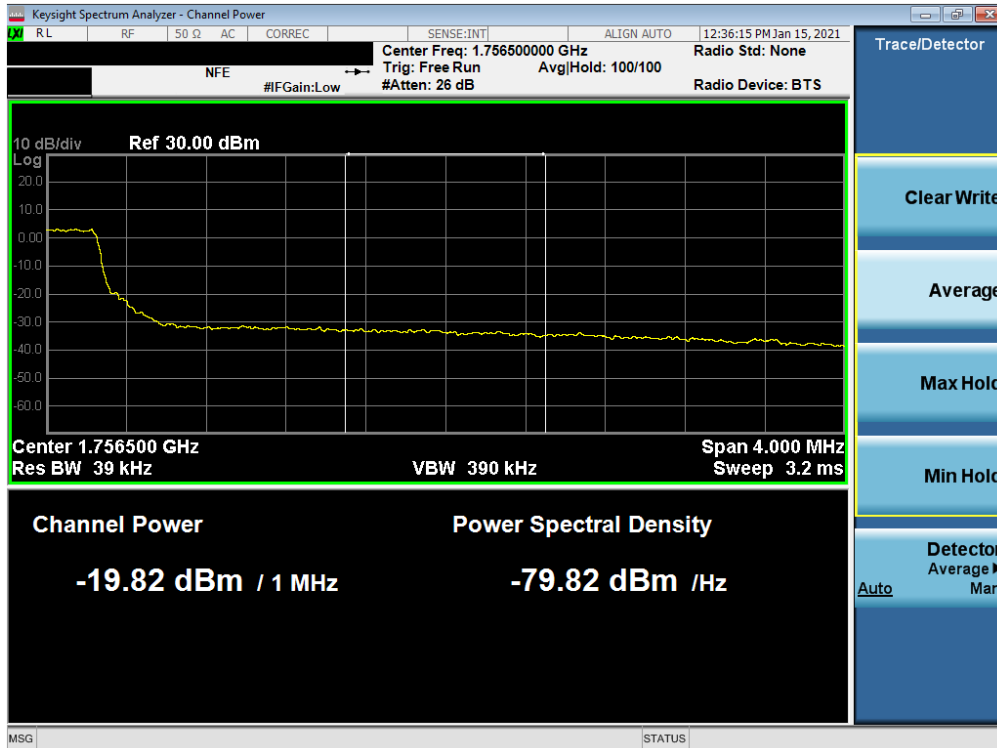
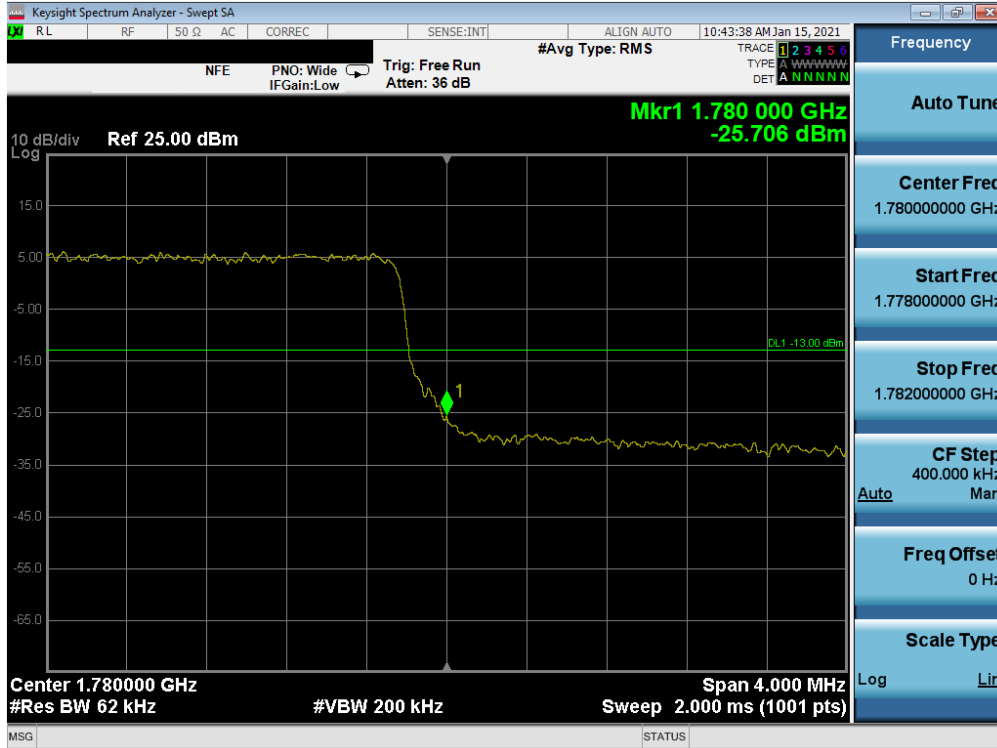


Plot 7-203. Upper Band Edge Plot (LTE Band 4 - 5MHz QPSK – Full RB)

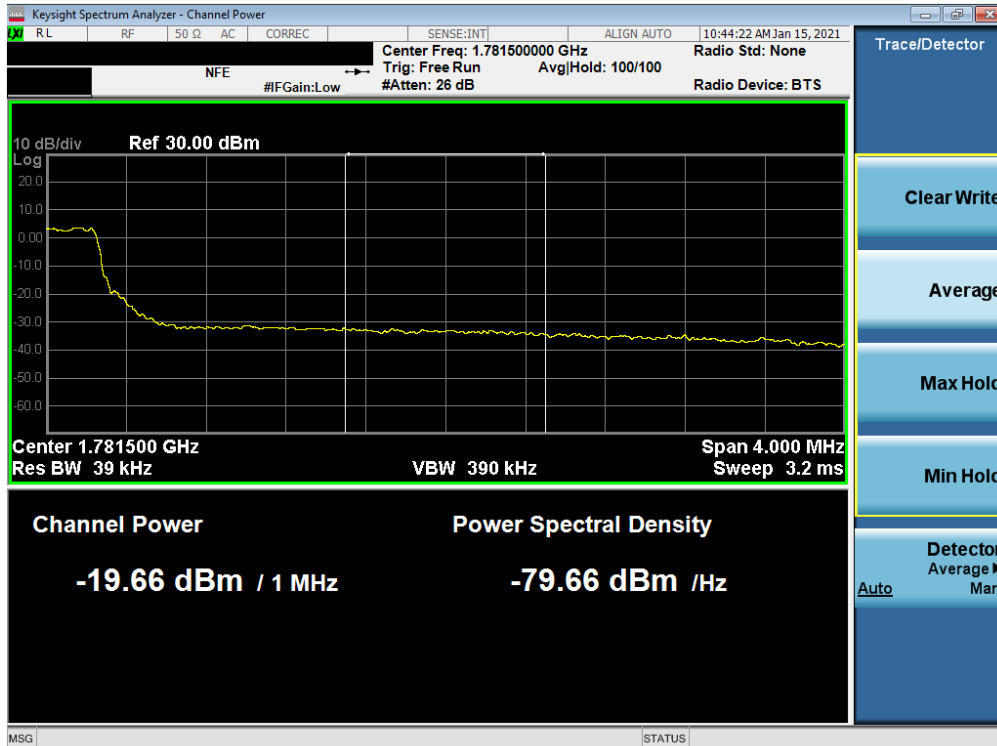


Plot 7-204. Upper Extended Band Edge Plot (LTE Band 4 - 5MHz QPSK – Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 121 of 205

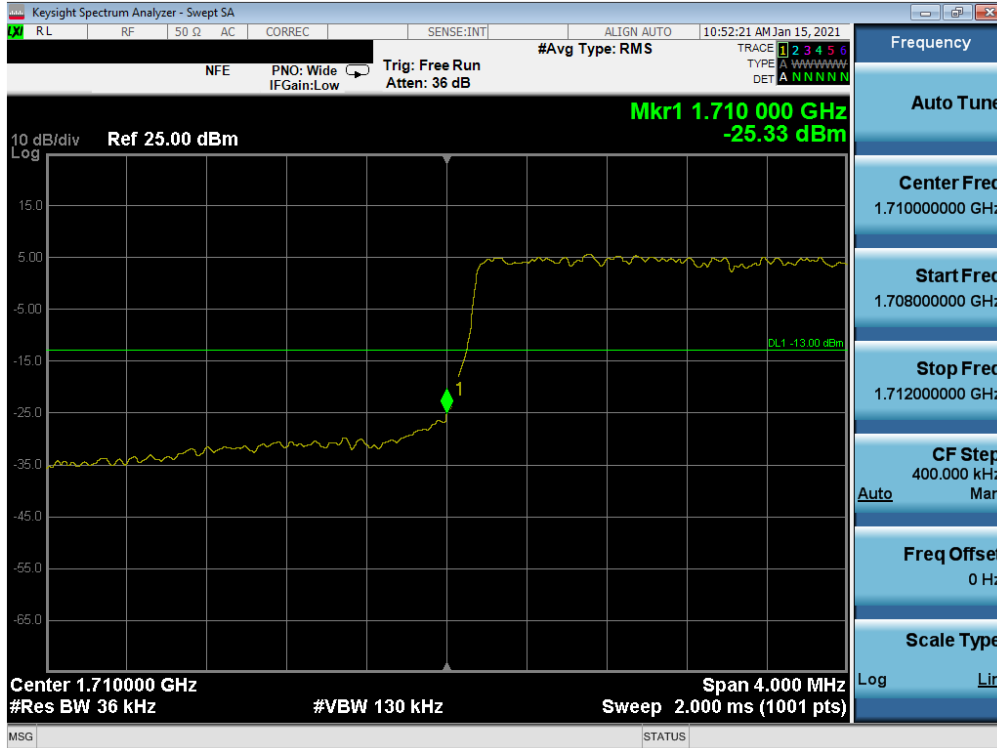


Plot 7-205. Upper Band Edge Plot (LTE Band 66 - 5MHz QPSK – Full RB)

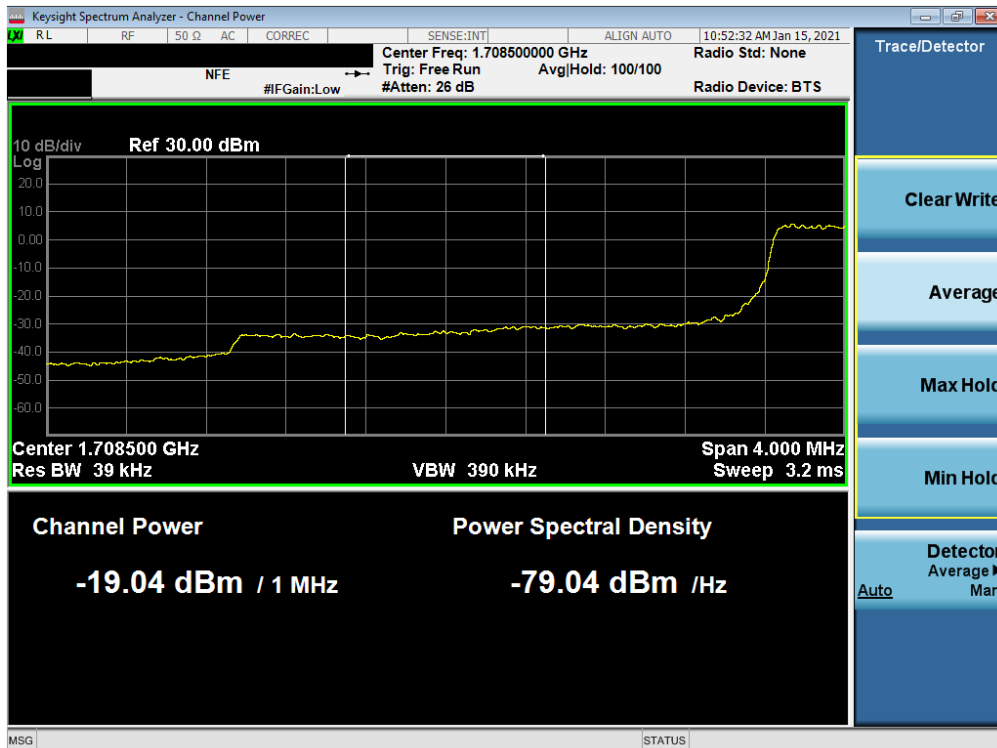


Plot 7-206. Upper Extended Band Edge Plot (LTE Band 66 - 5MHz QPSK – Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 122 of 205

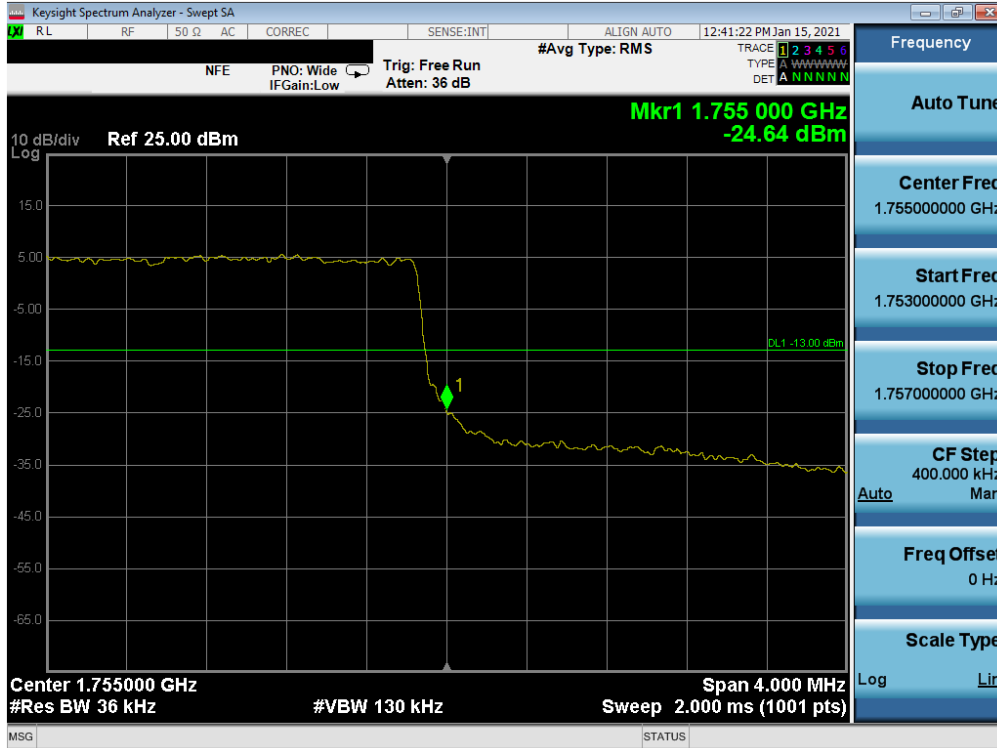


**Plot 7-207. Lower Band Edge Plot (LTE Band 66/4 - 3MHz QPSK – Full RB)**

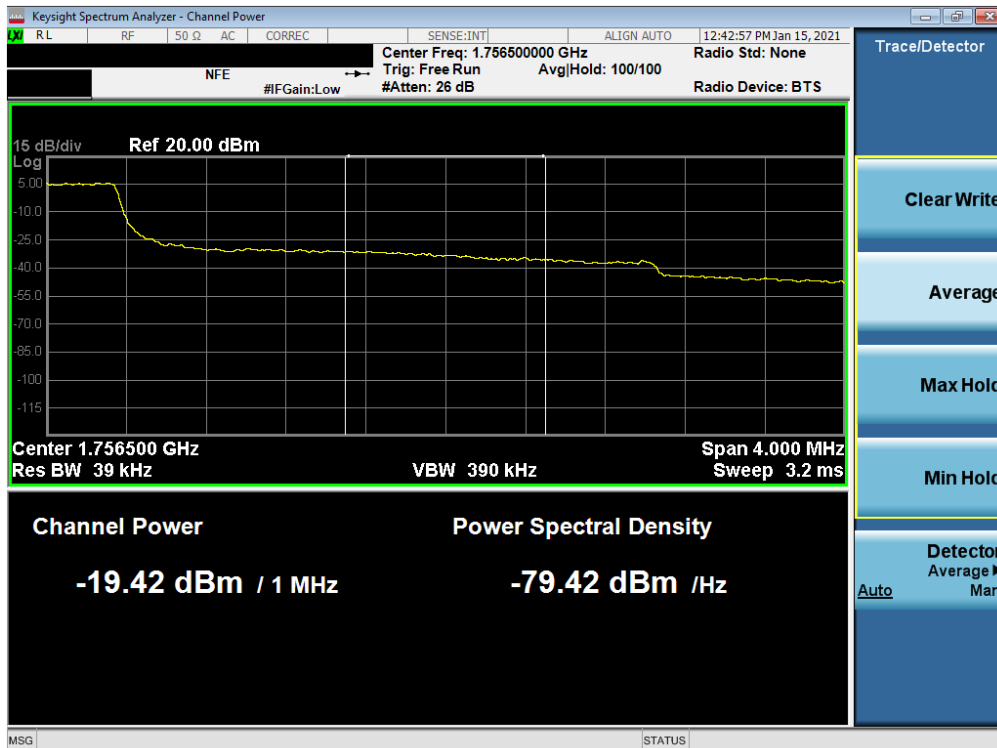


**Plot 7-208. Lower Extended Band Edge Plot (LTE Band 66/4 - 3MHz QPSK – Full RB)**

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 123 of 205



Plot 7-209. Upper Band Edge Plot (LTE Band 4 - 3MHz QPSK – Full RB)

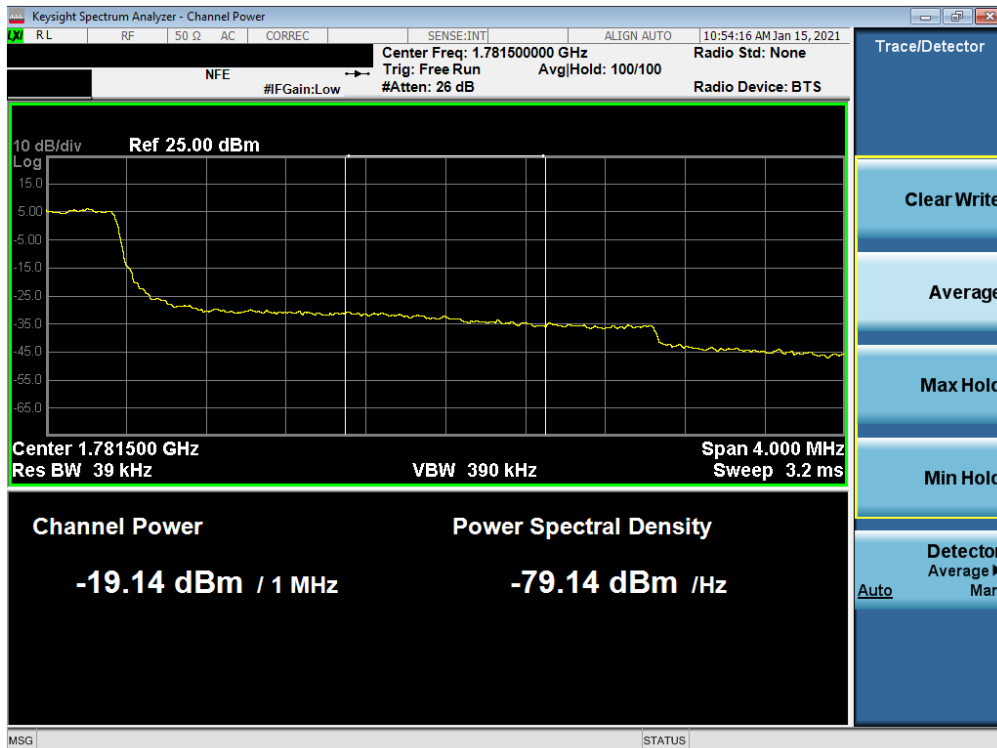


Plot 7-210. Upper Extended Band Edge Plot (LTE Band 4 - 3MHz QPSK – Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 124 of 205

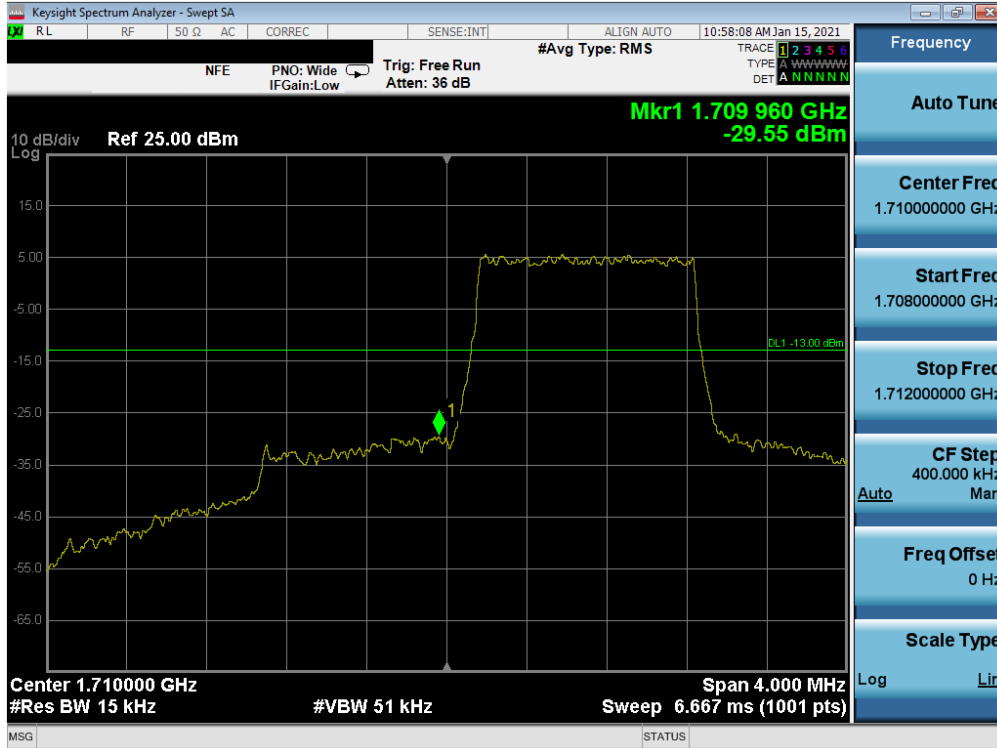


Plot 7-211. Upper Band Edge Plot (LTE Band 66 - 3MHz QPSK – Full RB)

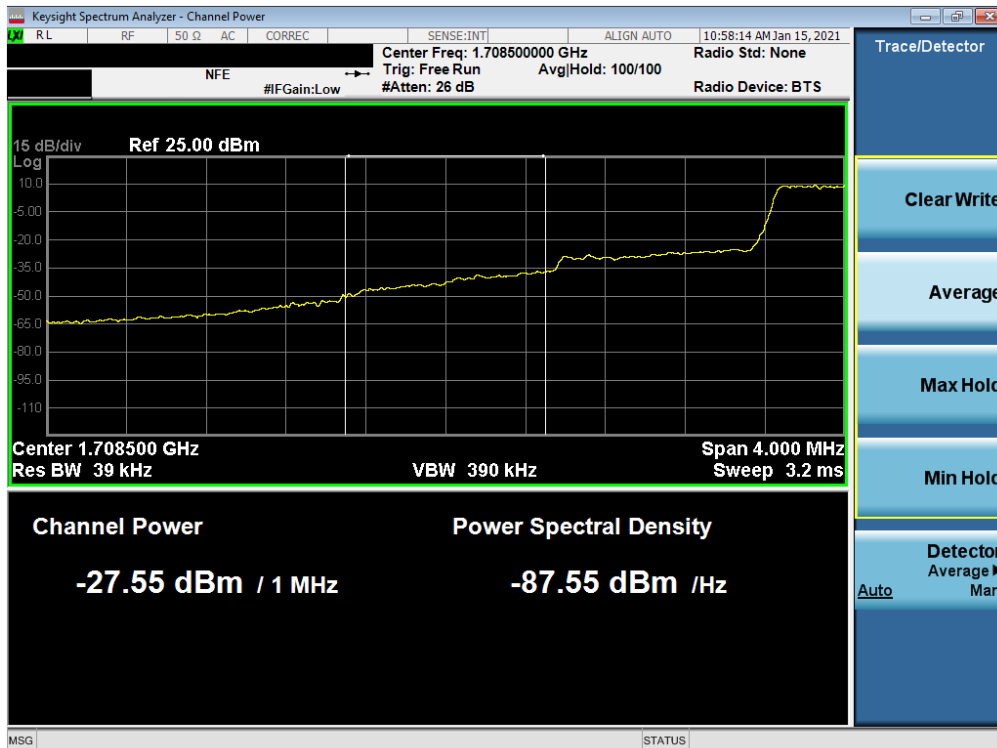


Plot 7-212. Upper Extended Band Edge Plot (LTE Band 66 - 3MHz QPSK – Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 125 of 205



Plot 7-213. Lower Band Edge Plot (LTE Band 66/4 – 1.4MHz QPSK – Full RB)

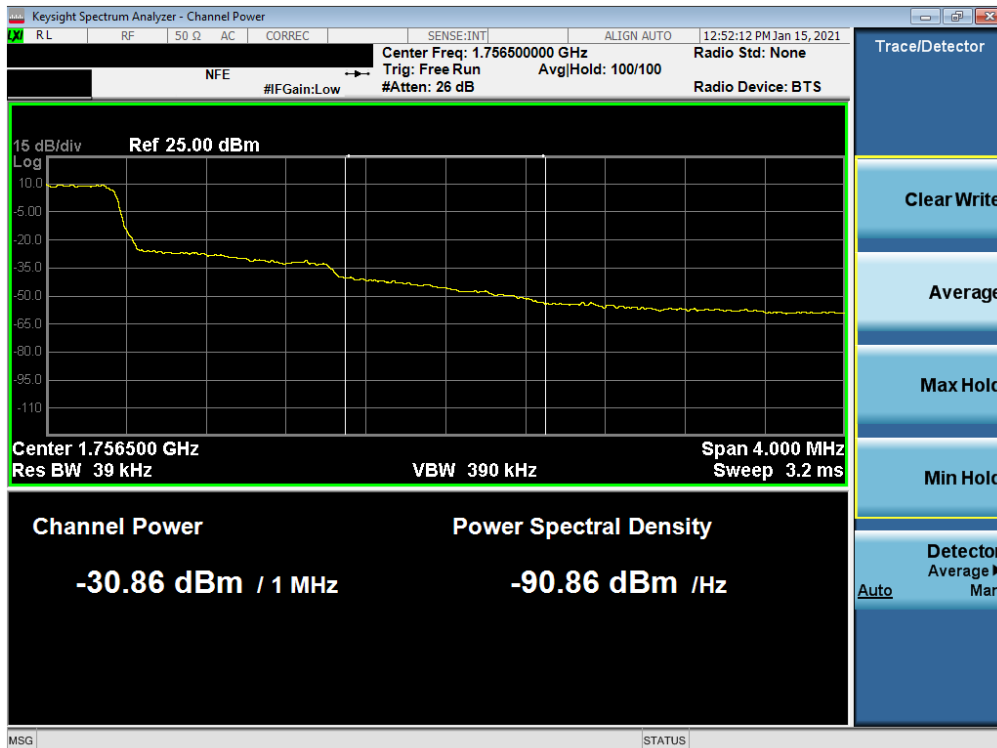


Plot 7-214. Lower Extended Band Edge Plot (LTE Band 66/4 – 1.4MHz QPSK – Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 126 of 205



Plot 7-215. Upper Band Edge Plot (LTE Band 4 – 1.4MHz QPSK – Full RB)

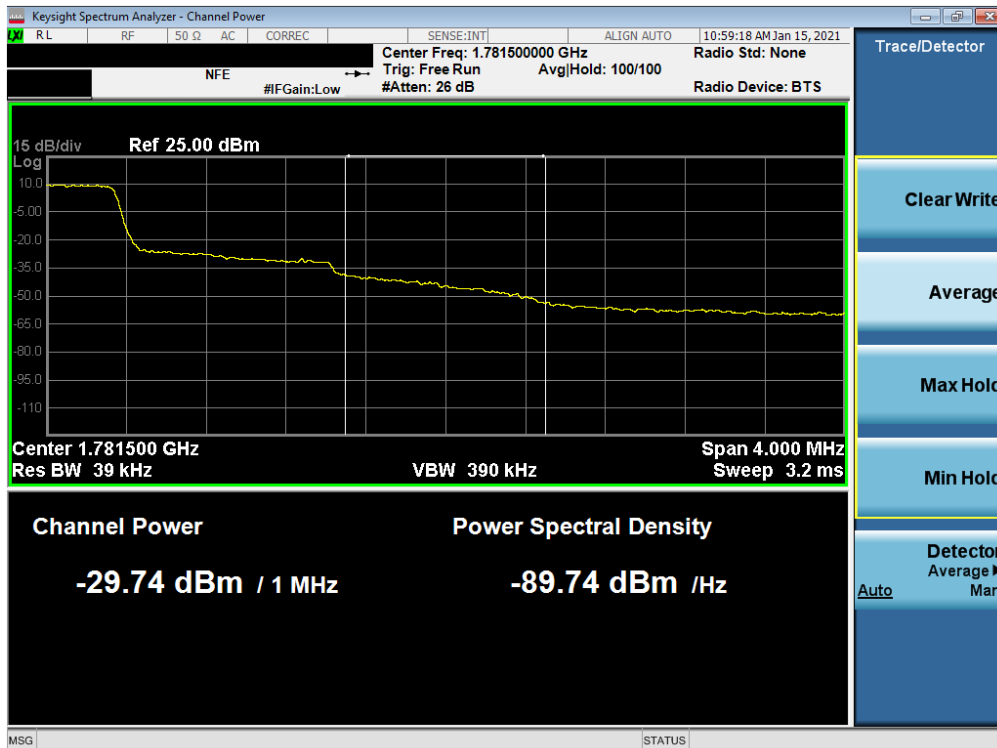


Plot 7-216. Upper Extended Band Edge Plot (LTE Band 4 – 1.4MHz QPSK – Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 127 of 205



