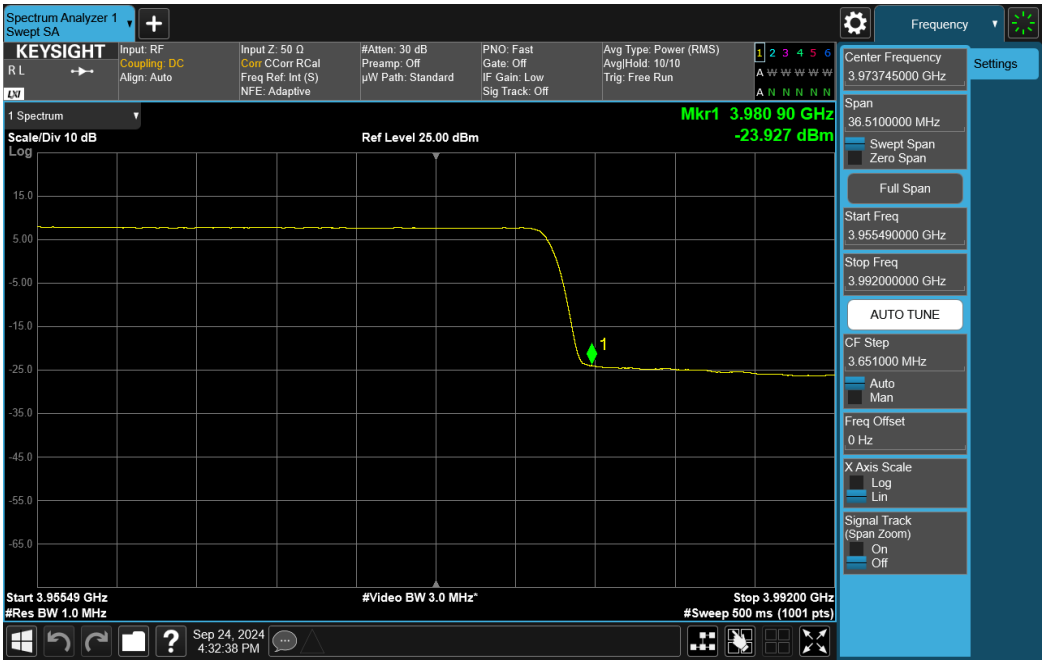
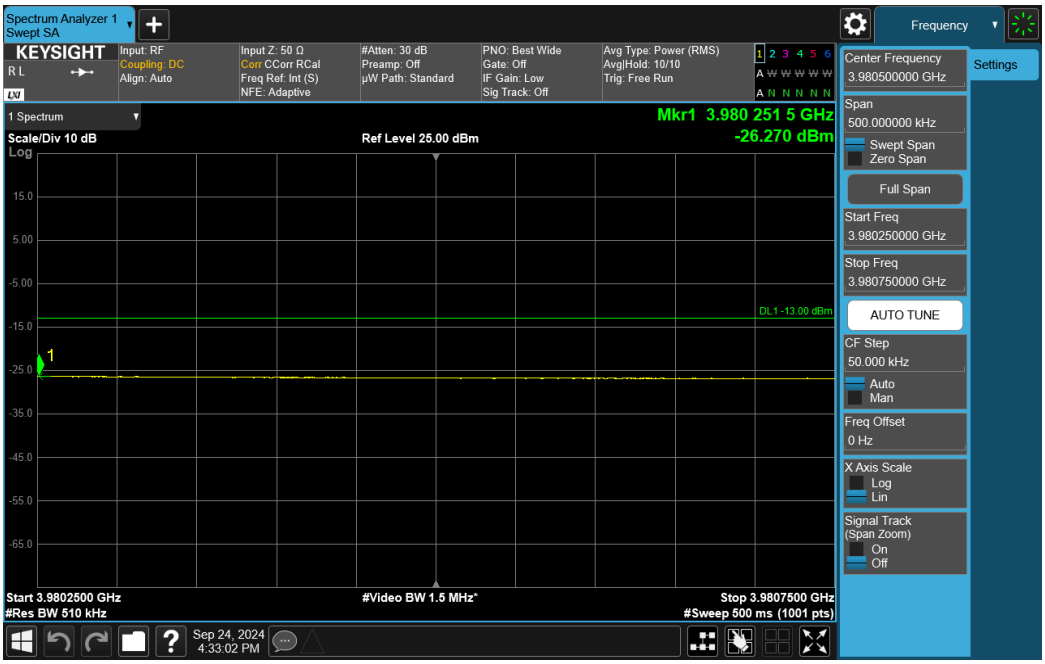
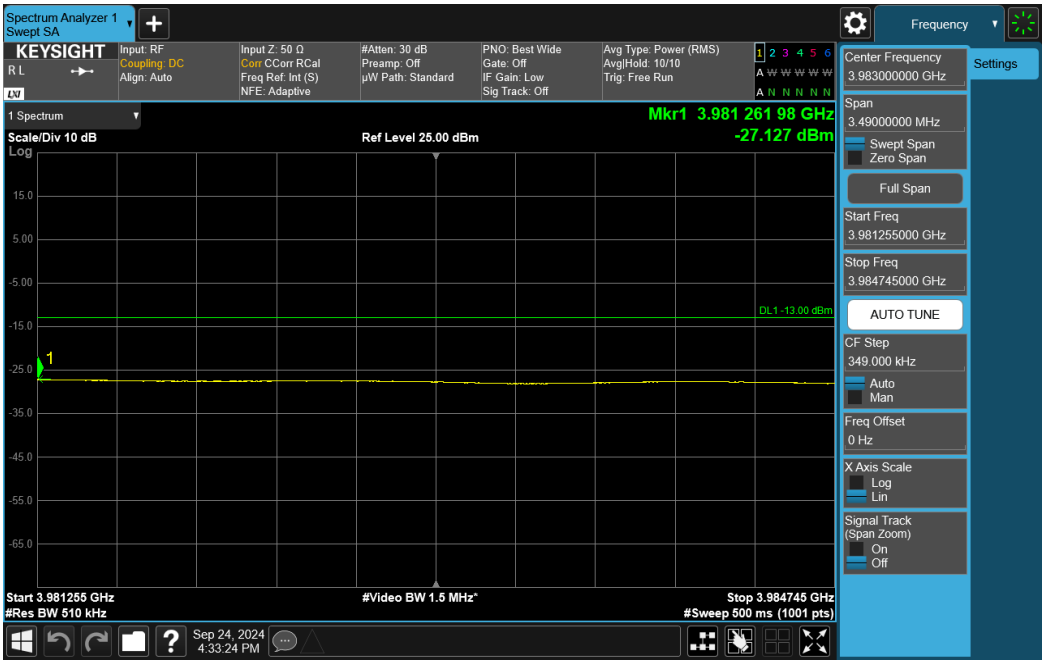


Plot 7-261. Upper ACP Plot (NR Band n77 C-Band - 50MHz CP-OFDM QPSK – Full RB)

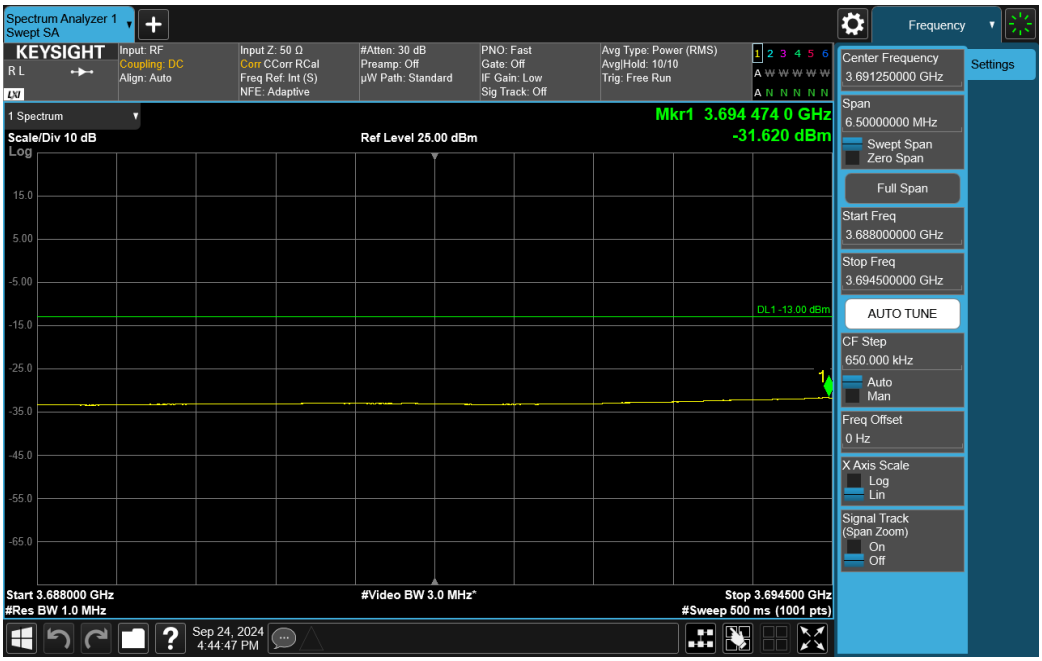


Plot 7-262. Upper ACP Plot (NR Band n77 C-Band - 50MHz CP-OFDM QPSK – Full RB)

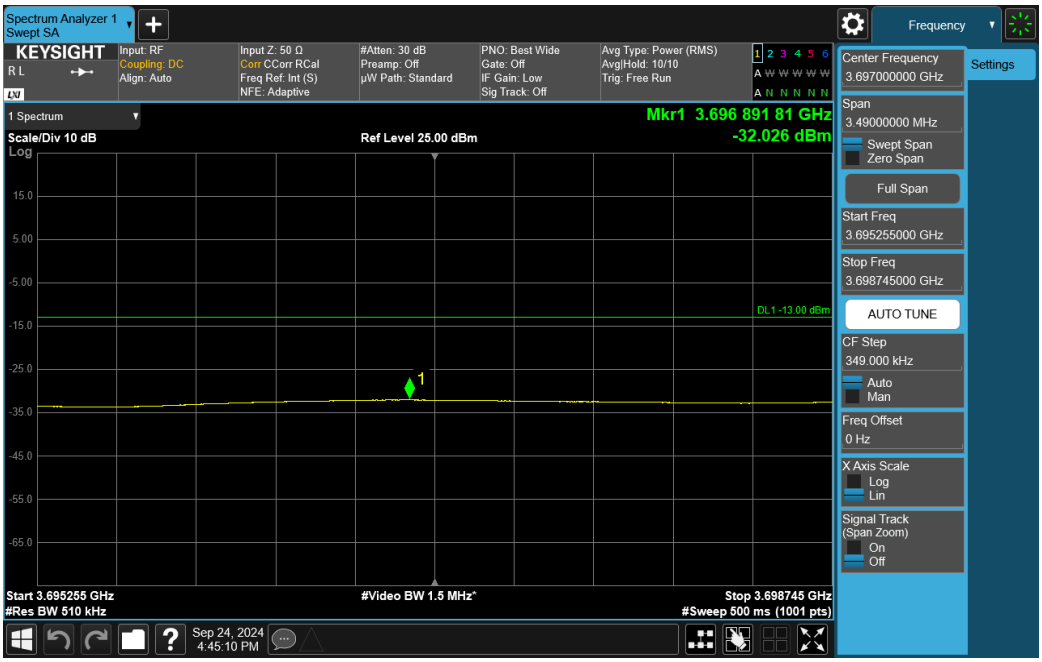


Plot 7-263. Upper ACP Plot (NR Band n77 C-Band - 50MHz CP-OFDM QPSK – Full RB)

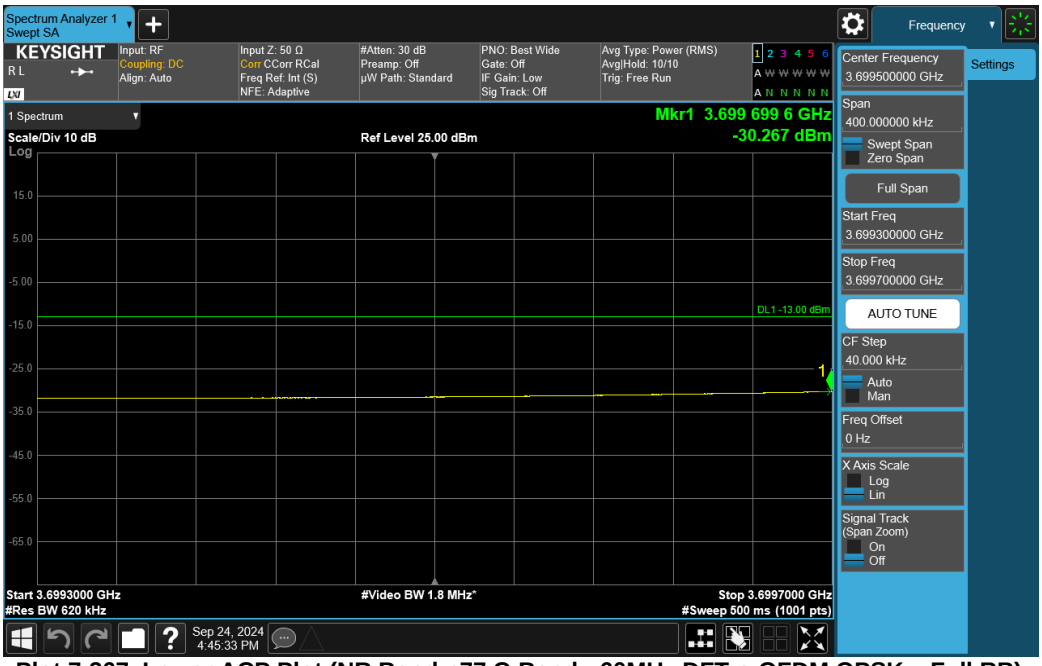
Plot 7-264. Upper ACP Plot (NR Band n77 C-Band - 50MHz CP-OFDM QPSK – Full RB)



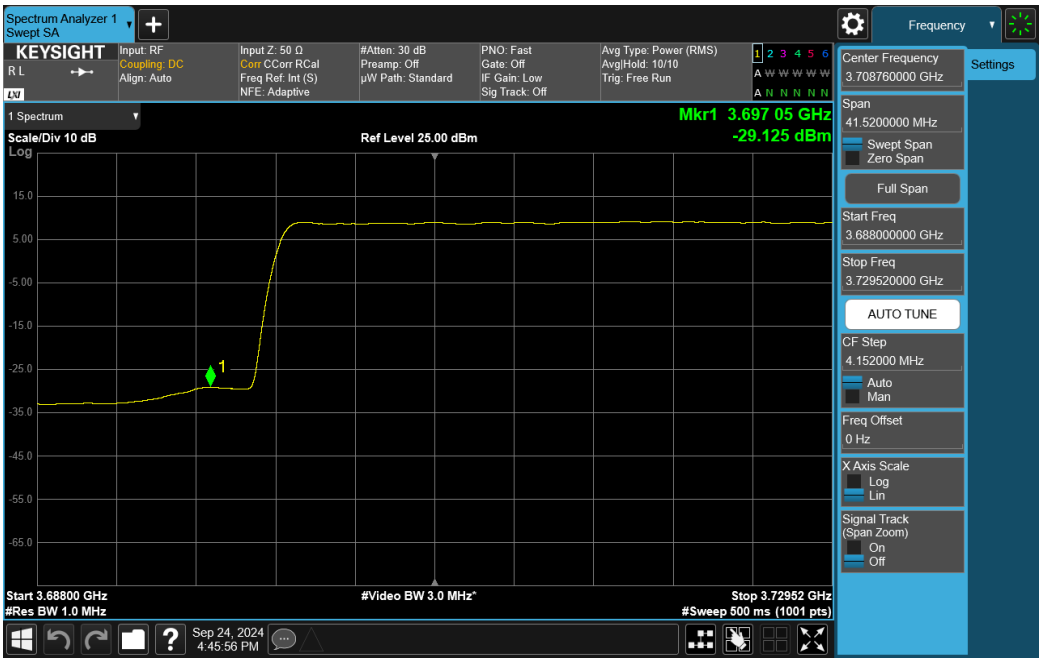
Plot 7-265. Lower ACP Plot (NR Band n77 C-Band - 60MHz DFT-s-OFDM QPSK – Full RB)



Plot 7-266. Lower ACP Plot (NR Band n77 C-Band - 60MHz DFT-s-OFDM QPSK – Full RB)

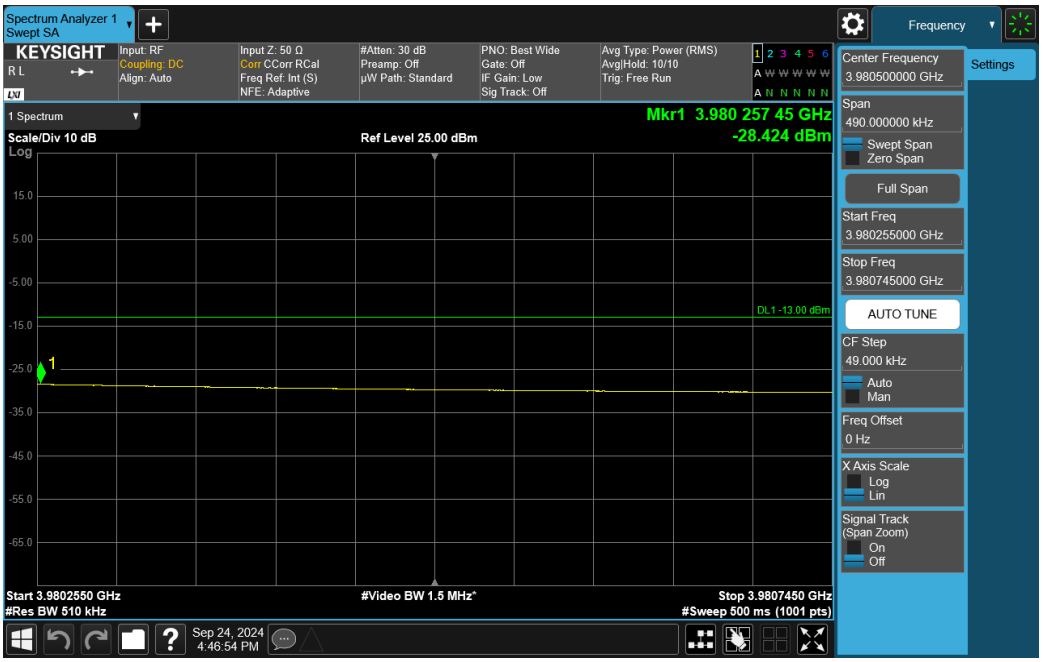


Plot 7-267. Lower ACP Plot (NR Band n77 C-Band - 60MHz DFT-s-OFDM QPSK – Full RB)

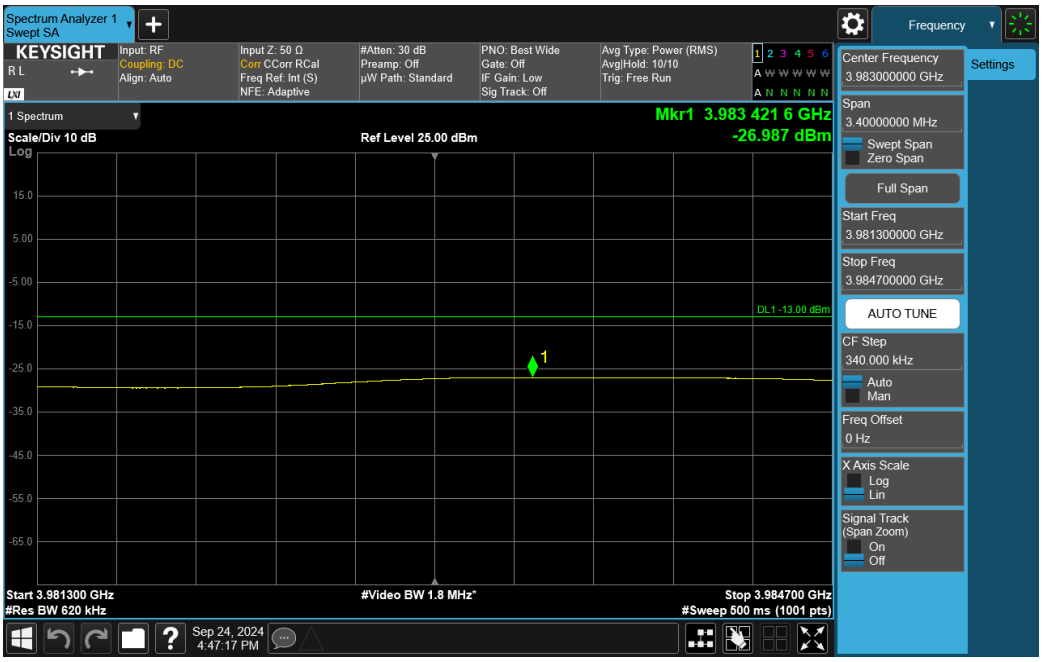


Plot 7-268. Lower ACP Plot (NR Band n77 C-Band - 60MHz DFT-s-OFDM QPSK – Full RB)

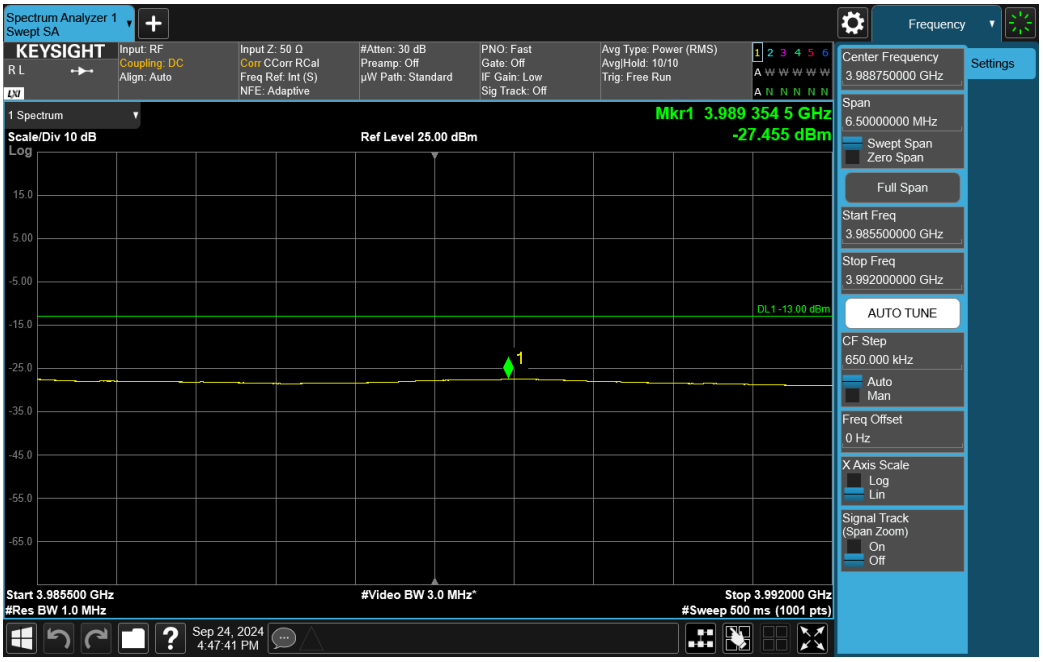
Plot 7-269. Upper ACP Plot (NR Band n77 C-Band - 60MHz DFT-s-OFDM QPSK – Full RB)



