



Plot 7-181. Upper Band Edge Plot (NR Band n25 - 30MHz QPSK - Full RB)



Plot 7-182. Extended Upper Band Edge Plot (NR Band n25 - 30MHz QPSK - Full RB)

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Plot 7-183. Lower Band Edge Plot (NR Band n25 - 25MHz QPSK - Full RB)



Plot 7-184. Extended Lower Band Edge Plot (NR Band n25 - 25MHz QPSK - Full RB)

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Plot 7-185. Upper Band Edge Plot (NR Band n25 - 25MHz QPSK - Full RB)

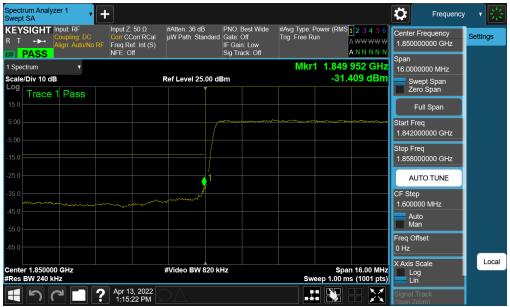


Plot 7-186. Extended Upper Band Edge Plot (NR Band n25 - 25MHz QPSK - Full RB)

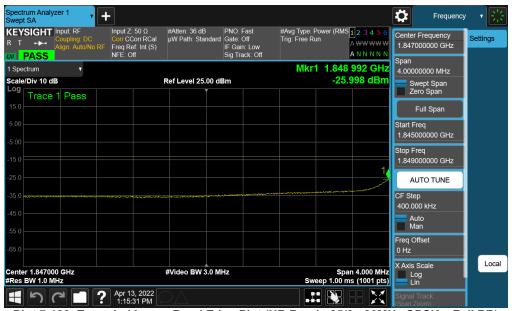
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# NR Band n25/2 - Ant I



Plot 7-187. Lower Band Edge Plot (NR Band n25/2 - 20MHz QPSK - Full RB)



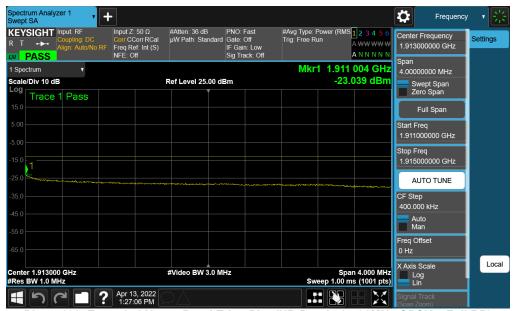
Plot 7-188. Extended Lower Band Edge Plot (NR Band n25/2 - 20MHz QPSK - Full RB)

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Plot 7-189. Upper Band Edge Plot (NR Band n2 - 20MHz QPSK - Full RB)



Plot 7-190. Extended Upper Band Edge Plot (NR Band n2 - 20MHz QPSK - Full RB)

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Plot 7-191. Upper Band Edge Plot (NR Band n25 - 20MHz QPSK - Full RB)



Plot 7-192. Extended Upper Band Edge Plot (NR Band n25 - 20MHz QPSK - Full RB)

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Plot 7-193. Lower Band Edge Plot (NR Band n25/2 - 15MHz QPSK - Full RB)



Plot 7-194. Extended Lower Band Edge Plot (NR Band n25/2 - 15MHz QPSK - Full RB)

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Plot 7-195. Upper Band Edge Plot (NR Band n2 - 15MHz QPSK - Full RB)



Plot 7-196. Extended Upper Band Edge Plot (NR Band n2 - 15MHz QPSK - Full RB)

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Plot 7-197. Upper Band Edge Plot (NR Band n25 - 15MHz QPSK - Full RB)



Plot 7-198. Extended Upper Band Edge Plot (NR Band n25 - 15MHz QPSK - Full RB)

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Plot 7-199. Lower Band Edge Plot (NR Band n25/2 - 10MHz QPSK - Full RB)



Plot 7-200. Extended Lower Band Edge Plot (NR Band n25/2 - 10MHz QPSK - Full RB)

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Plot 7-201. Upper Band Edge Plot (NR Band n2 - 10MHz QPSK - Full RB)



Plot 7-202. Extended Upper Band Edge Plot (NR Band n2 - 10MHz QPSK - Full RB)

