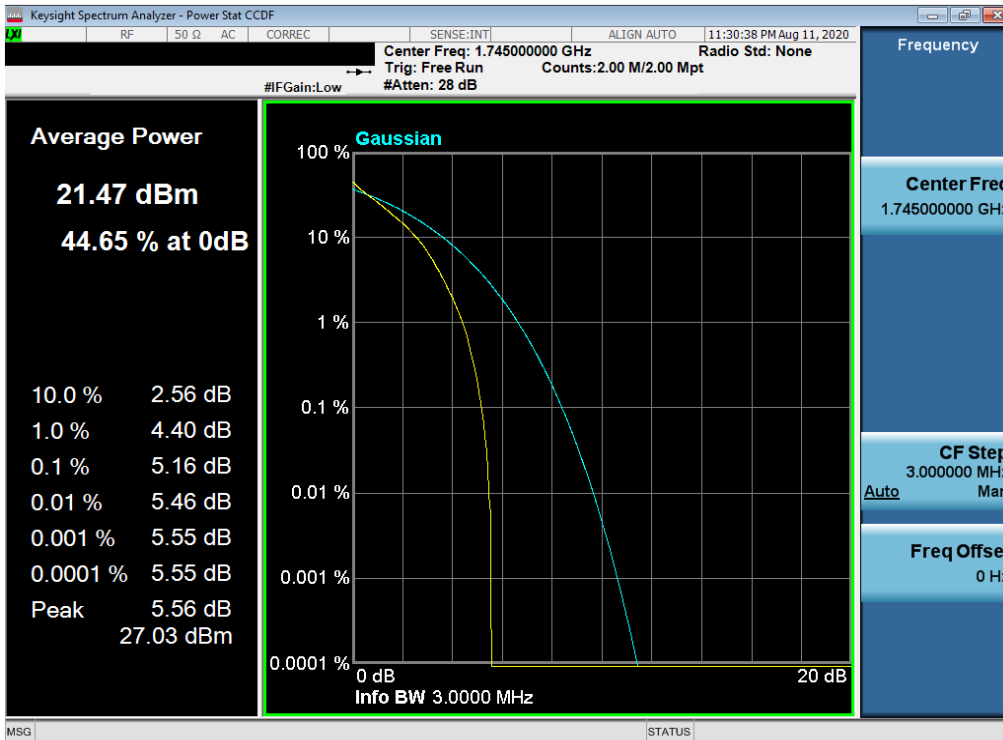
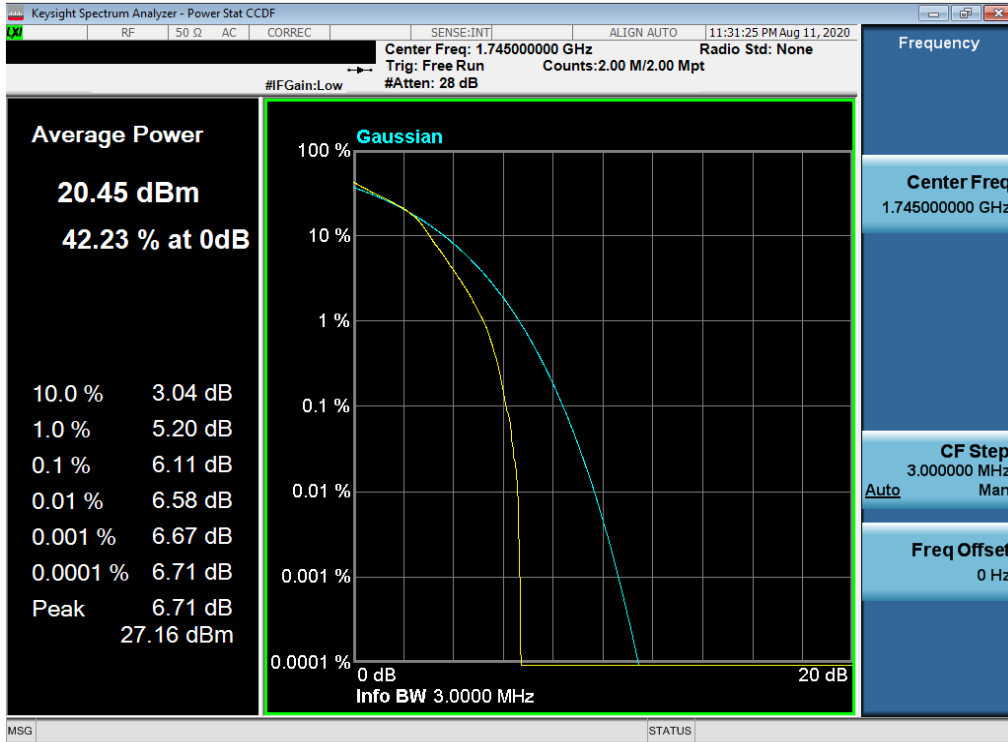


Plot 7-484. PAR Plot (LTE Band 66/4 - 1.4MHz 64-QAM - Full RB Configuration)

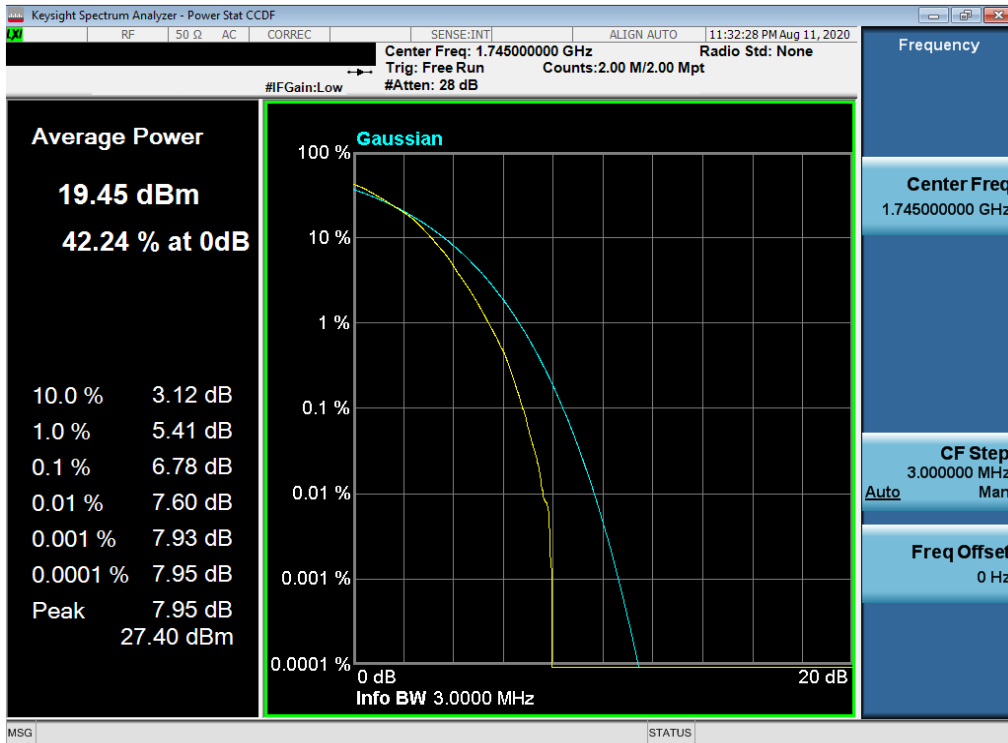


Plot 7-485. PAR Plot (LTE Band 66/4 - 3MHz QPSK - Full RB Configuration)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 270 of 389

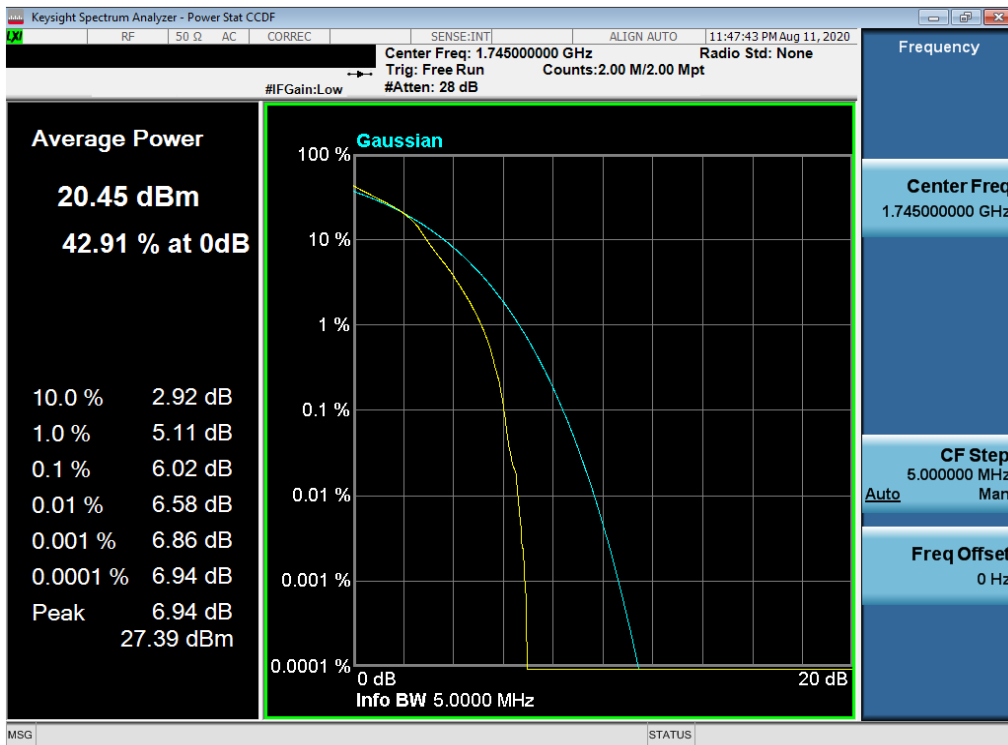
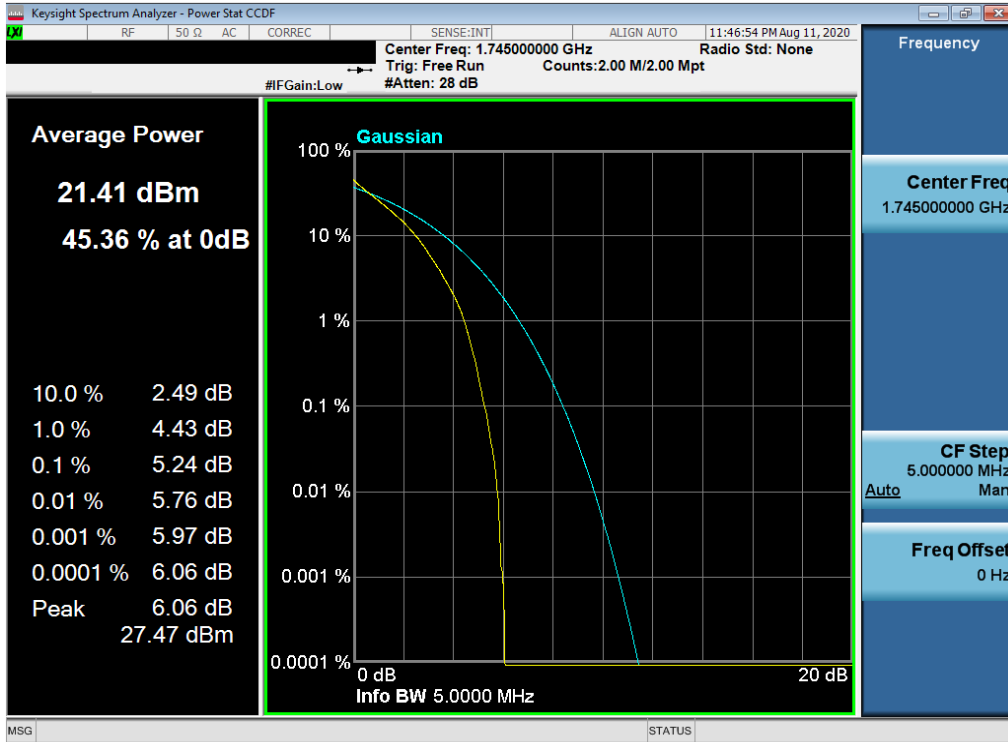


**Plot 7-486. PAR Plot (LTE Band 66/4 - 3MHz 16-QAM - Full RB Configuration)**

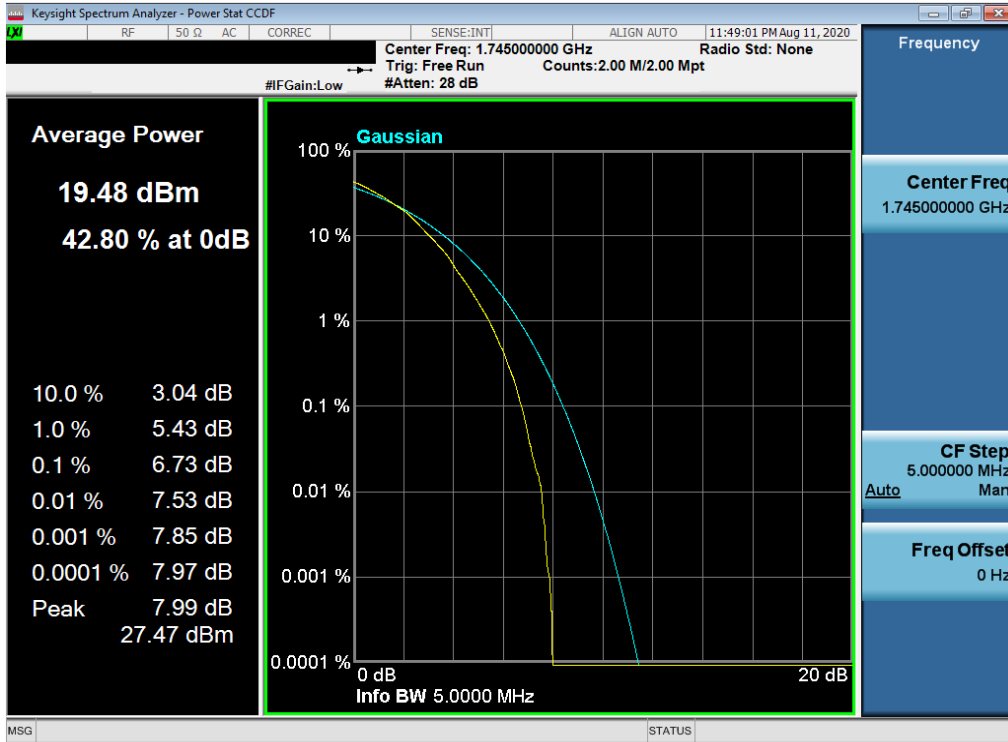


**Plot 7-487. PAR Plot (LTE Band 66/4 - 3MHz 64-QAM - Full RB Configuration)**

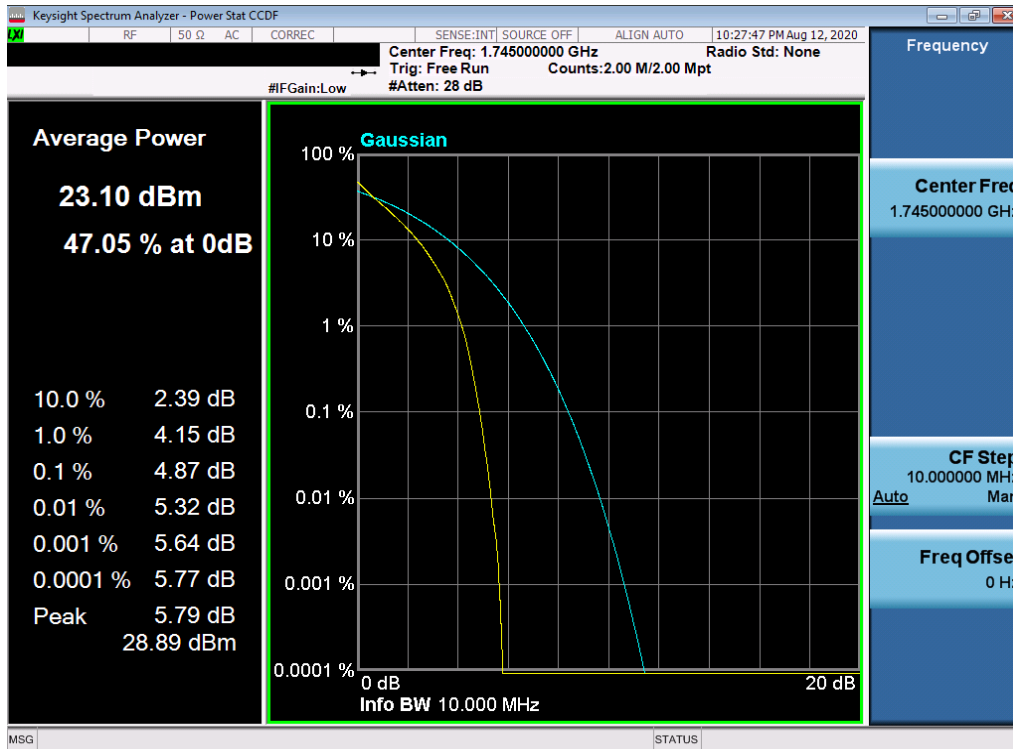
FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 271 of 389



FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 272 of 389

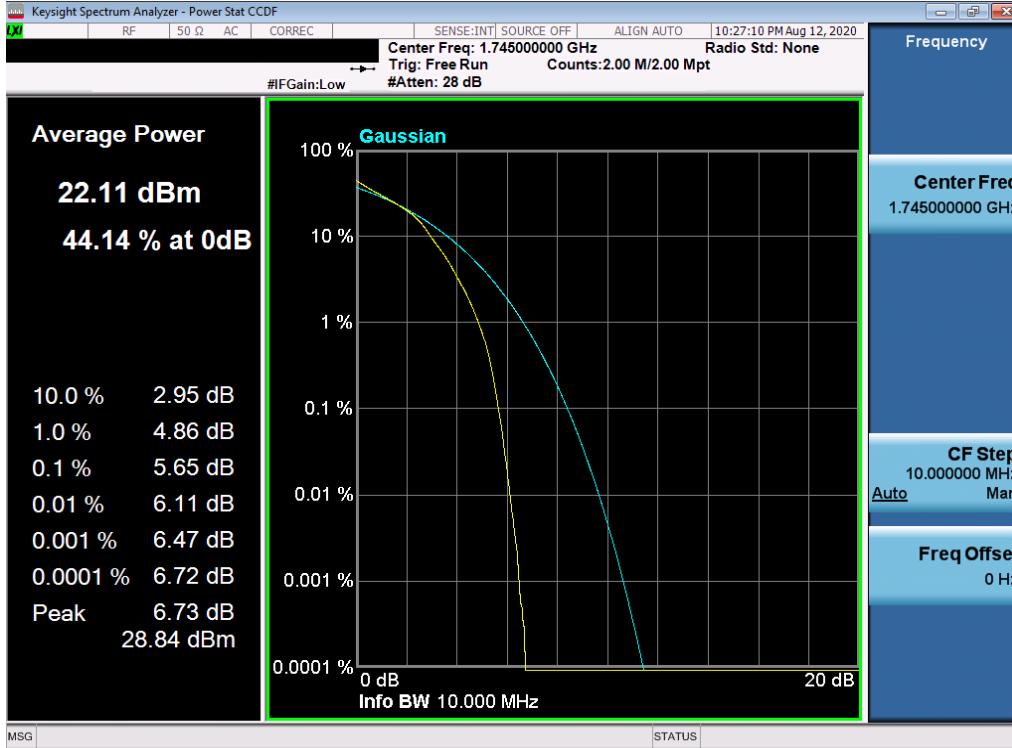


**Plot 7-490. PAR Plot (LTE Band 66/4 - 5MHz 64-QAM - Full RB Configuration)**

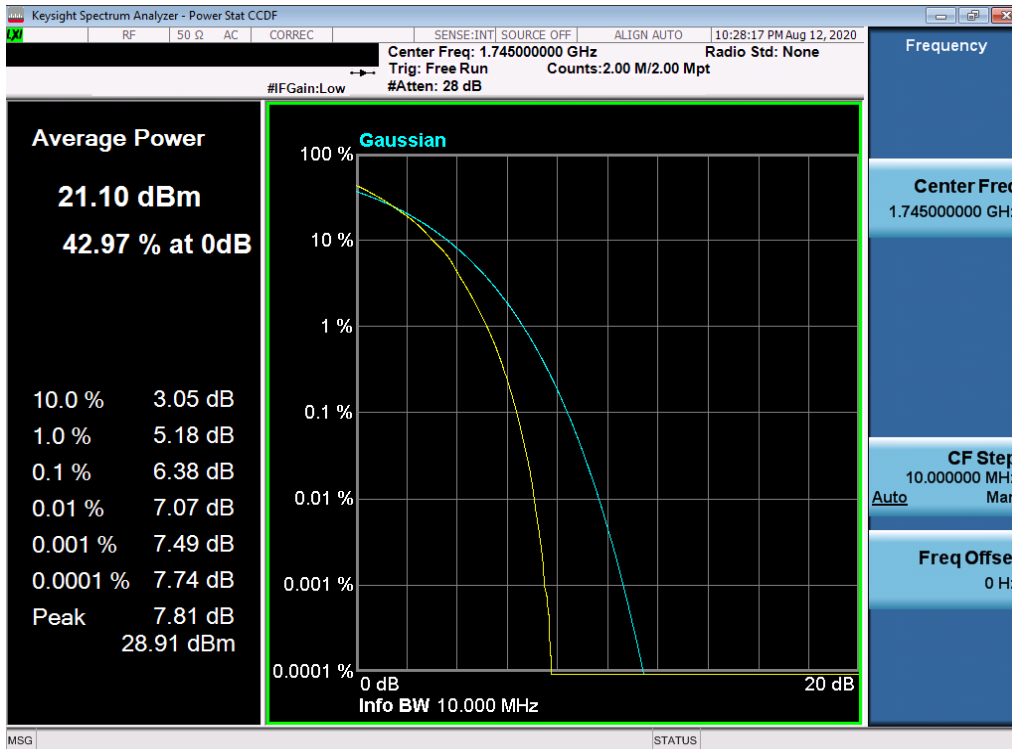


**Plot 7-491. PAR Plot (LTE Band 66/4 - 10MHz QPSK - Full RB Configuration)**

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 273 of 389

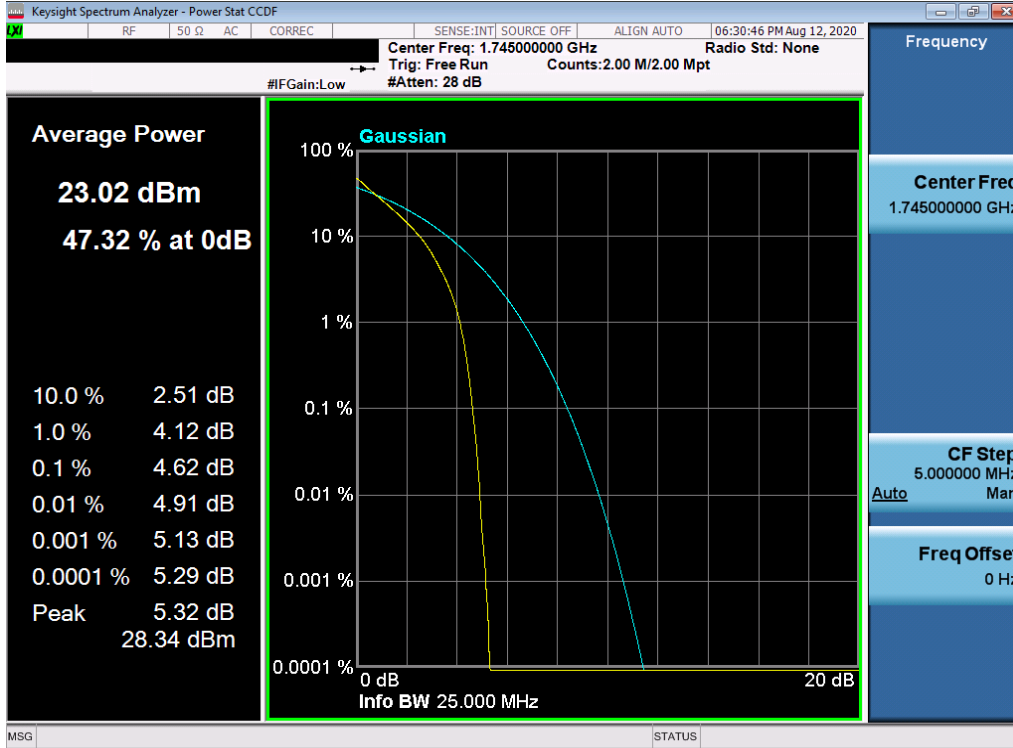


Plot 7-492. PAR Plot (LTE Band 66/4 - 10MHz 16-QAM - Full RB Configuration)

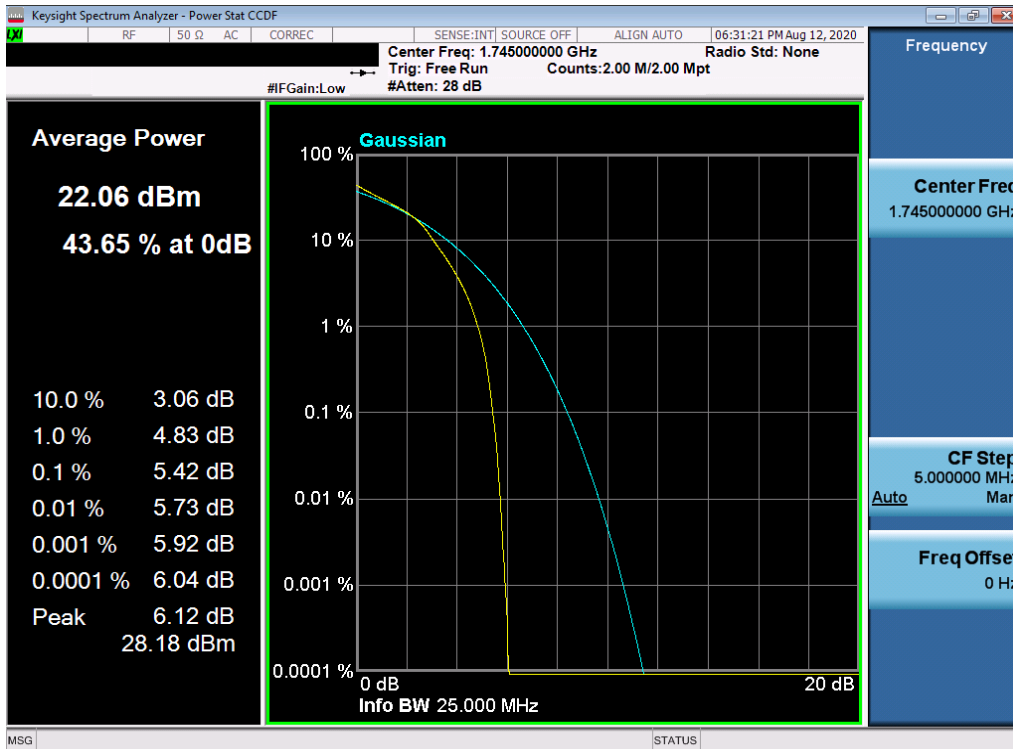


Plot 7-493. PAR Plot (LTE Band 66/4 - 10MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 274 of 389

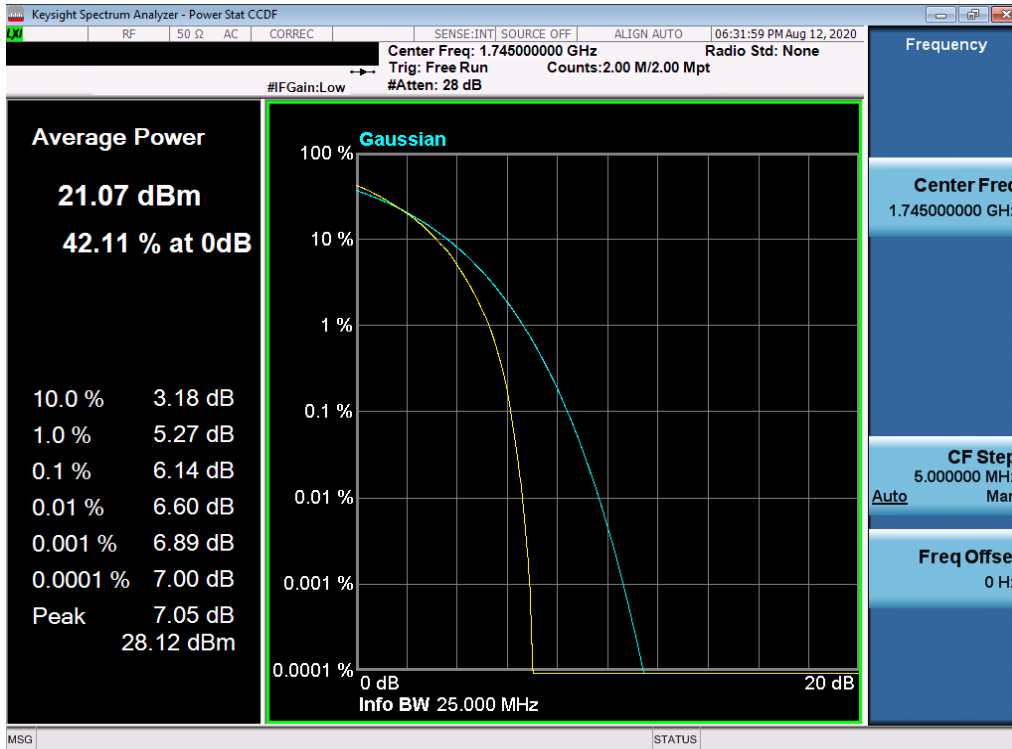


Plot 7-494. PAR Plot (LTE Band 66/4 - 15MHz QPSK - Full RB Configuration)

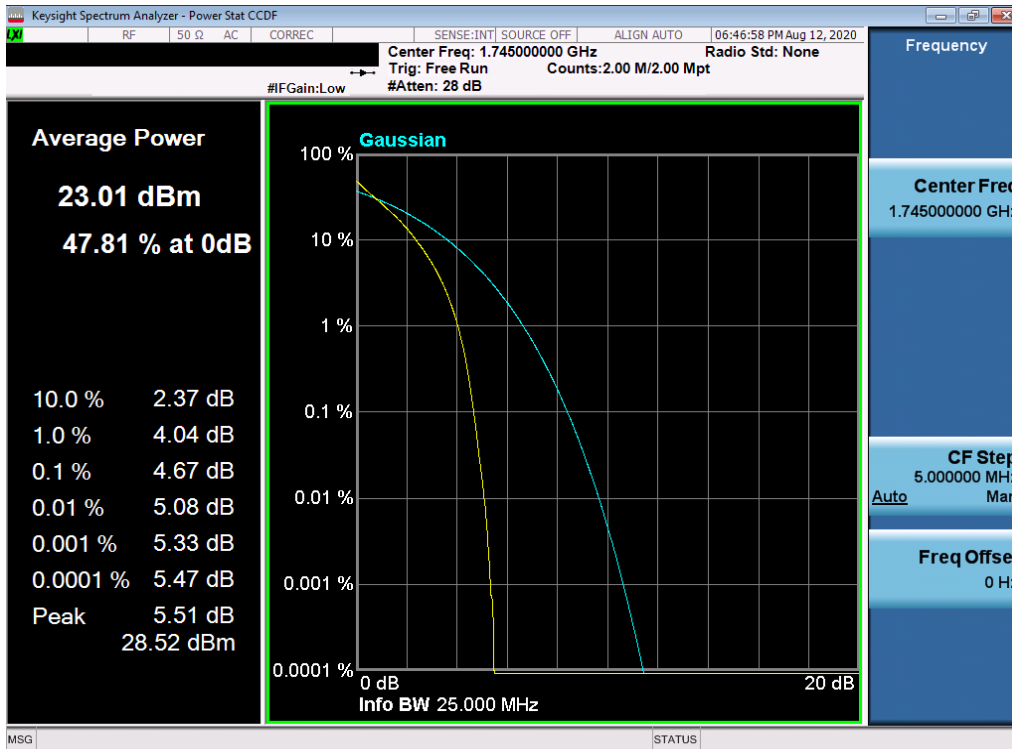


Plot 7-495. PAR Plot (LTE Band 66/4 - 15MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 275 of 389

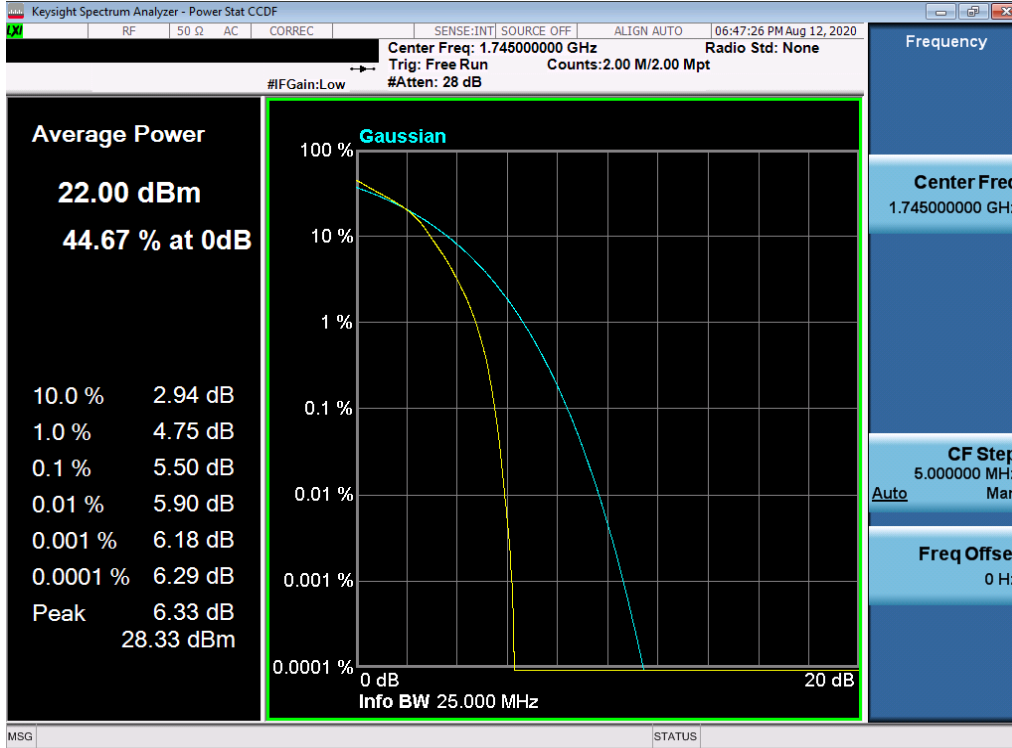


Plot 7-496. PAR Plot (LTE Band 66/4 - 15MHz 64-QAM - Full RB Configuration)

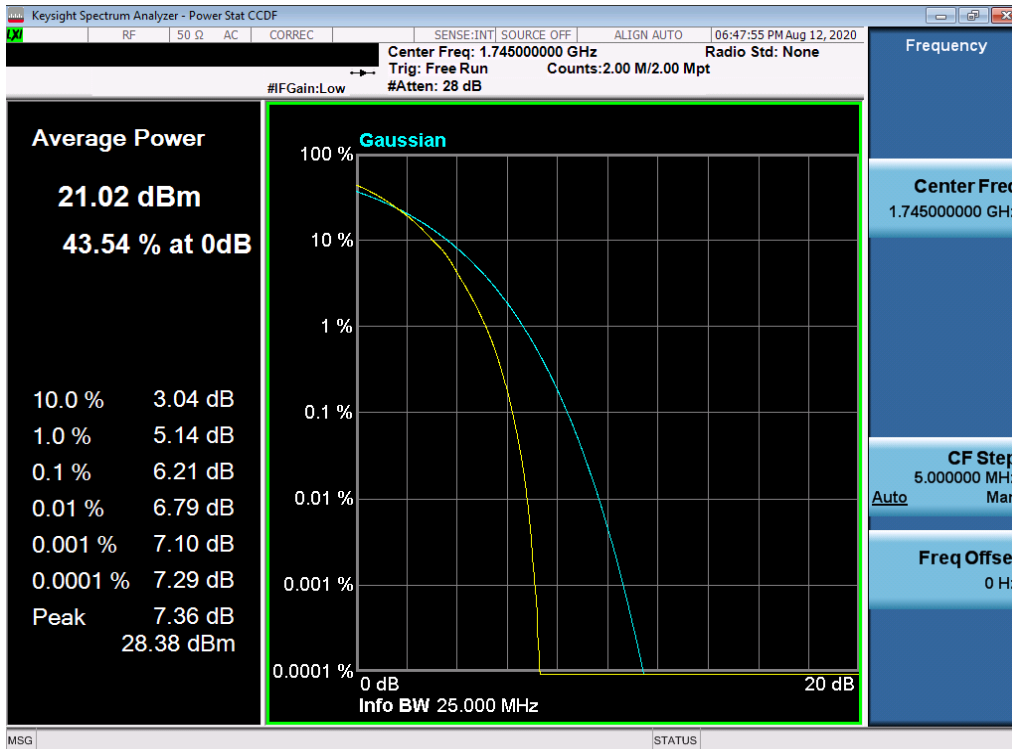


Plot 7-497. PAR Plot (LTE Band 66/4 - 20MHz QPSK - Full RB Configuration)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 276 of 389



