



of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with the provisions of this paragraph (n)(1) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Notwithstanding the channel edge requirement of -13 dBm per megahertz, for base station operations in the 3450-3550 MHz band, the conducted power of any emission below 3440 MHz or above 3560 MHz shall not exceed -25 dBm/MHz, and the conducted power of emissions below 3430 MHz or above 3570 MHz shall not exceed -40 dBm/MHz.

Part 27.53(l) states for base station operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this paragraph (l)(1) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

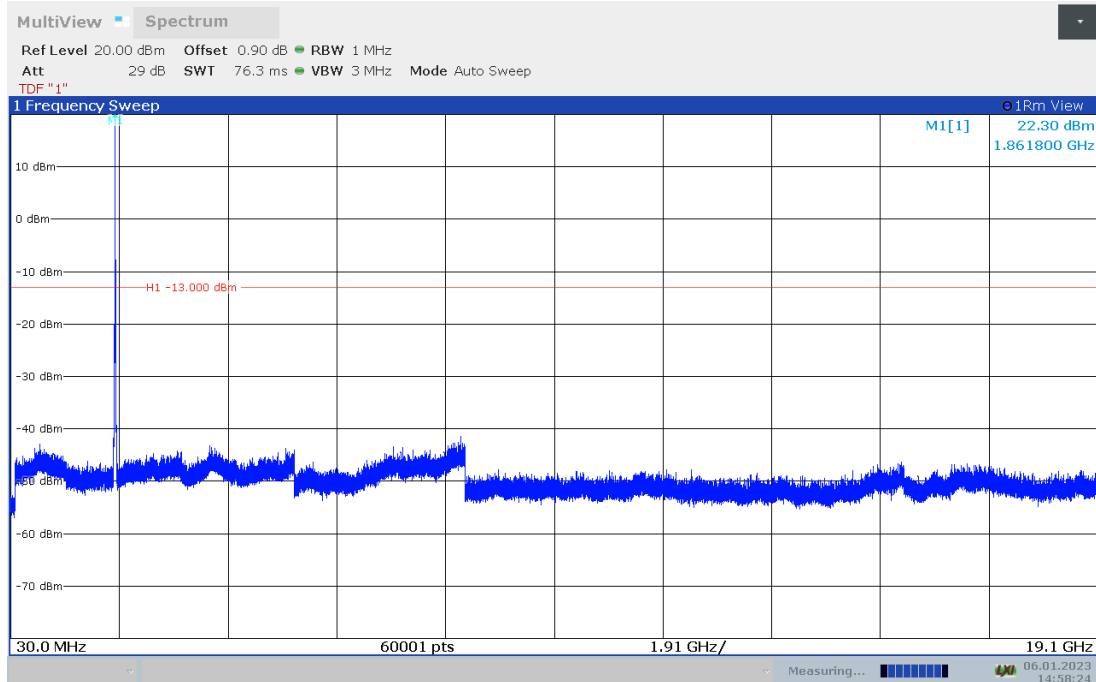
A. 6.3 Measurement result

Only worst case result is given below

DC_5A_n2A

Spurious emission limit –13dBm.

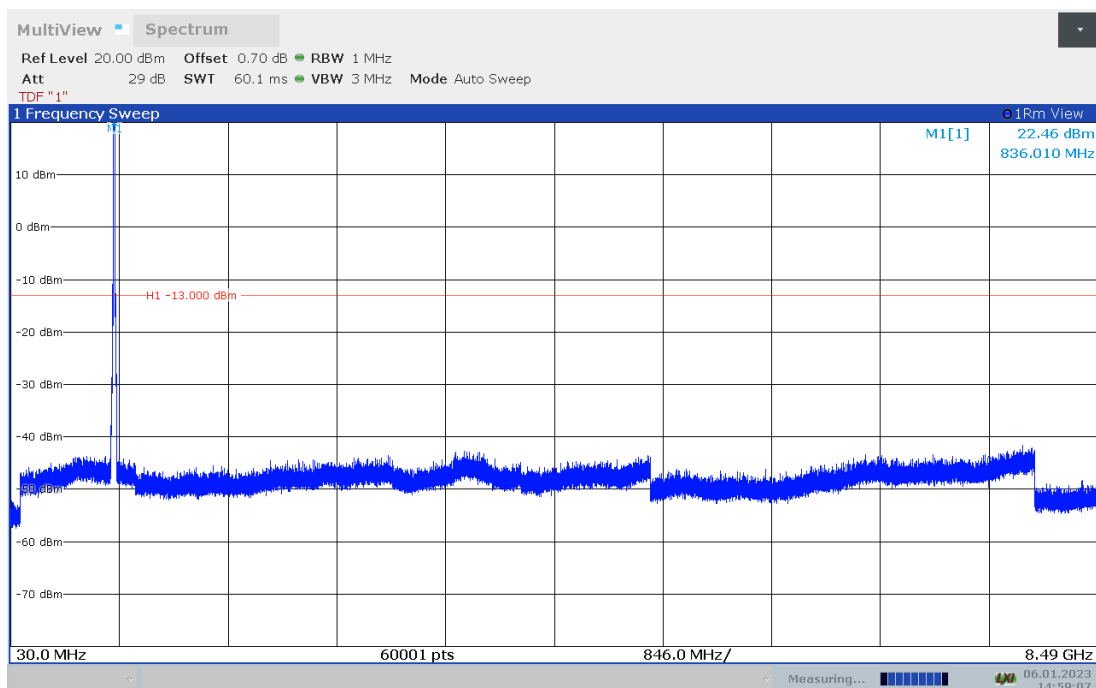
NOTE: peak above the limit line is the carrier frequency.



DC_66A_n5A

Spurious emission limit –13dBm.

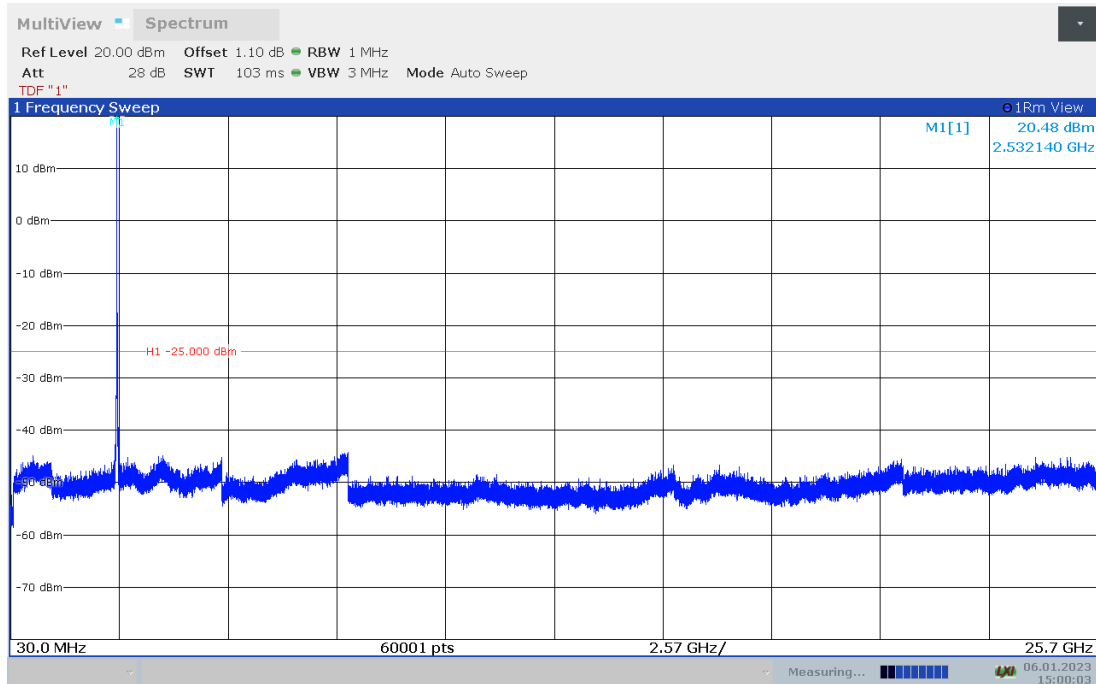
NOTE: peak above the limit line is the carrier frequency.



n7

Spurious emission limit –25dBm.

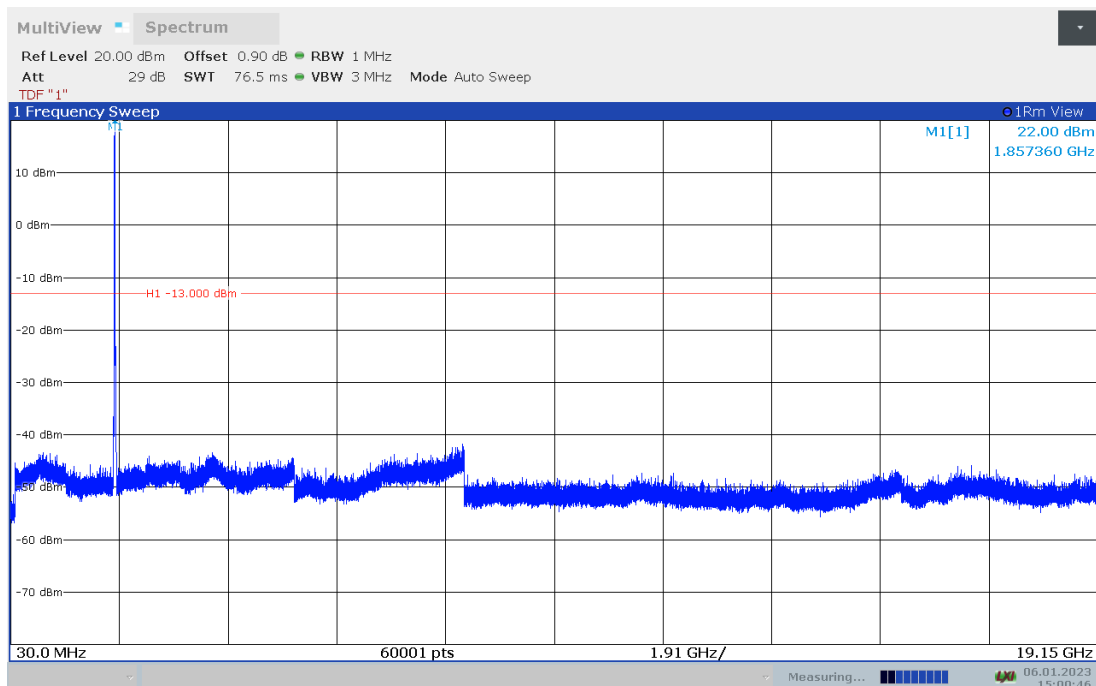
NOTE: peak above the limit line is the carrier frequency.



n25

Spurious emission limit –13dBm.

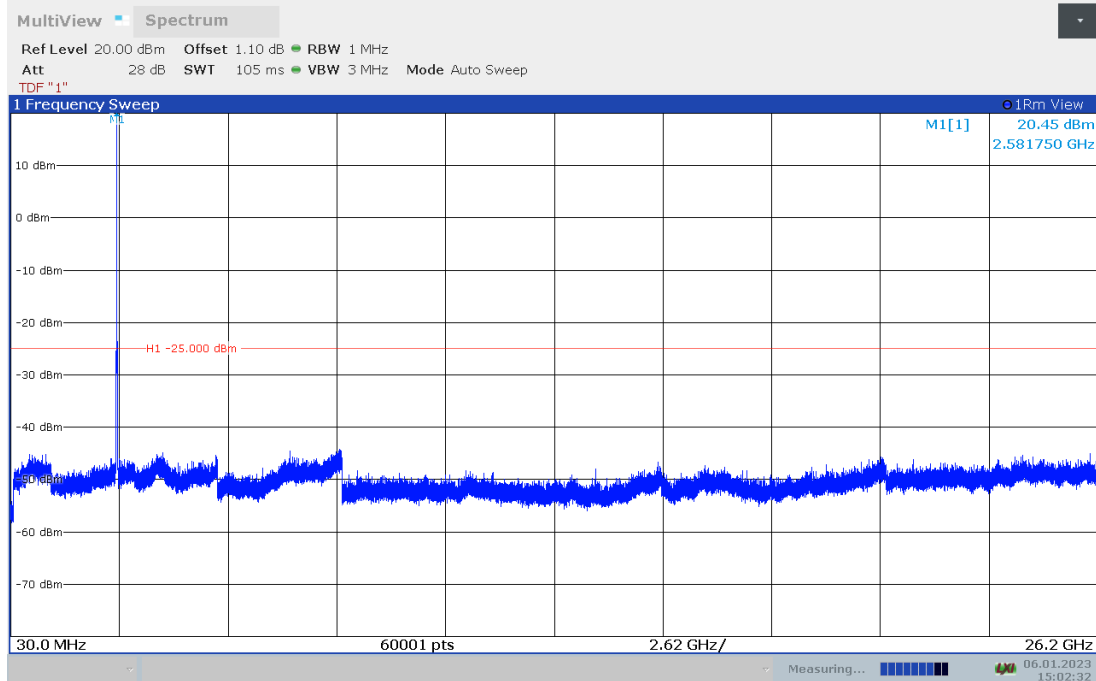
NOTE: peak above the limit line is the carrier frequency.



n38

Spurious emission limit –25dBm.

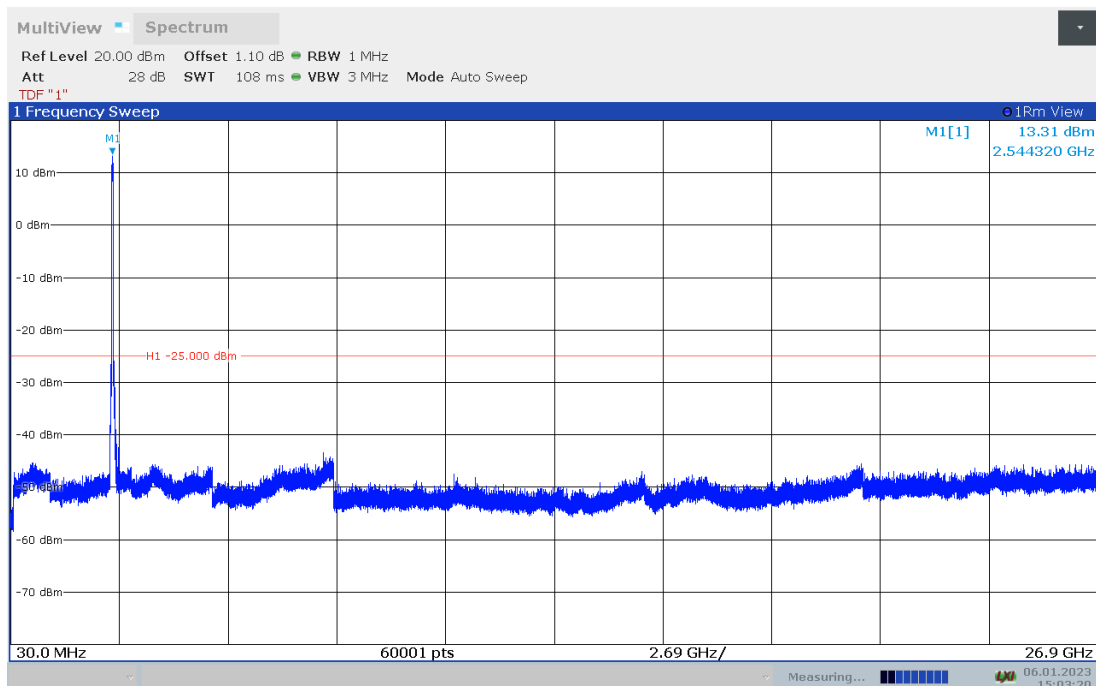
NOTE: peak above the limit line is the carrier frequency.



DC_66A_n41A

Spurious emission limit –25dBm.

NOTE: peak above the limit line is the carrier frequency.