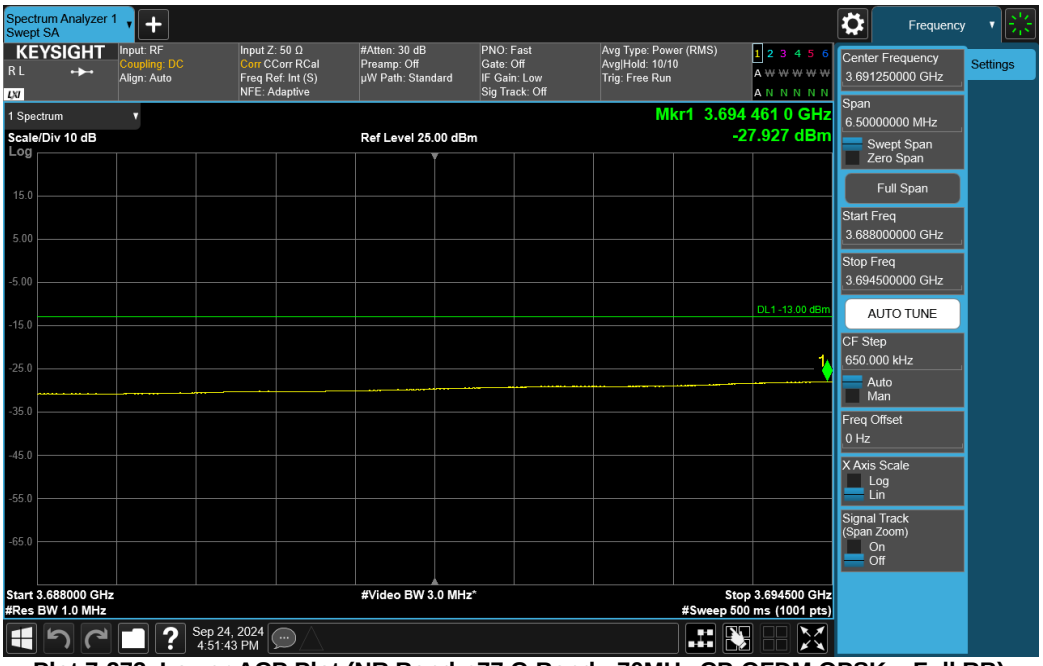
Plot 7-270. Upper ACP Plot (NR Band n77 C-Band - 60MHz DFT-s-OFDM QPSK – Full RB)



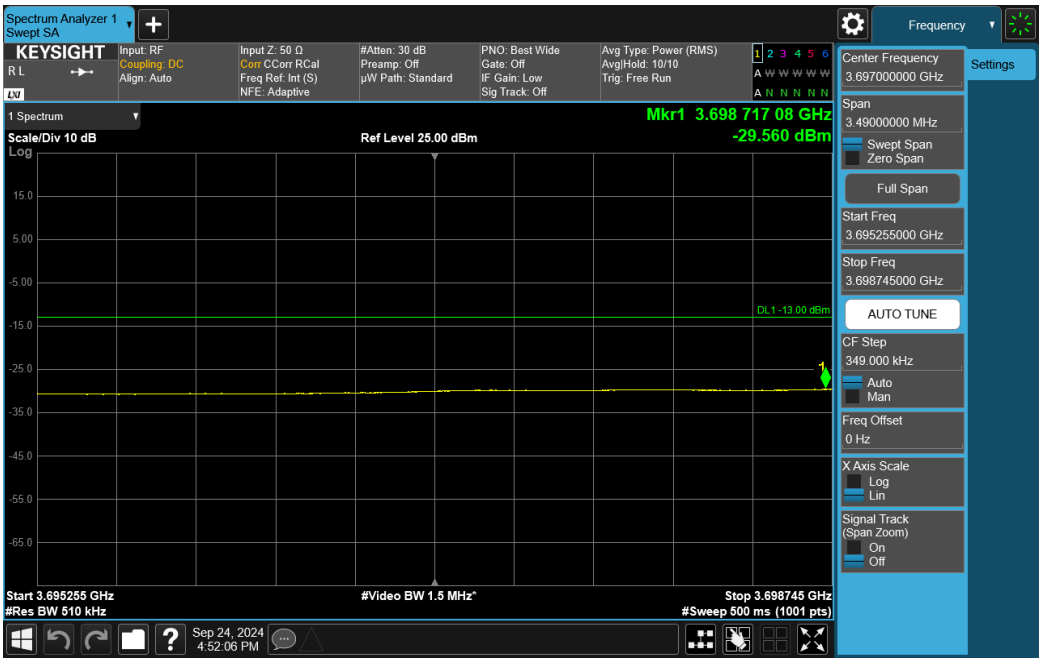
Plot 7-271. Upper ACP Plot (NR Band n77 C-Band - 60MHz DFT-s-OFDM QPSK – Full RB)



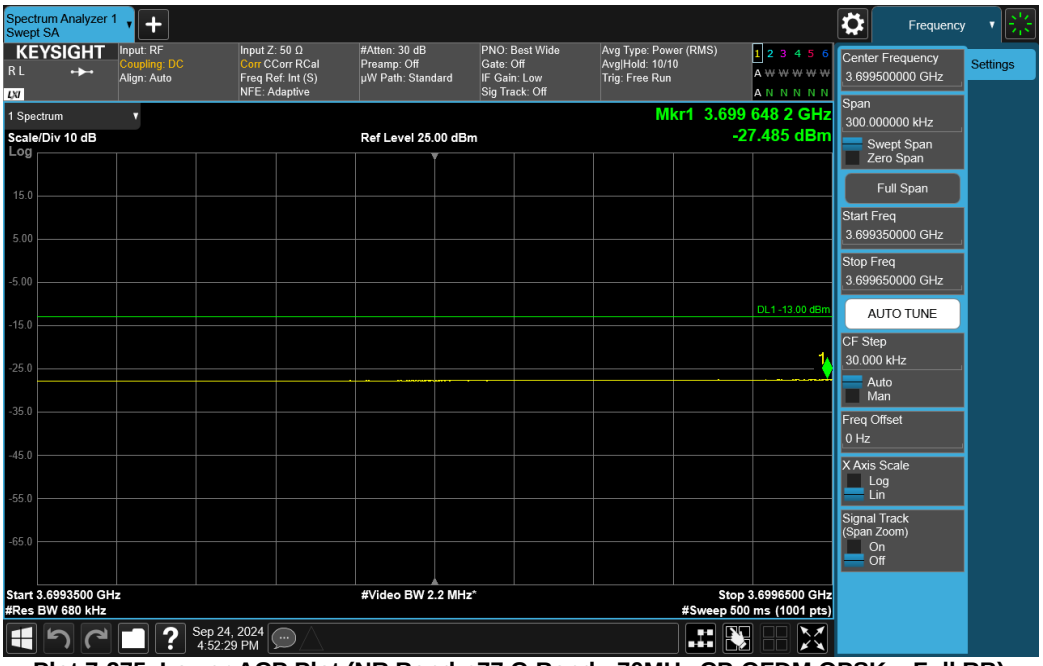
Plot 7-272. Upper ACP Plot (NR Band n77 C-Band - 60MHz DFT-s-OFDM QPSK – Full RB)



Plot 7-273. Lower ACP Plot (NR Band n77 C-Band - 70MHz CP-OFDM QPSK – Full RB)

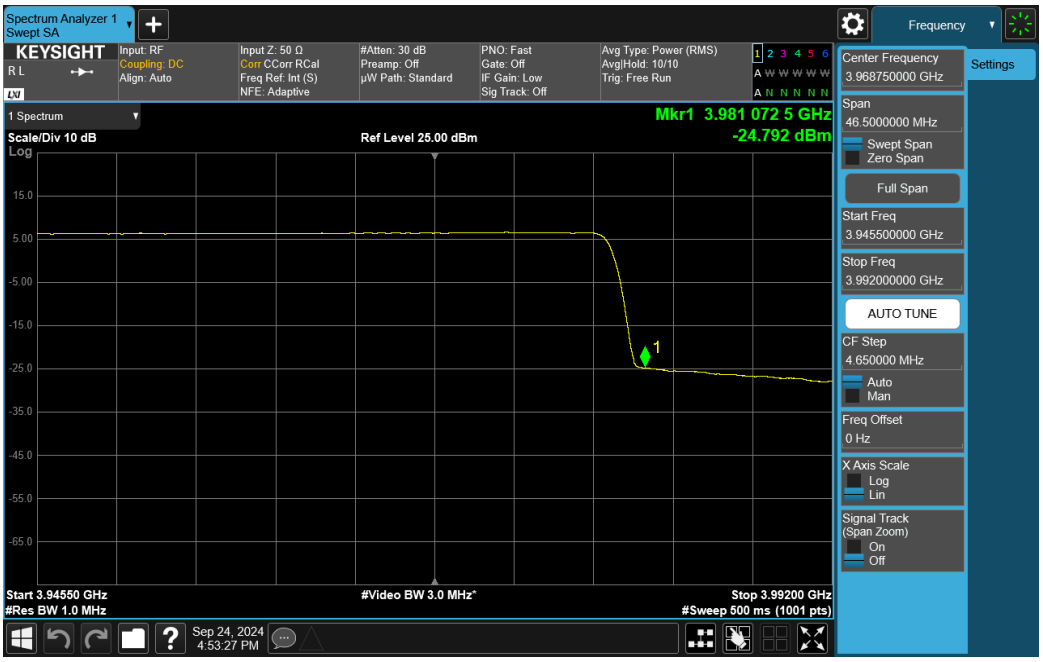


Plot 7-274. Lower ACP Plot (NR Band n77 C-Band - 70MHz CP-OFDM QPSK – Full RB)

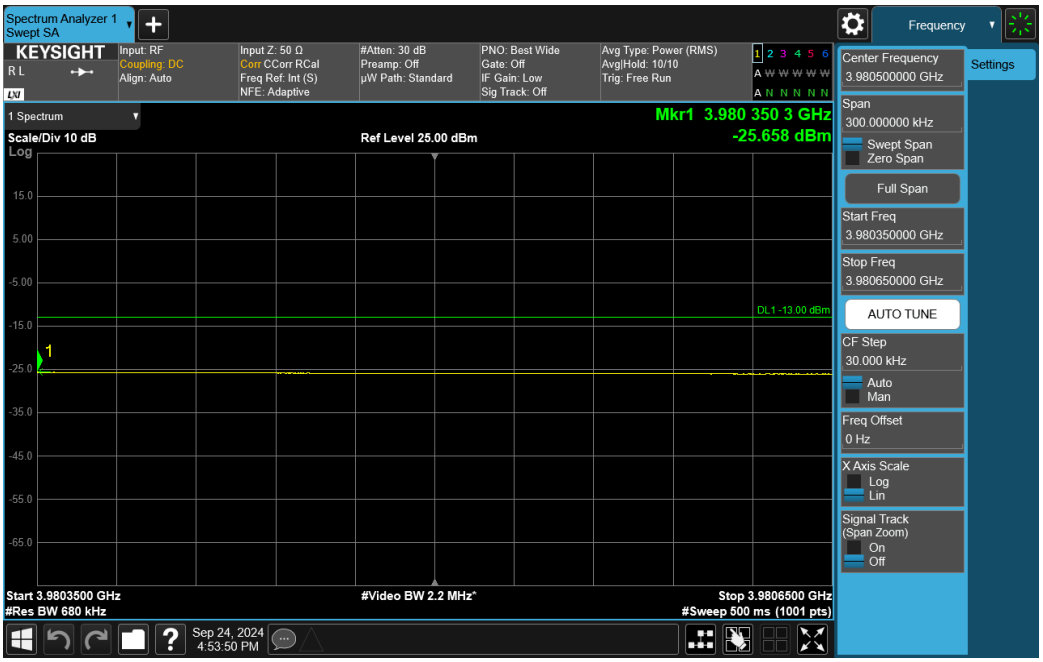


Plot 7-275. Lower ACP Plot (NR Band n77 C-Band - 70MHz CP-OFDM QPSK – Full RB)

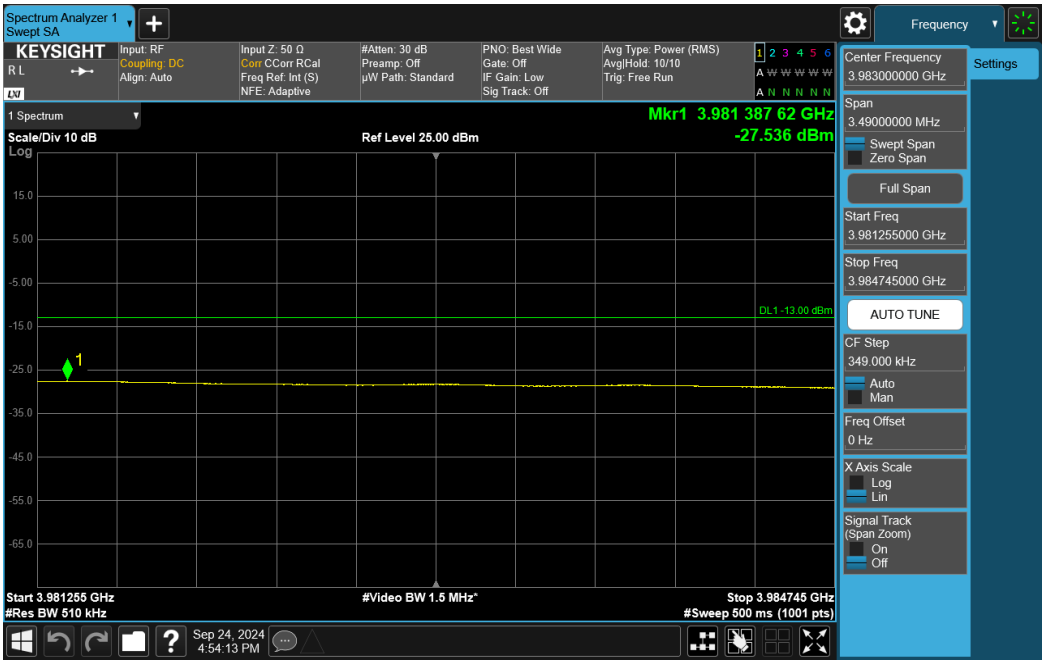
Plot 7-276. Lower ACP Plot (NR Band n77 C-Band - 70MHz CP-OFDM QPSK – Full RB)



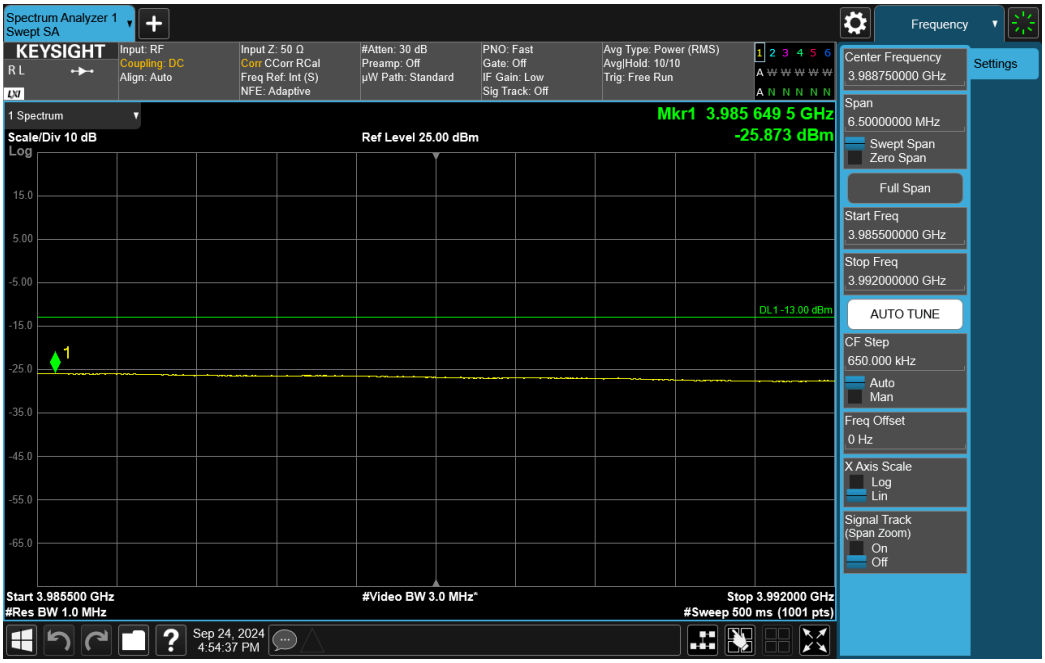
Plot 7-277. Upper ACP Plot (NR Band n77 C-Band - 70MHz CP-OFDM QPSK – Full RB)



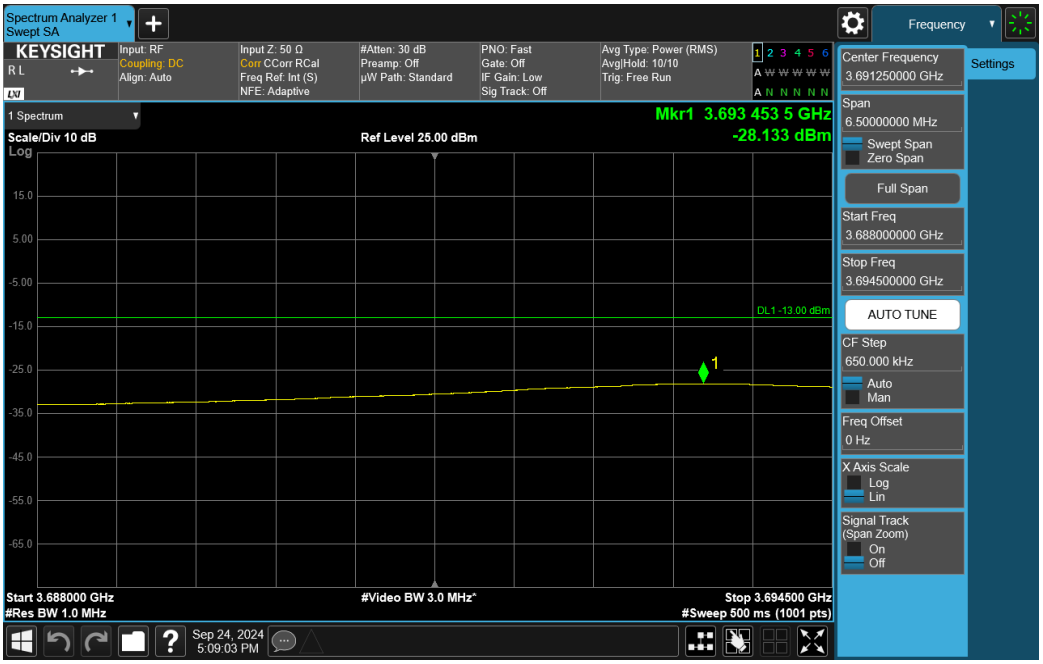
Plot 7-278. Upper ACP Plot (NR Band n77 C-Band - 70MHz CP-OFDM QPSK – Full RB)



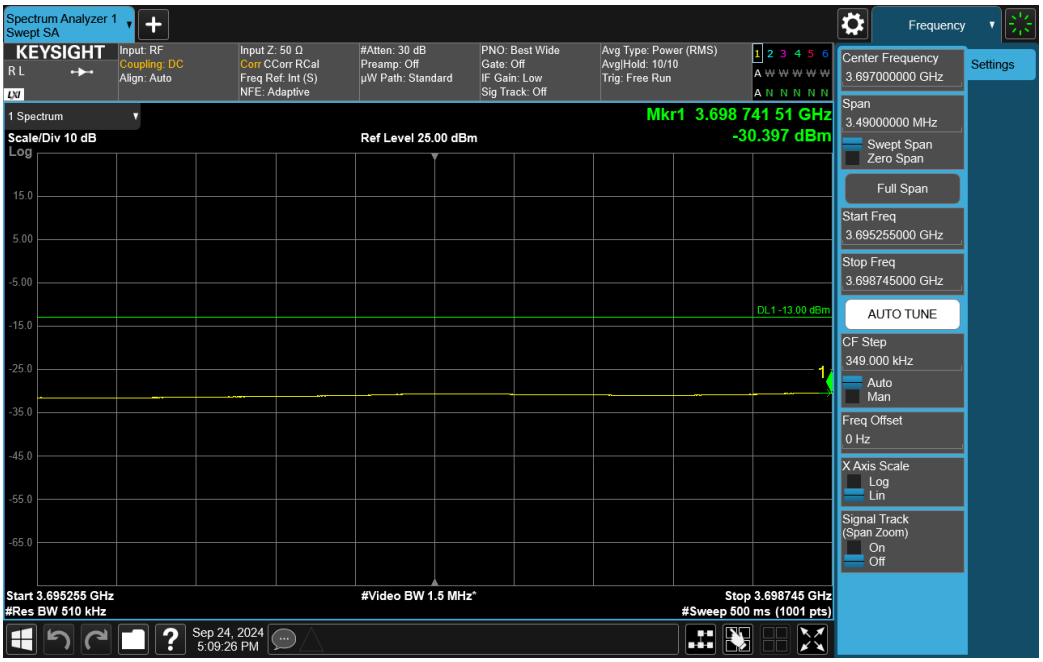
Plot 7-279. Upper ACP Plot (NR Band n77 C-Band - 70MHz CP-OFDM QPSK – Full RB)



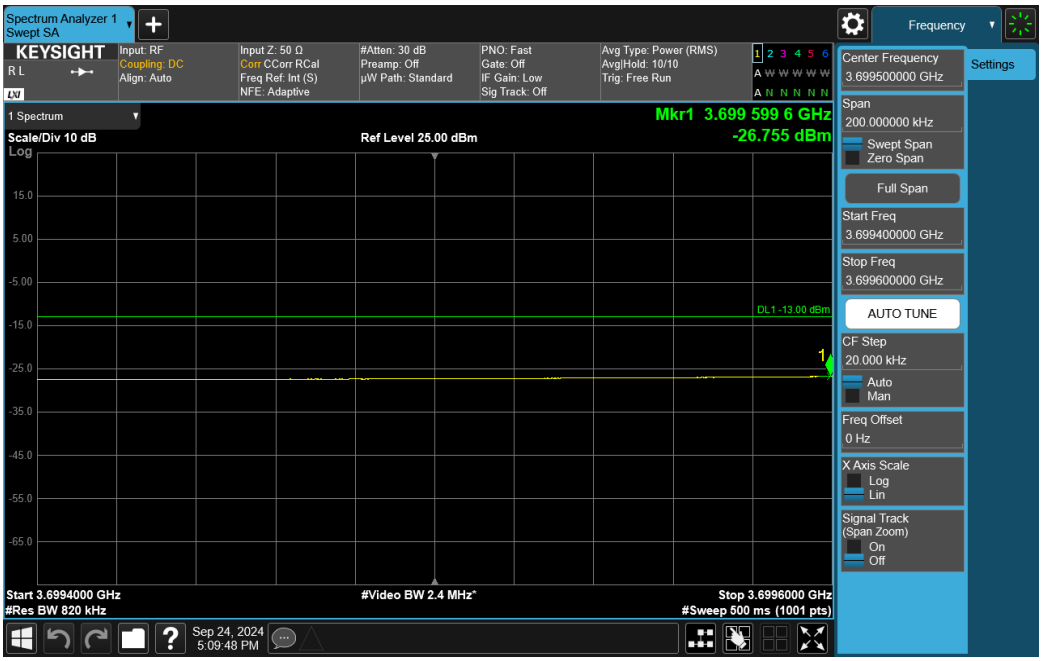
Plot 7-280. Upper ACP Plot (NR Band n77 C-Band - 70MHz CP-OFDM QPSK – Full RB)