Plot 7-498. PAR Plot (LTE Band 66/4 - 20MHz 16-QAM - Full RB Configuration)

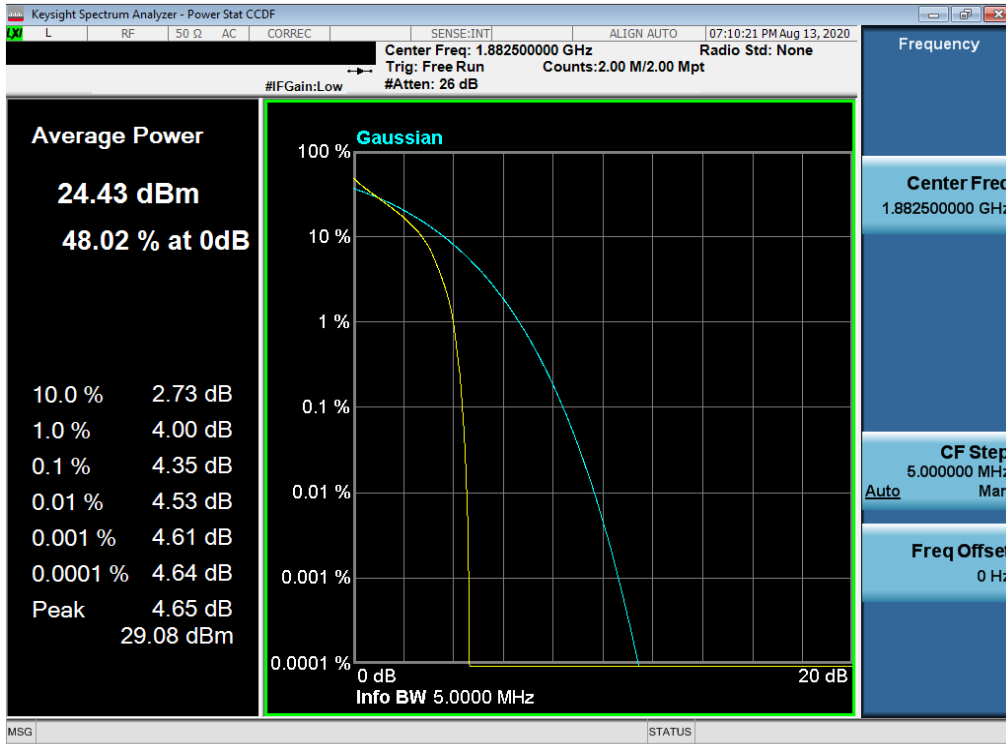


Plot 7-499. PAR Plot (LTE Band 66/4 - 20MHz 64-QAM - Full RB Configuration)

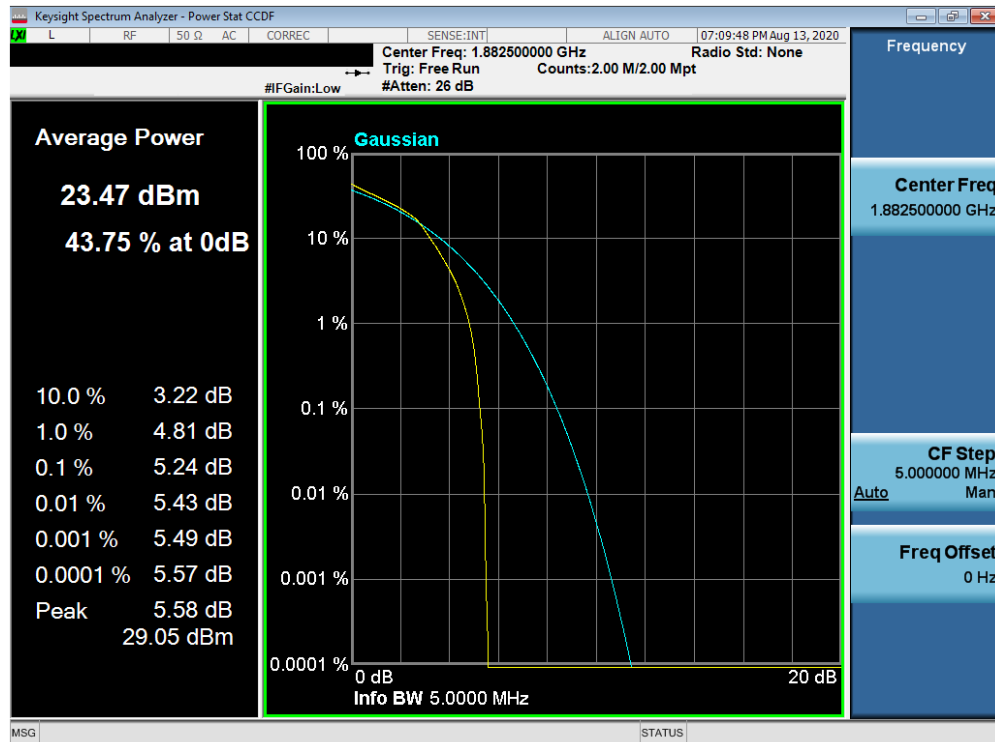
FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 277 of 389



**LTE Band 25/2**

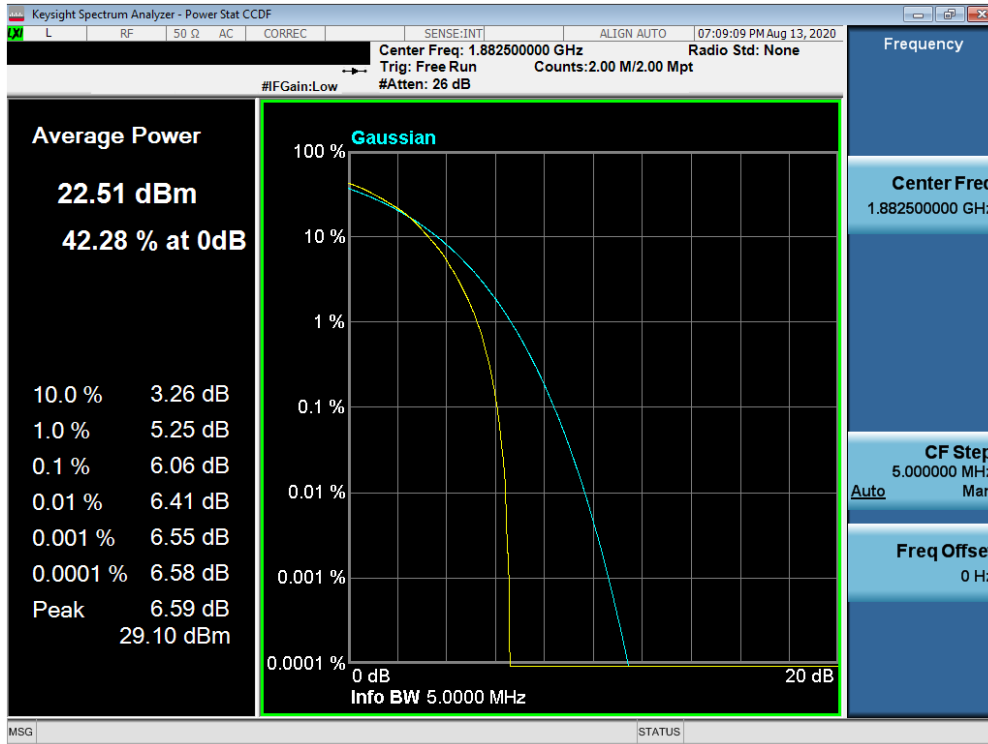


**Plot 7-500. PAR Plot (LTE Band 25/2 - 1.4MHz QPSK - Full RB Configuration)**

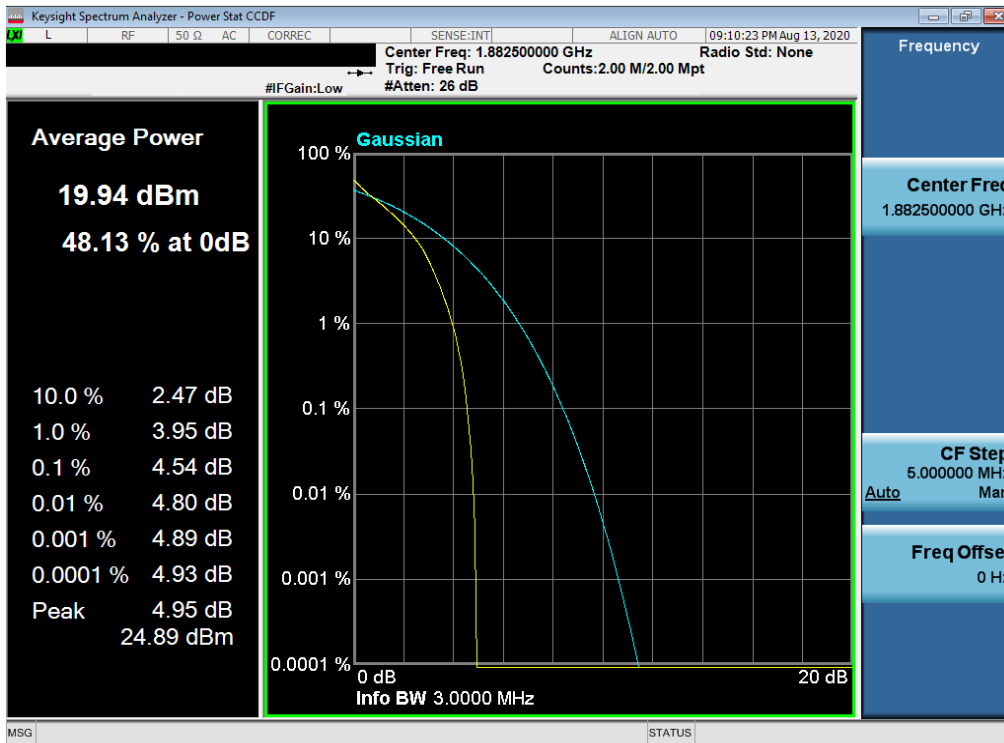


**Plot 7-501. PAR Plot (LTE Band 25/2 - 1.4MHz 16-QAM - Full RB Configuration)**

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 278 of 389

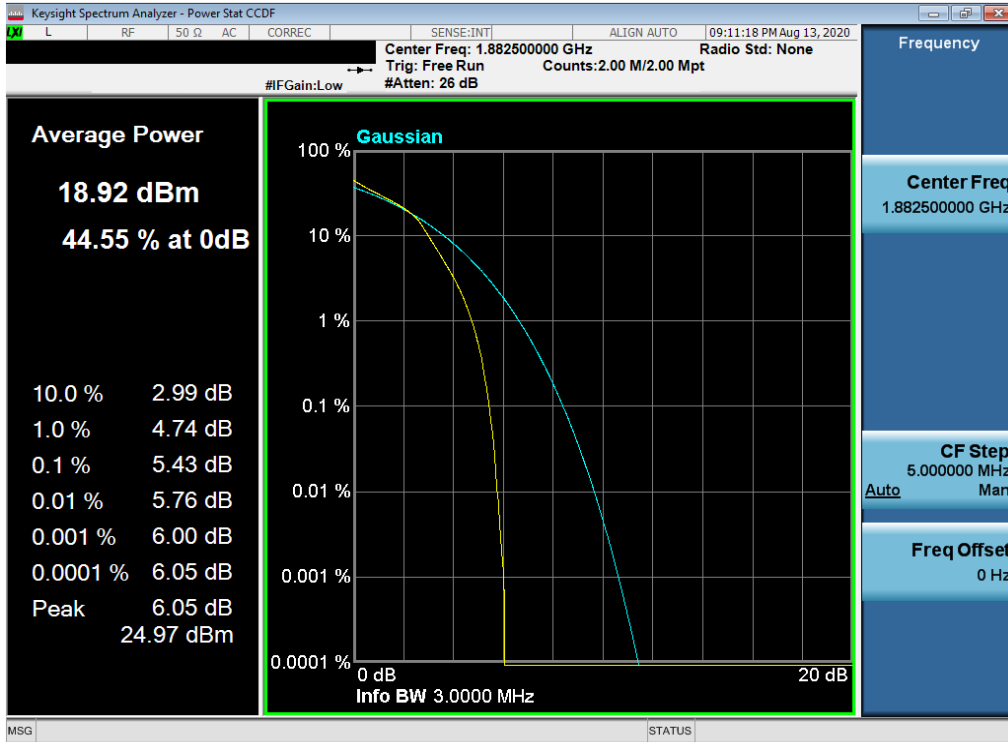


Plot 7-502. PAR Plot (LTE Band 25/2 - 1.4MHz 64-QAM - Full RB Configuration)

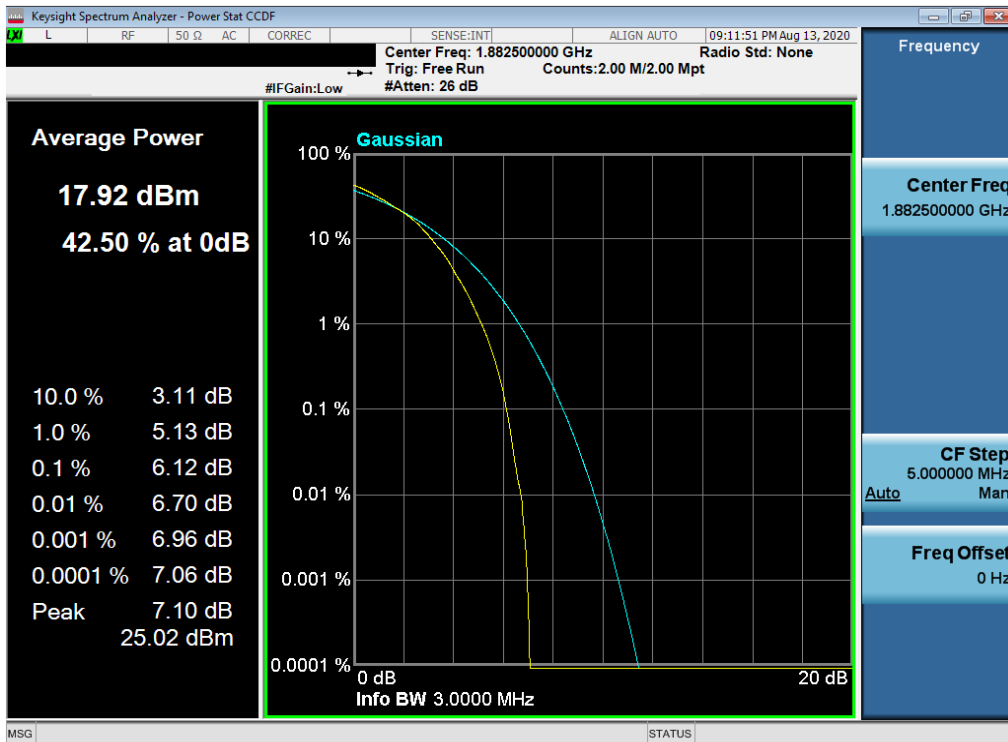


Plot 7-503. PAR Plot (LTE Band 25/2 - 3MHz QPSK - Full RB Configuration)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 279 of 389

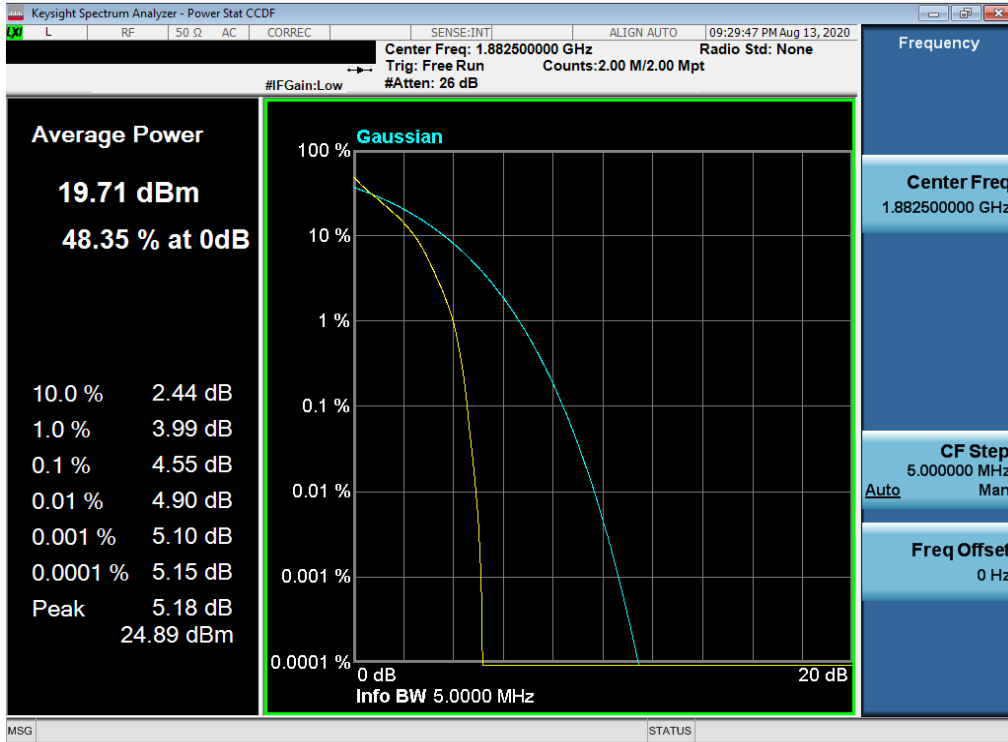


Plot 7-504. PAR Plot (LTE Band 25/2 - 3MHz 16-QAM - Full RB Configuration)

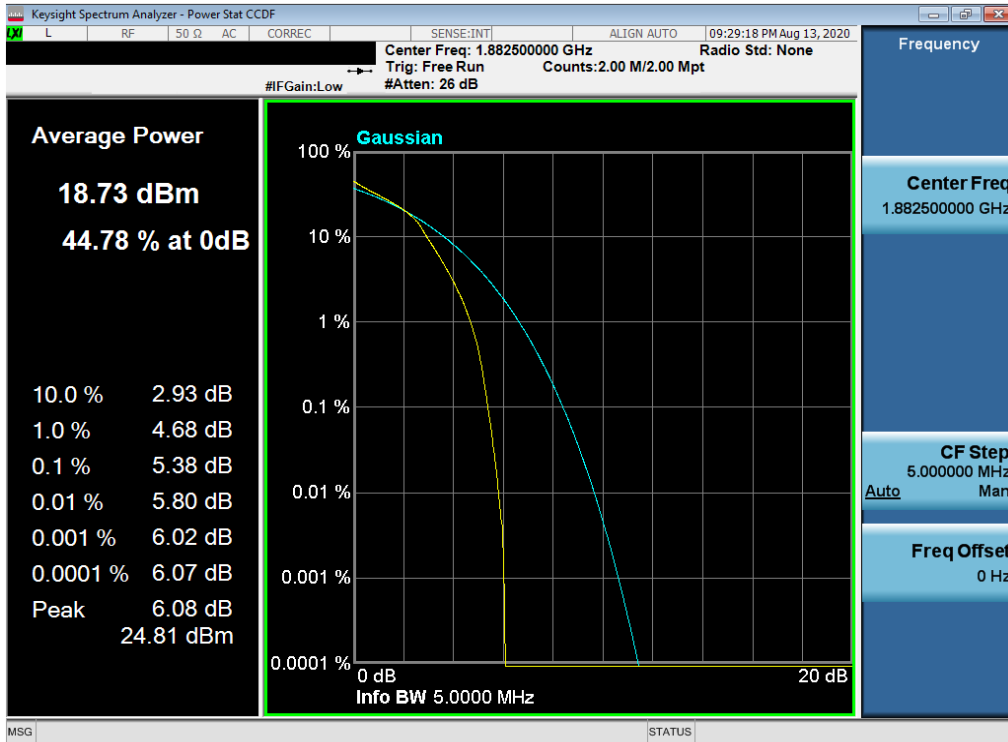


Plot 7-505. PAR Plot (LTE Band 25/2 - 3MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 280 of 389

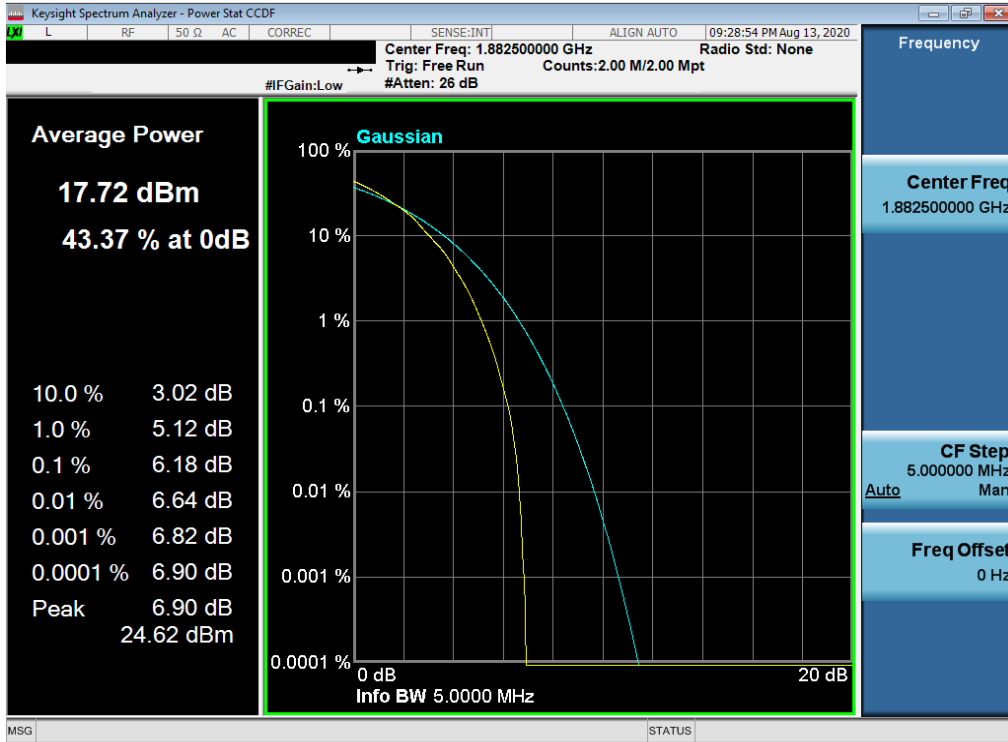


Plot 7-506. PAR Plot (LTE Band 25/2 - 5MHz QPSK - Full RB Configuration)

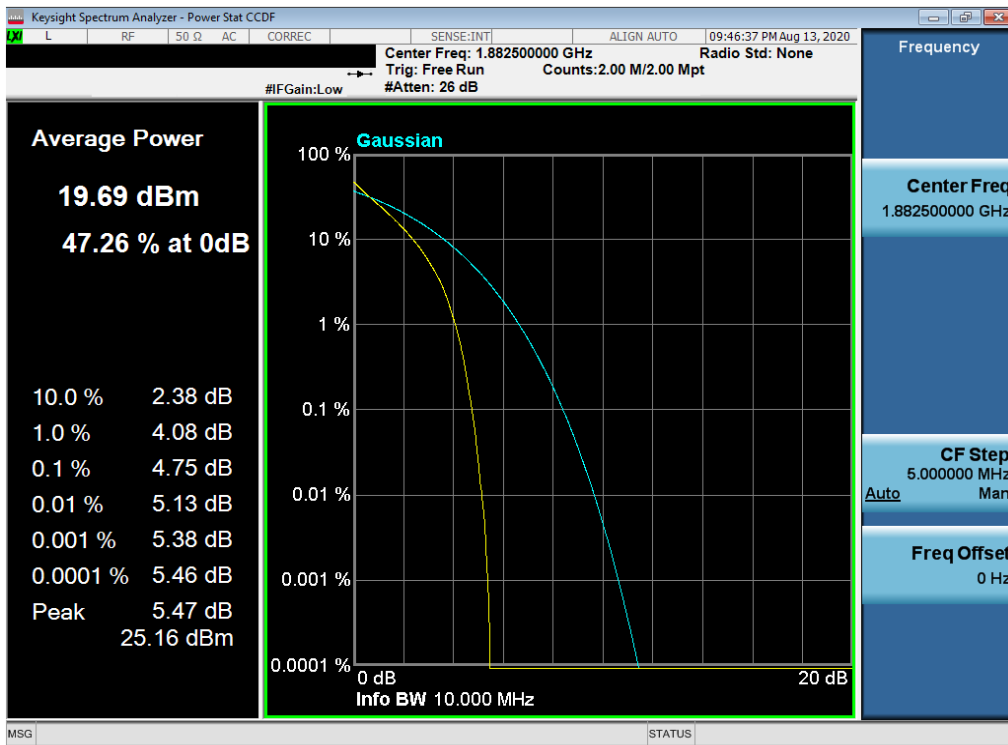


Plot 7-507. PAR Plot (LTE Band 25/2 - 5MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 281 of 389

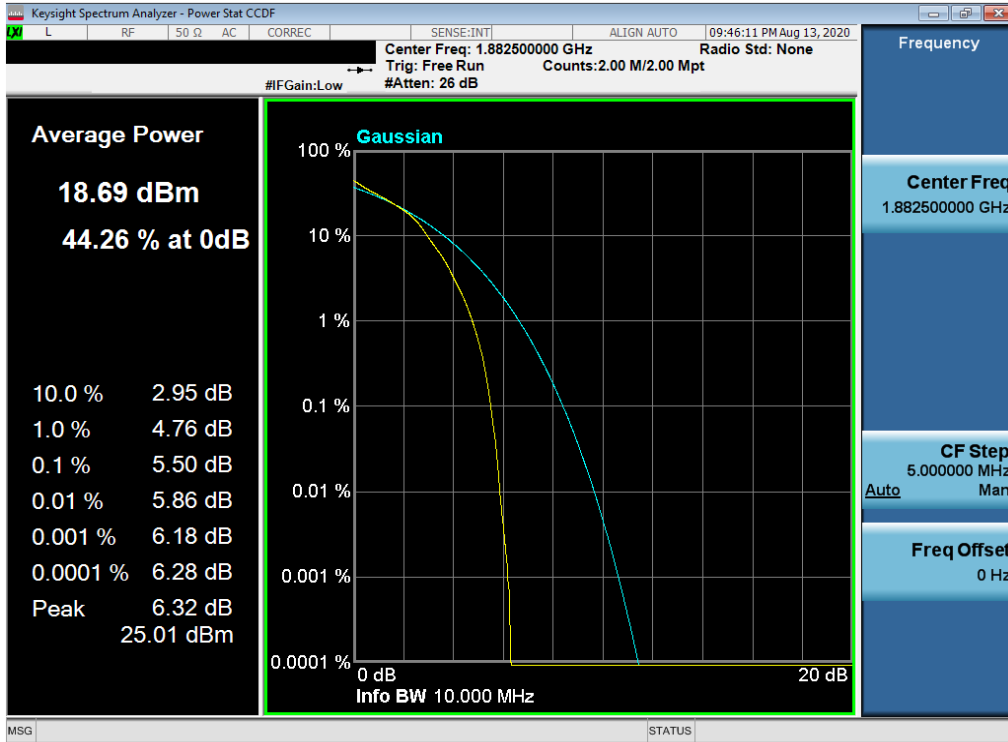


Plot 7-508. PAR Plot (LTE Band 25/2 - 5MHz 64-QAM - Full RB Configuration)

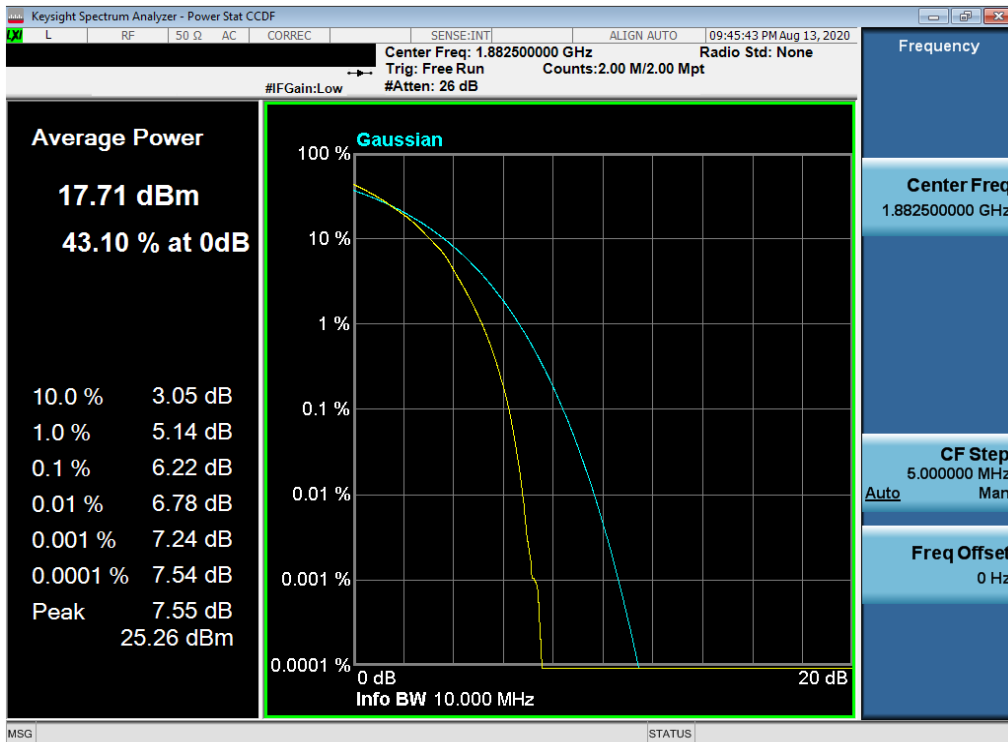


Plot 7-509. PAR Plot (LTE Band 25/2 - 10MHz QPSK - Full RB Configuration)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 282 of 389

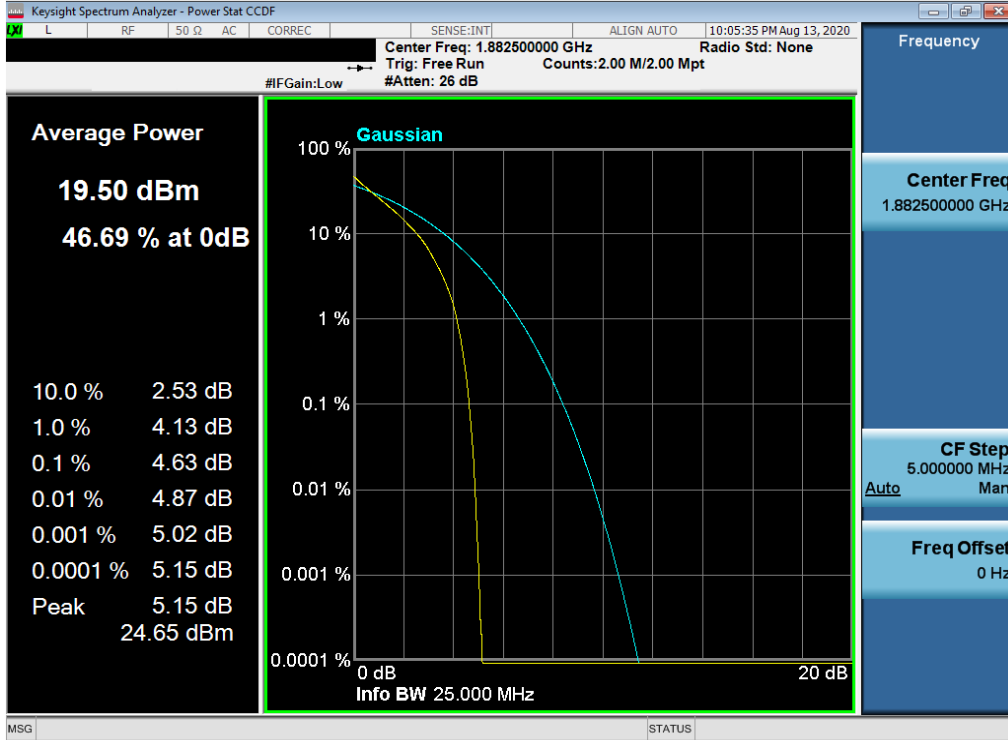


Plot 7-510. PAR Plot (LTE Band 25/2 - 10MHz 16-QAM - Full RB Configuration)

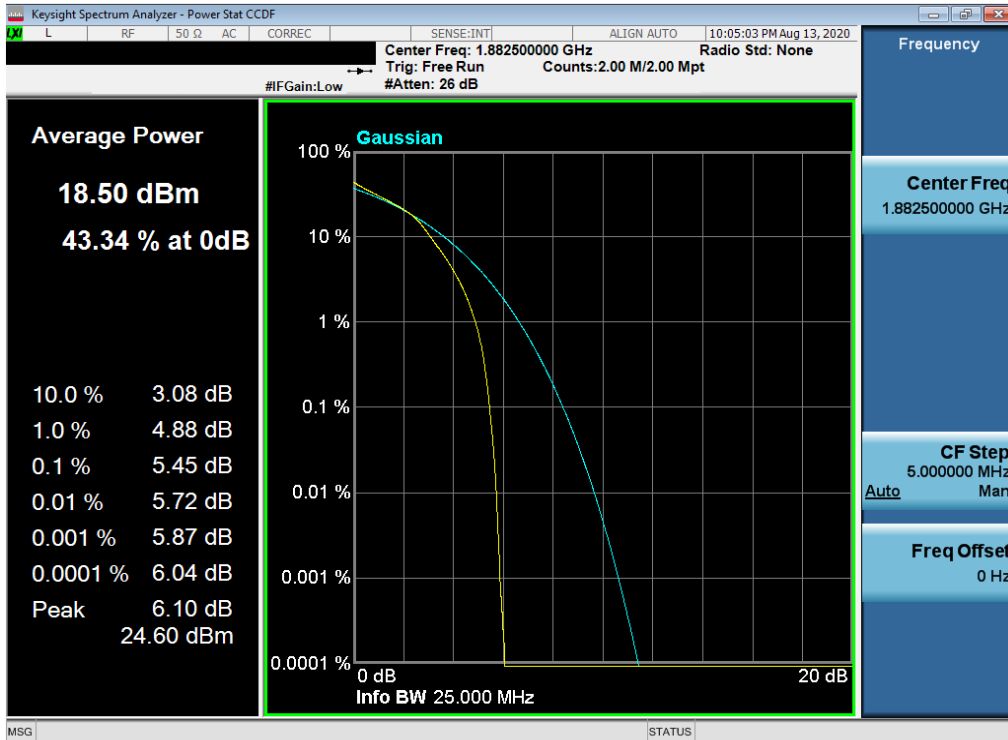


Plot 7-511. PAR Plot (LTE Band 25/2 - 10MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 283 of 389

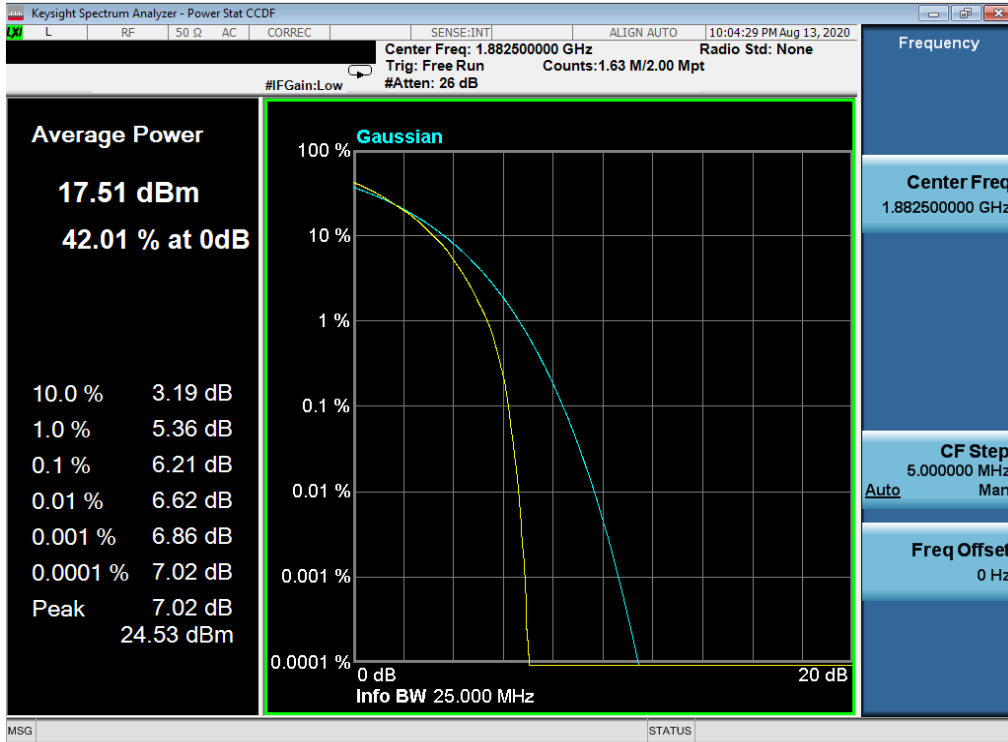


Plot 7-512. PAR Plot (LTE Band 25/2 - 15MHz QPSK - Full RB Configuration)

