



Plot 7-373. Upper Band Edge Plot (NR Band n66 - 20.0MHz - Full RB - Ant F)



Plot 7-374. Upper Extended Band Edge Plot (NR Band n66 - 20.0MHz - Full RB - Ant F)

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Plot 7-375. Lower Band Edge Plot (NR Band n66 - 15.0MHz - Full RB - Ant F)



Plot 7-376. Lower Extended Band Edge Plot (NR Band n66 - 15.0MHz - Full RB - Ant F)

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Plot 7-377. Upper Band Edge Plot (NR Band n66 - 15.0MHz - Full RB - Ant F)



Plot 7-378. Upper Extended Band Edge Plot (NR Band n66 - 15.0MHz - Full RB - Ant F)

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Plot 7-379. Lower Band Edge Plot (NR Band n66 - 10.0MHz - Full RB - Ant F)



Plot 7-380. Lower Extended Band Edge Plot (NR Band n66 - 10.0MHz - Full RB - Ant F)

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Plot 7-381. Upper Band Edge Plot (NR Band n66 - 10.0MHz - Full RB - Ant F)



Plot 7-382. Upper Extended Band Edge Plot (NR Band n66 - 10.0MHz - Full RB - Ant F)

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Plot 7-383. Lower Band Edge Plot (NR Band n66 - 5.0MHz - Full RB - Ant F)



Plot 7-384. Lower Extended Band Edge Plot (NR Band n66 - 5.0MHz - Full RB - Ant F)

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Plot 7-385. Upper Band Edge Plot (NR Band n66 - 5.0MHz - Full RB - Ant F)



Plot 7-386. Upper Extended Band Edge Plot (NR Band n66 - 5.0MHz - Full RB - Ant F)

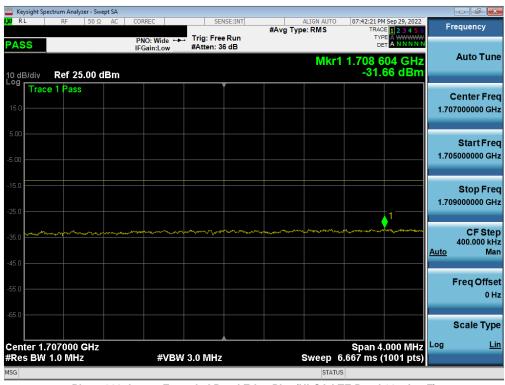
FCC ID: A3LSMS916U	element	PART 27 MEASUREMENT REPORT	Approved by: Technical Manager
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Uplink CA LTE Band 66B/C - Ant F



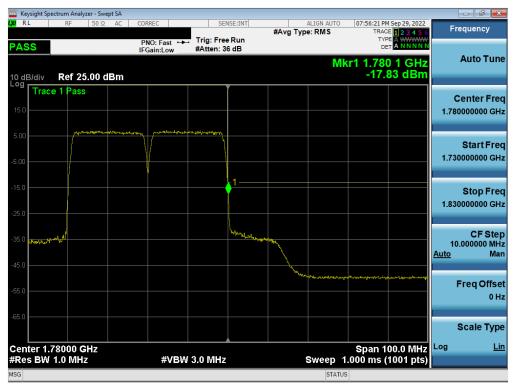
Plot 7-387. Lower Band Edge Plot (ULCA LTE Band 66 - Ant F)



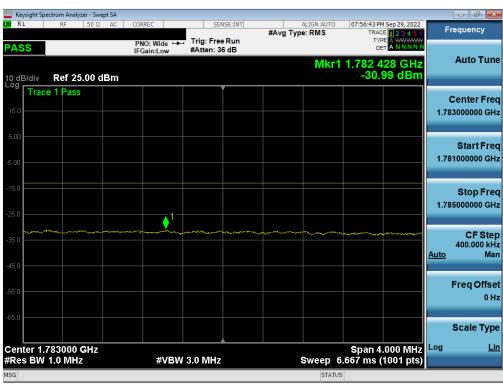
Plot 7-388. Lower Extended Band Edge Plot (ULCA LTE Band 66 - Ant F)

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Plot 7-389. Upper Band Edge Plot (ULCA LTE Band 66 - Ant F)



Plot 7-390. Upper Extended Band Edge Plot (ULCA LTE Band 66 - Ant F)

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7.6 Peak-Average Ratio

Test Overview

A peak to average ratio measurement is performed at the conducted port of the EUT. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