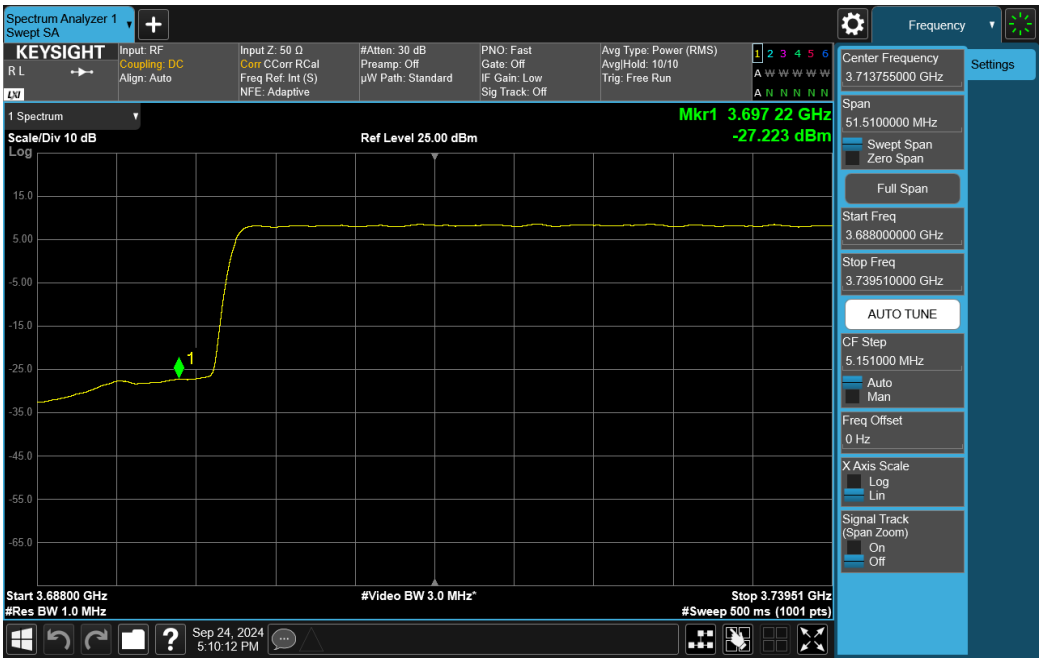
Plot 7-281. Lower ACP Plot (NR Band n77 C-Band - 80MHz DFT-s-OFDM π/2 BPSK – Full RB)



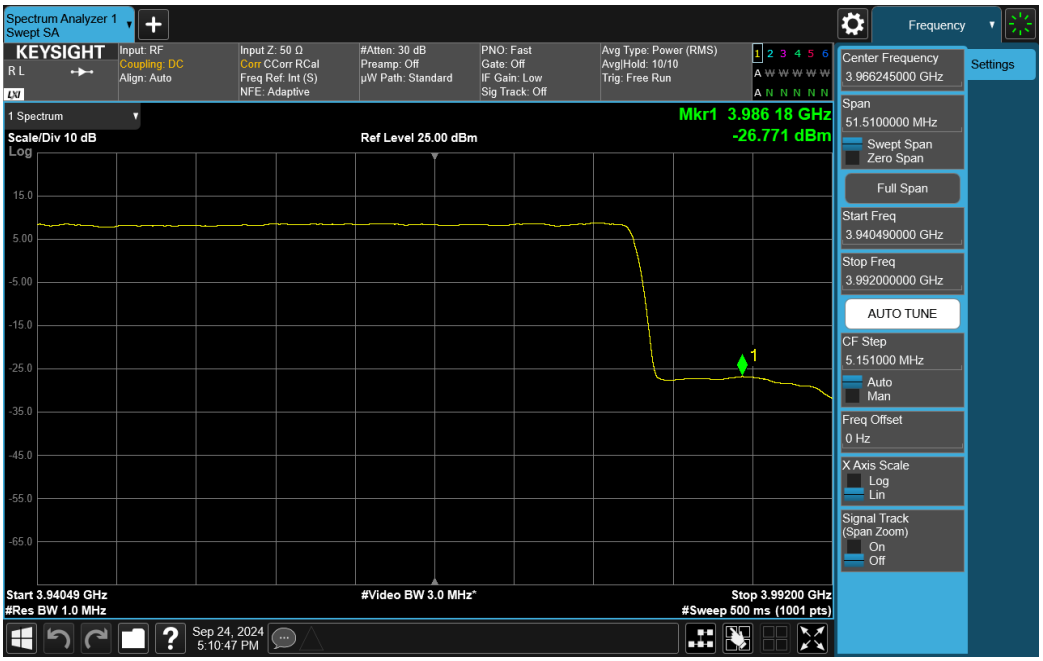
Plot 7-282. Lower ACP Plot (NR Band n77 C-Band - 80MHz DFT-s-OFDM π/2 BPSK – Full RB)



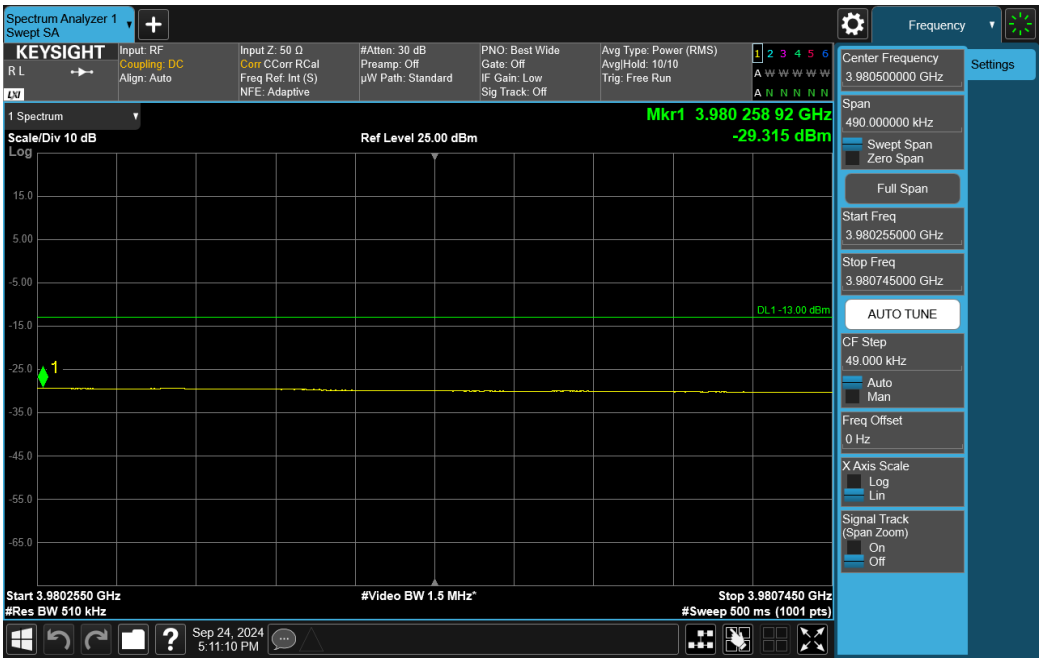
Plot 7-283. Lower ACP Plot (NR Band n77 C-Band - 80MHz DFT-s-OFDM π/2 BPSK – Full RB)



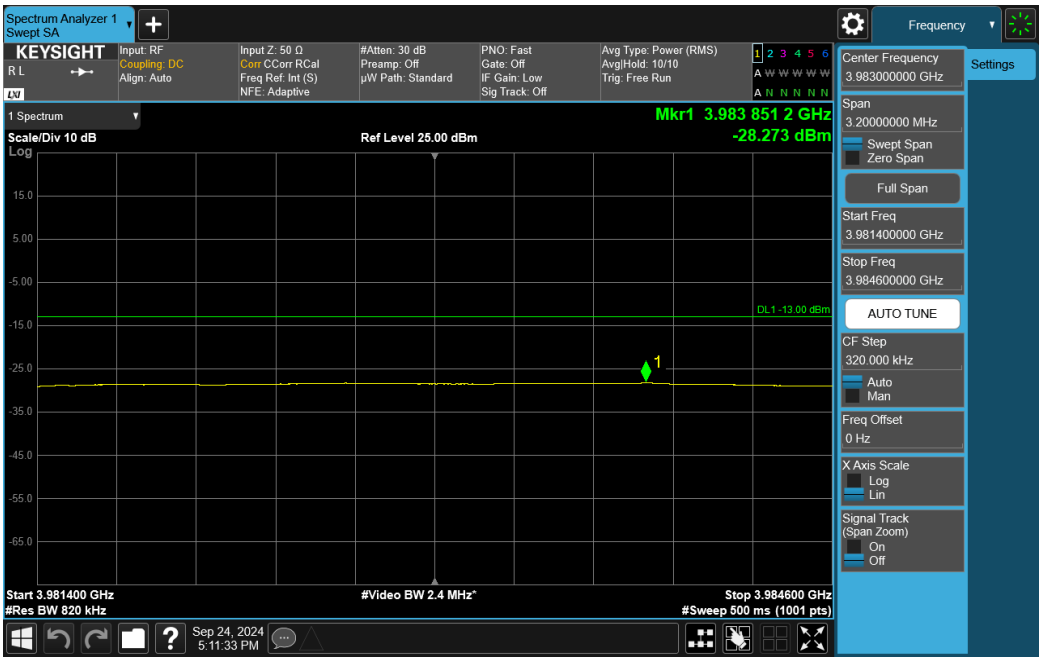
Plot 7-284. Lower ACP Plot (NR Band n77 C-Band - 80MHz DFT-s-OFDM π/2 BPSK – Full RB)



Plot 7-285. Upper ACP Plot (NR Band n77 C-Band - 80MHz DFT-s-OFDM π/2 BPSK – Full RB)

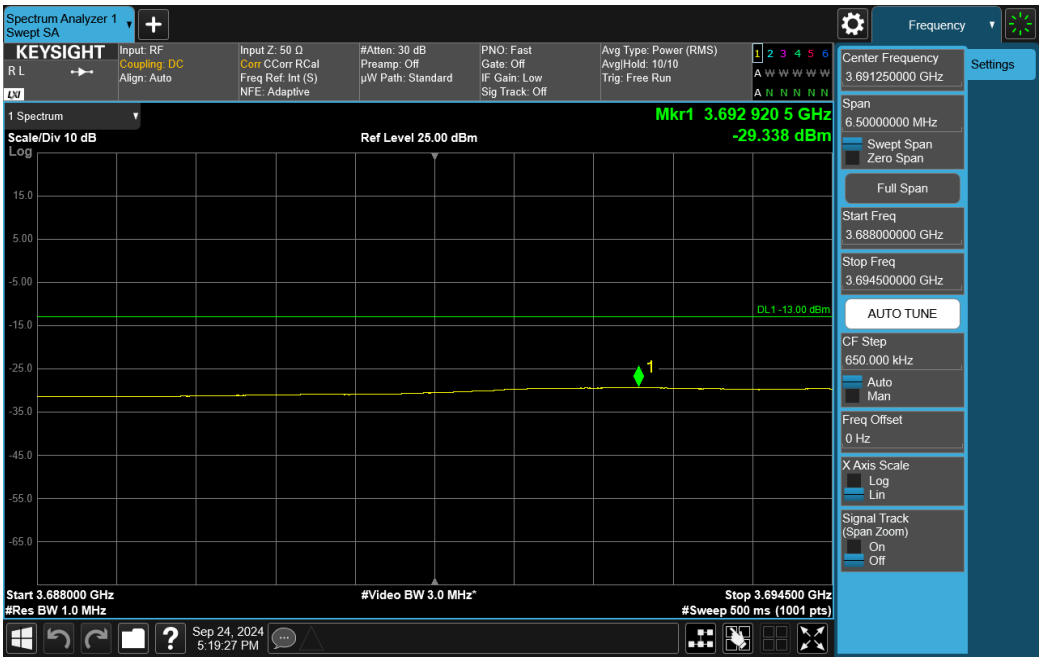


Plot 7-286. Upper ACP Plot (NR Band n77 C-Band - 80MHz DFT-s-OFDM π/2 BPSK – Full RB)

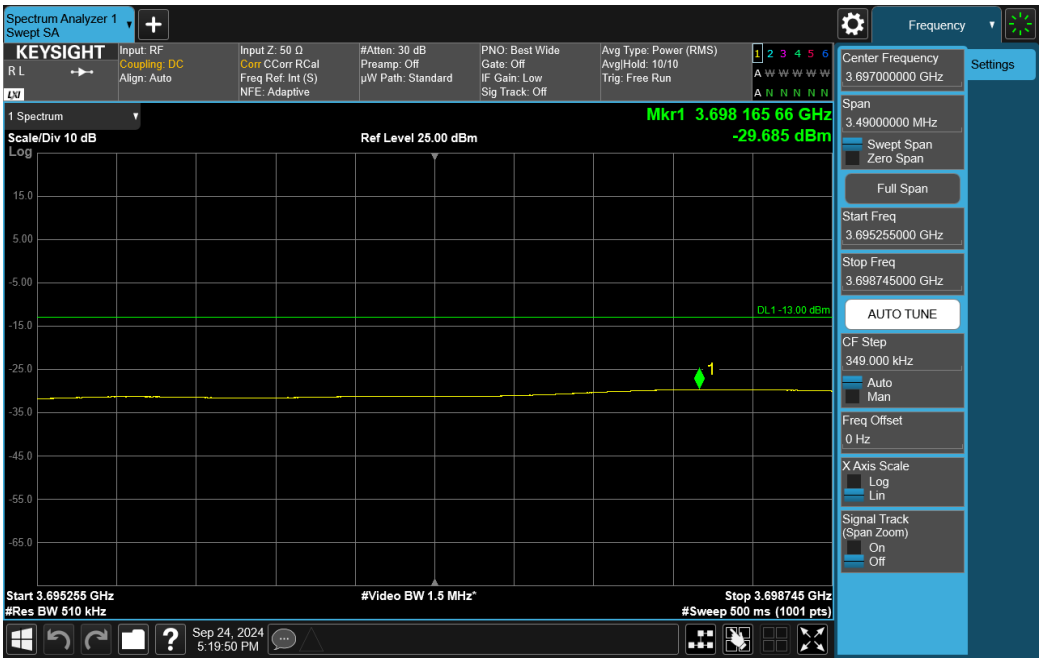


Plot 7-287. Upper ACP Plot (NR Band n77 C-Band - 80MHz DFT-s-OFDM π/2 BPSK – Full RB)

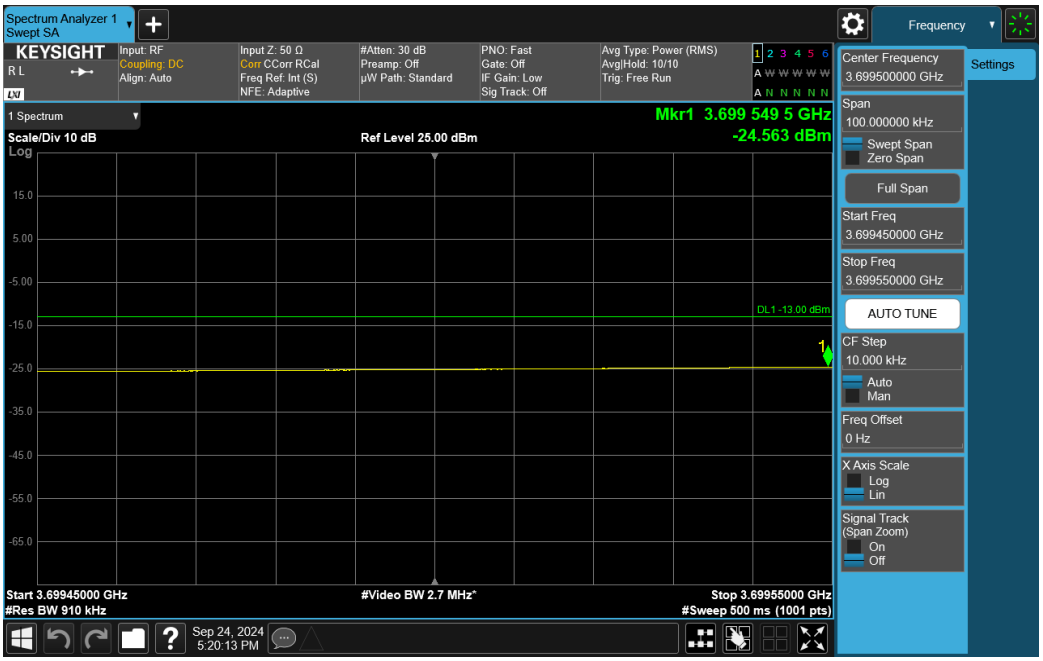
Plot 7-288. Upper ACP Plot (NR Band n77 C-Band - 80MHz DFT-s-OFDM π/2 BPSK – Full RB)



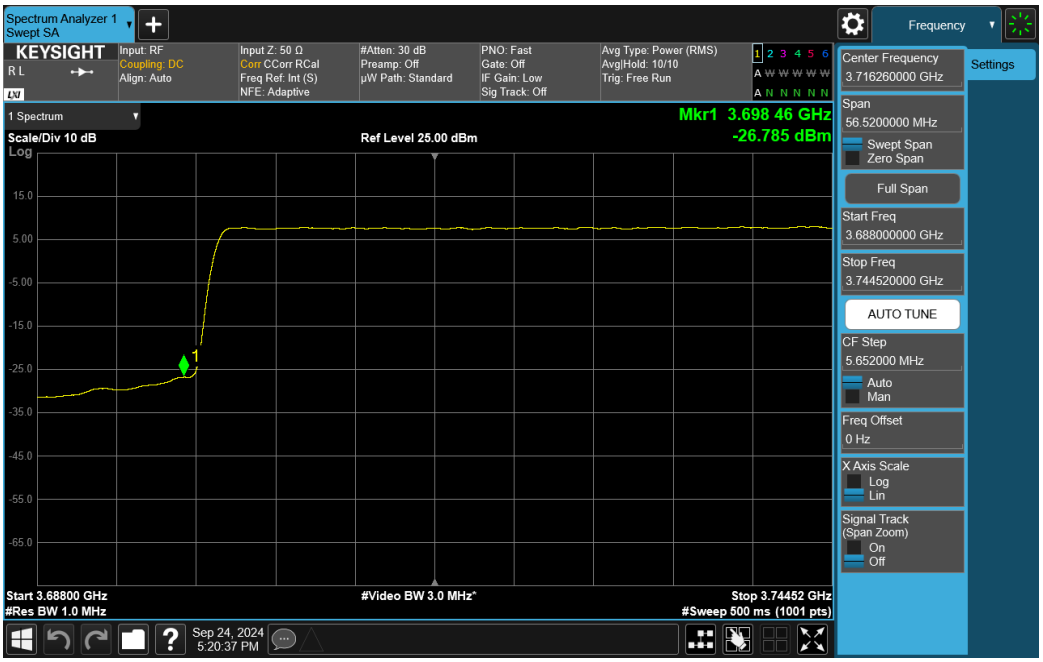
Plot 7-289. Lower ACP Plot (NR Band n77 C-Band - 90MHz DFT-s-OFDM π/2 BPSK – Full RB)



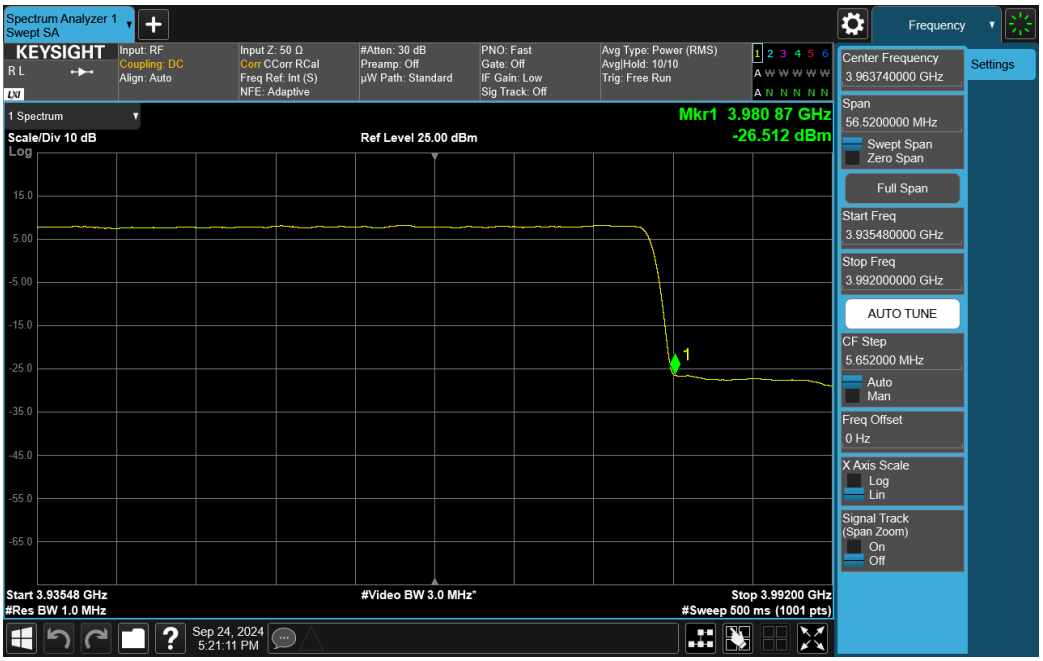
Plot 7-290. Lower ACP Plot (NR Band n77 C-Band - 90MHz DFT-s-OFDM π/2 BPSK – Full RB)



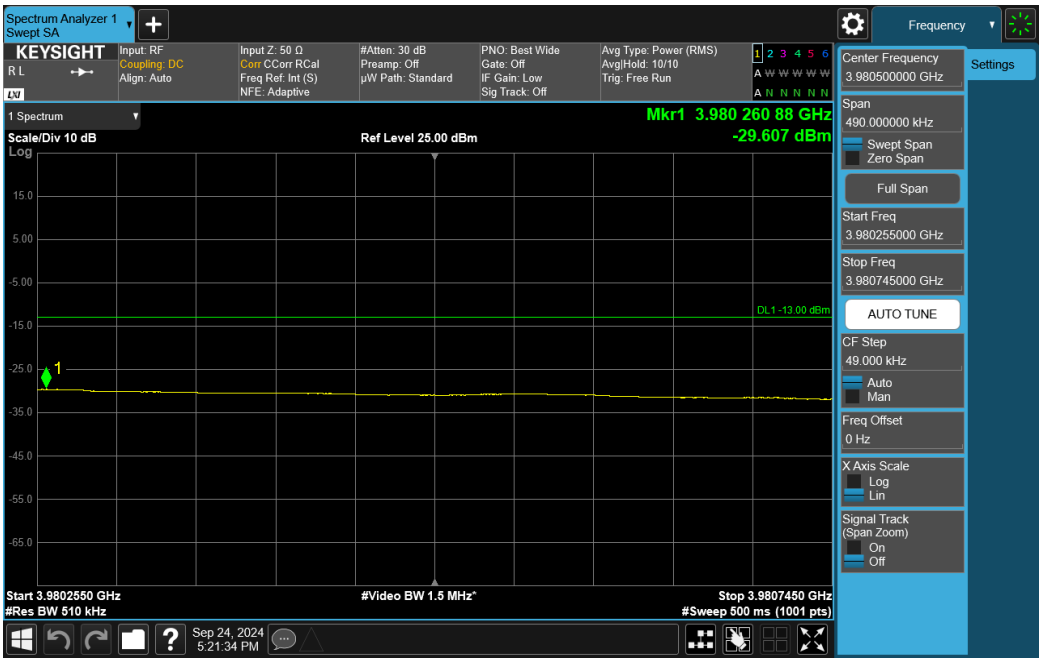
Plot 7-291. Lower ACP Plot (NR Band n77 C-Band - 90MHz DFT-s-OFDM π/2 BPSK – Full RB)