Plot 7-217. Upper Band Edge Plot (LTE Band 66 – 1.4MHz QPSK – Full RB)

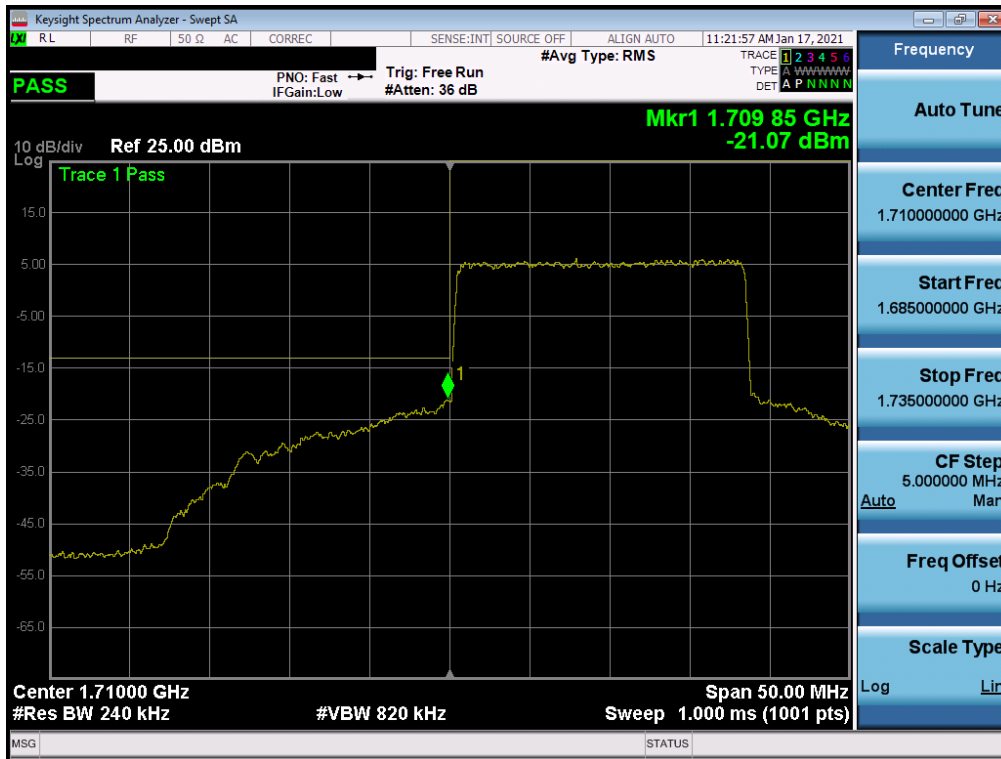


Plot 7-218. Upper Extended Band Edge Plot (LTE Band 66 – 1.4MHz QPSK – Full RB)

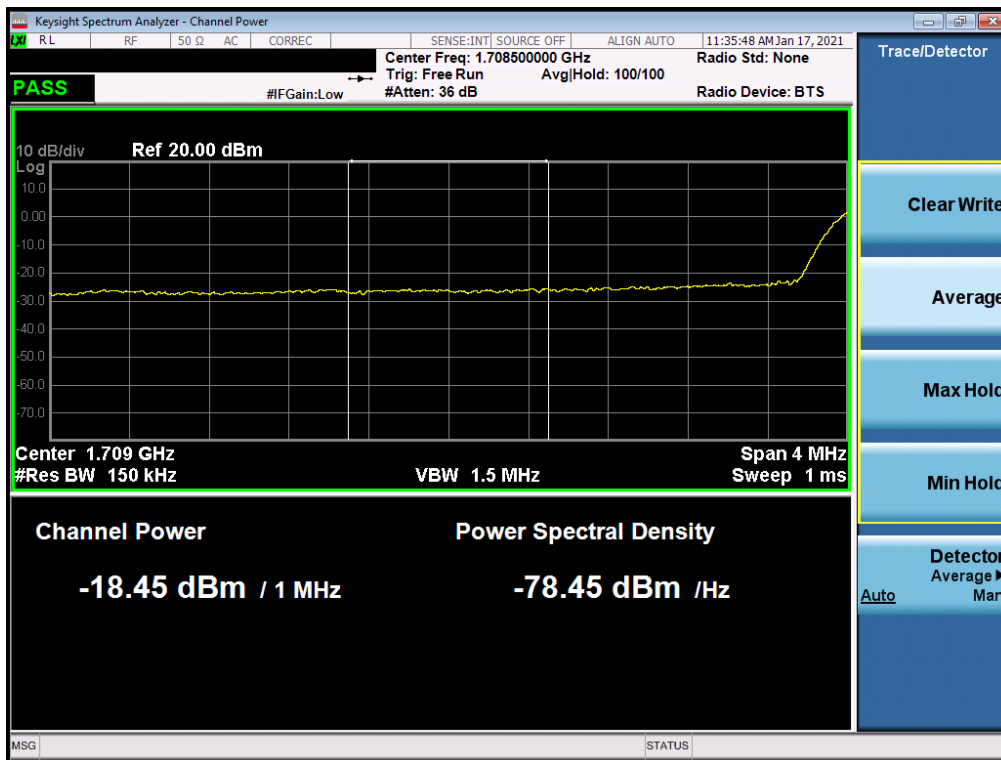
FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 128 of 205



### NR Band n66



**Plot 7-219. Lower Band Edge Plot (NR Band n66 – 20.0MHz - Full RB)**

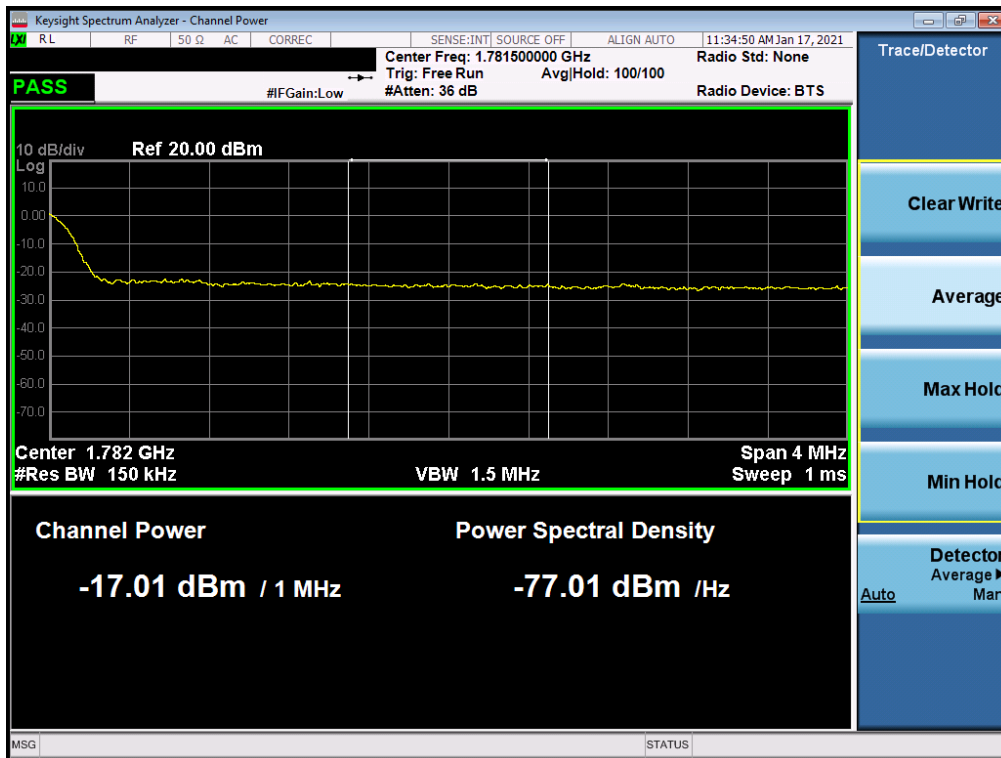


**Plot 7-220. Lower Extended Band Edge Plot (NR Band n66 – 20.0MHz - Full RB)**

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 129 of 205

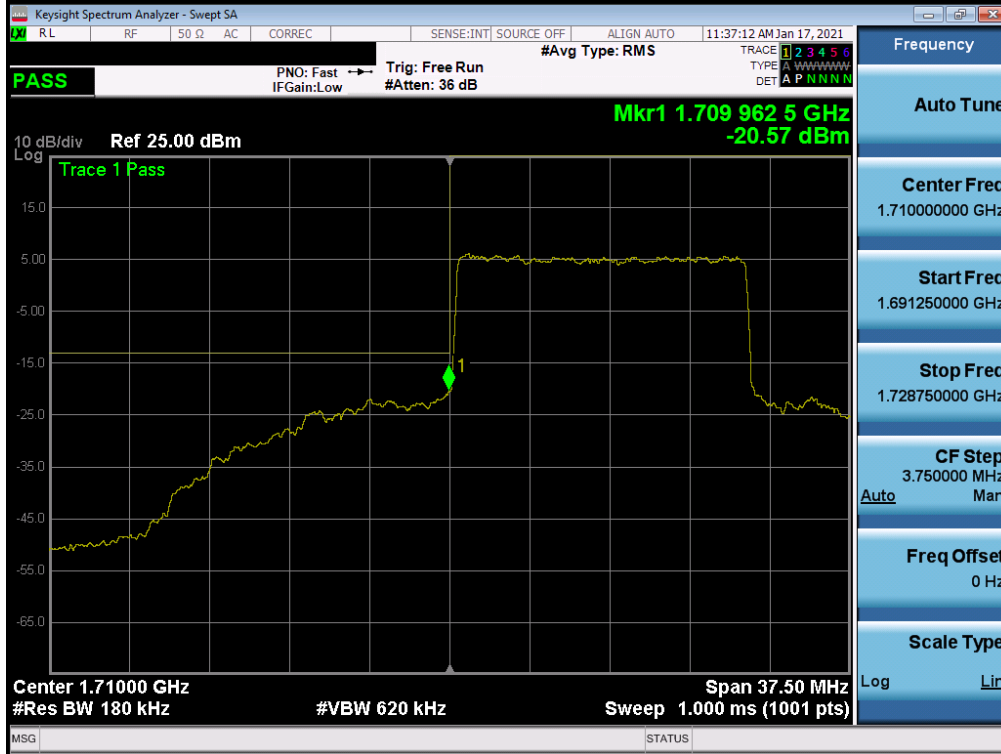


Plot 7-221. Upper Band Edge Plot (NR Band n66 – 20.0MHz - Full RB)

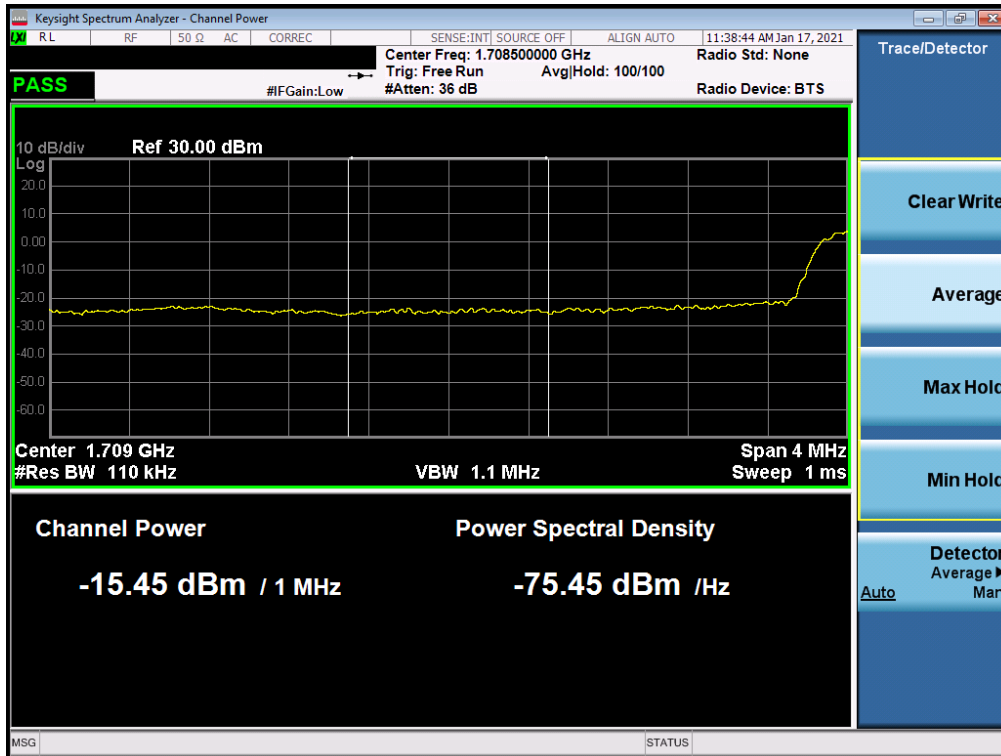


Plot 7-222. Upper Extended Band Edge Plot (NR Band n66 – 20.0MHz - Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 130 of 205



Plot 7-223. Lower Band Edge Plot (NR Band n66 – 15.0MHz - Full RB)

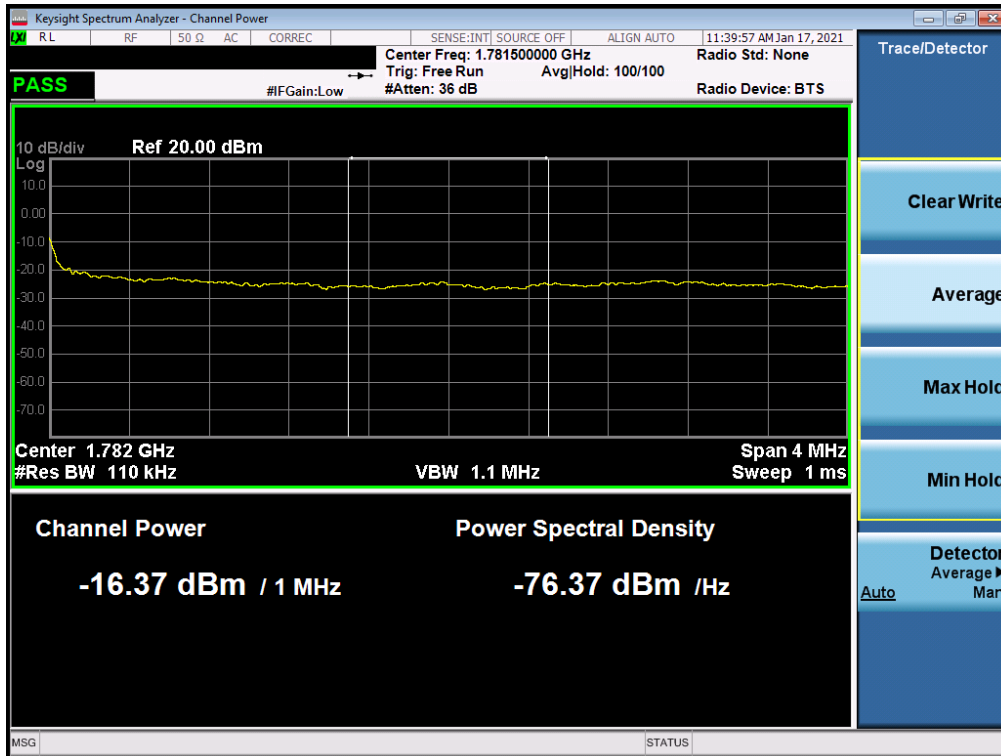


Plot 7-224. Lower Extended Band Edge Plot (NR Band n66 – 15.0MHz - Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 131 of 205

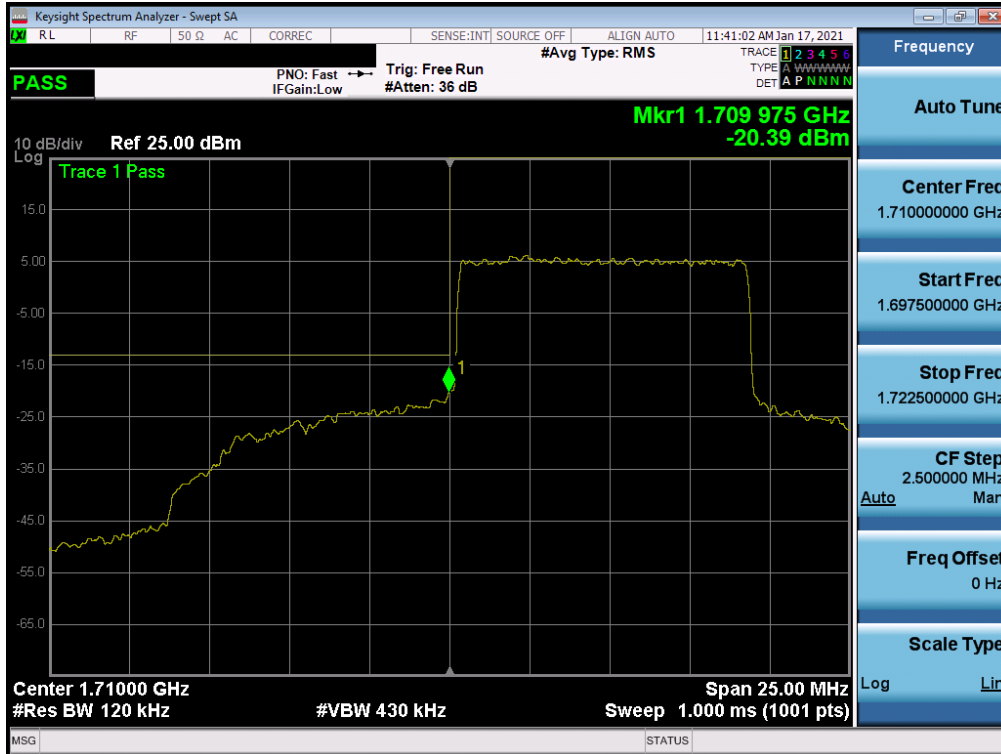


Plot 7-225. Upper Band Edge Plot (NR Band n66 – 15.0MHz - Full RB)

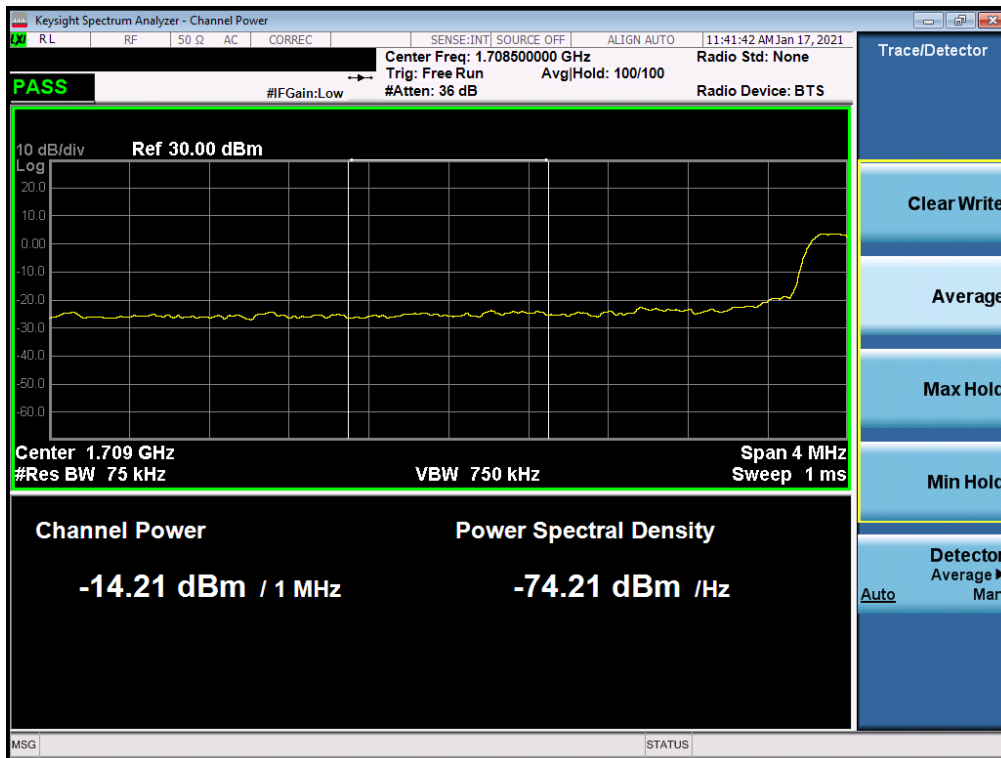


Plot 7-226. Upper Extended Band Edge Plot (NR Band n66 – 15.0MHz - Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 132 of 205



Plot 7-227. Lower Band Edge Plot (NR Band n66 – 10.0MHz - Full RB)

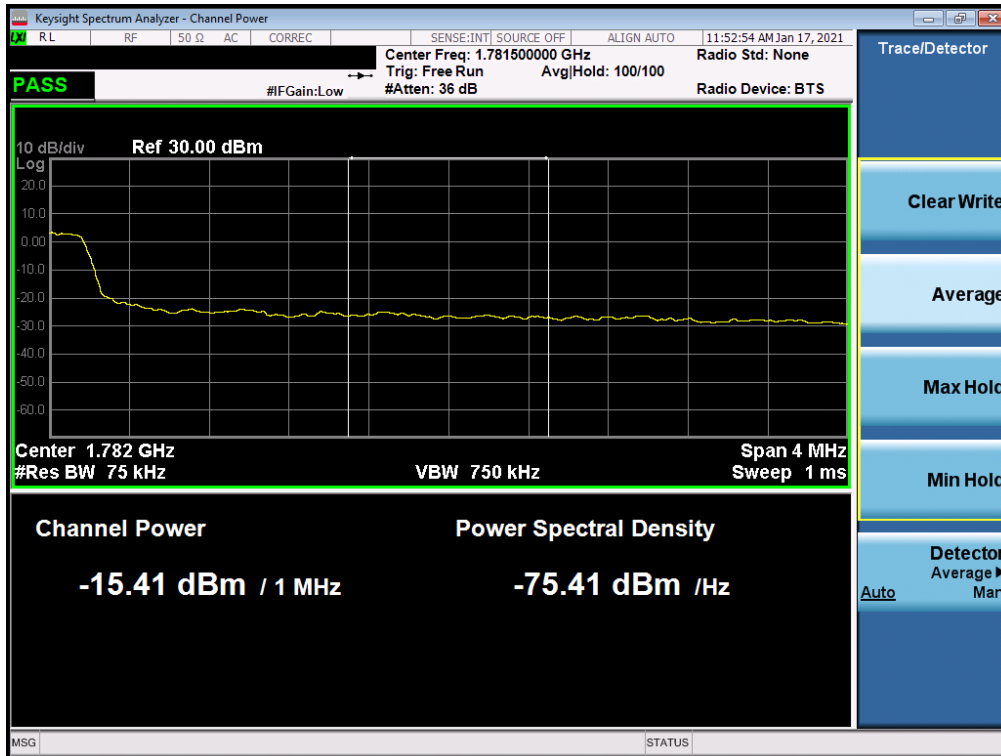


Plot 7-228. Lower Extended Band Edge Plot (NR Band n66 – 10.0MHz - Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 133 of 205

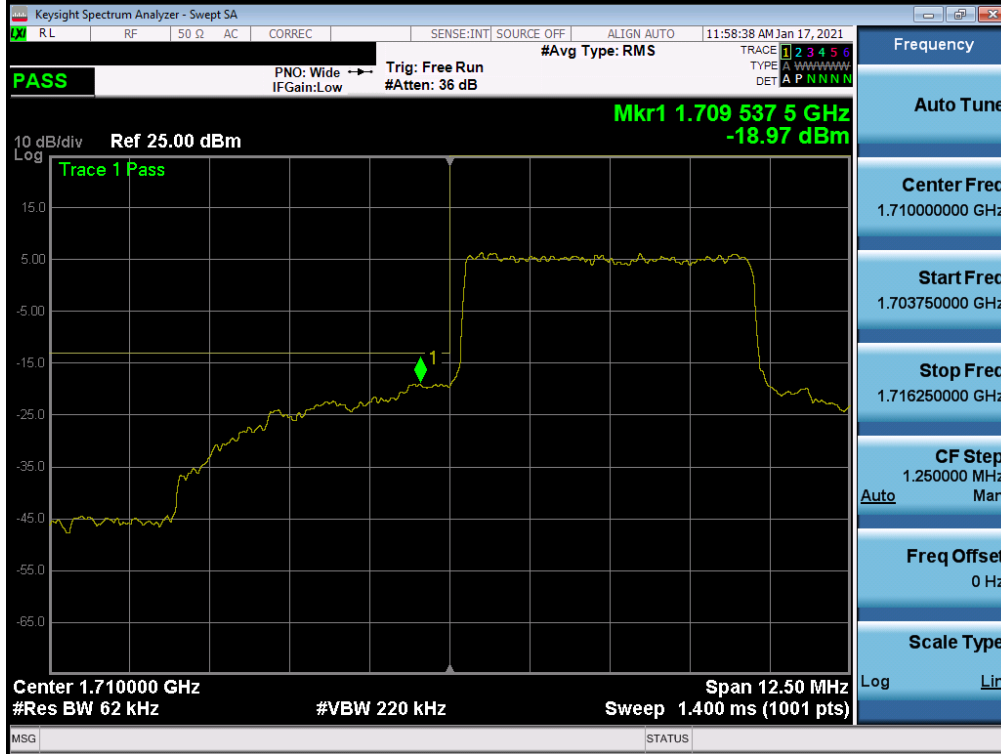


Plot 7-229. Upper Band Edge Plot (NR Band n66 – 10.0MHz - Full RB)

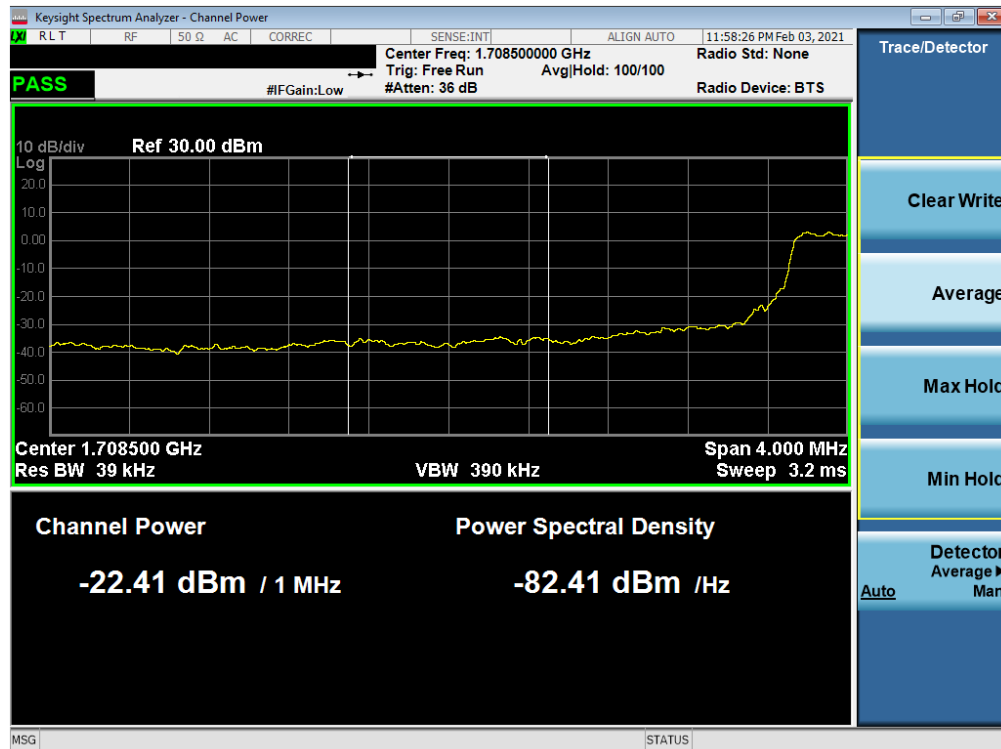


Plot 7-230. Upper Extended Band Edge Plot (NR Band n66 – 10.0MHz - Full RB)

FCC ID: A3LSMA426U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 134 of 205



Plot 7-231. Lower Band Edge Plot (NR Band n66 – 5.0MHz - Full RB)