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Plot 7-203. Upper Band Edge Plot (NR Band n25 - 10MHz QPSK - Full RB)



Plot 7-204. Extended Upper Band Edge Plot (NR Band n25 - 10MHz QPSK - Full RB)

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Plot 7-205. Lower Band Edge Plot (NR Band n25/2 - 5MHz QPSK - Full RB)



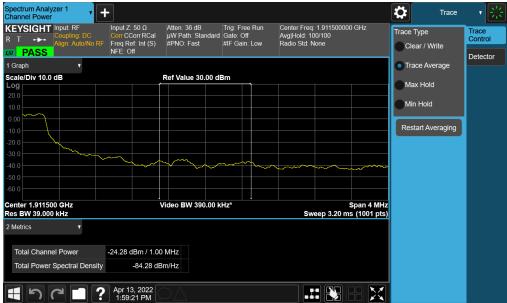
Plot 7-206. Extended Lower Band Edge Plot (NR Band n25/2 - 5MHz QPSK - Full RB)

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Plot 7-207. Upper Band Edge Plot (NR Band n2 - 5MHz QPSK - Full RB)



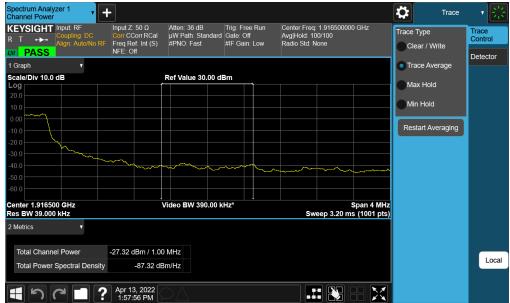
Plot 7-208. Extended Upper Band Edge Plot (NR Band n2 - 5MHz QPSK - Full RB)

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Plot 7-209. Upper Band Edge Plot (NR Band n25 - 5MHz QPSK - Full RB)

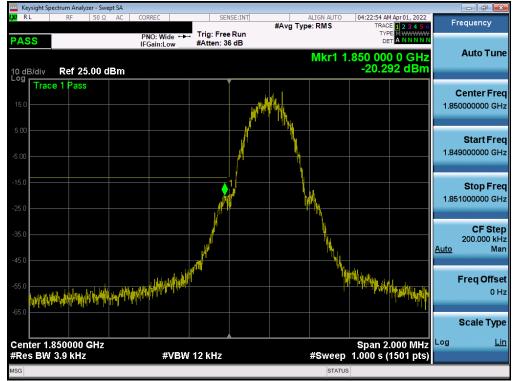


Plot 7-210. Extended Upper Band Edge Plot (NR Band n25 - 5MHz QPSK - Full RB)

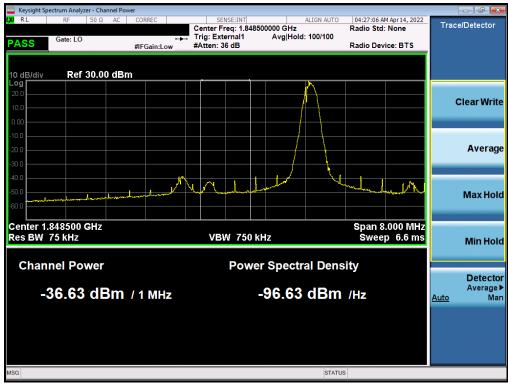
FCC ID: A3LSMF721U	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
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# **GSM/GPRS PCS**



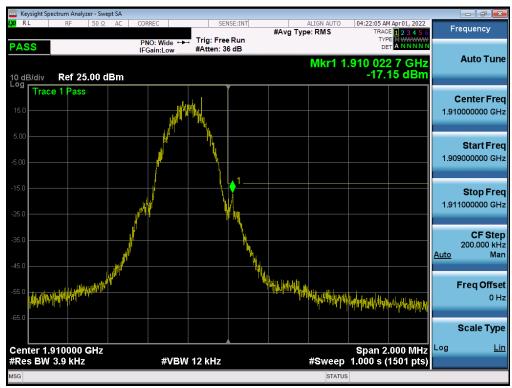
Plot 7-211. Lower Band Edge Plot (GPRS PCS - Ch. 512)