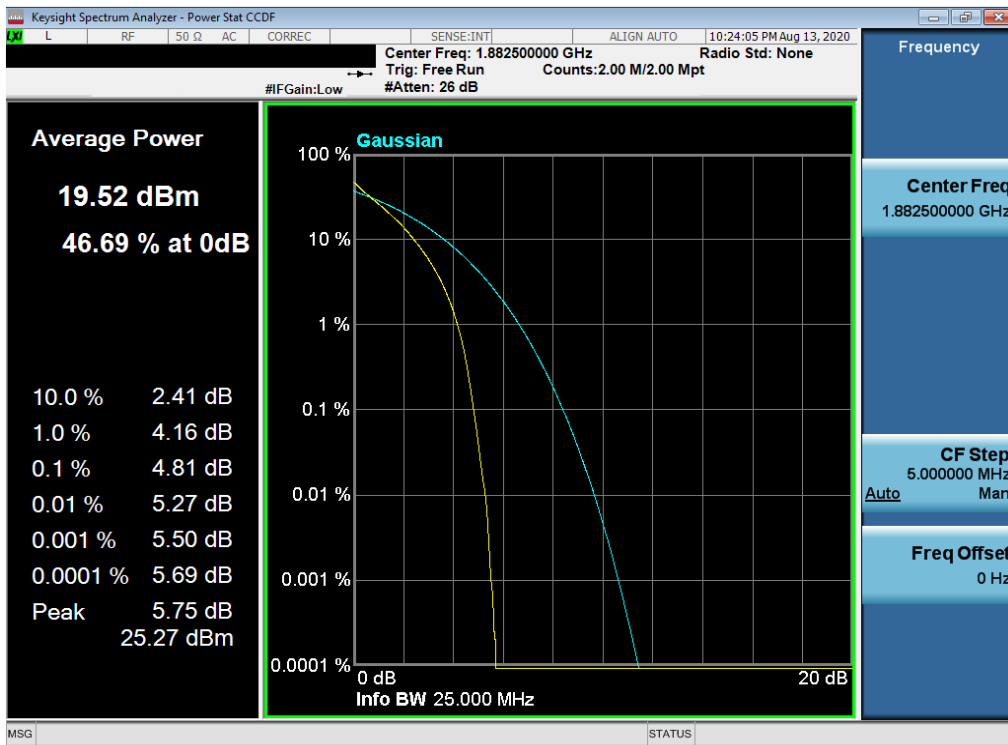


Plot 7-513. PAR Plot (LTE Band 25/2 - 15MHz 16-QAM - Full RB Configuration)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 284 of 389



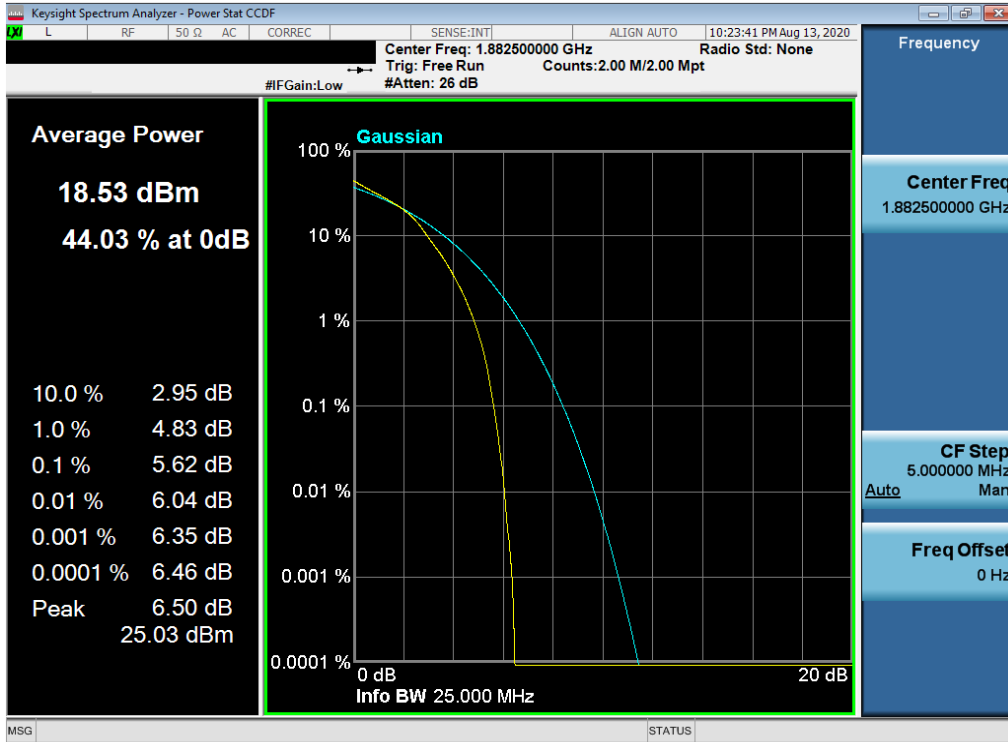
Plot 7-514. PAR Plot (LTE Band 25/2 - 15MHz 64-QAM - Full RB Configuration)



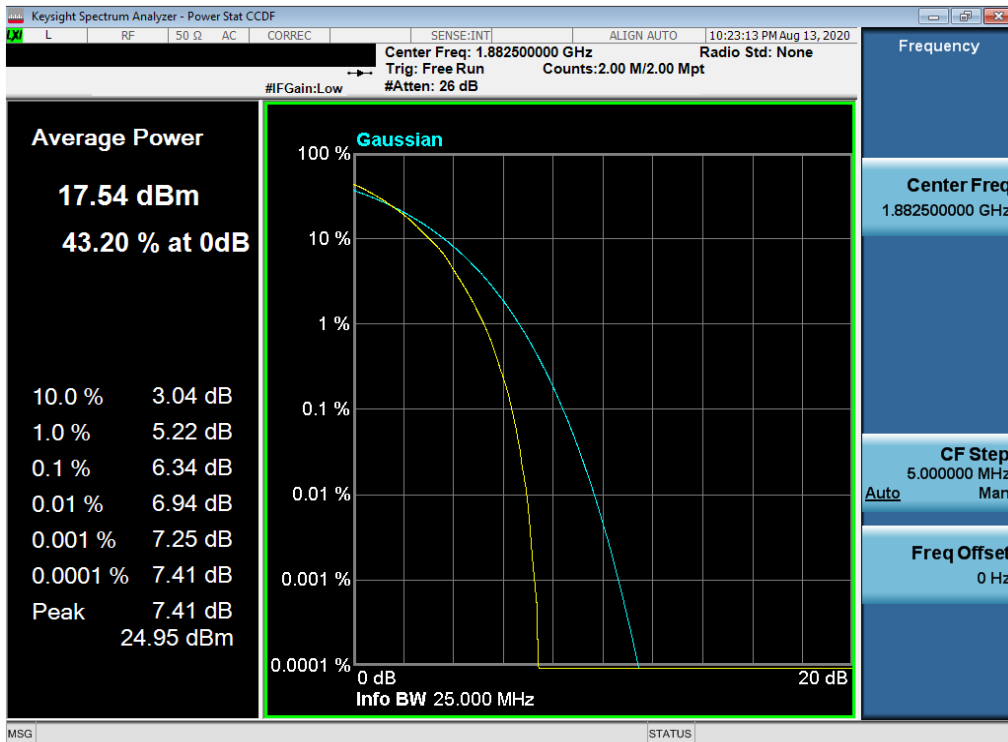
Plot 7-515. PAR Plot (LTE Band 25/2 - 20MHz QPSK - Full RB Configuration)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 285 of 389





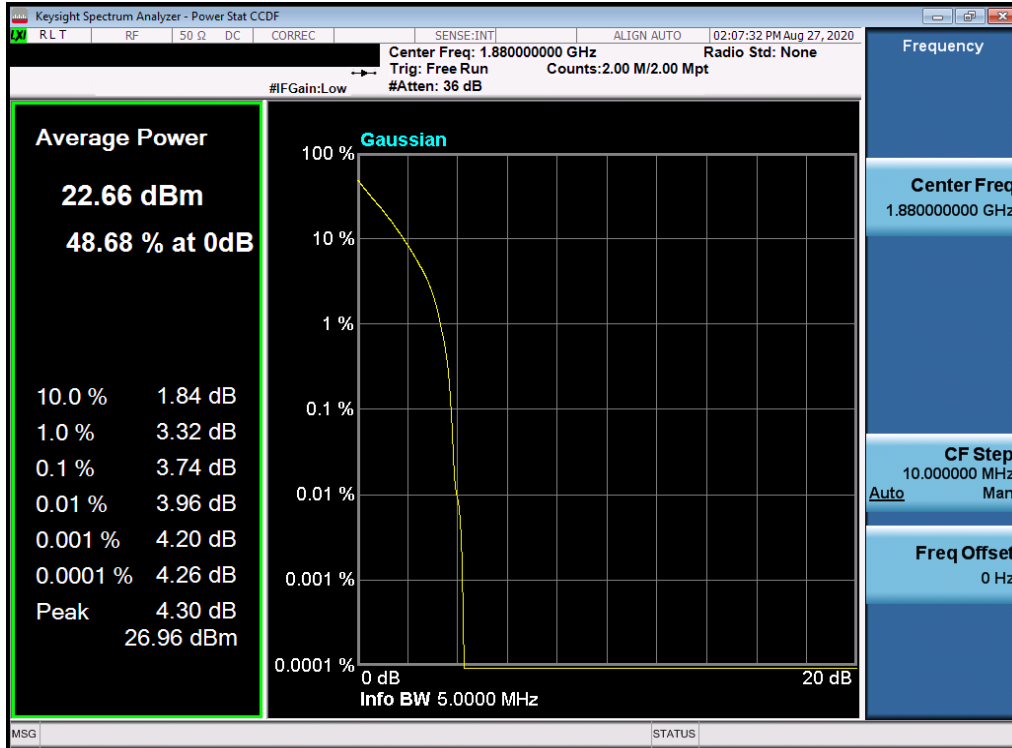
Plot 7-516. PAR Plot (LTE Band 25/2 - 20MHz 16-QAM - Full RB Configuration)



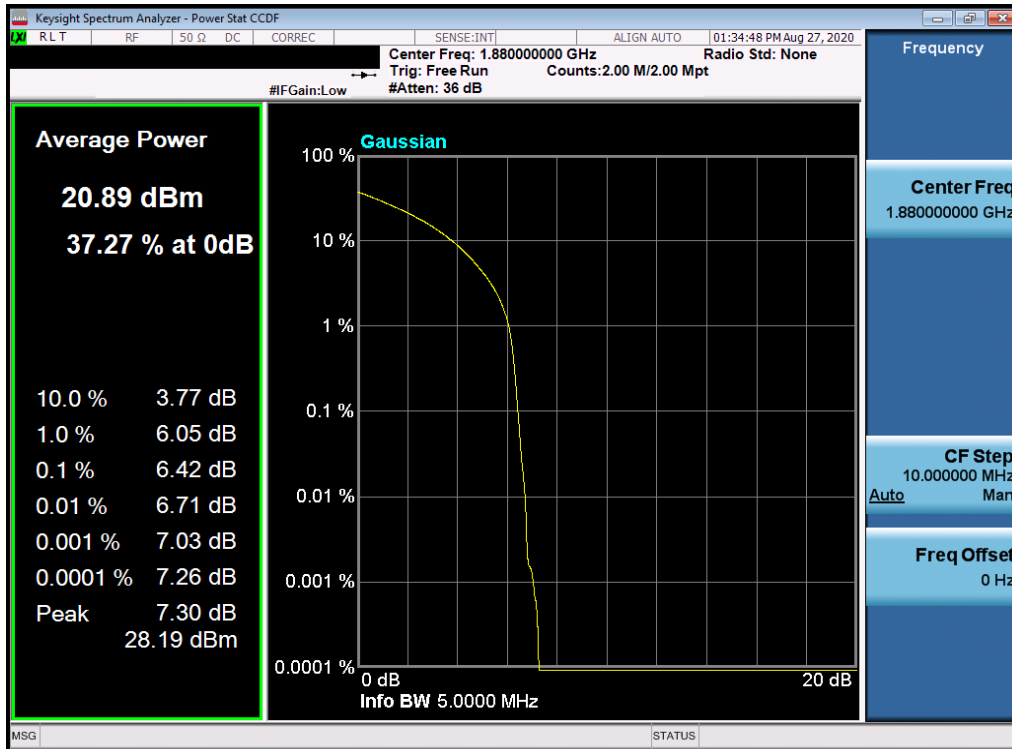
Plot 7-517. PAR Plot (LTE Band 25/2 - 20MHz 64-QAM - Full RB Configuration)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 286 of 389

NR Band n2

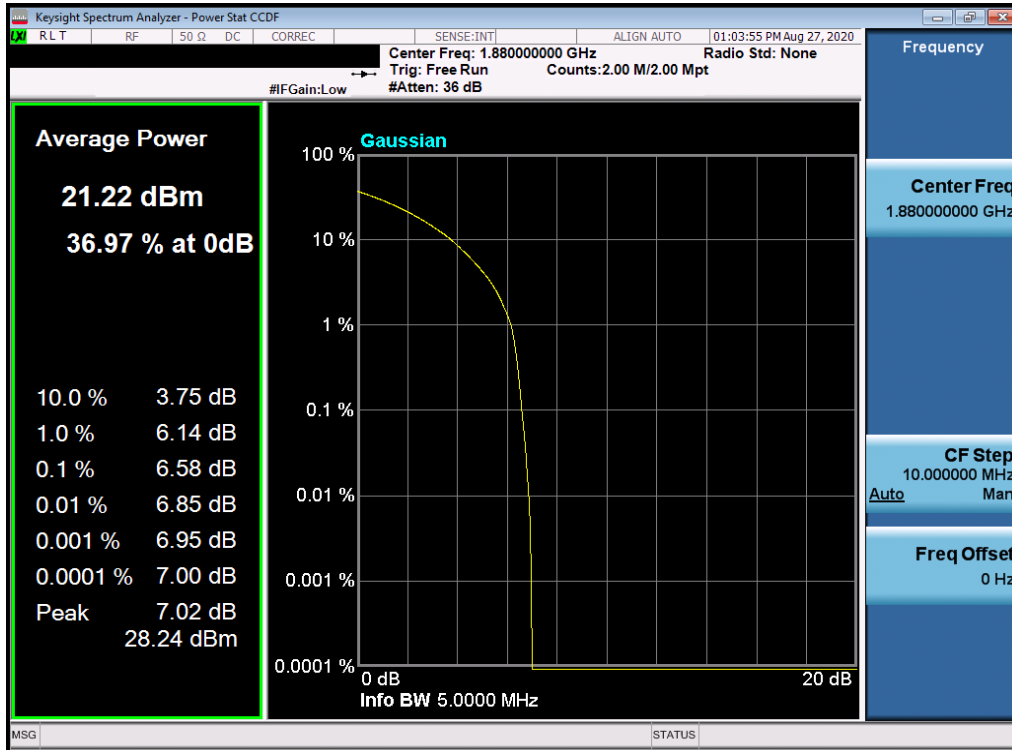


Plot 7-518. PAR Plot (NR Band n2 - 5.0MHz DFT-s-OFDM BPSK - Full RB)

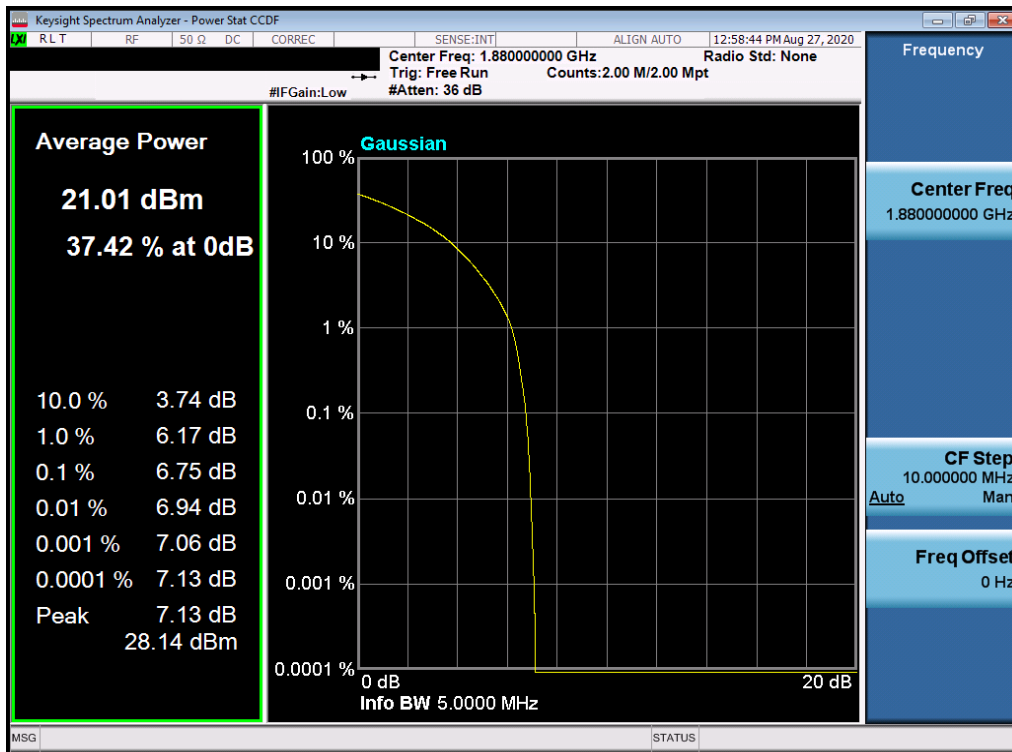


Plot 7-519. PAR Plot (NR Band n2 - 5.0MHz CP-OFDM QPSK - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 287 of 389

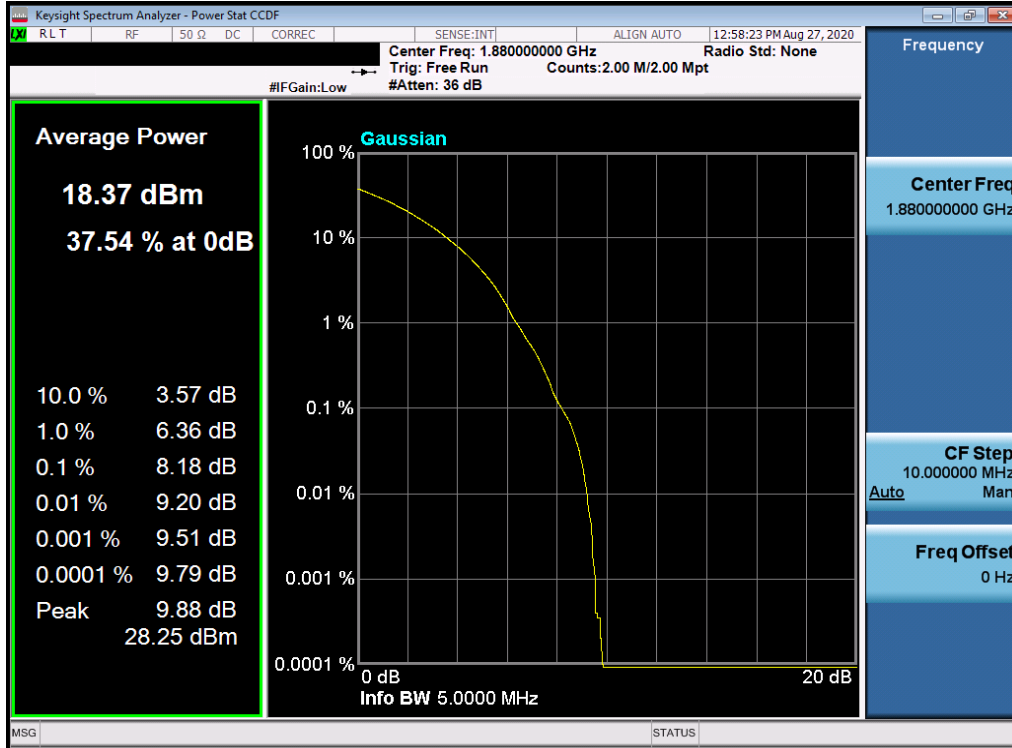


Plot 7-520. PAR Plot (NR Band n2 - 5.0MHz CP-OFDM 16-QAM - Full RB)

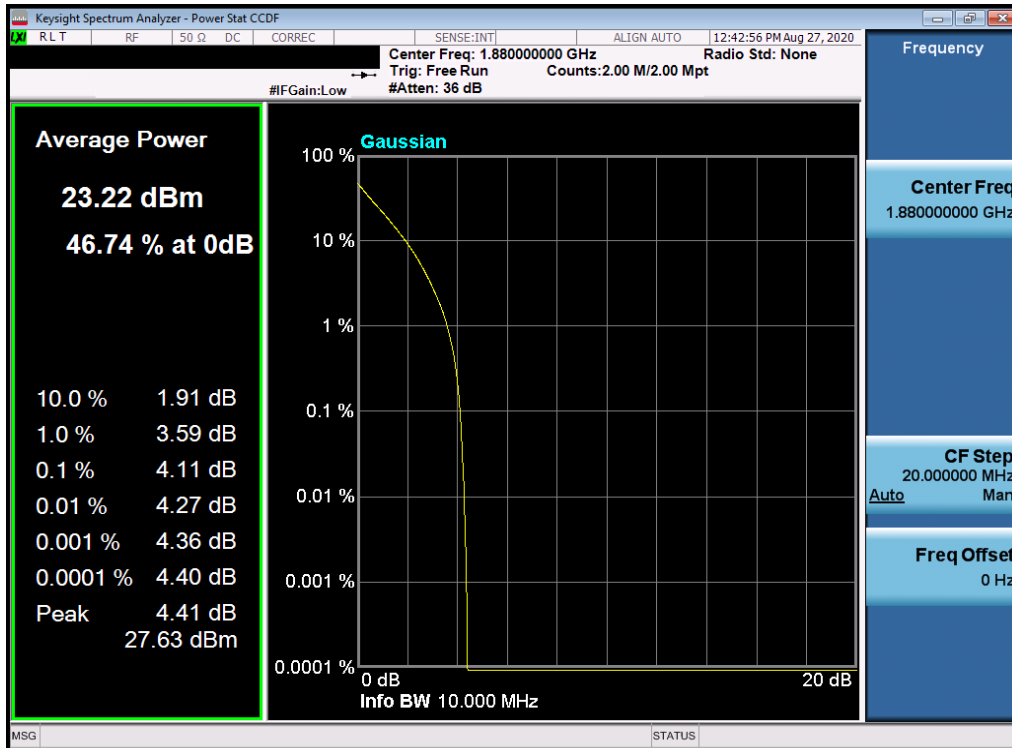


Plot 7-521. PAR Plot (NR Band n2 - 5.0MHz CP-OFDM 64-QAM - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 288 of 389

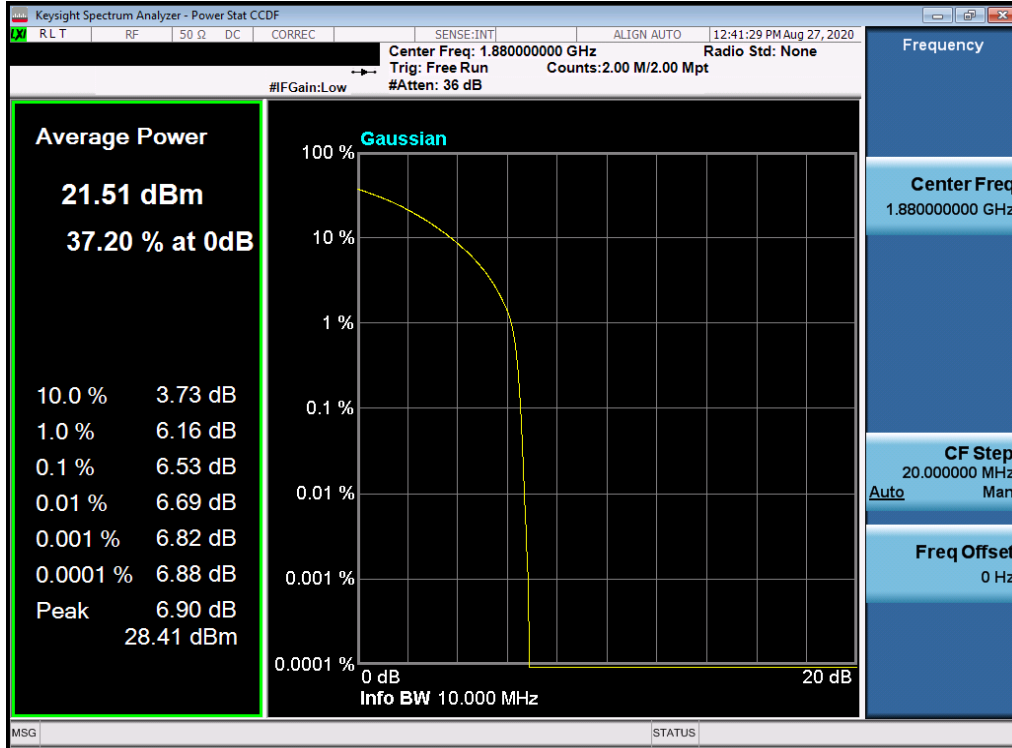


Plot 7-522. PAR Plot (NR Band n2 - 5.0MHz CP-OFDM 256-QAM - Full RB)

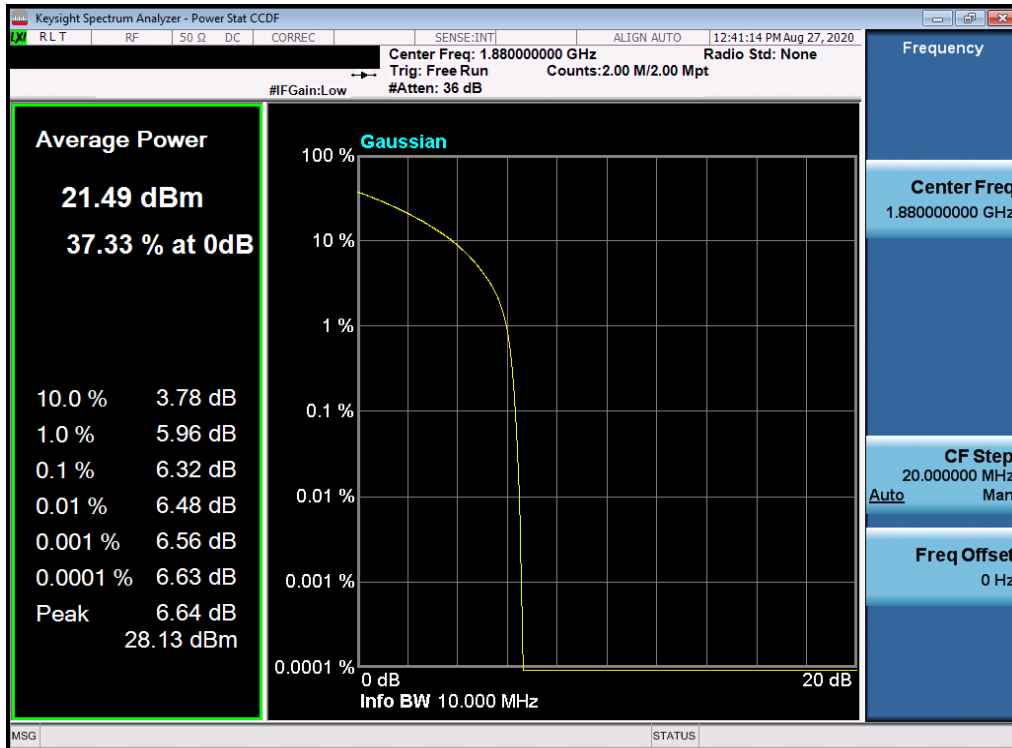


Plot 7-523. PAR Plot (NR Band n2 - 10.0MHz DFT-s-OFDM BPSK - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 289 of 389

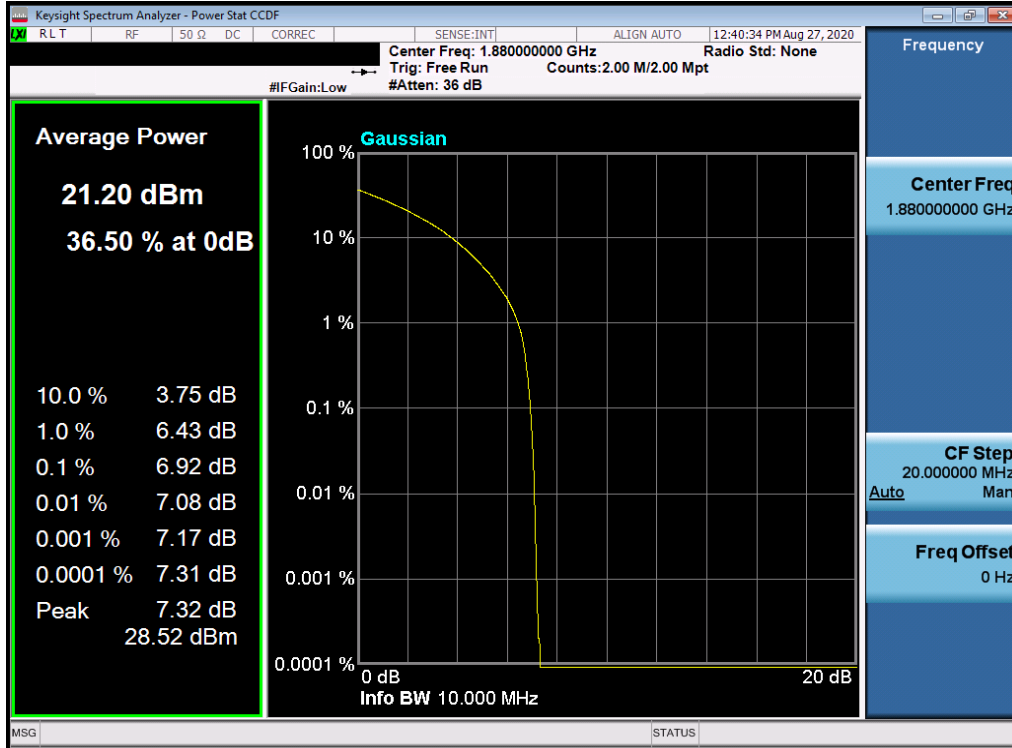


Plot 7-524. PAR Plot (NR Band n2 - 10.0MHz CP-OFDM QPSK - Full RB)

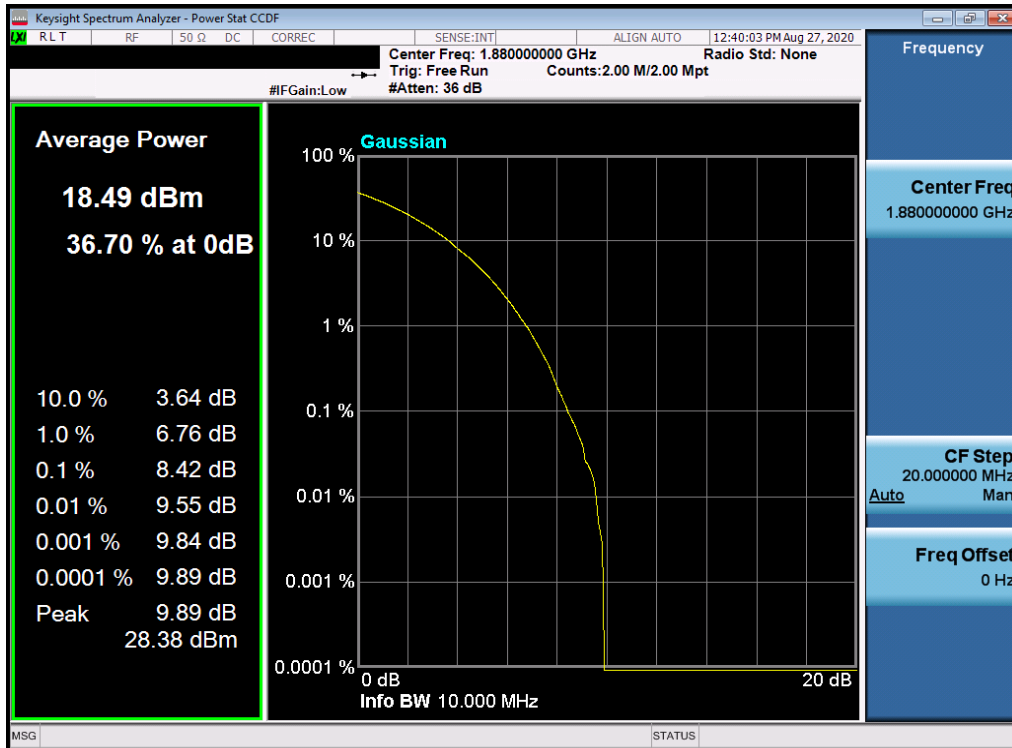


Plot 7-525. PAR Plot (NR Band n2 - 10.0MHz CP-OFDM 16-QAM - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 290 of 389

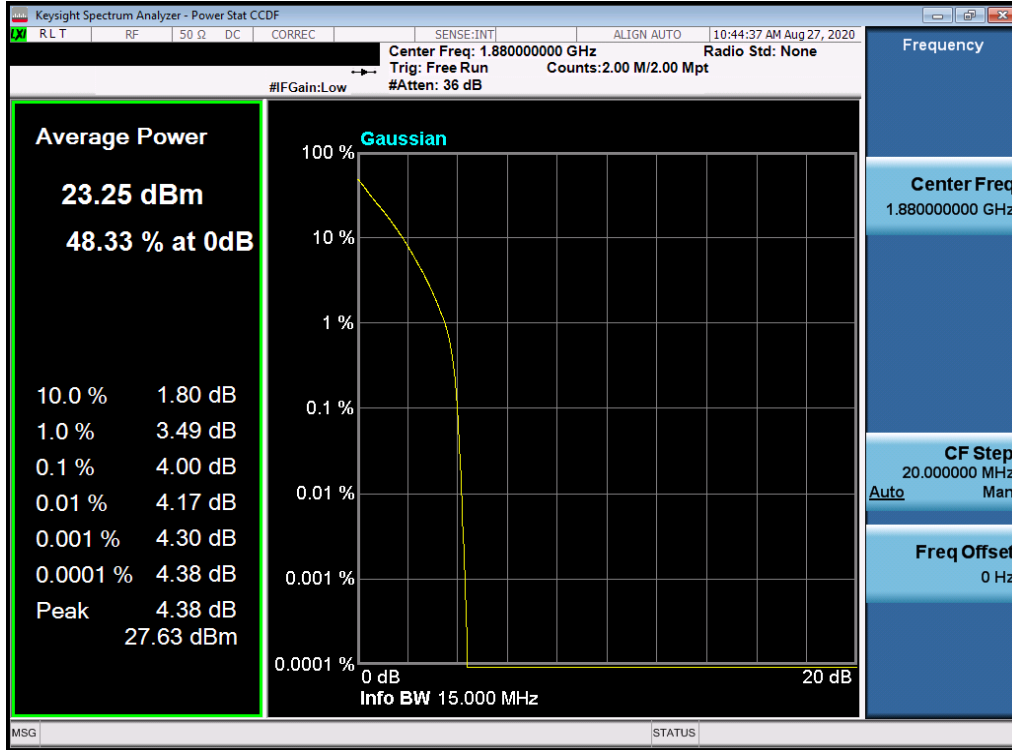


Plot 7-526. PAR Plot (NR Band n2 - 10.0MHz CP-OFDM 64-QAM - Full RB)

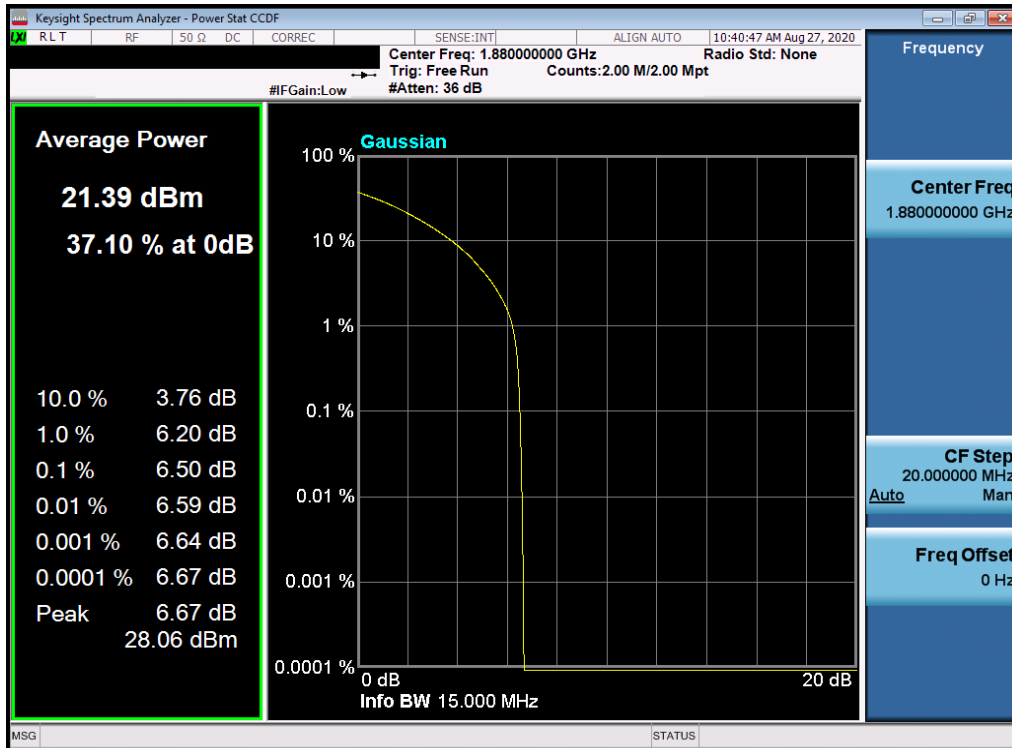


Plot 7-527. PAR Plot (NR Band n2 - 10.0MHz CP-OFDM 256-QAM - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 291 of 389