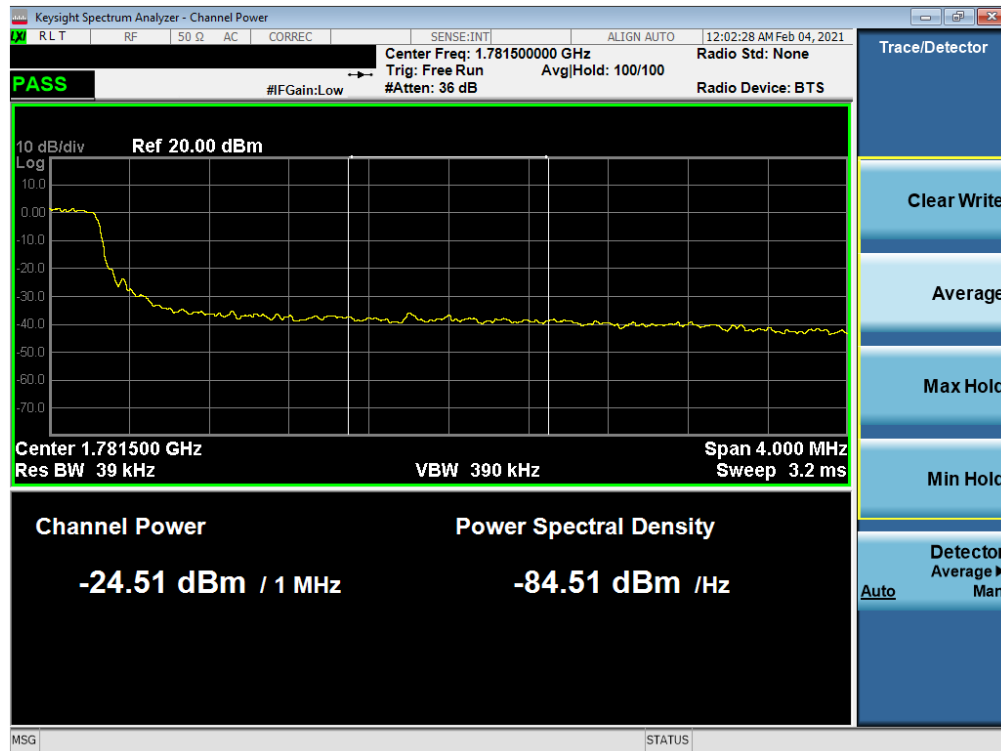


Plot 7-232. Lower Extended Band Edge Plot (NR Band n66 – 5.0MHz - Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 135 of 205



Plot 7-233. Upper Band Edge Plot (NR Band n66 – 5.0MHz - Full RB)



Plot 7-234. Upper Extended Band Edge Plot (NR Band n66 – 5.0MHz - Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 136 of 205



## 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

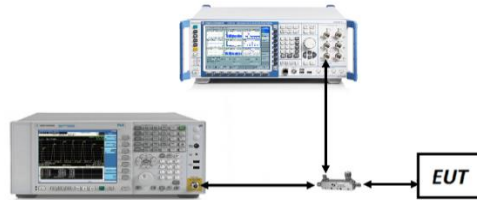
KDB 971168 D01 v03r01 – Section 5.7.1

### 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. For burst transmissions, the spectrum analyzer is set to use an internal “RF Burst” trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the “on time” of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power

### Test Setup



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



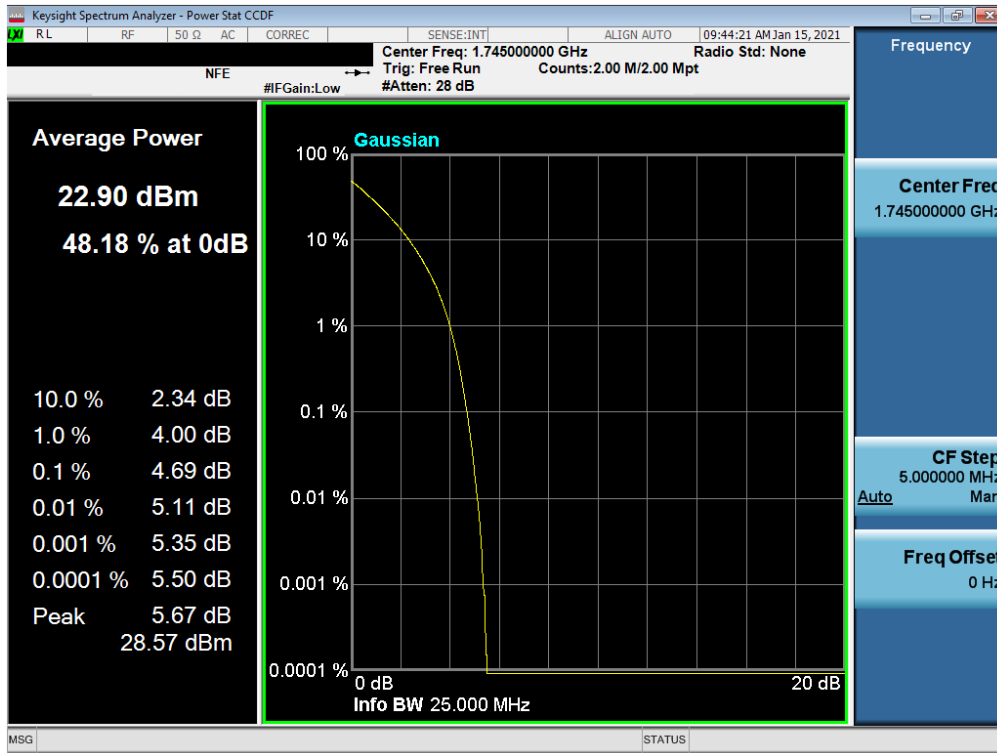
**Figure 7-4. Test Instrument & Measurement Setup**

### Test Notes

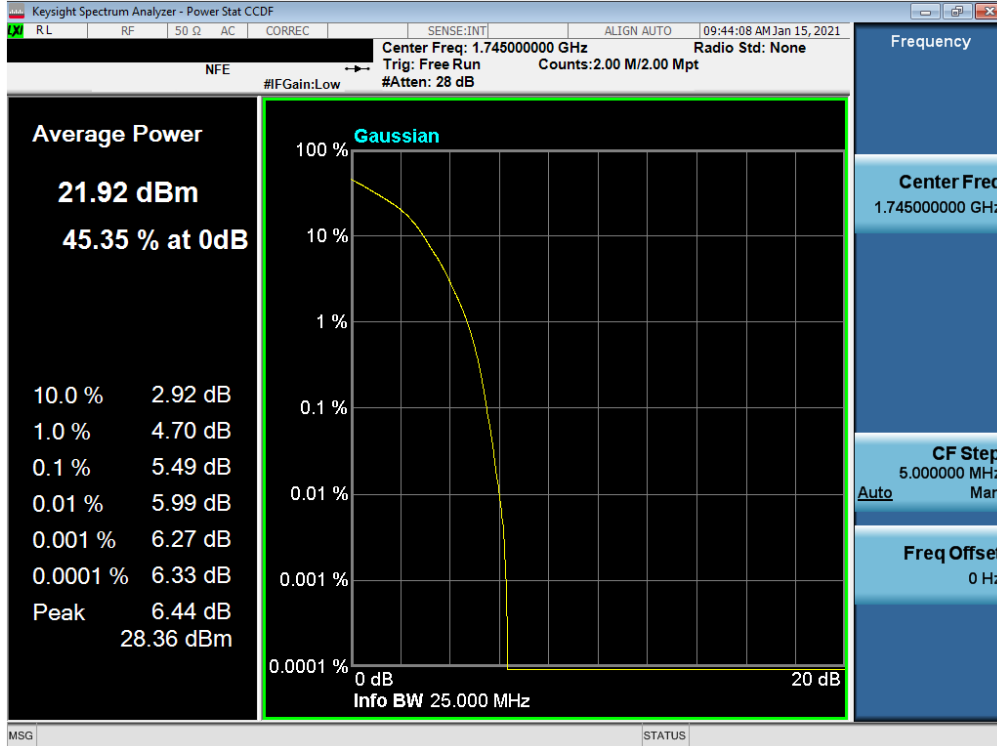
None.

FCC ID: A3LSMA426U	 <b>PART 27 MEASUREMENT REPORT</b> 	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset
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**LTE Band 66/4**

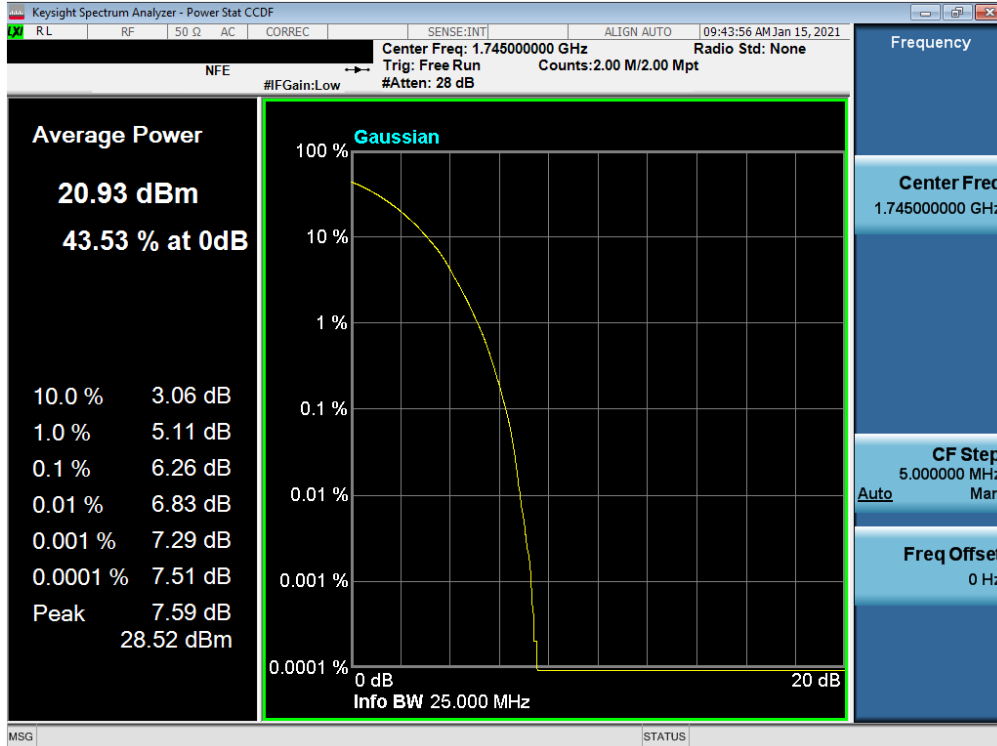


**Plot 7-235. PAR Plot (LTE Band 66/4 - 20MHz QPSK - Full RB Configuration)**

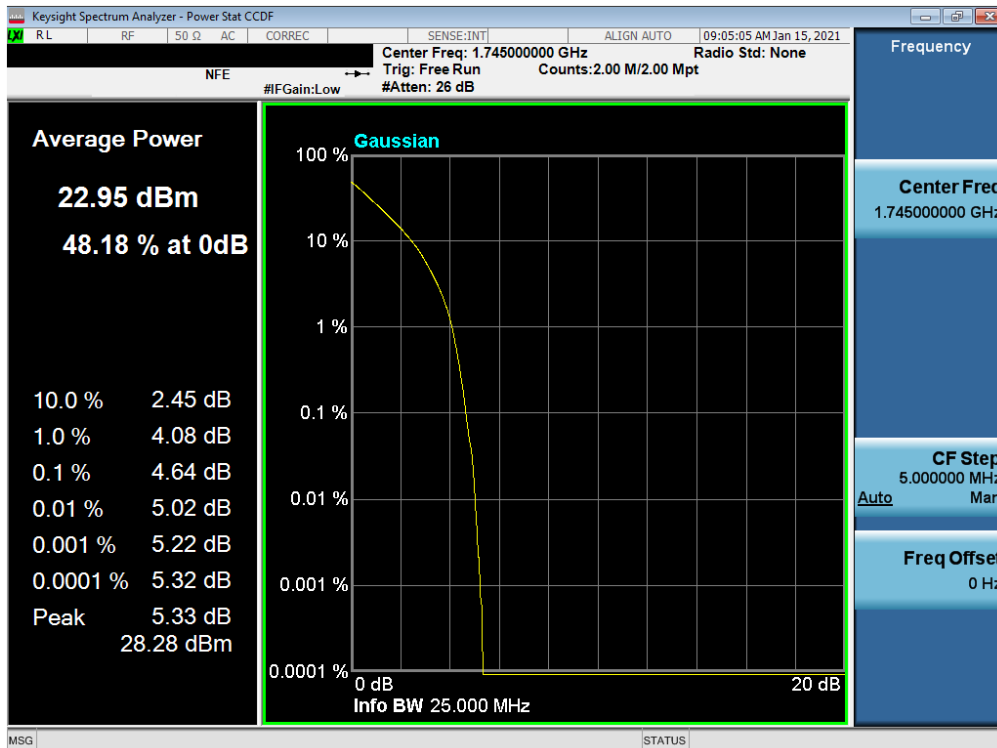


**Plot 7-236. PAR Plot (LTE Band 66/4 - 20MHz 16-QAM - Full RB Configuration)**

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 138 of 205

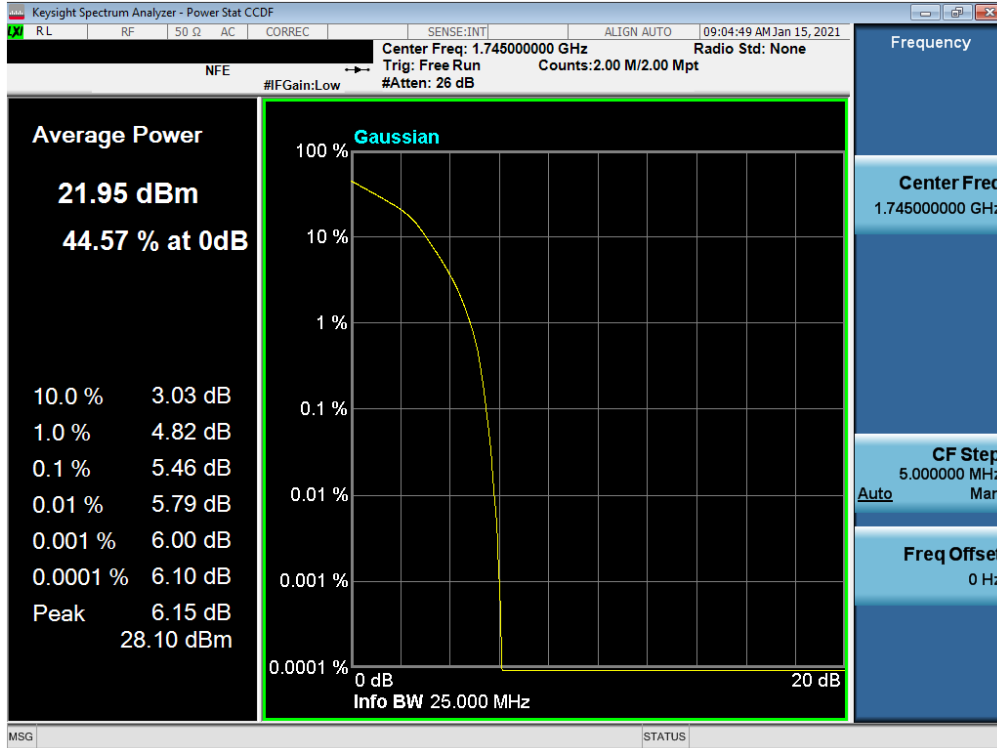


Plot 7-237. PAR Plot (LTE Band 66/4 - 20MHz 64-QAM - Full RB Configuration)

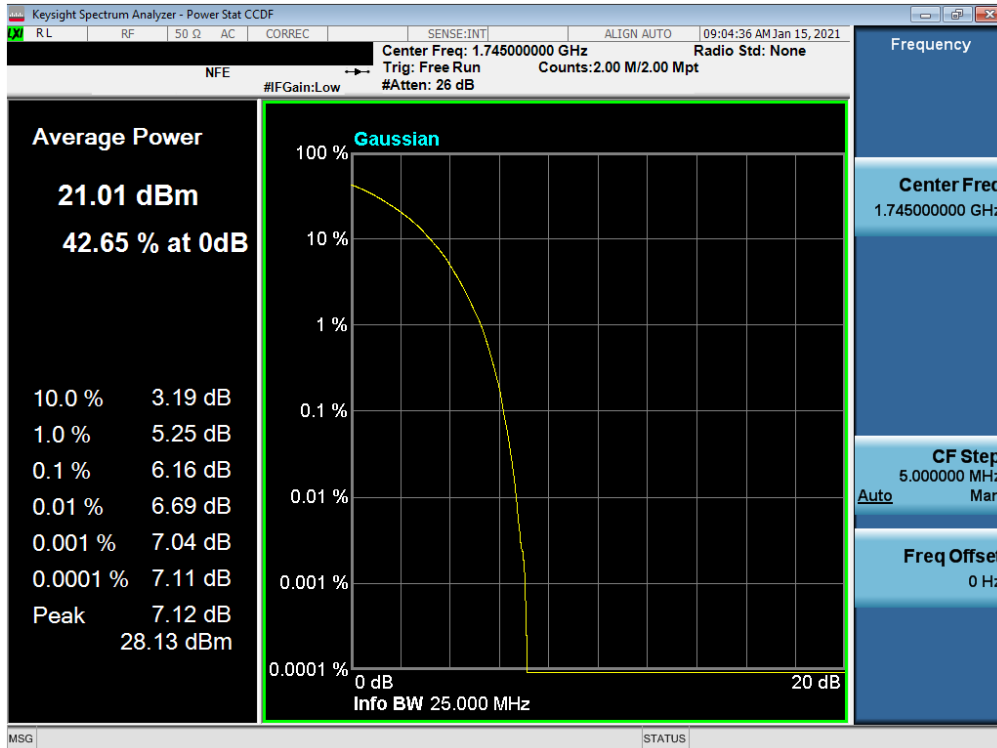


Plot 7-238. PAR Plot (LTE Band 66/4 - 15MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 139 of 205

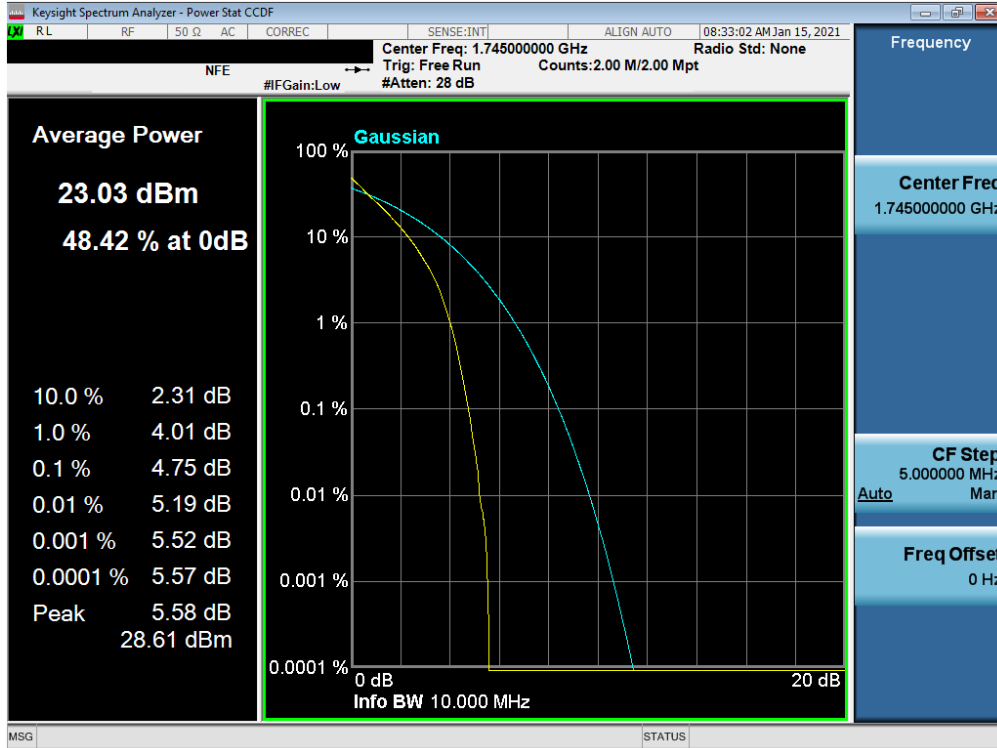


Plot 7-239. PAR Plot (LTE Band 66/4 - 15MHz 16-QAM - Full RB Configuration)

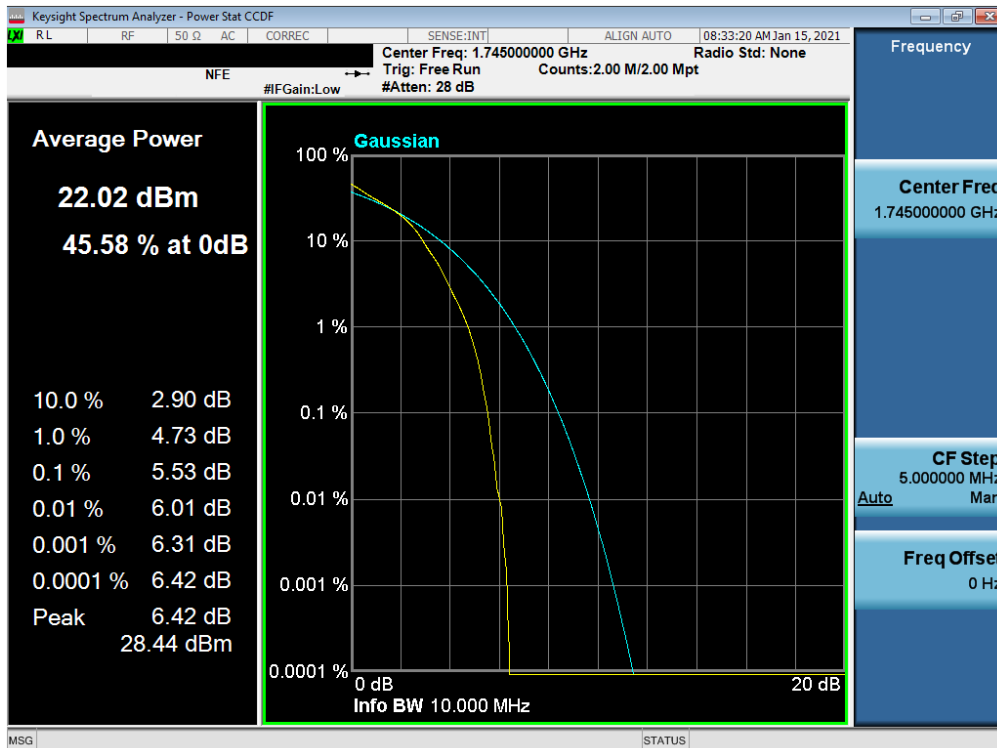


Plot 7-240. PAR Plot (LTE Band 66/4 - 15MHz 64-QAM - Full RB Configuration)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 140 of 205