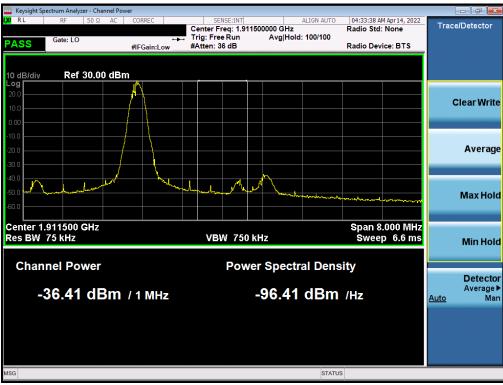
Plot 7-212. Extended Lower Band Edge Plot (GPRS PCS - Ch. 512)

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Plot 7-213. Upper Band Edge Plot (GPRS PCS - Ch. 810)



Plot 7-214. Extended Upper Band Edge Plot (GPRS PCS - Ch. 810)

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## WCDMA PCS



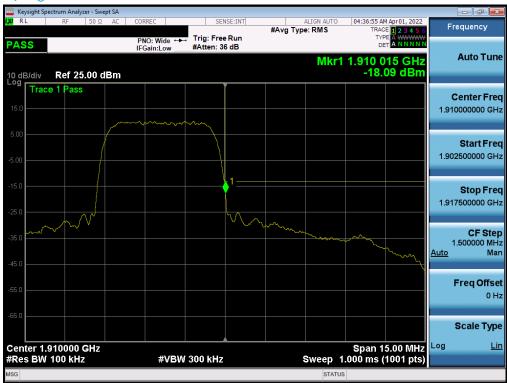
Plot 7-215. Lower Band Edge Plot (WCDMA PCS - Ch. 9262)



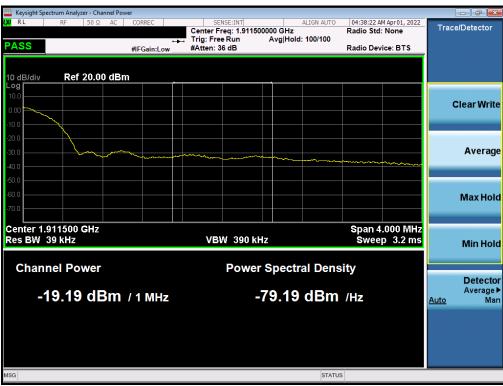
Plot 7-216. Extended Lower Band Edge Plot (WCDMA PCS - Ch. 9262)

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Plot 7-217. Upper Band Edge Plot (WCDMA PCS - Ch. 9538)



Plot 7-218. Extended Upper Band Edge Plot (WCDMA PCS - Ch. 9538)

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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.

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB.

### **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**

of contents thereof, please contact INFO@PCTEST.COM.

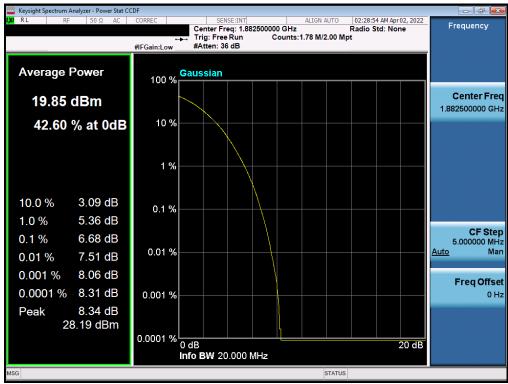
None.

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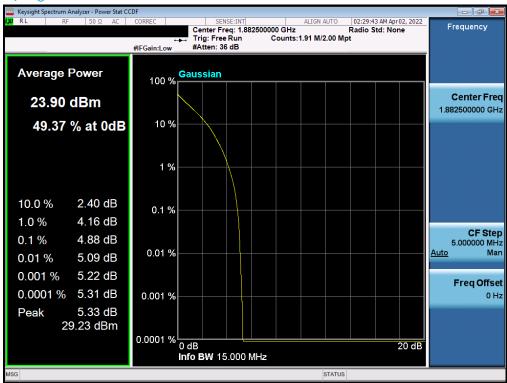
Plot 7-219. PAR Plot (LTE Band 25/2 - 20MHz QPSK - Full RB)