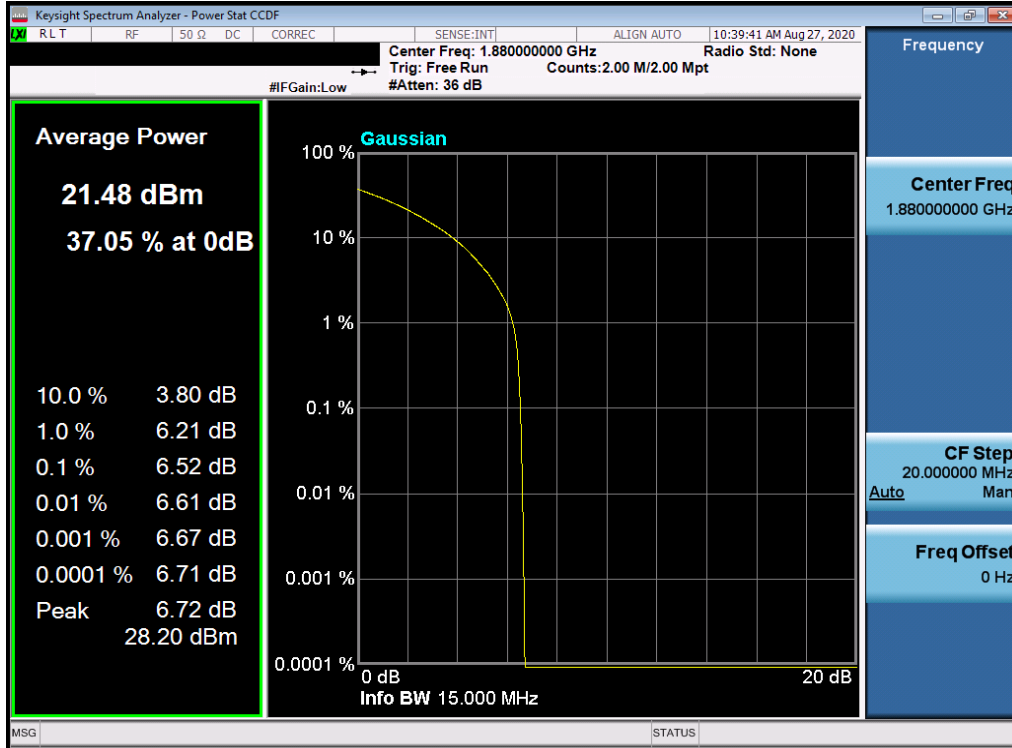
Plot 7-528. PAR Plot (NR Band n2 - 15.0MHz DFT-s-OFDM BPSK - Full RB)



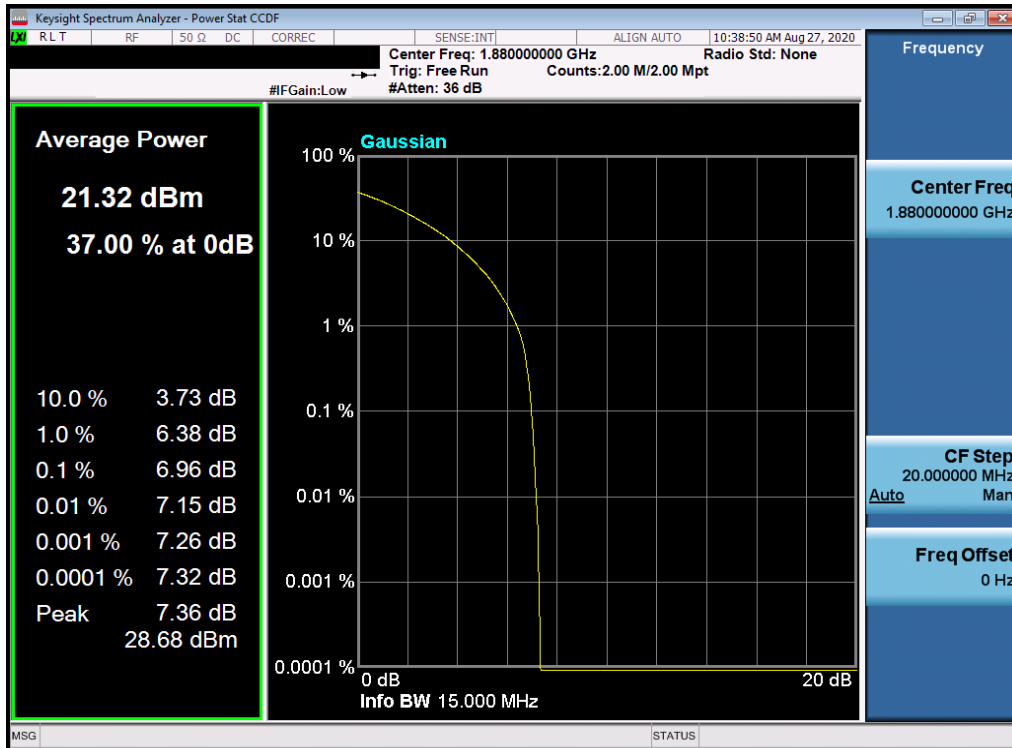
Plot 7-529. PAR Plot (NR Band n2 - 15.0MHz CP-OFDM QPSK - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 292 of 389





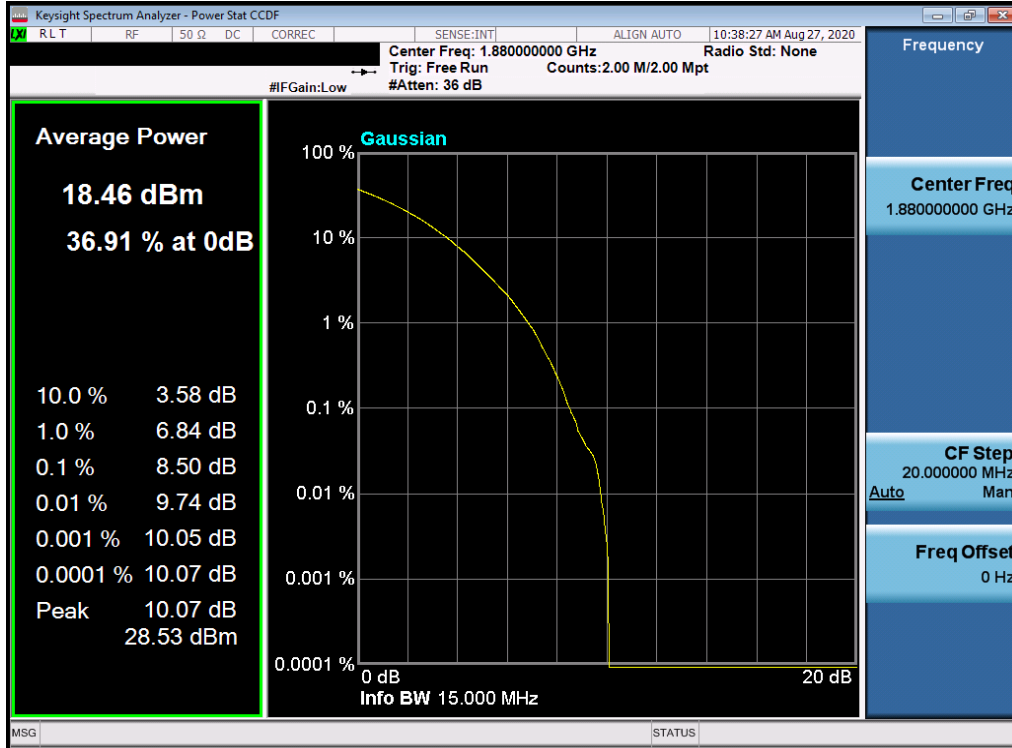
Plot 7-530. PAR Plot (NR Band n2 - 15.0MHz CP-OFDM 16-QAM - Full RB)



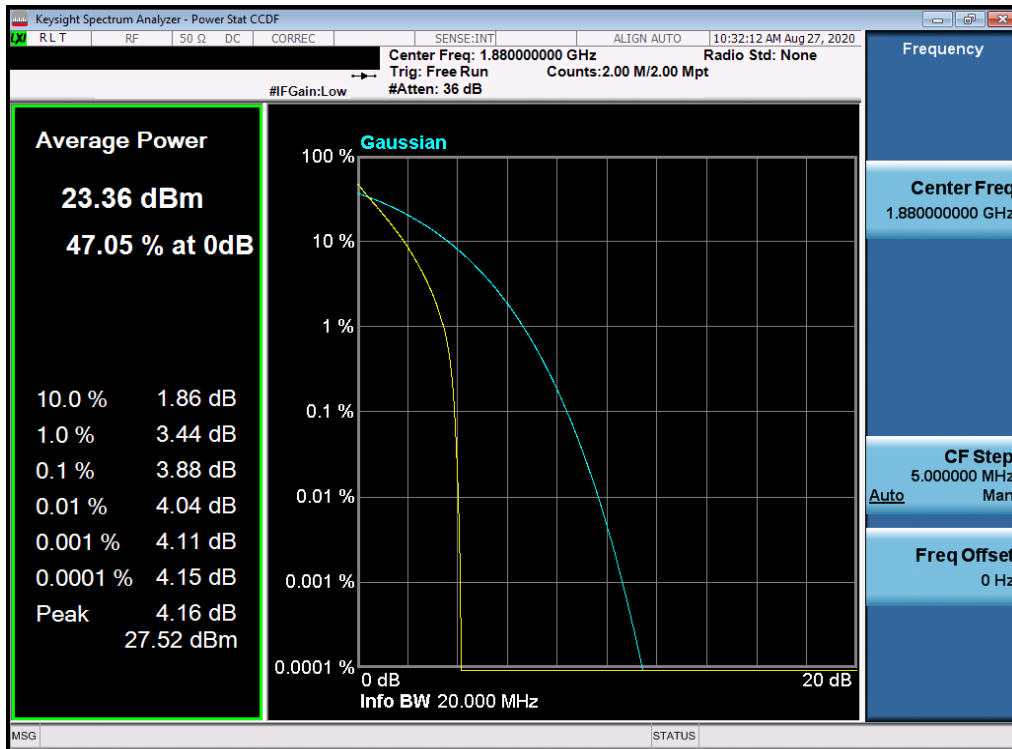
Plot 7-531. PAR Plot (NR Band n2 - 15.0MHz CP-OFDM 64-QAM - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 293 of 389



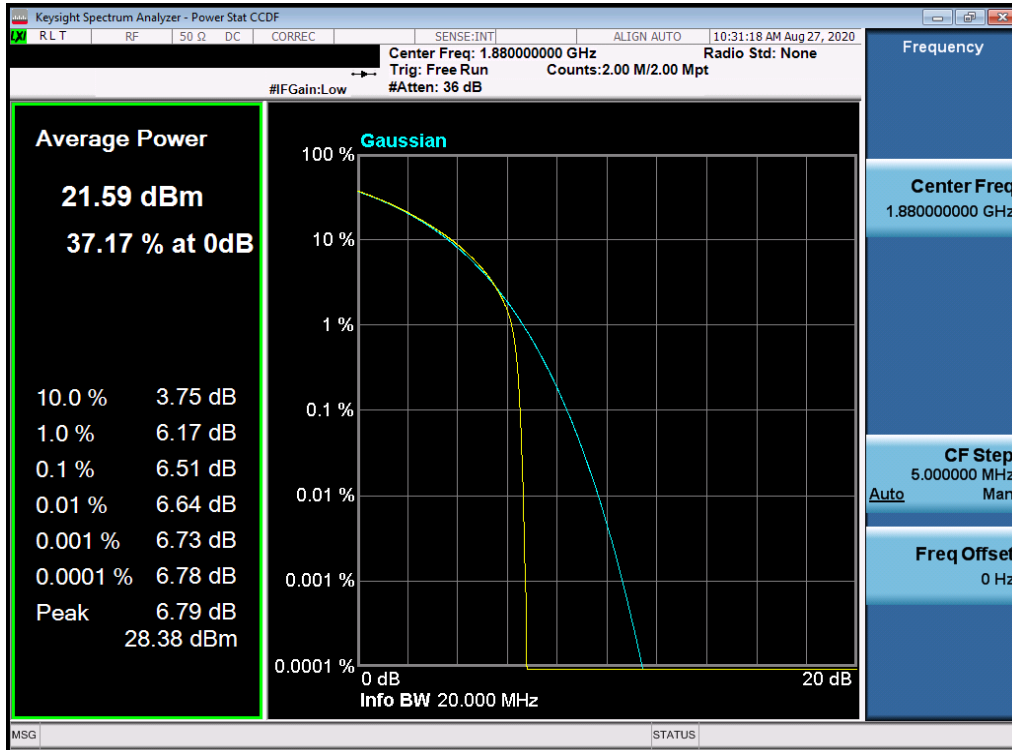


Plot 7-532. PAR Plot (NR Band n2 - 15.0MHz CP-OFDM 256-QAM - Full RB)

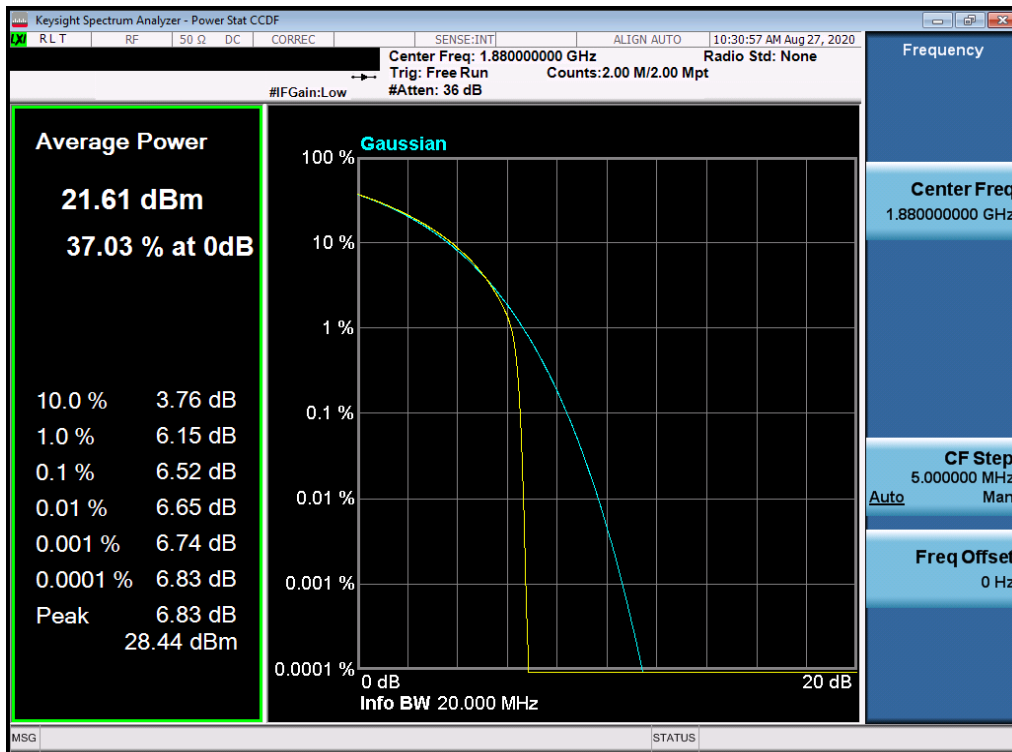


Plot 7-533. PAR Plot (NR Band n2 - 20.0MHz DFT-s-OFDM BPSK - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 294 of 389

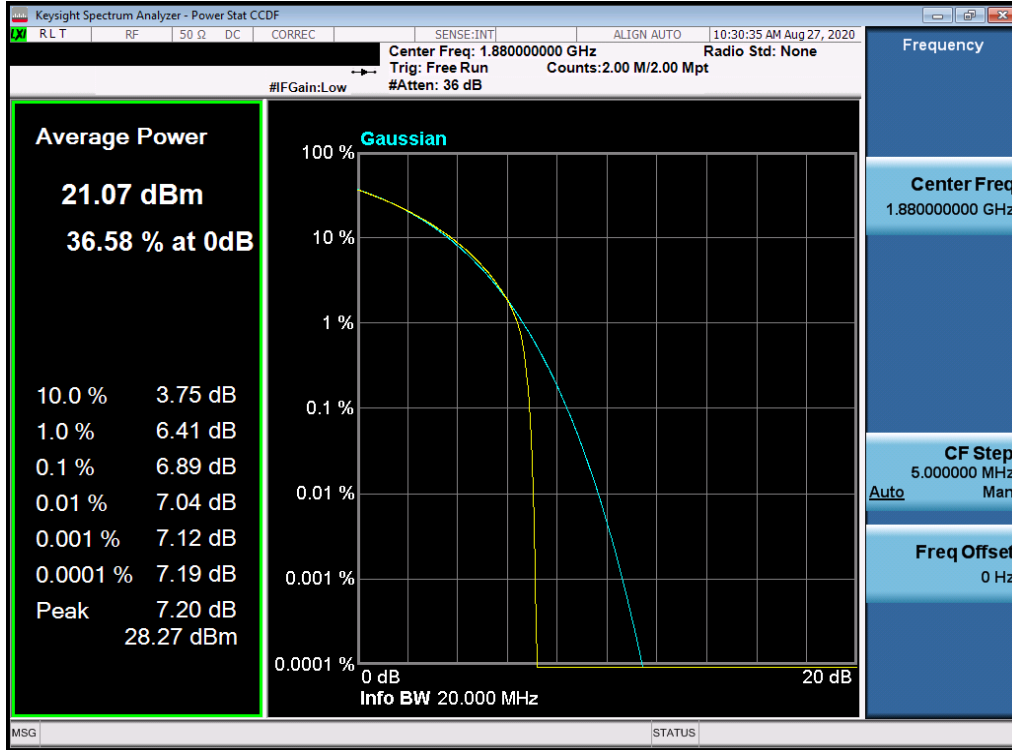


Plot 7-534. PAR Plot (NR Band n2 - 20.0MHz CP-OFDM QPSK - Full RB)

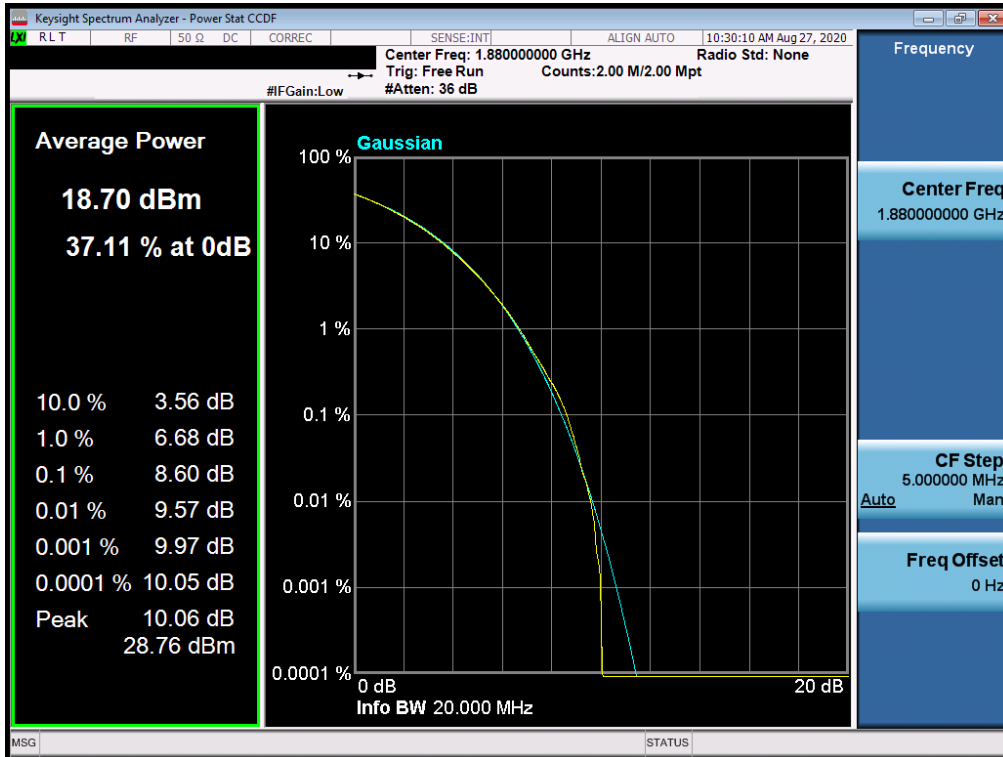


Plot 7-535. PAR Plot (NR Band n2 - 20.0MHz CP-OFDM 16-QAM - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 295 of 389



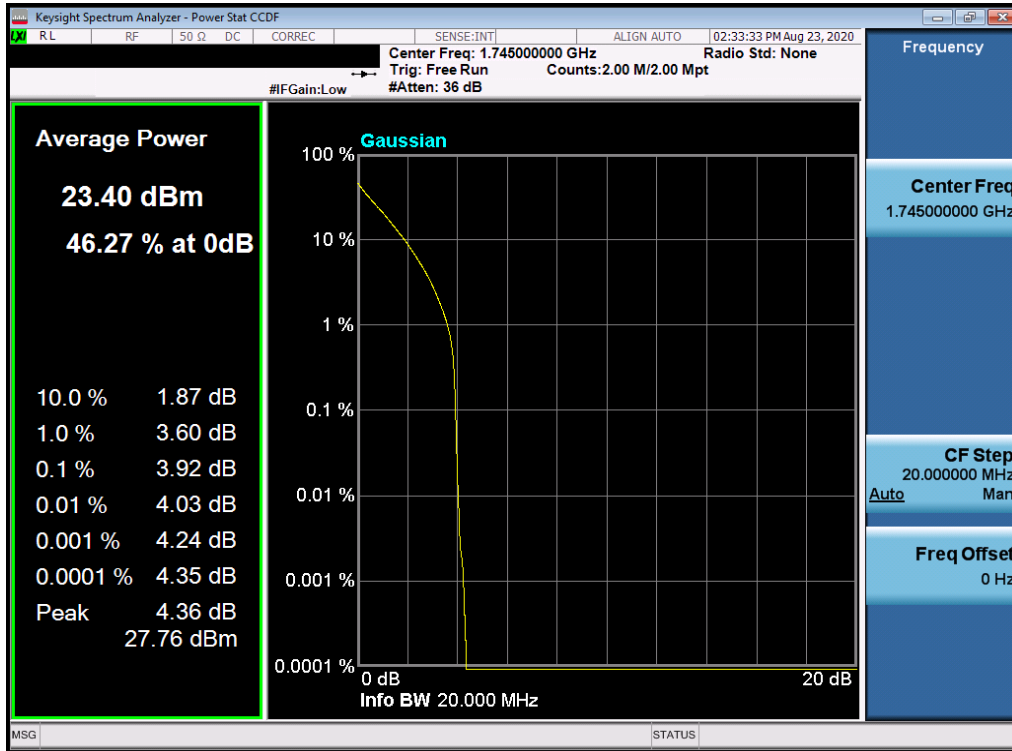
Plot 7-536. PAR Plot (NR Band n2 - 20.0MHz CP-OFDM 64-QAM - Full RB)



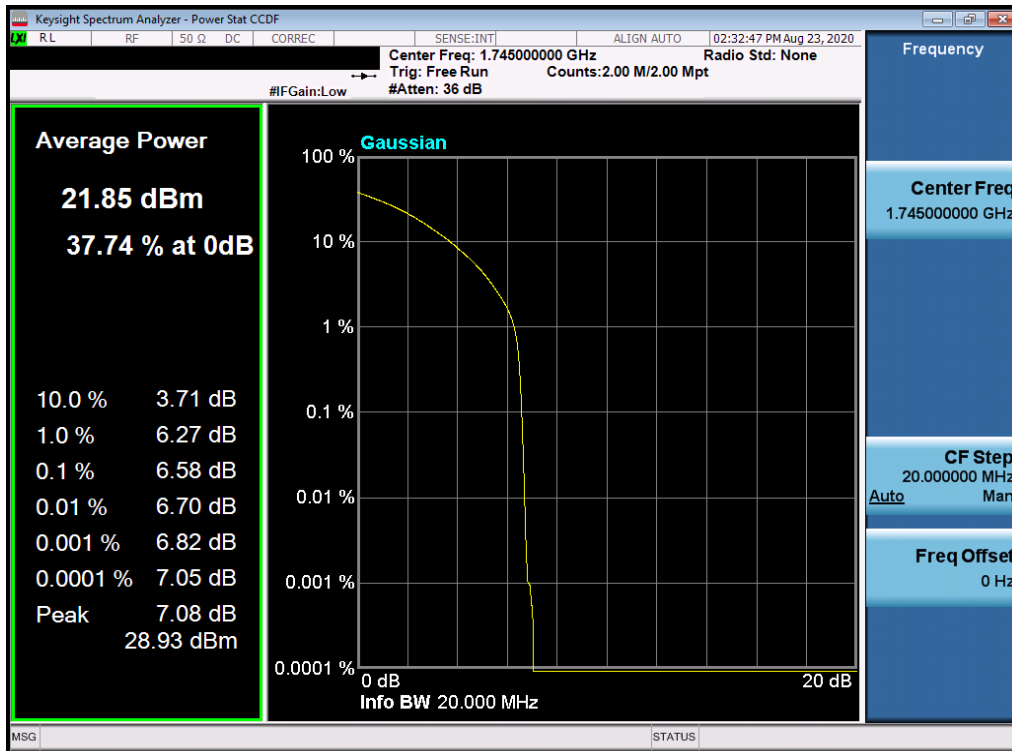
Plot 7-537. PAR Plot (NR Band n2 - 20.0MHz CP-OFDM 256-QAM - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 296 of 389

**NR Band n66**

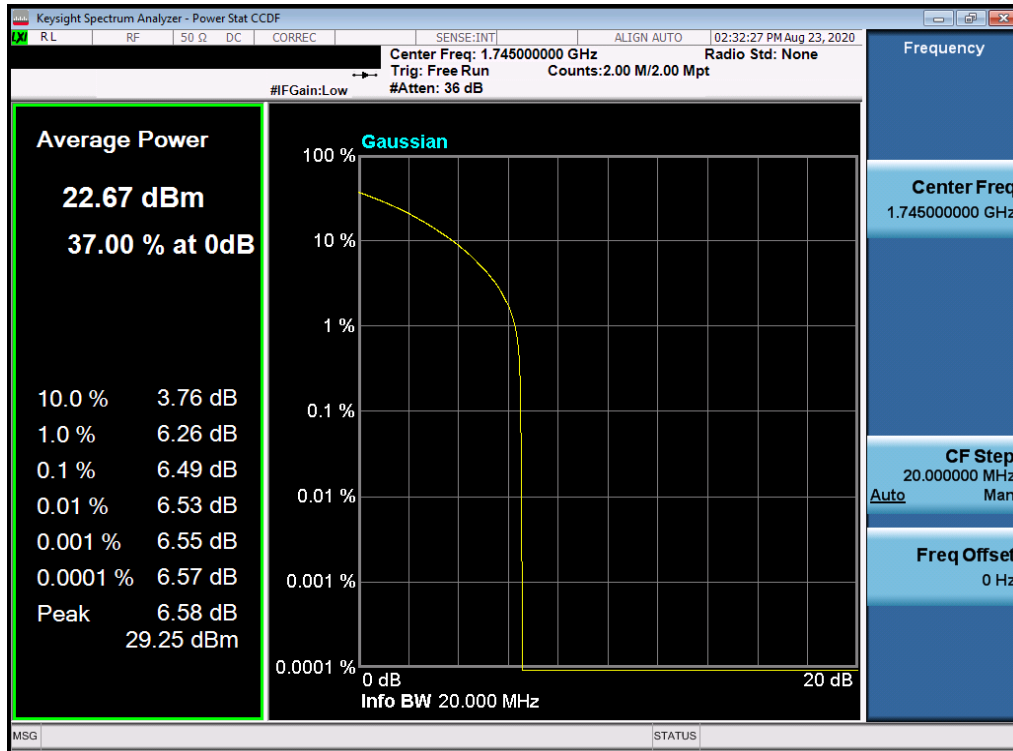


**Plot 7-538. PAR Plot (NR Band n66 - 5.0MHz DFT-s-OFDM BPSK - Full RB)**

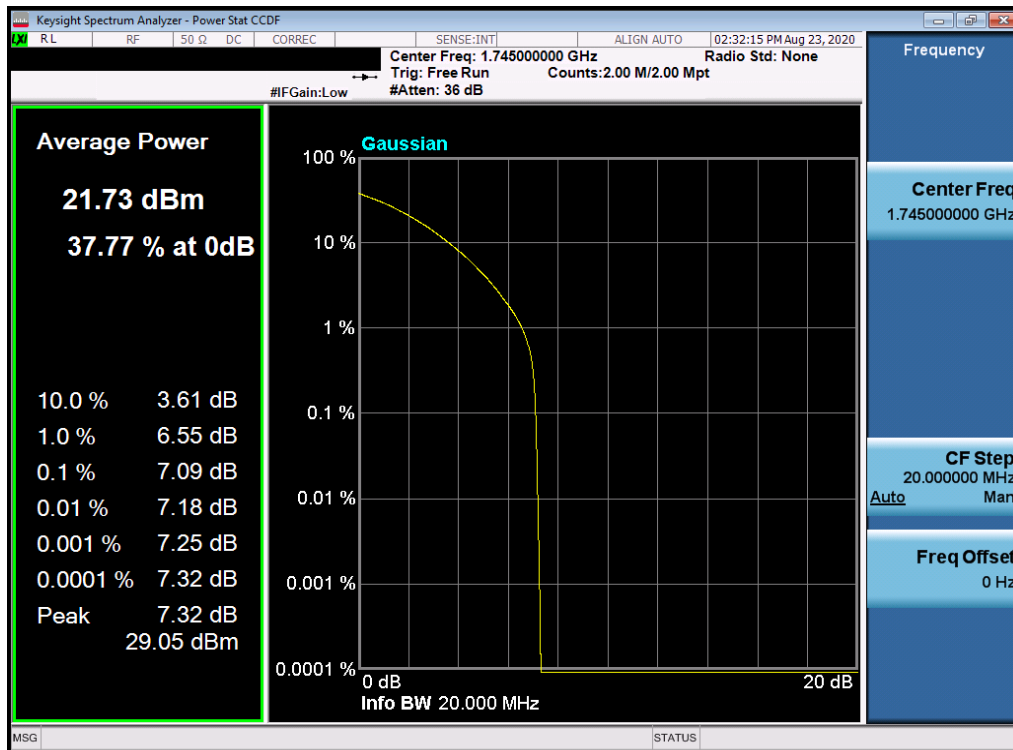


**Plot 7-539. PAR Plot (NR Band n66 - 5.0MHz CP-OFDM QPSK - Full RB)**

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 297 of 389

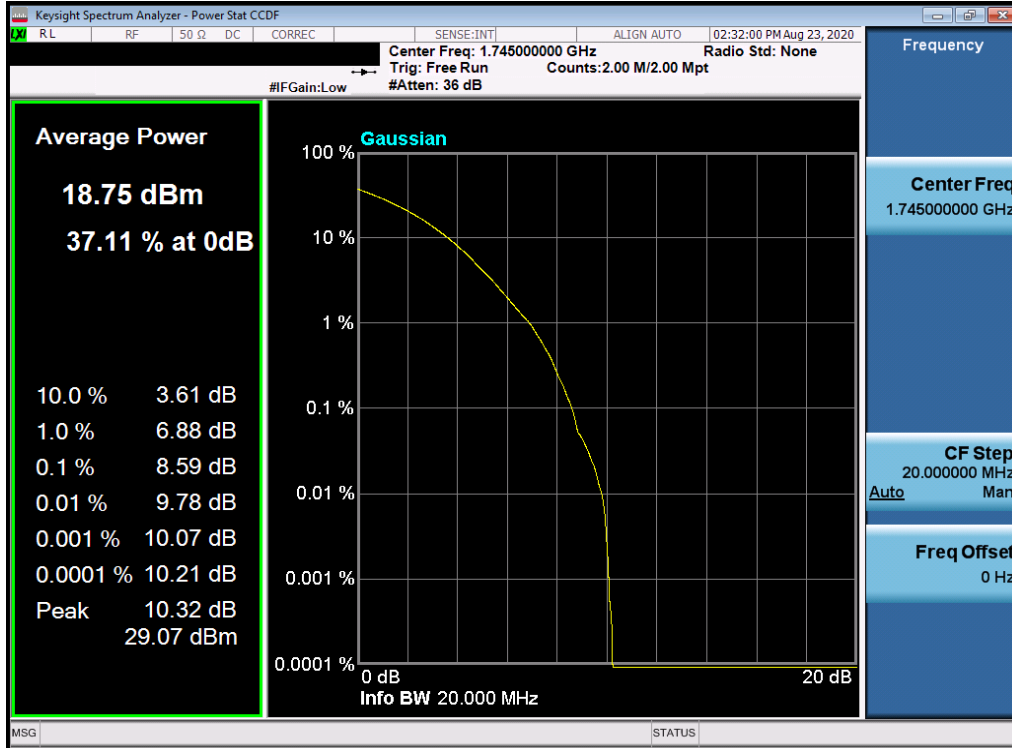


Plot 7-540. PAR Plot (NR Band n66 - 5.0MHz CP-OFDM 16-QAM - Full RB)

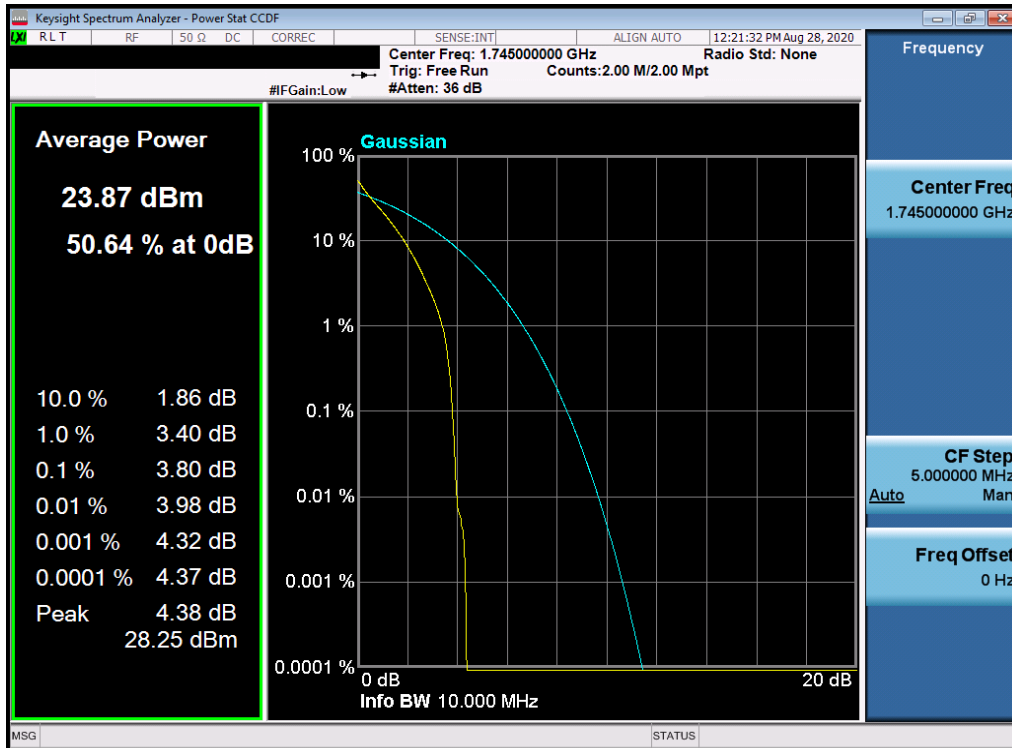


Plot 7-541. PAR Plot (NR Band n66 - 5.0MHz CP-OFDM 64-QAM - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 298 of 389