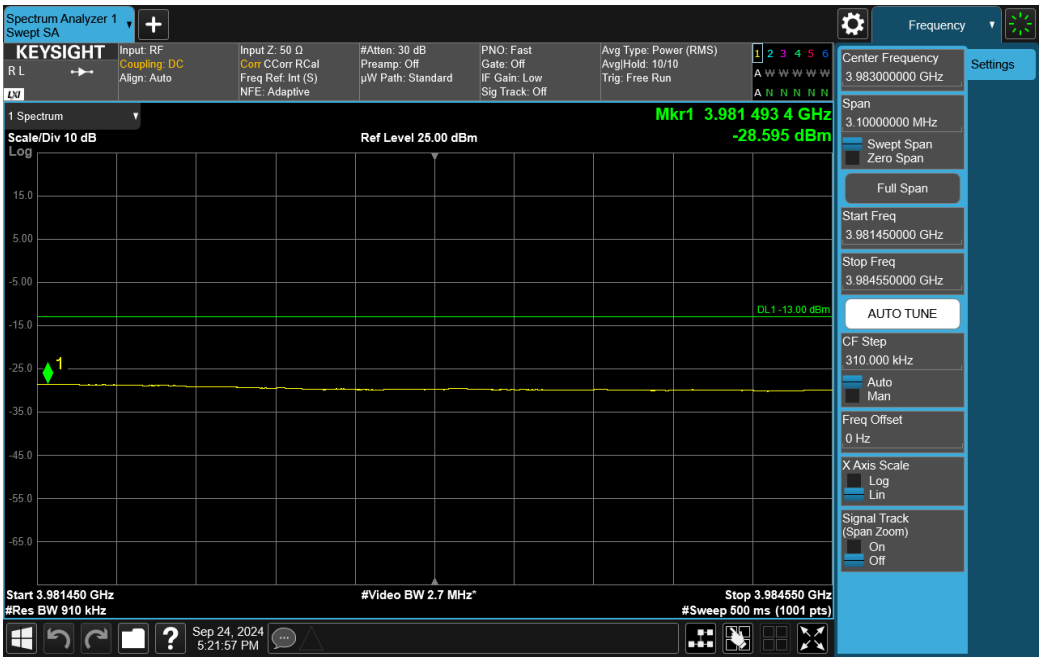
Plot 7-292. Lower ACP Plot (NR Band n77 C-Band - 90MHz DFT-s-OFDM π/2 BPSK – Full RB)



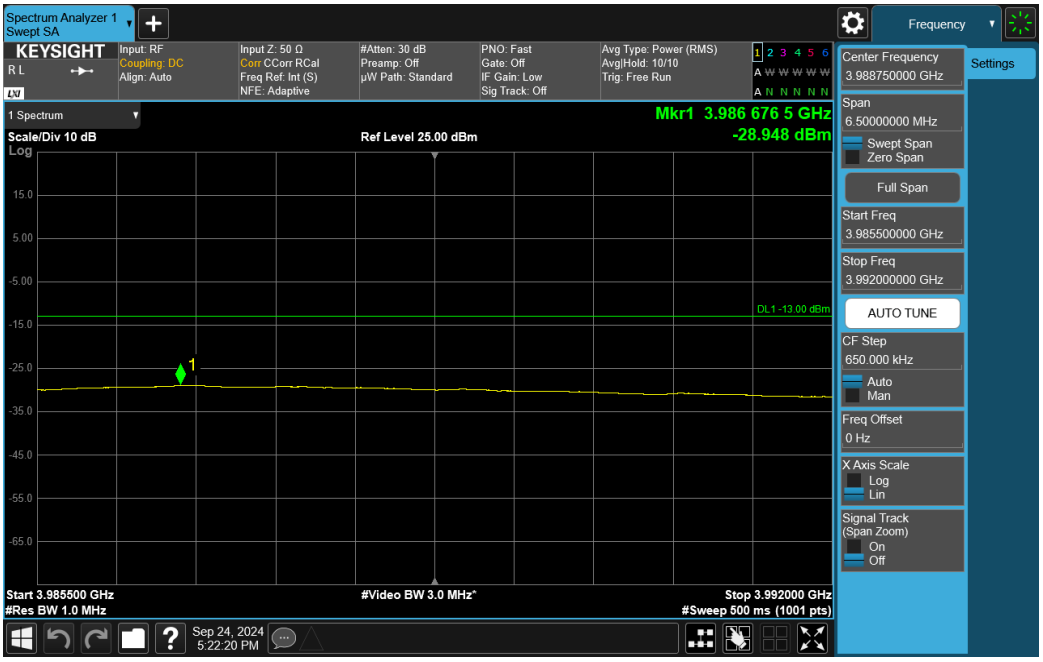
Plot 7-293. Upper ACP Plot (NR Band n77 C-Band - 90MHz DFT-s-OFDM π/2 BPSK – Full RB)



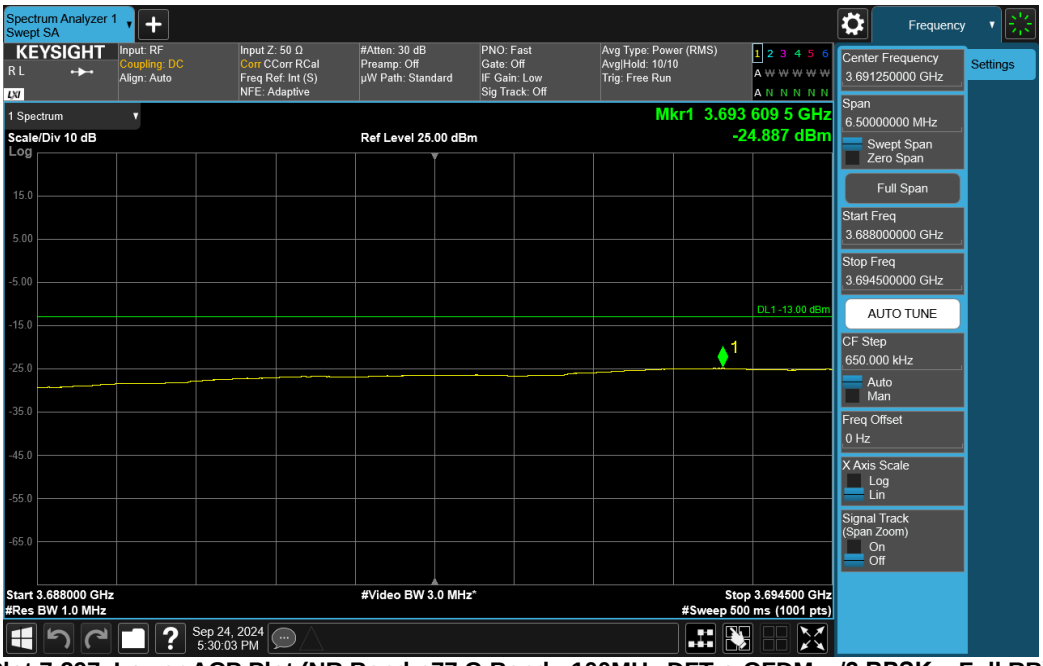
Plot 7-294. Upper ACP Plot (NR Band n77 C-Band - 90MHz DFT-s-OFDM π/2 BPSK – Full RB)



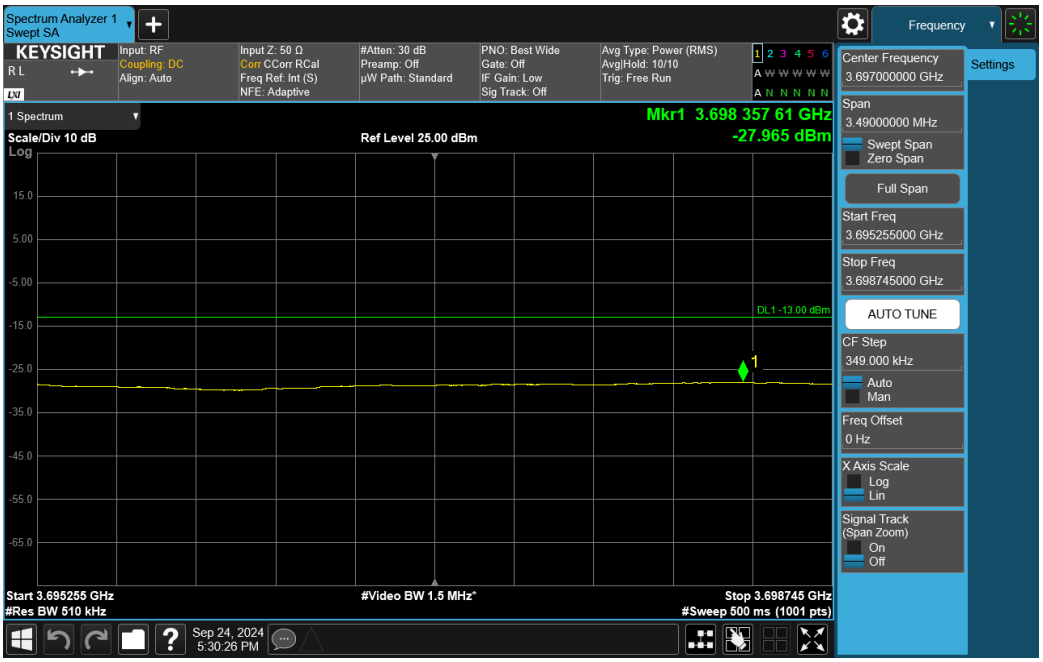
Plot 7-295. Upper ACP Plot (NR Band n77 C-Band - 90MHz DFT-s-OFDM π/2 BPSK – Full RB)



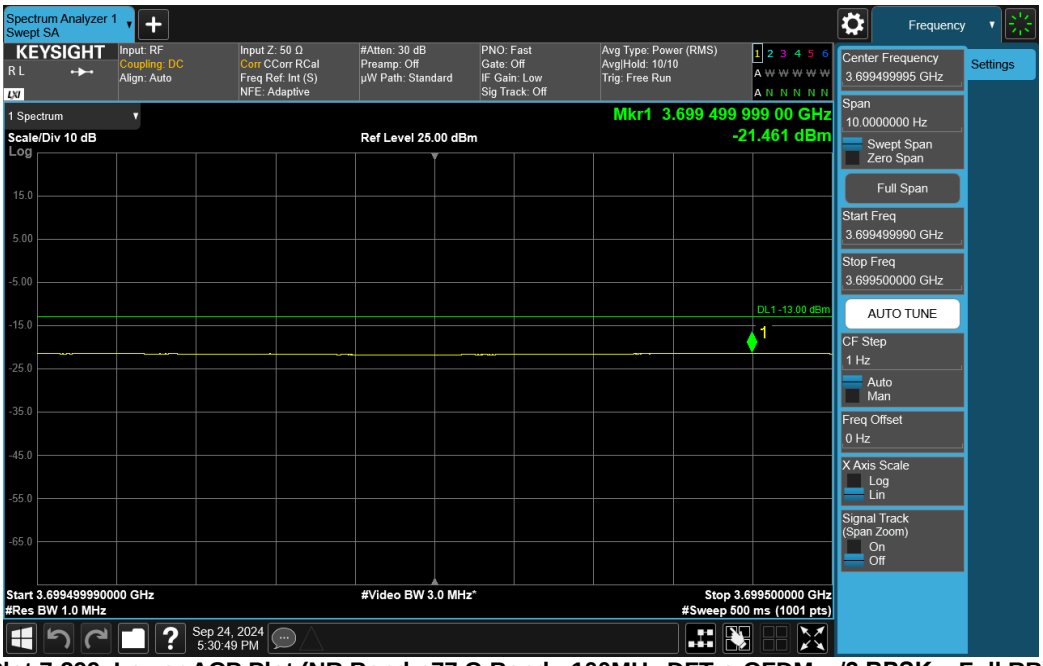
Plot 7-296. Upper ACP Plot (NR Band n77 C-Band - 90MHz DFT-s-OFDM π/2 BPSK – Full RB)



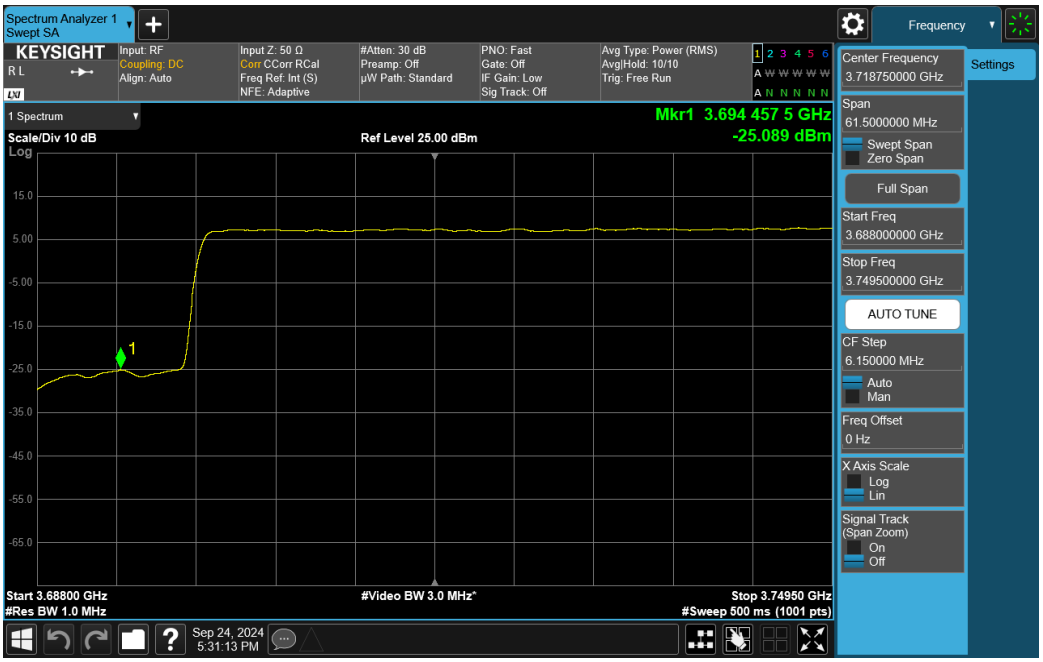
Plot 7-297. Lower ACP Plot (NR Band n77 C-Band - 100MHz DFT-s-OFDM π/2 BPSK – Full RB)



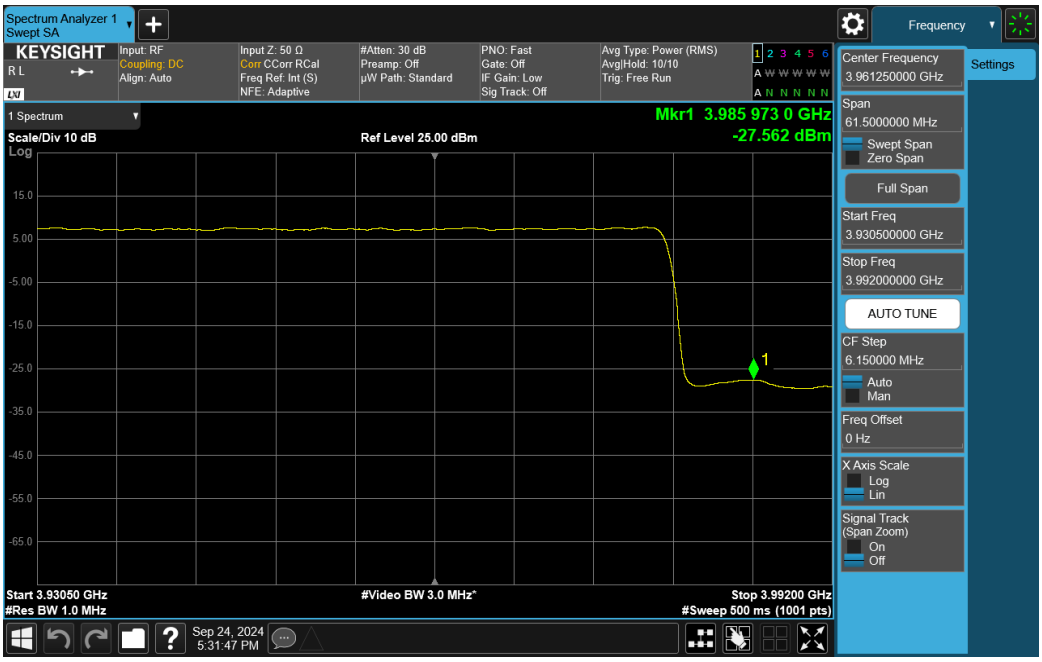
Plot 7-298. Lower ACP Plot (NR Band n77 C-Band - 100MHz DFT-s-OFDM π/2 BPSK – Full RB)



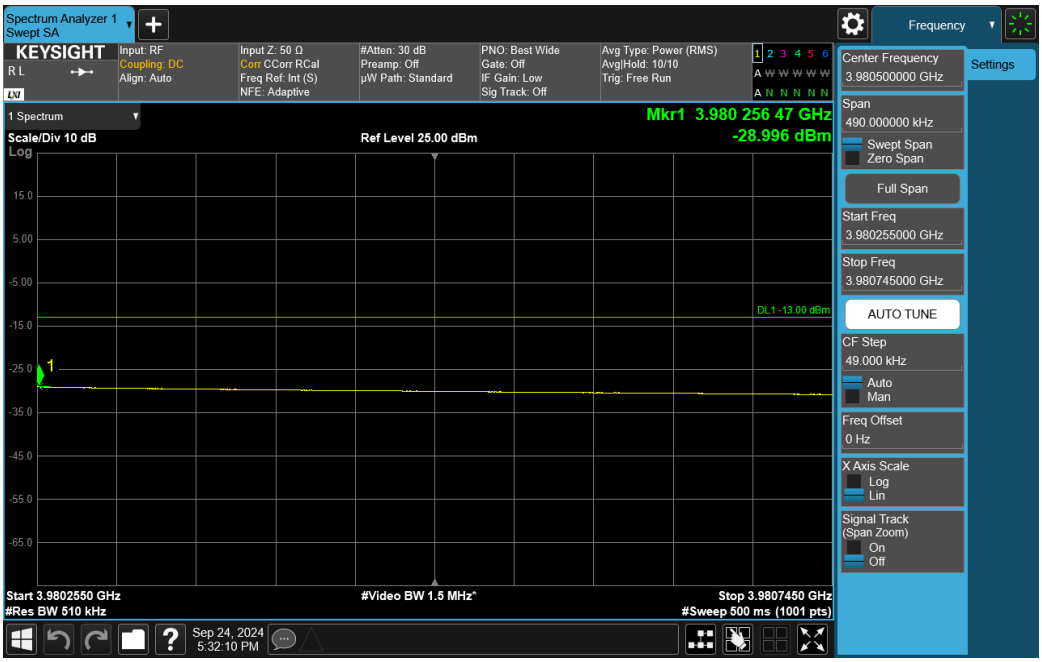
Plot 7-299. Lower ACP Plot (NR Band n77 C-Band - 100MHz DFT-s-OFDM π/2 BPSK – Full RB)



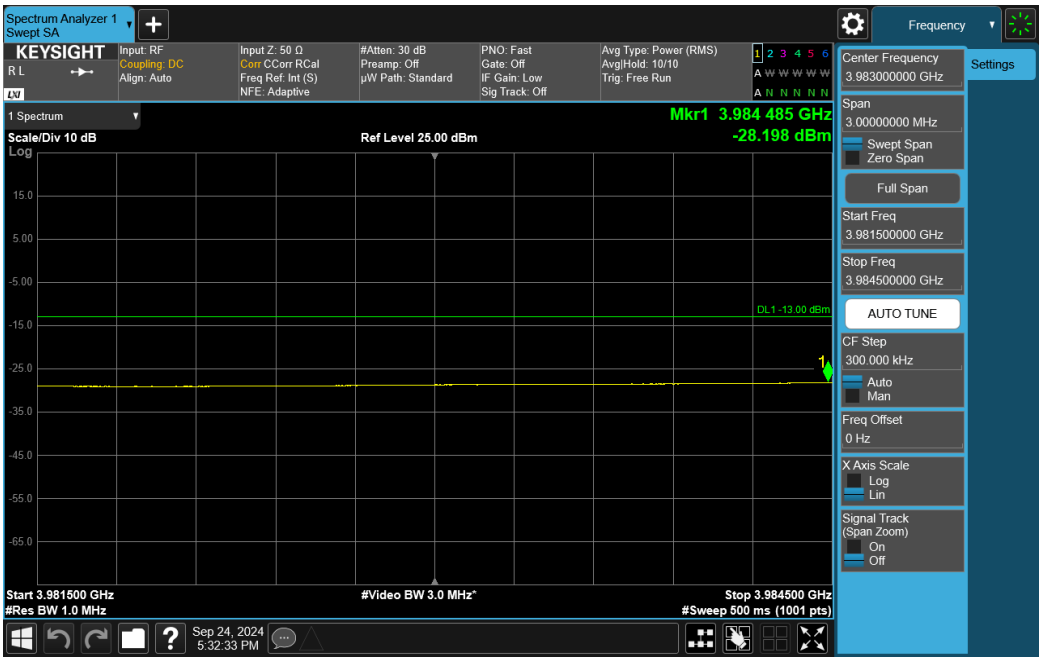
Plot 7-300. Lower ACP Plot (NR Band n77 C-Band - 100MHz DFT-s-OFDM π/2 BPSK – Full RB)



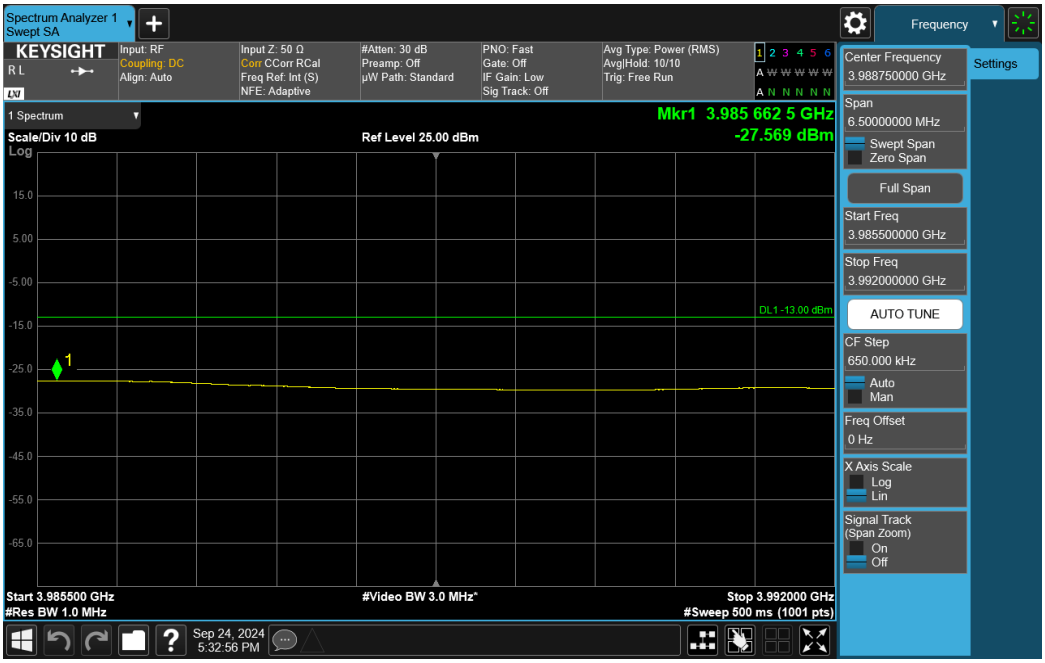
Plot 7-301. Upper ACP Plot (NR Band n77 C-Band - 100MHz DFT-s-OFDM π/2 BPSK – Full RB)



Plot 7-302. Upper ACP Plot (NR Band n77 C-Band - 100MHz DFT-s-OFDM π/2 BPSK – Full RB)



Plot 7-303. Upper ACP Plot (NR Band n77 C-Band - 100MHz DFT-s-OFDM π/2 BPSK – Full RB)



Plot 7-304. Upper ACP Plot (NR Band n77 C-Band - 100MHz DFT-s-OFDM π/2 BPSK – Full RB)

7.5 Peak-Average Ratio

§27.50(k)(4), §27.50(j)(4);

Test Overview and Limit

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. All ports were tested and only the worst case data were reported.