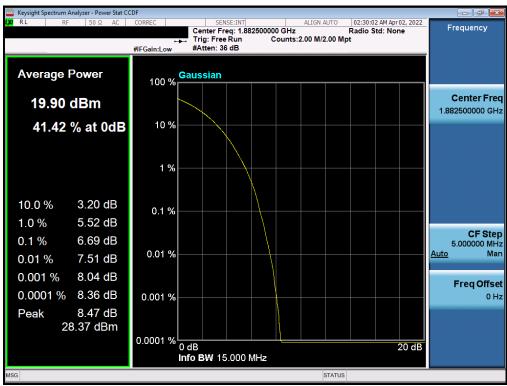
Plot 7-220. PAR Plot (LTE Band 25/2 - 20MHz 256-QAM - Full RB )

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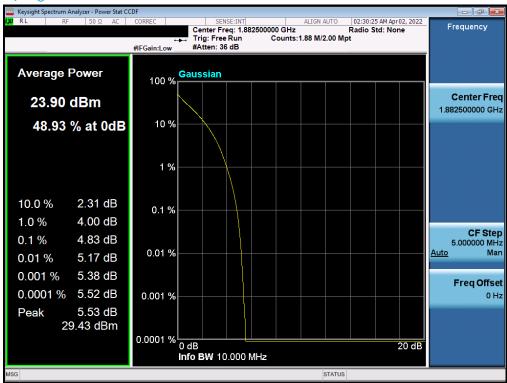
Plot 7-221. PAR Plot (LTE Band 25/2 - 15MHz QPSK - Full RB)



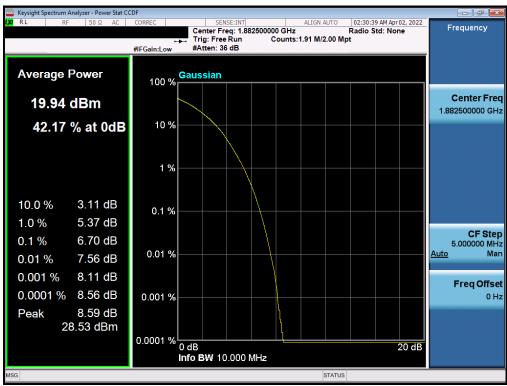
Plot 7-222. PAR Plot (LTE Band 25/2 - 15MHz 256-QAM - Full RB)

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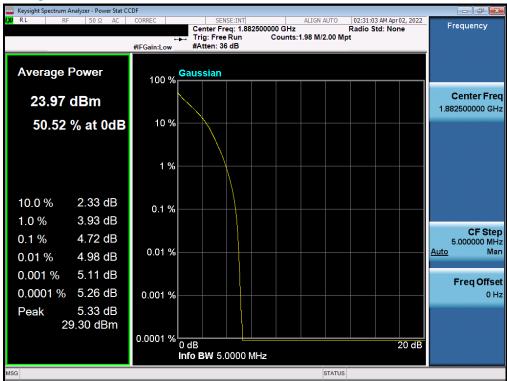
Plot 7-223. PAR Plot (LTE Band 25/2 - 10MHz QPSK - Full RB)



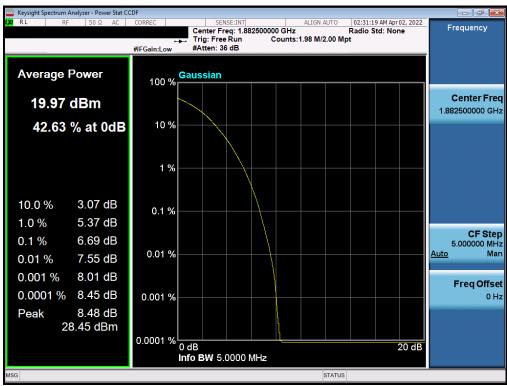
Plot 7-224. PAR Plot (LTE Band 25/2 - 10MHz 256-QAM - Full RB)

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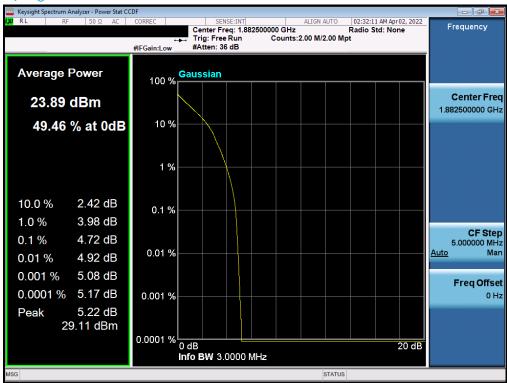
Plot 7-225. PAR Plot (LTE Band 25/2 - 5MHz QPSK - Full RB)