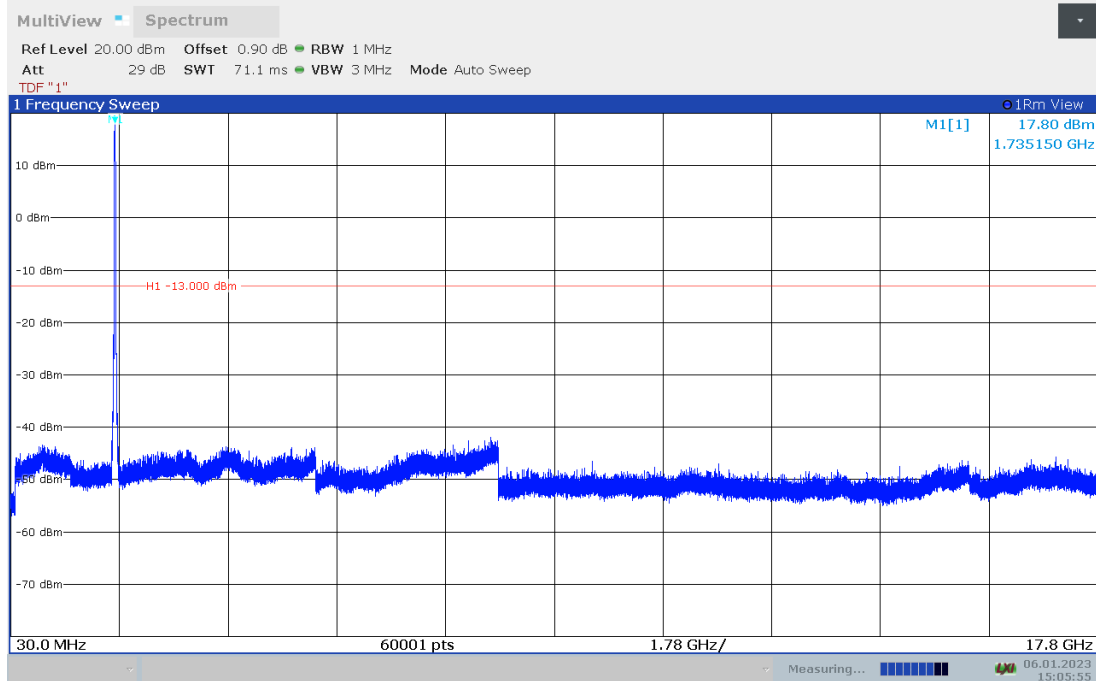




DC_12A_n66A

Spurious emission limit –13dBm.

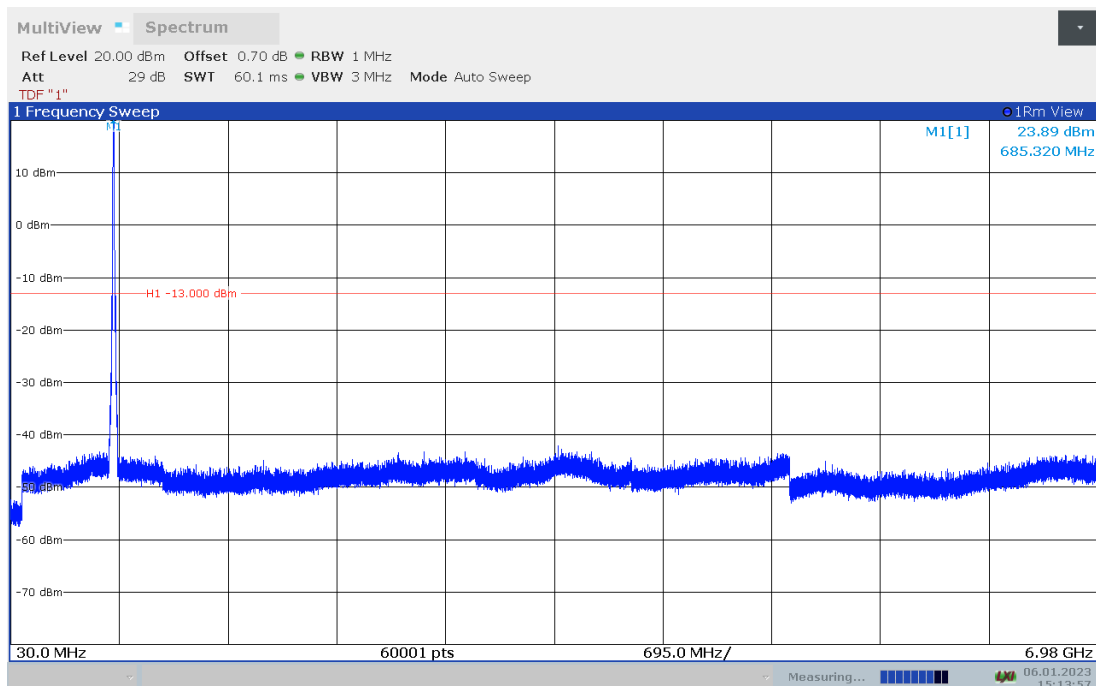
NOTE: peak above the limit line is the carrier frequency.



n71

Spurious emission limit –13dBm.

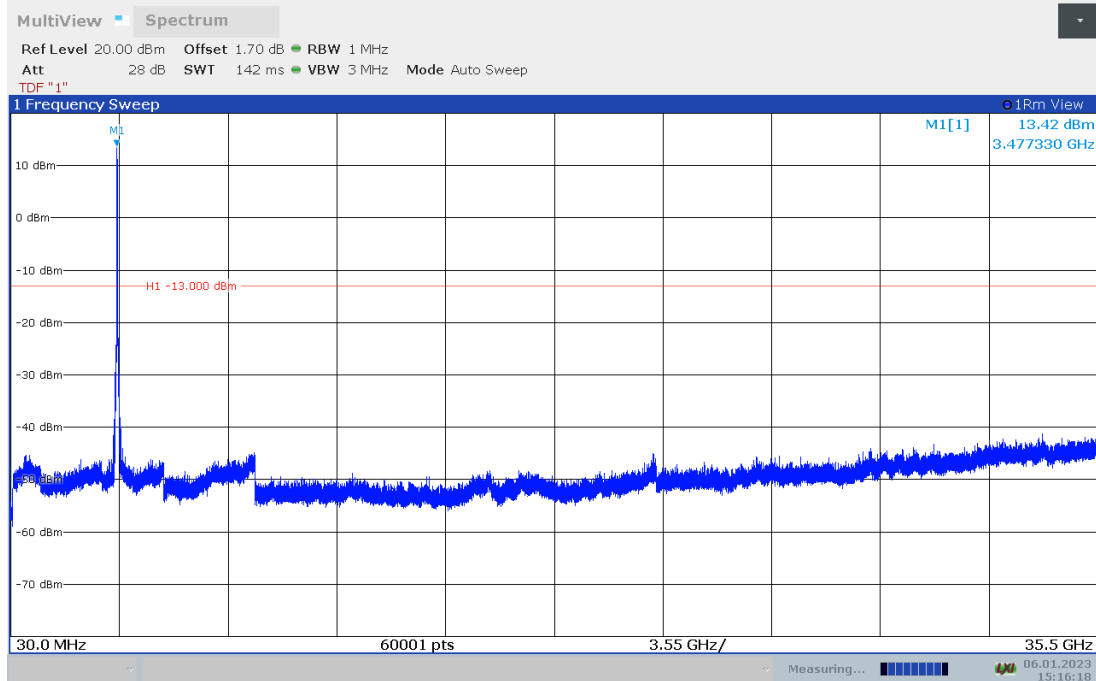
NOTE: peak above the limit line is the carrier frequency.



n77L

Spurious emission limit –13dBm.

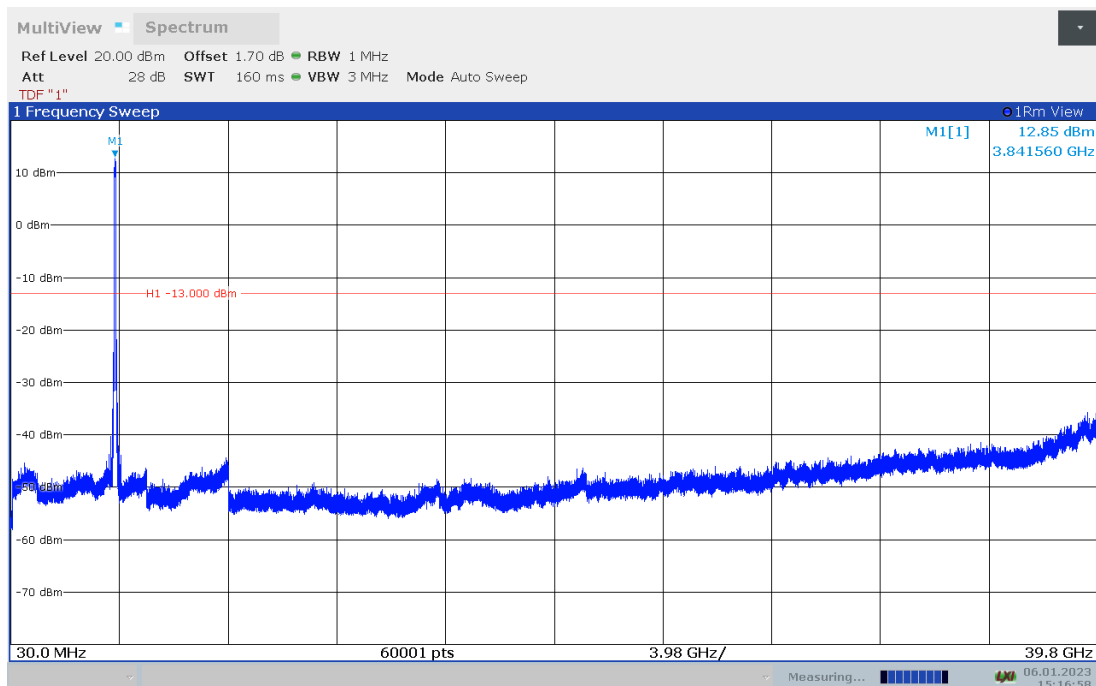
NOTE: peak above the limit line is the carrier frequency.



n77H

Spurious emission limit –13dBm.

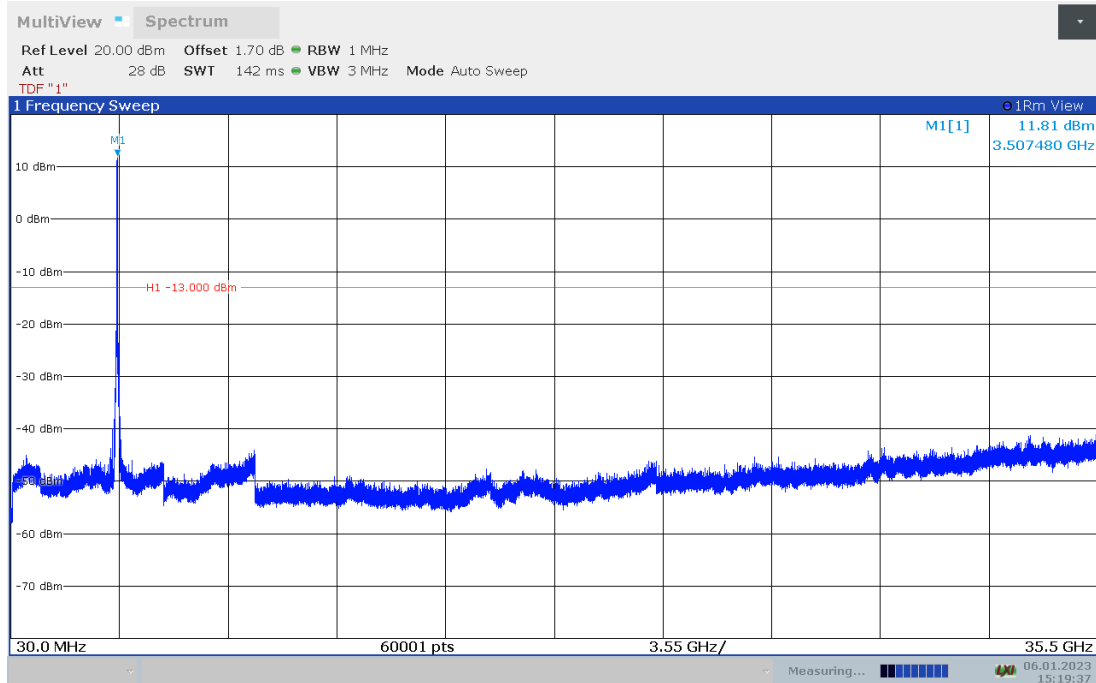
NOTE: peak above the limit line is the carrier frequency.



n78L

Spurious emission limit –13dBm.

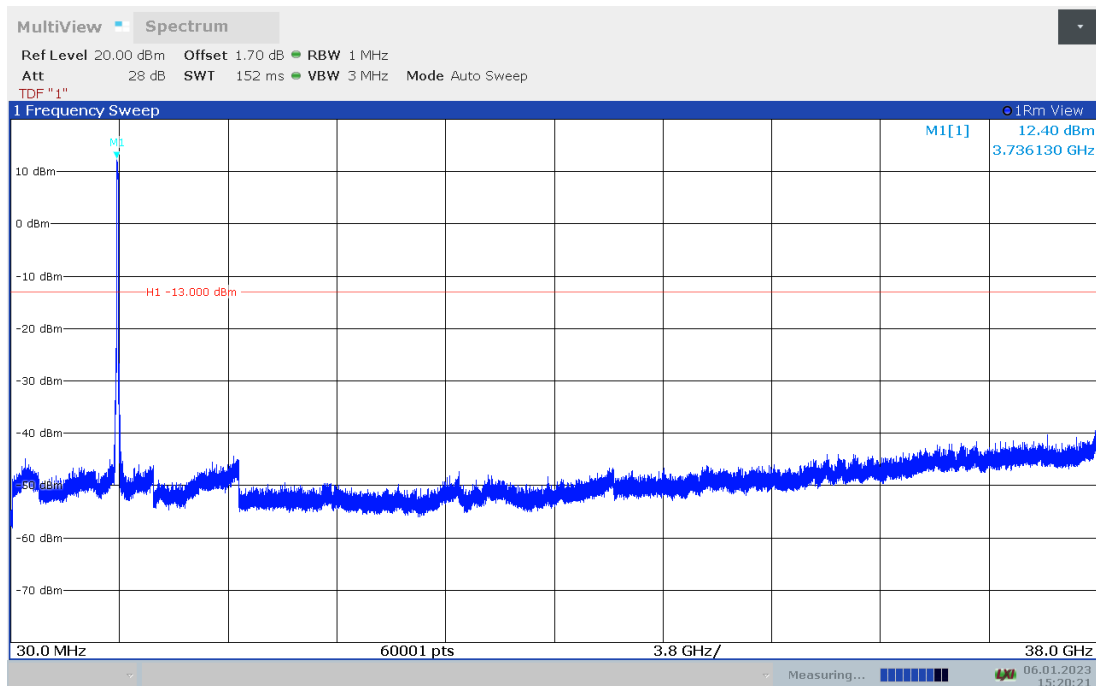
NOTE: peak above the limit line is the carrier frequency.



n78H

Spurious emission limit –13dBm.

NOTE: peak above the limit line is the carrier frequency.





A.7 PEAK-TO-AVERAGE POWER RATIO

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB

- a) Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;
- b) Set resolution/measurement bandwidth \geq signal's occupied bandwidth;
- c) Set the number of counts to a value that stabilizes the measured CCDF curve;
- d) Record the maximum PAPR level associated with a probability of 0.1%.