The peak to average power ratio (PAPR) of the equipment shall not exceed 13 dB for more than 0.1% of the time.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 5.7.1

Test Settings

1. The signal analyzer's CCDF measurement profile is enabled
2. Frequency = carrier center frequency
3. Measurement BW ≥ 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.

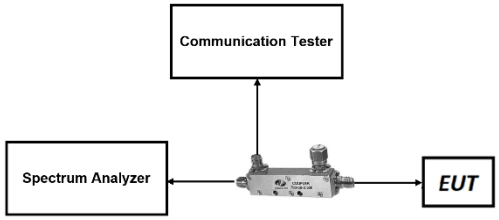


Figure 7-7. LTE Test Instrument & Measurement Setup

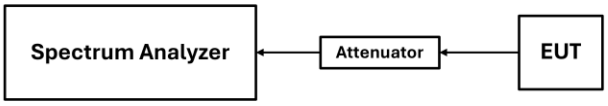
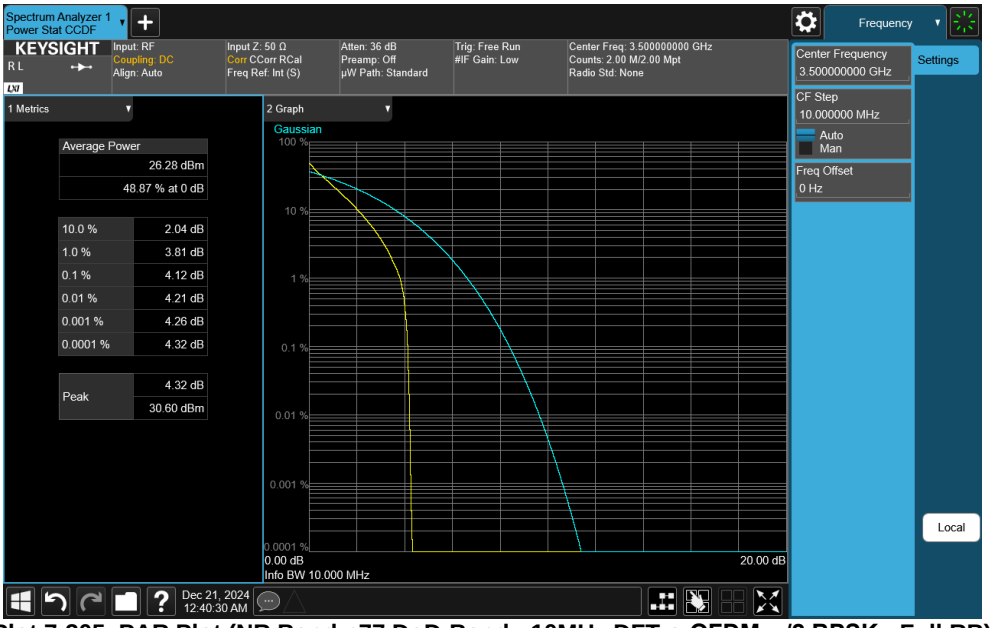


Figure 7-8. FR1 Test Instrument & Measurement Setup

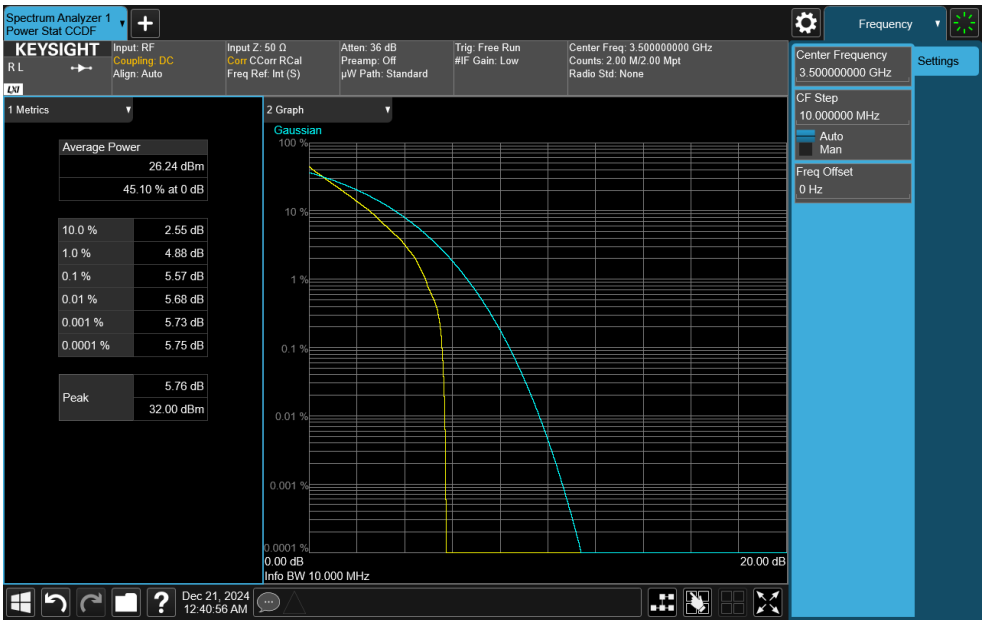
Test Notes

None.

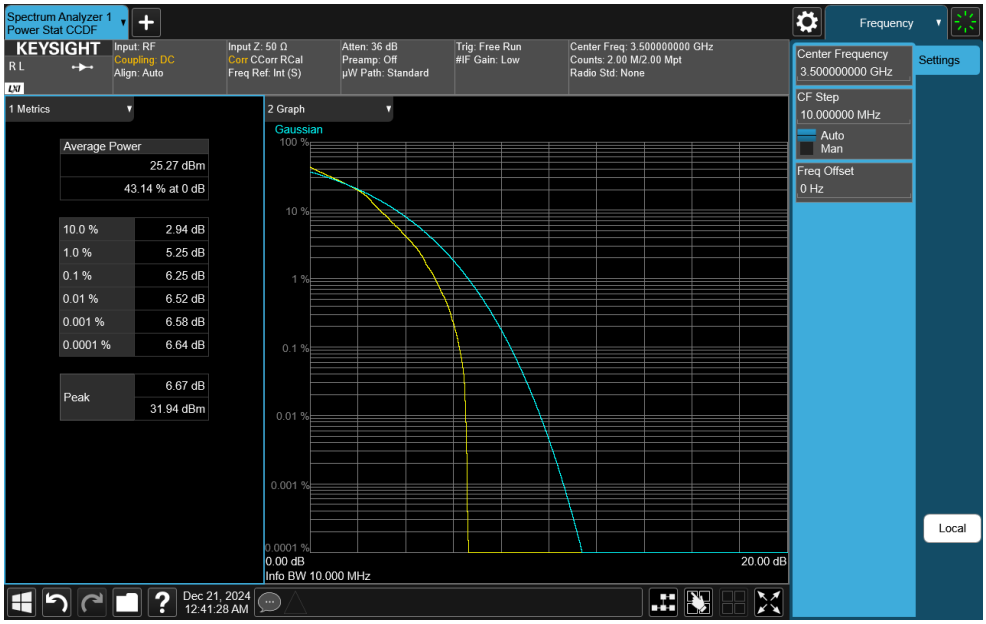
NR Band n77 DoD-Band



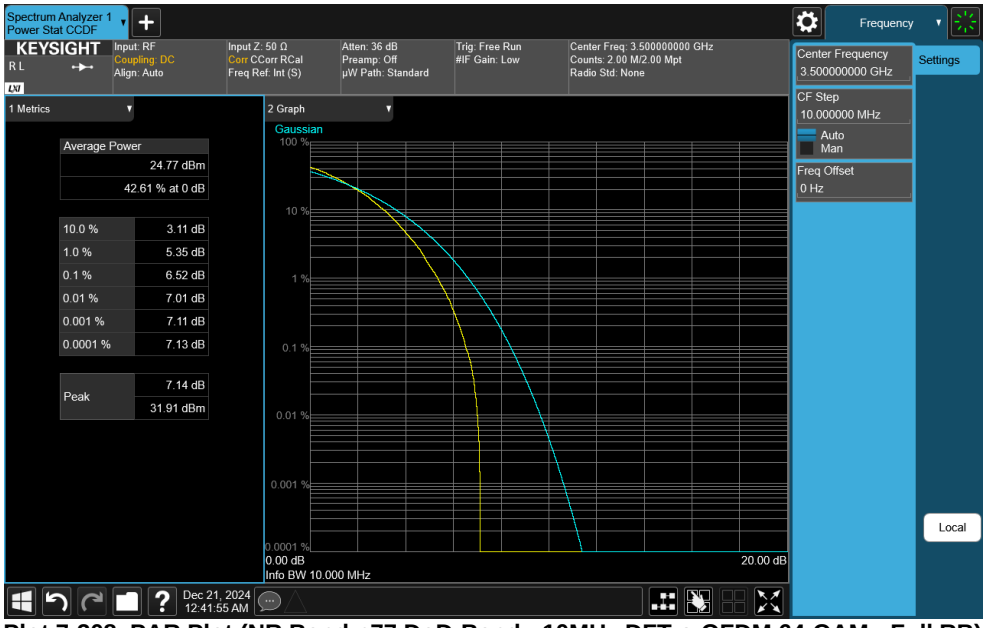
Plot 7-305. PAR Plot (NR Band n77 DoD-Band - 10MHz DFT-s-OFDM π/2 BPSK - Full RB)



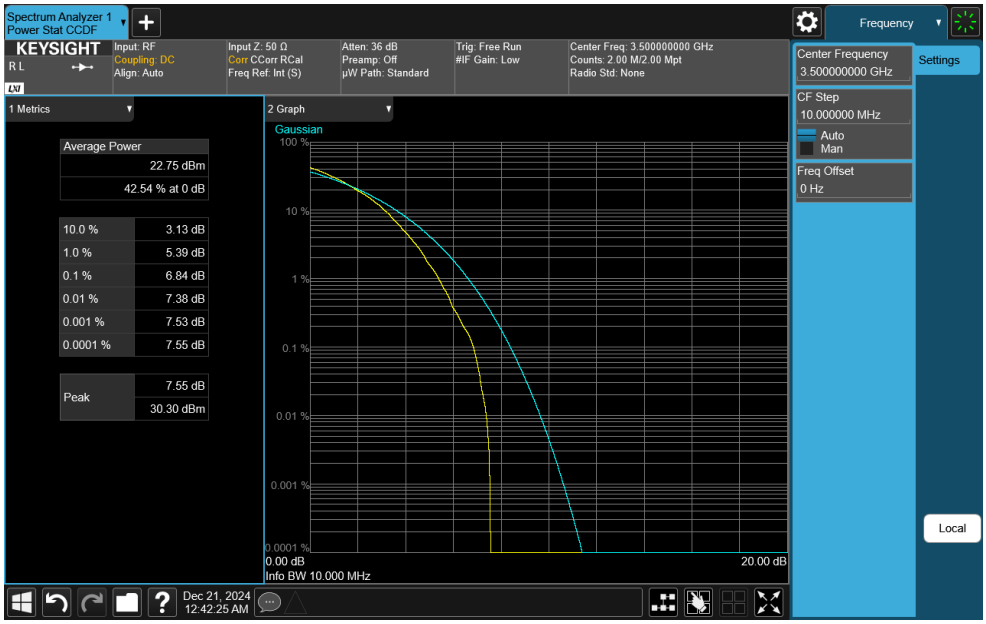
Plot 7-306. PAR Plot (NR Band n77 DoD-Band - 10MHz DFT-s-OFDM QPSK - Full RB)



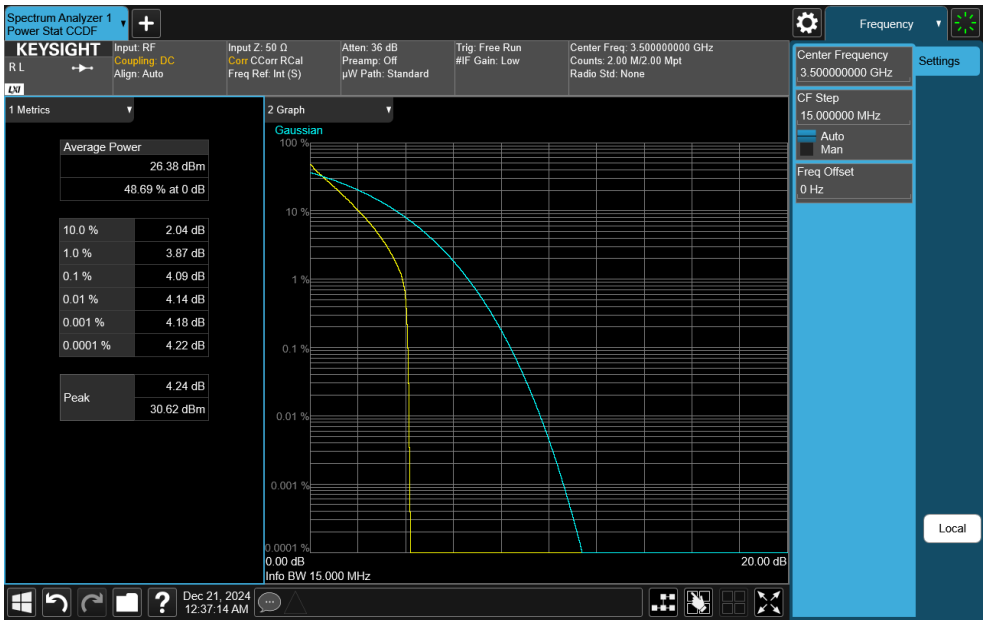
Plot 7-307. PAR Plot (NR Band n77 DoD-Band - 10MHz DFT-s-OFDM 16-QAM - Full RB)



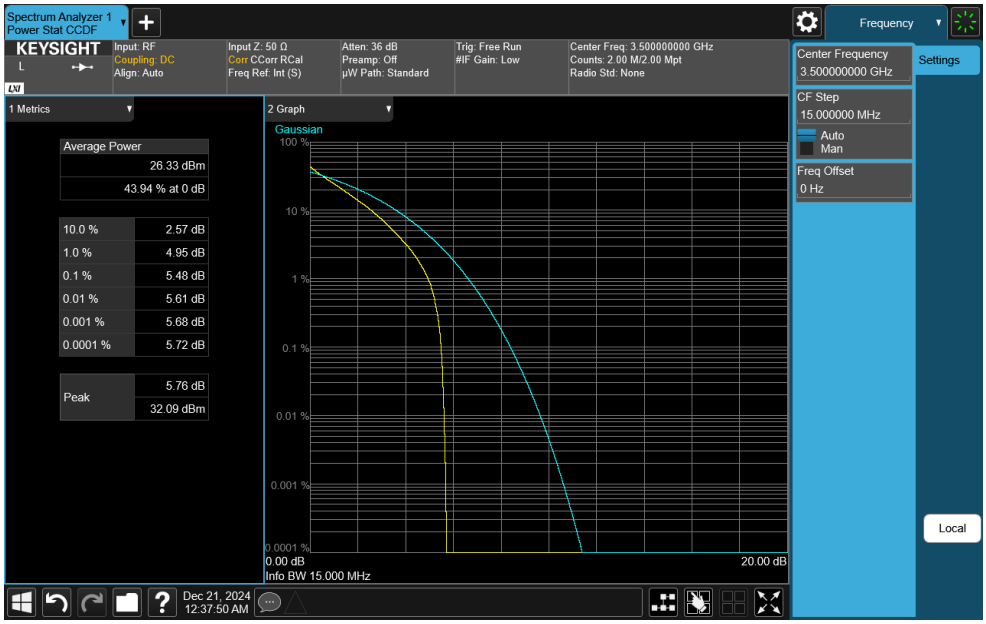
Plot 7-308. PAR Plot (NR Band n77 DoD-Band - 10MHz DFT-s-OFDM 64-QAM - Full RB)



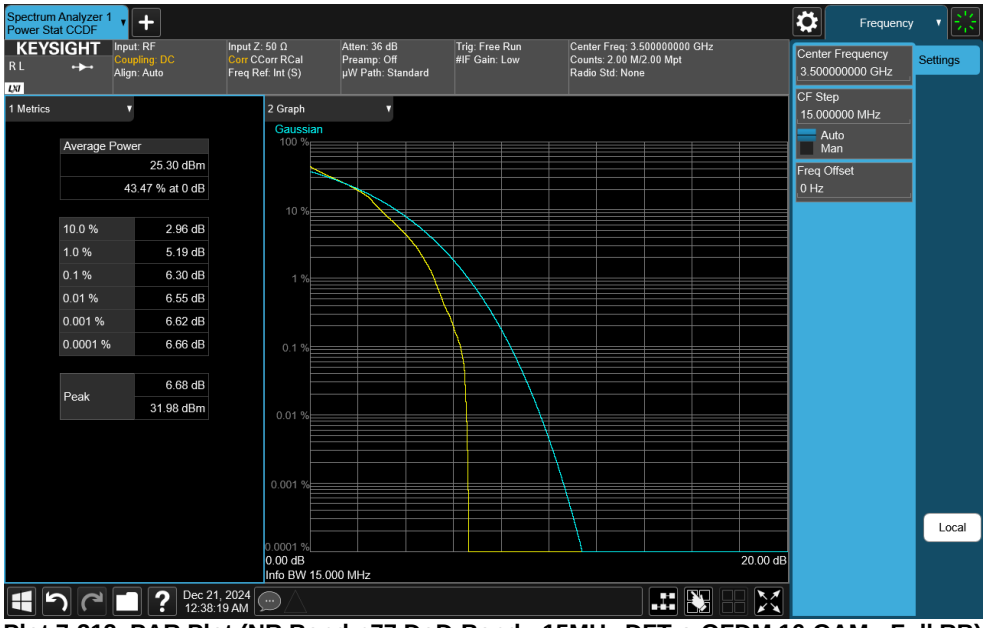
Plot 7-309. PAR Plot (NR Band n77 DoD-Band - 10MHz DFT-s-OFDM 256-QAM - Full RB)



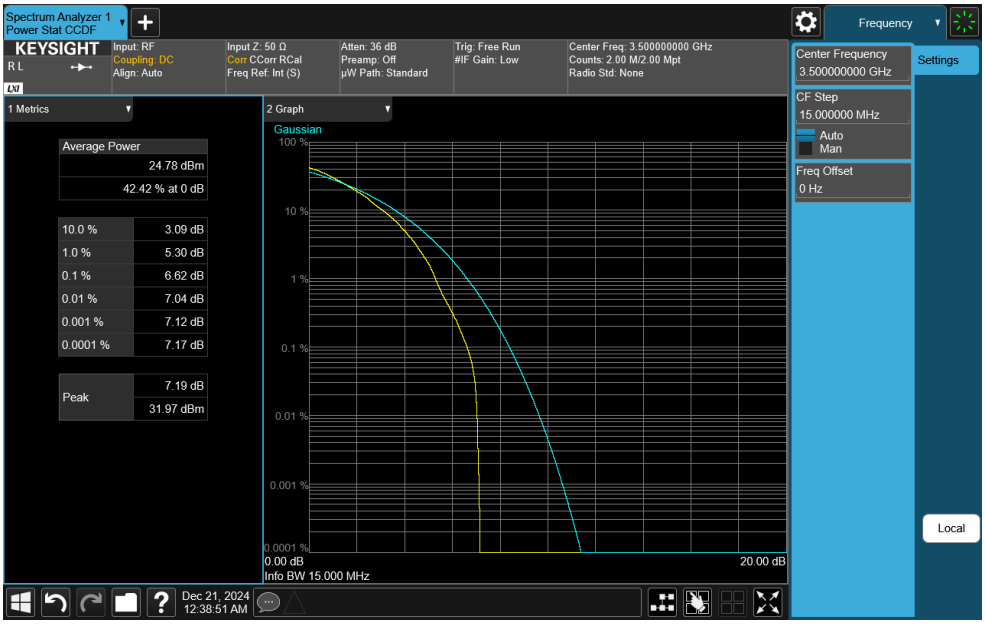
Plot 7-310. PAR Plot (NR Band n77 DoD-Band - 15MHz DFT-s-OFDM π/2 BPSK - Full RB)



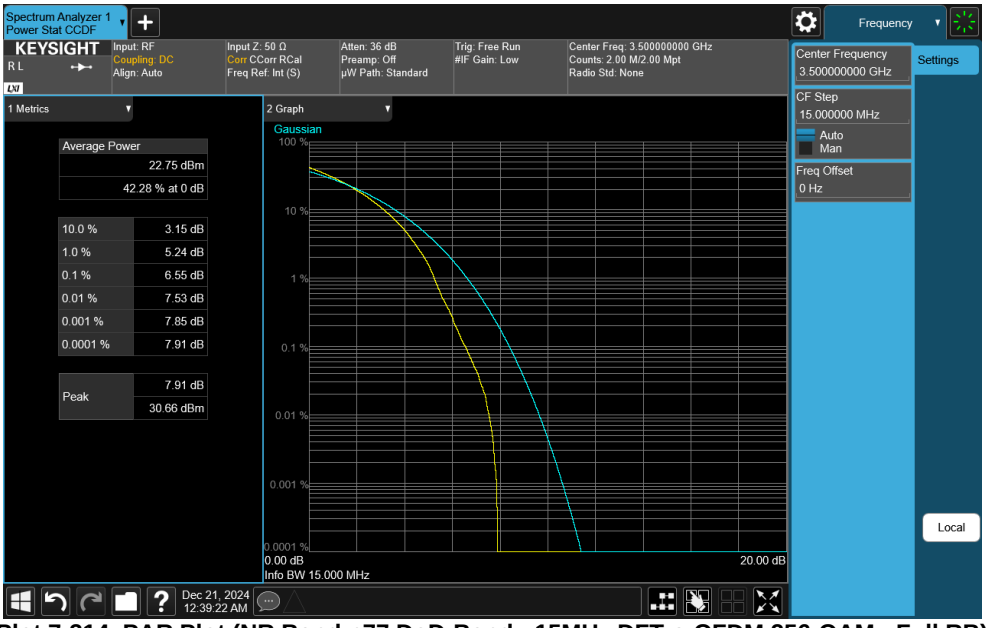
Plot 7-311. PAR Plot (NR Band n77 DoD-Band - 15MHz DFT-s-OFDM QPSK - Full RB)