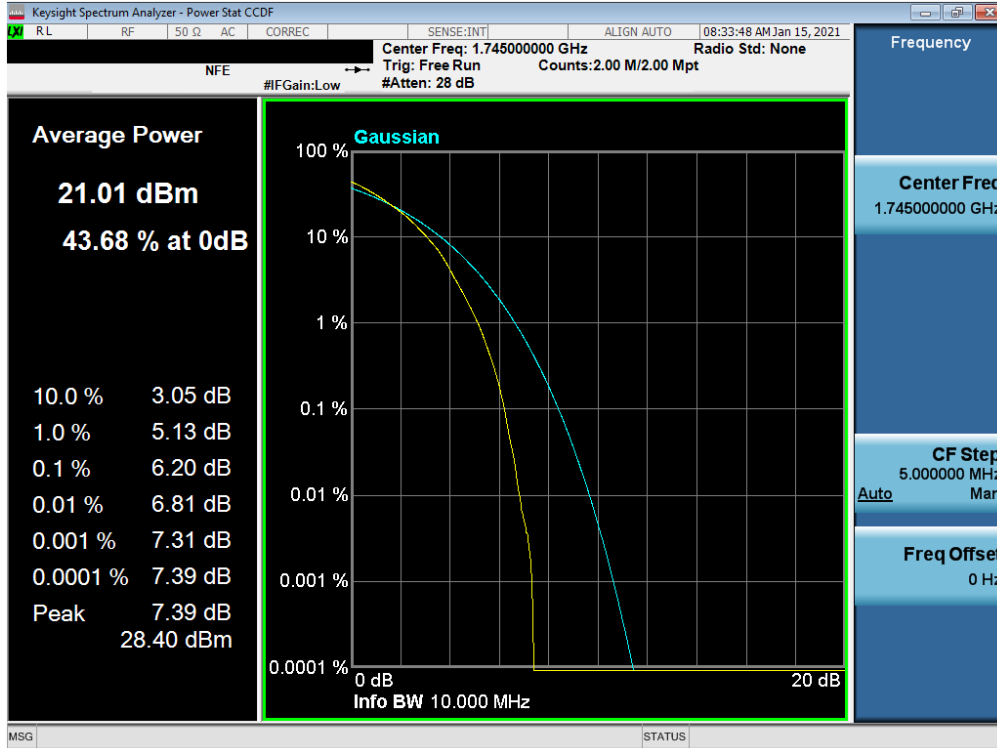


**Plot 7-241. PAR Plot (LTE Band 66/4 - 10MHz QPSK - Full RB Configuration)**

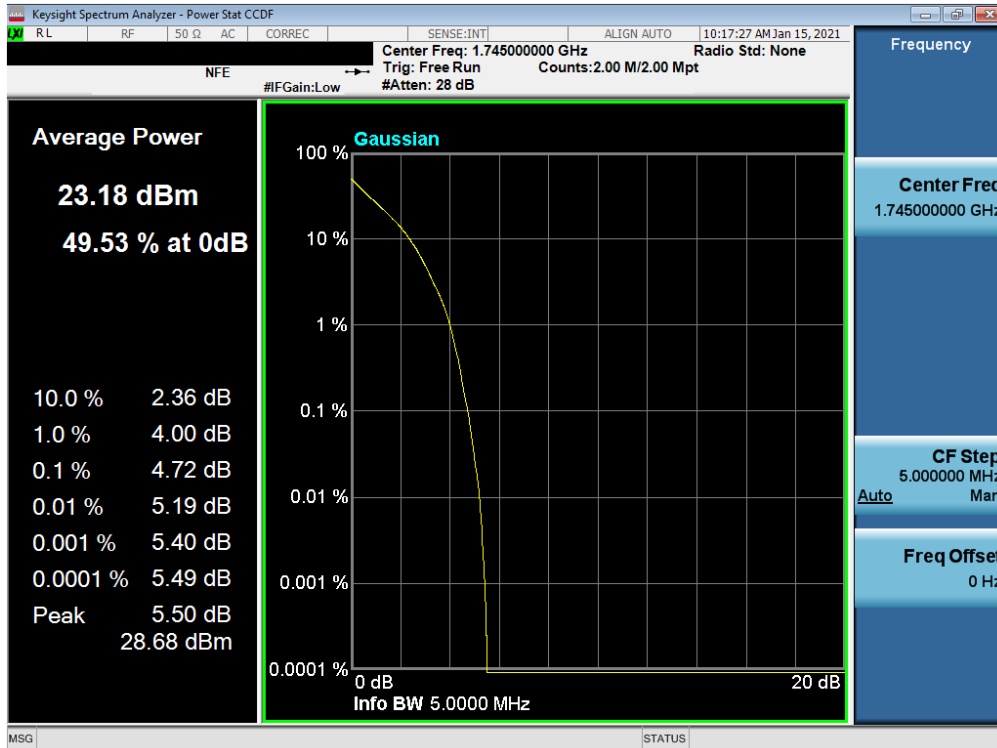


**Plot 7-242. PAR Plot (LTE Band 66/4 - 10MHz 16-QAM - Full RB Configuration)**

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 141 of 205

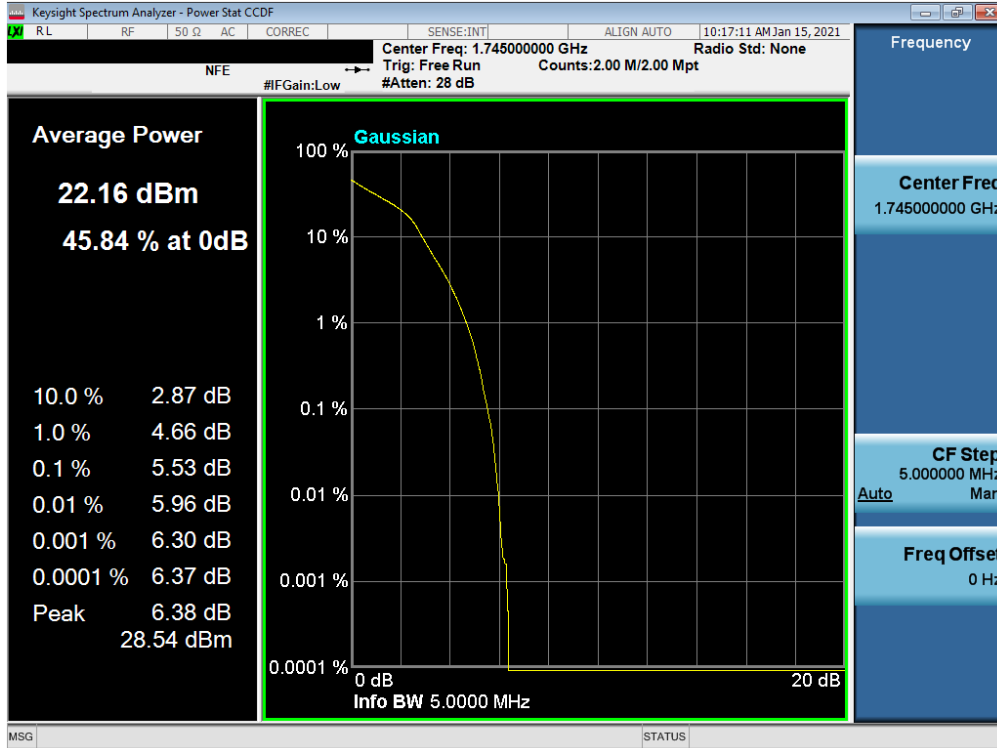


**Plot 7-243. PAR Plot (LTE Band 66/4 - 10MHz 64-QAM - Full RB Configuration)**

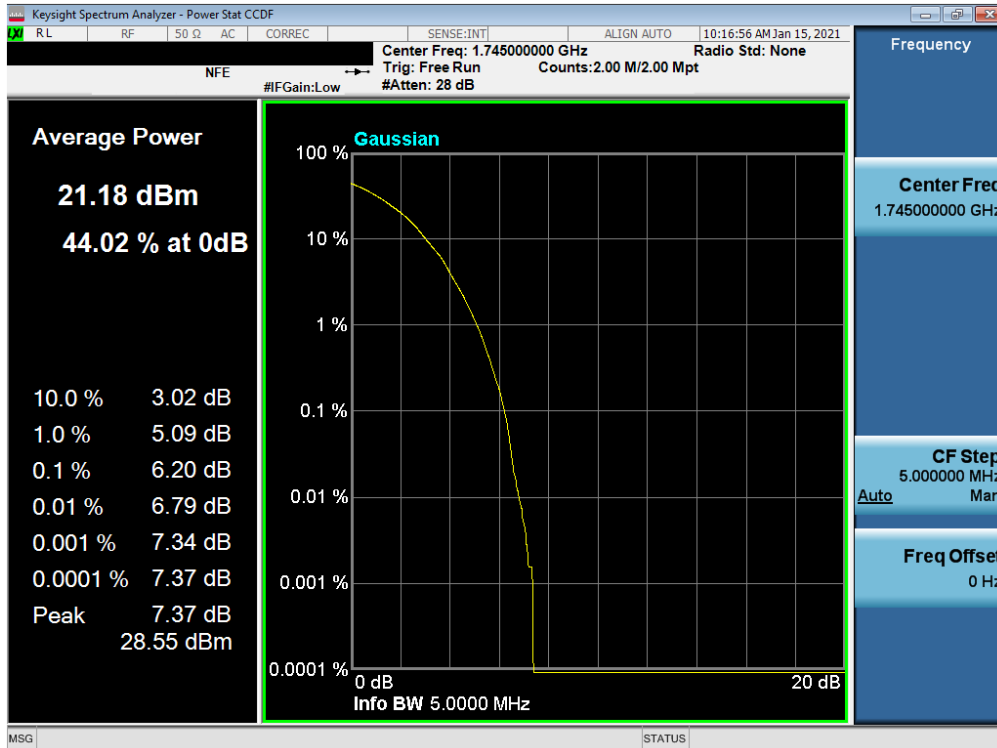


**Plot 7-244. PAR Plot (LTE Band 66/4 - 5MHz QPSK - Full RB Configuration)**

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 142 of 205

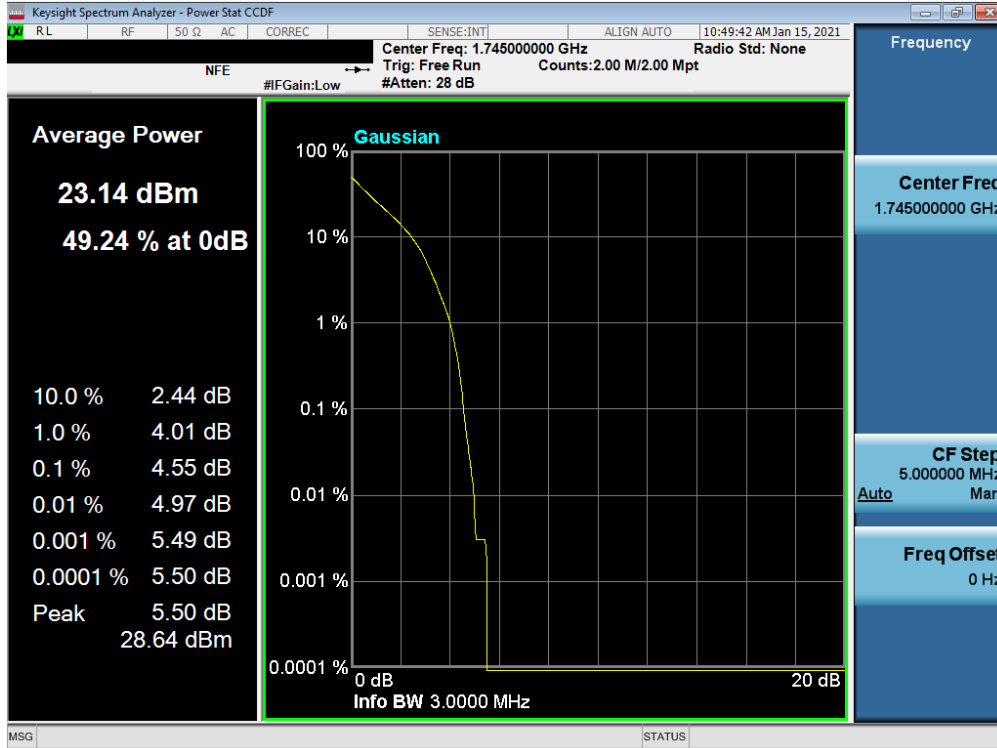


Plot 7-245. PAR Plot (LTE Band 66/4 - 5MHz 16-QAM - Full RB Configuration)

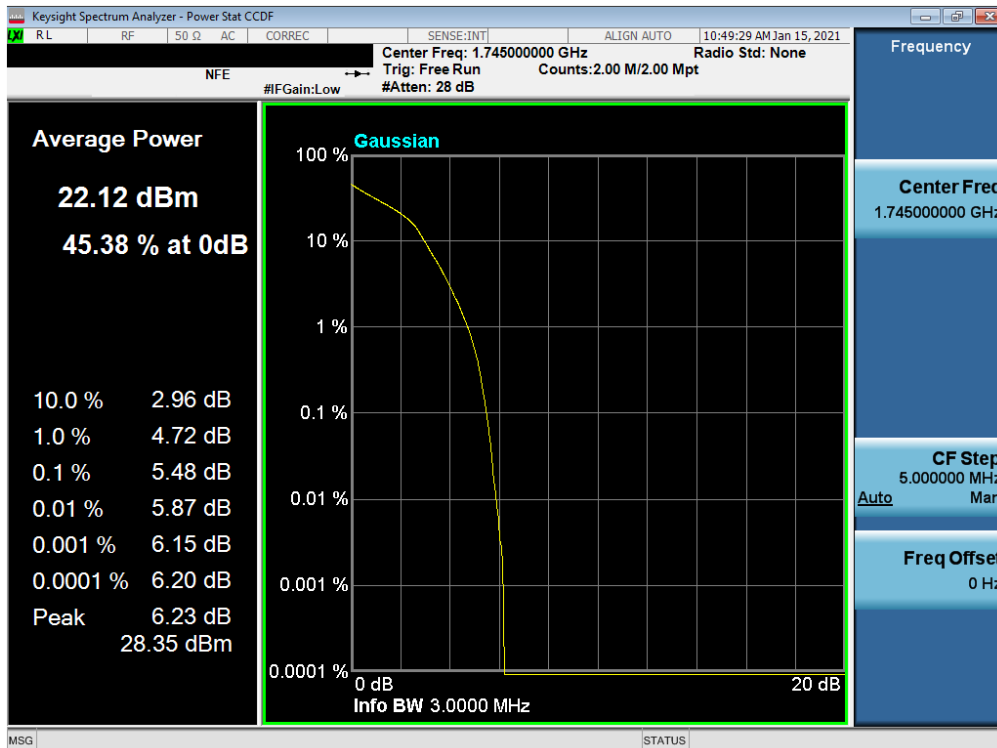


Plot 7-246. PAR Plot (LTE Band 66/4 - 5MHz 64-QAM - Full RB Configuration)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 143 of 205



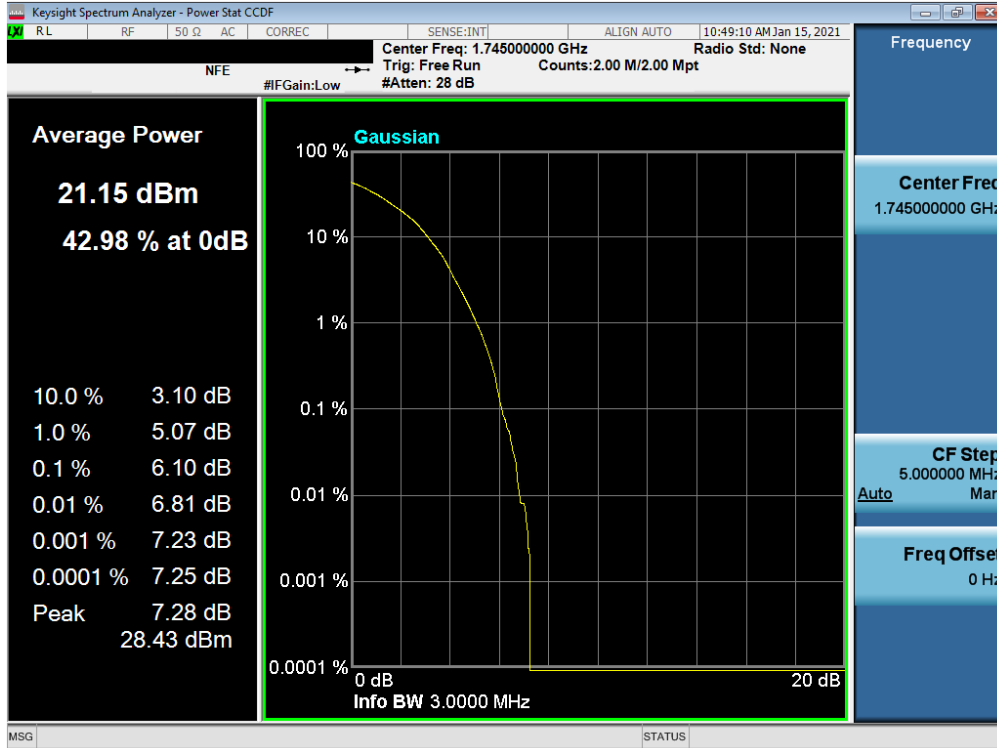
Plot 7-247. PAR Plot (LTE Band 66/4 - 3MHz QPSK - Full RB Configuration)



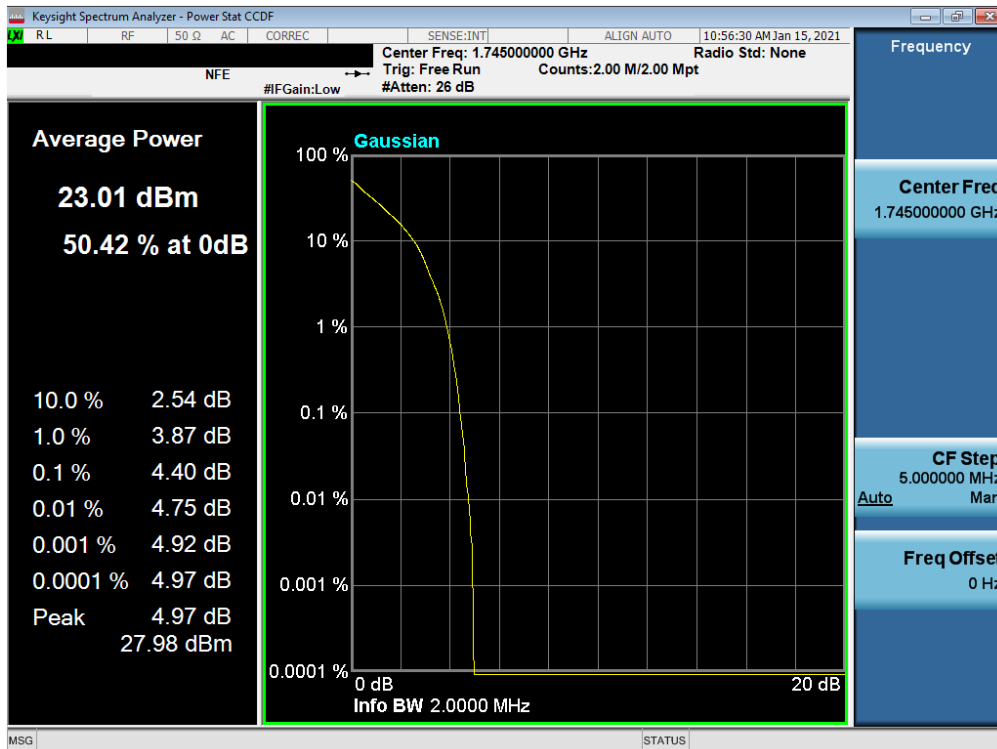
Plot 7-248. PAR Plot (LTE Band 66/4 - 3MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 144 of 205



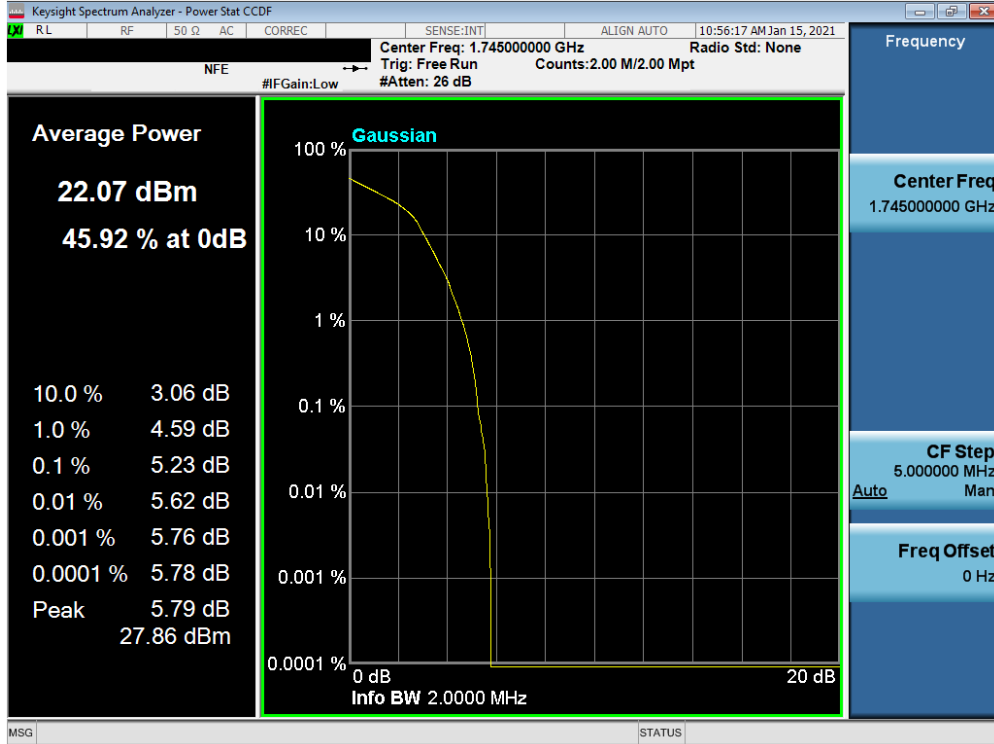


Plot 7-249. PAR Plot (LTE Band 66/4 - 3MHz 64-QAM - Full RB Configuration)

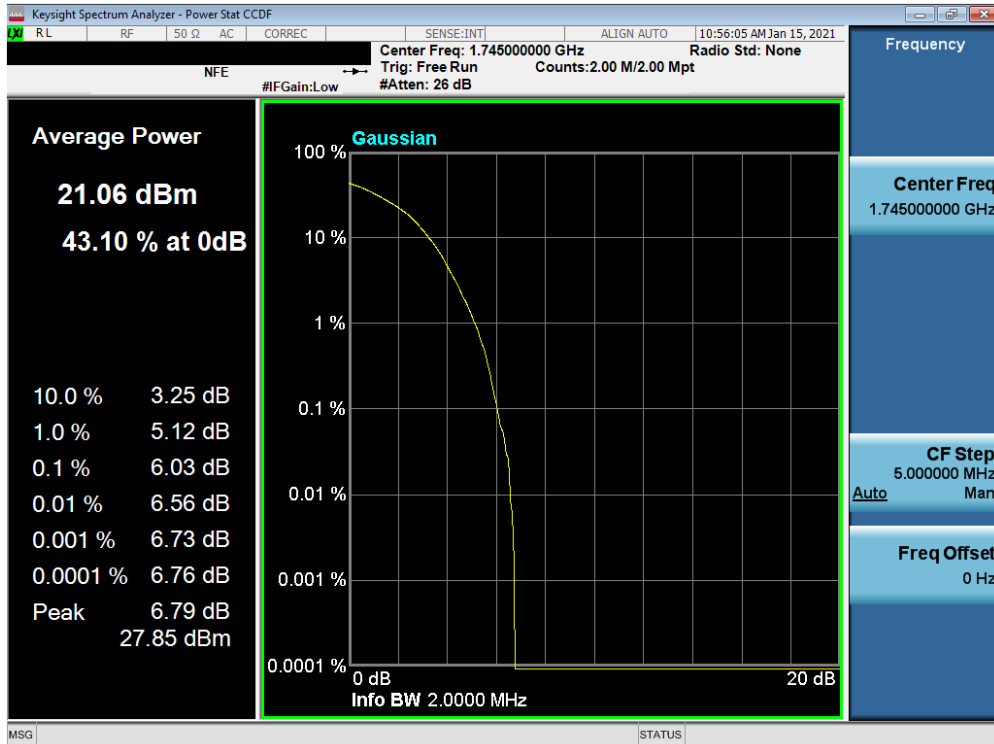


Plot 7-250. PAR Plot (LTE Band 66/4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 145 of 205



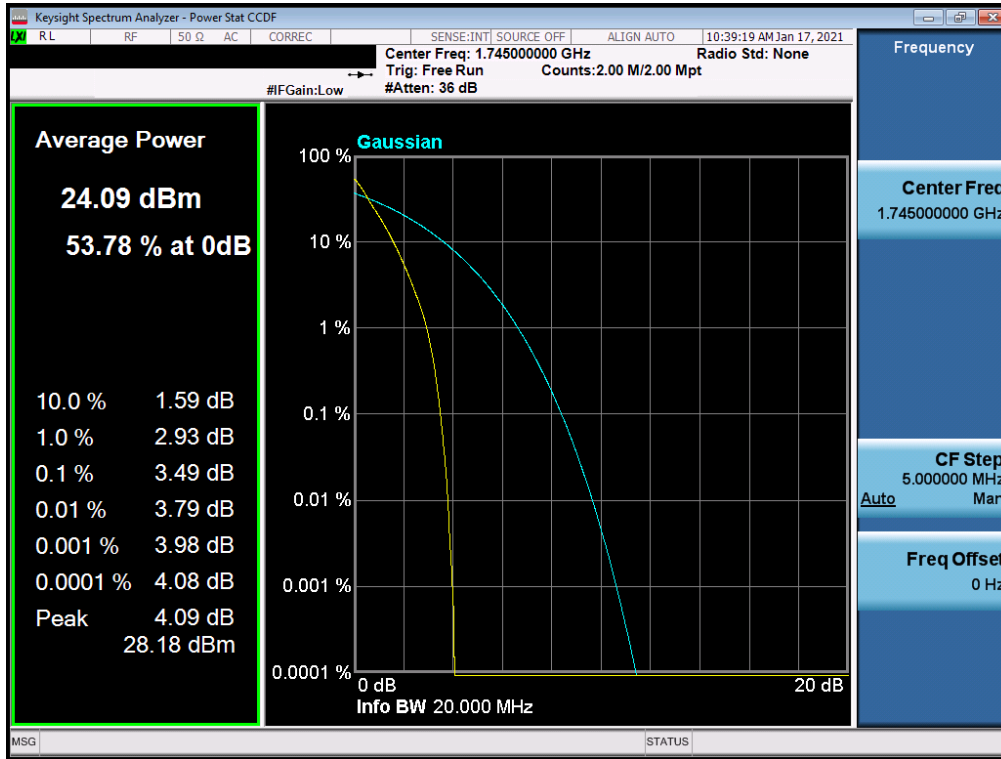
Plot 7-251. PAR Plot (LTE Band 66/4 - 1.4MHz 16-QAM - Full RB Configuration)



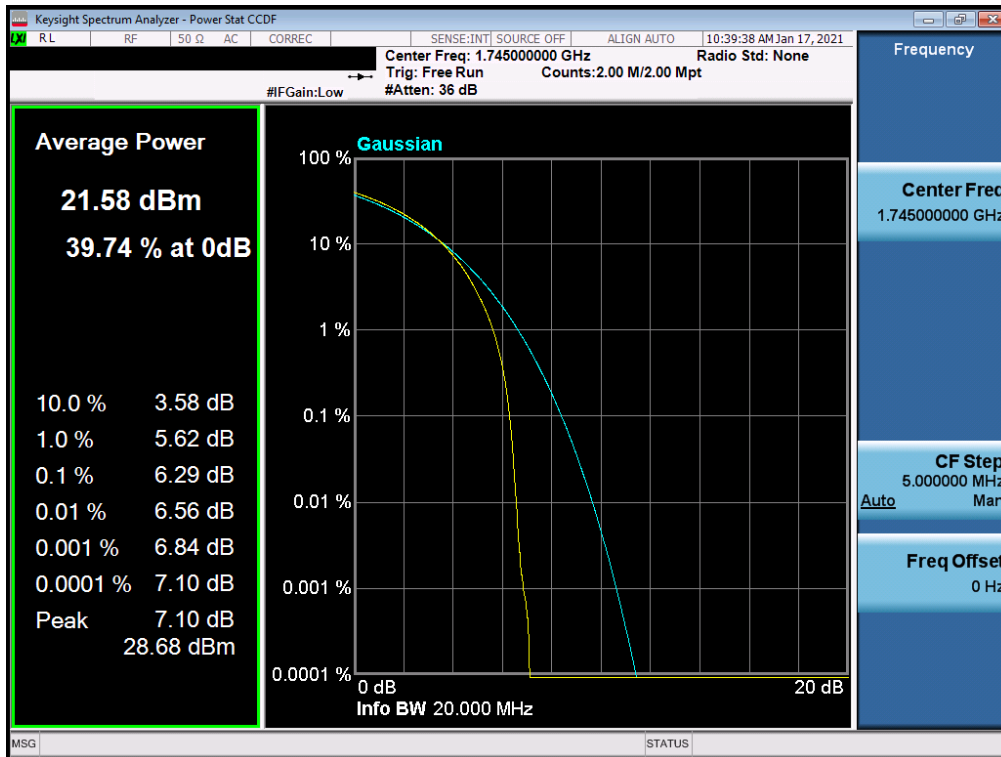
Plot 7-252. PAR Plot (LTE Band 66/4 - 1.4MHz 64-QAM - Full RB Configuration)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 146 of 205

**NR Band n66**

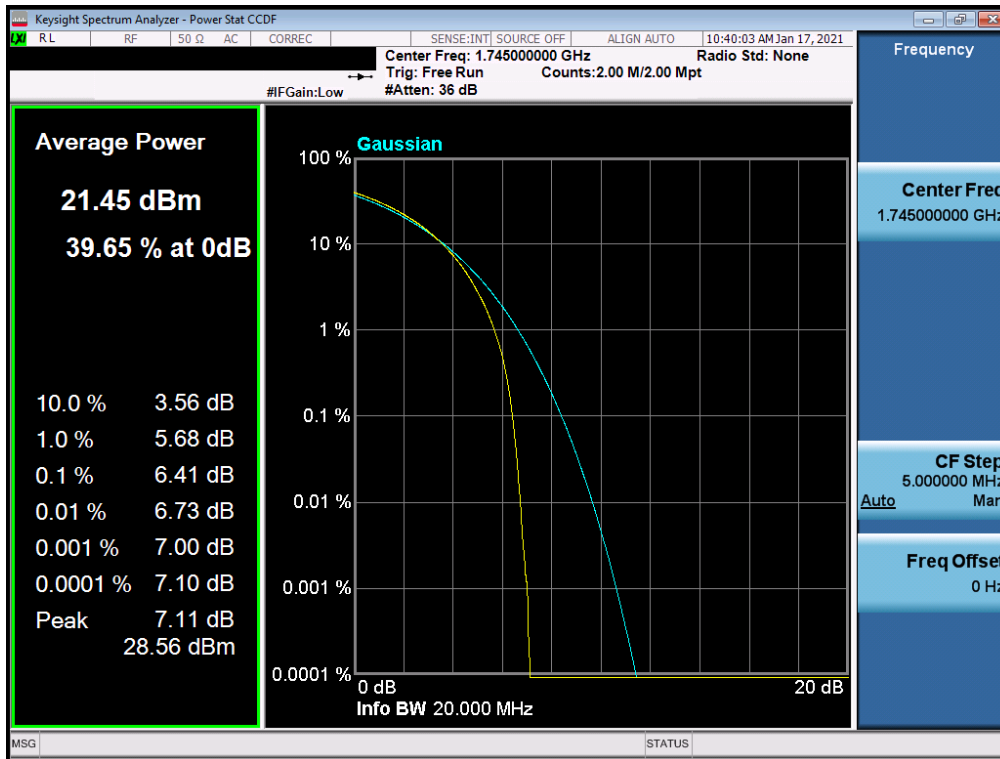


**Plot 7-253. PAR Plot (NR Band n66 - 20.0MHz DFT-s-OFDM BPSK - Full RB)**

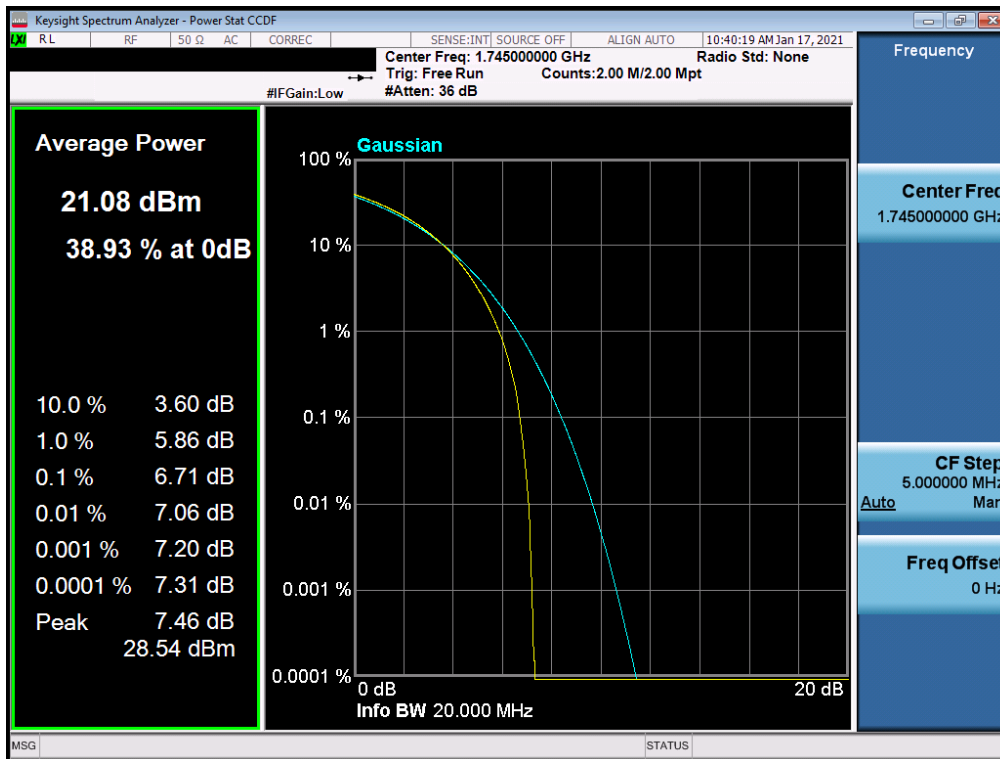


**Plot 7-254. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM QPSK - Full RB)**

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 147 of 205

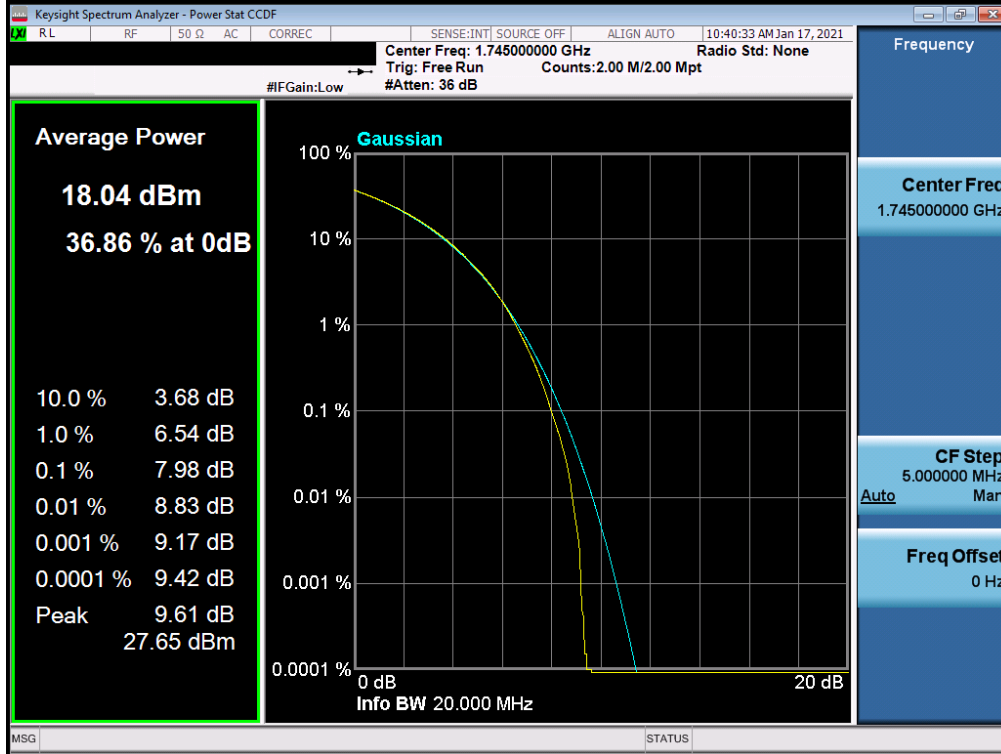


Plot 7-255. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM 16-QAM - Full RB)