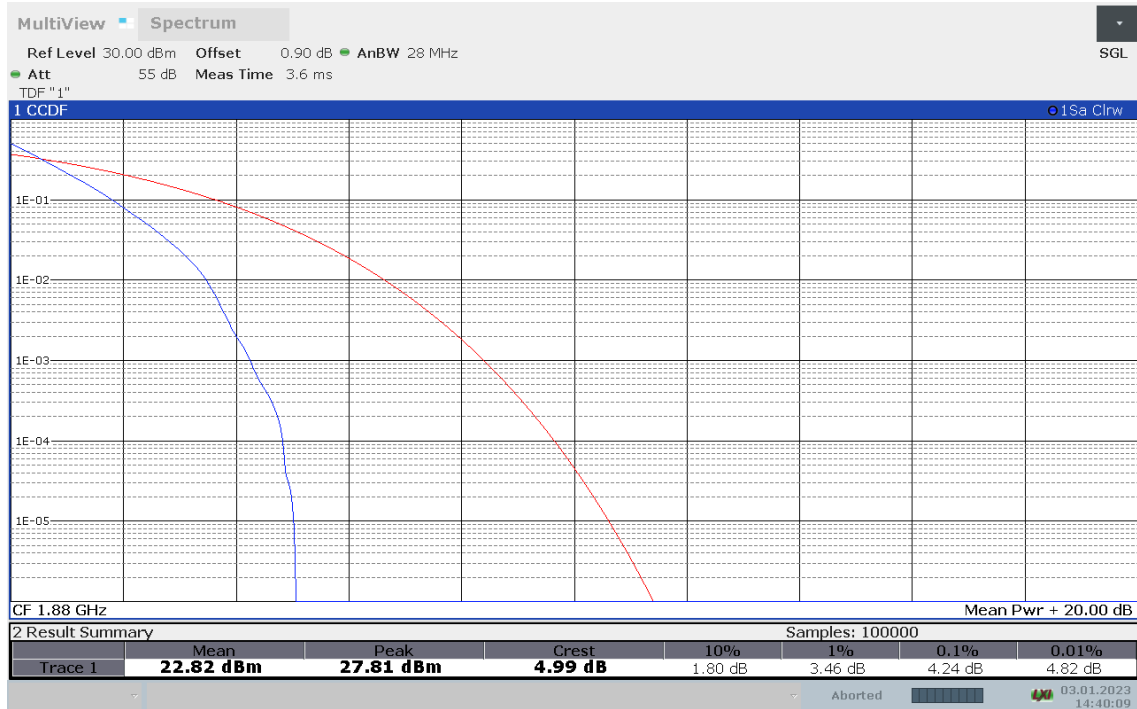
Measurement results

Only worst case result is given below

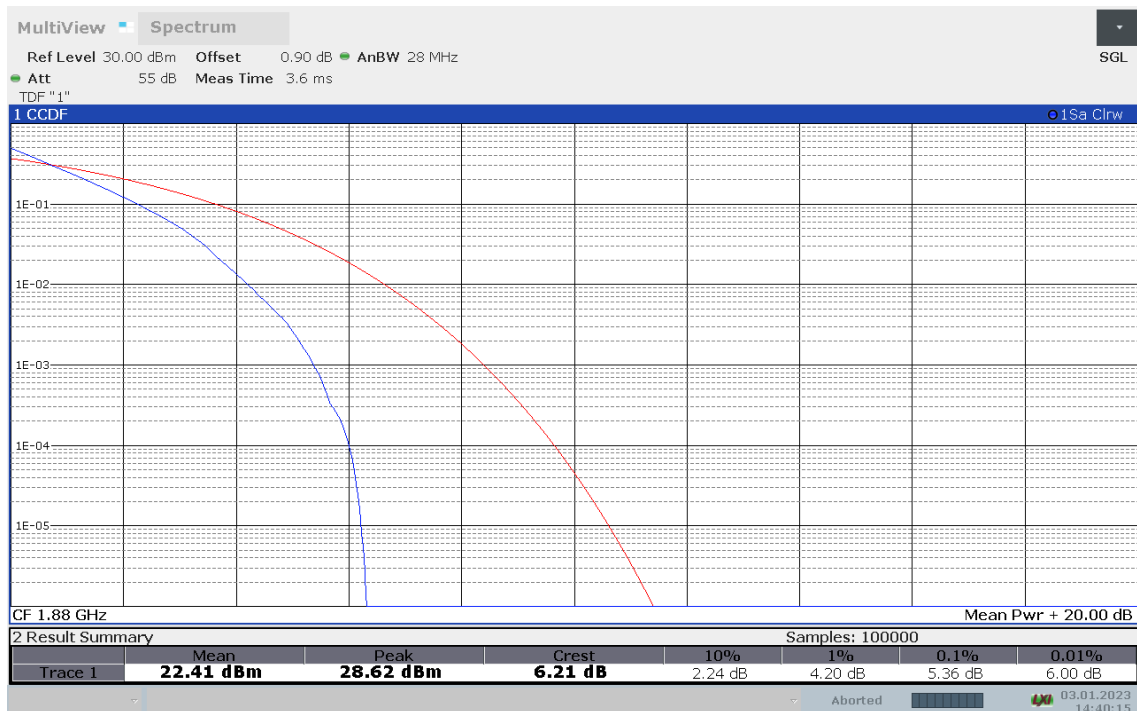
DC_5A_n2A,20MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
1880	4.24	5.36	6.08	6.28	6.52	7.88	7.86	8.04	8.46

DC_5A_n2A, DFT-s-pi/2 BPSK (PAPR)



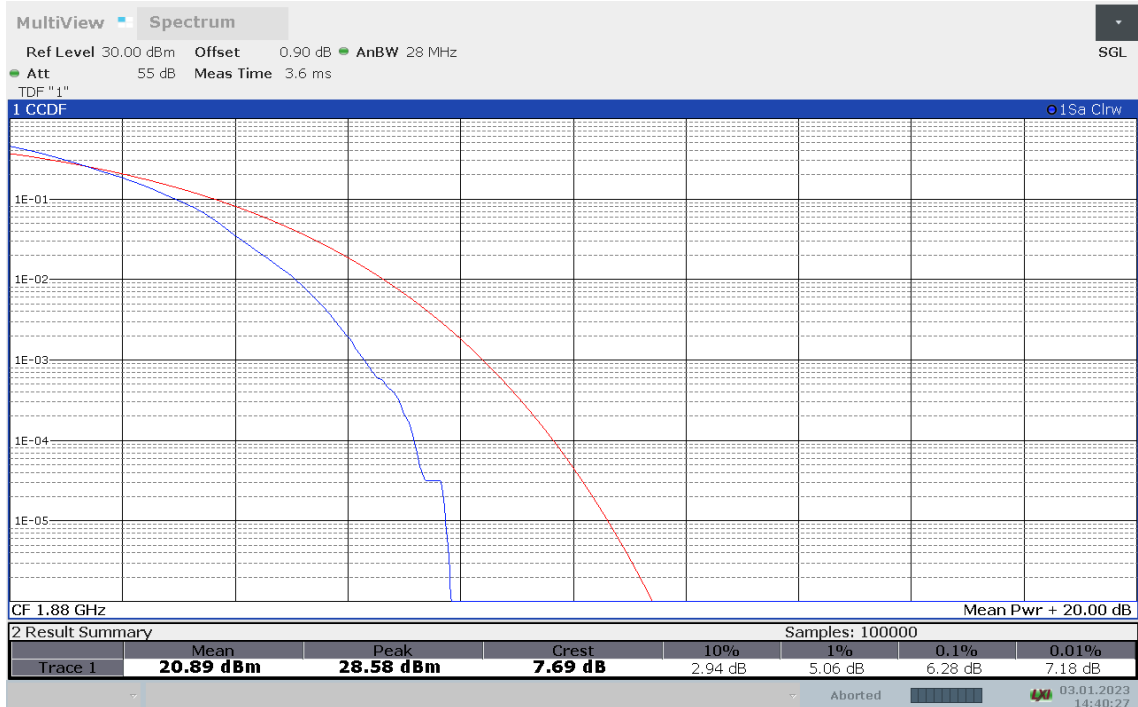
DC_5A_n2A, DFT-s-QPSK (PAPR)



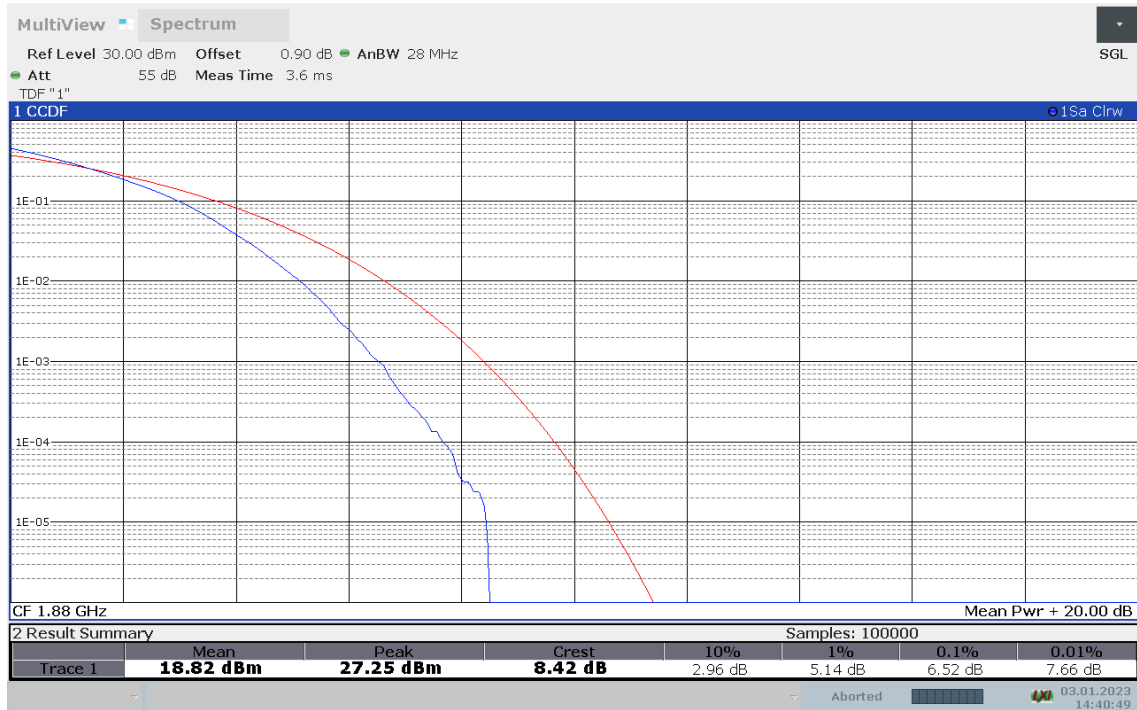
DC_5A_n2A, DFT-s-16QAM (PAPR)



DC_5A_n2A, DFT-s-64QAM (PAPR)



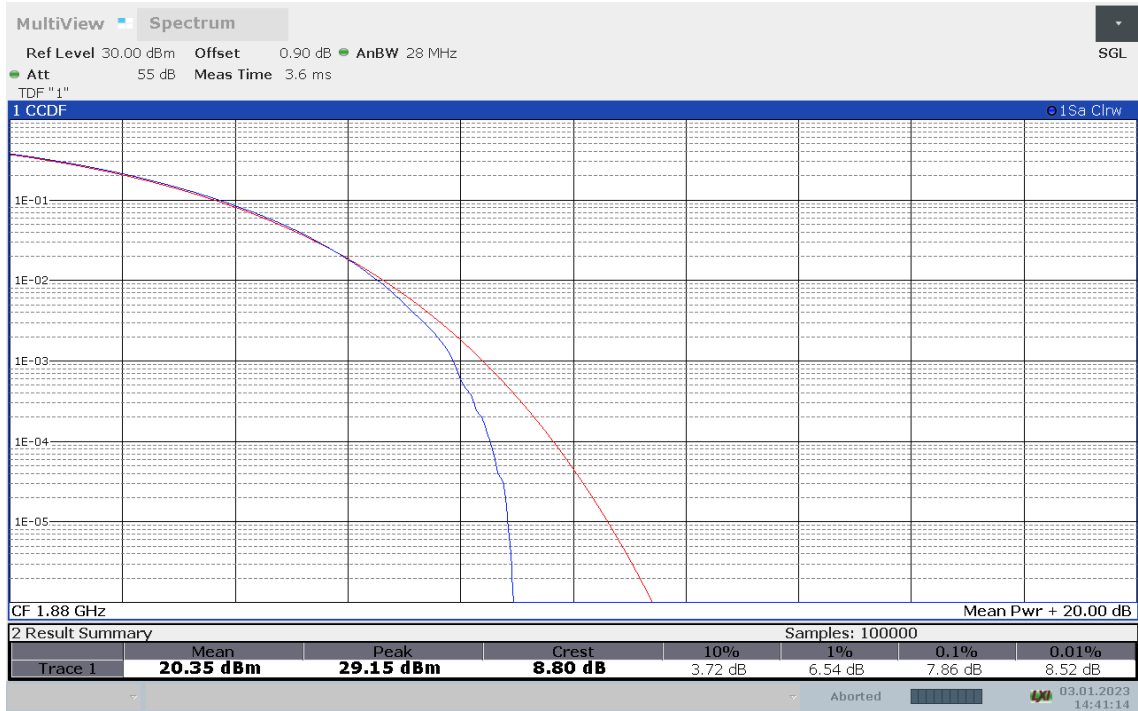
DC_5A_n2A, DFT-s-256QAM (PAPR)



DC_5A_n2A, CP-QPSK (PAPR)



DC_5A_n2A, CP-16QAM (PAPR)

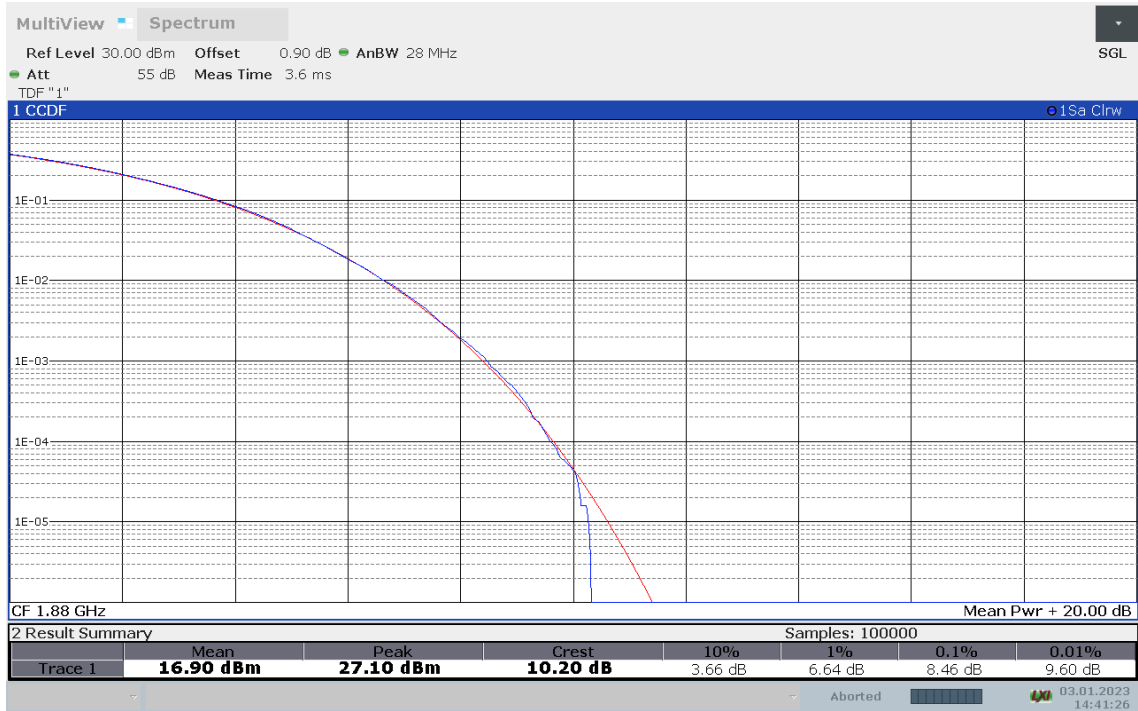


DC_5A_n2A, CP-64QAM (PAPR)