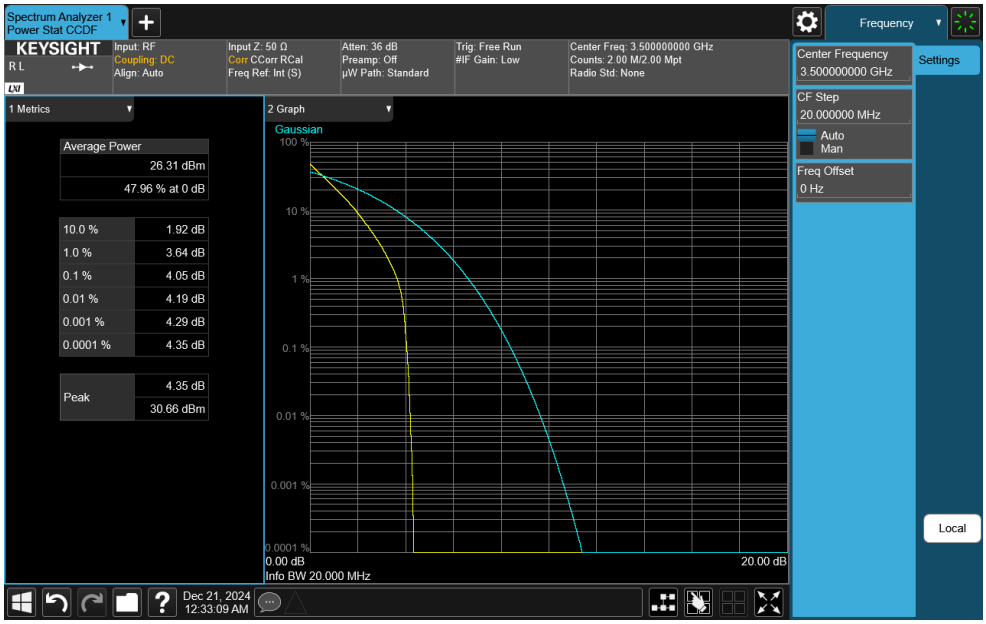
Plot 7-312. PAR Plot (NR Band n77 DoD-Band - 15MHz DFT-s-OFDM 16-QAM - Full RB)



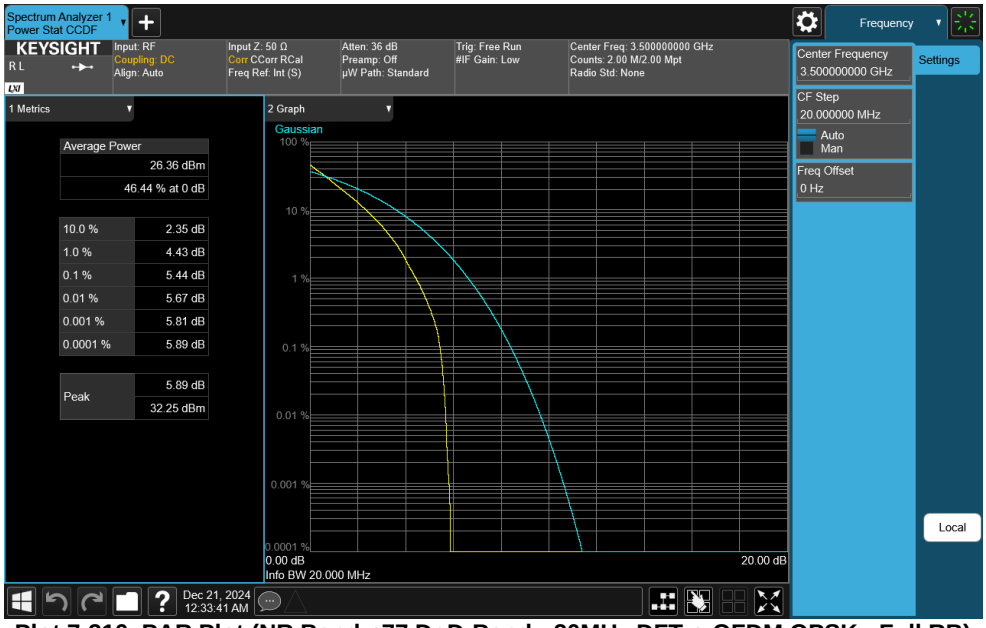
Plot 7-313. PAR Plot (NR Band n77 DoD-Band - 15MHz DFT-s-OFDM 64-QAM - Full RB)



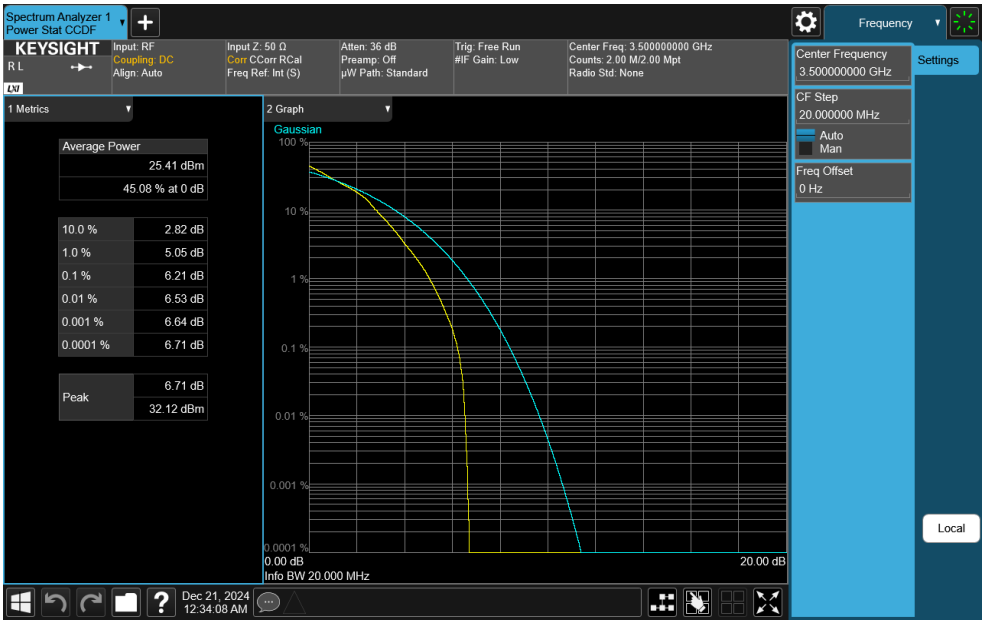
Plot 7-314. PAR Plot (NR Band n77 DoD-Band - 15MHz DFT-s-OFDM 256-QAM - Full RB)



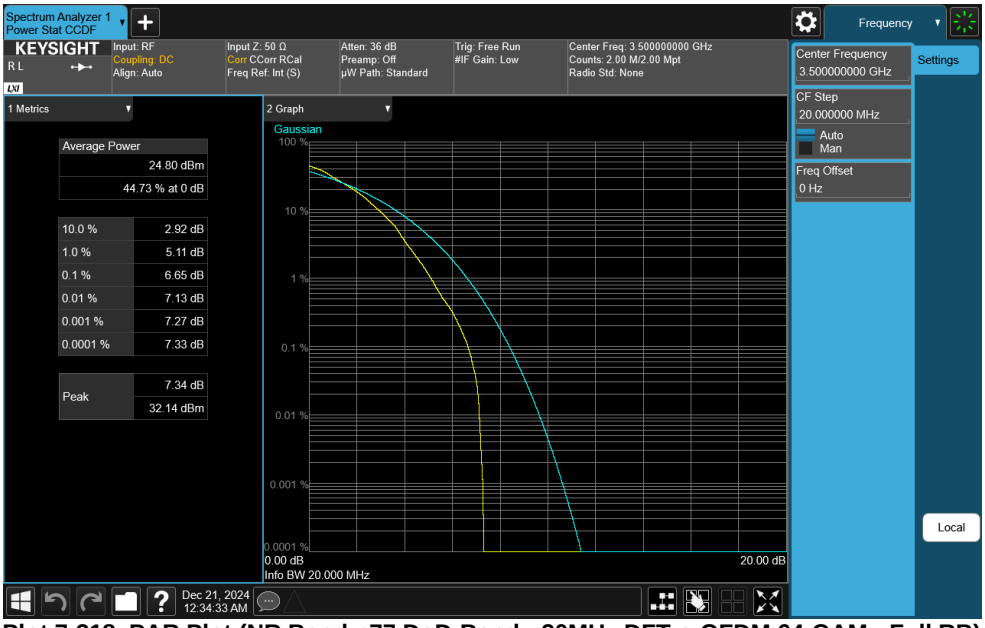
Plot 7-315. PAR Plot (NR Band n77 DoD-Band - 20MHz DFT-s-OFDM π/2 BPSK - Full RB)



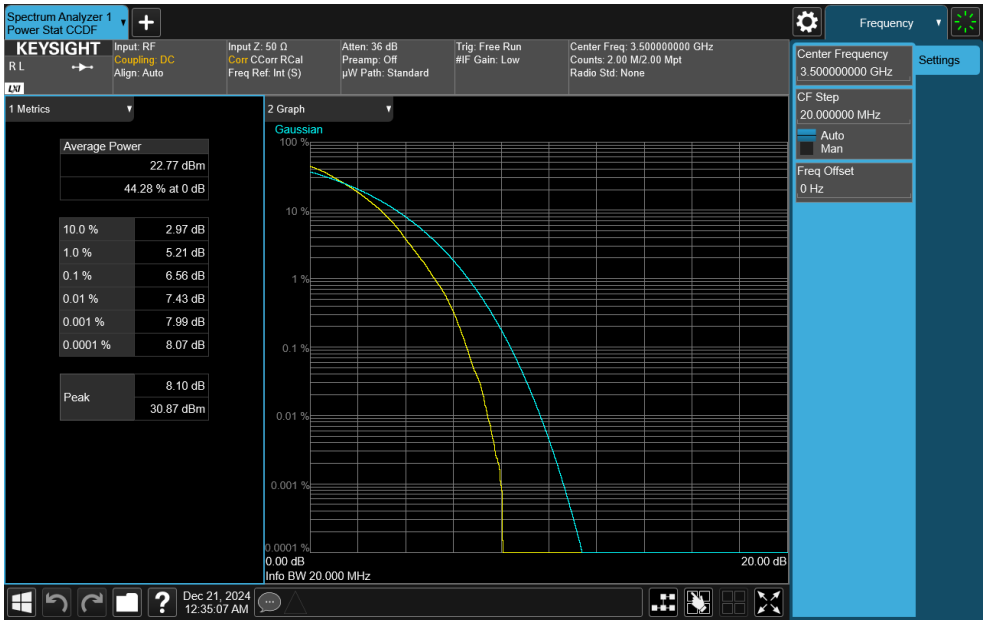
Plot 7-316. PAR Plot (NR Band n77 DoD-Band - 20MHz DFT-s-OFDM QPSK - Full RB)



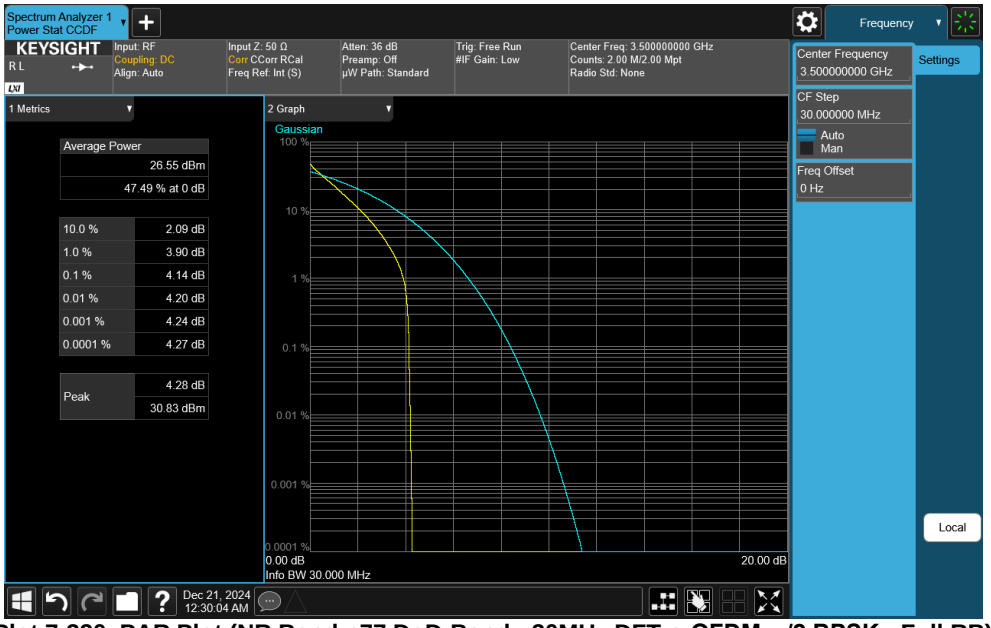
Plot 7-317. PAR Plot (NR Band n77 DoD-Band - 20MHz DFT-s-OFDM 16-QAM - Full RB)



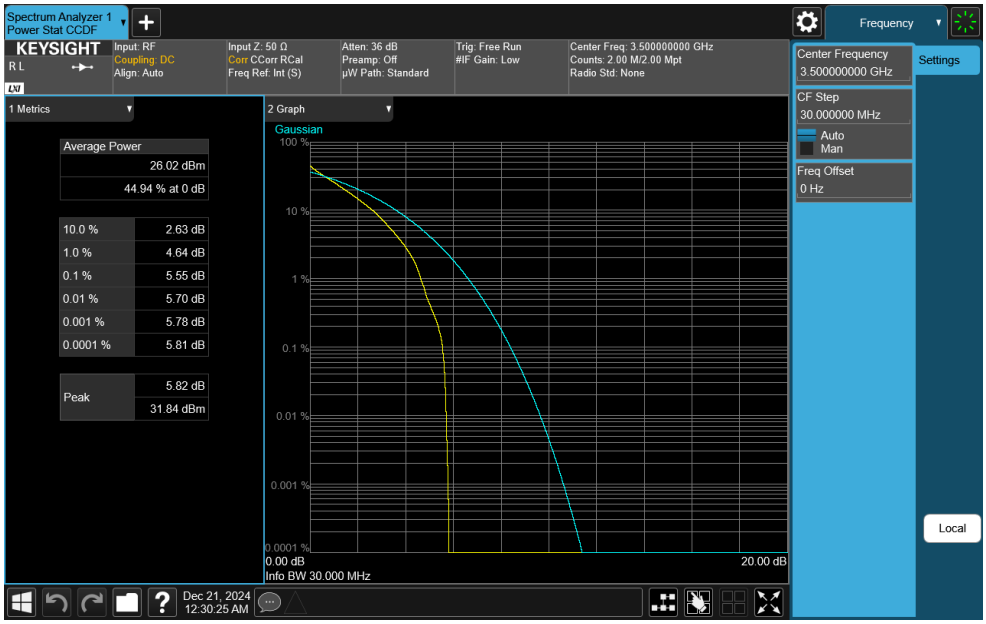
Plot 7-318. PAR Plot (NR Band n77 DoD-Band - 20MHz DFT-s-OFDM 64-QAM - Full RB)



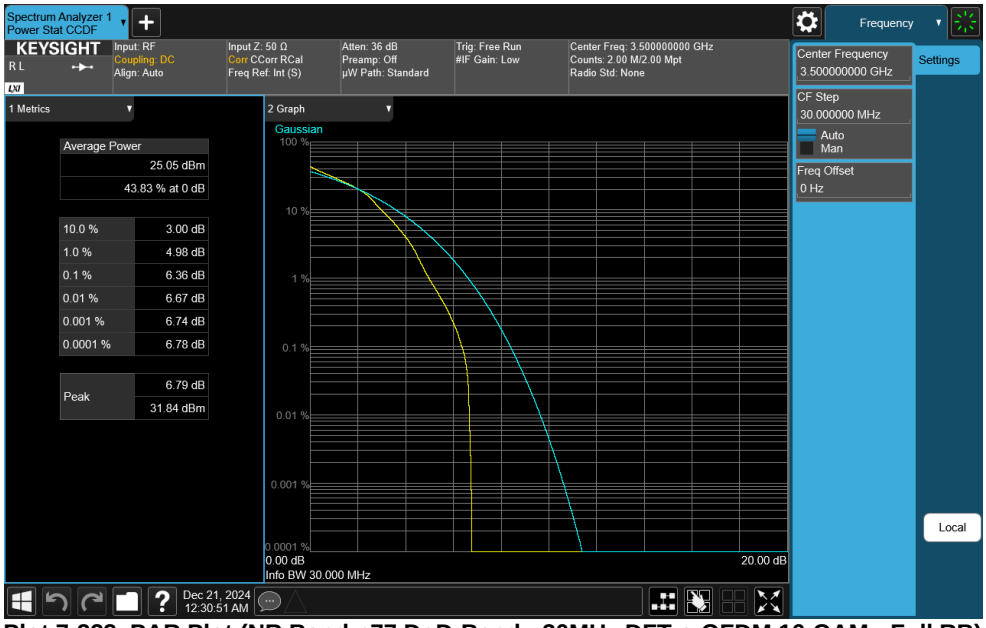
Plot 7-319. PAR Plot (NR Band n77 DoD-Band - 20MHz DFT-s-OFDM 256-QAM - Full RB)



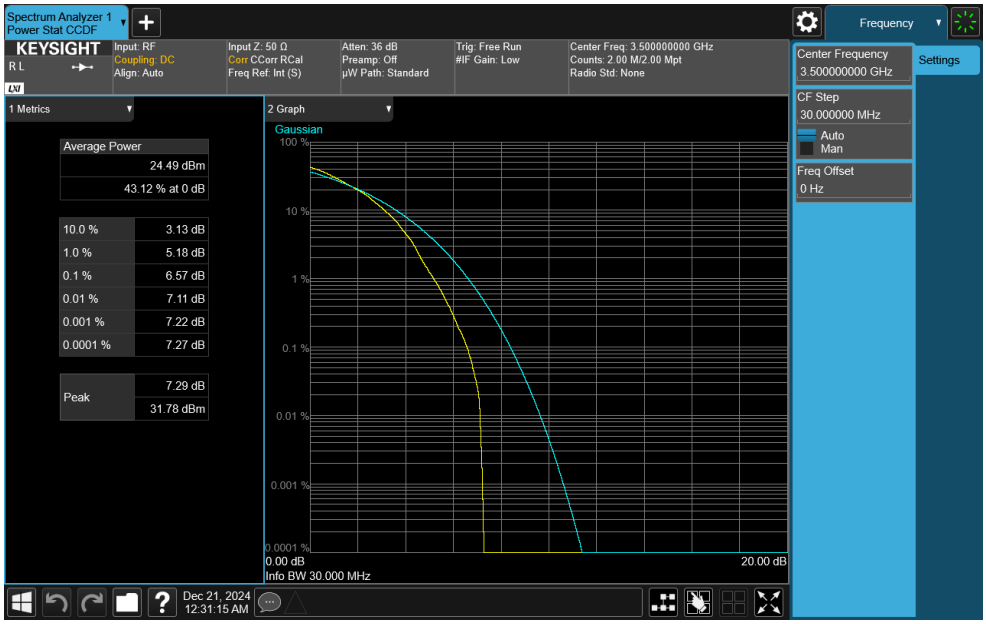
Plot 7-320. PAR Plot (NR Band n77 DoD-Band - 30MHz DFT-s-OFDM π/2 BPSK - Full RB)



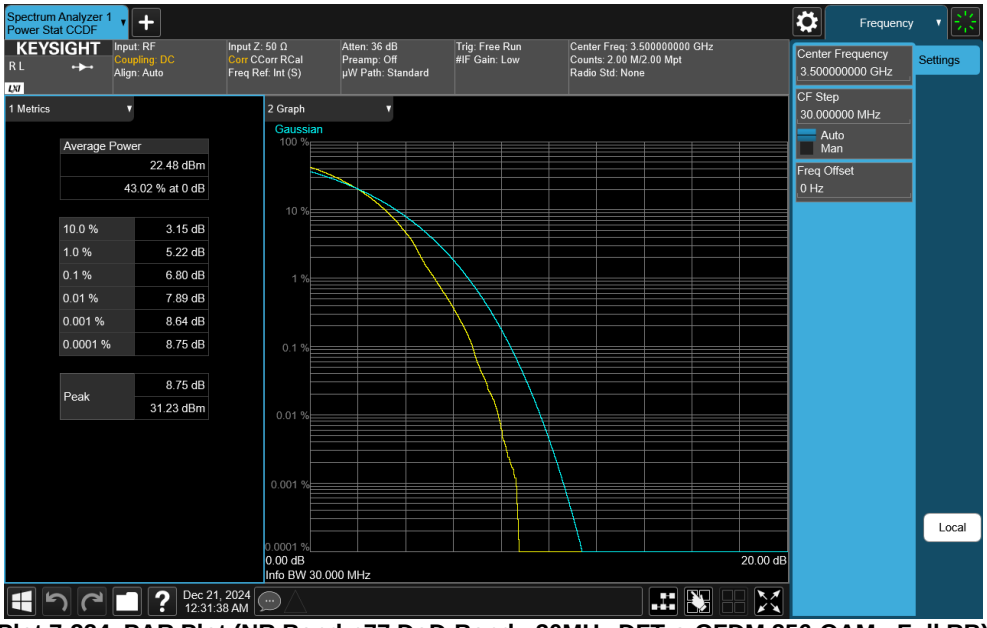
Plot 7-321. PAR Plot (NR Band n77 DoD-Band - 30MHz DFT-s-OFDM QPSK - Full RB)



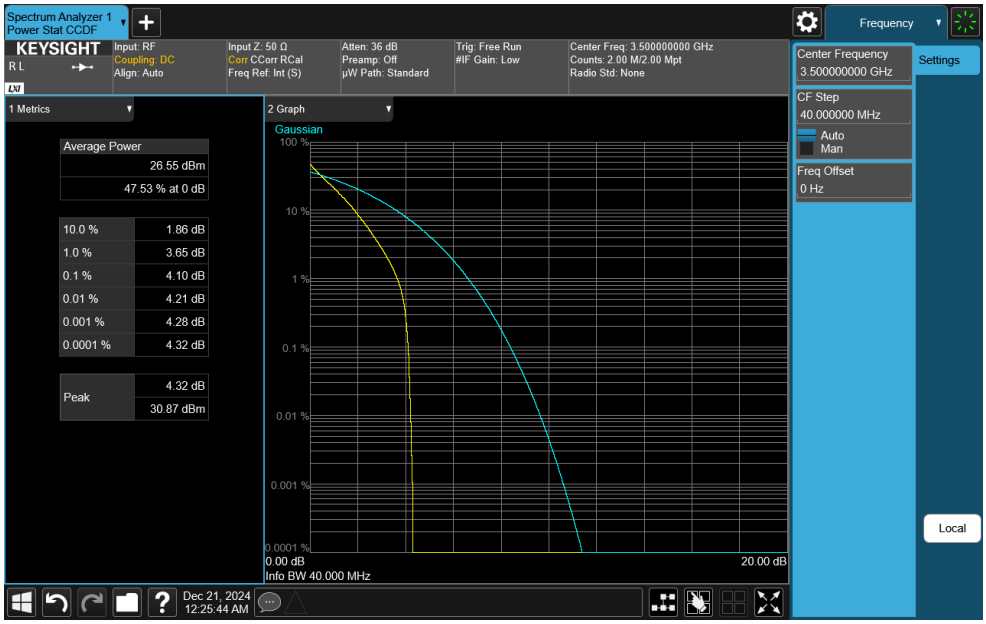
Plot 7-322. PAR Plot (NR Band n77 DoD-Band - 30MHz DFT-s-OFDM 16-QAM - Full RB)