Test Procedure Used

ANSI C63.26-2015 - Section 5.2.3.4

Test Settings

- 1. The signal analyzer's CCDF measurement profile is enabled
- 2. Frequency = carrier center frequency
- 3. Measurement BW ≥ OBW or specified reference bandwidth
- 4. The signal analyzer was set to collect one million samples to generate the CCDF curve
- 5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power

Test Setup

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



Figure 7-5. Test Instrument & Measurement Setup

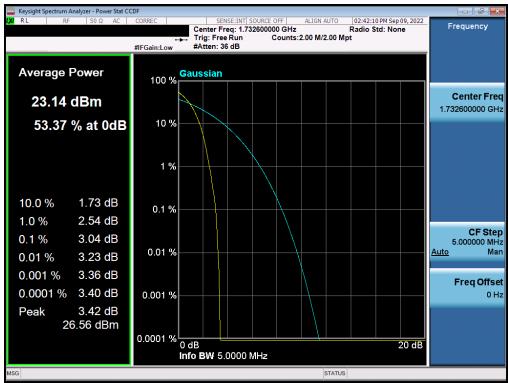
Test Notes

None.

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WCDMA AWS - ANT A

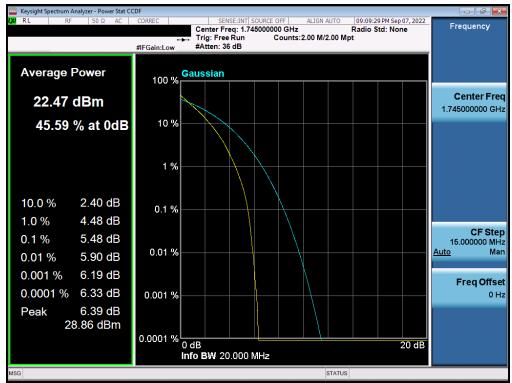


Plot 7-391. PAR Plot (WCDMA, Ch. 1413 - ANT A)

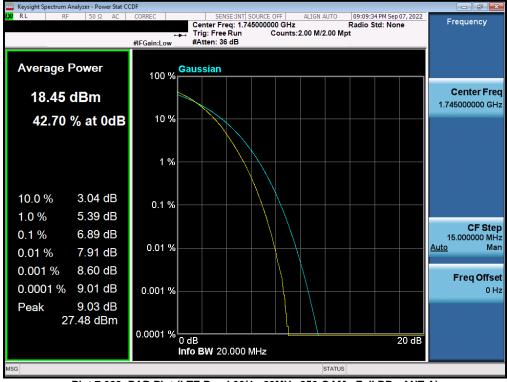
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LTE Band 66/4 - ANT A



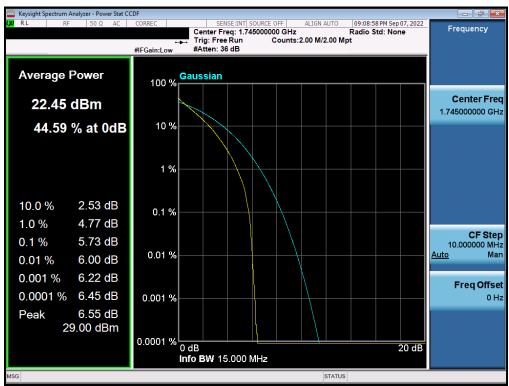
Plot 7-392. PAR Plot (LTE Band 66/4 - 20MHz QPSK - Full RB - ANT A)



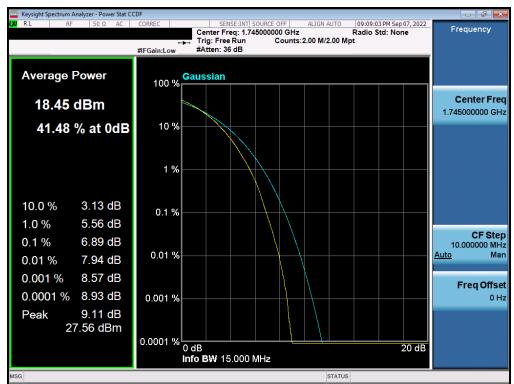
Plot 7-393. PAR Plot (LTE Band 66/4 - 20MHz 256-QAM - Full RB - ANT A)