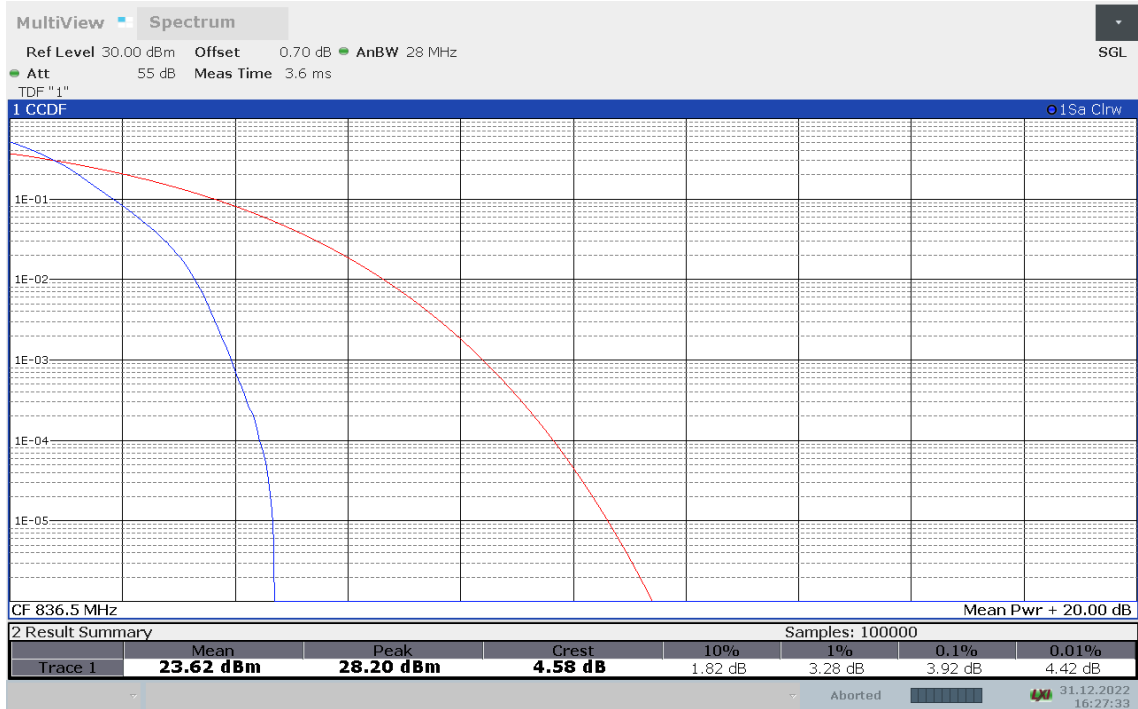
DC_5A_n2A, CP-256QAM (PAPR)



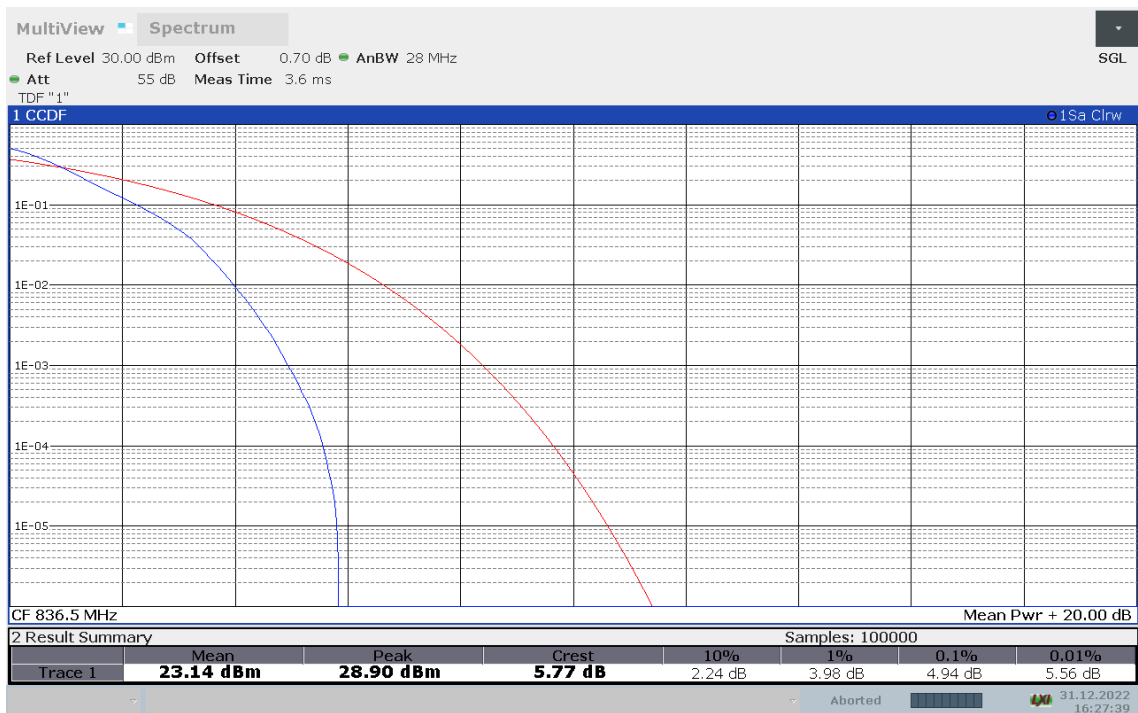
DC_66A_n5A,20MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
836.5	3.92	4.94	5.66	5.98	6.40	7.28	7.34	7.46	8.26

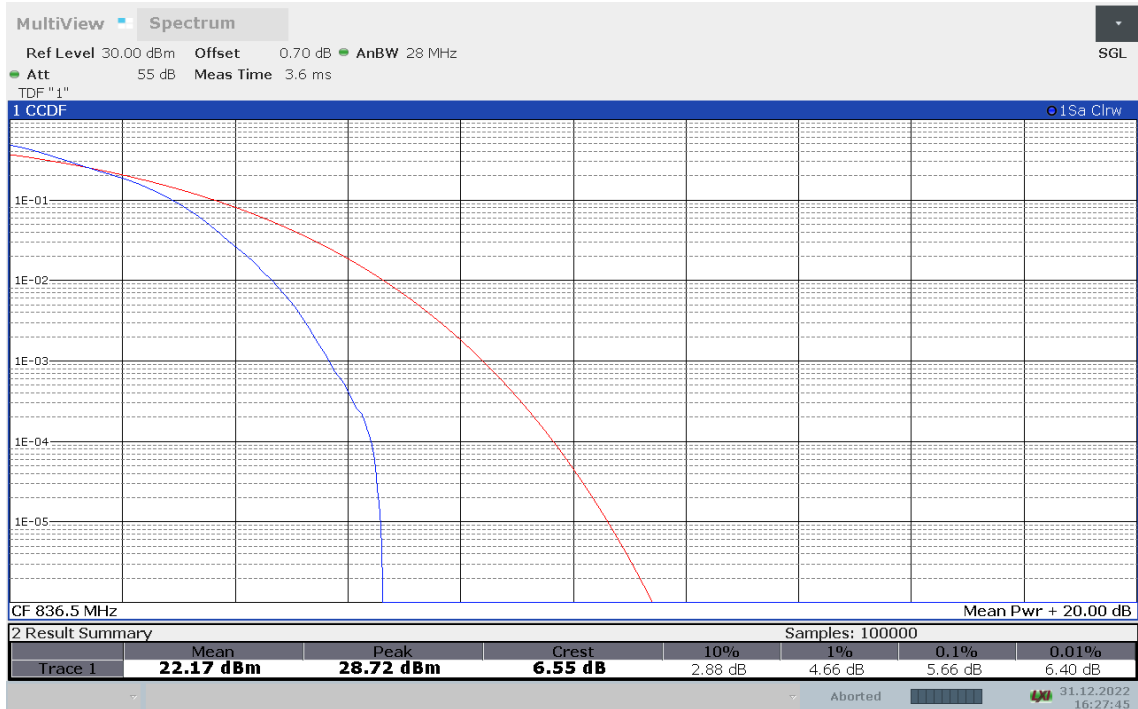
DC_66A_n5A, DFT-s-pi/2 BPSK (PAPR)



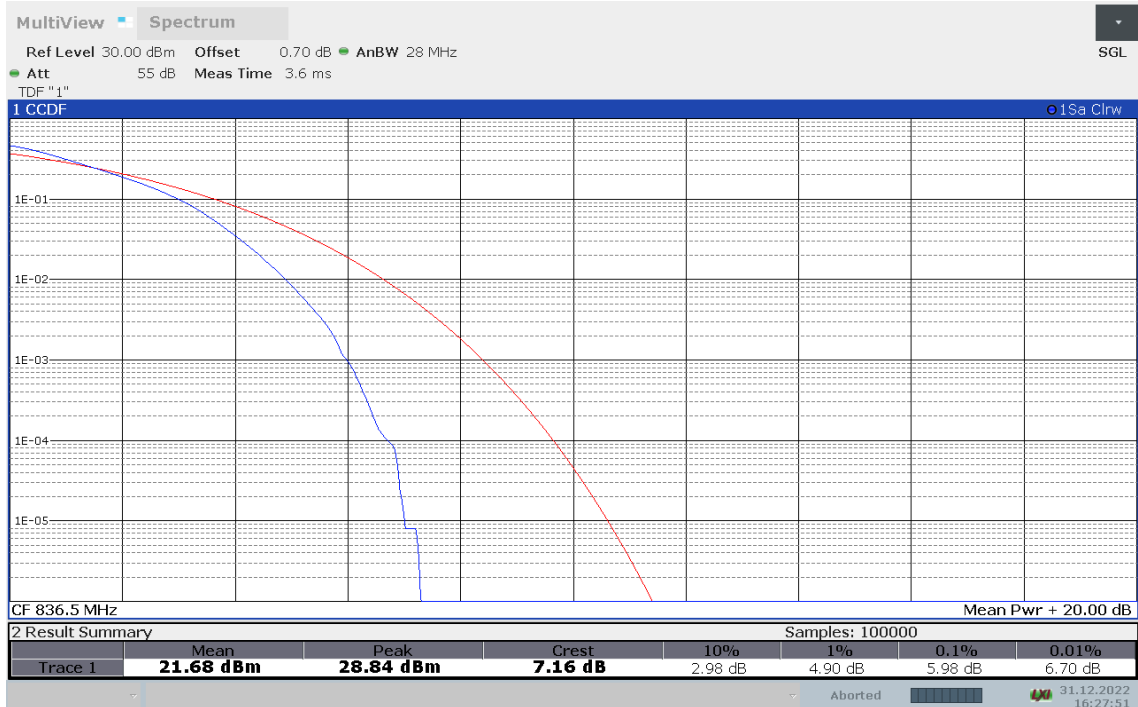
DC_66A_n5A, DFT-s-QPSK (PAPR)



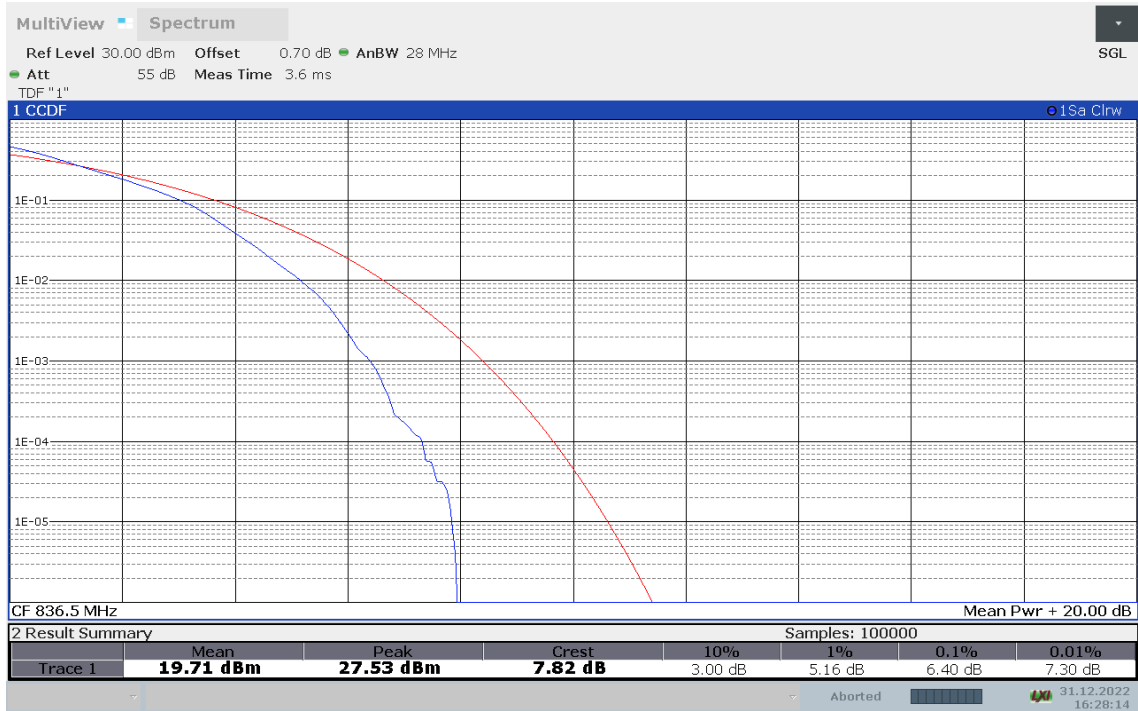
DC_66A_n5A, DFT-s-16QAM (PAPR)



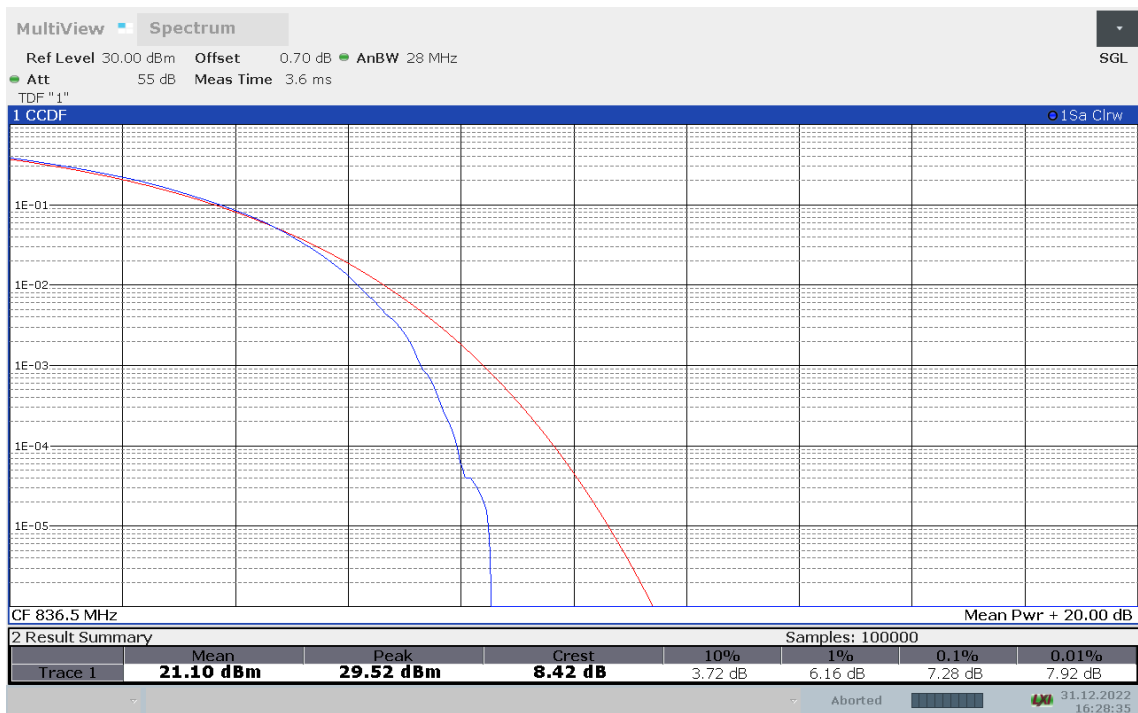
DC_66A_n5A, DFT-s-64QAM (PAPR)



DC_66A_n5A, DFT-s-256QAM (PAPR)