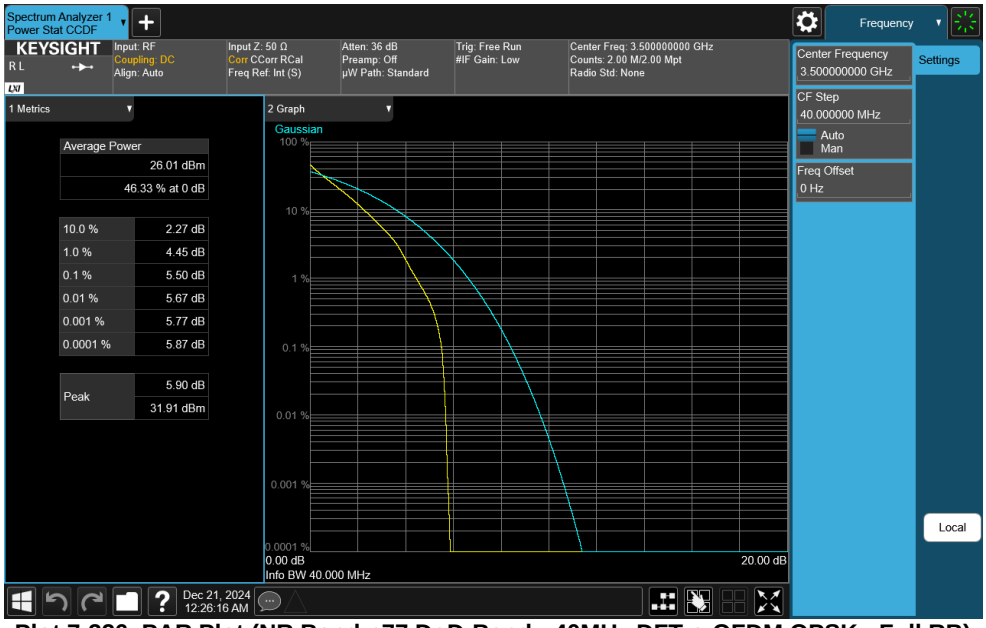
Plot 7-323. PAR Plot (NR Band n77 DoD-Band - 30MHz DFT-s-OFDM 64-QAM - Full RB)



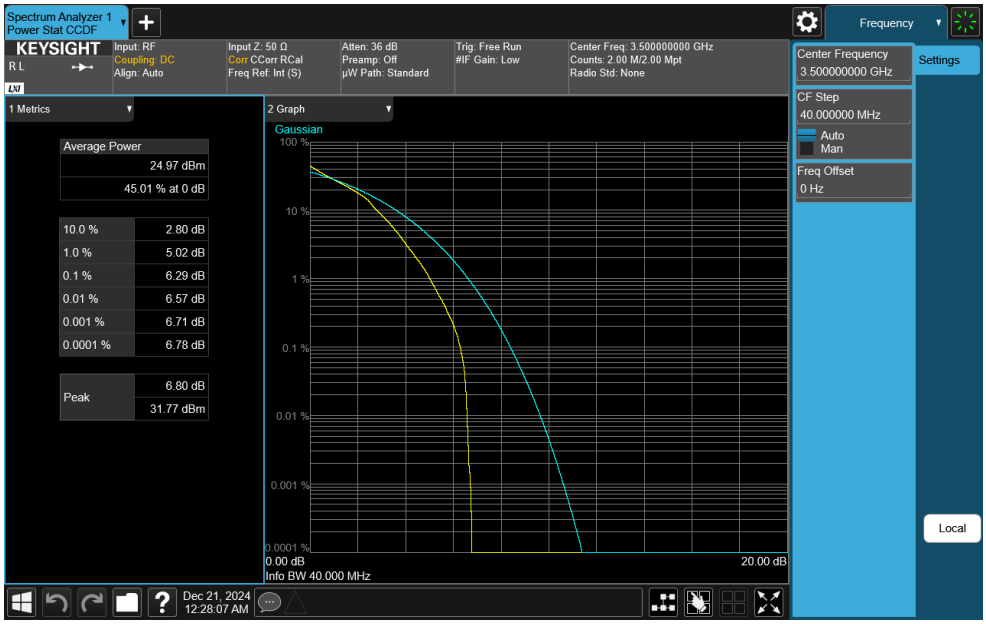
Plot 7-324. PAR Plot (NR Band n77 DoD-Band - 30MHz DFT-s-OFDM 256-QAM - Full RB)



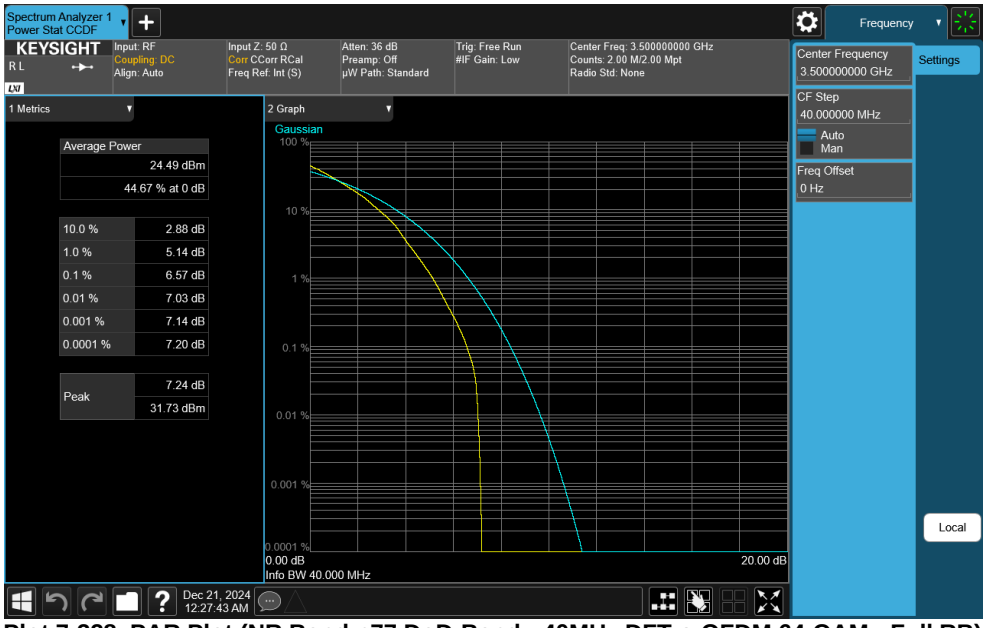
Plot 7-325. PAR Plot (NR Band n77 DoD-Band - 40MHz DFT-s-OFDM π/2 BPSK - Full RB)



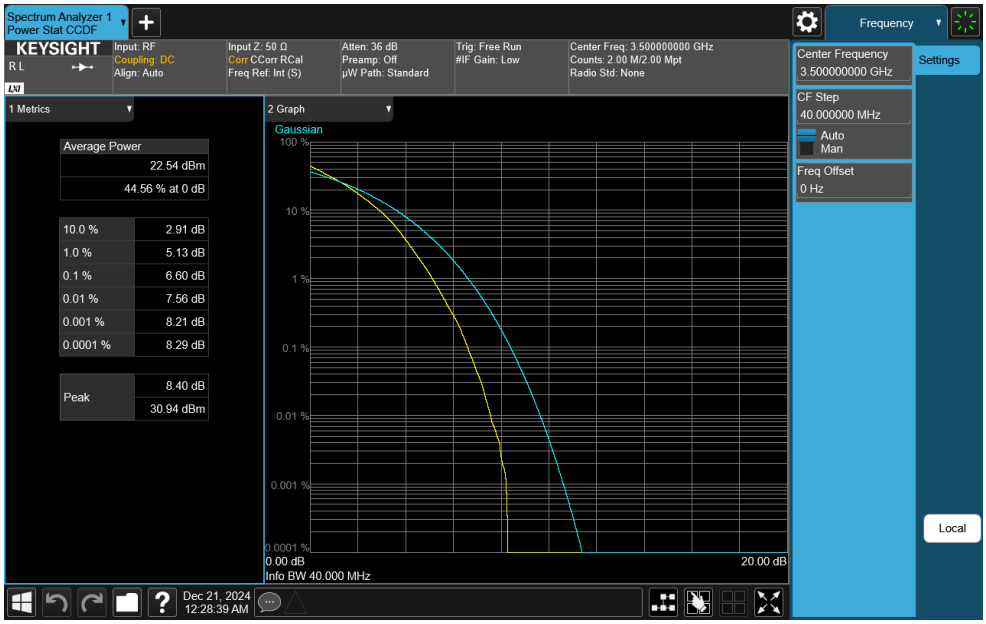
Plot 7-326. PAR Plot (NR Band n77 DoD-Band - 40MHz DFT-s-OFDM QPSK - Full RB)



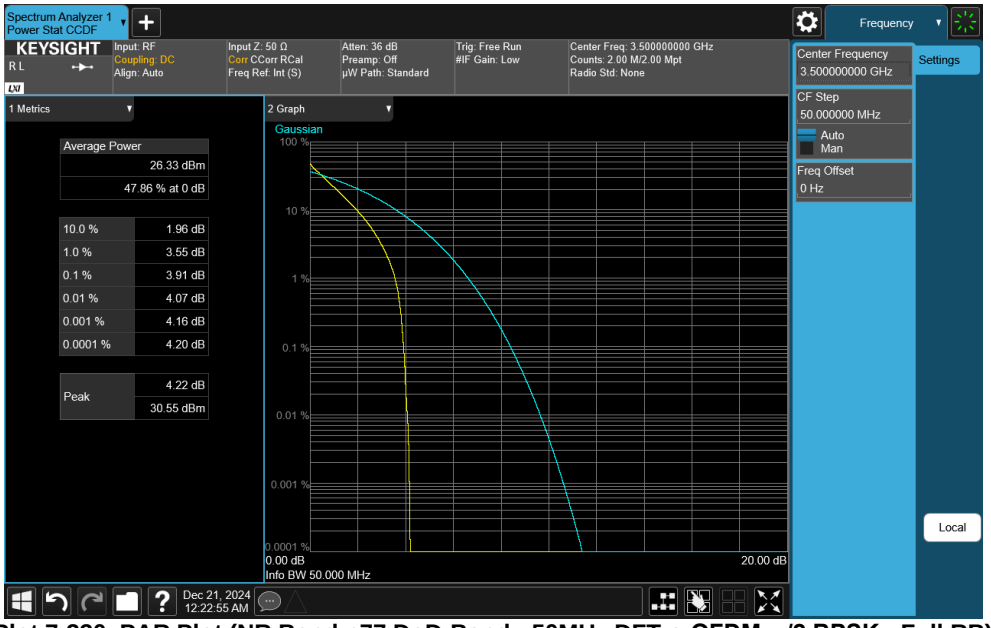
Plot 7-327. PAR Plot (NR Band n77 DoD-Band - 40MHz DFT-s-OFDM 16-QAM - Full RB)



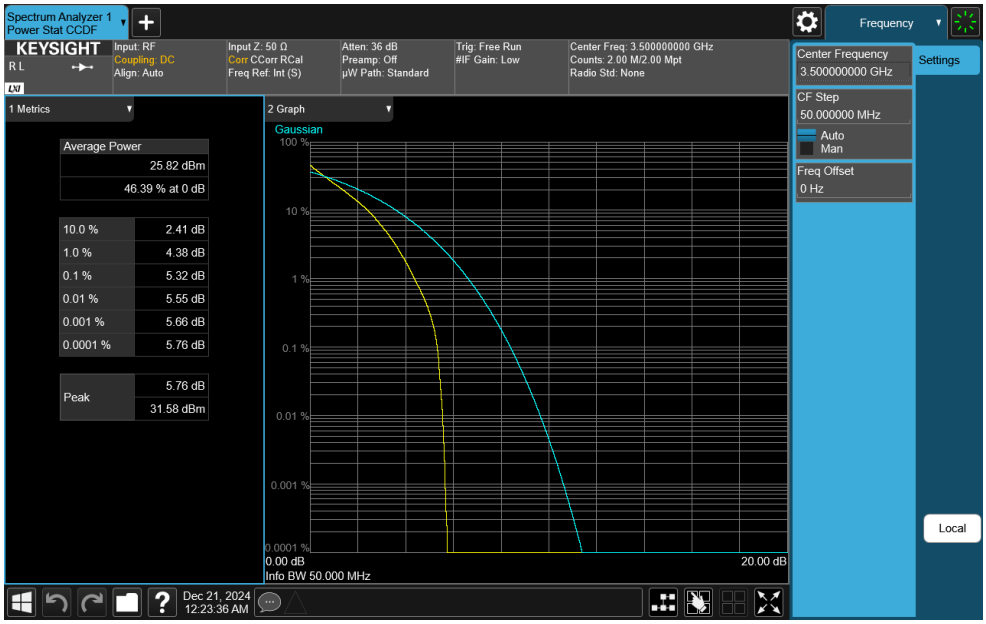
Plot 7-328. PAR Plot (NR Band n77 DoD-Band - 40MHz DFT-s-OFDM 64-QAM - Full RB)



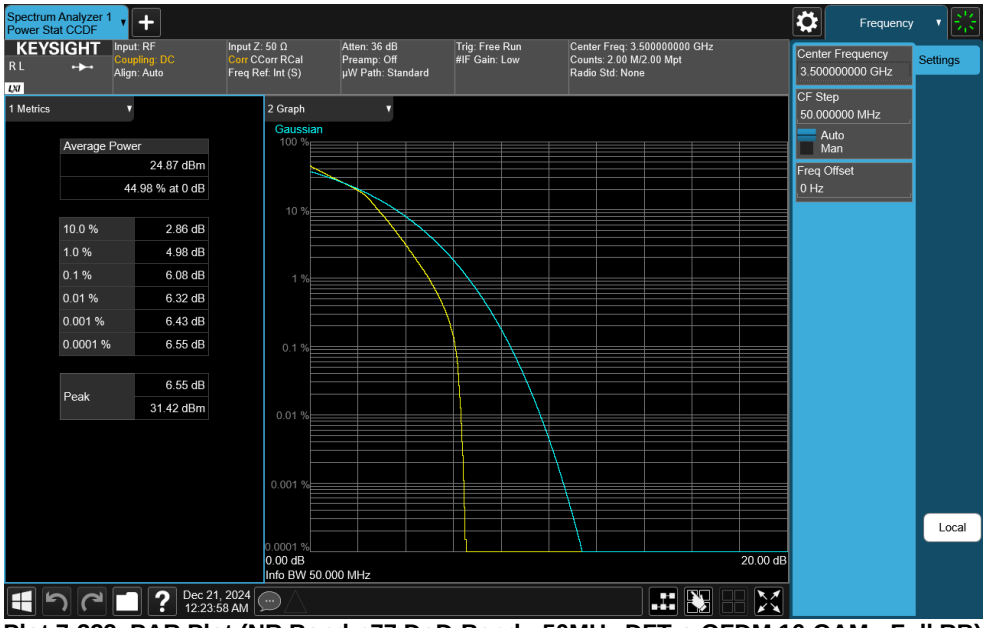
Plot 7-329. PAR Plot (NR Band n77 DoD-Band - 40MHz DFT-s-OFDM 256-QAM - Full RB)



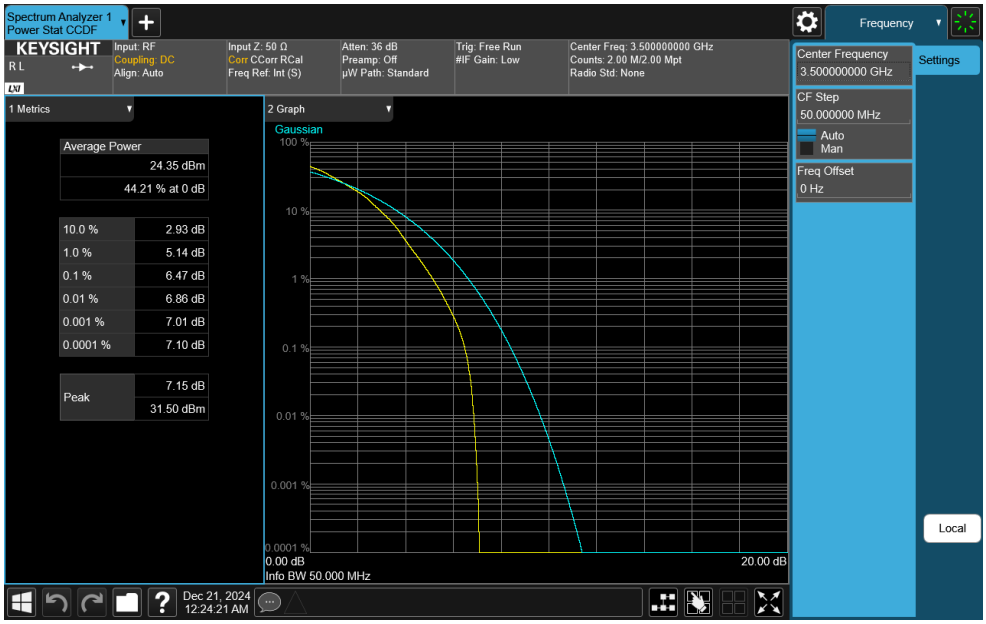
Plot 7-330. PAR Plot (NR Band n77 DoD-Band - 50MHz DFT-s-OFDM π/2 BPSK - Full RB)



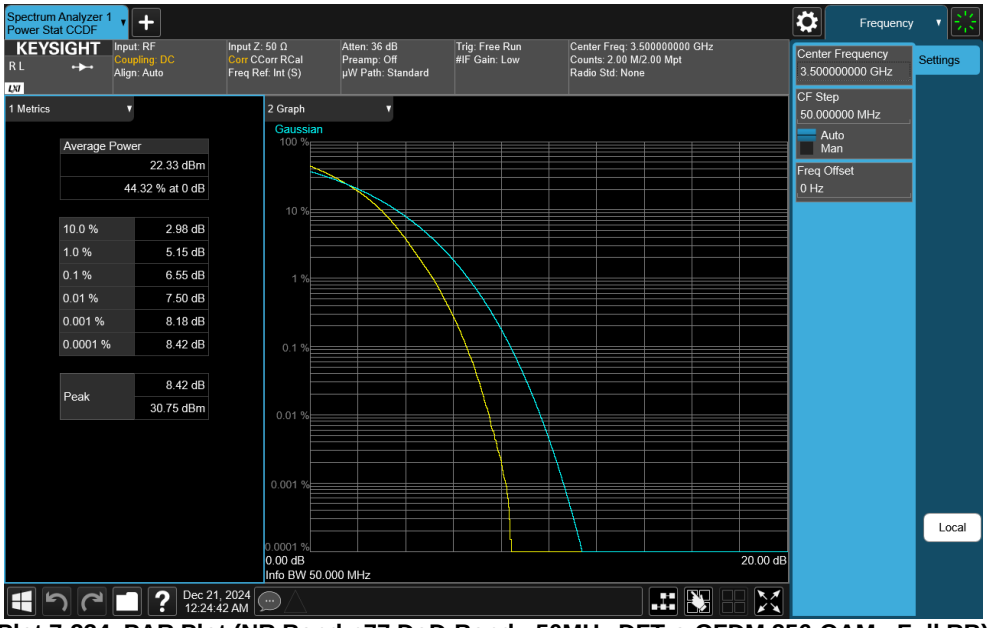
Plot 7-331. PAR Plot (NR Band n77 DoD-Band - 50MHz DFT-s-OFDM QPSK - Full RB)



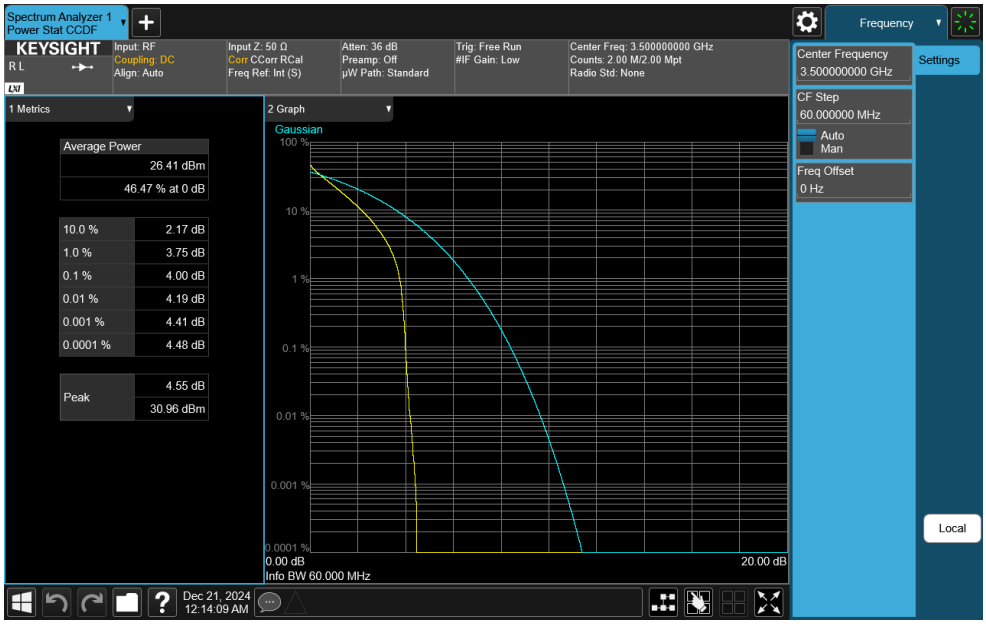
Plot 7-332. PAR Plot (NR Band n77 DoD-Band - 50MHz DFT-s-OFDM 16-QAM - Full RB)