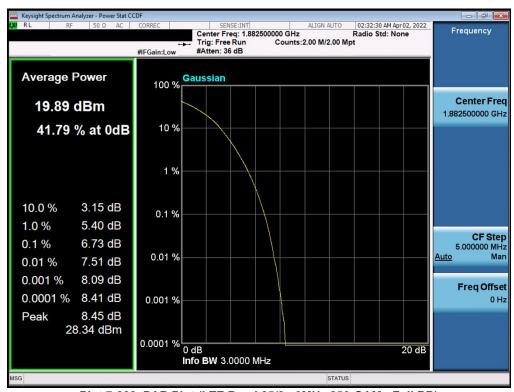
Plot 7-226. PAR Plot (LTE Band 25/2 - 5MHz 256-QAM - Full RB)

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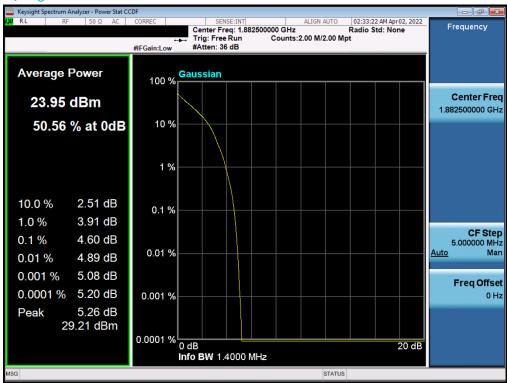
Plot 7-227. PAR Plot (LTE Band 25/2 - 3MHz QPSK - Full RB)



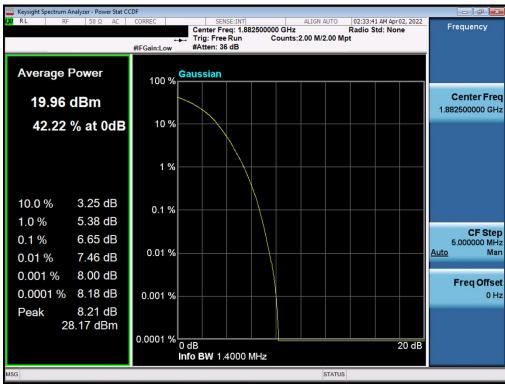
Plot 7-228. PAR Plot (LTE Band 25/2 - 3MHz 256-QAM - Full RB)

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Plot 7-229. PAR Plot (LTE Band 25/2 - 1.4MHz QPSK - Full RB)

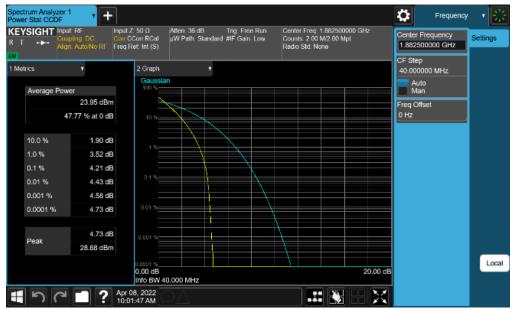


Plot 7-230. PAR Plot (LTE Band 25/2 - 1.4MHz 256-QAM - Full RB)

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# NR Band n25 - Ant A



Plot 7-231. PAR Plot (NR Band n25 - 40.0MHz DFT-s-OFDM BPSK - Full RB)



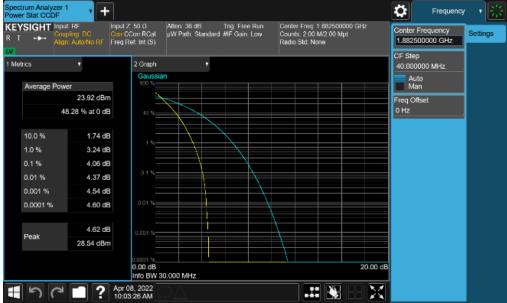
Plot 7-232. PAR Plot (NR Band n25 - 40.0MHz CP-OFDM QPSK - Full RB)

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Plot 7-233. PAR Plot (NR Band n25 - 40.0MHz CP-OFDM 256-QAM - Full RB)



Plot 7-234. PAR Plot (NR Band n25 - 30.0MHz DFT-s-OFDM BPSK - Full RB)

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