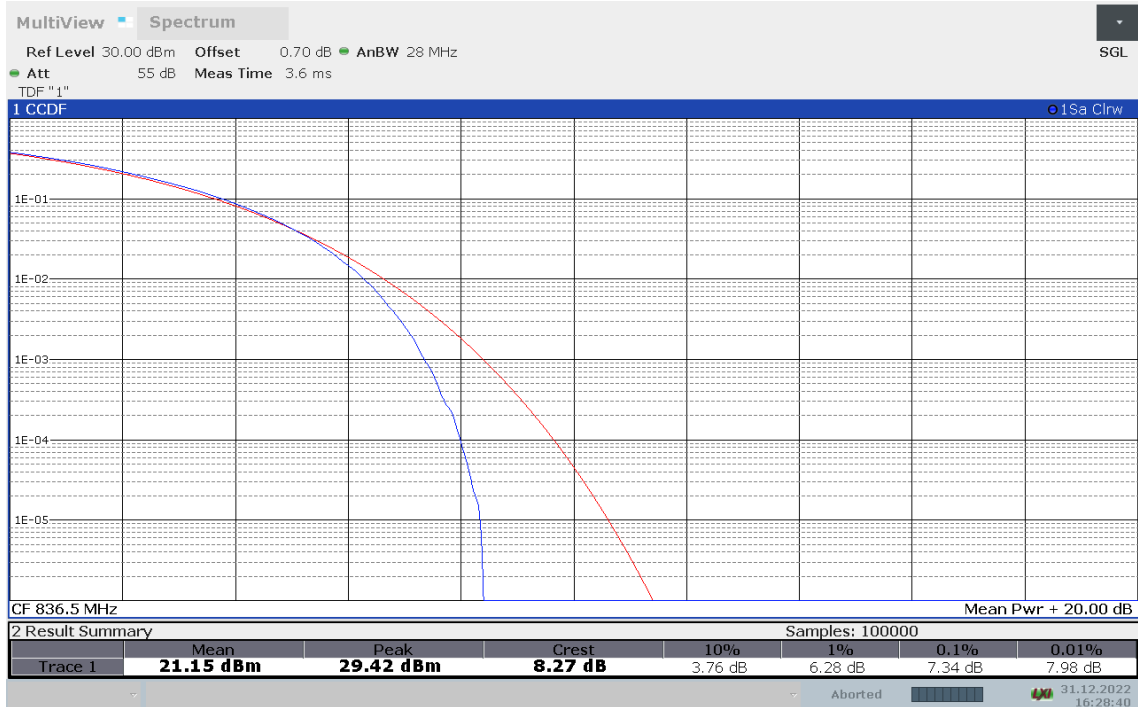


DC_66A_n5A, CP-QPSK (PAPR)

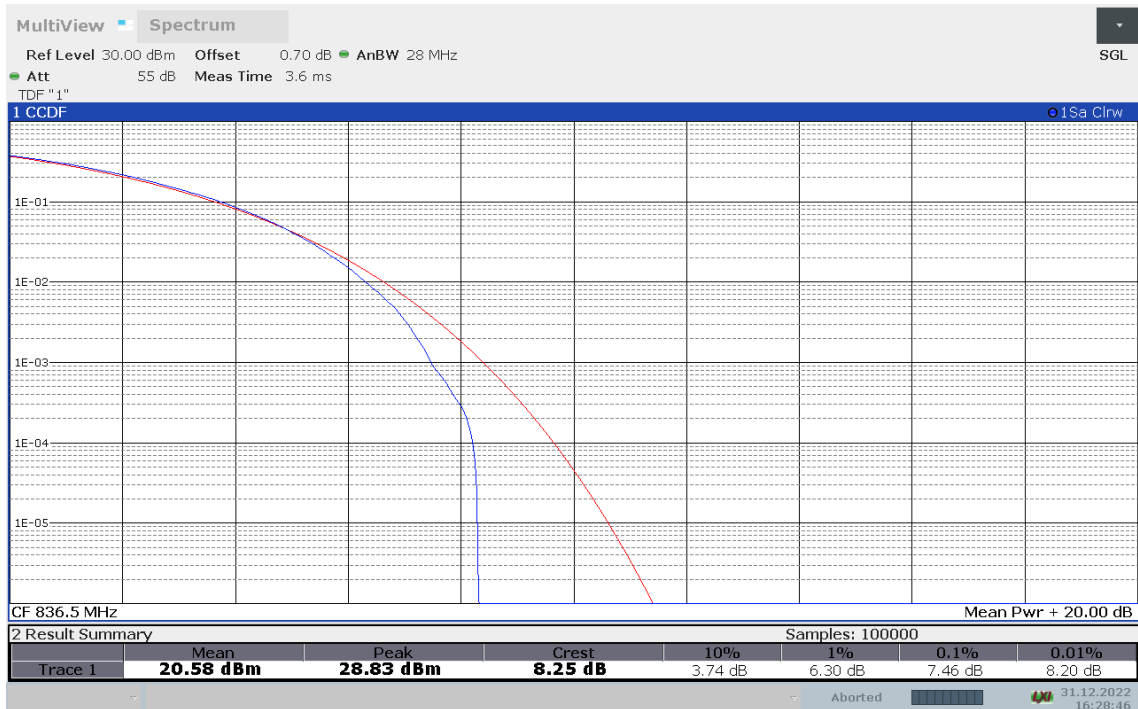




DC_66A_n5A, CP-16QAM (PAPR)

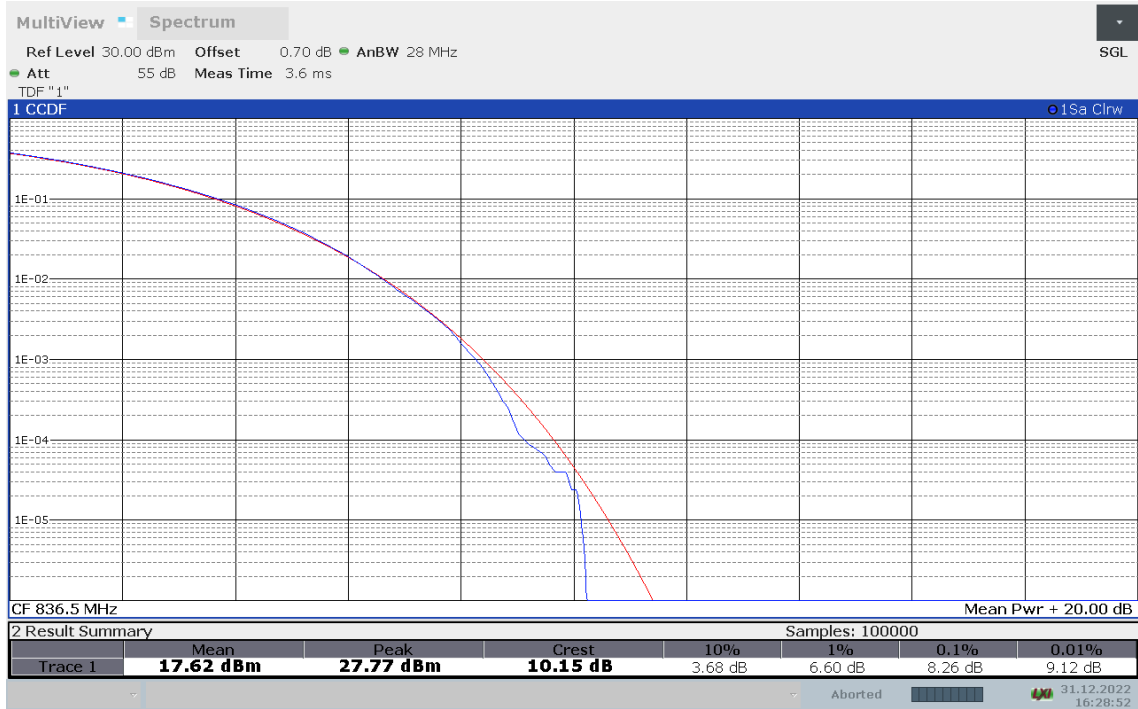


DC_66A_n5A, CP-64QAM (PAPR)





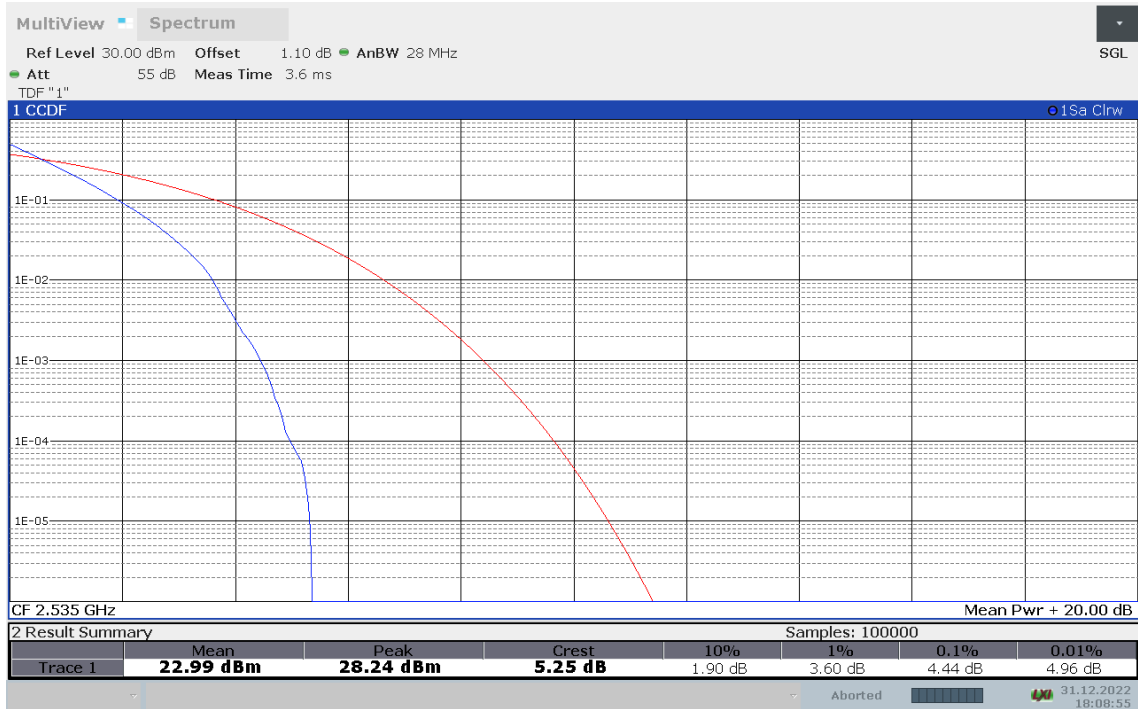
DC_66A_n5A, CP-256QAM (PAPR)



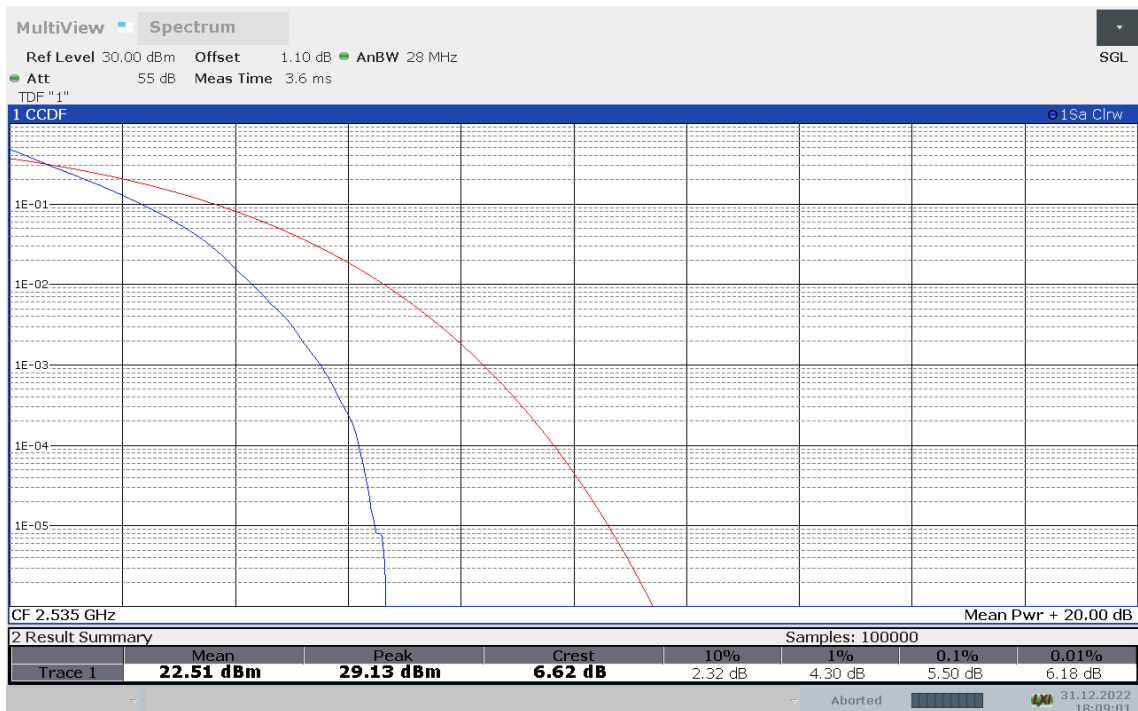
n7,20MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
2535	4.44	5.50	6.16	6.38	6.70	8.00	8.08	8.04	8.46

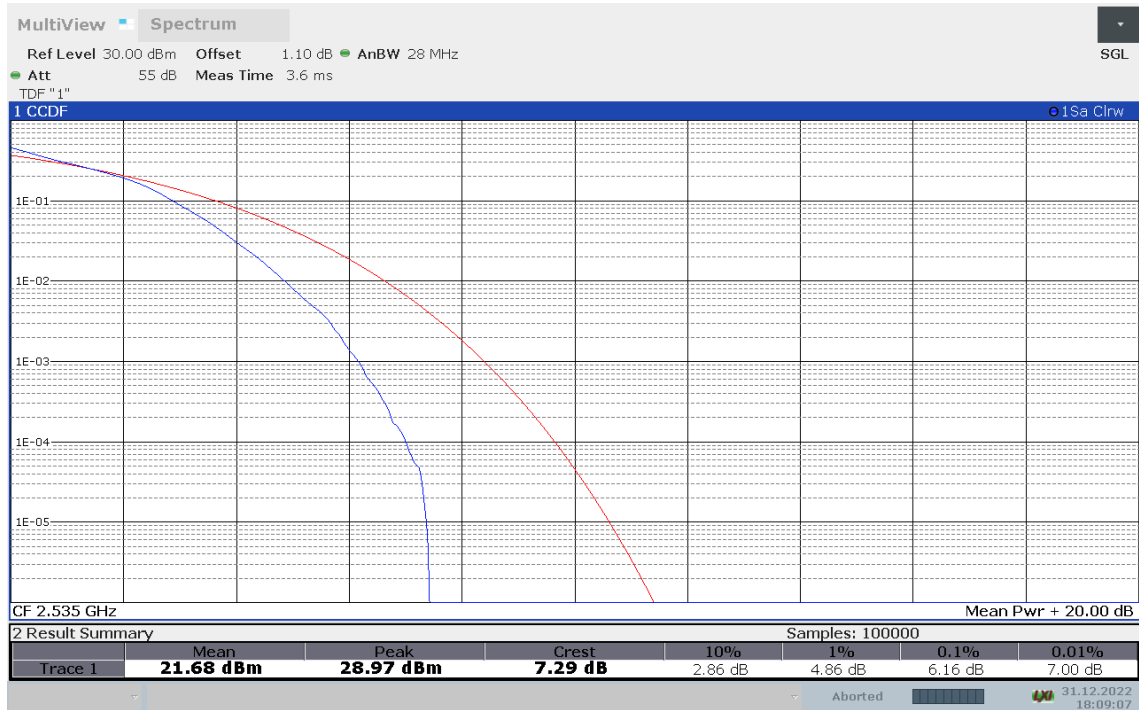
n7, DFT-s-pi/2 BPSK (PAPR)



n7, DFT-s-QPSK (PAPR)



n7, DFT-s-16QAM (PAPR)