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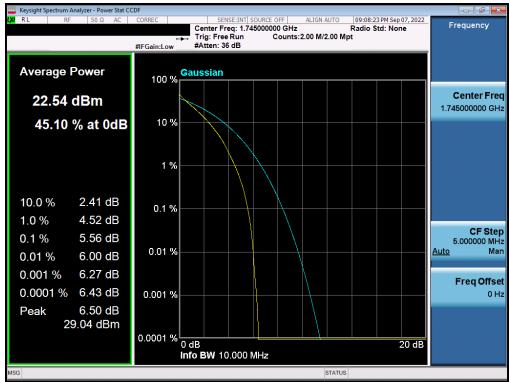
Plot 7-394. PAR Plot (LTE Band 66/4 - 15MHz QPSK - Full RB - ANT A)



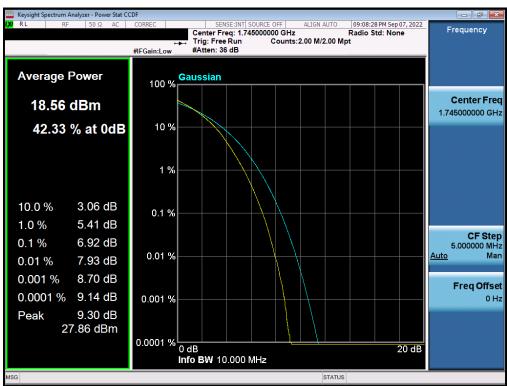
Plot 7-395. PAR Plot (LTE Band 66/4 - 15MHz 256-QAM - Full RB - ANT A)

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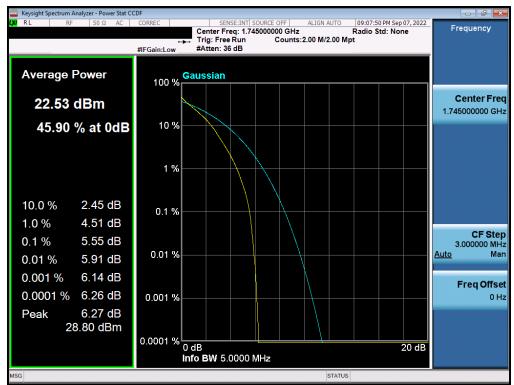
Plot 7-396. PAR Plot (LTE Band 66/4 - 10MHz QPSK - Full RB - ANT A)



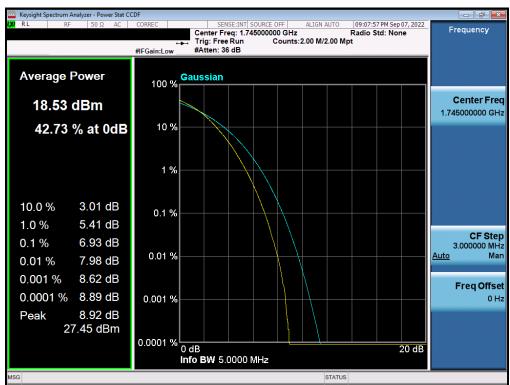
Plot 7-397. PAR Plot (LTE Band 66/4 - 10MHz 256-QAM - Full RB - ANT A)

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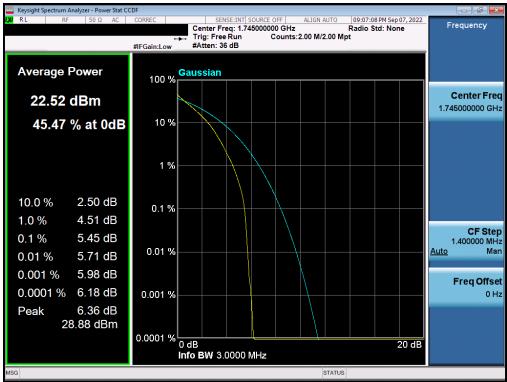
Plot 7-398. PAR Plot (LTE Band 66/4 - 5MHz QPSK - Full RB - ANT A)



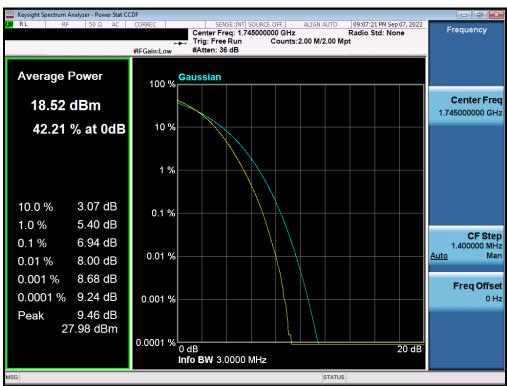
Plot 7-399. PAR Plot (LTE Band 66/4 - 5MHz 256-QAM - Full RB - ANT A)

