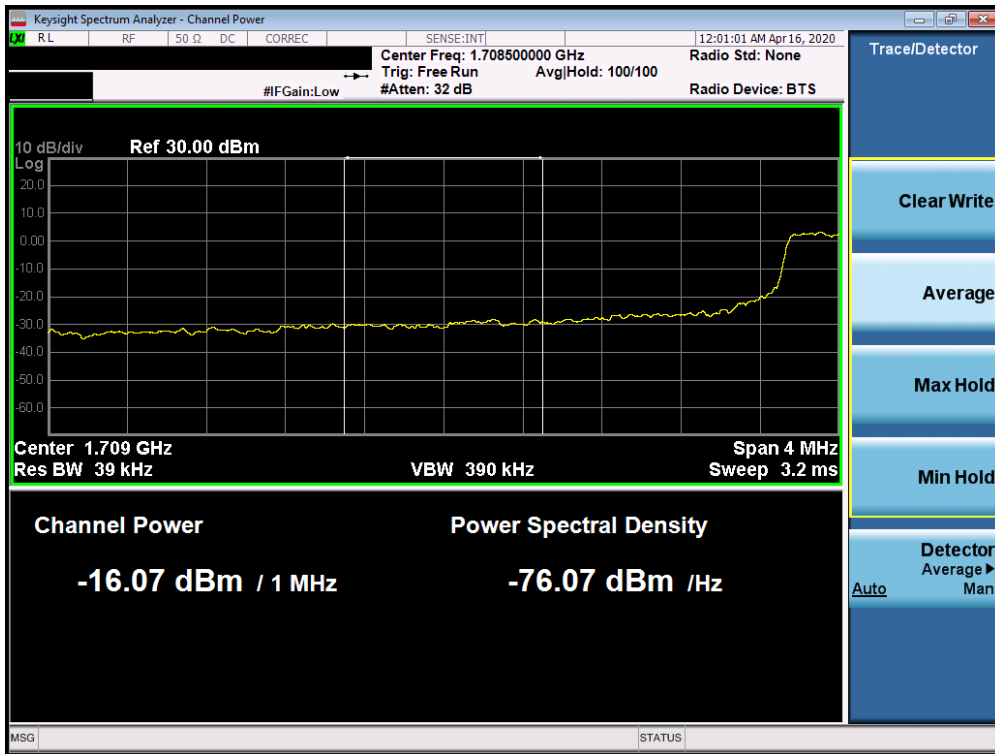
Plot 7-456. Upper Extended Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 257 of 420

NR Band n66



Plot 7-457. Lower Band Edge Plot (n66 - 5MHz DFT-s-OFDM-QPSK - Full RB Configuration)

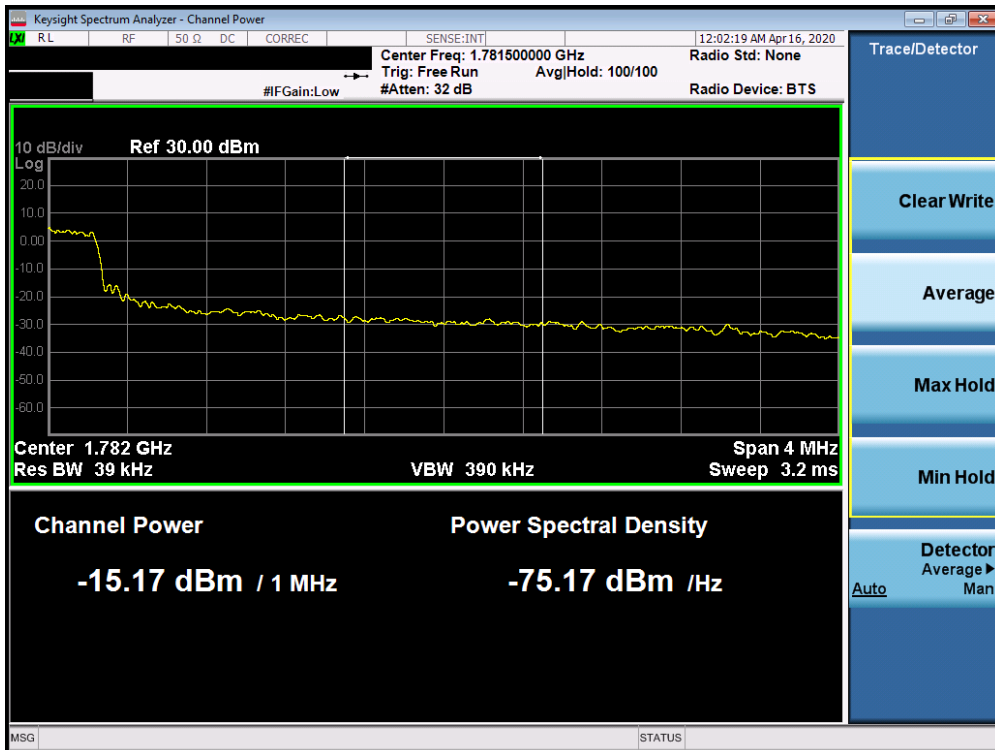


Plot 7-458. Lower Extended Band Edge Plot (n66 - 5MHz DFT-s-OFDM-QPSK - Full RB Configuration)

FCC ID: A3LSMA716U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 258 of 420