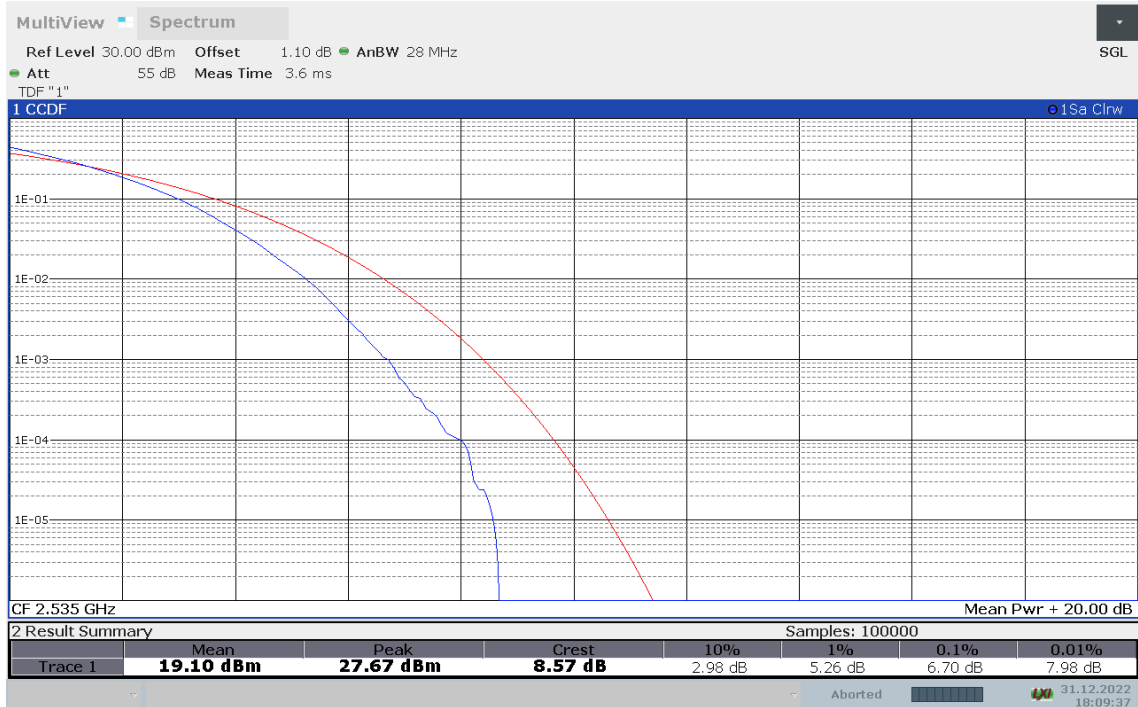


n7, DFT-s-64QAM (PAPR)

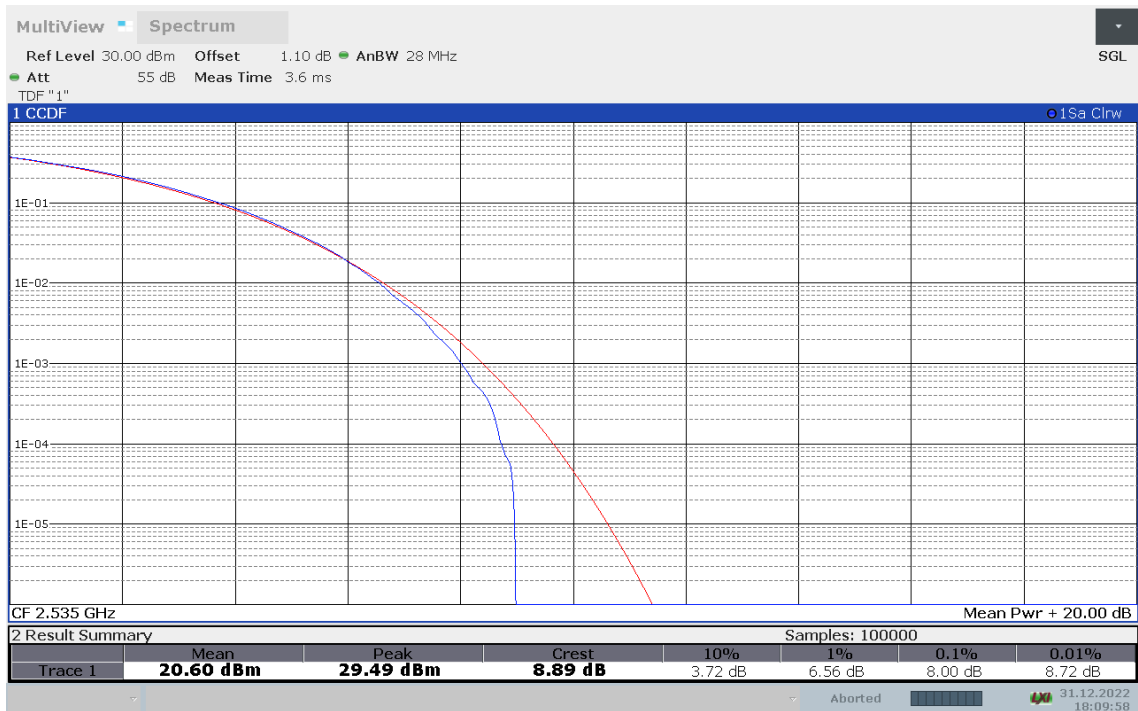




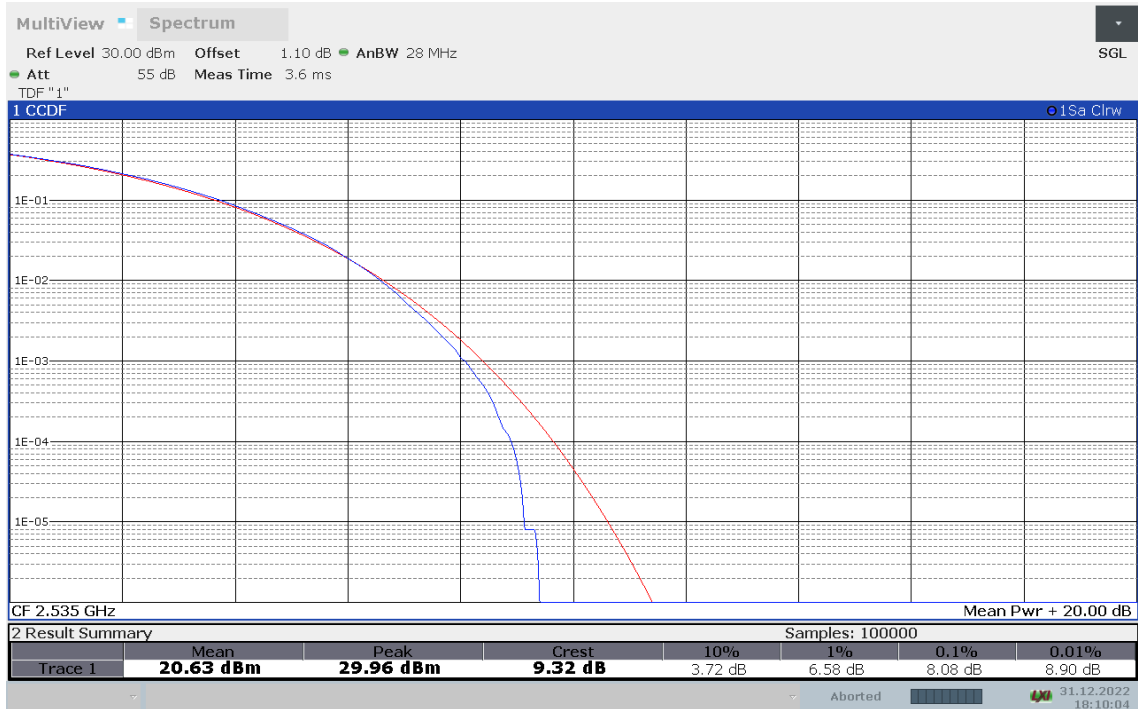
n7, DFT-s-256QAM (PAPR)



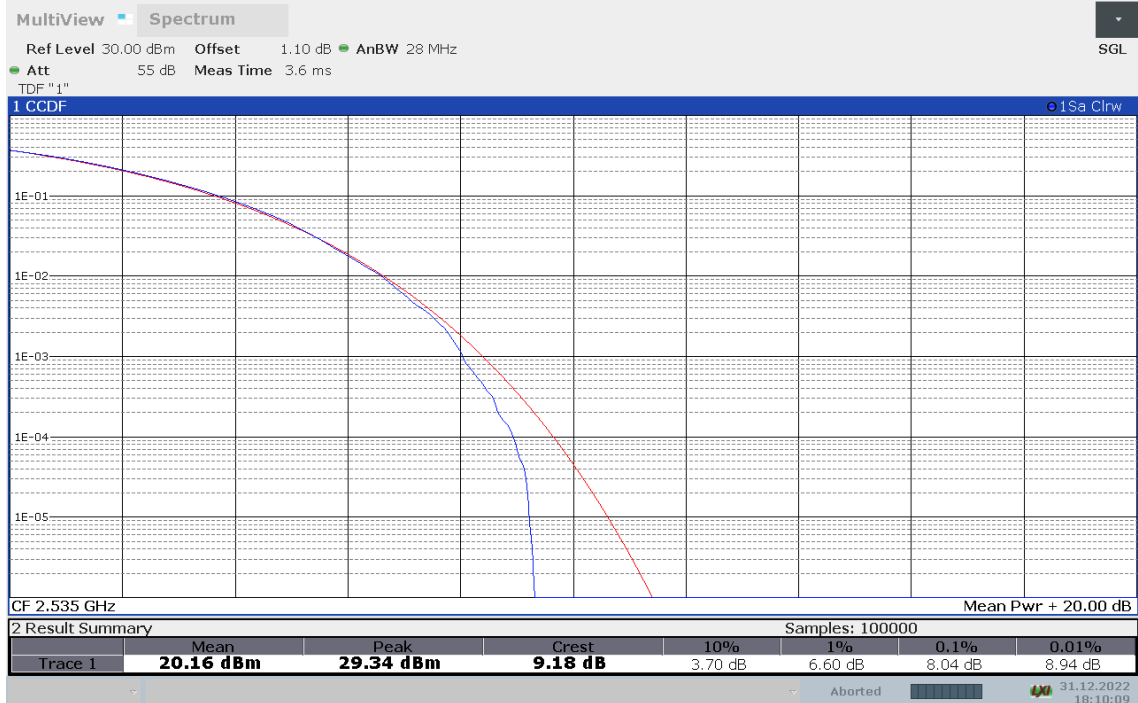
n7, CP-QPSK (PAPR)



n7, CP-16QAM (PAPR)

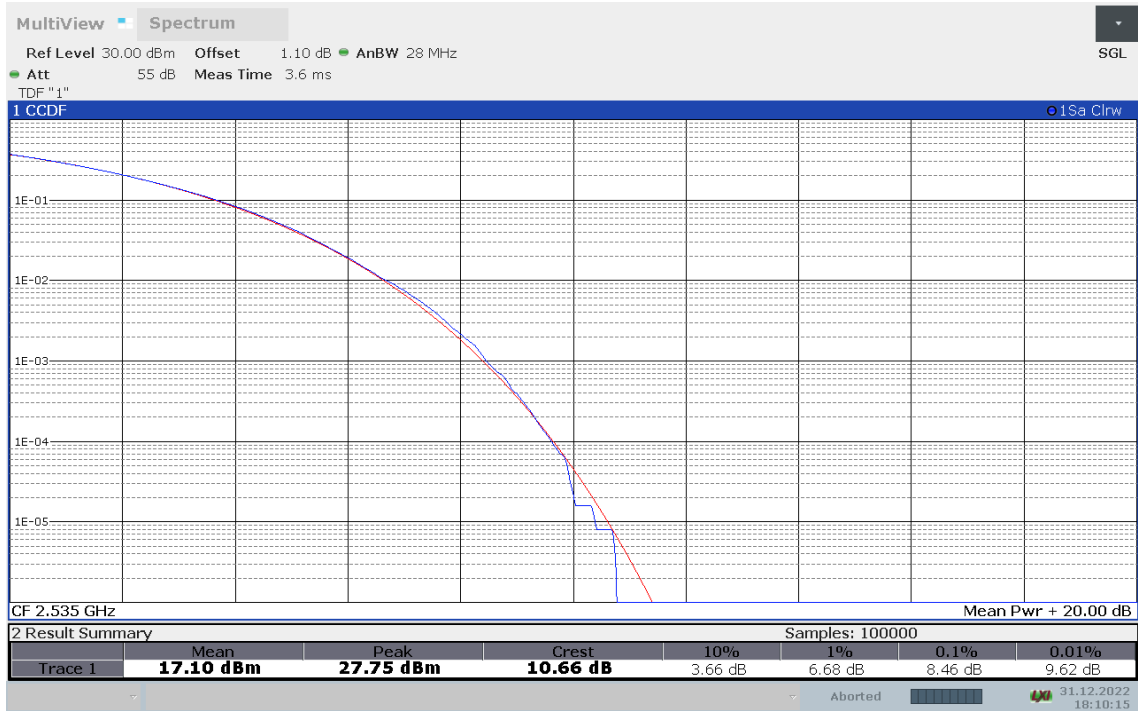


n7, CP-64QAM (PAPR)





n7, CP-256QAM (PAPR)



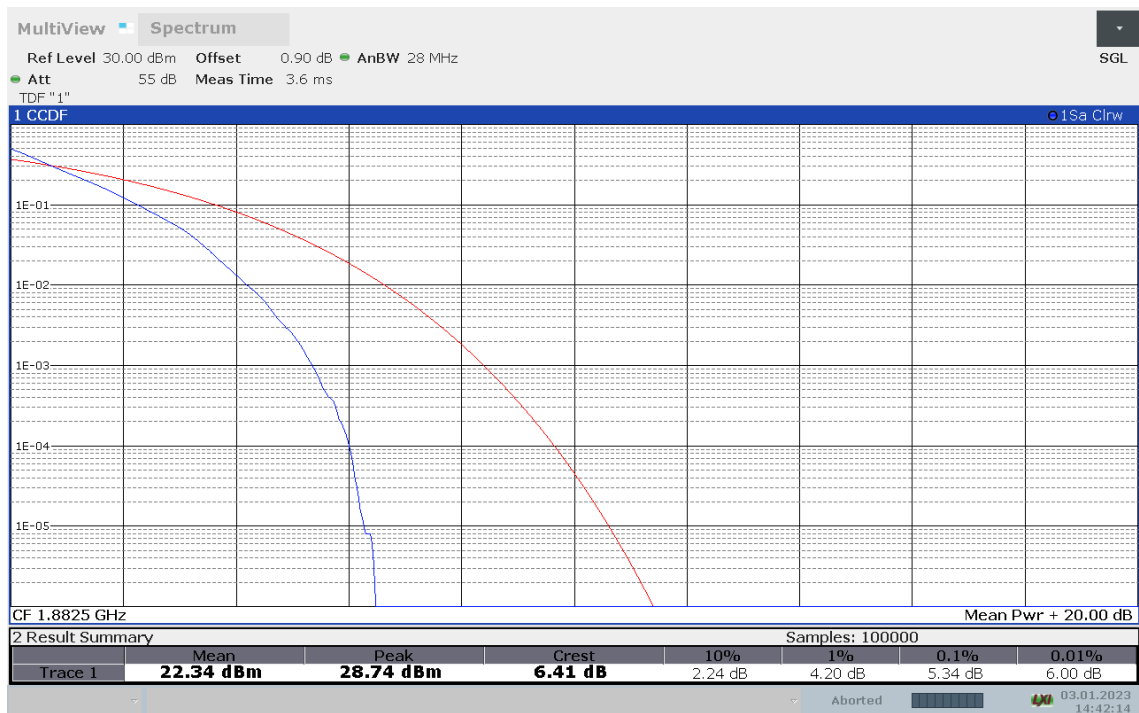
n25,20MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
1882.5	4.18	5.34	6.00	6.32	6.52	7.94	7.96	8.06	8.46