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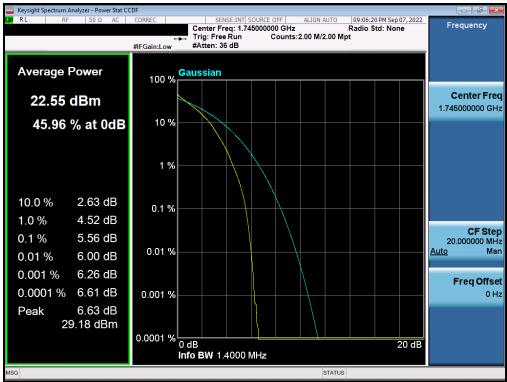
Plot 7-400. PAR Plot (LTE Band 66/4 - 3MHz QPSK - Full RB - ANT A)



Plot 7-401. PAR Plot (LTE Band 66/4 - 3MHz 256-QAM - Full RB - ANT A)

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Plot 7-402. PAR Plot (LTE Band 66/4 - 1.4MHz QPSK - Full RB - ANT A)



Plot 7-403. PAR Plot (LTE Band 66/4 - 1.4MHz 256-QAM - Full RB - ANT A)

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NR Band n66 - ANT A



Plot 7-404. PAR Plot (NR Band n66 - 40.0MHz DFT-s-OFDM BPSK - Full RB - ANT A)



Plot 7-405. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM QPSK - Full RB - ANT A)

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Plot 7-406. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM 256-QAM - Full RB - ANT A)



Plot 7-407. PAR Plot (NR Band n66 - 30.0MHz DFT-s-OFDM BPSK - Full RB - ANT A)

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Plot 7-408. PAR Plot (NR Band n66 - 30.0MHz CP-OFDM QPSK - Full RB - ANT A)



Plot 7-409. PAR Plot (NR Band n66 - 30.0MHz CP-OFDM 256-QAM - Full RB - ANT A)

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Plot 7-410. PAR Plot (NR Band n66 - 25.0MHz DFT-s-OFDM BPSK - Full RB - ANT A)



Plot 7-411. PAR Plot (NR Band n66 - 25.0MHz CP-OFDM QPSK - Full RB - ANT A)

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Plot 7-412. PAR Plot (NR Band n66 - 25.0MHz CP-OFDM 256-QAM - Full RB - ANT A)



Plot 7-413. PAR Plot (NR Band n66 - 20.0MHz DFT-s-OFDM BPSK - Full RB - ANT A)

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Plot 7-414. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM QPSK - Full RB - ANT A)



Plot 7-415. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM 256-QAM - Full RB - ANT A)

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Plot 7-416. PAR Plot (NR Band n66 - 15.0MHz DFT-s-OFDM BPSK - Full RB - ANT A)



Plot 7-417. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM QPSK - Full RB - ANT A)

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Plot 7-418. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM 256-QAM - Full RB - ANT A)



Plot 7-419. PAR Plot (NR Band n66 - 10.0MHz DFT-s-OFDM BPSK - Full RB - ANT A)

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Plot 7-420. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM QPSK - Full RB - ANT A)



Plot 7-421. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM 256-QAM - Full RB - ANT A)

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Plot 7-422. PAR Plot (NR Band n66 - 5.0MHz DFT-s-OFDM BPSK - Full RB - ANT A)



Plot 7-423. PAR Plot (NR Band n66 - 5.0MHz CP-OFDM QPSK - Full RB - ANT A)

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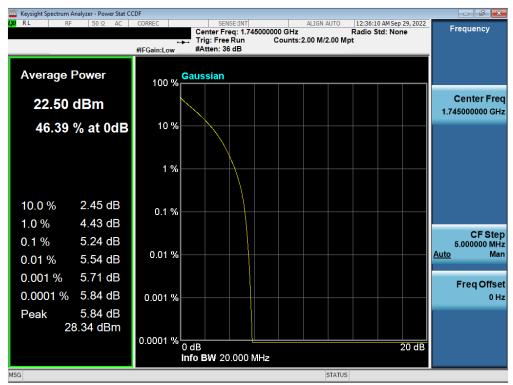


Plot 7-424. PAR Plot (NR Band n66 - 5.0MHz CP-OFDM 256-QAM - Full RB - ANT A)