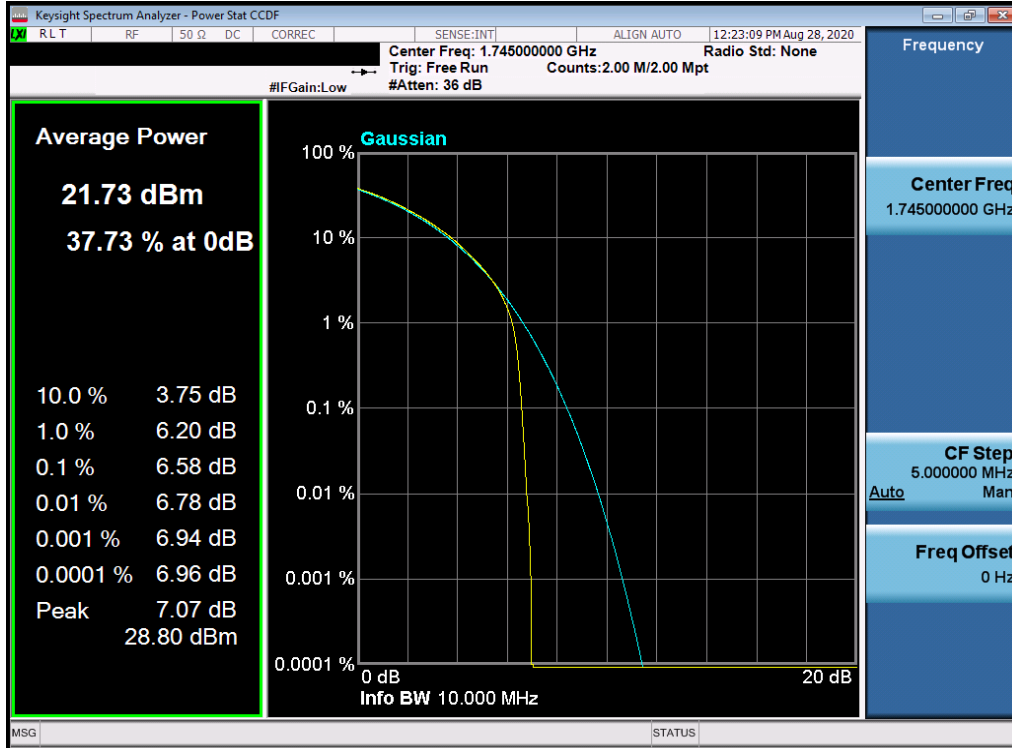


Plot 7-542. PAR Plot (NR Band n66 - 5.0MHz CP-OFDM 256-QAM - Full RB)

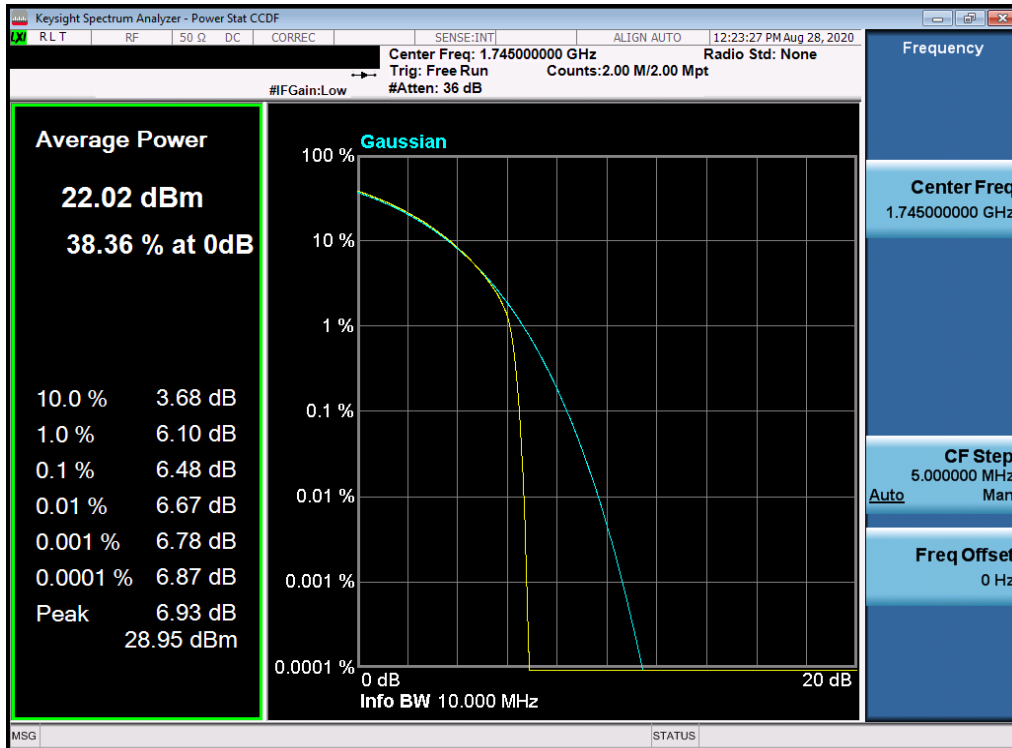


Plot 7-543. PAR Plot (NR Band n66 - 10.0MHz DFT-s-OFDM BPSK - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 299 of 389



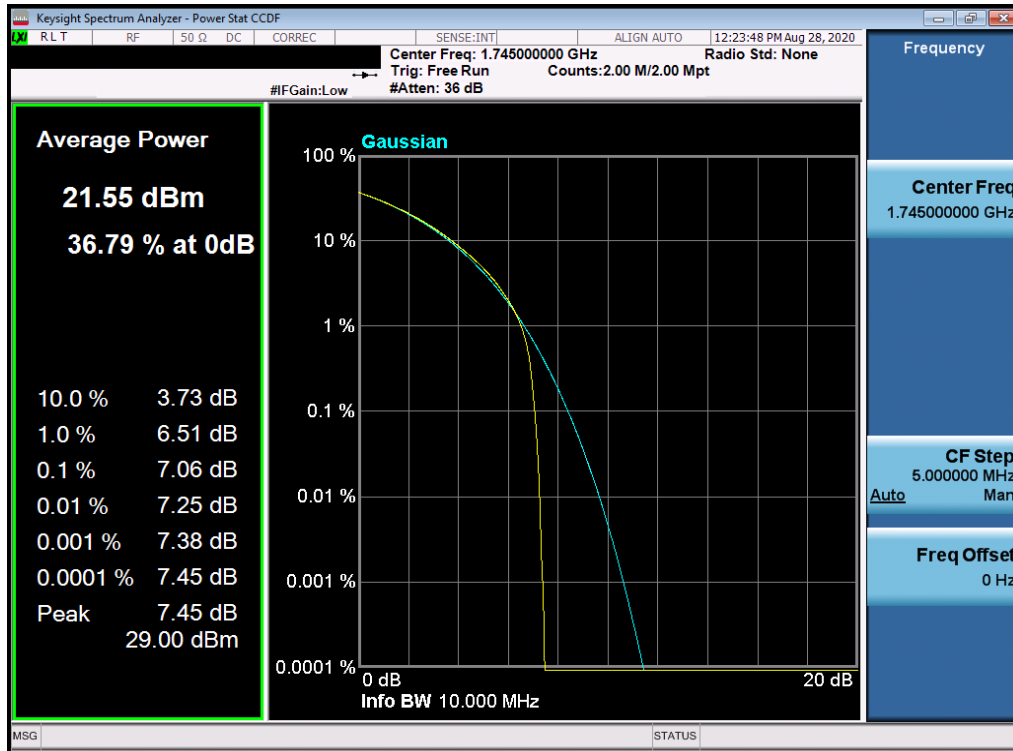
Plot 7-544. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM QPSK - Full RB)



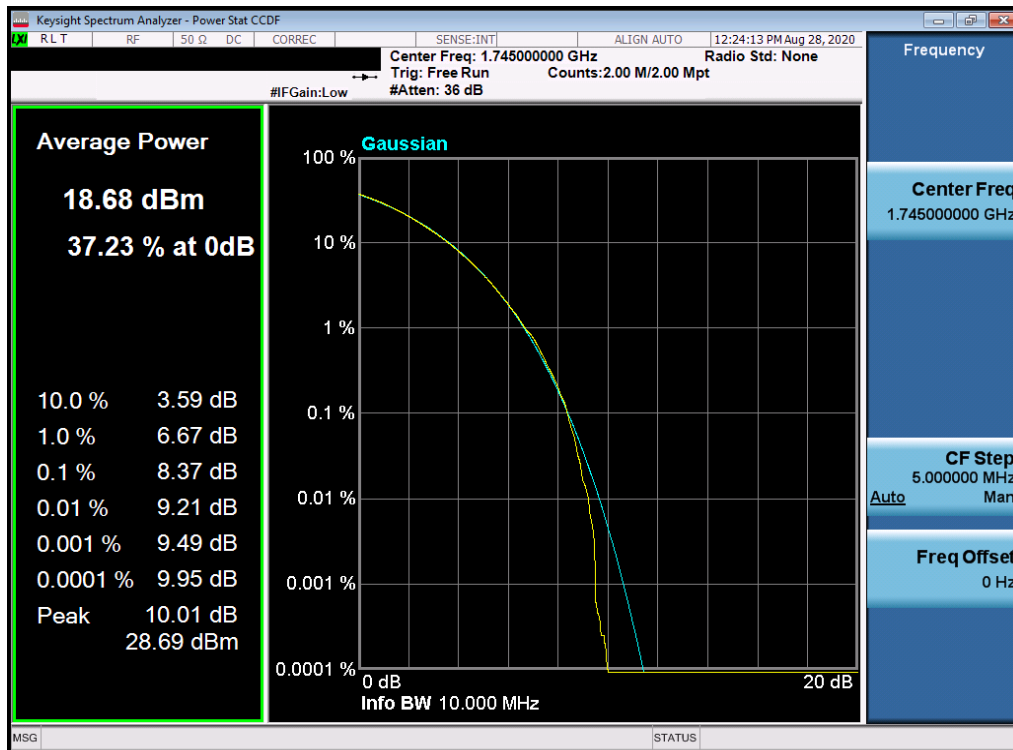
Plot 7-545. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM 16-QAM - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 300 of 389





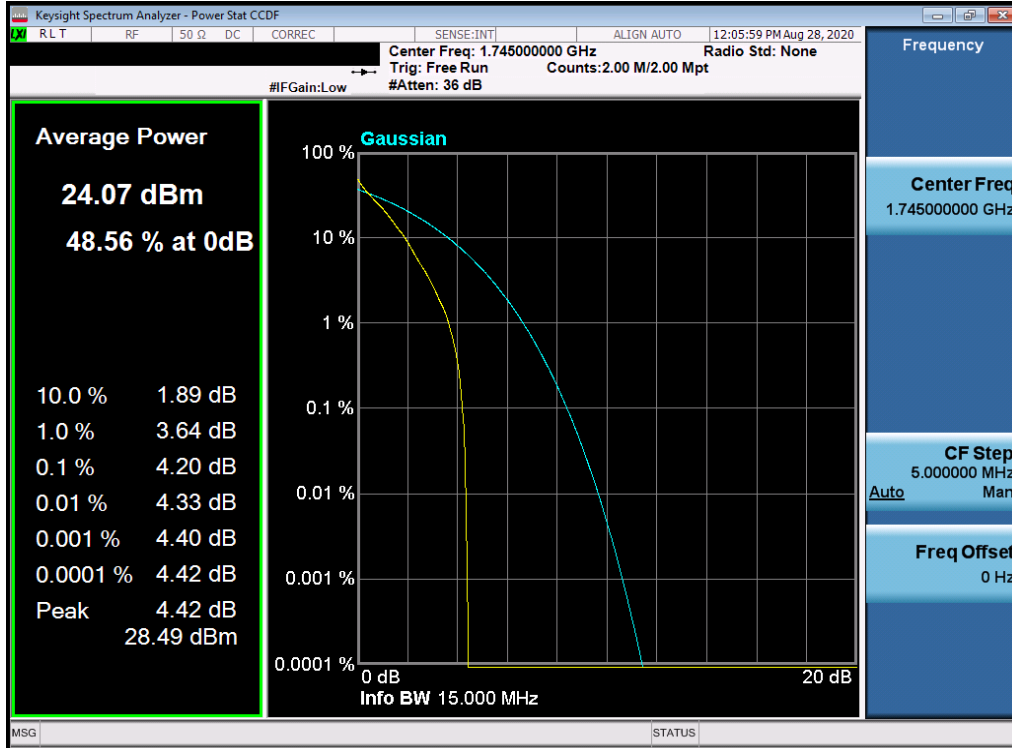
Plot 7-546. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM 64-QAM - Full RB)



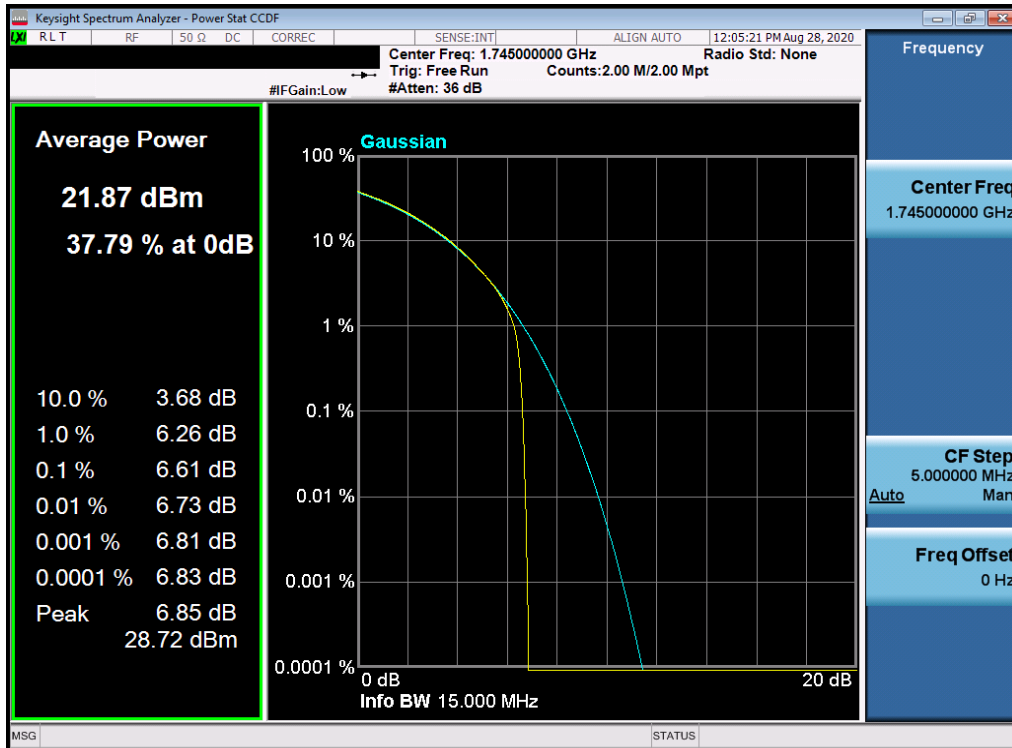
Plot 7-547. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM 256-QAM - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 301 of 389



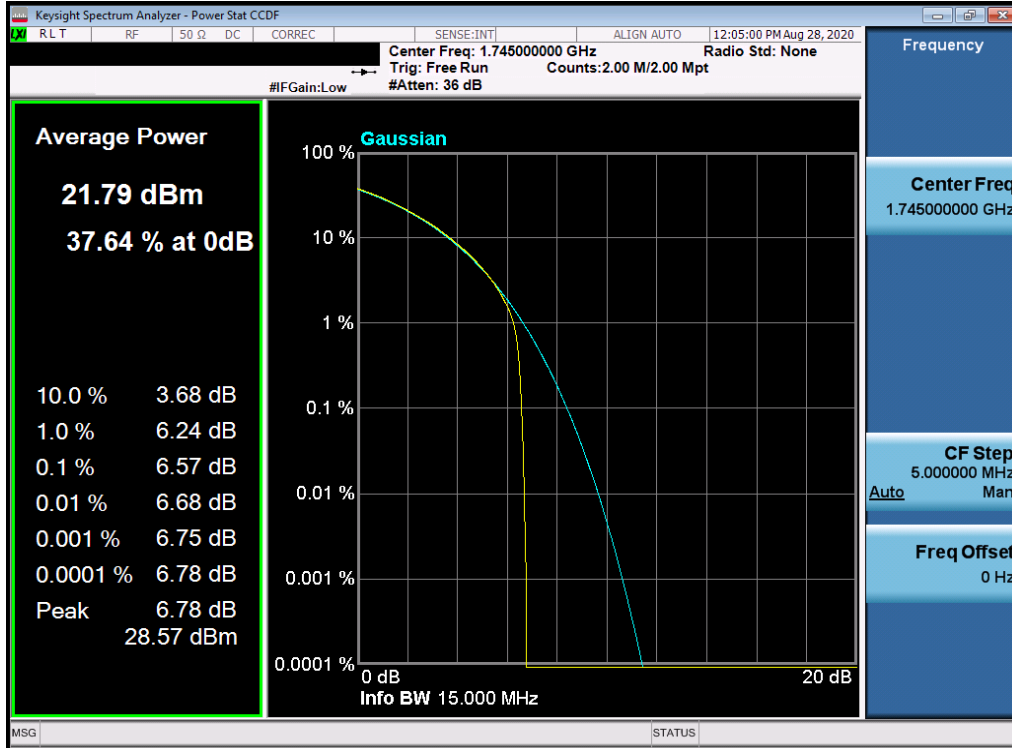


Plot 7-548. PAR Plot (NR Band n66 - 15.0MHz DFT-s-OFDM BPSK - Full RB)

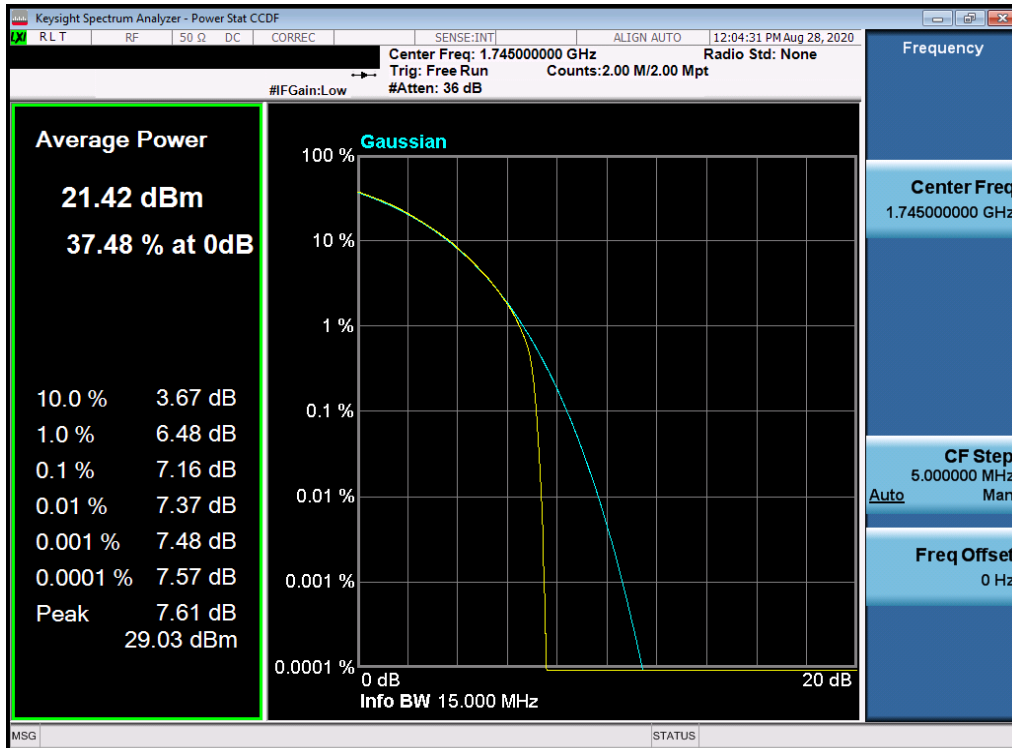


Plot 7-549. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM QPSK - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 302 of 389

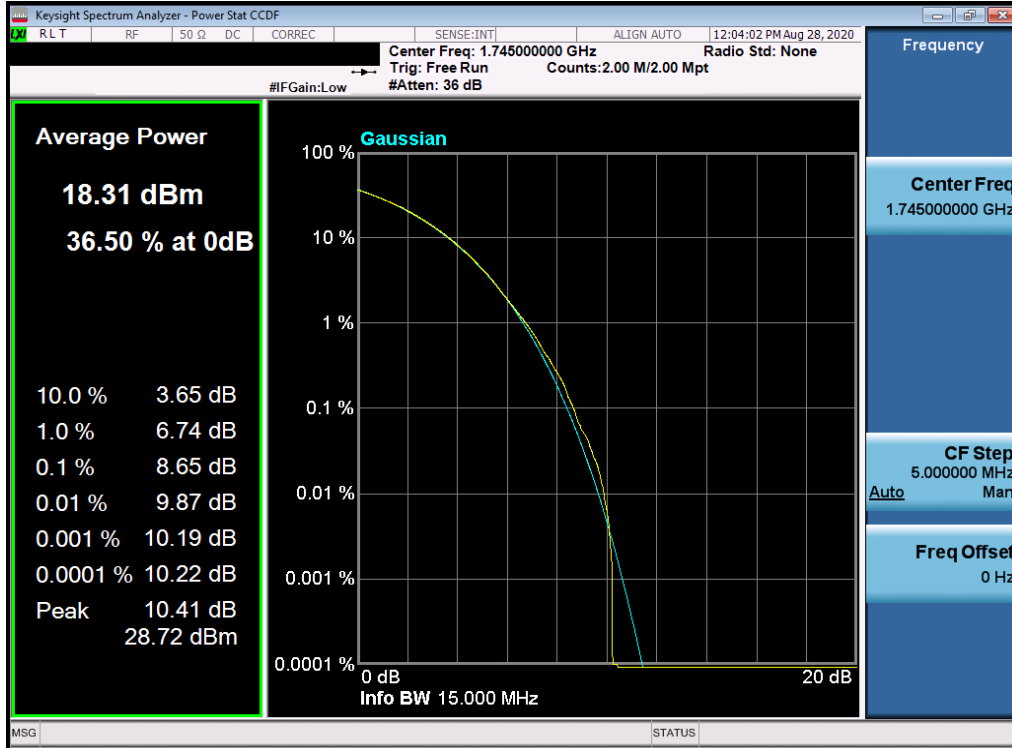


Plot 7-550. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM 16-QAM - Full RB)

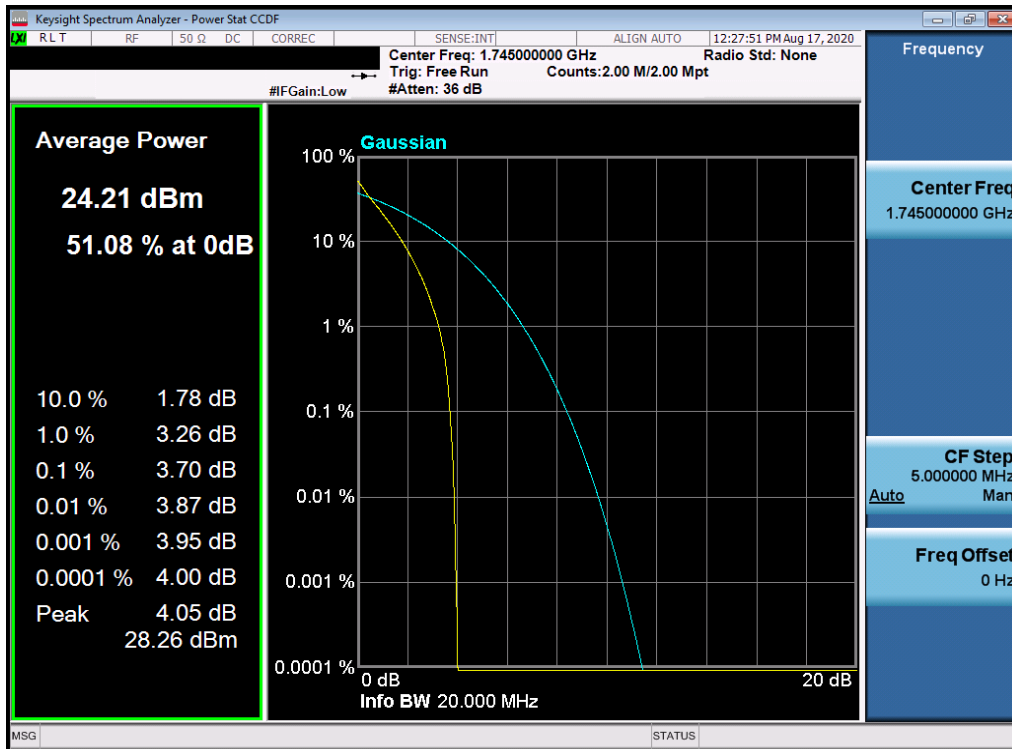


Plot 7-551. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM 64-QAM - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 303 of 389

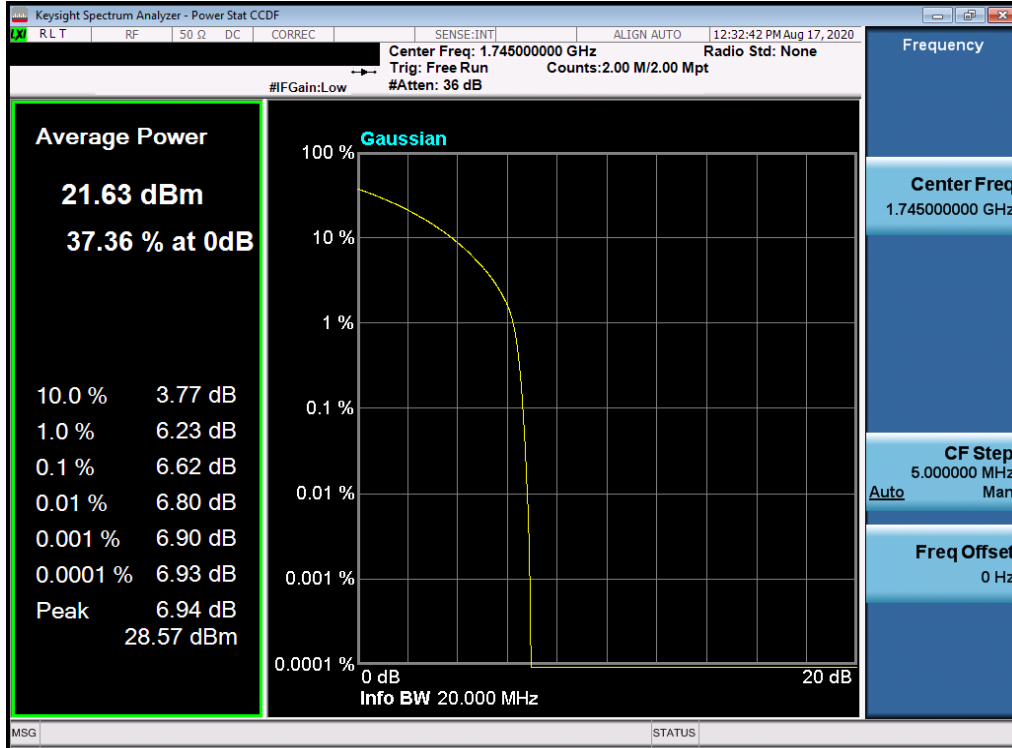


Plot 7-552. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM 256-QAM - Full RB)

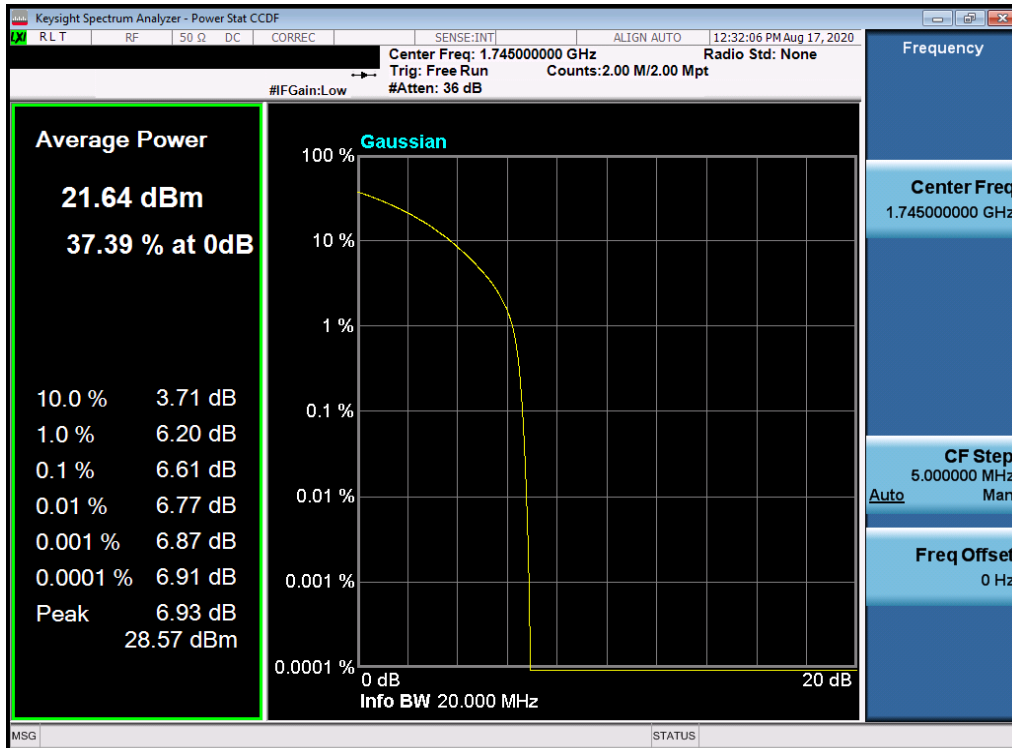


Plot 7-553. PAR Plot (NR Band n66 - 20.0MHz DFT-s-OFDM BPSK - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 304 of 389

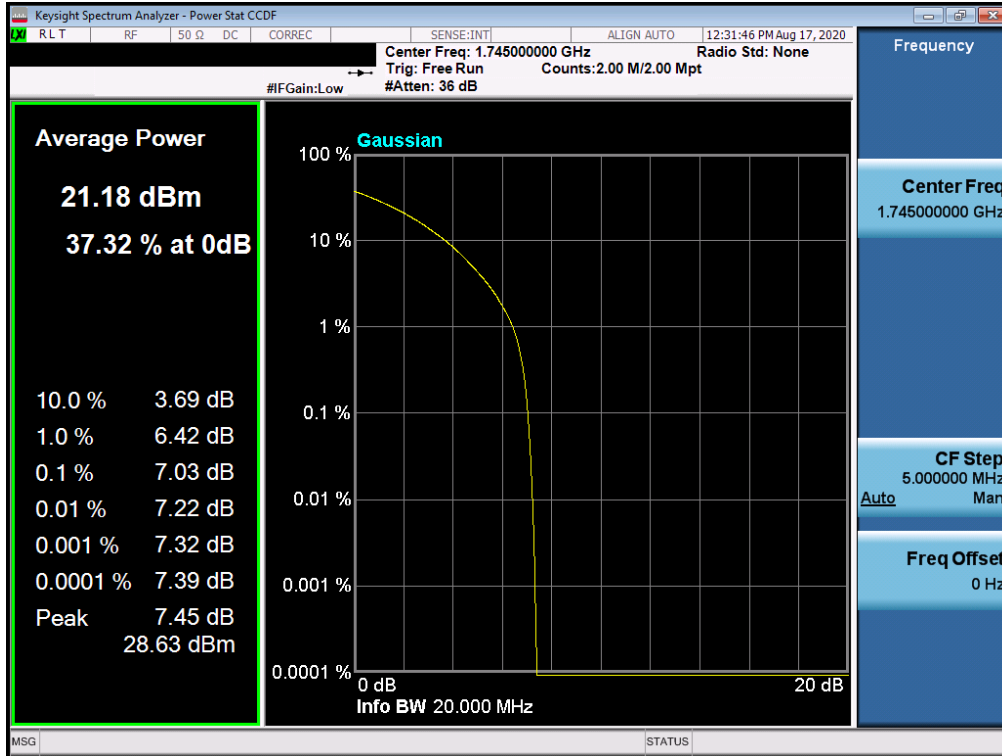


Plot 7-554. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM QPSK - Full RB)

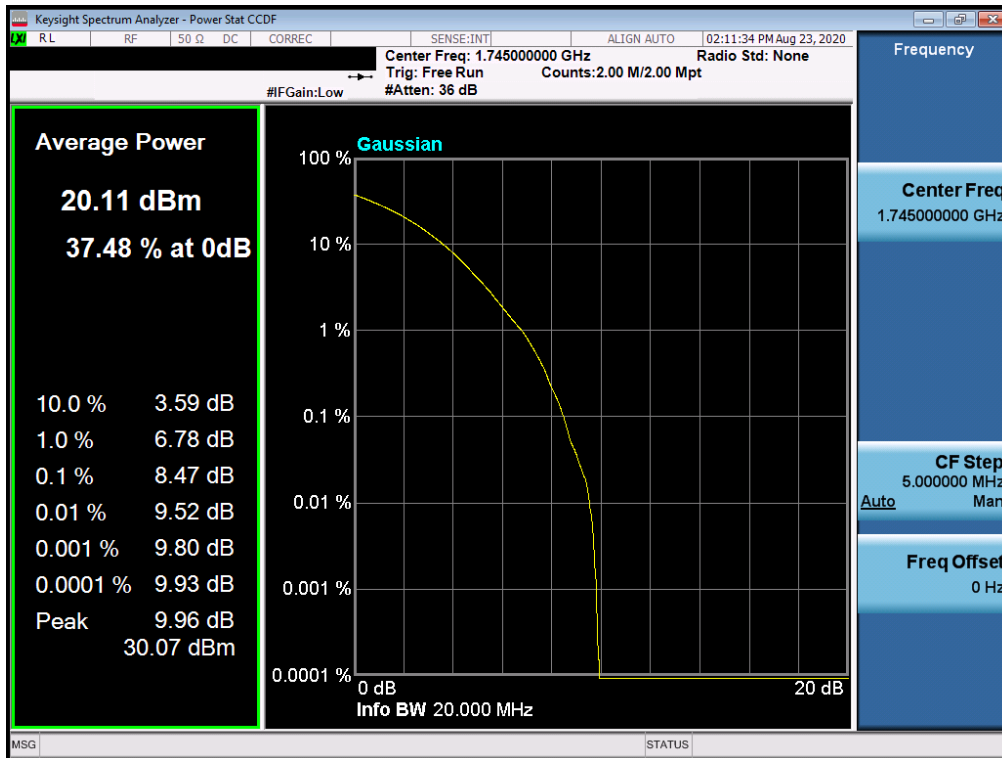


Plot 7-555. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM 16-QAM - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 305 of 389



Plot 7-556. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM 64QAM - Full RB)



Plot 7-557. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM 256-QAM - Full RB)

FCC ID: ZNFK920AM	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 306 of 389

## 7.6 Uplink Carrier Aggregation

### §27.53(m)

#### 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.

***For Band 41, the minimum permissible attenuation level of any spurious emission is  $55 + 10 \log_{10}(P_{[Watts]})$ .***

#### Test Procedure Used

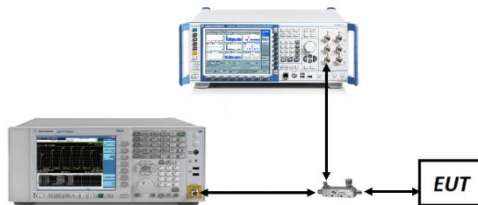
KDB 971168 D01 v03r01 – Section 6.0

#### 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: ZNFK920AM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 307 of 389

## Test Notes

1. Uplink carrier aggregation is only supported in this EUT while operating in Power Class 3.
2. 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, as shown in Table 7-503 and 7-504 below, with both carriers set to transmit using 1RB.
3. 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.