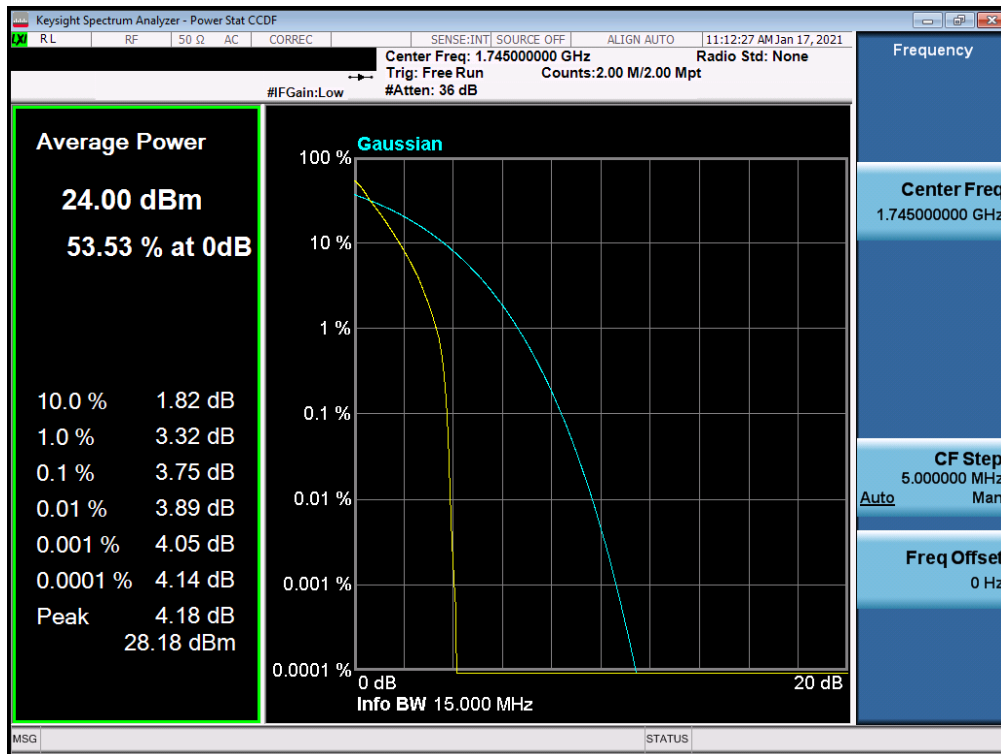


Plot 7-256. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM 64-QAM - Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 148 of 205

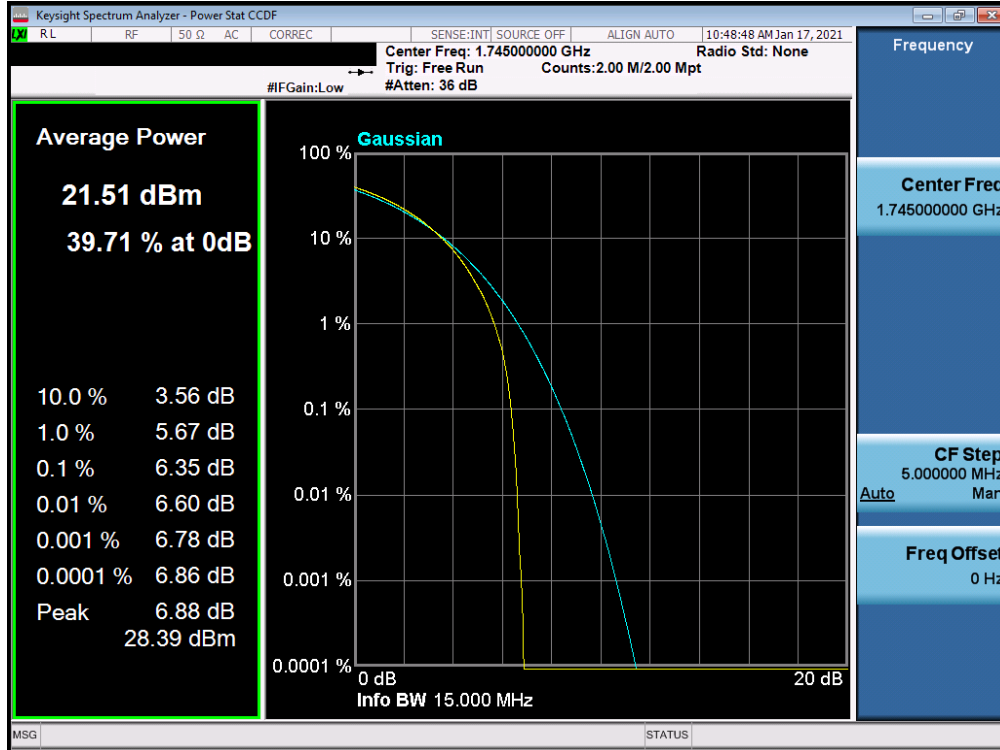


Plot 7-257. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM 256-QAM - Full RB)

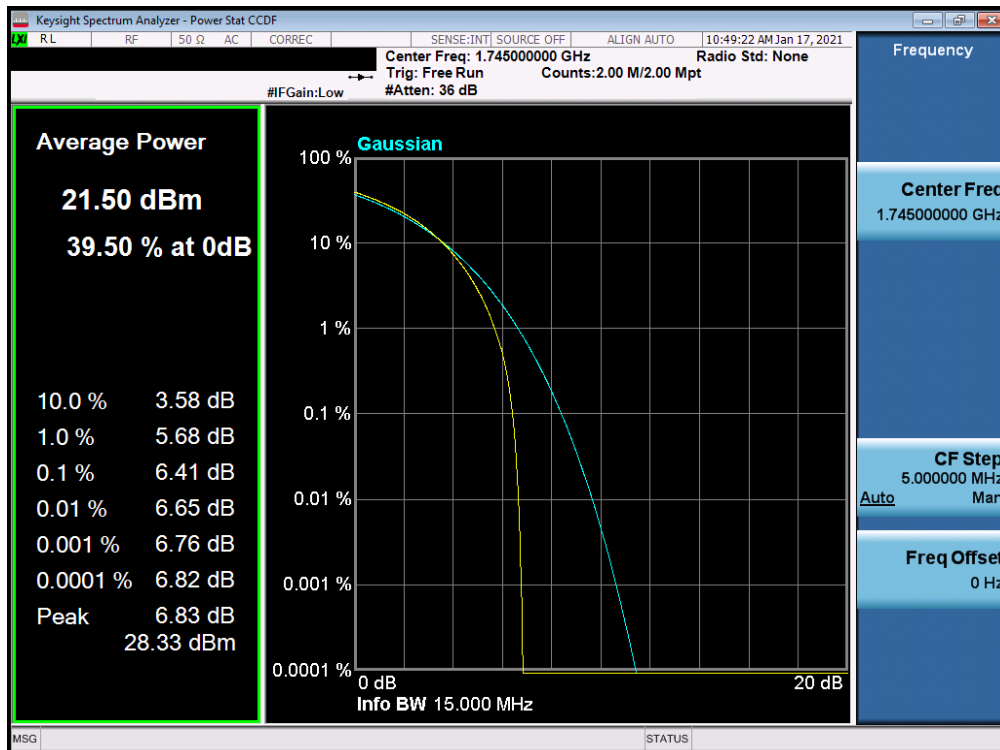


Plot 7-258. PAR Plot (NR Band n66 - 15.0MHz DFT-s-OFDM BPSK - Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 149 of 205

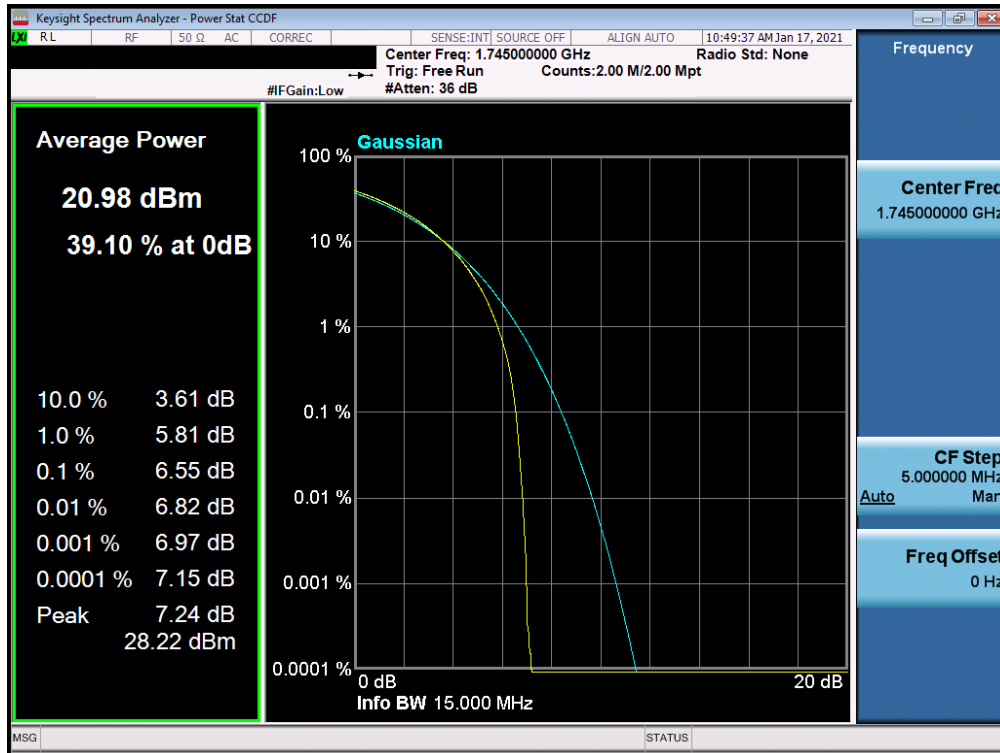


**Plot 7-259. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM QPSK - Full RB)**

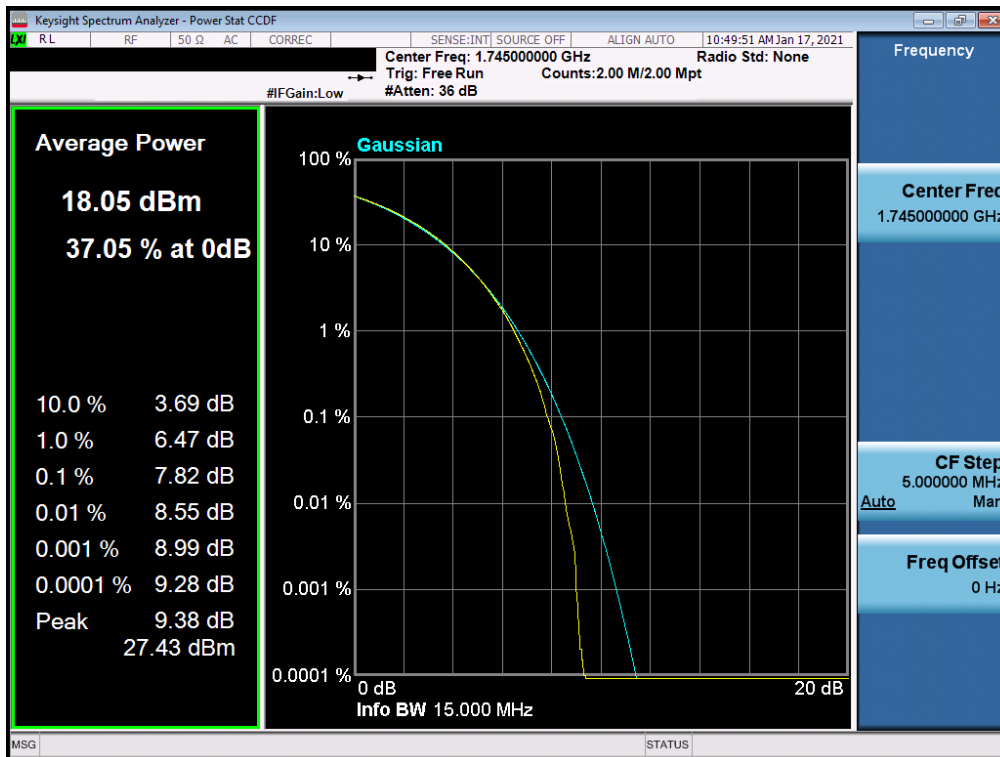


**Plot 7-260. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM 16-QAM - Full RB)**

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 150 of 205

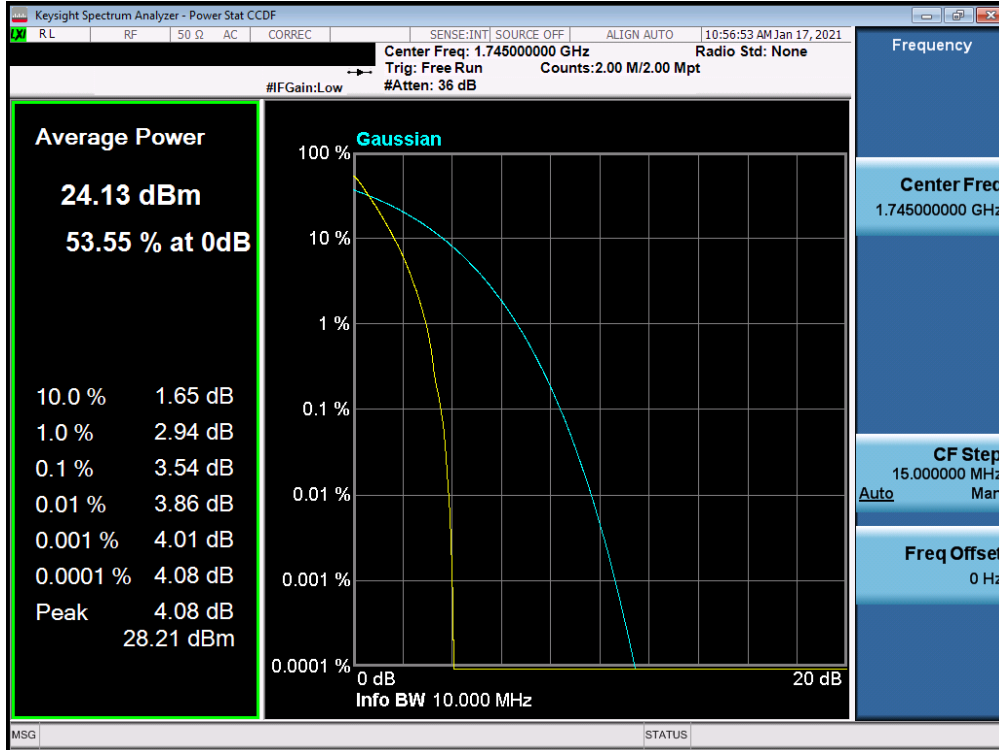


**Plot 7-261. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM 64-QAM - Full RB)**

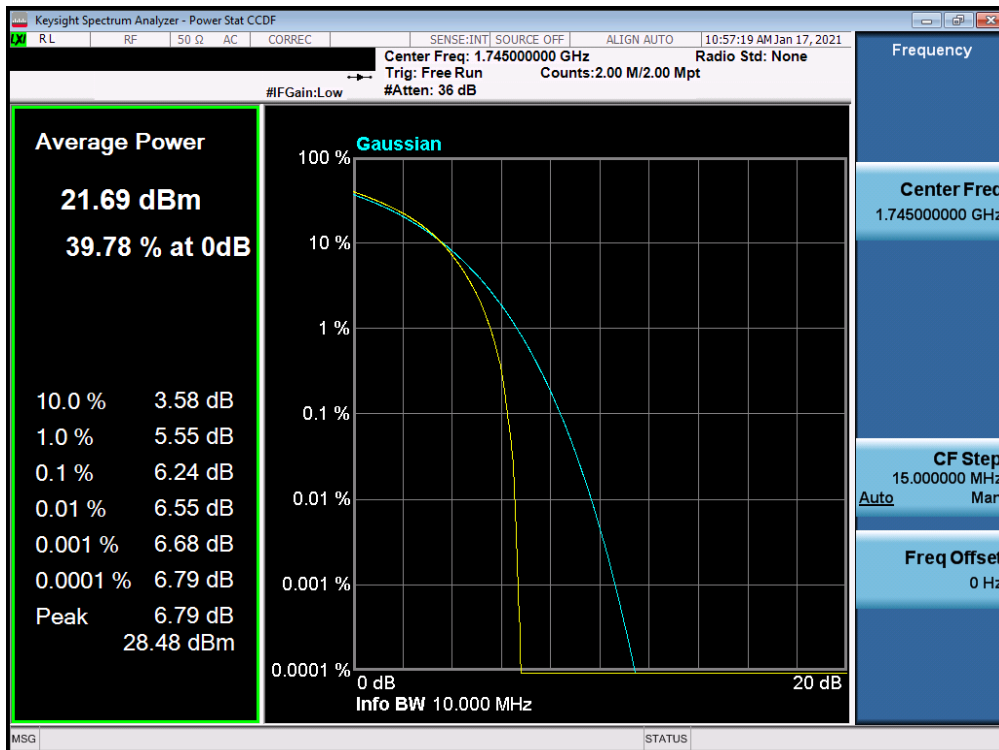


**Plot 7-262. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM 256-QAM - Full RB)**

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 151 of 205



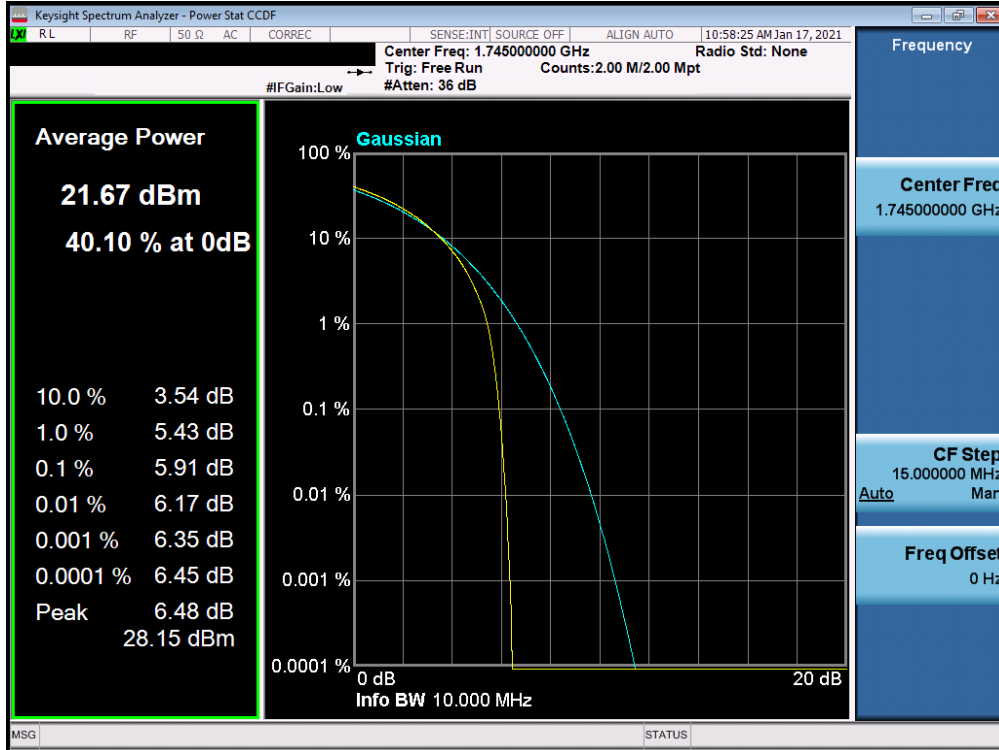
Plot 7-263. PAR Plot (NR Band n66 - 10.0MHz DFT-s-OFDM BPSK - Full RB)



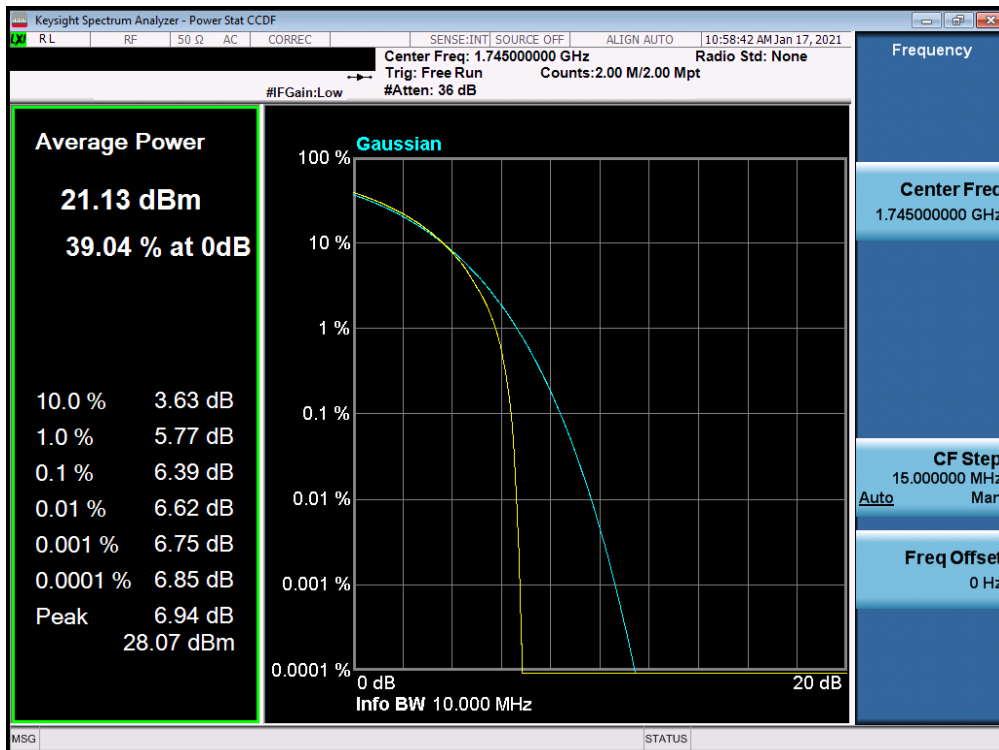
Plot 7-264. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM QPSK - Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 152 of 205



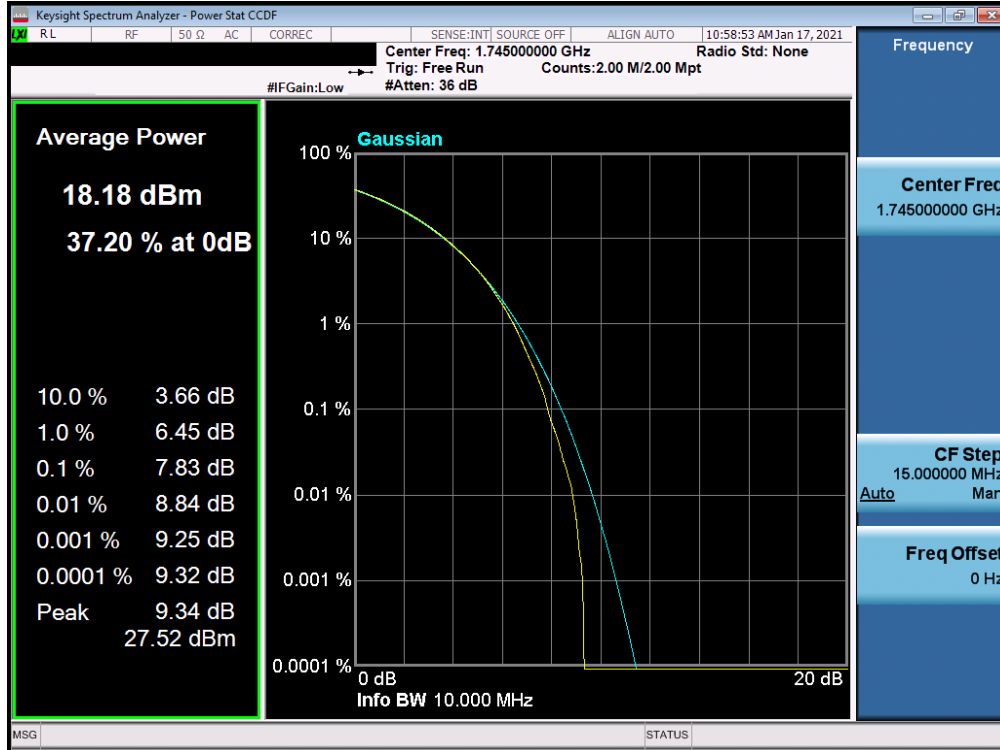


**Plot 7-265. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM 16-QAM - Full RB)**

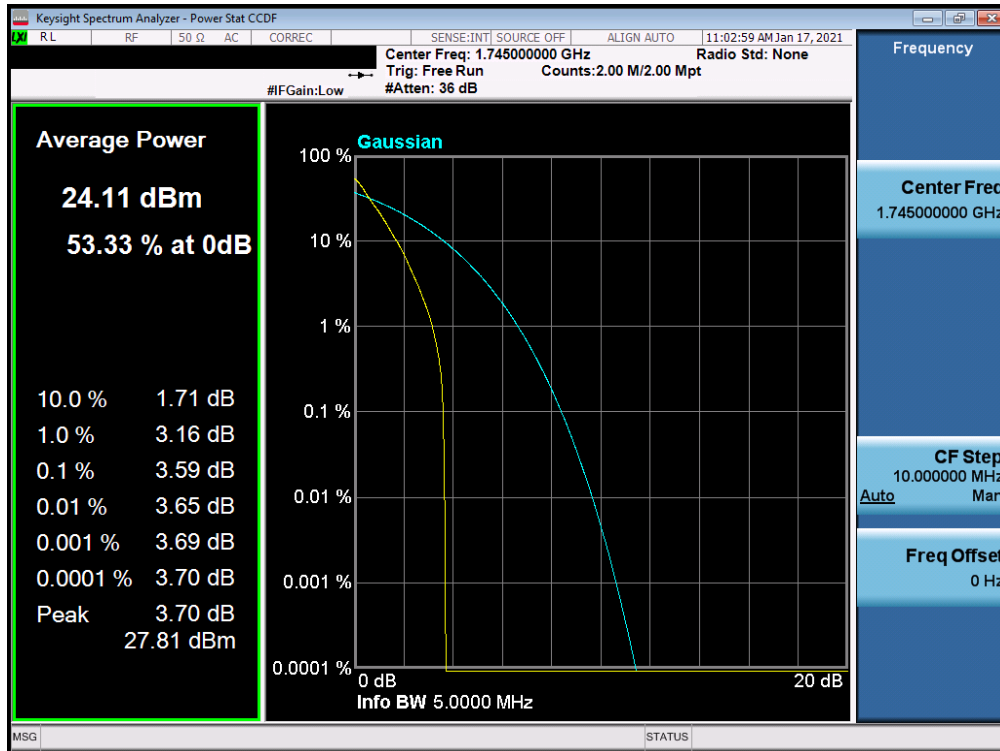


**Plot 7-266. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM 64-QAM - Full RB)**

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 153 of 205

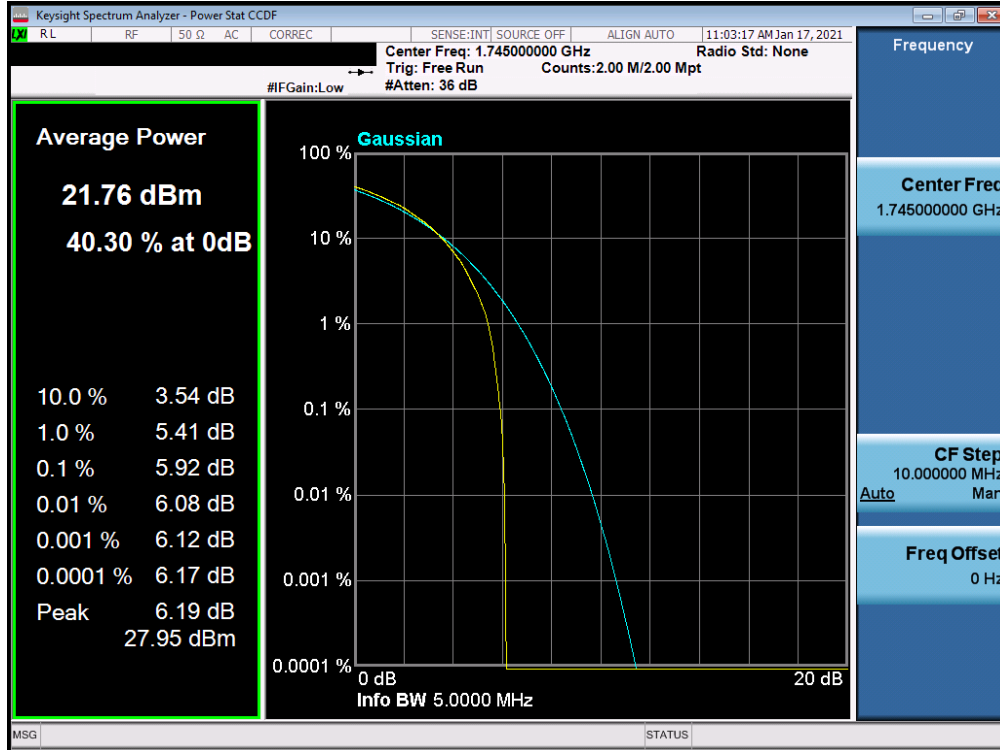


Plot 7-267. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM 256-QAM - Full RB)