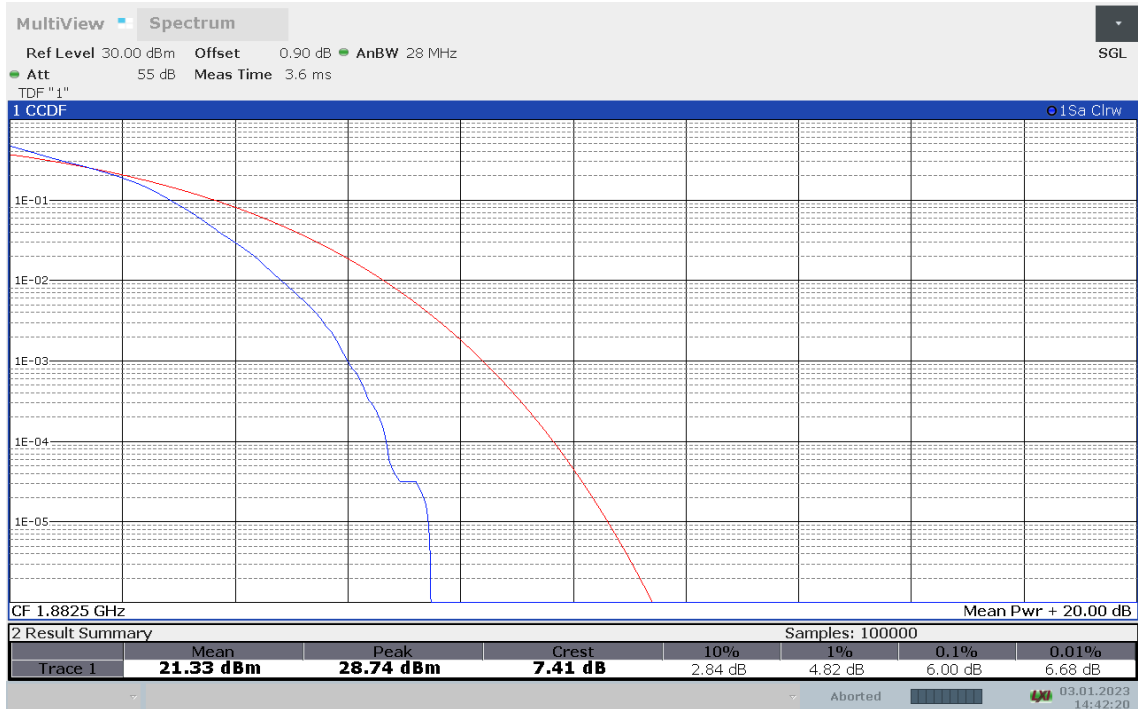
n25, DFT-s-pi/2 BPSK (PAPR)



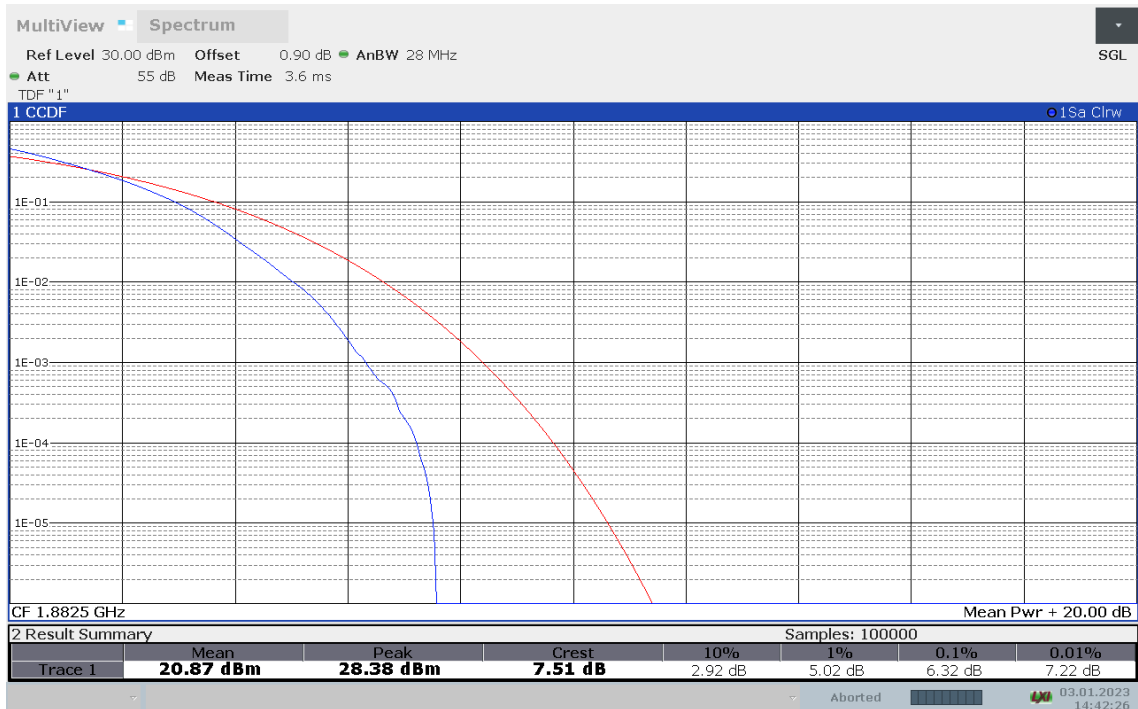
n25, DFT-s-QPSK (PAPR)



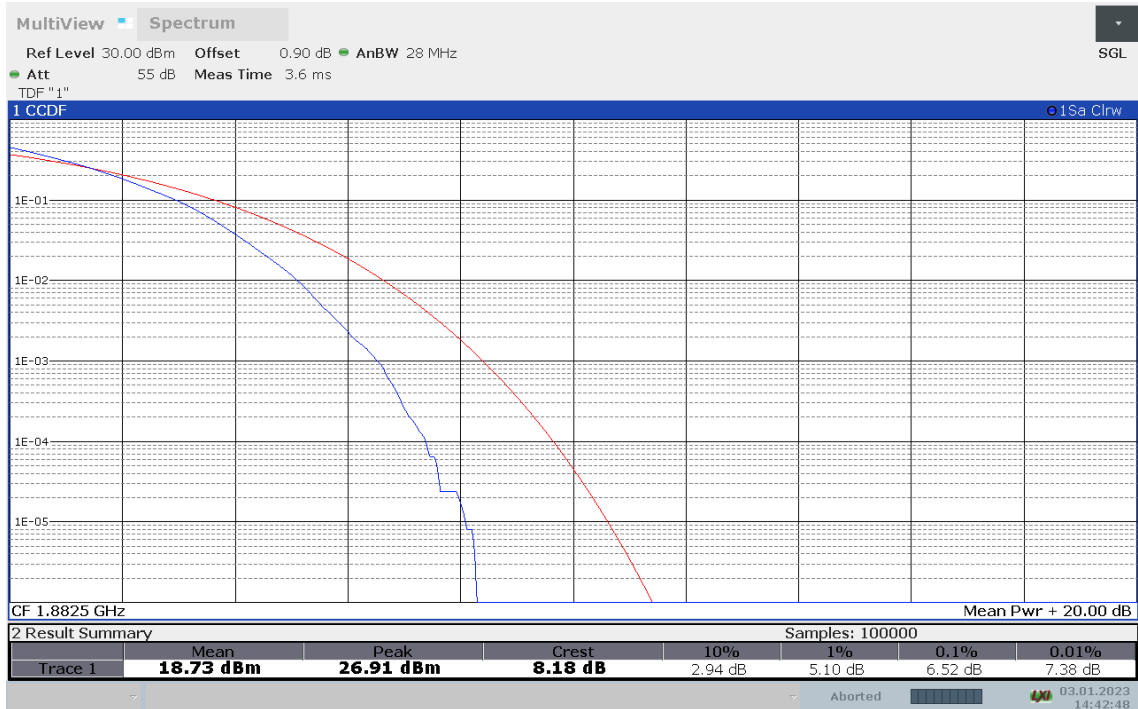
n25, DFT-s-16QAM (PAPR)



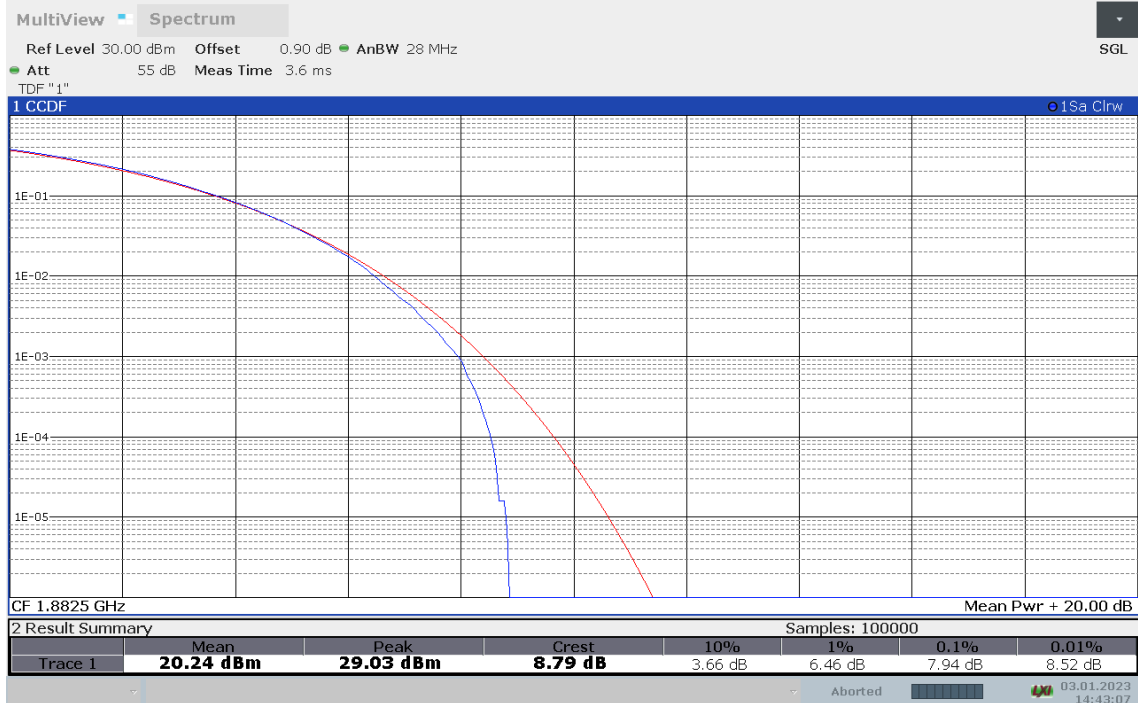
n25, DFT-s-64QAM (PAPR)



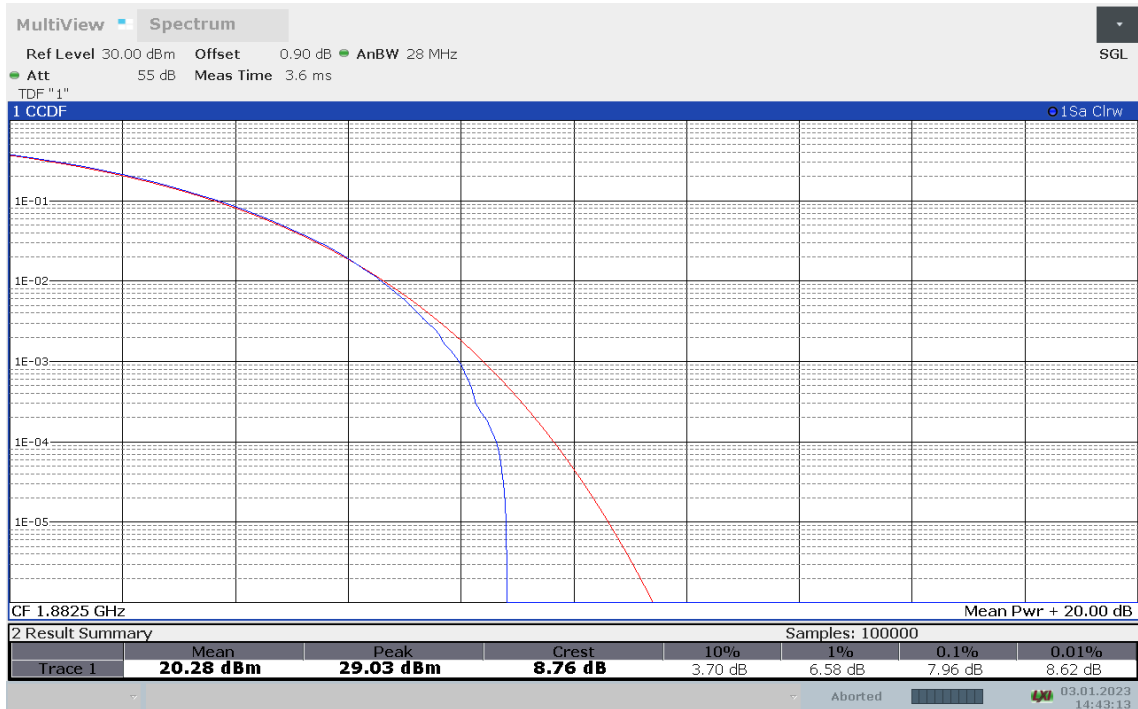
n25, DFT-s-256QAM (PAPR)



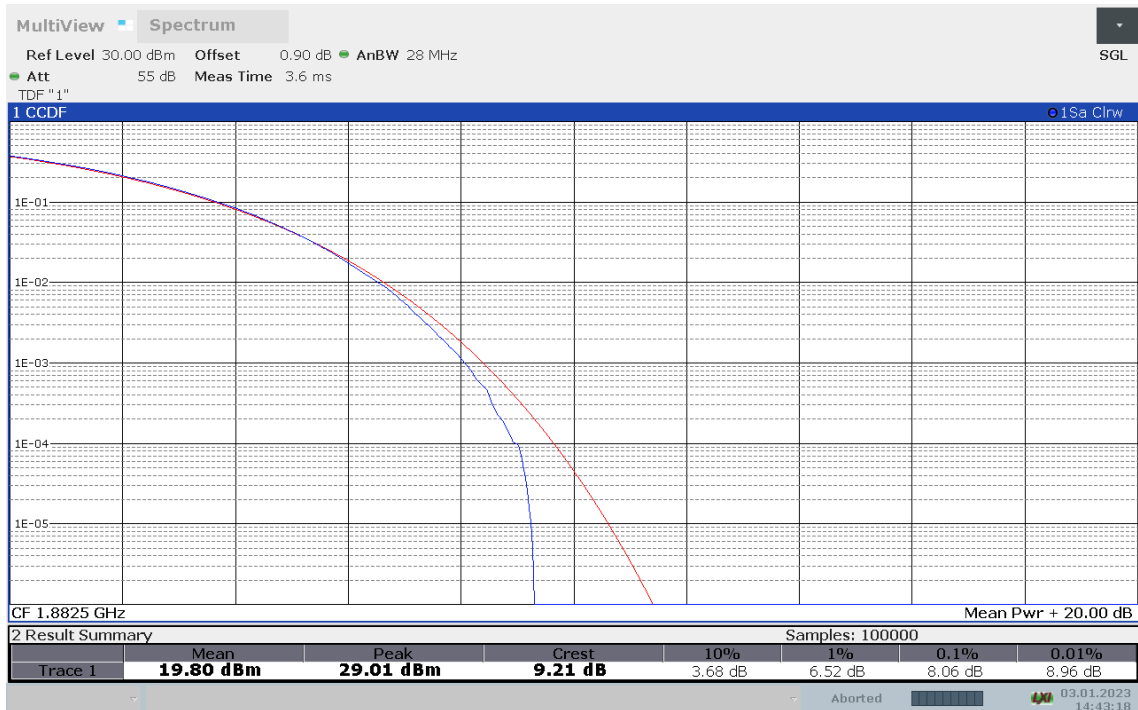
n25, CP-QPSK (PAPR)



n25, CP-16QAM (PAPR)