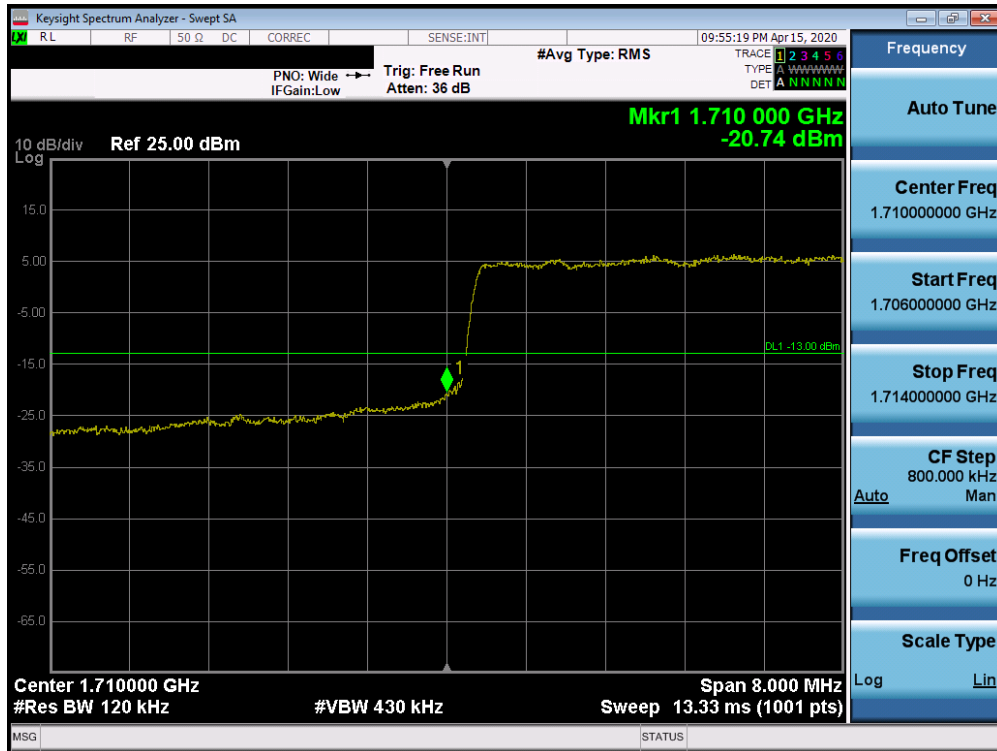


Plot 7-459. Upper Band Edge Plot (n66 - 5MHz DFT-s-OFDM-QPSK - Full RB Configuration)

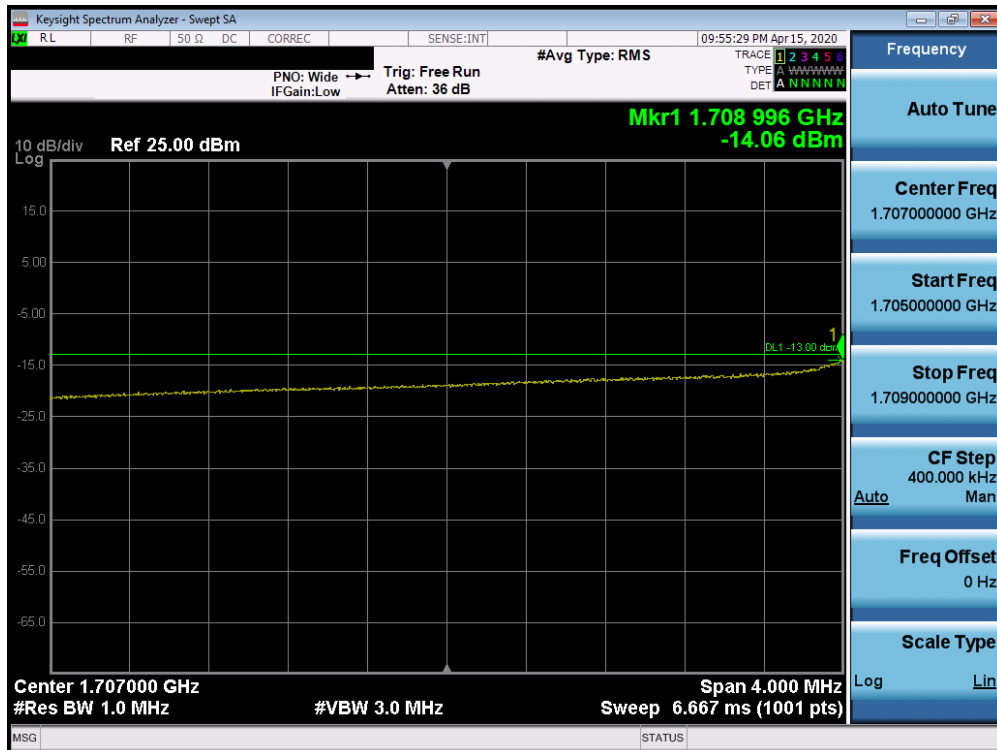


Plot 7-460. Upper Extended Band Edge Plot (n66 - 5MHz DFT-s-OFDM-QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 259 of 420



Plot 7-461. Lower Band Edge Plot (n66 - 10MHz DFT-s-OFDM-QPSK - Full RB Configuration)



Plot 7-462. Lower Extended Band Edge Plot (n66 - 10MHz DFT-s-OFDM-QPSK - Full RB Configuration)

FCC ID: A3LSMA716U	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003200047-11.A3L	Test Dates: 3/23 - 5/7/2020	EUT Type: Portable Handset		Page 260 of 420