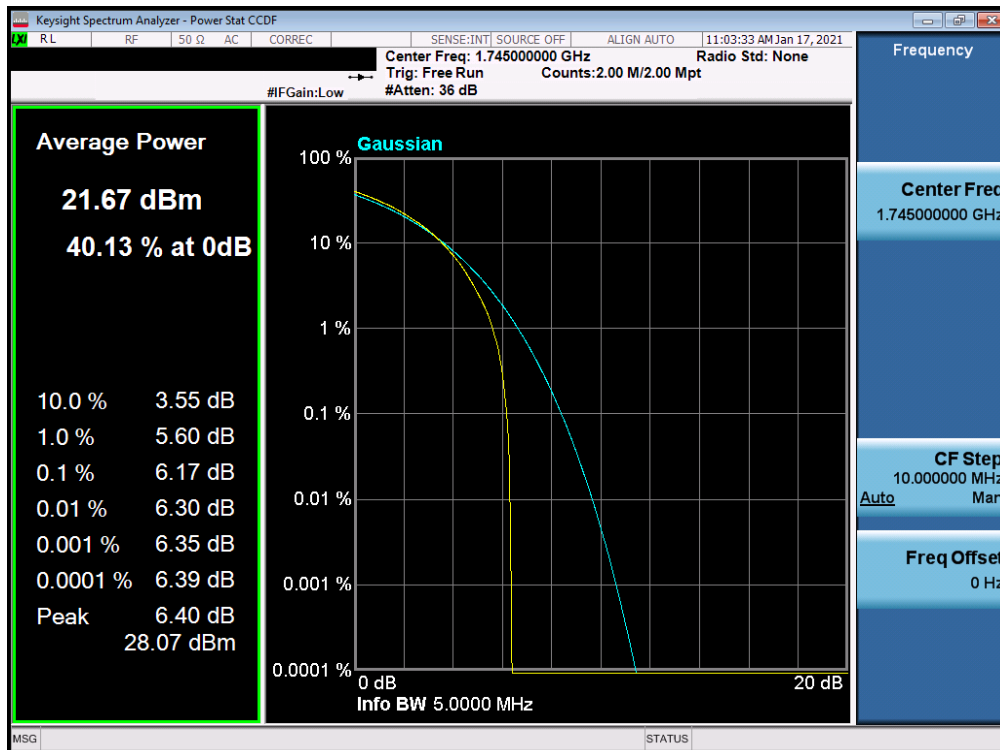


Plot 7-268. PAR Plot (NR Band n66 - 5.0MHz DFT-s-OFDM BPSK - Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 154 of 205

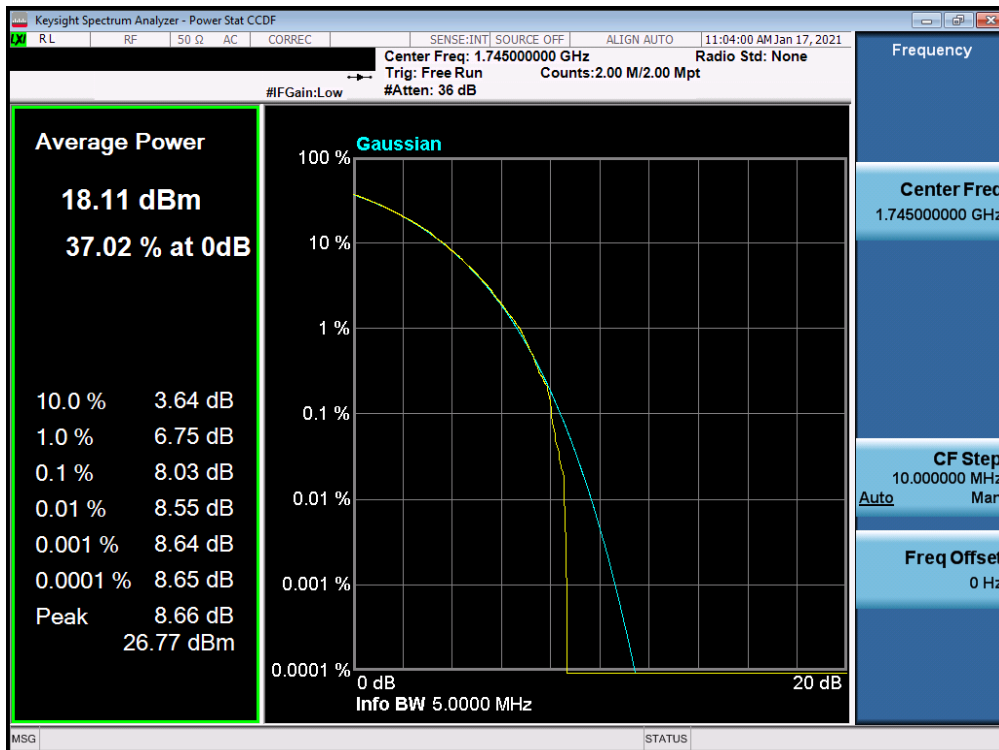
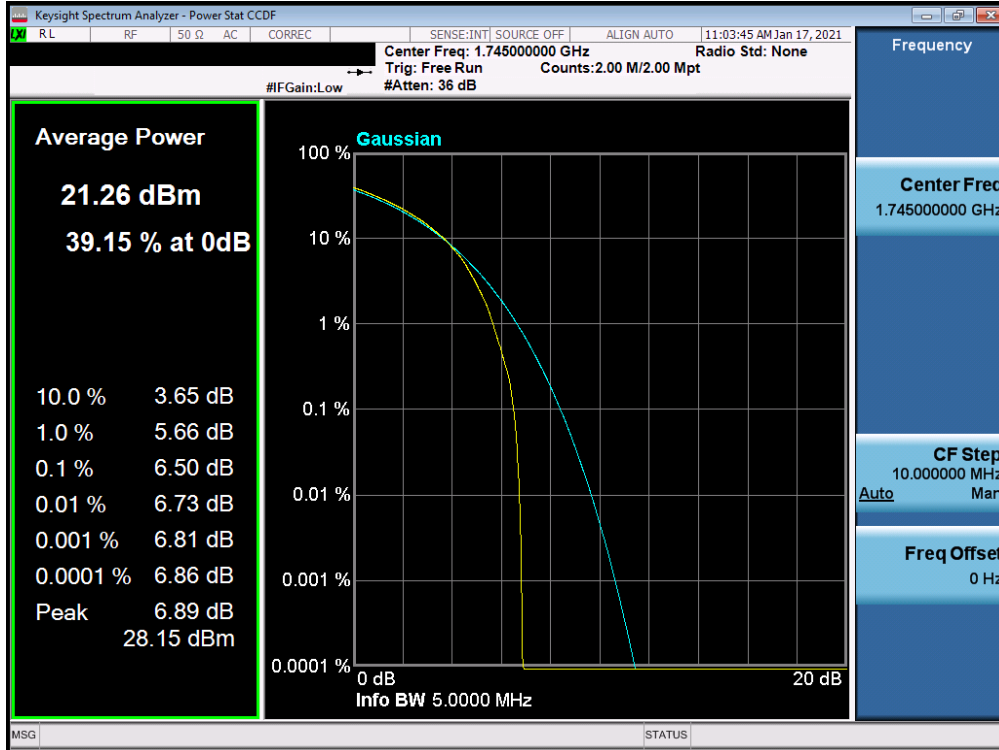


Plot 7-269. PAR Plot (NR Band n66 - 5.0MHz CP-OFDM QPSK - Full RB)



Plot 7-270. PAR Plot (NR Band n66 - 5.0MHz CP-OFDM 16-QAM - Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 155 of 205



FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 156 of 205

## 7.6 Uplink Carrier Aggregation

### Test Overview

The EUT is set up to transmit two contiguous LTE channels. The power level of both carriers and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10<sup>th</sup> harmonic. 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.

### Test Procedure Used

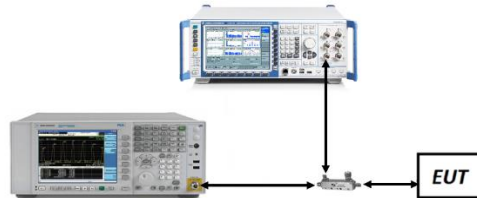
KDB 971168 D01 v03r01 – Section 6.0

### Test Settings



1. Start frequency was set to 30MHz and stop frequency was set to at least 10 \* the fundamental frequency (separated into at least two plots per channel)
2. Detector = RMS
3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

### Test Setup

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





**Figure 7-5. Test Instrument & Measurement Setup**

FCC ID: A3LSMA426U	 <b>PART 27 MEASUREMENT REPORT</b> 	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset
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## Test Notes



1. Conducted power and spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device. The worst case (highest) powers were found while operating with QPSK modulation with both carriers set to transmit using 1RB.
2. Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz. However, 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.

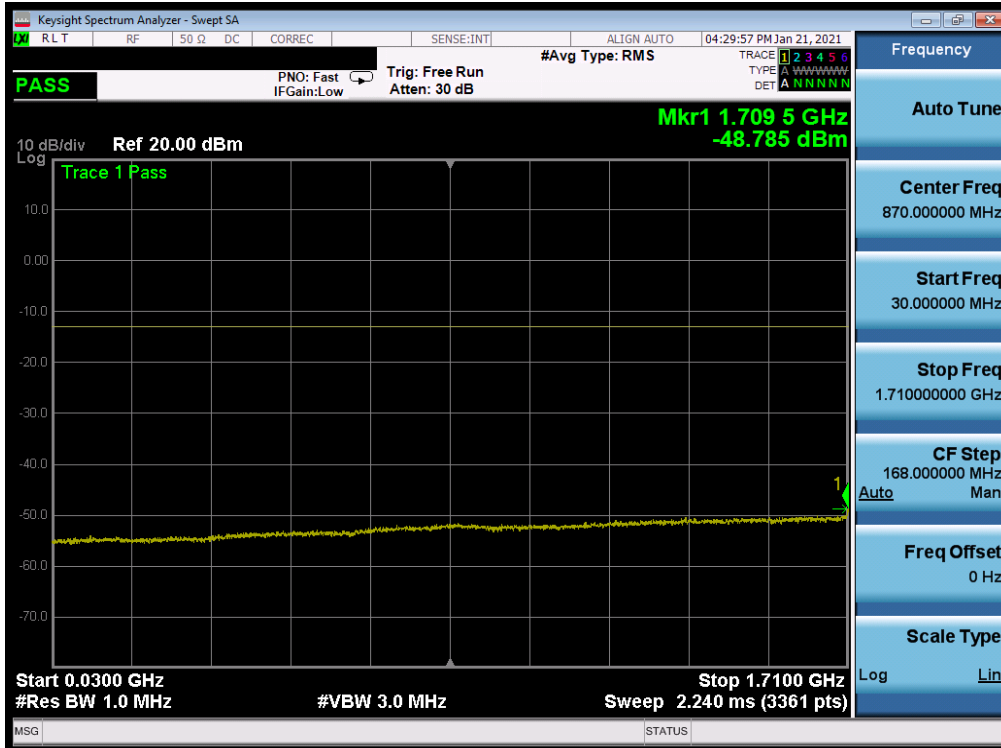
FCC ID: A3LSMA426U	 <b>PART 27 MEASUREMENT REPORT</b> 		Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset	Page 158 of 205

## Uplink CA Configuration 66B/C

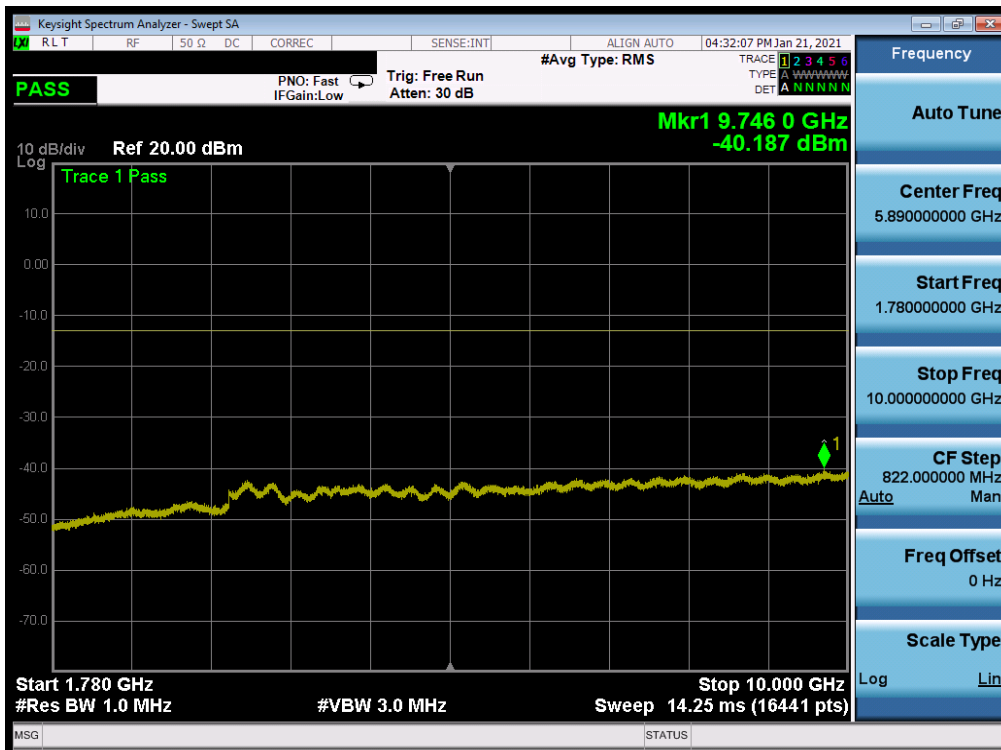
Power State	Band	Bandwidth (PCC + SCC)	PCC				SCC				ULCA Tx. Power [dBm]		
			Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency		UL # RB	UL RB Offset
Max	LTE B66	20MHz + 20MHz	QPSK	132072	1720.0	1	99	QPSK	132270	1739.8	1	0	24.4
				132322	1745.0	1	99		132520	1764.8	1	0	24.18
				132572	1770.0	1	0		132374	1750.2	1	99	24.49
			QPSK	132572	1770	100	0	QPSK	132374	1750.2	100	0	22.67
			16-QAM	132572	1770	100	0	16-QAM	132374	1750.2	100	0	21.65
			64-QAM	132572	1770	100	0	64-QAM	132374	1750.2	100	0	21.43

Table 7-2. Conducted Powers (B66 with Various Combinations for 20MHz + 20MHz Channel Bandwidth)

FCC ID: A3LSMA426U	 PART 27 MEASUREMENT REPORT 	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset
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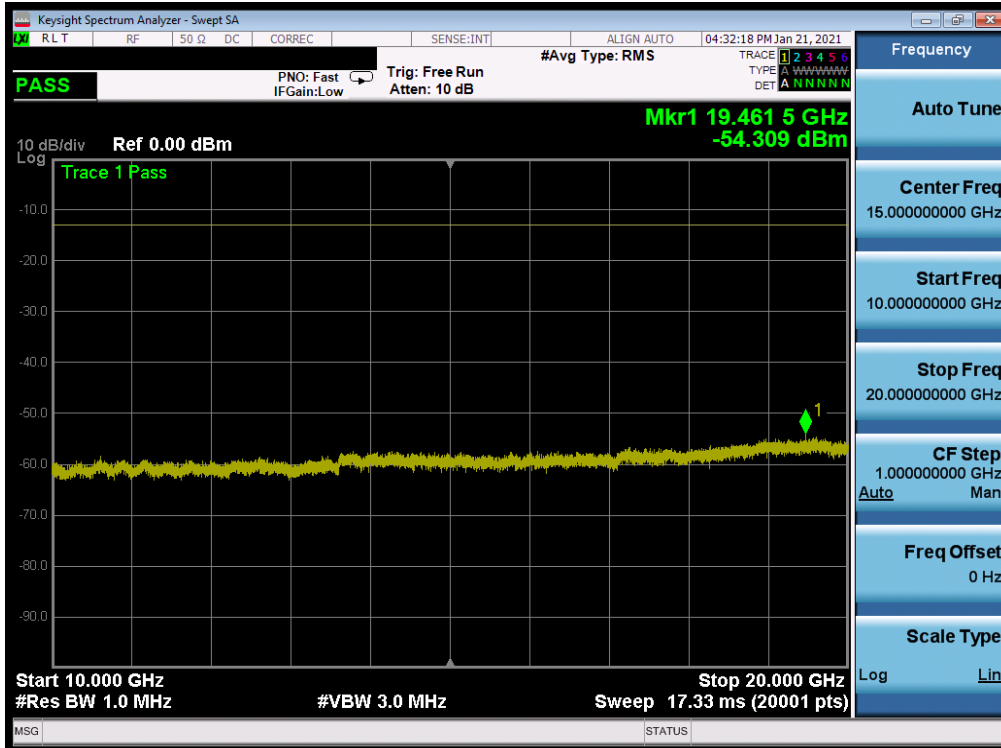
Plot 7-273. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Low Channel)



Plot 7-274. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Low Channel)

FCC ID: A3LSMA426U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 160 of 205



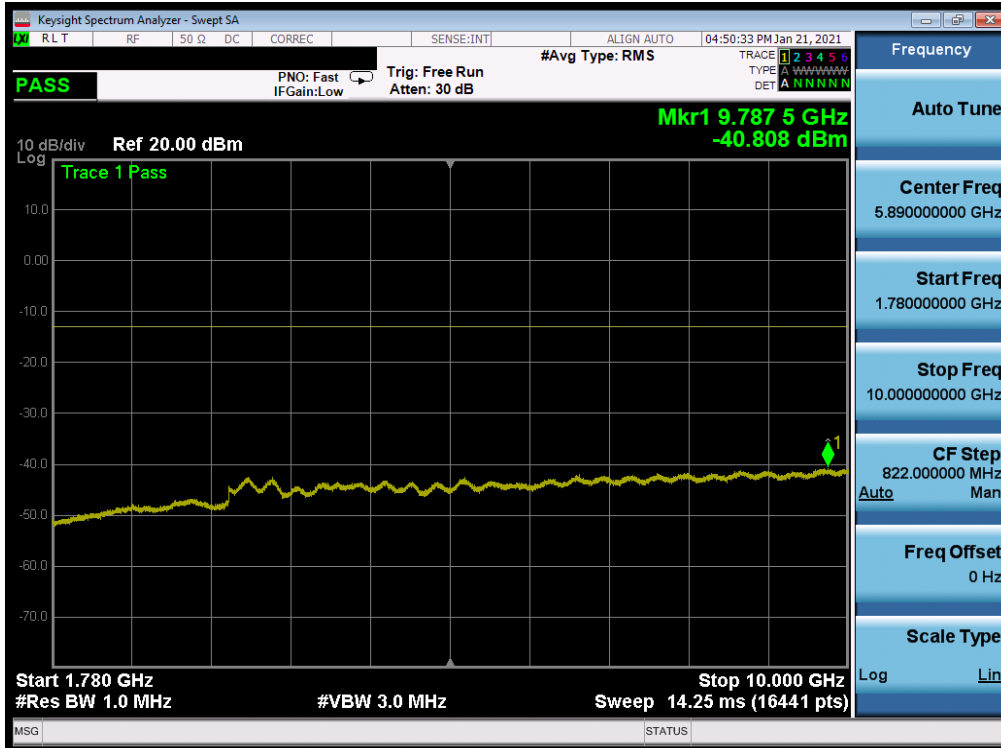


Plot 7-275. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Low Channel)

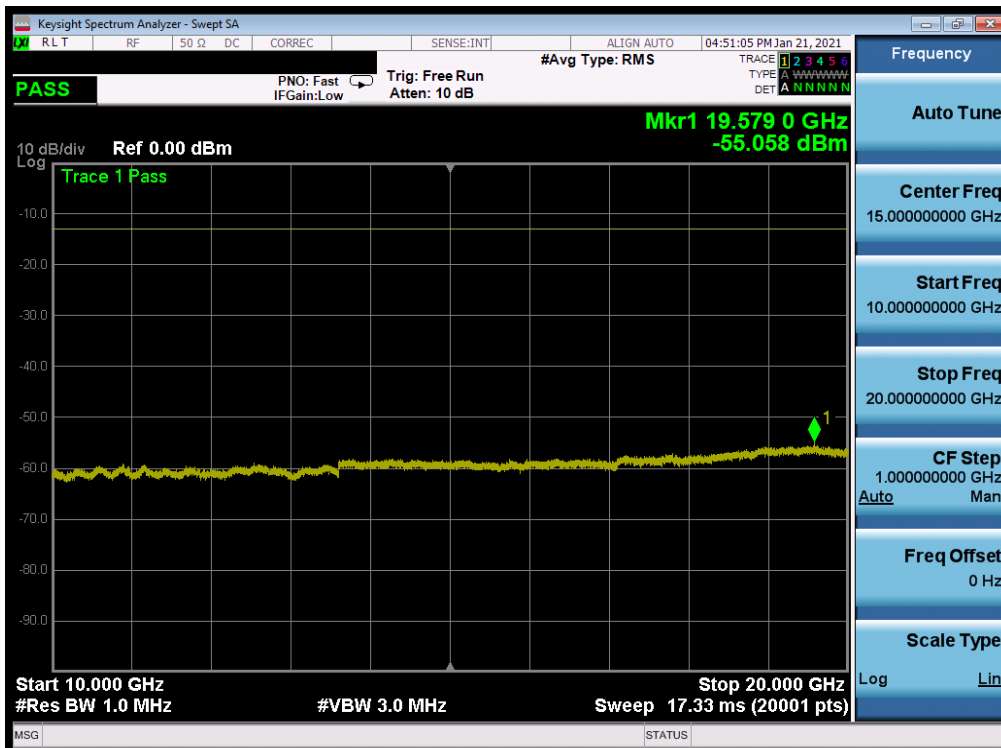


Plot 7-276. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 161 of 205

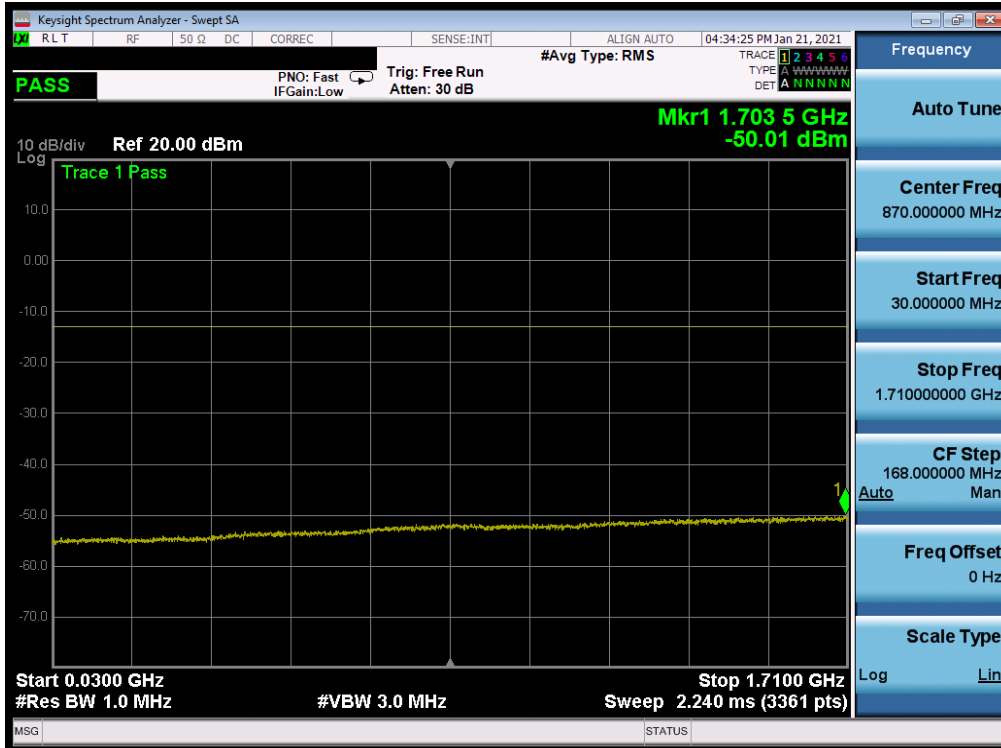


Plot 7-277. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

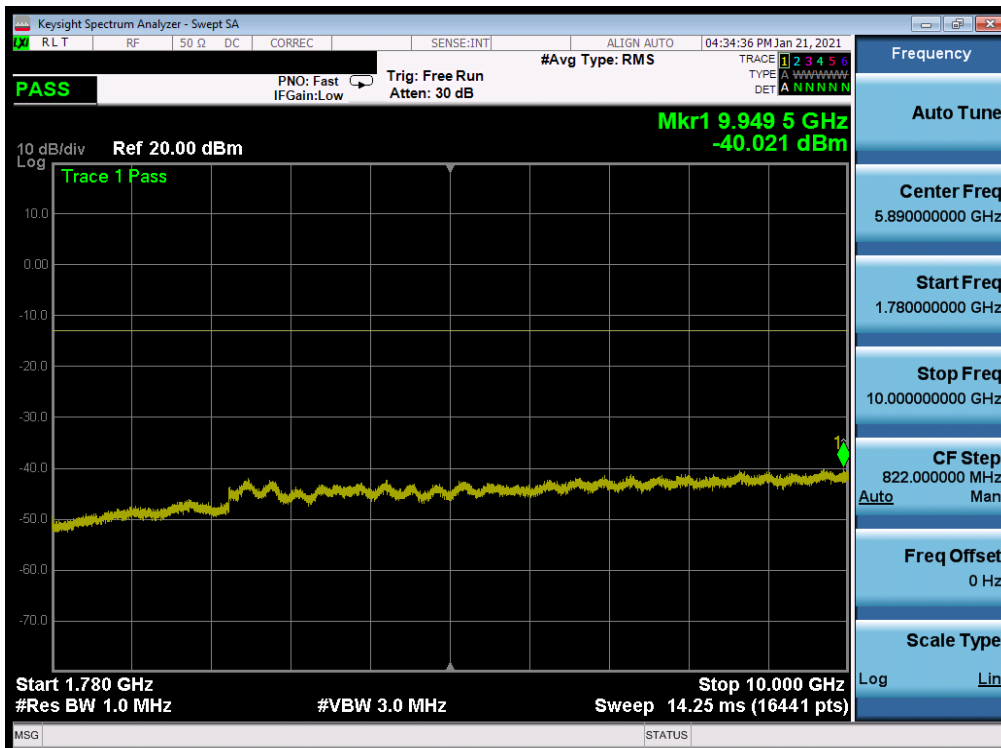


Plot 7-278. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/99 SCC 1/0 – Mid Channel)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 162 of 205

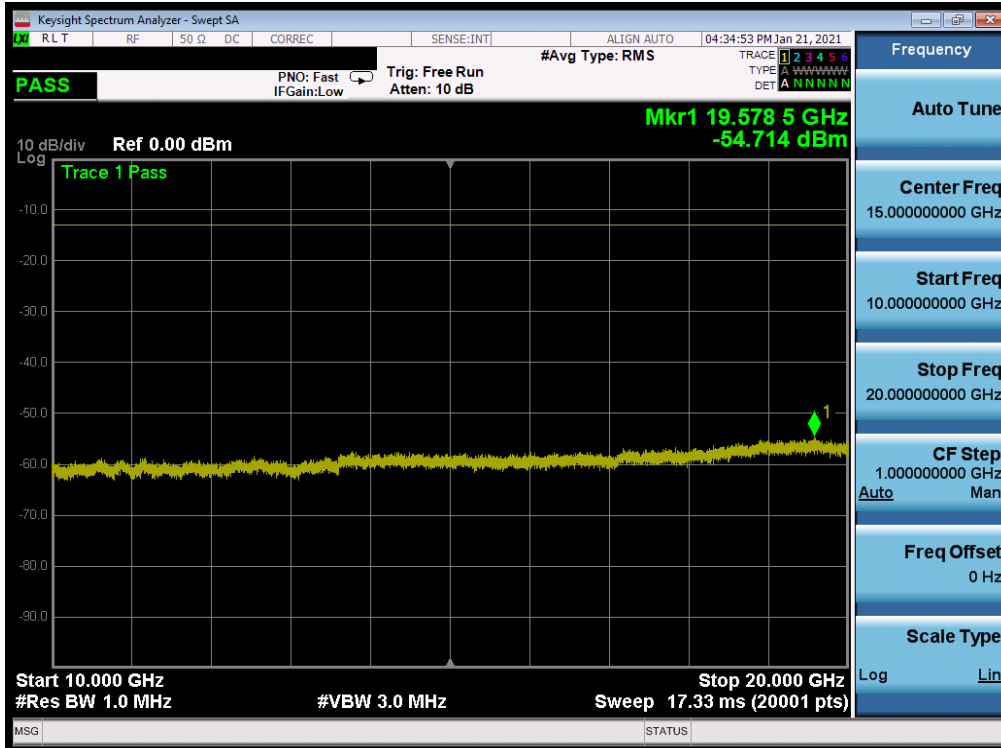


Plot 7-279. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/0 SCC 1/99 – High Channel)