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 B5	10MHz + 10MHz	QPSK	20450	829.0	1	49	QPSK	20549	838.9	1	0	25.37
				20475	831.5	1	49		20574	841.4	1	0	25.42
				20600	844.0	1	0		20501	834.1	1	49	25.52
			QPSK	20600	844	50	0	QPSK	20501	834.1	50	0	23.21
			16-QAM	20600	844	50	0	16-QAM	20501	834.1	50	0	22.16
			64-QAM	20600	844	50	0	64-QAM	20501	834.1	50	0	21.87

**Table 7-4. Conducted Powers (B5 with Various Combinations for 10MHz Channel Bandwidth)**

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 B41 (PC3)	20MHz + 20MHz	QPSK	39750	2506.0	1	99	QPSK	39948	2525.8	1	0	24.82
				40620	2593.0	1	99		40818	2612.8	1	0	24.79
				41490	2680.0	1	0		41292	2660.2	1	99	25.23
			QPSK	41490	2680	100	0	QPSK	41292	2660.2	100	0	23.33
			16-QAM	41490	2680	100	0	16-QAM	41292	2660.2	100	0	22.33
			64-QAM	41490	2680	100	0	64-QAM	41292	2660.2	100	0	22.29

**Table 7-5. Conducted Powers (B41 with Various Combinations for 20MHz Channel Bandwidth)**

FCC ID: ZNFK920AM	 PCTEST <sup>®</sup> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 308 of 389



## 7.7 Radiated Power (ERP/EIRP)

### Test Overview

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

### Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.2.1

ANSI/TIA-603-E-2016 – Section 2.2.17

### Test Settings

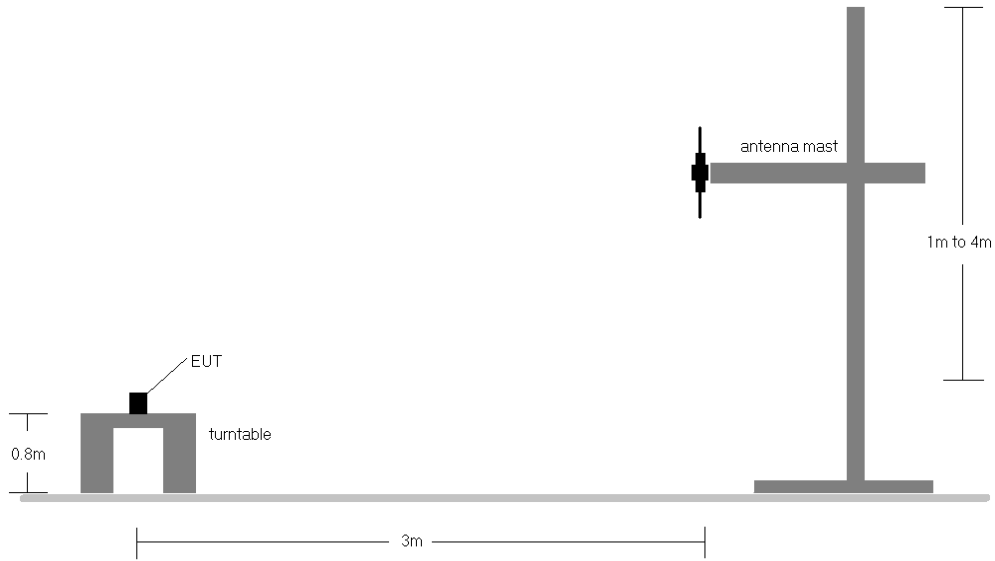
1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation. For signals with burst transmission, the signal analyzer's "time domain power" measurement capability is used
2. RBW = 1 – 5% of the expected OBW, not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

FCC ID: ZNFK920AM	 <b>PCTEST</b> Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 309 of 389

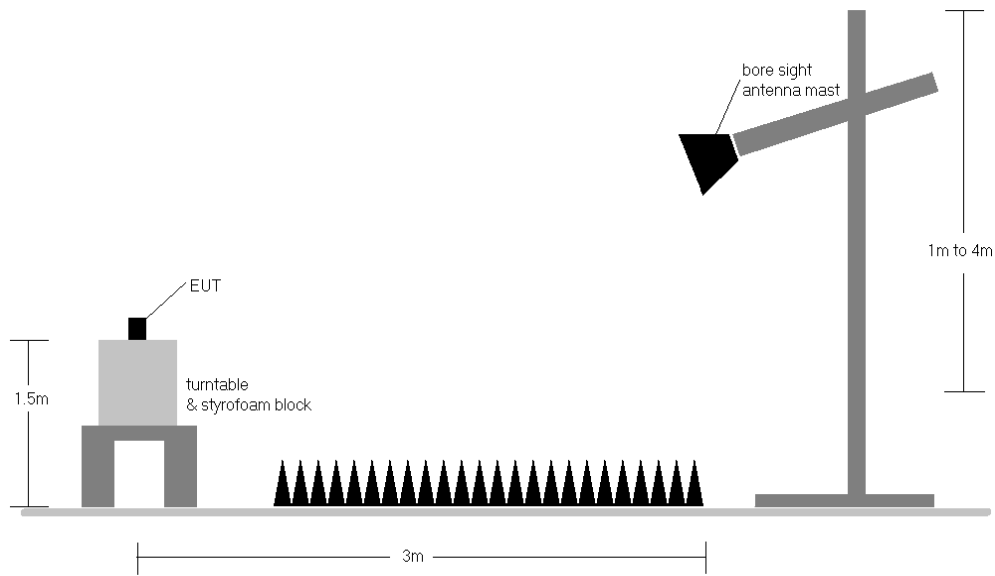


**Test Setup**

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**

<p>FCC ID: ZNFK920AM</p>		<p>MEASUREMENT REPORT (CERTIFICATION)</p>		<p>Approved by: Quality Manager</p>
<p>Test Report S/N: 1M2007130107-03.ZNF</p>	<p>Test Dates: 07/30/2020 - 09/03/2020</p>	<p>EUT Type: Portable Handset</p>	<p>Page 310 of 389</p>	

**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 Level (dBm) readings in the table were taken with a correction table loaded into the base station simulator. The correction table was used to account for the signal attenuation in the connecting cable between the transmitter and antenna.
- 4) The Ant. Gains (GT) are listed in dBi.

<b>FCC ID:</b> ZNFK920AM	 Proud to be part of  element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset		Page 311 of 389

## 7.7.1 Radiated Power (ERP/EIRP)

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	101	293	1.33	1 / 50	16.41	17.74	0.059	36.99	-19.25	15.59	0.036	34.77	-19.18
		680.5	V	101	289	1.33	1 / 50	16.67	18.00	0.063	36.99	-18.98	15.85	0.039	34.77	-18.92
		688.0	V	101	292	1.34	1 / 50	16.92	18.26	0.067	36.99	-18.73	16.11	0.041	34.77	-18.66
		688.0	V	101	292	1.34	1 / 50	16.18	17.52	0.057	36.99	-19.47	15.37	0.034	34.77	-19.40
15 MHz	QPSK	670.5	V	101	293	1.33	1 / 37	16.53	17.86	0.061	36.99	-19.13	15.71	0.037	34.77	-19.06
		680.5	V	101	289	1.33	1 / 37	16.65	17.98	0.063	36.99	-19.00	15.83	0.038	34.77	-18.94
		690.5	V	101	292	1.34	1 / 37	16.57	17.91	0.062	36.99	-19.08	15.76	0.038	34.77	-19.01
		690.5	V	101	292	1.34	1 / 37	16.42	17.76	0.060	36.99	-19.23	15.61	0.036	34.77	-19.16
10 MHz	QPSK	680.5	V	101	292	1.34	1 / 37	16.23	17.57	0.057	36.99	-19.42	15.42	0.035	34.77	-19.35
		688.0	V	101	293	1.32	1 / 25	16.10	17.42	0.055	36.99	-19.57	15.27	0.034	34.77	-19.50
		680.5	V	101	289	1.33	1 / 25	16.82	18.15	0.065	36.99	-18.83	16.00	0.040	34.77	-18.77
		693.0	V	101	292	1.35	1 / 25	16.70	18.05	0.064	36.99	-18.94	15.90	0.039	34.77	-18.88
5 MHz	QPSK	693.0	V	101	292	1.35	1 / 25	16.54	17.89	0.061	36.99	-19.10	15.74	0.037	34.77	-19.04
		693.0	V	101	292	1.35	1 / 25	16.26	17.61	0.058	36.99	-19.38	15.46	0.035	34.77	-19.32
		665.5	V	101	293	1.32	1 / 12	15.60	16.92	0.049	36.99	-20.07	14.77	0.030	34.77	-20.00
		680.5	V	101	289	1.33	1 / 12	16.85	18.18	0.066	36.99	-18.80	16.03	0.040	34.77	-18.74
20MHz	Opposite Pol.	695.5	V	101	292	1.35	1 / 12	16.10	17.45	0.056	36.99	-19.54	15.30	0.034	34.77	-19.47
		695.5	V	101	292	1.35	1 / 12	16.75	18.10	0.065	36.99	-18.89	15.95	0.039	34.77	-18.82
		695.5	V	101	292	1.35	1 / 12	15.97	17.32	0.054	36.99	-19.67	15.17	0.033	34.77	-19.60
		688.0	H	102	277	1.32	1 / 50	14.63	15.95	0.039	36.99	-21.04	13.80	0.024	34.77	-20.97

Table 7-6. ERP Data (Band 71)

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	H	279	7	1.34	1 / 0	20.29	21.63	0.146	36.99	-15.36	19.48	0.089	34.77	-15.29
		707.5	H	145	5	1.33	1 / 0	20.37	21.70	0.148	36.99	-15.29	19.55	0.090	34.77	-15.22
		711.0	H	259	26	1.33	1 / 0	19.79	21.12	0.129	36.99	-15.87	18.97	0.079	34.77	-15.81
		707.5	H	145	5	1.33	1 / 0	19.53	20.86	0.122	36.99	-16.13	18.71	0.074	34.77	-16.06
5 MHz	QPSK	707.5	H	145	5	1.33	1 / 0	18.80	20.13	0.103	36.99	-16.86	17.98	0.063	34.77	-16.79
		701.5	H	279	7	1.35	1 / 12	19.83	21.18	0.131	36.99	-15.81	19.03	0.080	34.77	-15.74
		707.5	H	145	5	1.33	1 / 12	20.30	21.63	0.146	36.99	-15.36	19.48	0.089	34.77	-15.29
		713.5	H	259	26	1.32	1 / 12	19.37	20.69	0.117	36.99	-16.30	18.54	0.071	34.77	-16.23
3 MHz (Band 12 Only)	QPSK	707.5	H	145	5	1.33	1 / 12	19.45	20.78	0.120	36.99	-16.21	18.63	0.073	34.77	-16.14
		707.5	H	145	5	1.33	1 / 12	18.69	20.02	0.101	36.99	-16.97	17.87	0.061	34.77	-16.90
		700.5	H	279	7	1.35	1 / 0	20.06	21.41	0.138	36.99	-15.58	19.26	0.084	34.77	-15.51
		707.5	H	145	5	1.33	1 / 0	20.01	21.34	0.136	36.99	-15.65	19.19	0.083	34.77	-15.58
1.4 MHz (Band 12 Only)	QPSK	714.5	H	259	26	1.32	1 / 0	18.82	20.14	0.103	36.99	-16.85	17.99	0.063	34.77	-16.78
		707.5	H	145	5	1.33	1 / 0	19.24	20.57	0.114	36.99	-16.42	18.42	0.070	34.77	-16.35
		707.5	H	145	5	1.33	1 / 0	18.39	19.72	0.094	36.99	-17.27	17.57	0.057	34.77	-17.20
		699.7	H	279	7	1.35	1 / 0	19.90	21.25	0.133	36.99	-15.74	19.10	0.081	34.77	-15.67
10MHz	Opposite Pol.	707.5	H	145	5	1.33	1 / 0	19.63	20.96	0.125	36.99	-16.03	18.81	0.076	34.77	-15.96
		715.3	H	259	26	1.32	1 / 0	19.31	20.63	0.115	36.99	-16.36	18.48	0.070	34.77	-16.30
		699.7	H	279	7	1.35	1 / 0	19.04	20.39	0.109	36.99	-16.60	18.24	0.067	34.77	-16.53
		699.7	H	279	7	1.35	1 / 0	18.33	19.68	0.093	36.99	-17.31	17.53	0.057	34.77	-17.24

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

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	V	168	264	1.04	1 / 0	20.20	21.24	0.133	36.99	-15.75	19.09	0.081	34.77	-15.68
		782.0	V	168	264	1.04	1 / 0	19.33	20.37	0.109	36.99	-16.62	18.22	0.066	34.77	-16.55
		782.0	V	168	264	1.04	1 / 0	18.37	19.41	0.087	36.99	-17.58	17.26	0.053	34.77	-17.51
5 MHz	QPSK	779.5	V	168	264	1.04	1 / 0	20.38	21.42	0.14	36.99	-15.57	19.27	0.085	34.77	-15.50
		782.0	V	168	264	1.04	1 / 0	19.93	20.97	0.12	36.99	-16.02	18.82	0.076	34.77	-15.95
		784.5	V	168	264	1.03	1 / 0	19.49	20.52	0.11	36.99	-16.47	18.37	0.069	34.77	-16.40
		779.5	V	168	264	1.04	1 / 0	19.41	20.45	0.11	36.99	-16.54	18.30	0.068	34.77	-16.47
10MHz	Opposite Pol.	779.5	V	168	264	1.04	1 / 0	18.54	19.58	0.09	36.99	-17.41	17.43	0.055	34.77	-17.34
10MHz	Opposite Pol.	779.5	H	231	163	1.04	1 / 0	16.64	17.68	0.059	36.99	-19.31	15.53	0.036	34.77	-19.24

Table 7-8. ERP Data (Band 13)

FCC ID: ZNFK920AM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 312 of 389

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
15MHz (Band 26 only)	QPSK	831.5	V	143	279	1.29	1 / 0	19.35	18.49	0.071	38.45	-19.96	20.64	0.116	40.61	-19.97
		836.5	V	144	302	1.31	1 / 74	20.23	19.39	0.087	38.45	-19.06	21.54	0.143	40.61	-19.07
	16-QAM 64-QAM	841.5	V	125	306	1.33	1 / 0	18.92	18.10	0.065	38.45	-20.35	20.25	0.106	40.61	-20.35
		836.5	V	144	302	1.31	1 / 0	19.16	18.32	0.068	38.45	-20.13	20.47	0.111	40.61	-20.14
10 MHz	QPSK	831.5	V	143	279	1.29	1 / 0	18.72	17.86	0.061	38.45	-20.59	20.01	0.100	40.61	-20.60
		829.0	V	143	279	1.27	1 / 0	19.67	18.79	0.076	38.45	-19.66	20.94	0.124	40.61	-19.66
	16-QAM 64-QAM	836.5	V	144	302	1.31	1 / 0	20.50	19.66	0.092	38.45	-18.79	21.81	0.152	40.61	-18.80
		844.0	V	125	306	1.35	1 / 0	19.59	18.79	0.076	38.45	-19.66	20.94	0.124	40.61	-19.67
	16-QAM 64-QAM	836.5	V	144	302	1.31	1 / 0	19.71	18.87	0.077	38.45	-19.58	21.02	0.126	40.61	-19.59
		836.5	V	144	302	1.31	1 / 0	19.04	18.20	0.066	38.45	-20.25	20.35	0.108	40.61	-20.26
5 MHz	QPSK	826.5	V	143	279	1.26	1 / 0	19.68	18.79	0.076	38.45	-19.66	20.94	0.124	40.61	-19.66
		836.5	V	144	302	1.31	1 / 0	20.21	19.37	0.087	38.45	-19.08	21.52	0.142	40.61	-19.09
	16-QAM 64-QAM	846.5	V	125	306	1.36	1 / 0	19.51	18.72	0.074	38.45	-19.73	20.87	0.122	40.61	-19.74
		836.5	V	144	302	1.31	1 / 0	20.15	19.31	0.085	38.45	-19.14	21.46	0.140	40.61	-19.15
3 MHz	QPSK	836.5	V	144	302	1.31	1 / 0	19.64	18.80	0.076	38.45	-19.65	20.95	0.124	40.61	-19.66
		825.5	V	143	279	1.26	1 / 0	19.63	18.74	0.075	38.45	-19.71	20.89	0.123	40.61	-19.72
	16-QAM 64-QAM	836.5	V	144	302	1.31	1 / 0	20.41	19.57	0.091	38.45	-18.88	21.72	0.149	40.61	-18.89
		847.5	V	125	306	1.36	1 / 0	18.58	17.79	0.060	38.45	-20.66	19.94	0.099	40.61	-20.66
	16-QAM 64-QAM	836.5	V	144	302	1.31	1 / 0	19.24	18.40	0.069	38.45	-20.05	20.55	0.114	40.61	-20.06
		836.5	V	144	302	1.31	1 / 0	18.13	17.29	0.054	38.45	-21.16	19.44	0.088	40.61	-21.17
1.4 MHz	QPSK	824.7	V	143	279	1.25	1 / 0	19.58	18.68	0.074	38.45	-19.77	20.83	0.121	40.61	-19.77
		836.5	V	144	302	1.31	1 / 0	20.33	19.49	0.089	38.45	-18.86	21.64	0.146	40.61	-18.87
	16-QAM 64-QAM	848.3	V	125	306	1.37	1 / 0	19.25	18.47	0.070	38.45	-19.98	20.62	0.115	40.61	-19.99
		836.5	V	144	302	1.31	1 / 0	19.37	18.53	0.071	38.45	-19.92	20.68	0.117	40.61	-19.93
10MHz	Opposite Pol.	836.5	H	216	289	1.26	1 / 0	15.73	16.99	0.050	38.45	-21.46	19.14	0.082	40.61	-21.47

Table 7-9. ERP Data (Band 5/26)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	ERP [dBm]	ERP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	QPSK	1720.0	H	146	4	8.66	1 / 0	13.54	22.20	0.166	30.00	-7.80
		1745.0	H	100	164	8.18	1/99	12.96	21.14	0.130	30.00	-8.86
	16-QAM 64-QAM	1770.0	H	139	2	8.19	1 / 0	12.68	20.87	0.122	30.00	-9.13
		1720.0	H	146	4	8.66	1 / 0	12.81	21.47	0.140	30.00	-8.53
15 MHz	QPSK	1770.0	H	139	2	8.19	1 / 0	11.06	19.25	0.084	30.00	-10.75
		1717.5	H	146	4	8.70	1 / 0	13.62	22.32	0.171	30.00	-7.68
	16-QAM 64-QAM	1745.0	H	100	164	8.18	1 / 37	13.13	21.31	0.135	30.00	-8.69
		1772.5	H	139	2	8.20	1 / 0	12.75	20.95	0.124	30.00	-9.05
10 MHz	QPSK	1717.5	H	146	4	8.70	1 / 0	12.83	21.53	0.142	30.00	-8.47
		1717.5	H	146	4	8.70	1 / 0	9.94	18.64	0.073	30.00	-11.36
	16-QAM 64-QAM	1715.0	H	146	4	8.75	1 / 0	13.41	22.16	0.164	30.00	-7.84
		1745.0	H	100	164	8.18	1 / 25	13.19	21.37	0.137	30.00	-8.63
5 MHz	QPSK	1775.0	H	139	2	8.21	1 / 0	12.82	21.03	0.127	30.00	-8.97
		1715.0	H	146	4	8.75	1 / 0	12.53	21.28	0.134	30.00	-8.72
	16-QAM 64-QAM	1715.0	H	146	4	8.75	1 / 0	9.83	18.58	0.072	30.00	-11.42
		1712.5	H	146	4	8.80	1 / 12	13.96	22.76	0.189	30.00	-7.24
3 MHz	QPSK	1745.0	H	100	164	8.18	1 / 12	13.21	21.39	0.138	30.00	-8.61
		1777.5	H	139	2	8.23	1 / 12	13.34	21.57	0.143	30.00	-8.43
	16-QAM 64-QAM	1712.5	H	146	4	8.80	1 / 12	13.21	22.01	0.159	30.00	-7.99
		1712.5	H	146	4	8.80	1 / 12	10.43	19.23	0.084	30.00	-10.77
1.4 MHz	QPSK	1711.5	H	146	4	8.82	1 / 7	14.05	22.87	0.194	30.00	-7.13
		1745.0	H	100	164	8.18	1 / 7	13.25	21.43	0.139	30.00	-8.57
	16-QAM 64-QAM	1778.5	H	139	2	8.23	1 / 7	13.17	21.40	0.138	30.00	-8.60
		1711.5	H	146	4	8.82	1 / 7	13.92	22.74	0.188	30.00	-7.26
3MHz	QPSK	1711.5	H	146	4	8.82	1 / 7	10.37	19.19	0.083	30.00	-10.81
		1710.7	H	146	4	8.83	1 / 3	13.38	22.21	0.166	30.00	-7.79
	16-QAM 64-QAM	1745.0	H	100	164	8.18	1 / 3	12.75	20.93	0.124	30.00	-9.07
		1779.3	H	139	2	8.23	1 / 3	12.92	21.15	0.130	30.00	-8.85
Opposite Pol.	1710.7	H	146	4	8.83	1 / 3	12.62	21.45	0.140	30.00	-8.55	
Opposite Pol.	1710.7	H	146	4	8.83	1 / 3	9.61	18.44	0.070	30.00	-11.56	
Opposite Pol.	1711.5	V	100	46	8.82	1 / 7	11.54	20.36	0.109	30.00	-9.64	

Table 7-10. EIRP Data (Band 4/66)

FCC ID: ZNFK920AM	 Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 313 of 389

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	1860.0	V	141	124	8.62	1 / 0	14.42	<b>23.04</b>	0.201	33.01	-9.97
		1882.5	V	170	124	8.50	1 / 0	13.49	21.99	0.158	33.01	-11.02
		1905.0	V	198	131	8.42	1 / 0	12.86	21.28	0.134	33.01	-11.73
	64-QAM	1860.0	V	141	124	8.62	1 / 0	13.88	<b>22.50</b>	0.178	33.01	-10.51
64-QAM	1860.0	V	141	124	8.62	1 / 0	13.30	<b>21.92</b>	0.156	33.01	-11.09	
15 MHz	QPSK	1857.5	V	141	124	8.63	1 / 0	14.20	<b>22.83</b>	0.192	33.01	-10.18
		1882.5	V	170	124	8.50	1 / 0	13.24	21.74	0.149	33.01	-11.27
		1907.5	V	198	131	8.42	1 / 0	13.11	21.53	0.142	33.01	-11.48
	64-QAM	1857.5	V	141	124	8.63	1 / 0	13.54	<b>22.17</b>	0.165	33.01	-10.84
64-QAM	1857.5	V	141	124	8.63	1 / 0	12.69	<b>21.32</b>	0.136	33.01	-11.69	
10 MHz	QPSK	1855.0	V	141	124	8.65	1 / 0	14.12	<b>22.77</b>	0.189	33.01	-10.24
		1882.5	V	170	124	8.50	1 / 0	12.87	21.37	0.137	33.01	-11.64
		1910.0	V	198	131	8.43	1 / 0	12.90	21.33	0.136	33.01	-11.68
	64-QAM	1855.0	V	141	124	8.65	1 / 0	13.38	<b>22.03</b>	0.159	33.01	-10.98
64-QAM	1855.0	V	141	124	8.65	1 / 0	13.06	<b>21.71</b>	0.148	33.01	-11.30	
5 MHz	QPSK	1852.5	V	141	124	8.66	1 / 12	14.69	<b>23.35</b>	0.216	33.01	-9.66
		1882.5	V	170	124	8.50	1 / 12	12.93	21.43	0.139	33.01	-11.58
		1912.5	V	198	131	8.44	1 / 12	12.61	21.05	0.127	33.01	-11.96
	64-QAM	1852.5	V	141	124	8.66	1 / 12	13.76	<b>22.42</b>	0.175	33.01	-10.59
64-QAM	1852.5	V	141	124	8.66	1 / 12	12.91	<b>21.57</b>	0.144	33.01	-11.44	
3 MHz	QPSK	1851.5	V	141	124	8.66	1 / 7	14.71	<b>23.37</b>	0.217	33.01	-9.64
		1882.5	V	170	124	8.50	1 / 7	12.96	21.46	0.140	33.01	-11.55
		1913.5	V	198	131	8.44	1 / 7	12.60	21.04	0.127	33.01	-11.97
	64-QAM	1851.5	V	141	124	8.66	1 / 7	13.89	<b>22.55</b>	0.180	33.01	-10.46
64-QAM	1851.5	V	141	124	8.66	1 / 7	12.96	<b>21.62</b>	0.145	33.01	-11.39	
1.4 MHz	QPSK	1850.7	V	141	124	8.67	1 / 3	14.14	<b>22.81</b>	0.191	33.01	-10.20
		1882.5	V	170	124	8.50	1 / 3	12.39	20.89	0.123	33.01	-12.12
		1914.3	V	198	131	8.44	1 / 3	12.06	20.50	0.112	33.01	-12.51
	64-QAM	1850.7	V	141	124	8.67	1 / 3	13.26	<b>21.93</b>	0.156	33.01	-11.08
64-QAM	1850.7	V	141	124	8.67	1 / 3	11.33	<b>20.00</b>	0.100	33.01	-13.01	
3MHz	Opposite Pol.	1851.5	H	369	38	8.66	1 / 7	13.61	22.27	0.169	33.01	-10.74

Table 7-11. EIRP Data (Band 2/25)


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]
10 MHz	QPSK	2310.0	H	149	331	9.62	1 / 25	10.68	<b>20.30</b>	0.107	23.98	-3.68
	16-QAM	2310.0	H	149	331	9.62	1 / 25	10.28	<b>19.90</b>	0.098	23.98	-4.08
	64-QAM	2310.0	H	149	331	9.62	1 / 25	9.84	<b>19.46</b>	0.088	23.98	-4.52
5 MHz	QPSK	2307.5	H	149	331	9.63	1 / 12	10.51	20.14	0.103	23.98	-3.84
		2310.0	H	149	331	9.62	1 / 12	10.71	<b>20.33</b>	0.108	23.98	-3.65
		2312.5	H	149	331	9.61	1 / 12	10.41	20.02	0.100	23.98	-3.96
	16-QAM	2307.5	H	149	331	9.63	1 / 12	9.62	19.25	0.084	23.98	-4.73
		2310.0	H	149	331	9.62	1 / 12	9.97	<b>19.59</b>	0.091	23.98	-4.39
		2312.5	H	149	331	9.61	1 / 12	9.71	19.32	0.086	23.98	-4.66
	64-QAM	2307.5	H	149	331	9.63	1 / 12	8.75	18.38	0.069	23.98	-5.60
		2310.0	H	149	331	9.62	1 / 12	9.33	<b>18.95</b>	0.079	23.98	-5.03
64-QAM	2312.5	H	149	331	9.61	1 / 12	8.96	18.57	0.072	23.98	-5.41	
5MHz	Opposite Pol.	2310.0	V	329	51	9.62	1 / 12	6.35	15.97	0.040	23.98	-8.01

Table 7-12. EIRP Data (Band 30)

FCC ID: ZNFK920AM	 PCTEST® Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset	Page 314 of 389	

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	2506.0	H	147	136	9.50	1 / 0	12.48	21.98	0.158	33.01	-11.03
		2593.0	H	151	348	9.62	1 / 0	15.35	<b>24.97</b>	0.314	33.01	-8.04
		2680.0	H	143	6	9.95	1 / 0	13.92	23.87	0.244	33.01	-9.14
	64-QAM	2680.0	H	143	6	9.95	1 / 0	14.73	<b>24.68</b>	0.294	33.01	-8.33
	64-QAM	2680.0	H	143	6	9.95	1 / 0	14.20	<b>24.15</b>	0.260	33.01	-8.86
15 MHz	QPSK	2503.5	H	147	136	9.49	1 / 0	12.10	21.59	0.144	33.01	-11.42
		2593.0	H	151	348	9.62	1 / 0	15.47	<b>25.09</b>	0.323	33.01	-7.92
		2682.5	H	143	6	9.97	1 / 0	13.92	23.89	0.245	33.01	-9.12
	16-QAM	2593.0	H	151	348	9.62	1 / 0	14.95	<b>24.57</b>	0.286	33.01	-8.44
	64-QAM	2593.0	H	151	348	9.62	1 / 0	14.52	<b>24.14</b>	0.259	33.01	-8.87
10 MHz	QPSK	2501.0	H	147	136	9.49	1 / 0	11.03	20.52	0.113	33.01	-12.49
		2593.0	H	151	348	9.62	1 / 0	15.67	<b>25.29</b>	0.338	33.01	-7.72
		2685.0	H	143	6	9.98	1 / 0	14.41	24.39	0.275	33.01	-8.62
	16-QAM	2593.0	H	151	348	9.62	1 / 0	15.12	<b>24.74</b>	0.298	33.01	-8.27
	64-QAM	2593.0	H	151	348	9.62	1 / 0	14.56	<b>24.18</b>	0.262	33.01	-8.83
5 MHz	QPSK	2498.5	H	147	136	9.48	1 / 0	10.08	19.56	0.090	33.01	-13.45
		2593.0	H	151	348	9.62	1 / 12	15.48	<b>25.10</b>	0.324	33.01	-7.91
		2687.5	H	143	6	9.99	1 / 12	14.69	24.68	0.294	33.01	-8.33
	16-QAM	2593.0	H	151	348	9.62	1 / 12	14.82	<b>24.44</b>	0.278	33.01	-8.57
	64-QAM	2593.0	H	151	348	9.62	1 / 12	14.21	<b>23.83</b>	0.242	33.01	-9.18
20MHz	Opposite Pol.	2593.0	V	108	125	9.62	1 / 0	14.19	23.81	0.240	33.01	-9.20

Table 7-13. EIRP Data (Band 41 (PC3))

FCC ID: ZNFK920AM	 PCTEST <sup>®</sup> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	 LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 315 of 389

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	155	297	4.09	1 / 50	16.85	<b>20.94</b>	0.124	36.99	-16.05	<b>18.79</b>	0.076	34.77	-15.98
		680.5	V	164	236	4.24	1 / 50	16.29	20.53	0.113	36.99	-16.46	18.38	0.069	34.77	-16.40
		688.0	V	138	208	4.48	1 / 50	15.70	20.18	0.104	36.99	-16.81	18.03	0.064	34.77	-16.74
	QPSK	673.0	V	155	297	4.09	1 / 50	16.92	<b>21.01</b>	0.126	36.99	-15.98	<b>18.86</b>	0.077	34.77	-15.91
		680.5	V	164	236	4.24	1 / 50	16.17	20.41	0.110	36.99	-16.58	18.26	0.067	34.77	-16.52
		688.0	V	138	208	4.48	1 / 50	15.73	20.21	0.105	36.99	-16.78	18.06	0.064	34.77	-16.71
		673.0	V	155	297	4.09	1 / 50	17.63	<b>21.72</b>	0.149	36.99	-15.27	<b>19.57</b>	0.091	34.77	-15.20
		673.0	V	155	297	4.09	1 / 50	17.22	<b>21.31</b>	0.135	36.99	-15.68	<b>19.16</b>	0.082	34.77	-15.61
256-QAM	673.0	V	155	297	4.09	1 / 50	14.95	<b>19.04</b>	0.080	36.99	-17.95	<b>16.89</b>	0.049	34.77	-17.88	
15 MHz	π/2 BPSK	670.5	V	155	297	3.96	1 / 40	16.84	<b>20.80</b>	0.120	36.99	-16.19	<b>18.65</b>	0.073	34.77	-16.12
		680.5	V	164	236	4.24	1 / 40	16.02	20.26	0.106	36.99	-16.73	18.11	0.065	34.77	-16.67
		690.5	V	138	208	4.41	1 / 40	15.67	20.08	0.102	36.99	-16.91	17.93	0.062	34.77	-16.84
	QPSK	670.5	V	155	297	3.96	1 / 40	16.63	<b>20.59</b>	0.115	36.99	-16.40	<b>18.44</b>	0.070	34.77	-16.33
		680.5	V	164	236	4.24	1 / 40	15.69	19.93	0.098	36.99	-17.06	17.78	0.060	34.77	-17.00
		690.5	V	138	208	4.41	1 / 40	15.32	19.73	0.094	36.99	-17.26	17.58	0.057	34.77	-17.19
		670.5	V	155	297	3.96	1 / 40	17.29	<b>21.25</b>	0.133	36.99	-15.74	<b>19.10</b>	0.081	34.77	-15.67
		670.5	V	155	297	3.96	1 / 40	17.26	<b>21.22</b>	0.132	36.99	-15.77	<b>19.07</b>	0.081	34.77	-15.70
256-QAM	670.5	V	155	297	3.96	1 / 40	15.64	<b>19.60</b>	0.091	36.99	-17.39	<b>17.45</b>	0.056	34.77	-17.32	
10 MHz	π/2 BPSK	668.0	V	155	297	3.82	1 / 1	16.79	<b>20.62</b>	0.115	36.99	-16.37	<b>18.47</b>	0.070	34.77	-16.30
		680.5	V	164	236	4.24	1 / 1	16.22	20.46	0.111	36.99	-16.53	18.31	0.068	34.77	-16.47
		693.0	V	138	208	4.44	1 / 1	16.17	20.61	0.115	36.99	-16.38	18.46	0.070	34.77	-16.31
	QPSK	668.0	V	155	297	3.82	1 / 1	16.45	20.28	0.107	36.99	-16.71	18.13	0.065	34.77	-16.64
		680.5	V	164	236	4.24	1 / 1	15.82	20.06	0.101	36.99	-16.93	17.91	0.062	34.77	-16.87
		693.0	V	138	208	4.44	1 / 1	16.06	<b>20.50</b>	0.112	36.99	-16.49	<b>18.35</b>	0.068	34.77	-16.42
		668.0	V	155	297	3.82	1 / 1	17.51	<b>21.34</b>	0.136	36.99	-15.65	<b>19.19</b>	0.083	34.77	-15.58
		668.0	V	155	297	3.82	1 / 1	16.97	<b>20.80</b>	0.120	36.99	-16.19	<b>18.65</b>	0.073	34.77	-16.12
256-QAM	668.0	V	155	297	3.82	1 / 1	14.97	<b>18.80</b>	0.076	36.99	-18.19	<b>16.65</b>	0.046	34.77	-18.12	
5 MHz	π/2 BPSK	665.5	V	155	297	3.79	1 / 1	17.38	<b>21.17</b>	0.131	36.99	-15.82	<b>19.02</b>	0.080	34.77	-15.75
		680.5	V	164	236	4.24	1 / 1	16.06	20.30	0.107	36.99	-16.69	18.15	0.065	34.77	-16.63
		695.5	V	138	208	4.58	1 / 1	15.82	20.39	0.109	36.99	-16.60	18.24	0.067	34.77	-16.53
	QPSK	665.5	V	155	297	3.79	1 / 1	17.05	<b>20.84</b>	0.121	36.99	-16.15	<b>18.69</b>	0.074	34.77	-16.08
		680.5	V	164	236	4.24	1 / 1	15.70	19.94	0.099	36.99	-17.05	17.79	0.060	34.77	-16.99
		695.5	V	138	208	4.58	1 / 1	15.91	20.48	0.112	36.99	-16.51	18.33	0.068	34.77	-16.44
		695.5	V	138	208	4.58	1 / 1	17.10	<b>21.67</b>	0.147	36.99	-15.32	<b>19.52</b>	0.090	34.77	-15.25
		695.5	V	138	208	4.58	1 / 1	16.78	<b>21.35</b>	0.136	36.99	-15.64	<b>19.20</b>	0.083	34.77	-15.57
256-QAM	695.5	V	138	208	4.58	1 / 1	14.27	<b>18.84</b>	0.077	36.99	-18.15	<b>16.69</b>	0.047	34.77	-18.08	
20MHz	QPSK (CP-OFDM)	673.0	V	155.0	297.0	4.09	1 / 50	14.28	18.37	0.069	36.99	-18.62	16.22	0.042	34.77	-18.55
	QPSK (Opposite Pol.)	673.0	H	155.0	297.0	4.09	1 / 50	13.99	18.08	0.064	36.99	-18.91	15.93	0.039	34.77	-18.84

Table 7-14. ERP Data (n71)

FCC ID: ZNFK920AM	 PCTEST® Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 316 of 389