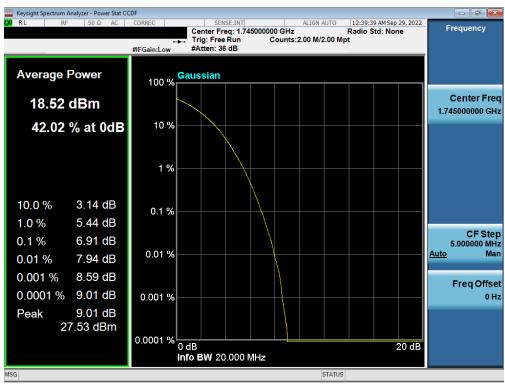
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LTE Band 66/4 - Ant F



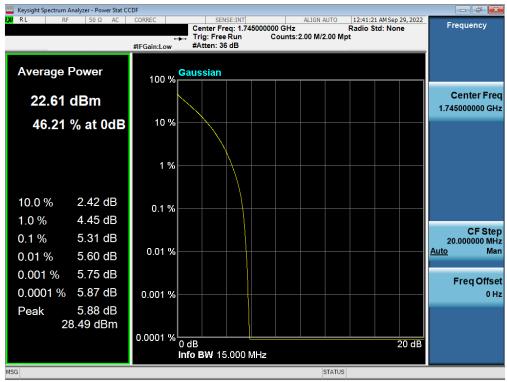
Plot 7-425. PAR Plot (LTE Band 66/4 - 20MHz QPSK - Full RB - Ant F)



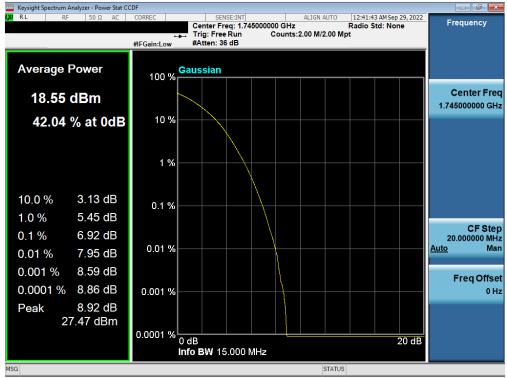
Plot 7-426. PAR Plot (LTE Band 66/4 - 20MHz 256-QAM - Full RB - Ant F)

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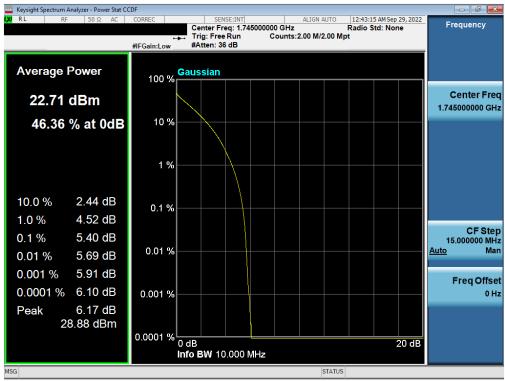
Plot 7-427. PAR Plot (LTE Band 66/4 - 15MHz QPSK - Full RB - Ant F)



Plot 7-428. PAR Plot (LTE Band 66/4 - 15MHz 256-QAM - Full RB - Ant F)

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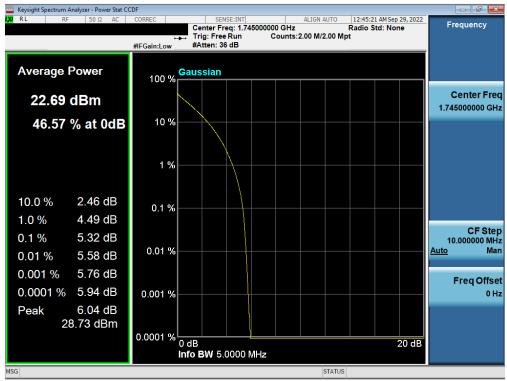
Plot 7-429. PAR Plot (LTE Band 66/4 - 10MHz QPSK - Full RB - Ant F)