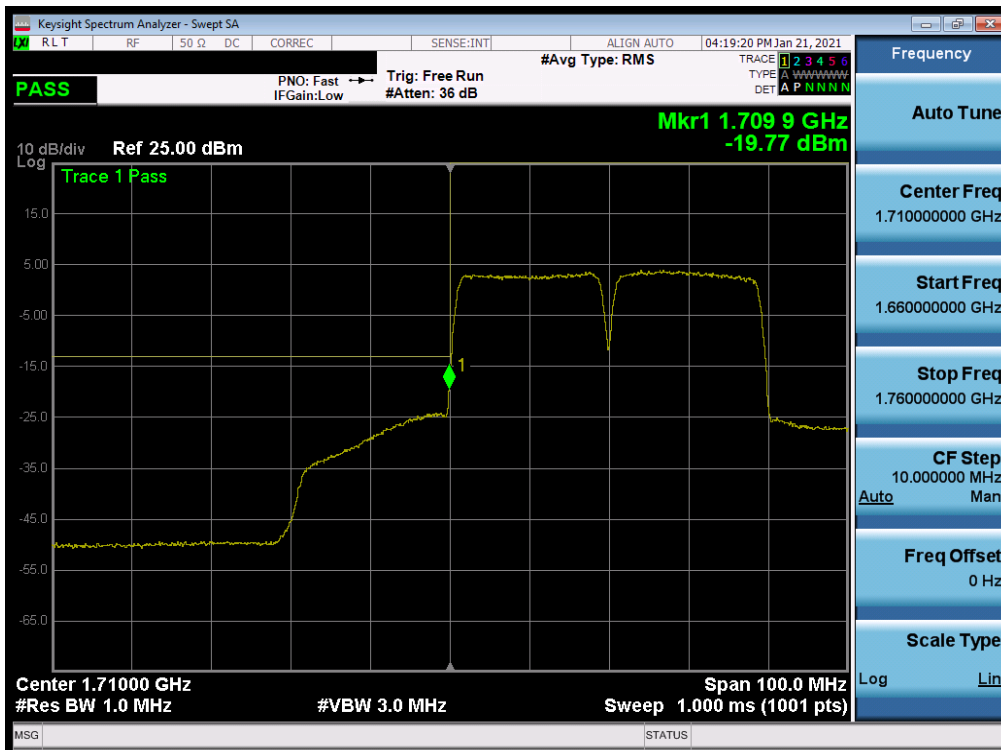


Plot 7-280. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/0 SCC 1/99 – High Channel)

FCC ID: A3LSMA426U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 163 of 205

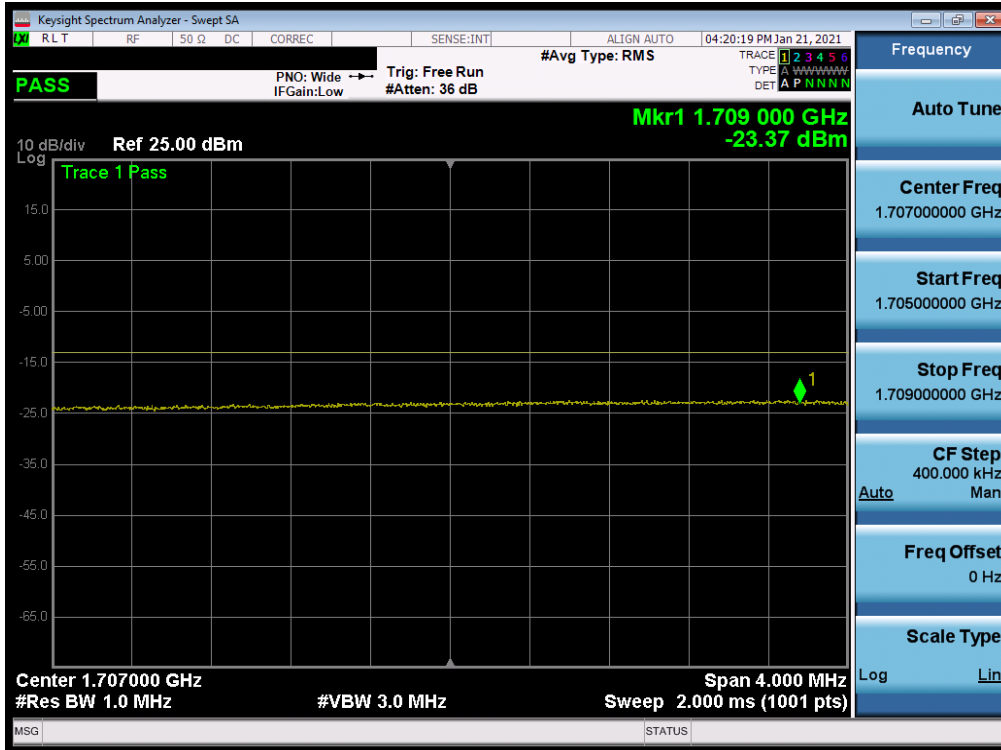


Plot 7-281. Conducted Spurious Plot (Band 66 – 20.0MHz QPSK – PCC 1/0 SCC 1/99 – High Channel)



Plot 7-282. Lower Band Edge Plot (Band 66 QPSK – PCC:20 MHz SCC:20 MHz – Full RB)

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	PART 27 MEASUREMENT REPORT	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 164 of 205



Plot 7-283. Extended Lower Band Edge Plot (Band 66 QPSK – PCC:20 MHz SCC:20 MHz – Full RB)



Plot 7-284. Upper Band Edge Plot (Band 66 QPSK – PCC:20 MHz SCC:20 MHz – Full RB)

FCC ID: A3LSMA426U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 165 of 205



## 7.7 Radiated Power (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. 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

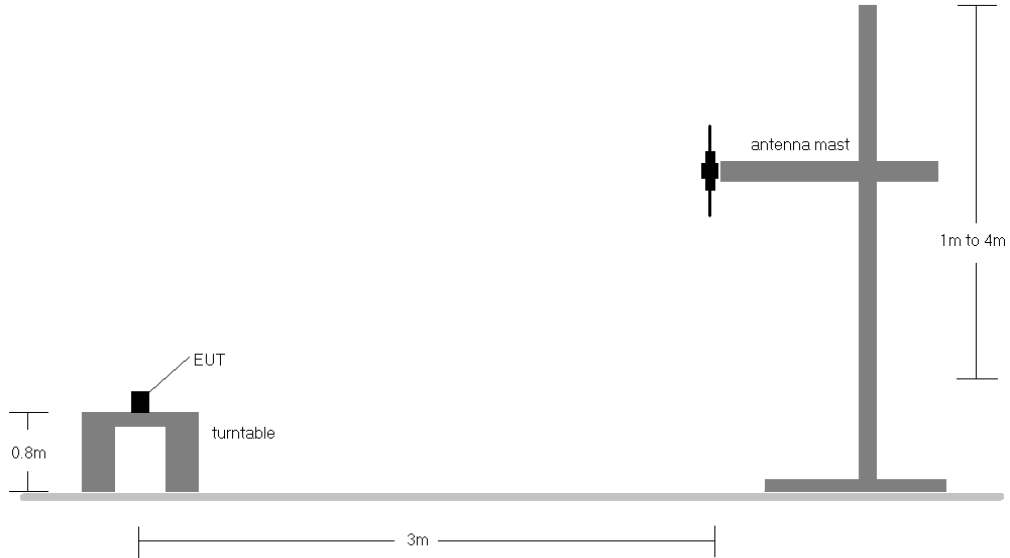
### Test Settings

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 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points  $\geq$  2 x 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

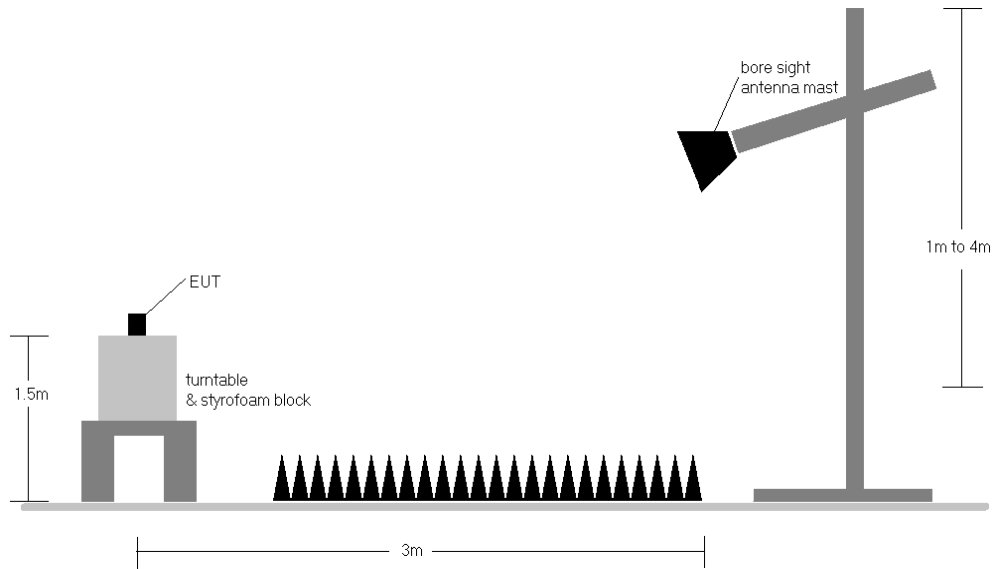
FCC ID: A3LSMA426U	 <b>PART 27 MEASUREMENT REPORT</b> 		Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset	Page 167 of 205

**Test Setup**

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



**Figure 7-6. Radiated Test Setup <1GHz**





**Figure 7-7. Radiated Test Setup >1GHz**

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2101040001-24-R1.A3L	<b>Test Dates:</b> 1/08 - 2/19/2021	<b>EUT Type:</b> Portable Handset		Page 168 of 205



## 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 EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case setup is reported in the tables below.
- 4) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) 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.

FCC ID: A3LSMA426U	 <b>PART 27 MEASUREMENT REPORT</b> 		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2101040001-24-R1.A3L	<b>Test Dates:</b> 1/08 - 2/19/2021	<b>EUT Type:</b> Portable Handset	Page 169 of 205

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
10 MHz	QPSK	704.0	V	177	230	4.58	1 / 25	17.41	21.99	0.158	36.99	-15.00	19.84	0.096	34.77	-14.93
		707.5	V	167	217	4.62	1 / 0	17.95	<b>22.57</b>	0.181	36.99	-14.42	<b>20.42</b>	0.110	34.77	-14.35
		711.0	V	166	217	4.67	1 / 0	17.42	22.09	0.162	36.99	-14.90	19.94	0.099	34.77	-14.83
	16-QAM	707.5	V	167	217	4.62	1 / 0	17.78	22.40	0.174	36.99	-14.59	20.25	0.106	34.77	-14.52
5 MHz	QPSK	707.5	V	167	217	4.62	1 / 0	16.57	21.19	0.132	36.99	-15.80	19.04	0.080	34.77	-15.73
		701.5	V	177	230	4.60	1 / 0	17.53	22.13	0.163	36.99	-14.86	19.98	0.100	34.77	-14.79
		707.5	V	167	217	4.62	1 / 0	17.95	<b>22.57</b>	0.181	36.99	-14.42	<b>20.42</b>	0.110	34.77	-14.35
	16-QAM	707.5	V	166	217	4.70	1 / 0	17.43	22.13	0.163	36.99	-14.86	19.98	0.099	34.77	-14.79
3 MHz	QPSK	707.5	V	167	217	4.62	1 / 12	17.56	22.18	0.165	36.99	-14.81	20.03	0.101	34.77	-14.74
		707.5	V	167	217	4.62	1 / 0	16.58	21.20	0.132	36.99	-15.79	19.05	0.080	34.77	-15.72
		700.5	V	177	230	4.59	1 / 0	17.55	22.14	0.164	36.99	-14.85	19.99	0.100	34.77	-14.78
	16-QAM	707.5	V	167	217	4.62	1 / 0	17.98	<b>22.60</b>	0.182	36.99	-14.39	<b>20.45</b>	0.111	34.77	-14.32
1.4 MHz	QPSK	714.5	V	166	217	4.71	1 / 0	17.41	22.12	0.163	36.99	-14.87	19.97	0.099	34.77	-14.80
		707.5	V	167	217	4.62	1 / 0	17.57	22.19	0.166	36.99	-14.80	20.04	0.101	34.77	-14.73
		707.5	V	167	217	4.62	1 / 0	16.46	21.08	0.128	36.99	-15.91	18.93	0.078	34.77	-15.84
	16-QAM	699.7	V	177	230	4.56	1 / 2	17.48	22.04	0.160	36.99	-14.95	19.89	0.098	34.77	-14.88
10 MHz	QPSK	707.5	V	167	217	4.62	1 / 2	17.84	<b>22.46</b>	0.176	36.99	-14.53	<b>20.31</b>	0.107	34.77	-14.46
		715.3	V	166	217	4.72	1 / 0	17.33	22.05	0.160	36.99	-14.94	19.90	0.098	34.77	-14.87
		707.5	V	167	217	4.62	1 / 2	17.54	22.16	0.165	36.99	-14.83	20.01	0.100	34.77	-14.76
	16-QAM	707.5	V	167	217	4.62	1 / 0	16.37	20.99	0.126	36.99	-16.00	18.84	0.077	34.77	-15.93
10 MHz	Opposite Pol.	707.5	H	281	93	3.72	1 / 0	17.97	21.69	0.148	36.99	-15.30	19.54	0.090	34.77	-15.23



Table 7-3. ERP Data (LTE Band 12)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
10 MHz	QPSK	782.0	H	233	305	5.89	1 / 0	17.41	<b>23.30</b>	0.214	36.99	-13.69	<b>21.15</b>	0.130	34.77	-13.62
	16-QAM	782.0	H	233	305	5.89	1 / 0	16.97	22.86	0.193	36.99	-14.13	20.71	0.118	34.77	-14.06
	64-QAM	782.0	H	233	305	5.89	1 / 0	15.73	21.62	0.145	36.99	-15.37	19.47	0.089	34.77	-15.30
5 MHz	QPSK	779.5	H	233	305	5.82	1 / 24	17.40	23.21	0.210	36.99	-13.78	21.06	0.128	34.77	-13.71
		782.0	H	233	305	5.89	1 / 24	17.44	<b>23.33</b>	0.215	36.99	-13.86	<b>21.18</b>	0.131	34.77	-13.69
		784.5	H	233	305	5.92	1 / 0	17.29	23.21	0.210	36.99	-13.78	21.06	0.128	34.77	-13.71
	16-QAM	782.0	H	233	305	5.89	1 / 24	16.66	22.55	0.180	36.99	-14.44	20.40	0.110	34.77	-14.37
5 MHz	64-QAM	782.0	H	233	305	5.89	1 / 24	15.32	21.21	0.132	36.99	-15.78	19.06	0.081	34.77	-15.71
5 MHz	Opposite Pol.	782.0	V	149	249	5.79	1 / 0	14.77	20.56	0.114	36.99	-16.43	18.41	0.069	34.77	-16.36

Table 7-4. ERP Data (LTE Band 13)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
20 MHz	QPSK	673.0	V	177.0	304.0	4.09	1 / 50	15.90	19.99	0.100	36.99	-17.00	17.84	0.061	34.77	-16.93
		680.5	V	186.0	300.0	4.24	1 / 50	16.43	<b>20.67</b>	0.117	36.99	-16.32	<b>18.52</b>	0.071	34.77	-16.26
		688.0	V	181.0	311.0	4.48	1 / 50	16.06	20.54	0.113	36.99	-16.45	18.39	0.069	34.77	-16.38
	16-QAM	680.5	V	186.0	300.0	4.24	1 / 50	15.61	19.85	0.097	36.99	-17.14	17.70	0.059	34.77	-17.08
15 MHz	QPSK	680.5	V	186.0	300.0	4.24	1 / 50	14.68	18.92	0.078	36.99	-18.07	16.77	0.047	34.77	-18.01
		670.5	V	177.0	304.0	3.96	1 / 0	15.73	19.69	0.093	36.99	-17.30	17.54	0.057	34.77	-17.23
		680.5	V	186.0	300.0	4.24	1 / 0	16.15	<b>20.39</b>	0.109	36.99	-16.60	<b>18.24</b>	0.067	34.77	-16.54
	16-QAM	690.5	V	181.0	311.0	4.41	1 / 0	15.88	20.29	0.107	36.99	-16.70	18.14	0.065	34.77	-16.63
10 MHz	QPSK	690.5	V	181.0	311.0	4.41	1 / 0	15.14	19.55	0.090	36.99	-17.44	17.40	0.055	34.77	-17.37
		680.5	V	186.0	300.0	4.24	1 / 0	16.24	20.48	0.112	36.99	-16.51	18.33	0.068	34.77	-16.45
		693.0	V	181.0	311.0	4.44	1 / 0	16.09	<b>20.53</b>	0.113	36.99	-16.46	<b>18.38</b>	0.069	34.77	-16.39
	16-QAM	693.0	V	181.0	311.0	4.44	1 / 0	15.18	19.62	0.092	36.99	-17.37	17.47	0.056	34.77	-17.30
5 MHz	QPSK	693.0	V	181.0	311.0	4.44	1 / 25	14.37	18.81	0.076	36.99	-18.18	16.66	0.046	34.77	-18.11
		665.5	V	177.0	304.0	3.79	1 / 0	16.32	20.11	0.103	36.99	-16.88	17.96	0.063	34.77	-16.81
		680.5	V	186.0	300.0	4.24	1 / 12	16.18	20.42	0.110	36.99	-16.57	18.27	0.067	34.77	-16.51
	16-QAM	695.5	V	181.0	311.0	4.58	1 / 12	15.88	<b>20.45</b>	0.111	36.99	-16.54	<b>18.30</b>	0.068	34.77	-16.47
5 MHz	QPSK	695.5	V	181.0	311.0	4.58	1 / 12	14.91	19.48	0.089	36.99	-17.51	17.33	0.054	34.77	-17.44
		64-QAM	695.5	V	181.0	311.0	4.58	1 / 0	14.18	18.75	0.075	36.99	-18.24	16.60	0.046	34.77
5 MHz	Opposite Pol.	680.5	H	139.0	302.0	4.24	1 / 50	15.20	19.44	0.088	36.99	-17.55	17.29	0.054	34.77	-17.49

Table 7-5. ERP Data (LTE Band 71)



FCC ID: A3LSMA426U		PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset		Page 170 of 205

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
20 MHz	π/2 BPSK	673.0	V	172	317	4.09	1 / 53	14.37	18.46	0.070	36.99	-18.53	16.31	0.043	34.77	-18.46
		680.5	V	169	310	4.24	1 / 53	14.28	18.52	0.071	36.99	-18.47	16.37	0.043	34.77	-18.41
		688.0	V	171	248	4.48	1 / 1	14.59	19.07	0.081	36.99	-17.92	16.92	0.049	34.77	-17.85
	QPSK	673.0	V	172	317	4.09	1 / 53	14.02	18.11	0.065	36.99	-18.88	15.96	0.039	34.77	-18.81
		680.5	V	169	310	4.24	1 / 53	14.18	18.42	0.069	36.99	-18.57	16.27	0.042	34.77	-18.51
		688.0	V	171	248	4.48	1 / 1	14.53	19.01	0.080	36.99	-17.98	16.86	0.049	34.77	-17.91
		688.0	V	171	248	4.48	1 / 1	13.36	17.84	0.061	36.99	-19.15	15.69	0.037	34.77	-19.08
	16-QAM	688.0	V	171	248	4.48	1 / 1	12.14	16.62	0.046	36.99	-20.37	14.47	0.028	34.77	-20.30
	64-QAM	688.0	V	171	248	4.48	1 / 1	10.24	14.72	0.030	36.99	-22.27	12.57	0.018	34.77	-22.20
	15 MHz	π/2 BPSK	670.5	V	172	317	3.96	1 / 1	14.74	18.70	0.074	36.99	-18.29	16.55	0.045	34.77
680.5			V	169	310	4.24	1 / 39	14.29	18.52	0.071	36.99	-18.47	16.37	0.043	34.77	-18.40
690.5			V	171	248	4.41	1 / 39	14.39	18.80	0.076	36.99	-18.19	16.65	0.046	34.77	-18.12
QPSK		670.5	V	172	317	3.96	1 / 1	14.11	18.07	0.064	36.99	-18.92	15.92	0.039	34.77	-18.85
		680.5	V	169	310	4.24	1 / 1	14.40	18.64	0.073	36.99	-18.35	16.49	0.045	34.77	-18.28
		690.5	V	171	248	4.41	1 / 1	14.60	19.01	0.080	36.99	-17.98	16.86	0.049	34.77	-17.91
16-QAM		690.5	V	171	248	4.41	1 / 1	13.48	17.90	0.062	36.99	-19.09	15.75	0.038	34.77	-19.03
64-QAM		690.5	V	171	248	4.41	1 / 1	12.02	16.43	0.044	36.99	-20.56	14.28	0.027	34.77	-20.49
256-QAM		690.5	V	171	248	4.41	1 / 39	10.33	14.75	0.030	36.99	-22.24	12.60	0.018	34.77	-22.17
10 MHz		π/2 BPSK	668.0	V	172	317	3.82	1 / 1	14.92	18.74	0.075	36.99	-18.25	16.59	0.046	34.77
	680.5		V	169	310	4.24	1 / 26	14.47	18.71	0.074	36.99	-18.28	16.56	0.045	34.77	-18.22
	693.0		V	171	248	4.44	1 / 26	14.56	19.00	0.080	36.99	-17.98	16.85	0.048	34.77	-17.92
	QPSK	668.0	V	172	317	3.82	1 / 1	14.36	18.18	0.066	36.99	-18.81	16.03	0.040	34.77	-18.74
		680.5	V	169	310	4.24	1 / 26	14.45	18.69	0.074	36.99	-18.30	16.54	0.045	34.77	-18.23
		693.0	V	171	248	4.44	1 / 26	14.62	19.06	0.081	36.99	-17.93	16.91	0.049	34.77	-17.86
	16-QAM	693.0	V	171	248	4.44	1 / 26	13.17	17.62	0.058	36.99	-19.37	15.47	0.035	34.77	-19.30
	64-QAM	693.0	V	171	248	4.44	1 / 1	12.06	16.51	0.045	36.99	-20.48	14.36	0.027	34.77	-20.41
	256-QAM	693.0	V	171	248	4.44	1 / 1	10.17	14.61	0.029	36.99	-22.38	12.46	0.018	34.77	-22.31
	5 MHz	π/2 BPSK	665.5	V	172	317	3.79	1 / 13	14.94	18.73	0.075	36.99	-18.26	16.58	0.046	34.77
680.5			V	169	310	4.24	1 / 13	14.46	18.70	0.074	36.99	-18.29	16.55	0.045	34.77	-18.22
695.5			V	171	248	4.58	1 / 13	14.48	19.06	0.081	36.99	-17.93	16.91	0.049	34.77	-17.86
QPSK		665.5	V	172	317	3.79	1 / 1	14.56	18.35	0.068	36.99	-18.64	16.20	0.042	34.77	-18.57
		680.5	V	169	310	4.24	1 / 1	14.32	18.56	0.072	36.99	-18.43	16.41	0.044	34.77	-18.37
		695.5	V	171	248	4.58	1 / 1	14.72	19.29	0.085	36.99	-17.70	17.14	0.052	34.77	-17.63
16-QAM		695.5	V	171	248	4.58	1 / 1	13.26	17.83	0.061	36.99	-19.16	15.68	0.037	34.77	-19.09
64-QAM		695.5	V	171	248	4.58	1 / 13	11.64	16.21	0.042	36.99	-20.78	14.06	0.025	34.77	-20.71
256-QAM		695.5	V	171	248	4.58	1 / 13	10.06	14.64	0.029	36.99	-22.35	12.49	0.018	34.77	-22.28
20 MHz		QPSK (CP-OFDM)	688.0	V	162	328	4.48	1 / 1	12.92	17.40	0.055	36.99	-19.59	15.25	0.034	34.77
	QPSK (Opposite Pol.)	688.0	H	150	283	4.48	1 / 1	14.05	18.53	0.071	36.99	-18.46	16.38	0.043	34.77	-18.39

Table 7-6. EIRP Data (NR Band n71)



Frequency [MHz]	Mode	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1712.40	WCDMA1700	H	146	23	14.91	9.46	24.37	0.274	30.00	-5.63
1732.60	WCDMA1700	H	182	24	13.77	9.34	23.11	0.204	30.00	-6.89
1752.60	WCDMA1700	H	234	25	11.64	9.24	20.88	0.122	30.00	-9.12
1712.40	WCDMA1700	V	111	74	12.59	9.46	22.05	0.160	30.00	-7.95

Table 7-7. EIRP Data (WCDMA AWS)

FCC ID: A3LSMA426U	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset	Page 171 of 205



Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	QPSK	1720.0	V	130	128	9.31	1 / 99	13.63	<b>22.94</b>	0.197	30.00	-7.06
		1745.0	V	131	118	9.14	1 / 0	12.95	22.09	0.162	30.00	-7.91
		1770.0	V	119	124	9.17	1 / 0	10.48	19.65	0.092	30.00	-10.35
	16-QAM	1720.0	V	130	128	9.31	1 / 99	12.98	22.29	0.170	30.00	-7.71
64-QAM	1720.0	V	130	128	9.31	1 / 99	12.00	21.31	0.135	30.00	-8.69	
15 MHz	QPSK	1717.5	V	130	128	9.33	1 / 36	13.41	<b>22.74</b>	0.188	30.00	-7.26
		1745.0	V	131	118	9.14	1 / 0	12.88	22.02	0.159	30.00	-7.98
		1772.5	V	119	124	9.18	1 / 74	10.27	19.45	0.088	30.00	-10.55
	16-QAM	1717.5	V	130	128	9.33	1 / 36	12.68	22.01	0.159	30.00	-7.99
64-QAM	1717.5	V	130	128	9.33	1 / 0	12.05	21.38	0.137	30.00	-8.62	
10 MHz	QPSK	1715.0	V	130	128	9.35	1 / 25	13.58	<b>22.93</b>	0.196	30.00	-7.07
		1745.0	V	131	118	9.14	1 / 49	12.86	22.00	0.158	30.00	-8.00
		1775.0	V	119	124	9.18	1 / 25	10.22	19.41	0.087	30.00	-10.59
	16-QAM	1715.0	V	130	128	9.35	1 / 25	12.60	21.95	0.157	30.00	-8.05
64-QAM	1715.0	V	130	128	9.35	1 / 25	11.90	21.25	0.133	30.00	-8.75	
5 MHz	QPSK	1712.5	V	130	128	9.37	1 / 12	13.31	<b>22.67</b>	0.185	30.00	-7.33
		1745.0	V	131	118	9.14	1 / 0	12.93	22.07	0.161	30.00	-7.93
		1777.5	V	119	124	9.19	1 / 24	10.14	19.33	0.086	30.00	-10.67
	16-QAM	1712.5	V	130	128	9.37	1 / 0	12.61	21.97	0.157	30.00	-8.03
64-QAM	1712.5	V	130	128	9.37	1 / 12	11.80	21.16	0.131	30.00	-8.84	
3 MHz	QPSK	1711.5	V	130	128	9.37	1 / 14	13.37	<b>22.74</b>	0.188	30.00	-7.26
		1745.0	V	131	118	9.14	1 / 0	12.94	22.08	0.161	30.00	-7.92
		1778.5	V	119	124	9.20	1 / 7	10.17	19.37	0.086	30.00	-10.63
	16-QAM	1711.5	V	130	128	9.37	1 / 0	12.88	22.25	0.168	30.00	-7.75
64-QAM	1711.5	V	130	128	9.37	1 / 0	11.86	21.23	0.133	30.00	-8.77	
1.4 MHz	QPSK	1710.7	V	130	128	9.38	1 / 2	13.37	<b>22.75</b>	0.188	30.00	-7.25
		1745.0	V	131	118	9.14	1 / 2	12.94	22.08	0.161	30.00	-7.92
		1779.3	V	119	124	9.20	1 / 2	10.14	19.34	0.086	30.00	-10.66
	16-QAM	1710.7	V	130	128	9.38	1 / 2	12.74	22.12	0.163	30.00	-7.88
64-QAM	1710.7	V	130	128	9.38	1 / 2	11.88	21.26	0.134	30.00	-8.74	
20 MHz	Opposite Pol.	1720.0	H	195	12	9.41	1 / 99	13.40	22.81	0.191	30.00	-7.19

Table 7-8. EIRP Data (LTE Band 66/4)

FCC ID: A3LSMA426U	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2101040001-24-R1.A3L	Test Dates: 1/08 - 2/19/2021	EUT Type: Portable Handset	Page 172 of 205

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	π/2 BPSK	1720.0	H	130	24	9.41	1 / 1	14.31	<b>23.72</b>	0.236	30.00	-6.28
		1745.0	H	182	19	9.26	1 / 1	13.72	22.98	0.199	30.00	-7.02
		1770.0	H	229	24	9.27	1 / 1	11.16	20.43	0.110	30.00	-9.57
	QPSK	1720.0	H	130	24	9.41	1 / 1	14.15	23.56	0.227	30.00	-6.44
		1745.0	H	182	19	9.26	1 / 1	13.50	22.76	0.189	30.00	-7.24
		1770.0	H	229	24	9.27	1 / 1	11.06	20.33	0.108	30.00	-9.67
		16-QAM	1720.0	H	130	24	9.41	1 / 1	12.77	22.18	0.165	30.00
64-QAM	1720.0	H	130	24	9.41	1 / 1	11.74	21.15	0.130	30.00	-8.85	
256-QAM	1720.0	H	130	24	9.41	1 / 1	9.67	19.08	0.081	30.00	-10.92	
15 MHz	π/2 BPSK	1717.5	H	130	24	9.43	1 / 1	14.34	<b>23.77</b>	0.238	30.00	-6.23
		1745.0	H	182	19	9.26	1 / 1	13.76	23.02	0.200	30.00	-6.98
		1772.5	H	229	24	9.27	1 / 1	11.18	20.45	0.111	30.00	-9.55
	QPSK	1717.5	H	130	24	9.43	1 / 1	14.14	23.57	0.228	30.00	-6.43
		1745.0	H	182	19	9.26	1 / 1	13.58	22.84	0.192	30.00	-7.16
		1772.5	H	229	24	9.27	1 / 1	11.12	20.39	0.109	30.00	-9.61
		16-QAM	1717.5	H	130	24	9.43	1 / 1	12.78	22.21	0.166	30.00
64-QAM	1717.5	H	130	24	9.43	1 / 1	11.66	21.09	0.129	30.00	-8.91	
256-QAM	1717.5	H	130	24	9.43	1 / 1	9.61	19.04	0.080	30.00	-10.96	
10 MHz	π/2 BPSK	1715.0	H	130	24	9.44	1 / 1	14.52	<b>23.96</b>	0.249	30.00	-6.04
		1745.0	H	182	19	9.26	1 / 1	13.88	23.14	0.206	30.00	-6.86
		1775.0	H	229	24	9.28	1 / 1	11.34	20.62	0.115	30.00	-9.38
	QPSK	1715.0	H	130	24	9.44	1 / 1	14.20	23.64	0.231	30.00	-6.36
		1745.0	H	182	19	9.26	1 / 1	13.59	22.85	0.193	30.00	-7.15
		1775.0	H	229	24	9.28	1 / 1	11.12	20.40	0.110	30.00	-9.60
		16-QAM	1715.0	H	130	24	9.44	1 / 1	12.64	22.08	0.162	30.00
64-QAM	1715.0	H	130	24	9.44	1 / 1	11.70	21.14	0.130	30.00	-8.86	
256-QAM	1715.0	H	130	24	9.44	1 / 1	9.63	19.07	0.081	30.00	-10.93	
5 MHz	π/2 BPSK	1712.5	H	130	24	9.46	1 / 1	14.52	<b>23.98</b>	0.250	30.00	-6.02
		1745.0	H	182	19	9.26	1 / 1	13.90	23.16	0.207	30.00	-6.84
		1777.5	H	229	24	9.28	1 / 1	11.47	20.75	0.119	30.00	-9.25
	QPSK	1712.5	H	130	24	9.46	1 / 1	14.29	23.75	0.237	30.00	-6.25
		1745.0	H	182	19	9.26	1 / 1	13.66	22.92	0.196	30.00	-7.08
		1777.5	H	229	24	9.28	1 / 1	11.29	20.57	0.114	30.00	-9.43
		16-QAM	1712.5	H	130	24	9.46	1 / 1	12.86	22.32	0.171	30.00
64-QAM	1712.5	H	130	24	9.46	1 / 1	11.73	21.19	0.132	30.00	-8.81	
256-QAM	1712.5	H	130	24	9.46	1 / 1	9.57	19.03	0.080	30.00	-10.97	
20 MHz	QPSK (CP-OFDM)	1720.0	H	136	16	9.26	1 / 1	12.06	21.32	0.136	30.00	-8.68
	QPSK (Opposite Pol.)	1720.0	V	110	56	9.26	1 / 1	13.24	22.50	0.178	30.00	-7.50

Table 7-9. EIRP Data (NR Band n66)

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## 7.8 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 horizontally and vertically 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 peak measurements while the EUT is operating at maximum power, and at the appropriate frequencies.



### Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.8

ANSI/TIA-603-E-2016 – Section 2.2.12

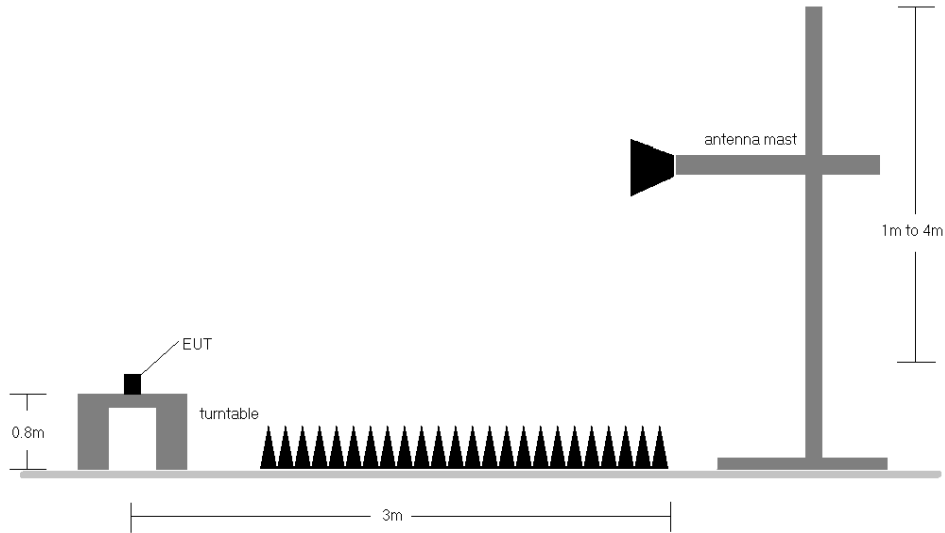
### Test Settings

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

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**Test Setup**

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



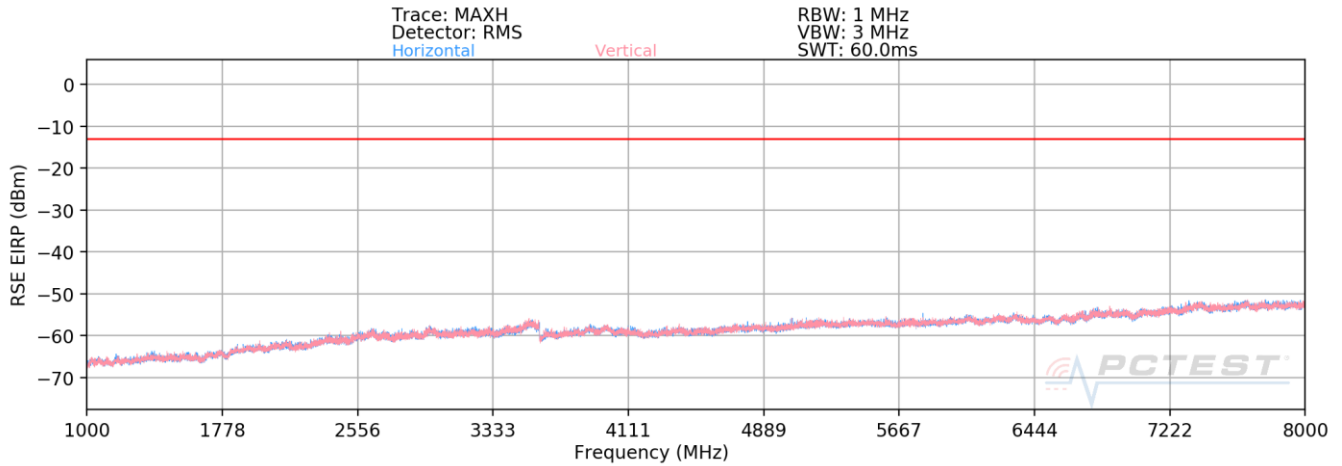
**Figure 7-8. Test Instrument & Measurement Setup**

**Test Notes**

- 1) Field strengths are calculated using the Measurement quantity conversions in KDB 971168 Section 5.8.4.
  - a)  $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
  - b)  $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20\log D - 104.8$ ; where D is the measurement distance in meters.
- 2) 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.
- 3) This unit was tested with its standard battery.
- 4) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case setup is reported in the tables below.
- 5) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 6) 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.
- 7) The "-" shown in the following RSE tables are used to denote a noise floor measurement.
- 8) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) 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.
- 9) Spurious emissions shown in this section are measured while operating in EN-DC mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor). Spurious emissions from the NR carrier device, is subject to the rules under which the NR carrier operates. Spurious emission caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

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## LTE Band 12



**Plot 7-286. Radiated Spurious Plot (LTE Band 12)**

Bandwidth (MHz):	10
Frequency (MHz):	704.0
RB / Offset:	1 / 25



Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1408.0	H	-	-	-76.46	-5.29	25.25	-70.00	-13.00	-57.00
2112.0	H	114	14	-74.99	-2.85	29.16	-66.09	-13.00	-53.09
2816.0	H	-	-	-76.80	-1.28	28.92	-66.34	-13.00	-53.34
3520.0	H	-	-	-78.45	1.37	29.92	-65.33	-13.00	-52.33

**Table 7-10. Radiated Spurious Data (LTE Band 12 – Low Channel)**

Bandwidth (MHz):	10
Frequency (MHz):	707.5
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1415.0	H	-	-	-76.52	-5.37	25.11	-70.15	-13.00	-57.15
2122.5	H	111	358	-73.88	-2.88	30.24	-65.02	-13.00	-52.02
2830.0	H	-	-	-77.01	-1.15	28.84	-66.42	-13.00	-53.42
3537.5	H	-	-	-78.62	1.53	29.91	-65.35	-13.00	-52.35

**Table 7-11. Radiated Spurious Data (LTE Band 12 – Mid Channel)**



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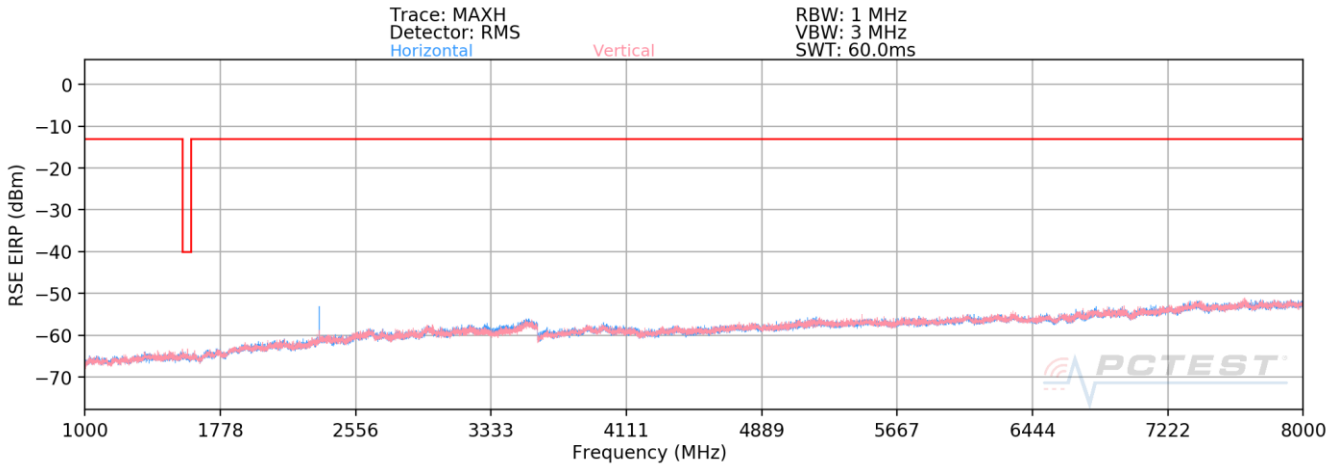
Bandwidth (MHz):	10
Frequency (MHz):	711.0
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1422.0	H	-	-	-76.52	-5.35	25.13	-70.13	-13.00	-57.13
2133.0	H	150	-2	-74.42	-2.88	29.70	-65.55	-13.00	-52.55
2844.0	H	-	-	-77.06	-1.09	28.85	-66.41	-13.00	-53.41
3555.0	H	-	-	-78.49	1.45	29.96	-65.30	-13.00	-52.30

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

FCC ID: A3LSMA426U	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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# LTE Band 13



**Plot 7-287. Radiated Spurious Plot (LTE Band 13)**

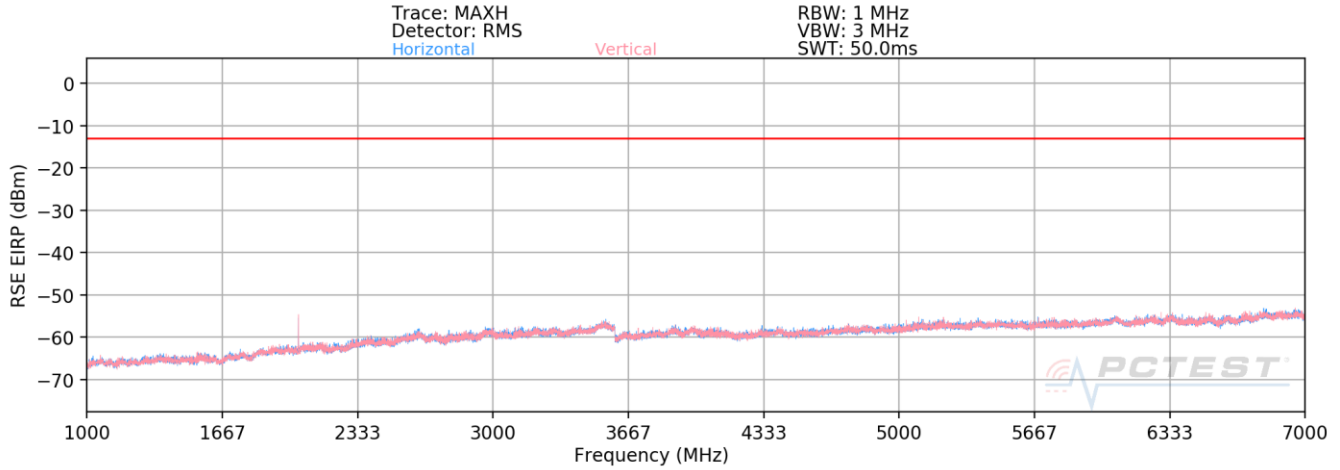
Bandwidth (MHz):	10
Frequency (MHz):	782.0
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1564.0	H	244	29	-75.89	-5.05	26.06	-69.20	-40.00	-29.20
2346.0	H	153	258	-75.27	-2.12	29.61	-65.65	-13.00	-52.65
3128.0	H	-	-	-76.84	0.05	30.21	-65.04	-13.00	-52.04
3910.0	H	-	-	-77.93	2.85	31.92	-63.34	-13.00	-50.34

**Table 7-13. Radiated Spurious Data (LTE Band 13)**

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Technical Manager
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# LTE Band 71



**Plot 7-288. Radiated Spurious Plot (LTE Band 71)**

Bandwidth (MHz):	20
Frequency (MHz):	673.0
RB / Offset:	1 / 50
Mode:	Standalone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1346.0	V	-	-	-70.01	14.73	51.72	-43.54	-13.00	-30.54
2019.0	V	-	-	-69.44	14.53	52.09	-43.16	-13.00	-30.16
2692.0	V	-	-	-68.01	17.57	56.56	-38.70	-13.00	-25.70

**Table 7-14. Radiated Spurious Data (LTE Band 71 – Low Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	680.5
RB / Offset:	1 / 50
Mode:	Standalone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1361.0	V	-	-	-69.61	1.62	39.01	-56.25	-13.00	-43.25
2041.5	V	-	-	-69.49	4.28	41.79	-53.47	-13.00	-40.47
2722.0	V	-	-	-67.71	8.33	47.62	-47.63	-13.00	-34.63



**Table 7-15. Radiated Spurious Data (LTE Band 71 – Mid Channel)**

FCC ID: A3LSMA426U	PART 27 MEASUREMENT REPORT	Approved by: Technical Manager
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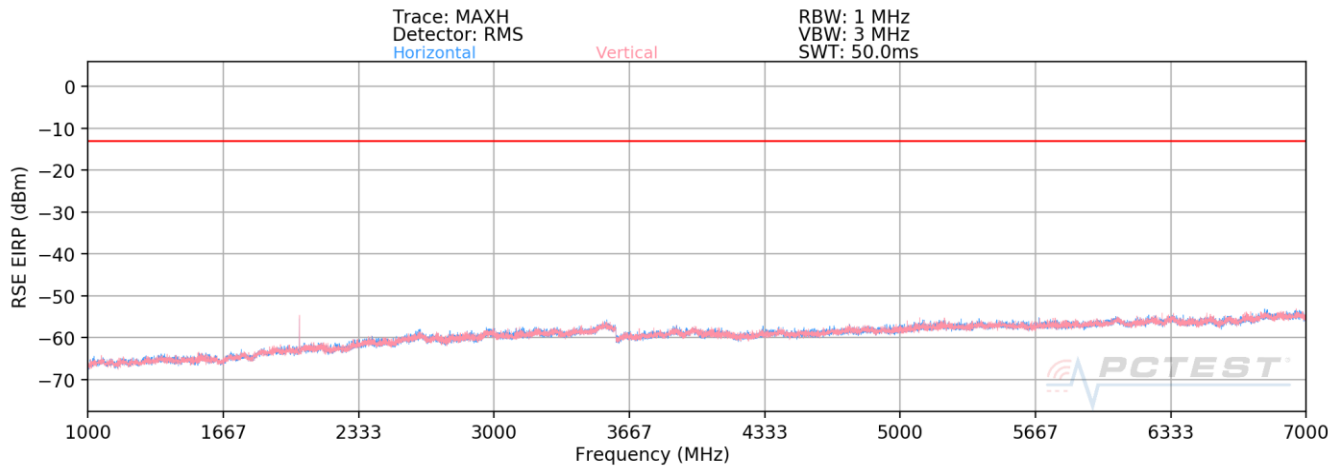
<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	688.0
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	Standalone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1376.0	V	-	-	-70.11	15.03	51.92	-43.34	-13.00	-30.34
2064.0	V	-	-	-69.54	14.82	52.28	-42.98	-13.00	-29.98
2752.0	V	-	-	-68.09	18.21	57.12	-38.13	-13.00	-25.13

**Table 7-16. Radiated Spurious Data (LTE Band 71 – High Channel)**

<b>FCC ID:</b> A3LSMA426U	 <b>PART 27 MEASUREMENT REPORT</b> 	<b>Approved by:</b> Technical Manager
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## NR Band n71



**Plot 7-289. Radiated Spurious Plot (NR Band n71)**

Bandwidth (MHz):	20
Frequency (MHz):	673.0
RB / Offset:	1 / 50
Mode:	Standalone



Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1346.0	V	-	-	-70.01	14.73	51.72	-43.54	-13.00	-30.54
2019.0	V	-	-	-69.44	14.53	52.09	-43.16	-13.00	-30.16
2692.0	V	-	-	-68.01	17.57	56.56	-38.70	-13.00	-25.70

**Table 7-17. Radiated Spurious Data (NR Band n71 – Low Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	680.5
RB / Offset:	1 / 50
Mode:	Standalone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1361.0	V	-	-	-69.61	1.62	39.01	-56.25	-13.00	-43.25
2041.5	V	-	-	-69.49	4.28	41.79	-53.47	-13.00	-40.47
2722.0	V	-	-	-67.71	8.33	47.62	-47.63	-13.00	-34.63



**Table 7-18. Radiated Spurious Data (NR Band n71 – Mid Channel)**

FCC ID: A3LSMA426U	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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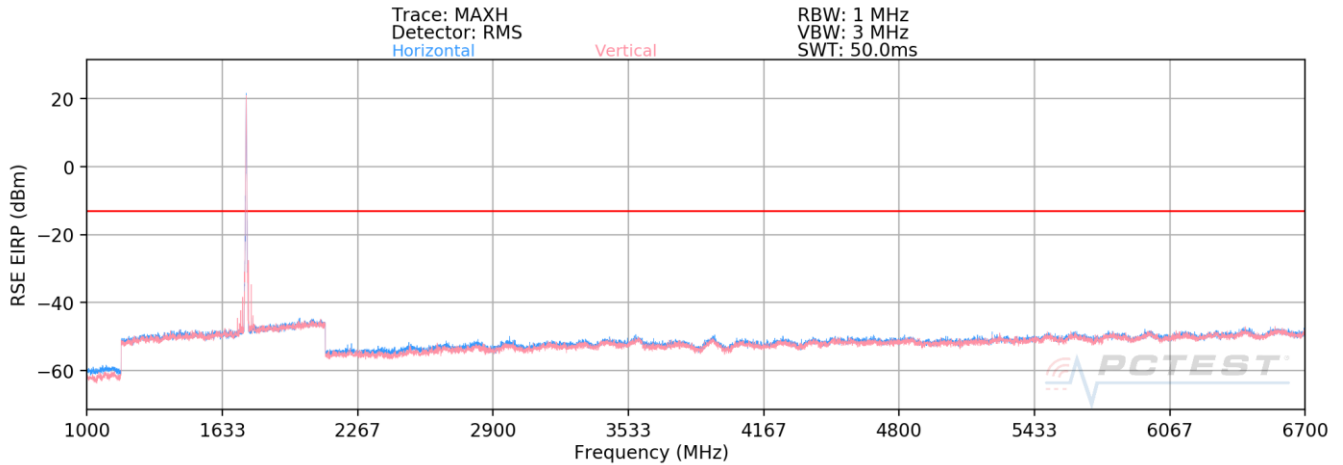
<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	688.0
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	Standalone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1376.0	V	-	-	-70.11	15.03	51.92	-43.34	-13.00	-30.34
2064.0	V	-	-	-69.54	14.82	52.28	-42.98	-13.00	-29.98
2752.0	V	-	-	-68.09	18.21	57.12	-38.13	-13.00	-25.13

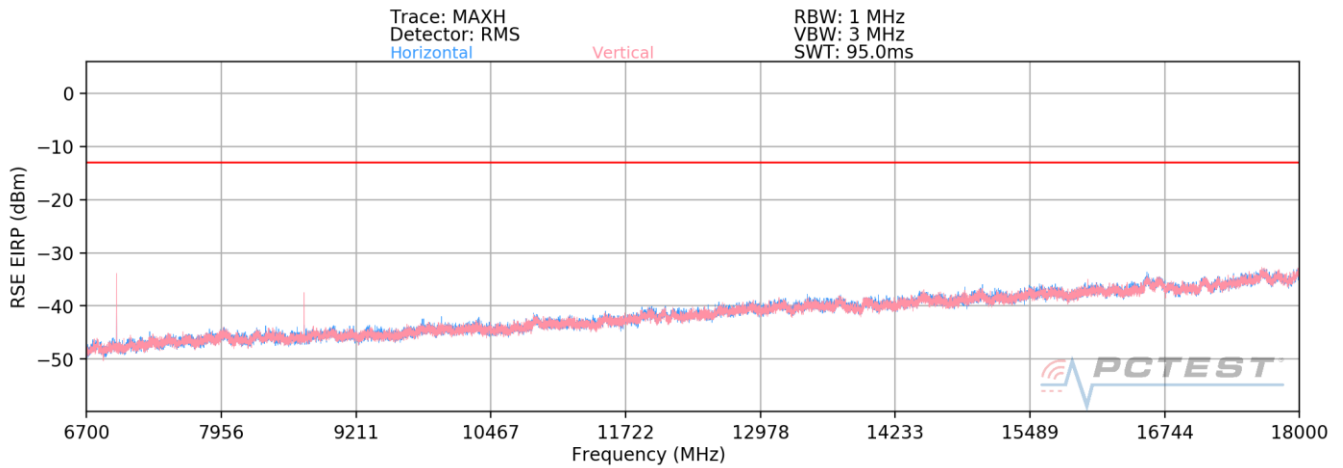
**Table 7-19. Radiated Spurious Data (NR Band n71 – High Channel)**

<b>FCC ID:</b> A3LSMA426U	 <b>PART 27 MEASUREMENT REPORT</b> 	<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2101040001-24-R1.A3L	<b>Test Dates:</b> 1/08 - 2/19/2021	<b>EUT Type:</b> Portable Handset
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### NR Band n71 – B66



**Plot 7-290. Radiated Spurious Plot (NR Band n71-B66)**



**Plot 7-291. Radiated Spurious Plot (NR Band n71-B66)**

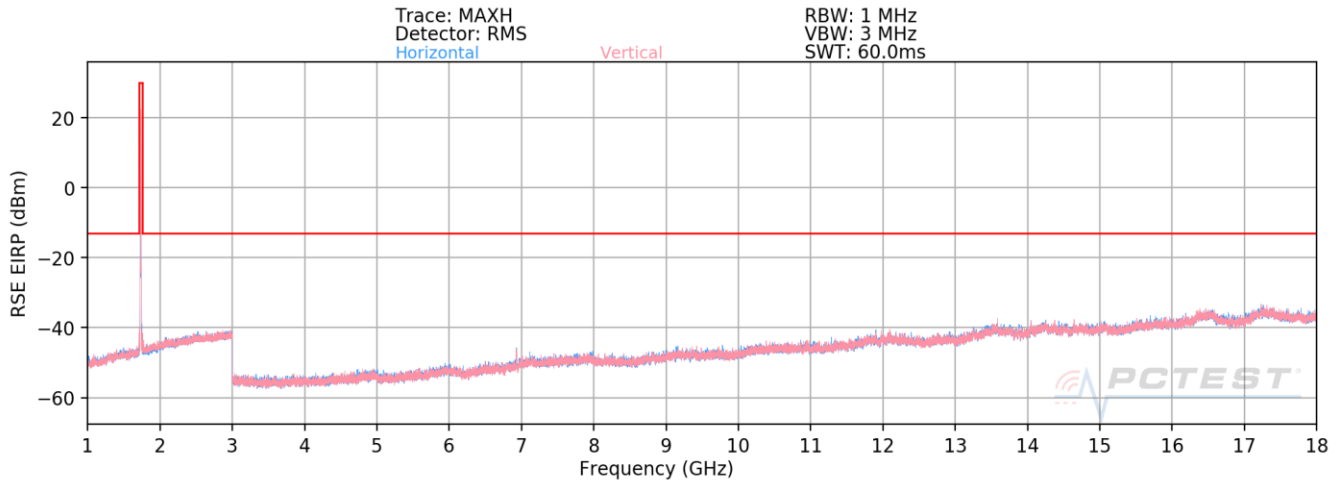
<b>Bandwidth (MHz):</b>	20/20
<b>Frequency (MHz):</b>	680.5/1745
<b>RB / Offset:</b>	1/53 & 1/50
<b>Mode:</b>	EN-DC
<b>Anchor Band:</b>	66

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1448.5	V	-	-	-73.18	-1.39	32.43	-62.83	-13.00	-49.83
2513.0	V	-	-	-73.09	3.02	36.93	-58.33	-13.00	-45.33
2809.5	V	-	-	-75.45	3.74	35.29	-59.97	-13.00	-46.97
6980.0	V	101	335	-65.96	10.72	51.76	-43.50	-13.00	-30.50
8725.0	V	316	6	-67.16	13.16	53.00	-42.26	-13.00	-29.26

**Table 7-20. Radiated Spurious Data (NR Band n71 – B66)**

FCC ID: A3LSMA426U	<b>PCTEST</b> Proud to be part of element	<b>PART 27 MEASUREMENT REPORT</b>		Approved by: Technical Manager
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# WCDMA AWS



**Plot 7-292. Radiated Spurious Plot (WCDMA AWS)**

Mode:	WCDMA RMC
Channel:	1312
Frequency (MHz):	1712.4



Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3424.8	H	-	-	-77.60	5.46	34.86	-60.40	-13.00	-47.40
5137.2	H	-	-	-79.42	7.68	35.26	-59.99	-13.00	-46.99
6849.6	H	153	37	-70.39	10.85	47.46	-47.80	-13.00	-34.80
8562.0	H	201	43	-75.73	12.68	43.95	-51.31	-13.00	-38.31
10274.4	H	-	-	-80.37	15.33	41.96	-53.30	-13.00	-40.30
11986.8	H	-	-	-80.59	18.06	44.47	-50.79	-13.00	-37.79

**7-21. Radiated Spurious Data (WCDMA AWS – Low Channel)**

Mode:	WCDMA RMC
Channel:	1413
Frequency (MHz):	1732.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3465.2	H	-	-	-77.71	5.73	35.02	-60.23	-13.00	-47.23
5197.8	H	-	-	-78.96	7.12	35.16	-60.10	-13.00	-47.10
6930.4	H	169	29	-68.87	10.82	48.95	-46.30	-13.00	-33.30
8663.0	H	163	353	-78.75	13.10	41.35	-53.91	-13.00	-40.91
10395.6	H	-	-	-80.74	15.34	41.60	-53.66	-13.00	-40.66
12128.2	H	-	-	-80.65	17.52	43.87	-51.39	-13.00	-38.39

**Table 7-22. Radiated Spurious Data (WCDMA AWS – Mid Channel)**



FCC ID: A3LSMA426U	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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<b>Mode:</b>	WCDMA RMC
<b>Channel:</b>	1513
<b>Frequency (MHz):</b>	1752.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3505.2	H	-	-	-77.75	5.11	34.36	-60.90	-13.00	-47.90
5257.8	H	-	-	-79.22	7.24	35.02	-60.24	-13.00	-47.24
7010.4	H	119	50	-66.08	10.70	51.62	-43.64	-13.00	-30.64
8763.0	H	194	51	-76.84	13.12	43.28	-51.98	-13.00	-38.98
10515.6	H	-	-	-80.24	15.54	42.30	-52.96	-13.00	-39.96
12268.2	H	-	-	-80.54	18.59	45.05	-50.21	-13.00	-37.21

**Table 7-23. Radiated Spurious Data (WCDMA AWS – High Channel)**

<b>FCC ID:</b> A3LSMA426U	 <b>PART 27 MEASUREMENT REPORT</b> 	<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2101040001-24-R1.A3L	<b>Test Dates:</b> 1/08 - 2/19/2021	<b>EUT Type:</b> Portable Handset
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