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	
20 MHz	π/2 BPSK	834.0	V	175	345	6.35	1 / 50	13.34	<b>17.54</b>	0.057	38.45	-20.91	<b>19.69</b>	0.093	40.61	-20.91	
		836.5	V	185	356	6.38	1 / 50	13.14	17.37	0.055	38.45	-21.08	19.52	0.090	40.61	-21.09	
		839.0	V	173	328	6.40	1 / 50	13.04	17.29	0.054	38.45	-21.16	19.44	0.088	40.61	-21.16	
	QPSK	834.0	V	175	345	6.35	1 / 50	13.52	<b>17.72</b>	0.059	38.45	-20.73	<b>19.87</b>	0.097	40.61	-20.73	
		836.5	V	185	356	6.38	1 / 50	13.24	17.47	0.056	38.45	-20.98	19.62	0.092	40.61	-20.99	
		839.0	V	173	328	6.40	1 / 50	12.34	16.59	0.046	38.45	-21.86	18.74	0.075	40.61	-21.86	
		16-QAM	834.0	V	175	345	6.35	1 / 50	12.82	<b>17.02</b>	0.050	38.45	-21.43	<b>19.17</b>	0.083	40.61	-21.43
		64-QAM	834.0	V	175	345	6.35	1 / 50	12.30	<b>16.50</b>	0.045	38.45	-21.08	<b>18.65</b>	0.073	40.61	-21.95
256-QAM	834.0	V	175	345	6.35	1 / 50	10.56	<b>14.76</b>	0.030	38.45	-23.69	<b>16.91</b>	0.049	40.61	-23.69		
15 MHz	π/2 BPSK	831.5	V	175	345	6.43	1 / 37	13.50	<b>17.77</b>	0.060	38.45	-20.68	<b>19.92</b>	0.098	40.61	-20.68	
		836.5	V	185	356	6.38	1 / 37	12.79	17.02	0.050	38.45	-21.43	19.17	0.083	40.61	-21.44	
		841.5	V	173	328	6.43	1 / 37	12.44	16.72	0.047	38.45	-21.73	18.87	0.077	40.61	-21.73	
	QPSK	831.5	V	175	345	6.43	1 / 37	13.85	<b>18.12</b>	0.065	38.45	-20.33	<b>20.27</b>	0.106	40.61	-20.33	
		836.5	V	185	356	6.38	1 / 37	13.39	17.62	0.058	38.45	-20.83	19.77	0.095	40.61	-20.84	
		841.5	V	173	328	6.43	1 / 37	12.32	16.60	0.046	38.45	-21.85	18.75	0.075	40.61	-21.85	
		16-QAM	836.5	V	185	356	6.38	1 / 37	12.93	<b>17.16</b>	0.052	38.45	-21.29	<b>19.31</b>	0.085	40.61	-21.30
	64-QAM	836.5	V	185	356	6.38	1 / 37	12.48	<b>16.71</b>	0.047	38.45	-21.74	<b>18.86</b>	0.077	40.61	-21.75	
	256-QAM	836.5	V	185	356	6.38	1 / 37	10.85	<b>15.08</b>	0.032	38.45	-23.37	<b>17.23</b>	0.053	40.61	-23.38	
	10 MHz	π/2 BPSK	829.0	V	175	345	6.40	1 / 25	14.59	<b>18.84</b>	0.077	38.45	-19.61	<b>20.99</b>	0.126	40.61	-19.61
836.5			V	185	356	6.38	1 / 25	13.69	17.92	0.062	38.45	-20.53	20.07	0.102	40.61	-20.53	
844.0			V	173	328	6.46	1 / 25	13.51	17.81	0.060	38.45	-20.64	19.96	0.099	40.61	-20.64	
QPSK		829.0	V	175	345	6.40	1 / 25	13.22	17.47	0.056	38.45	-20.98	19.62	0.092	40.61	-20.98	
		836.5	V	185	356	6.38	1 / 25	14.02	<b>18.25</b>	0.067	38.45	-20.20	<b>20.40</b>	0.110	40.61	-20.20	
		844.0	V	173	328	6.46	1 / 25	12.80	17.10	0.051	38.45	-21.35	19.25	0.084	40.61	-21.35	
		16-QAM	836.5	V	185	356	6.38	1 / 25	13.16	<b>17.39</b>	0.055	38.45	-21.06	<b>19.54</b>	0.090	40.61	-21.06
64-QAM		836.5	V	185	356	6.38	1 / 25	12.48	<b>16.70</b>	0.047	38.45	-21.75	<b>18.85</b>	0.077	40.61	-21.75	
256-QAM	836.5	V	185	356	6.38	1 / 25	11.00	<b>15.23</b>	0.033	38.45	-23.22	<b>17.38</b>	0.055	40.61	-23.22		
5 MHz	π/2 BPSK	829.0	V	175	345	1.26	1 / 12	18.84	<b>17.95</b>	0.062	38.45	-20.50	<b>20.10</b>	0.102	40.61	-20.50	
		836.5	V	185	356	6.38	1 / 12	12.60	16.83	0.048	38.45	-21.62	18.98	0.079	40.61	-21.63	
		844.0	V	173	328	6.48	1 / 12	12.16	16.49	0.045	38.45	-21.96	18.64	0.073	40.61	-21.96	
	QPSK	829.0	V	175	345	6.37	1 / 12	13.85	<b>18.07</b>	0.064	38.45	-20.38	<b>20.22</b>	0.105	40.61	-20.38	
		836.5	V	185	356	6.38	1 / 12	13.39	17.61	0.058	38.45	-20.84	19.76	0.095	40.61	-20.84	
		844.0	V	173	328	6.48	1 / 12	12.03	16.36	0.043	38.45	-22.09	18.51	0.071	40.61	-22.09	
		16-QAM	836.5	V	185	356	6.38	1 / 12	12.73	<b>16.96</b>	0.050	38.45	-21.49	<b>19.11</b>	0.082	40.61	-21.49
	64-QAM	836.5	V	185	356	6.38	1 / 12	12.86	<b>17.09</b>	0.051	38.45	-21.36	<b>19.24</b>	0.084	40.61	-21.36	
256-QAM	836.5	V	185	356	6.38	1 / 12	10.84	<b>15.07</b>	0.032	38.45	-23.38	<b>17.22</b>	0.053	40.61	-23.39		
20MHz	QPSK (CP-OFDM)	834.0	V	175	345	6.35	1 / 50	5.78	<b>12.13</b>	0.016	38.45	-26.32	14.28	0.027	40.61	-26.32	
	QPSK (Opposite Pol.)	834.0	H	175	345	6.35	1 / 50	4.42	10.77	0.012	38.45	-27.68	12.92	0.020	40.61	-27.68	

Table 7-15. ERP Data (n5)

FCC ID: ZNFK920AM	 PCTEST <sup>®</sup> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	 LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 317 of 389



Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	ERP [dBm]	ERP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	π/2 BPSK	1720.0	V	231	158	9.31	1 / 50	11.29	<b>20.60</b>	0.115	30.00	-9.40
		1745.0	V	224	166	9.14	1 / 50	11.11	20.25	0.106	30.00	-9.75
		1770.0	V	220	149	9.17	1 / 50	10.73	19.90	0.098	30.00	-10.10
	QPSK	1720.0	V	231	158	9.31	1 / 50	11.41	<b>20.72</b>	0.118	30.00	-9.28
		1745.0	V	224	166	9.14	1 / 50	11.09	20.23	0.105	30.00	-9.77
		1770.0	V	220	149	9.17	1 / 50	10.66	19.83	0.096	30.00	-10.17
	16-QAM	1720.0	V	231	158	9.31	1 / 50	10.60	<b>19.91</b>	0.098	30.00	-10.09
64-QAM	1720.0	V	231	158	9.31	1 / 50	11.24	<b>20.55</b>	0.114	30.00	-9.45	
256-QAM	1720.0	V	231	158	9.31	1 / 50	8.96	<b>18.27</b>	0.067	30.00	-11.73	
15 MHz	π/2 BPSK	1717.5	V	231	158	9.33	1 / 37	11.22	<b>20.55</b>	0.114	30.00	-9.45
		1745.0	V	224	166	9.14	1 / 37	11.18	20.32	0.108	30.00	-9.68
		1772.5	V	220	149	9.18	1 / 37	10.96	20.14	0.103	30.00	-9.86
	QPSK	1717.5	V	231	158	9.33	1 / 37	10.59	<b>19.92</b>	0.098	30.00	-10.08
		1745.0	V	224	166	9.14	1 / 37	10.32	19.46	0.088	30.00	-10.54
		1772.5	V	220	149	9.18	1 / 37	10.11	19.29	0.085	30.00	-10.71
	16-QAM	1717.5	V	231	158	9.33	1 / 37	10.57	<b>19.90</b>	0.098	30.00	-10.10
64-QAM	1717.5	V	231	158	9.33	1 / 37	11.17	<b>20.50</b>	0.112	30.00	-9.50	
256-QAM	1717.5	V	231	158	9.33	1 / 37	8.91	<b>18.24</b>	0.067	30.00	-11.76	
10 MHz	π/2 BPSK	1715.0	V	231	158	9.35	1 / 25	11.00	<b>20.35</b>	0.108	30.00	-9.65
		1745.0	V	224	166	9.14	1 / 25	10.98	20.12	0.103	30.00	-9.88
		1775.0	V	220	149	9.18	1 / 25	10.76	19.94	0.099	30.00	-10.06
	QPSK	1715.0	V	231	158	9.35	1 / 25	10.36	<b>19.71</b>	0.093	30.00	-10.29
		1745.0	V	224	166	9.14	1 / 25	10.11	19.25	0.084	30.00	-10.75
		1775.0	V	220	149	9.18	1 / 25	9.90	19.08	0.081	30.00	-10.92
	16-QAM	1715.0	V	231	158	9.35	1 / 25	10.32	<b>19.67</b>	0.093	30.00	-10.33
64-QAM	1715.0	V	231	158	9.35	1 / 25	11.08	<b>20.43</b>	0.110	30.00	-9.57	
256-QAM	1715.0	V	231	158	9.35	1 / 25	8.67	<b>18.02</b>	0.063	30.00	-11.98	
5 MHz	π/2 BPSK	1712.5	V	231	158	9.37	1 / 12	11.12	<b>20.48</b>	0.112	30.00	-9.52
		1745.0	V	224	166	9.14	1 / 12	11.11	20.25	0.106	30.00	-9.75
		1777.5	V	220	149	9.19	1 / 12	10.88	20.07	0.102	30.00	-9.93
	QPSK	1712.5	V	231	158	9.37	1 / 12	10.40	<b>19.77</b>	0.095	30.00	-10.23
		1745.0	V	224	166	9.14	1 / 12	10.17	19.31	0.085	30.00	-10.69
		1777.5	V	220	149	9.19	1 / 12	9.95	19.14	0.082	30.00	-10.86
	16-QAM	1712.5	V	231	158	9.37	1 / 12	10.46	<b>19.82</b>	0.096	30.00	-10.18
64-QAM	1712.5	V	231	158	9.37	1 / 12	11.25	<b>20.61</b>	0.115	30.00	-9.39	
256-QAM	1712.5	V	231	158	9.37	1 / 12	8.63	17.99	0.063	30.00	-12.01	
20MHz	QPSK (CP-OFDM)	1720.0	V	231	158	9.31	1 / 50	10.23	<b>19.54</b>	0.090	30.00	-10.46
	QPSK (Opposite Pol.)	1720.0	H	231	158	9.31	1 / 50	9.41	18.72	0.075	30.00	-11.28

Table 7-16. ERP Data (n66)

FCC ID: ZNFK920AM	 PCTEST <sup>®</sup> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	 LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset	Page 318 of 389	

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	1860.0	H	166	343	9.64	1 / 50	10.92	20.56	0.114	33.01	-12.45	
		1880.0	H	168	320	9.93	1 / 50	11.01	<b>20.94</b>	0.124	33.01	-12.07	
		1900.0	H	155	308	10.20	1 / 50	9.72	19.92	0.098	33.01	-13.09	
	QPSK	1860.0	H	166	343	9.64	1 / 50	10.93	20.57	0.114	33.01	-12.44	
		1880.0	H	168	320	9.93	1 / 50	11.26	<b>21.19</b>	0.131	33.01	-11.82	
		1900.0	H	155	308	10.20	1 / 50	9.88	20.08	0.102	33.01	-12.93	
	16-QAM	1880.0	H	168	320	9.93	1 / 50	10.80	<b>20.73</b>	0.118	33.01	-12.28	
		64-QAM	1880.0	H	168	320	9.93	1 / 50	10.61	<b>20.54</b>	0.113	33.01	-12.47
		256-QAM	1880.0	H	168	320	9.93	1 / 50	8.38	<b>18.31</b>	0.068	33.01	-14.70
15 MHz	π/2 BPSK	1857.5	H	166	343	9.61	1 / 37	11.59	<b>21.19</b>	0.132	33.01	-11.82	
		1880.0	H	168	320	9.93	1 / 37	11.19	21.12	0.129	33.01	-11.89	
		1902.5	H	155	308	10.22	1 / 37	9.84	20.06	0.101	33.01	-12.95	
	QPSK	1857.5	H	166	343	9.61	1 / 37	10.92	20.52	0.113	33.01	-12.49	
		1880.0	H	168	320	9.93	1 / 37	11.33	<b>21.26</b>	0.134	33.01	-11.75	
		1902.5	H	155	308	10.22	1 / 37	9.19	19.41	0.087	33.01	-13.60	
	16-QAM	1880.0	H	168	320	9.93	1 / 37	11.72	<b>21.65</b>	0.146	33.01	-11.36	
		64-QAM	1880.0	H	168	320	9.93	1 / 37	11.51	<b>21.44</b>	0.139	33.01	-11.57
		256-QAM	1880.0	H	168	320	9.93	1 / 37	8.86	<b>18.79</b>	0.076	33.01	-14.22
10 MHz	π/2 BPSK	1855.0	H	166	343	9.57	1 / 25	11.02	20.59	0.115	33.01	-12.42	
		1880.0	H	168	320	9.93	1 / 25	11.30	<b>21.23</b>	0.133	33.01	-11.78	
		1905.0	H	155	308	10.24	1 / 25	9.75	19.99	0.100	33.01	-13.02	
	QPSK	1855.0	H	166	343	9.57	1 / 25	10.30	19.87	0.097	33.01	-13.14	
		1880.0	H	168	320	9.93	1 / 25	11.27	<b>21.20</b>	0.132	33.01	-11.81	
		1905.0	H	155	308	10.24	1 / 25	9.31	19.55	0.090	33.01	-13.46	
	16-QAM	1880.0	H	168	320	9.93	1 / 25	11.70	<b>21.63</b>	0.145	33.01	-11.38	
		64-QAM	1880.0	H	168	320	9.93	1 / 25	10.72	<b>20.65</b>	0.116	33.01	-12.36
		256-QAM	1880.0	H	168	320	9.93	1 / 25	8.19	<b>18.12</b>	0.065	33.01	-14.89
5 MHz	π/2 BPSK	1852.5	H	166	343	9.54	1 / 12	10.79	20.32	0.108	33.01	-12.69	
		1880.0	H	168	320	9.93	1 / 12	10.97	<b>20.90</b>	0.123	33.01	-12.11	
		1907.5	H	155	308	10.26	1 / 12	9.54	19.80	0.096	33.01	-13.21	
	QPSK	1852.5	H	166	343	9.54	1 / 12	10.03	19.56	0.090	33.01	-13.45	
		1880.0	H	168	320	9.93	1 / 12	11.02	<b>20.95</b>	0.124	33.01	-12.06	
		1907.5	H	155	308	10.26	1 / 12	9.64	19.90	0.098	33.01	-13.11	
	16-QAM	1907.5	H	155	308	10.26	1 / 12	11.33	<b>21.60</b>	0.144	33.01	-11.41	
		64-QAM	1880.0	H	168	320	9.93	1 / 12	11.21	<b>21.14</b>	0.130	33.01	-11.87
		256-QAM	1880.0	H	168	320	9.93	1 / 12	9.01	<b>18.94</b>	0.078	33.01	-14.07
20MHz	QPSK (CP-OFDM)	1880.0	H	168	320	9.93	1 / 50	9.93	<b>19.86</b>	0.097	33.01	-13.15	
	QPSK (Opposite Pol.)	1880.0	V	135	21	9.93	1 / 50	9.51	19.44	0.088	33.01	-13.57	

Table 7-17. ERP Data (n2)

FCC ID: ZNFK920AM	 PCTEST <sup>®</sup> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	 LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset	Page 319 of 389	

## 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 vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas.

### Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.8

ANSI/TIA-603-E-2016 – Section 2.2.12

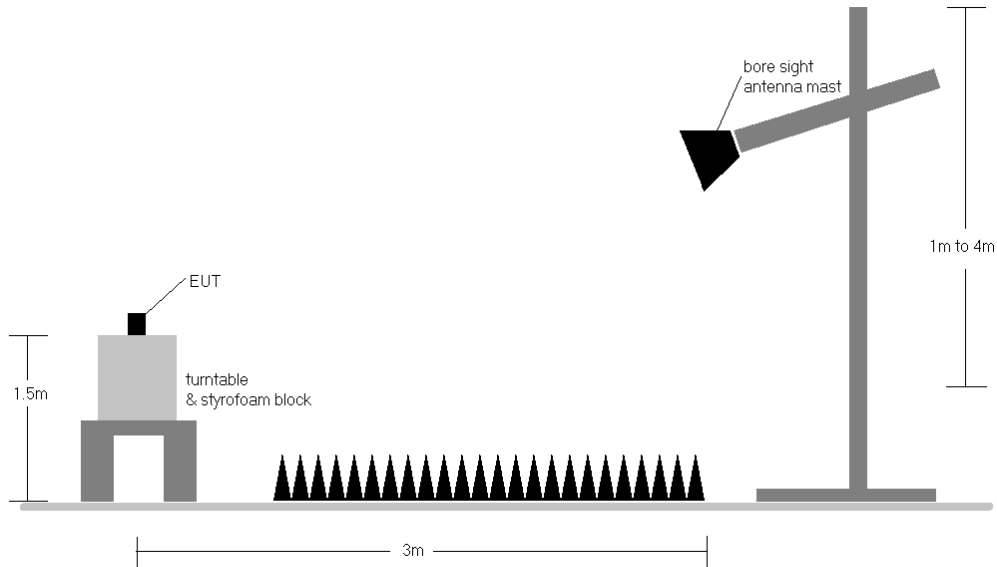
### Test Settings

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

FCC ID: ZNFK920AM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 320 of 389

**Test Setup**

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



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

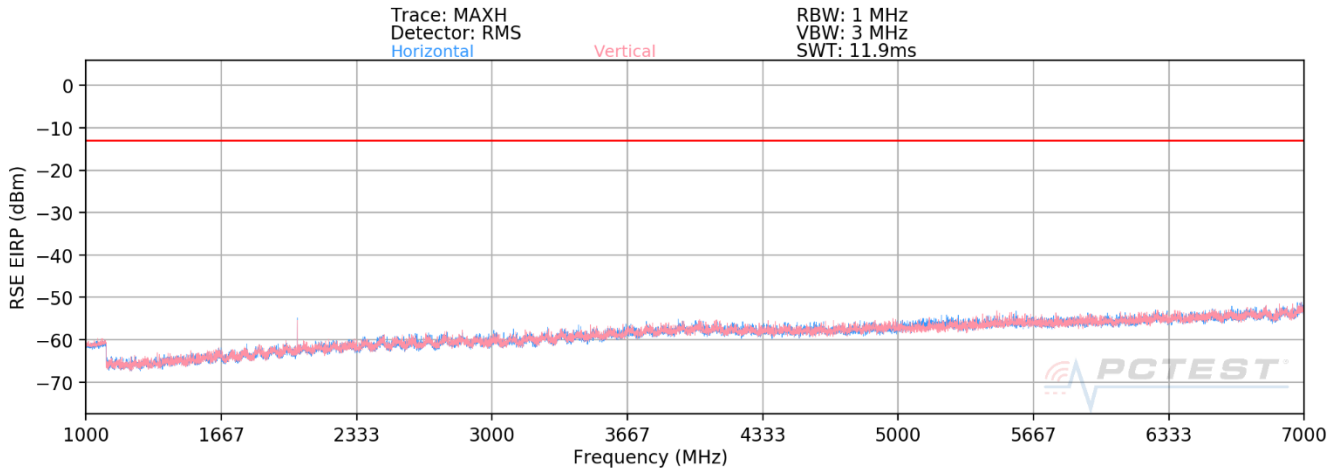
**Test Notes**

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

FCC ID: ZNFK920AM	 <b>PCTEST</b> Proud to be part of 	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset		Page 321 of 389

## 7.8.1 Radiated Spurious Emissions Measurements

### Band 71



Plot 7-558. Radiated Spurious Plot above 1GHz (Band 71)

Bandwidth (MHz):	20
Frequency (MHz):	673.0
RB / Offset:	1 / 50
Detector / Trace Mode:	RMS / Average
RBW / VBW:	1MHz / 3MHz

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	H	201	101	-73.87	-9.07	24.06	-71.19	-13.00	-58.19
2019.0	H	136	315	-71.52	-5.28	30.20	-65.06	-13.00	-52.06
2692.0	H	-	-	-75.64	-2.78	28.58	-66.68	-13.00	-53.68
3365.0	H	-	-	-76.39	-0.93	29.68	-65.57	-13.00	-52.57
4038.0	H	-	-	-77.25	1.85	31.60	-63.65	-13.00	-50.65

Table 7-18. Radiated Spurious Data (Band 71 – Low Channel)

FCC ID: ZNFK920AM	 PCTEST <sup>®</sup> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 322 of 389

<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	680.5
<b>RB / Offset:</b>	1 / 50
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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	H	168	88	-72.03	-8.93	26.04	-69.22	-13.00	-56.22
2041.5	H	378	331	-69.35	-4.97	32.68	-62.57	-13.00	-49.57
2722.0	H	-	-	-76.92	-2.70	27.38	-67.87	-13.00	-54.87
3402.5	H	-	-	-76.61	-0.88	29.51	-65.74	-13.00	-52.74
4083.0	H	-	-	-77.15	1.57	31.42	-63.84	-13.00	-50.84

**Table 7-19. Radiated Spurious Data (Band 71 – Mid Channel)**

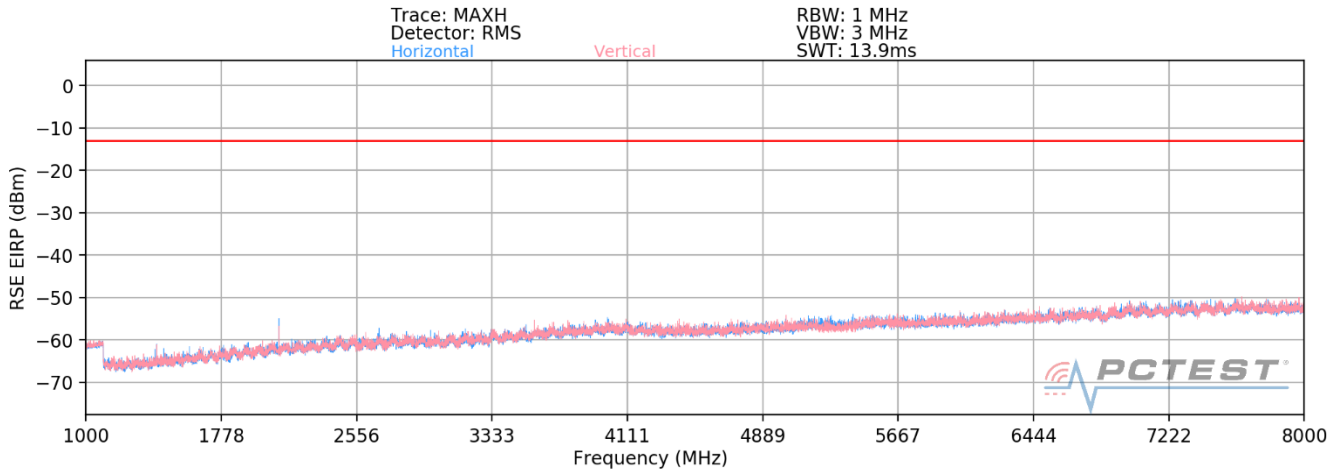
<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	688.0
<b>RB / Offset:</b>	1 / 50
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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	H	166	85	-71.95	-8.73	26.32	-68.93	-13.00	-55.93
2064.0	H	267	210	-70.81	-4.92	31.27	-63.99	-13.00	-50.99
2752.0	H	-	-	-76.21	-2.40	28.39	-66.87	-13.00	-53.87
3440.0	H	-	-	-75.86	-0.81	30.33	-64.93	-13.00	-51.93
4128.0	H	-	-	-77.07	1.30	31.23	-64.03	-13.00	-51.03

**Table 7-20. Radiated Spurious Data (Band 71 – High Channel)**

<b>FCC ID:</b> ZNFK920AM	 <b>PCTEST</b> Proud to be part of 	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset		Page 323 of 389

## Band 12/17



Plot 7-559. Radiated Spurious Plot above 1GHz (Band 12/17)

Bandwidth (MHz):	10
Frequency (MHz):	704.0
RB / Offset:	1 / 0
Detector / Trace Mode:	RMS / Average
RBW / VBW:	1MHz / 3MHz

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	208	182	-70.75	-8.37	27.88	-67.38	-13.00	-54.38
2112.0	H	320	352	-69.87	-4.76	32.37	-62.89	-13.00	-49.89
2816.0	H	-	-	-77.08	-2.34	27.58	-67.68	-13.00	-54.68
3520.0	H	-	-	-76.27	-0.76	29.97	-65.29	-13.00	-52.29
4224.0	H	-	-	-77.14	0.83	30.69	-64.57	-13.00	-51.57

Table 7-21. Radiated Spurious Data (Band 12/17 – Low Channel)

FCC ID: ZNFK920AM	 PCTEST® Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 324 of 389

<b>Bandwidth (MHz):</b>	10
<b>Frequency (MHz):</b>	707.5
<b>RB / Offset:</b>	1 / 0
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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	264	152	-68.71	-8.30	29.99	-65.26	-13.00	-52.26
2122.5	H	267	337	-70.16	-4.73	32.11	-63.14	-13.00	-50.14
2830.0	H	-	-	-76.82	-2.41	27.77	-67.48	-13.00	-54.48
3537.5	H	-	-	-76.26	-0.79	29.95	-65.31	-13.00	-52.31
4245.0	H	-	-	-77.21	0.66	30.45	-64.80	-13.00	-51.80

**Table 7-22. Radiated Spurious Data (Band 12/17 – Mid Channel)**

<b>Bandwidth (MHz):</b>	10
<b>Frequency (MHz):</b>	711.0
<b>RB / Offset:</b>	1 / 0
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

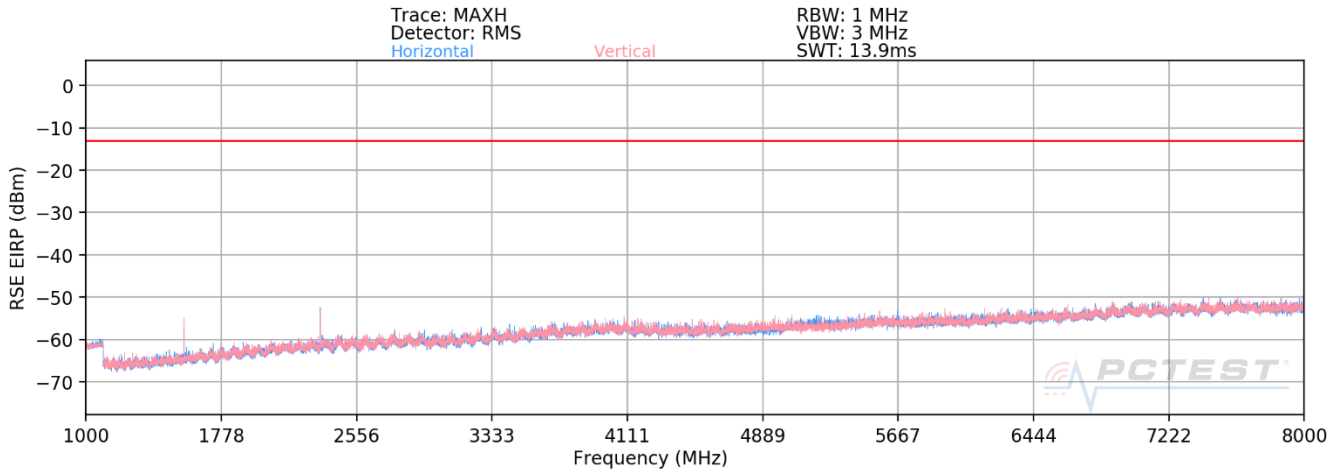
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1422.0	H	262	158	-70.16	-8.22	28.62	-66.64	-13.00	-53.64
2133.0	H	315	4	-69.30	-4.77	32.93	-62.33	-13.00	-49.33
2844.0	H	-	-	-76.34	-2.49	28.17	-67.09	-13.00	-54.09
3555.0	H	-	-	-76.92	-0.52	29.56	-65.69	-13.00	-52.69
4266.0	H	-	-	-76.91	1.07	31.16	-64.10	-13.00	-51.10

**Table 7-23. Radiated Spurious Data (Band 12/17 – High Channel)**

<b>FCC ID:</b> ZNFK920AM	 <b>PCTEST</b> Proud to be part of 	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset		Page 325 of 389



## Band 13



Plot 7-560. Radiated Spurious Plot above 1GHz (Band 13)

Bandwidth (MHz):	5
Frequency (MHz):	779.5
RB / Offset:	1 / 0
Detector / Trace Mode:	RMS / Average
RBW / VBW:	1MHz / 3MHz

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]
1559.0	H	133	14	-70.66	-7.55	28.79	-66.46	-40.00	-26.46
2338.5	H	326	356	-66.04	-3.86	37.10	-58.15	-13.00	-45.15
3118.0	H	-	-	-76.04	-1.94	29.02	-66.24	-13.00	-53.24
3897.5	H	-	-	-76.88	0.66	30.78	-64.47	-13.00	-51.47
4677.0	H	-	-	-77.73	1.32	30.59	-64.66	-13.00	-51.66

Table 7-24. Radiated Spurious Data (Band 13 – Low Channel)

FCC ID: ZNFK920AM	 PCTEST® Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 326 of 389

<b>Bandwidth (MHz):</b>	5
<b>Frequency (MHz):</b>	782.0
<b>RB / Offset:</b>	1 / 0
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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	246	185	-64.35	-7.51	35.14	-60.12	-40.00	-20.12
2346.0	H	328	348	-64.50	-3.82	38.68	-56.58	-13.00	-43.58
3128.0	H	-	-	-76.70	-1.92	28.38	-66.88	-13.00	-53.88
3910.0	H	-	-	-76.87	0.91	31.04	-64.22	-13.00	-51.22
4692.0	H	-	-	-77.37	1.41	31.04	-64.22	-13.00	-51.22

**Table 7-25. Radiated Spurious Data (Band 13 – Mid Channel)**

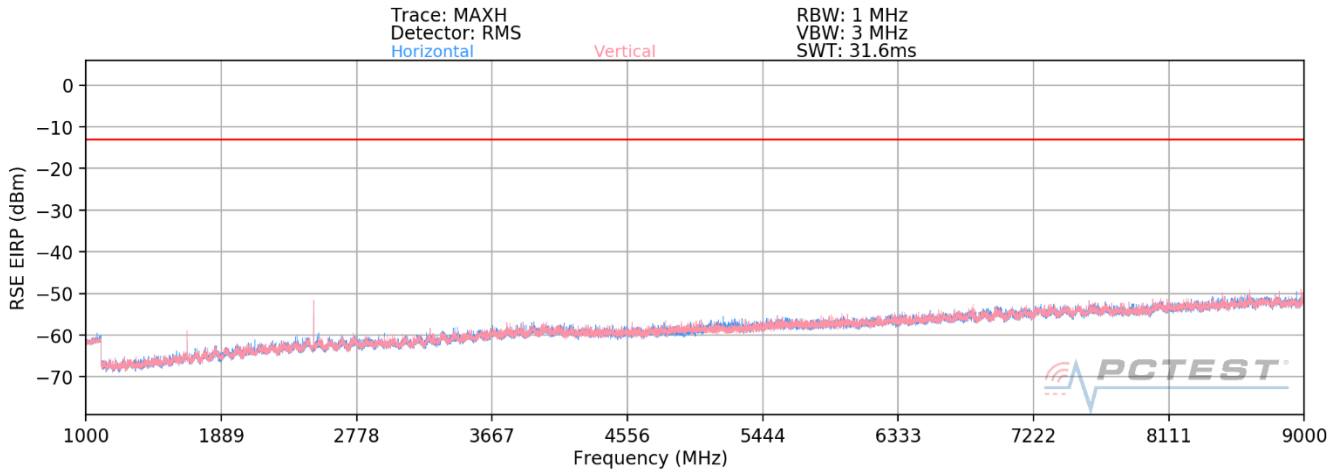
<b>Bandwidth (MHz):</b>	5
<b>Frequency (MHz):</b>	784.5
<b>RB / Offset:</b>	1 / 0
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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]
1569.0	H	146	10	-69.61	-7.48	29.91	-65.35	-40.00	-25.35
2353.5	H	117	14	-65.75	-3.71	37.54	-57.72	-13.00	-44.72
3138.0	H	-	-	-76.80	-1.90	28.30	-66.96	-13.00	-53.96
3922.5	H	-	-	-76.66	1.03	31.37	-63.89	-13.00	-50.89
4707.0	H	-	-	-77.20	1.31	31.11	-64.14	-13.00	-51.14

**Table 7-26. Radiated Spurious Data (Band 13 – High Channel)**

<b>FCC ID:</b> ZNFK920AM	 <b>PCTEST</b> Proud to be part of 	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset	Page 327 of 389	

## Band 26/5



**Plot 7-561. Radiated Spurious Plot above 1GHz (Band 26/5)**

<b>Bandwidth (MHz):</b>	10
<b>Frequency (MHz):</b>	829.0
<b>RB / Offset:</b>	1 / 0
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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]
1658.0	H	108	221	-68.54	-6.74	31.72	-63.53	-13.00	-50.53
2487.0	H	100	146	-66.01	-3.34	37.65	-57.61	-13.00	-44.61
3316.0	H	-	-	-77.44	-1.08	28.48	-66.78	-13.00	-53.78
4145.0	H	-	-	-77.36	1.29	30.93	-64.32	-13.00	-51.32
4974.0	H	-	-	-77.89	2.55	31.66	-63.60	-13.00	-50.60

**Table 7-27. Radiated Spurious Data (Band 26/5 – Low Channel)**

FCC ID: ZNFK920AM	 <b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 328 of 389

<b>Bandwidth (MHz):</b>	10
<b>Frequency (MHz):</b>	836.5
<b>RB / Offset:</b>	1 / 0
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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]
1673.0	H	163	340	-68.10	-6.79	32.11	-63.15	-13.00	-50.15
2509.5	H	137	137	-66.91	-3.24	36.85	-58.41	-13.00	-45.41
3346.0	H	-	-	-76.26	-0.97	29.77	-65.48	-13.00	-52.48
4182.5	H	-	-	-76.91	0.94	31.03	-64.23	-13.00	-51.23
5019.0	H	-	-	-77.67	2.48	31.81	-63.45	-13.00	-50.45

**Table 7-28. Radiated Spurious Data (Band 26/5 – Mid Channel)**

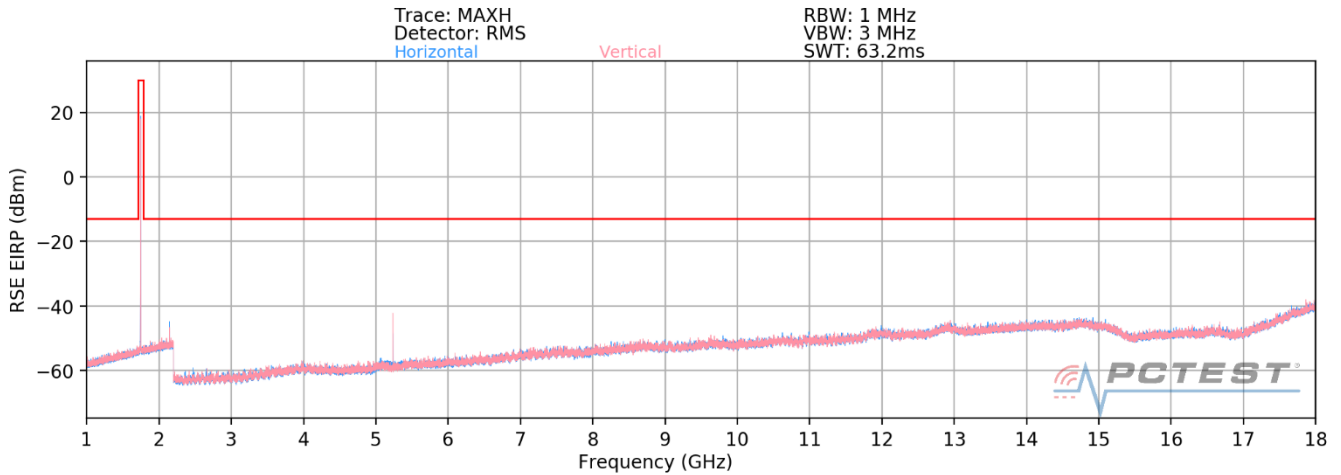
<b>Bandwidth (MHz):</b>	10
<b>Frequency (MHz):</b>	844.0
<b>RB / Offset:</b>	1 / 0
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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]
1688.00	H	106	49	-71.00	-6.82	29.18	-66.08	-13.00	-53.08
2532.00	H	136	133	-65.40	-3.27	38.33	-56.93	-13.00	-43.93
3376.00	H	-	-	-76.49	-0.83	29.68	-65.58	-13.00	-52.58
4220.00	H	-	-	-76.74	0.91	31.17	-64.09	-13.00	-51.09
5064.00	H	-	-	-77.75	2.78	32.03	-63.23	-13.00	-50.23

**Table 7-29. Radiated Spurious Data (Band 26/5 – High Channel)**

<b>FCC ID:</b> ZNFK920AM	 <b>PCTEST</b> Proud to be part of 	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset		Page 329 of 389

## Band 66/4



Plot 7-562. Radiated Spurious Plot above 1GHz (Band 66/4)

Bandwidth (MHz):	3
Frequency (MHz):	1711.5
RB / Offset:	1 / 7
Detector / Trace Mode:	RMS / Average
RBW / VBW:	1MHz / 3MHz

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]
3423.0	V	275	33	-61.18	-0.78	45.04	-50.22	-13.00	-37.22
5134.5	V	160	289	-55.89	3.35	54.46	-40.80	-13.00	-27.80
6846.0	V	-	-	-87.54	7.08	26.54	-68.72	-13.00	-55.72
8557.5	V	153	110	-76.89	9.99	40.10	-55.15	-13.00	-42.15
10269.0	V	-	-	-80.14	13.05	39.91	-55.34	-13.00	-42.34
11980.5	V	-	-	-81.44	15.90	41.46	-53.80	-13.00	-40.80
13692.0	V	-	-	-81.68	17.53	42.85	-52.41	-13.00	-39.41
15403.5	V	-	-	-82.24	15.58	40.34	-54.92	-13.00	-41.92