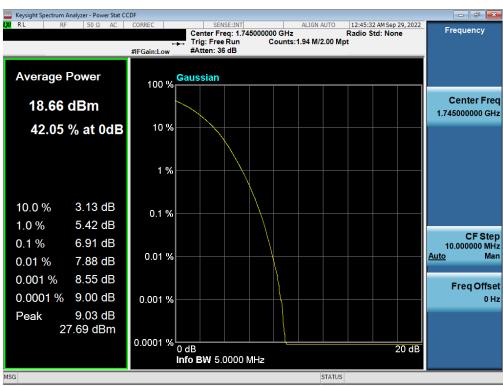
Plot 7-430. PAR Plot (LTE Band 66/4 - 10MHz 256-QAM - Full RB - Ant F)

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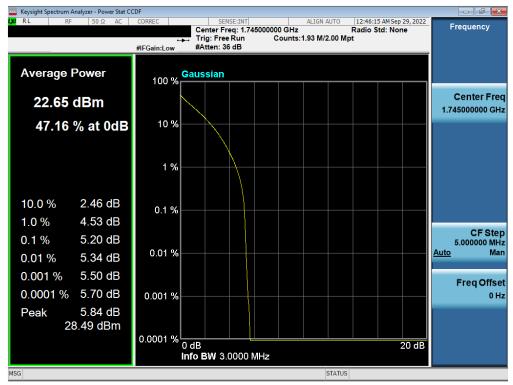
Plot 7-431. PAR Plot (LTE Band 66/4 - 5MHz QPSK - Full RB - Ant F)



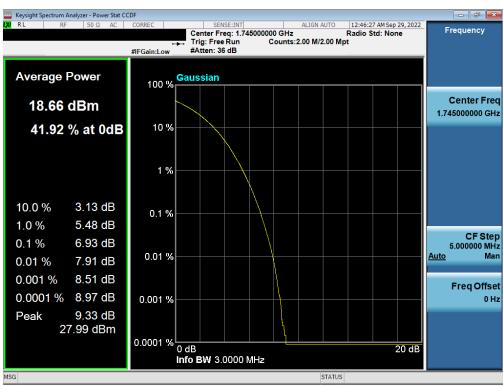
Plot 7-432. PAR Plot (LTE Band 66/4 - 5MHz 256-QAM - Full RB - Ant F)

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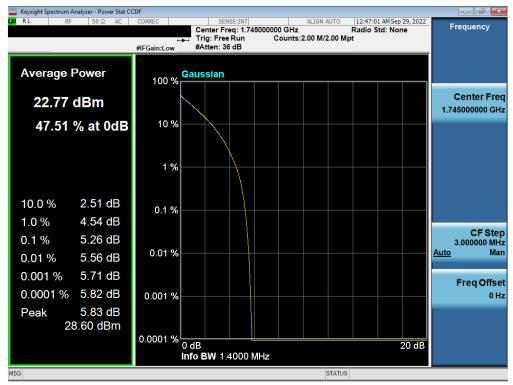
Plot 7-433. PAR Plot (LTE Band 66/4 - 3MHz QPSK - Full RB - Ant F)



Plot 7-434. PAR Plot (LTE Band 66/4 - 3MHz 256-QAM - Full RB - Ant F)

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Plot 7-435. PAR Plot (LTE Band 66/4 - 1.4MHz QPSK - Full RB - Ant F)



Plot 7-436. PAR Plot (LTE Band 66/4 - 1.4MHz 256-QAM - Full RB - Ant F)

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NR Band n66 - Ant F



Plot 7-437. PAR Plot (NR Band n66 - 40.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)



Plot 7-438. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM QPSK - Full RB - Ant F)

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Plot 7-439. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM 256-QAM - Full RB - Ant F)



Plot 7-440. PAR Plot (NR Band n66 - 30.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)

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Plot 7-441. PAR Plot (NR Band n66 - 30.0MHz CP-OFDM QPSK - Full RB - Ant F)



Plot 7-442. PAR Plot (NR Band n66 - 30.0MHz CP-OFDM 256-QAM - Full RB - Ant F)

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Plot 7-443. PAR Plot (NR Band n66 - 25.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)



Plot 7-444. PAR Plot (NR Band n66 - 25.0MHz CP-OFDM QPSK - Full RB - Ant F)

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Plot 7-445. PAR Plot (NR Band n66 - 25.0MHz CP-OFDM 256-QAM - Full RB - Ant F)



Plot 7-446. PAR Plot (NR Band n66 - 20.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)

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Plot 7-447. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM QPSK - Full RB - Ant F)



Plot 7-448. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM 256-QAM - Full RB - Ant F)

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Plot 7-449. PAR Plot (NR Band n66 - 15.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)



Plot 7-450. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM QPSK - Full RB - Ant F)

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