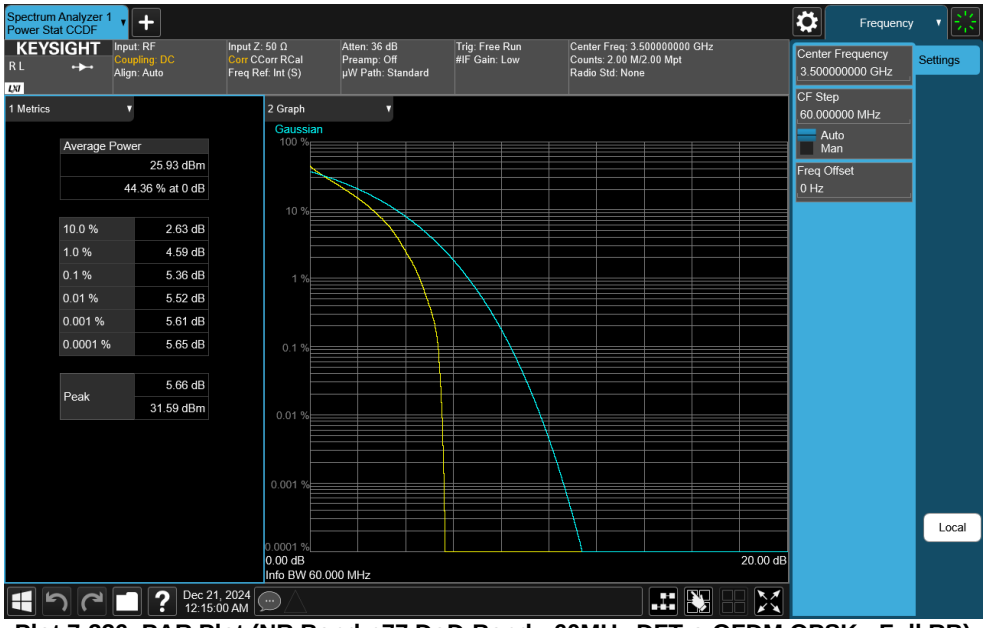
Plot 7-333. PAR Plot (NR Band n77 DoD-Band - 50MHz DFT-s-OFDM 64-QAM - Full RB)



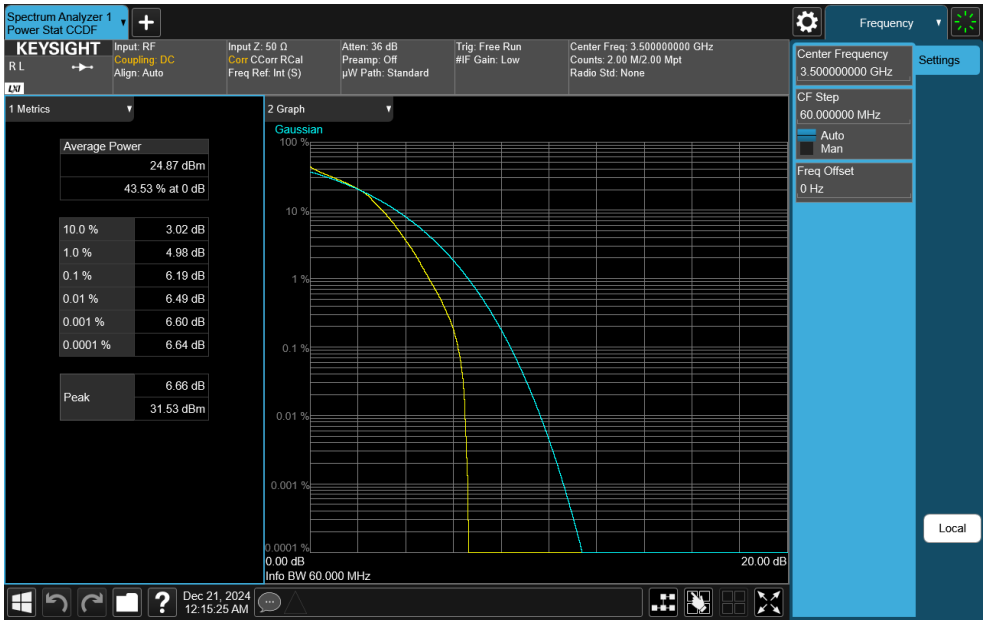
Plot 7-334. PAR Plot (NR Band n77 DoD-Band - 50MHz DFT-s-OFDM 256-QAM - Full RB)



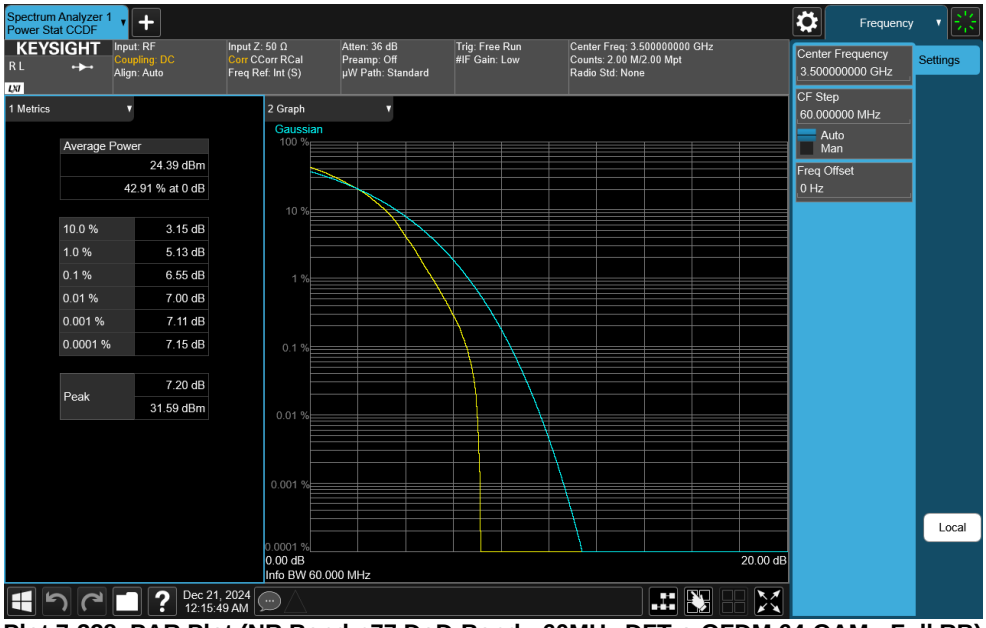
Plot 7-335. PAR Plot (NR Band n77 DoD-Band - 60MHz DFT-s-OFDM π/2 BPSK - Full RB)



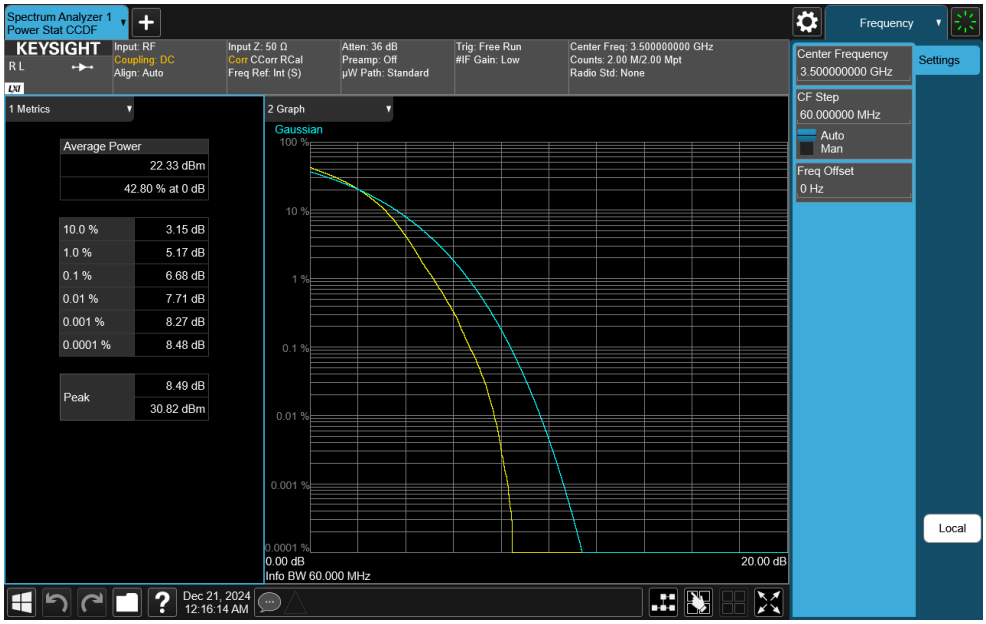
Plot 7-336. PAR Plot (NR Band n77 DoD-Band - 60MHz DFT-s-OFDM QPSK - Full RB)



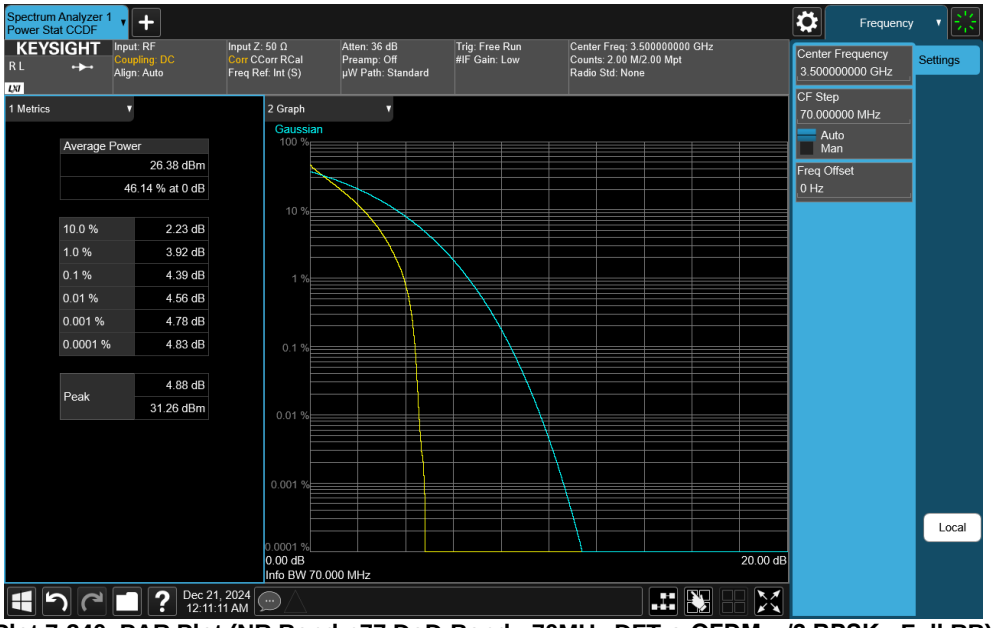
Plot 7-337. PAR Plot (NR Band n77 DoD-Band - 60MHz DFT-s-OFDM 16-QAM - Full RB)



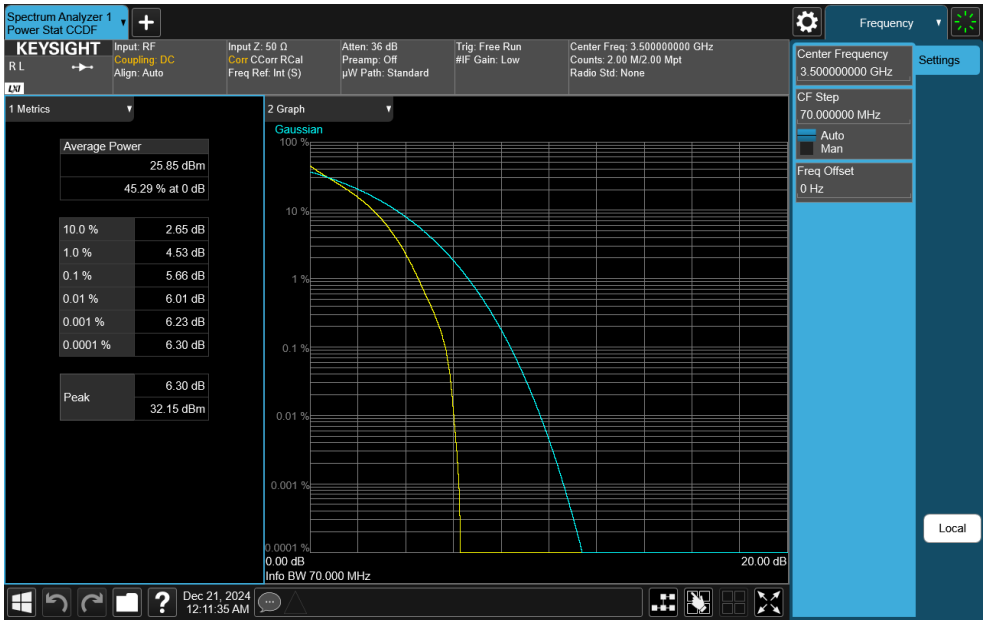
Plot 7-338. PAR Plot (NR Band n77 DoD-Band - 60MHz DFT-s-OFDM 64-QAM - Full RB)



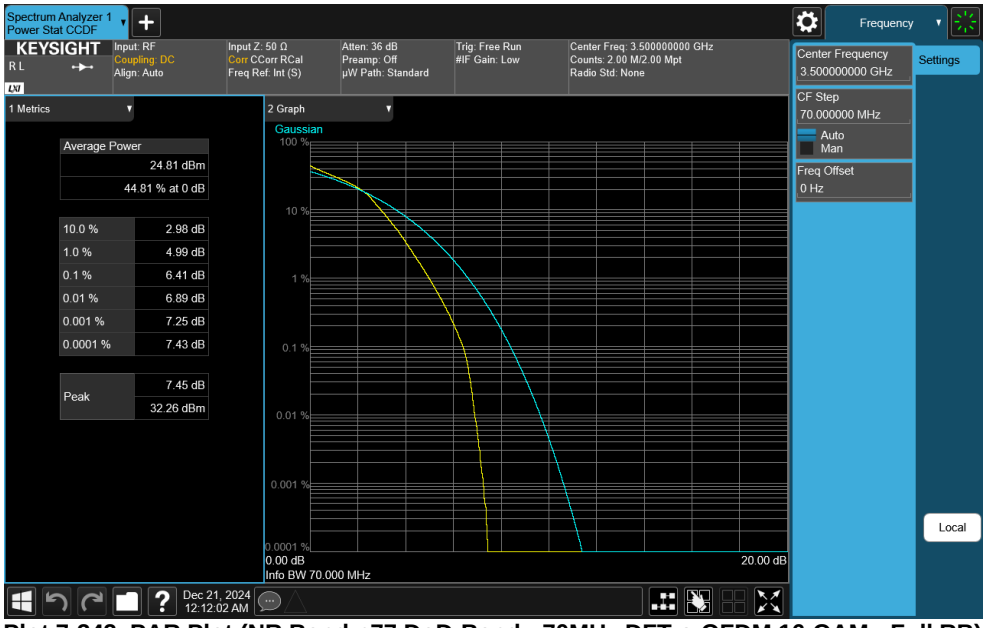
Plot 7-339. PAR Plot (NR Band n77 DoD-Band - 60MHz DFT-s-OFDM 256-QAM - Full RB)



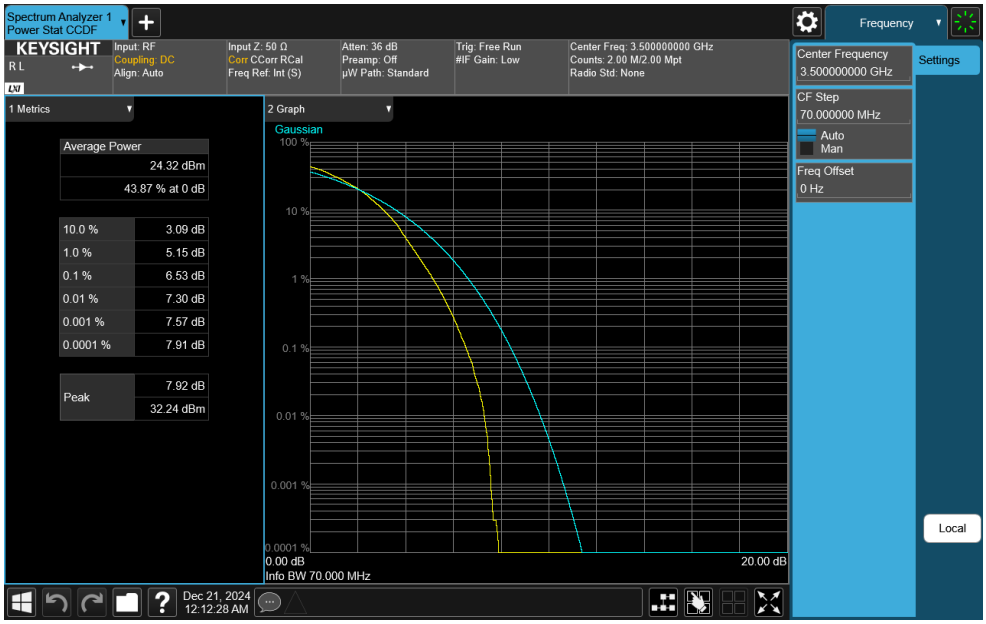
Plot 7-340. PAR Plot (NR Band n77 DoD-Band - 70MHz DFT-s-OFDM π/2 BPSK - Full RB)



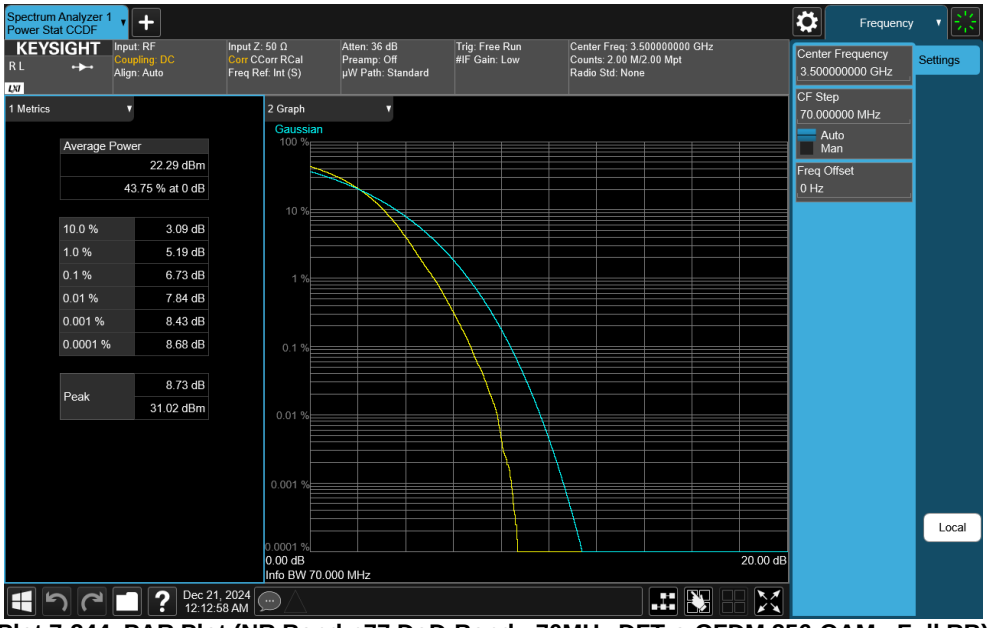
Plot 7-341. PAR Plot (NR Band n77 DoD-Band - 70MHz DFT-s-OFDM QPSK - Full RB)



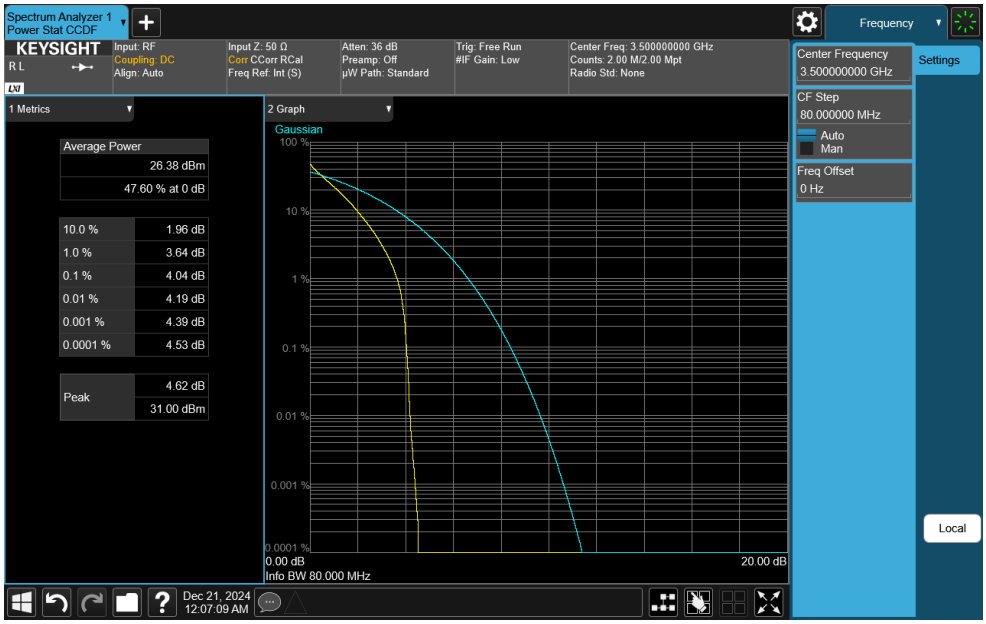
Plot 7-342. PAR Plot (NR Band n77 DoD-Band - 70MHz DFT-s-OFDM 16-QAM - Full RB)



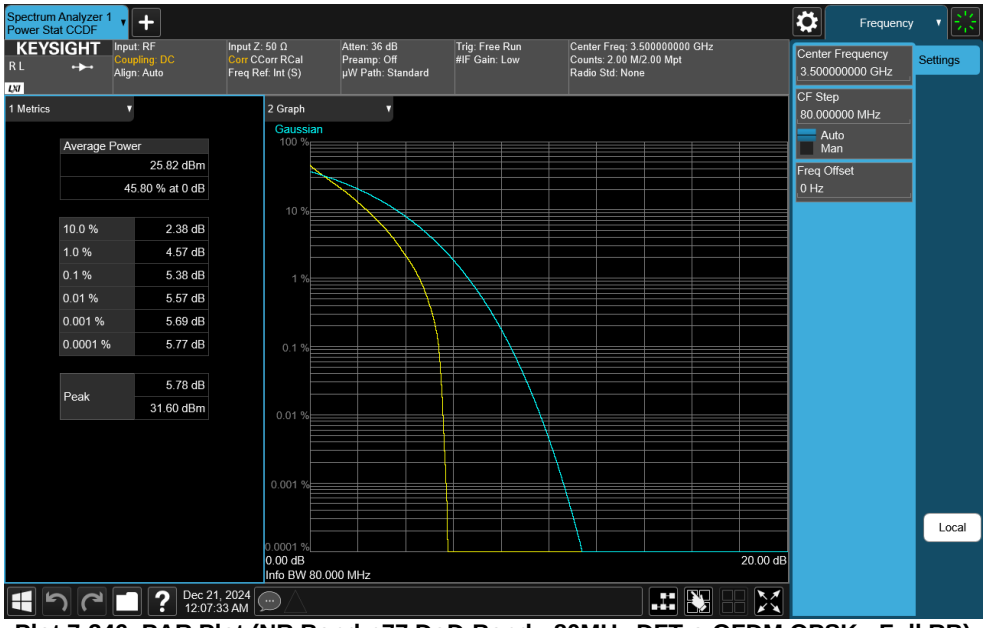
Plot 7-343. PAR Plot (NR Band n77 DoD-Band - 70MHz DFT-s-OFDM 64-QAM - Full RB)



Plot 7-344. PAR Plot (NR Band n77 DoD-Band - 70MHz DFT-s-OFDM 256-QAM - Full RB)



Plot 7-345. PAR Plot (NR Band n77 DoD-Band - 80MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-346. PAR Plot (NR Band n77 DoD-Band - 80MHz DFT-s-OFDM QPSK - Full RB)