Table 7-30. Radiated Spurious Data (Band 66/4 – Low Channel)

FCC ID: ZNFK920AM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 330 of 389

<b>Bandwidth (MHz):</b>	3
<b>Frequency (MHz):</b>	1745.0
<b>RB / Offset:</b>	1 / 7
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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]
3490.0	V	303	43	-62.54	-0.78	43.68	-51.58	-13.00	-38.58
5235.0	V	134	167	-56.61	3.07	53.46	-41.79	-13.00	-28.79
6980.0	V	-	-	-77.48	7.62	37.14	-58.12	-13.00	-45.12
8725.0	V	153	111	-73.90	10.35	43.45	-51.81	-13.00	-38.81
10470.0	V	-	-	-81.00	12.93	38.93	-56.32	-13.00	-43.32
12215.0	V	-	-	-81.68	16.49	41.81	-53.45	-13.00	-40.45
13960.0	V	-	-	-81.62	18.52	43.90	-51.35	-13.00	-38.35
15705.0	V	-	-	-82.16	15.60	40.44	-54.81	-13.00	-41.81

Table 7-31. Radiated Spurious Data (Band 66/4 – Mid Channel)

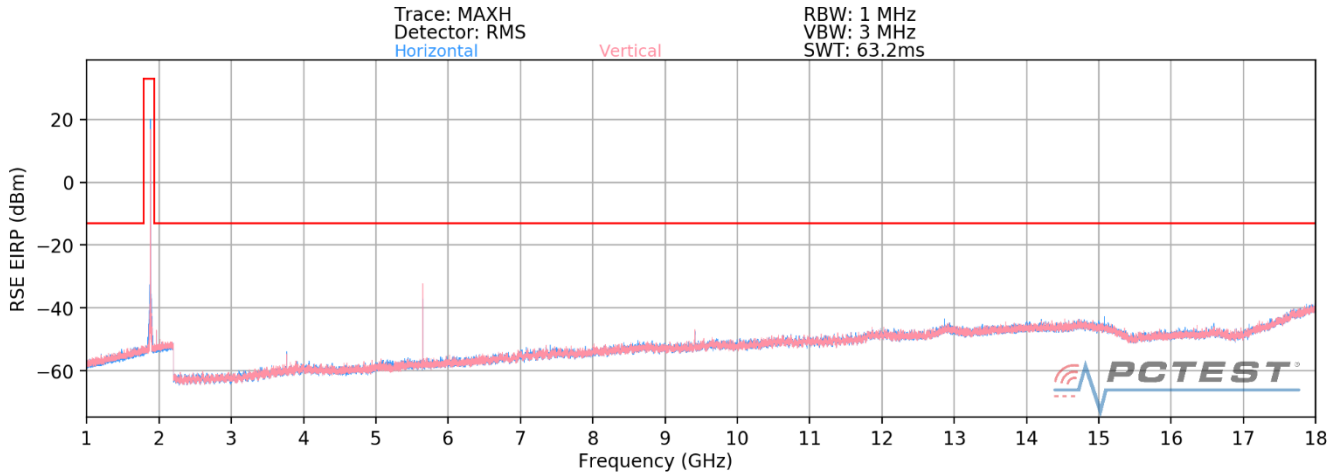
<b>Bandwidth (MHz):</b>	3
<b>Frequency (MHz):</b>	1778.5
<b>RB / Offset:</b>	1 / 7
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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]
3557.00	V	297	31	-64.07	-0.06	42.87	-52.39	-13.00	-39.39
5335.50	V	145	163	-54.77	4.02	56.25	-39.00	-13.00	-26.00
7114.00	V	-	-	-78.89	7.64	35.75	-59.50	-13.00	-46.50
8892.50	V	147	108	-77.17	10.62	40.45	-54.80	-13.00	-41.80
10671.00	V	-	-	-81.08	13.31	39.23	-56.03	-13.00	-43.03
12449.50	V	-	-	-82.60	15.96	40.36	-54.90	-13.00	-41.90
14228.00	V	-	-	-82.10	18.43	43.33	-51.93	-13.00	-38.93
16006.50	V	-	-	-82.11	15.55	40.44	-54.82	-13.00	-41.82

Table 7-32. Radiated Spurious Data (Band 66/4 – High Channel)

FCC ID: ZNFK920AM	 PCTEST <sup>®</sup> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	 LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 331 of 389

## Band 25/2



Plot 7-563. Radiated Spurious Plot above 1GHz (Band 25/2)

Bandwidth (MHz):	3
Frequency (MHz):	1851.5
RB / Offset:	1 / 7
Detector / Trace Mode:	RMS / Average
RBW / VBW:	1MHz / 3MHz

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]
3703.0	H	102	327	-67.19	0.00	39.81	-55.45	-13.00	-42.45
5554.5	H	101	23	-60.81	3.70	49.89	-45.37	-13.00	-32.37
7406.0	H	-	-	-80.11	9.18	36.07	-59.18	-13.00	-46.18
9257.5	H	-	-	-80.93	11.08	37.15	-58.11	-13.00	-45.11
11109.0	H	-	-	-81.79	13.89	39.10	-56.16	-13.00	-43.16

Table 7-33. Radiated Spurious Data (Band 25/2 – Low Channel)

FCC ID: ZNFK920AM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 332 of 389

<b>Bandwidth (MHz):</b>	3
<b>Frequency (MHz):</b>	1882.5
<b>RB / Offset:</b>	1 / 7
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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]
3765.0	H	124	321	-65.86	0.09	41.23	-54.02	-13.00	-41.02
5647.5	H	112	28	-58.94	4.19	52.25	-43.01	-13.00	-30.01
7530.0	H	-	-	-80.26	9.11	35.85	-59.41	-13.00	-46.41
9412.5	H	-	-	-81.15	12.15	38.00	-57.26	-13.00	-44.26
11295.0	H	-	-	-82.10	13.95	38.85	-56.41	-13.00	-43.41

**Table 7-34. Radiated Spurious Data (Band 25/2 – Mid Channel)**

<b>Bandwidth (MHz):</b>	3
<b>Frequency (MHz):</b>	1913.5
<b>RB / Offset:</b>	1 / 7
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

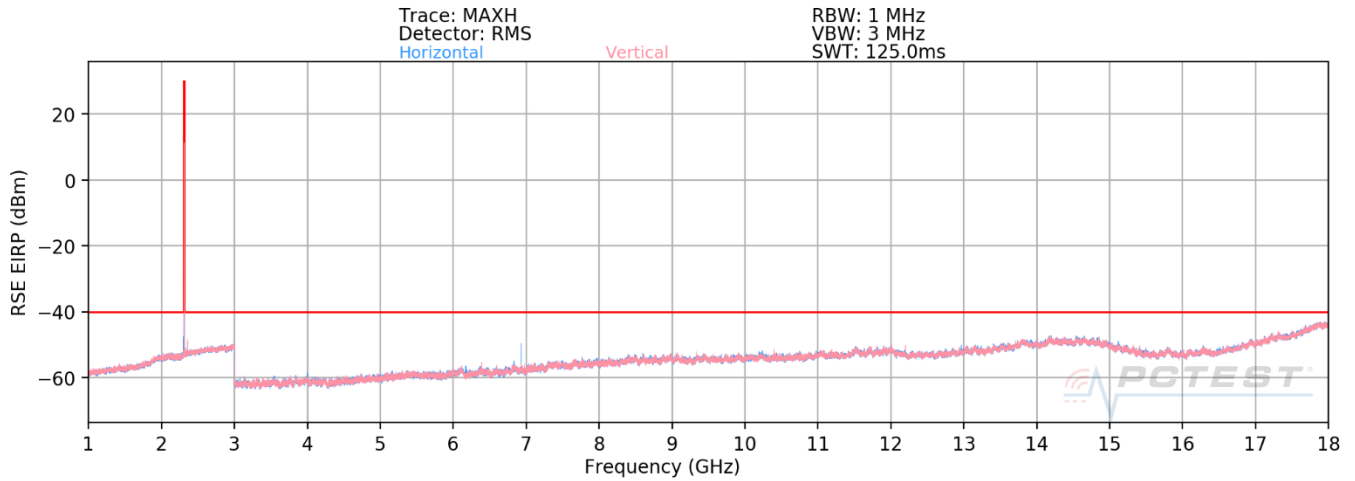
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3827.00	H	131	336	-66.57	0.38	40.81	-54.45	-13.00	-41.45
5740.50	H	101	5	-51.39	4.70	60.31	-34.95	-13.00	-21.95
7654.00	H	-	-	-79.37	9.12	36.75	-58.51	-13.00	-45.51
9567.50	H	-	-	-80.87	11.36	37.49	-57.76	-13.00	-44.76
11481.00	H	-	-	-82.32	14.63	39.31	-55.95	-13.00	-42.95

**Table 7-35. Radiated Spurious Data (Band 25/2 – High Channel)**

<b>FCC ID:</b> ZNFK920AM	 <b>PCTEST</b> Proud to be part of 	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset	Page 333 of 389	



## Band 30



Plot 7-564. Radiated Spurious Plot 1GHz - 18GHz (Band 30)

Bandwidth (MHz):	5
Frequency (MHz):	2307.5
RB / Offset:	1 / 12
Detector / Trace Mode:	RMS / Average
RBW / VBW:	1MHz / 3MHz

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]
4615.0	V	146	346	-75.21	1.79	33.58	-71.22	-40.00	-31.22
6922.5	V	-	-	-78.92	7.02	35.10	-69.70	-40.00	-29.70
9230.0	V	-	-	-80.98	11.73	37.75	-67.05	-40.00	-27.05
11537.5	V	-	-	-81.78	14.20	39.42	-65.38	-40.00	-25.38

Table 7-36. Radiated Spurious Data (Band 30 – Low Channel)

FCC ID: ZNFK920AM	 PCTEST® Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset	Page 334 of 389	

<b>Bandwidth (MHz):</b>	5
<b>Frequency (MHz):</b>	2310.0
<b>RB / Offset:</b>	1 / 12
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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]
4620.0	V	146	348	-74.46	1.84	34.38	-70.42	-40.00	-30.42
6930.0	V	-	-	-78.90	7.06	35.16	-69.64	-40.00	-29.64
9240.0	V	-	-	-81.32	11.64	37.32	-67.48	-40.00	-27.48
11550.0	V	-	-	-81.95	14.08	39.13	-65.67	-40.00	-25.67

**Table 7-37. Radiated Spurious Data (Band 30 – Mid Channel)**

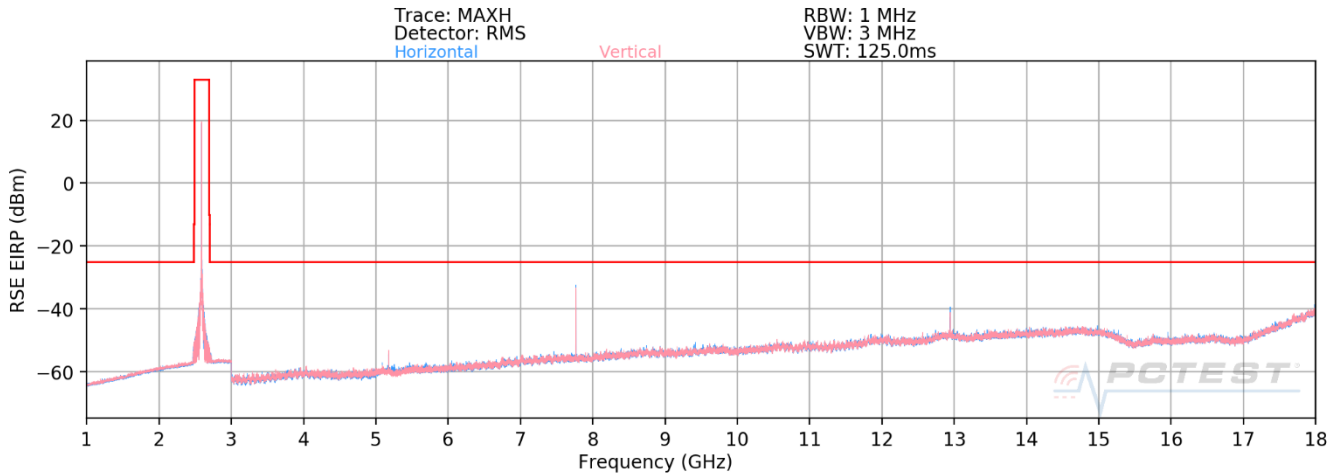
<b>Bandwidth (MHz):</b>	5
<b>Frequency (MHz):</b>	2312.5
<b>RB / Offset:</b>	1 / 12
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	1MHz / 3MHz

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]
4625.00	V	115	351	-75.53	1.88	33.35	-71.45	-40.00	-31.45
6937.50	V	-	-	-79.00	7.10	35.10	-69.70	-40.00	-29.70
9250.00	V	-	-	-81.54	11.60	37.06	-67.74	-40.00	-27.74
11562.50	V	-	-	-81.65	14.73	40.08	-64.72	-40.00	-24.72

**Table 7-38. Radiated Spurious Data (Band 30 – High Channel)**

<b>FCC ID:</b> ZNFK920AM	 <b>PCTEST</b> Proud to be part of 	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset	Page 335 of 389	

## Band 41 (PC3)



Plot 7-565. Radiated Spurious Plot 1GHz - 18GHz (Band 41)

Bandwidth (MHz):	10
Frequency (MHz):	2501.0
RB / Offset:	1 / 0
Detector / Trace Mode:	RMS / MAXH
RBW / VBW:	1MHz / 3MHz

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]
5002.0	H	176	351	-67.16	2.81	42.65	-62.15	-25.00	-37.15
7503.0	H	100	314	-66.44	9.25	49.81	-54.99	-25.00	-29.99
10004.0	H	-	-	-73.72	12.33	45.61	-59.19	-25.00	-34.19
12505.0	H	-	-	-74.90	16.29	48.39	-56.41	-25.00	-31.41
15006.0	H	-	-	-74.53	19.06	51.53	-53.27	-25.00	-28.27

Table 7-39. Radiated Spurious Data (Band 41 – Low Channel)

FCC ID: ZNFK920AM	 PCTEST <sup>®</sup> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 336 of 389

<b>Bandwidth (MHz):</b>	10
<b>Frequency (MHz):</b>	2593.0
<b>RB / Offset:</b>	1 / 0
<b>Detector / Trace Mode:</b>	RMS / MAXH
<b>RBW / VBW:</b>	1MHz / 3MHz

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]
5186.0	H	100	39	-66.13	3.37	44.24	-60.56	-25.00	-35.56
7779.0	H	131	355	-59.81	9.96	57.15	-47.65	-25.00	-22.65
10372.0	H	-	-	-74.66	13.43	45.77	-59.03	-25.00	-34.03
12965.0	H	-	-	-73.50	17.71	51.21	-53.59	-25.00	-28.59
15558.0	H	-	-	-74.82	15.64	47.82	-56.98	-25.00	-31.98

**Table 7-40. Radiated Spurious Data (Band 41 – Mid Channel)**

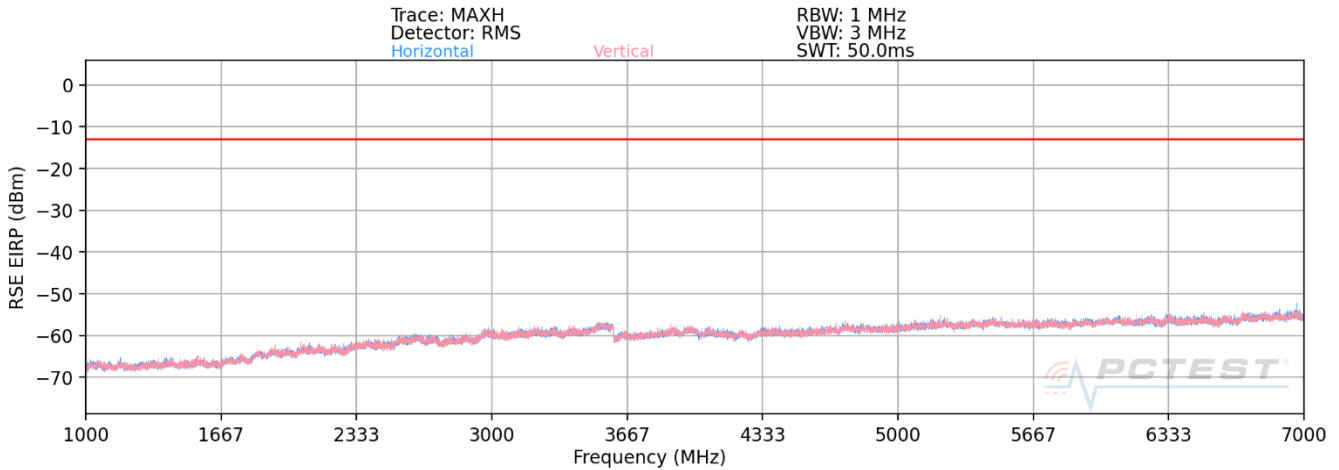
<b>Bandwidth (MHz):</b>	10
<b>Frequency (MHz):</b>	2685.0
<b>RB / Offset:</b>	1 / 0
<b>Detector / Trace Mode:</b>	RMS / MAXH
<b>RBW / VBW:</b>	1MHz / 3MHz

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]
5370.0	H	100	329	-68.95	4.00	42.05	-62.75	-25.00	-37.75
8055.0	H	109	117	-62.42	9.66	54.24	-50.56	-25.00	-25.56
10740.0	H	-	-	-73.78	13.46	46.68	-58.12	-25.00	-33.12
13425.0	H	-	-	-74.05	17.33	50.28	-54.52	-25.00	-29.52
16110.0	H	-	-	-74.43	15.68	48.25	-56.55	-25.00	-31.55

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

<b>FCC ID:</b> ZNFK920AM	 <b>PCTEST</b> Proud to be part of 	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset		Page 337 of 389

### Sub6 n71



**Plot 7-566. Radiated Spurious Plot 1GHz - 18GHz (n71)**

<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	673.0
<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]
1346.0	H	-	-	-75.83	-6.84	24.33	-70.93	-13.00	-57.93
2019.0	H	200	193	-74.08	-4.44	28.48	-66.78	-13.00	-53.78
2692.0	H	-	-	-74.99	-2.21	29.80	-65.46	-13.00	-52.46

**Table 7-42. Radiated Spurious Data (n71 – Low Channel)**

<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	680.5
<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]
1361.0	H	-	-	-75.43	-6.91	24.66	-70.60	-13.00	-57.60
2041.5	H	196	193	-74.46	-4.36	28.18	-67.08	-13.00	-54.08
2722.0	H	-	-	-74.87	-2.38	29.75	-65.51	-13.00	-52.51

**Table 7-43. Radiated Spurious Data (n71 – Mid Channel)**

FCC ID: ZNFK920AM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset	Page 338 of 389	

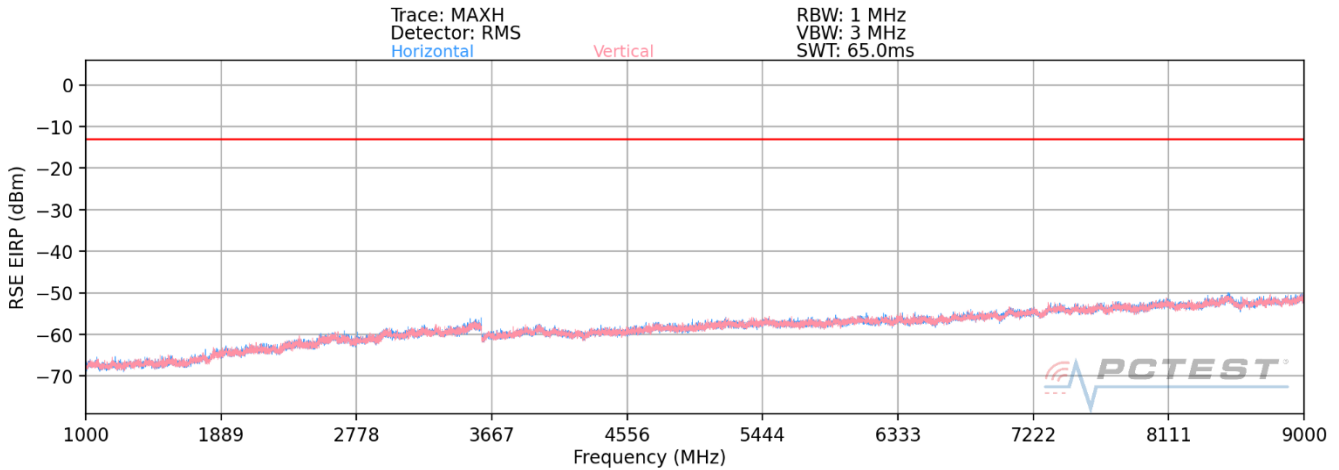
<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	688.0
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	Standalone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1376.0	H	-	-	-74.31	-6.88	25.81	-69.45	-13.00	-56.45
2064.0	H	-	-	-75.20	-4.19	27.61	-67.65	-13.00	-54.65

**Table 7-44. Radiated Spurious Data (n71 – High Channel)**

<b>FCC ID:</b> ZNFK920AM	 <b>PCTEST</b> Proud to be part of  element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset		Page 339 of 389

### Sub6 n5



**Plot 7-567. Radiated Spurious Plot 1GHz - 18GHz (n5)**

<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	834.0
<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]
1668.0	V	-	-	-76.12	-6.66	24.22	-71.04	-13.00	-58.04
2502.0	V	255	239	-75.07	-3.38	28.55	-66.70	-13.00	-53.70
3336.0	V	-	-	-77.89	-0.13	28.98	-66.27	-13.00	-53.27

**Table 7-45. Radiated Spurious Data (n5 – Low Channel)**

<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	836.5
<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]
1673.0	V	-	-	-76.47	-6.55	23.98	-71.28	-13.00	-58.28
2509.5	V	228	261	-75.44	-3.26	28.30	-66.96	-13.00	-53.96
3346.0	V	-	-	-77.18	-0.17	29.65	-65.60	-13.00	-52.60

**Table 7-46. Radiated Spurious Data (n5 – Mid Channel)**

FCC ID: ZNFK920AM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset	Page 340 of 389	

<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	839.0
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	Standalone

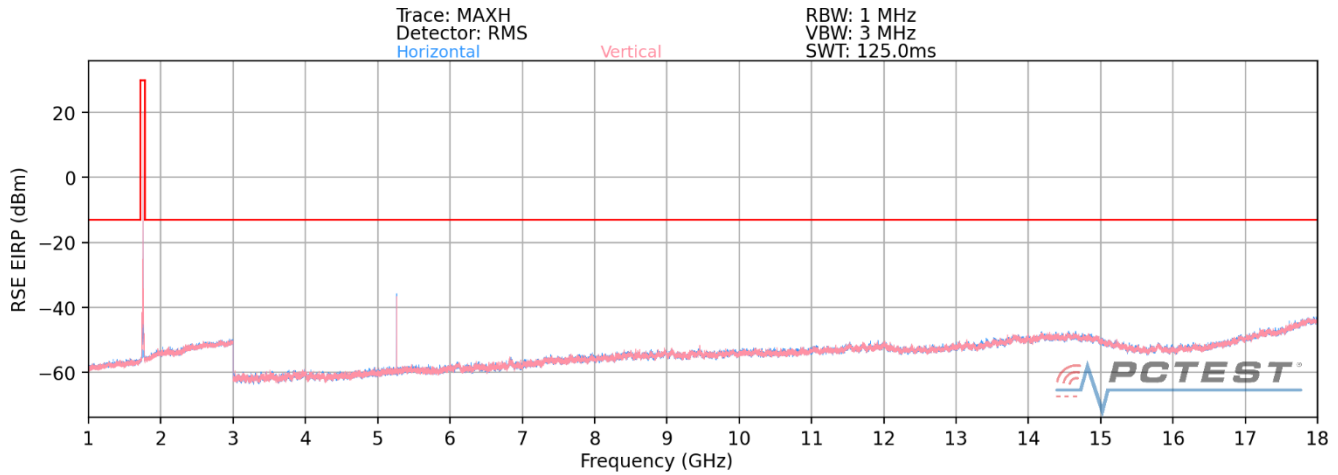
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1678.0	V	-	-	-75.91	-6.44	24.65	-70.61	-13.00	-57.61
2517.0	V	218	255	-76.18	-3.03	27.79	-67.47	-13.00	-54.47
3356.0	V	-	-	-77.39	-0.20	29.41	-65.85	-13.00	-52.85

**Table 7-47. Radiated Spurious Data (n5 – High Channel)**

<b>FCC ID:</b> ZNFK920AM	 <b>PCTEST</b> Proud to be part of  element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset		Page 341 of 389



## Sub6 n66



Plot 7-568. Radiated Spurious Plot 1GHz - 18GHz (n66)

Bandwidth (MHz):	20
Frequency (MHz):	1720.0
RB / Offset:	1 / 50
Mode:	EN-DC
Anchor Band:	LTE Band 30



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]
3440.0	H	291	310	-70.09	1.11	38.02	-57.24	-13.00	-44.24
5160.0	H	241	26	-52.81	4.24	58.43	-36.82	-13.00	-23.82
6880.0	H	-	-	-76.89	7.66	37.77	-57.49	-13.00	-44.49

Table 7-48. Radiated Spurious Data (n66 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1745.0
RB / Offset:	1 / 50
Mode:	EN-DC
Anchor Band:	LTE Band 30

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]
3490.0	H	316	309	-64.85	1.01	43.16	-52.10	-13.00	-39.10
5235.0	H	302	46	-54.05	4.42	57.37	-37.89	-13.00	-24.89
6980.0	H	298	12	-75.13	6.53	38.40	-56.86	-13.00	-43.86
8725.0	H	-	-	-75.76	10.53	41.77	-53.49	-13.00	-40.49

Table 7-49. Radiated Spurious Data (n66 – Mid Channel)

FCC ID: ZNFK920AM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset	Page 342 of 389	

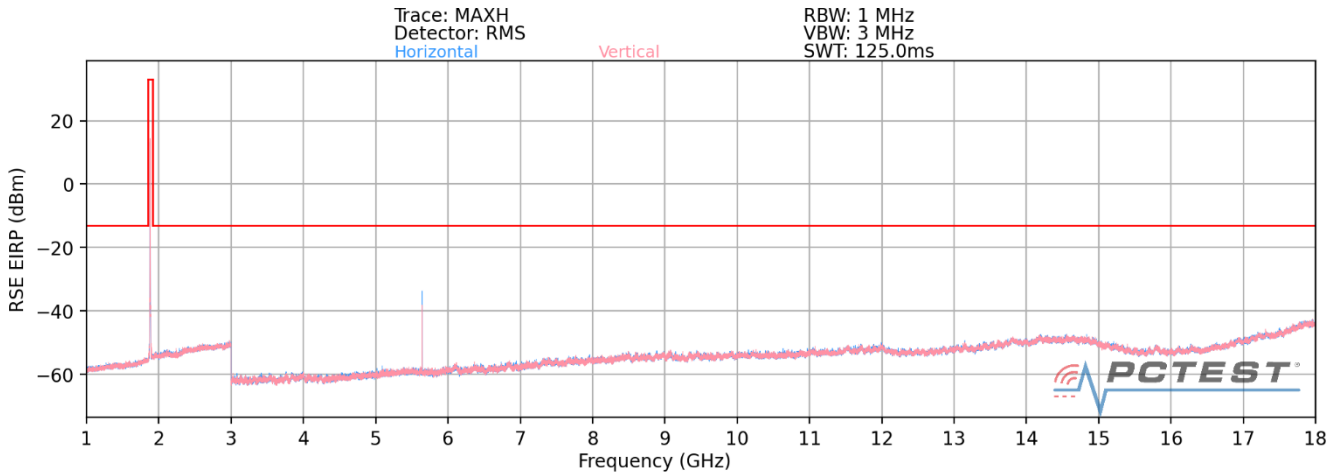
<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	1900.0
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	EN-DC
<b>Anchor Band:</b>	LTE Band 30

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]
3800.0	H	340	314	-68.60	1.87	40.27	-54.98	-13.00	-41.98
5700.0	H	274	46	-55.72	4.51	55.79	-39.47	-13.00	-26.47
7600.0	H	-	-	-75.09	8.28	40.19	-55.07	-13.00	-42.07

**Table 7-50. Radiated Spurious Data (n66 – High Channel)**

<b>FCC ID:</b> ZNFK920AM	 <b>PCTEST</b> Proud to be part of 	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset		Page 343 of 389

## Sub6 n2



Plot 7-569. Radiated Spurious Plot 1GHz - 18GHz (n2)

<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	1860.0
<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]
3720.0	H	154	44	-74.82	2.30	34.48	-60.78	-13.00	-47.78
5580.0	H	304	219	-52.13	4.82	59.69	-35.57	-13.00	-22.57
7440.0	H	173	3	-76.91	8.52	38.61	-56.65	-13.00	-43.65
9300.0	H	-	-	-77.88	10.65	39.77	-55.49	-13.00	-42.49

Table 7-51. Radiated Spurious Data (n2 – Low Channel)

FCC ID: ZNFK920AM	 PCTEST <sup>®</sup> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	 LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset	Page 344 of 389	

<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	1880.0
<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]
3760.0	H	149	159	-73.79	2.36	35.57	-59.68	-13.00	-46.68
5640.0	H	161	204	-54.65	4.76	57.11	-38.15	-13.00	-25.15
7520.0	H	158	9	-75.43	8.41	39.98	-55.27	-13.00	-42.27
9400.0	H	-	-	-77.99	11.65	40.66	-54.60	-13.00	-41.60

**Table 7-52. Radiated Spurious Data (n2 – Mid Channel)**

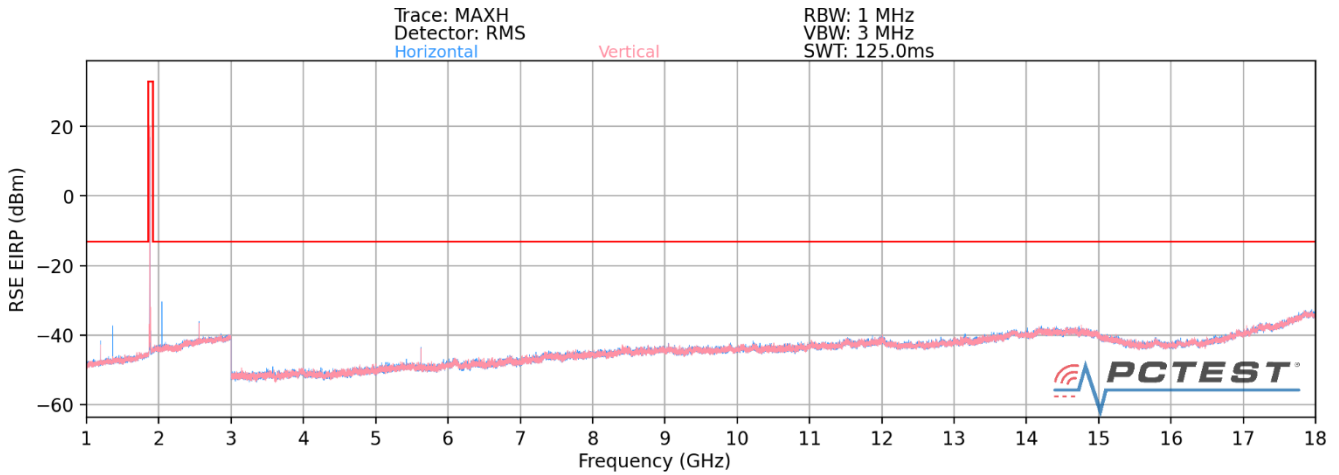
<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	1900.0
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	Standalone

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]
3800.0	H	149	41	-73.86	1.87	35.01	-60.24	-13.00	-47.24
5700.0	H	163	325	-56.48	4.51	55.03	-40.23	-13.00	-27.23
7600.0	H	284	326	-75.61	8.28	39.67	-55.59	-13.00	-42.59
9500.0	H	-	-	-78.11	11.09	39.98	-55.28	-13.00	-42.28

**Table 7-53. Radiated Spurious Data (n2 – High Channel)**

FCC ID: ZNFK920AM	 <b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 345 of 389

## EN-DC Sub6 n71 + Band 2



Plot 7-570. Radiated Spurious Plot 1GHz - 18GHz (Sub6 n71 + Band 2)

<b>Bandwidth (MHz):</b>	20 + 20
<b>Frequency (MHz):</b>	673.0
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	EN-DC
<b>Anchor Band:</b>	1860

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]
514.0	H	-	-	-101.38	22.16	27.78	-67.47	-13.00	-54.47
1346.0	H	145	328	-68.21	11.99	50.78	-44.48	-13.00	-31.48
3047.0	H	-	-	-76.18	7.79	38.61	-56.65	-13.00	-43.65

Table 7-54. Radiated Spurious Data (Sub6 n71 + Band 2– Low Channel)

FCC ID: ZNFK920AM	 PCTEST <sup>®</sup> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	 LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 346 of 389

<b>Bandwidth (MHz):</b>	20 + 20
<b>Frequency (MHz):</b>	680.5
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	EN-DC
<b>Anchor Band:</b>	1880

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]
519.0	H	-	-	-100.58	22.24	28.66	-66.60	-13.00	-53.60
1361.0	H	155	208	-67.18	12.01	51.83	-43.43	-13.00	-30.43
3079.5	H	-	-	-77.61	7.62	37.01	-58.25	-13.00	-45.25

**Table 7-55. Radiated Spurious Data (Sub6 n71 + Band 2 – Mid Channel)**

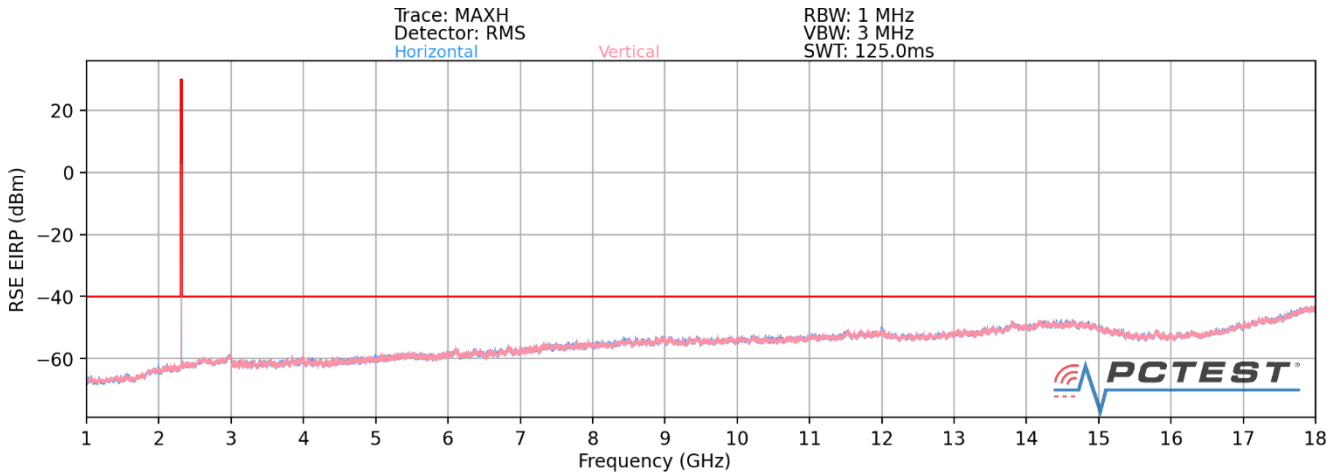
<b>Bandwidth (MHz):</b>	20 + 20
<b>Frequency (MHz):</b>	688.0
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	EN-DC
<b>Anchor Band:</b>	1900

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]
524.0	H	-	-	-100.18	22.23	29.05	-66.21	-13.00	-53.21
1376.0	H	138	308	-65.18	12.29	54.11	-41.15	-13.00	-28.15
3112.0	H	-	-	-77.34	7.18	36.84	-58.42	-13.00	-45.42

**Table 7-56. Radiated Spurious Data (Sub6 n71 + Band 2 – High Channel)**

<b>FCC ID:</b> ZNFK920AM	 <b>PCTEST</b> Proud to be part of  element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Quality Manager
<b>Test Report S/N:</b> 1M2007130107-03.ZNF	<b>Test Dates:</b> 07/30/2020 - 09/03/2020	<b>EUT Type:</b> Portable Handset	Page 347 of 389	

## EN-DC Sub6 n5 + LTE Band 30



Plot 7-571. Radiated Spurious Plot 1GHz - 18GHz (Sub6 n5 + LTE Band 30)

<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	834.0
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	EN-DC
<b>Anchor Band:</b>	2307.5

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]
1668.0	V	-	-	-75.32	-6.66	25.02	-70.24	-13.00	-57.24
4615.0	V	-	-	-77.20	2.62	32.42	-62.84	-13.00	-49.84

Table 7-57. Radiated Spurious Data (Sub6 n5 + LTE Band 30– Low Channel)

FCC ID: ZNFK920AM	 PCTEST <sup>®</sup> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	 LG	Approved by: Quality Manager
Test Report S/N: 1M2007130107-03.ZNF	Test Dates: 07/30/2020 - 09/03/2020	EUT Type: Portable Handset		Page 348 of 389