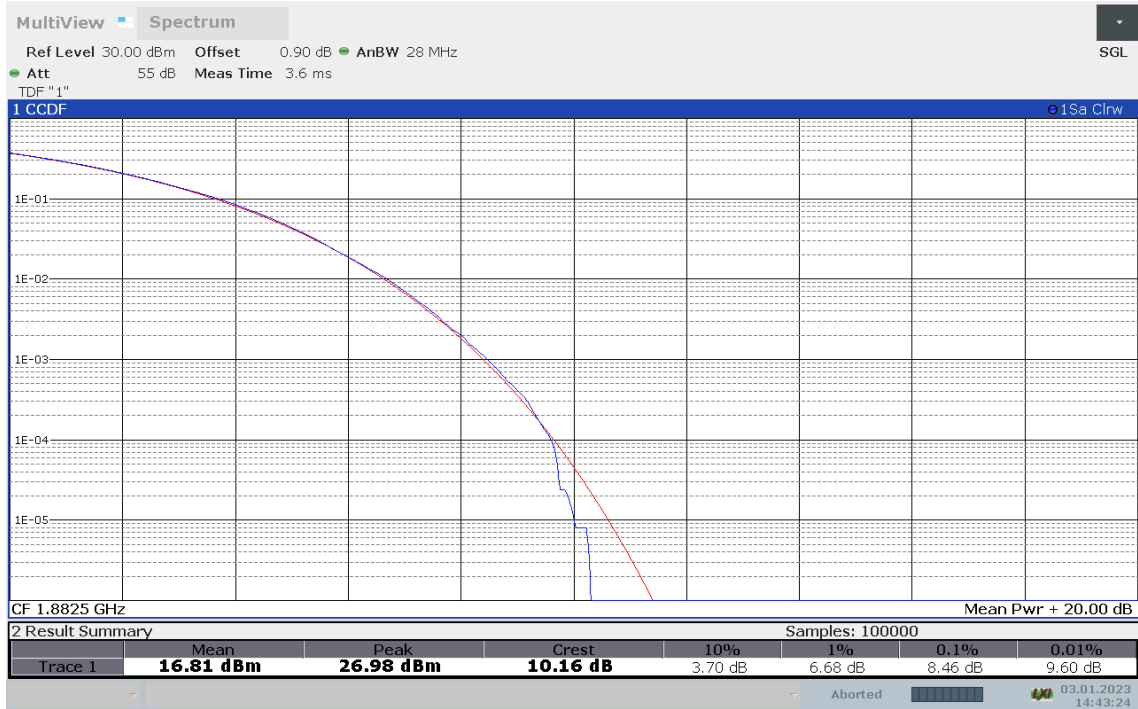


n25, CP-64QAM (PAPR)





n25, CP-256QAM (PAPR)

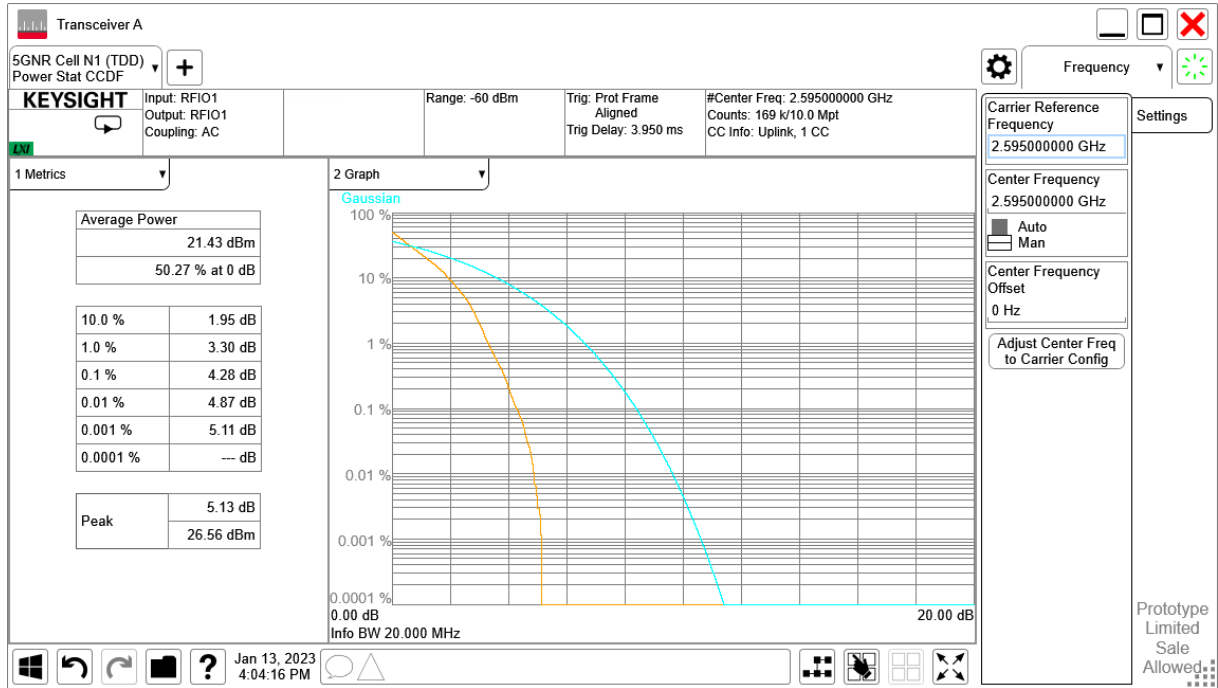




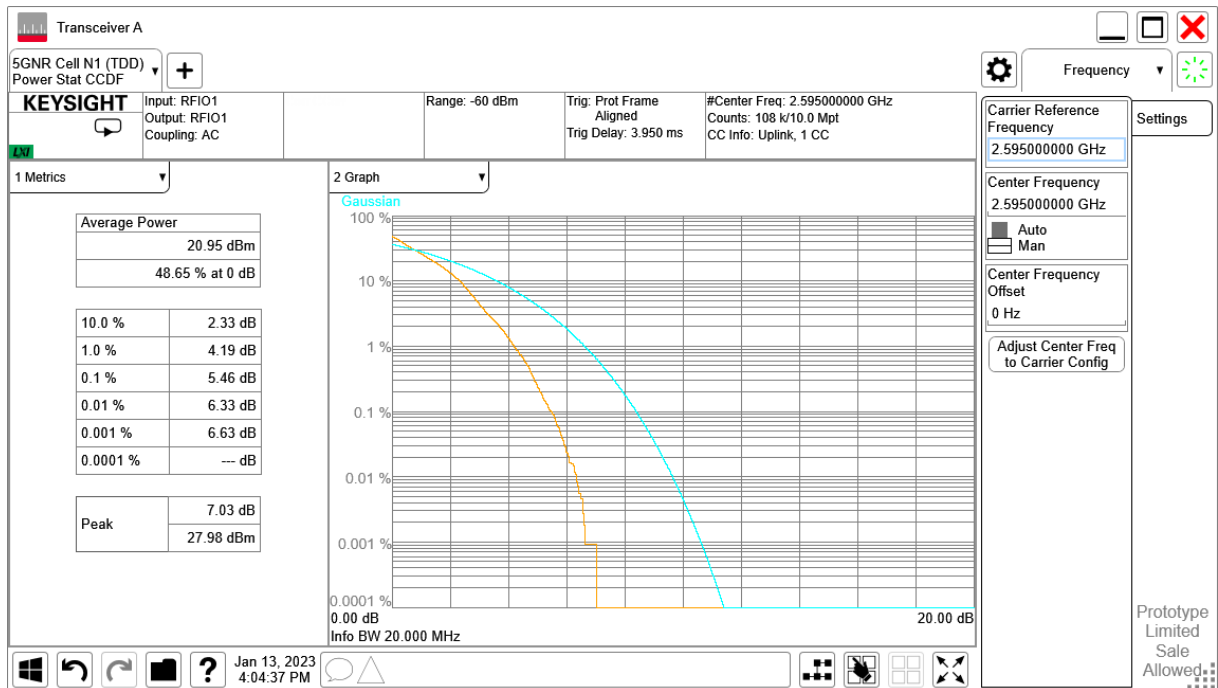
n38,20MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
2595.0	4.28	5.46	6.12	6.31	6.01	7.82	8.00	7.90	7.54

n38, DFT-s-pi/2 BPSK (PAPR)

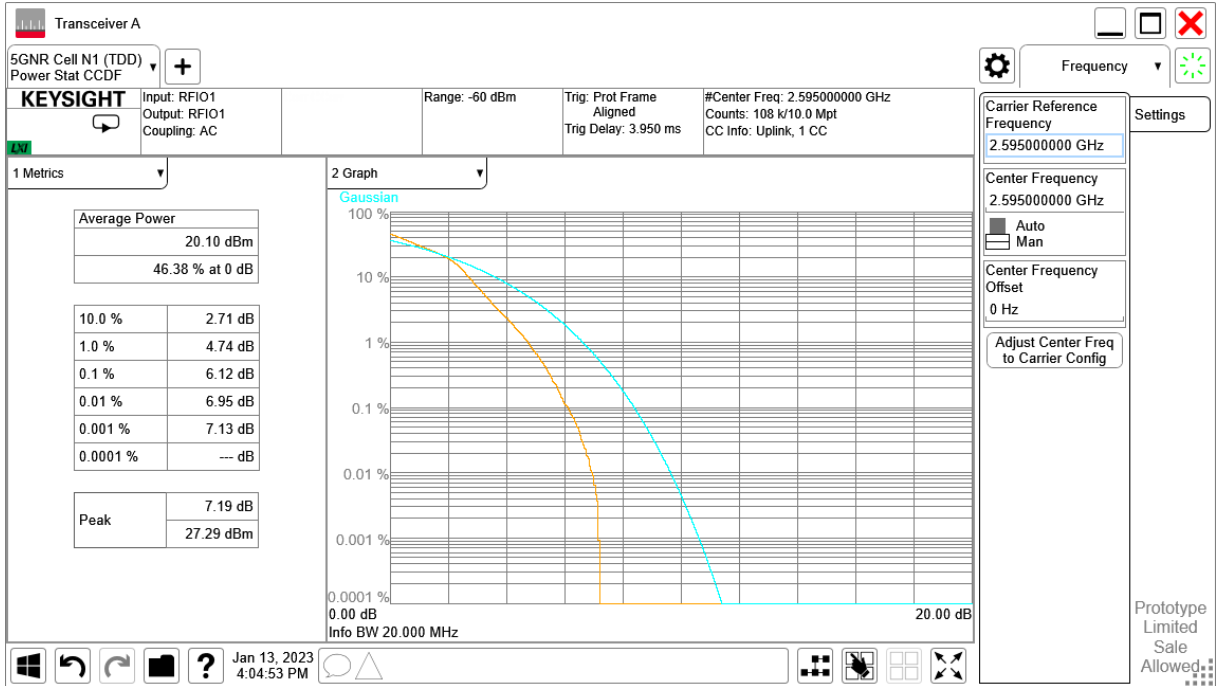


n38, DFT-s-QPSK (PAPR)

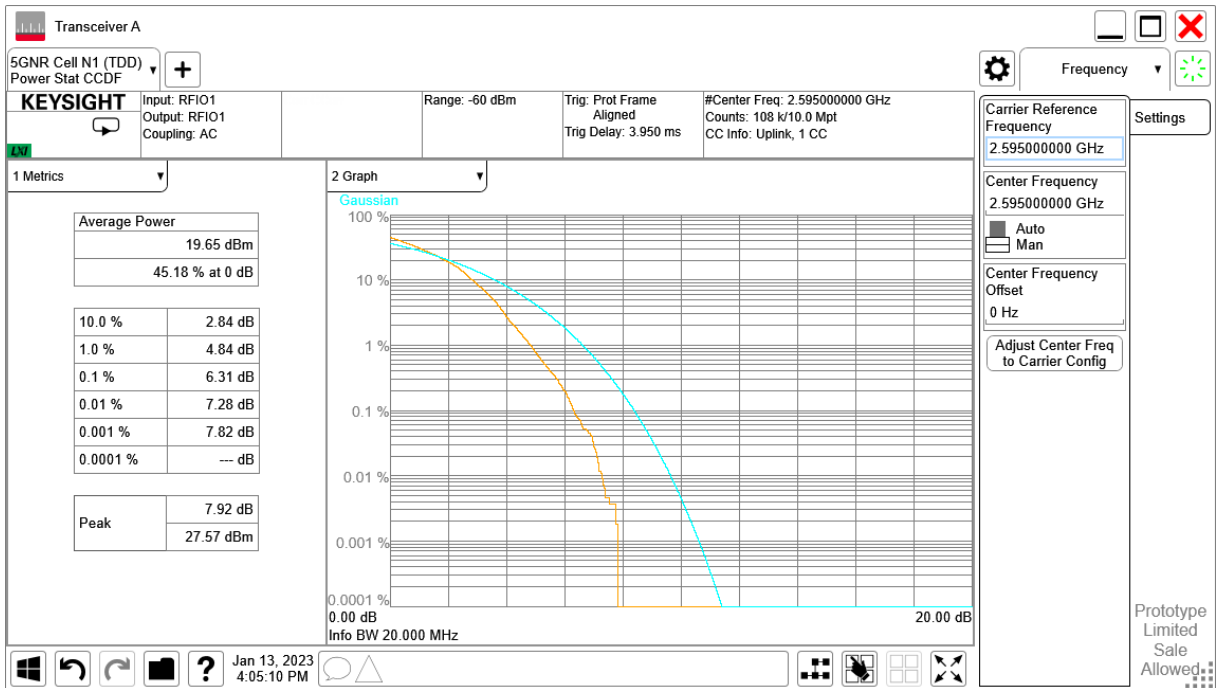




n38, DFT-s-16QAM (PAPR)

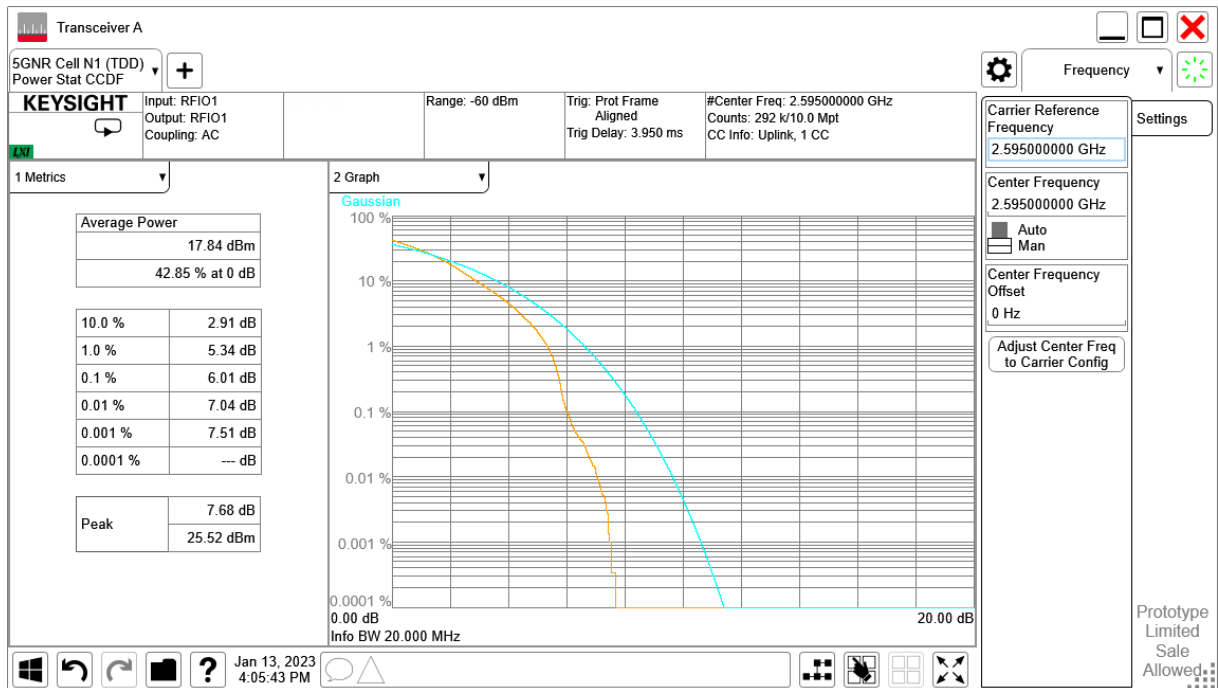


n38, DFT-s-64QAM (PAPR)

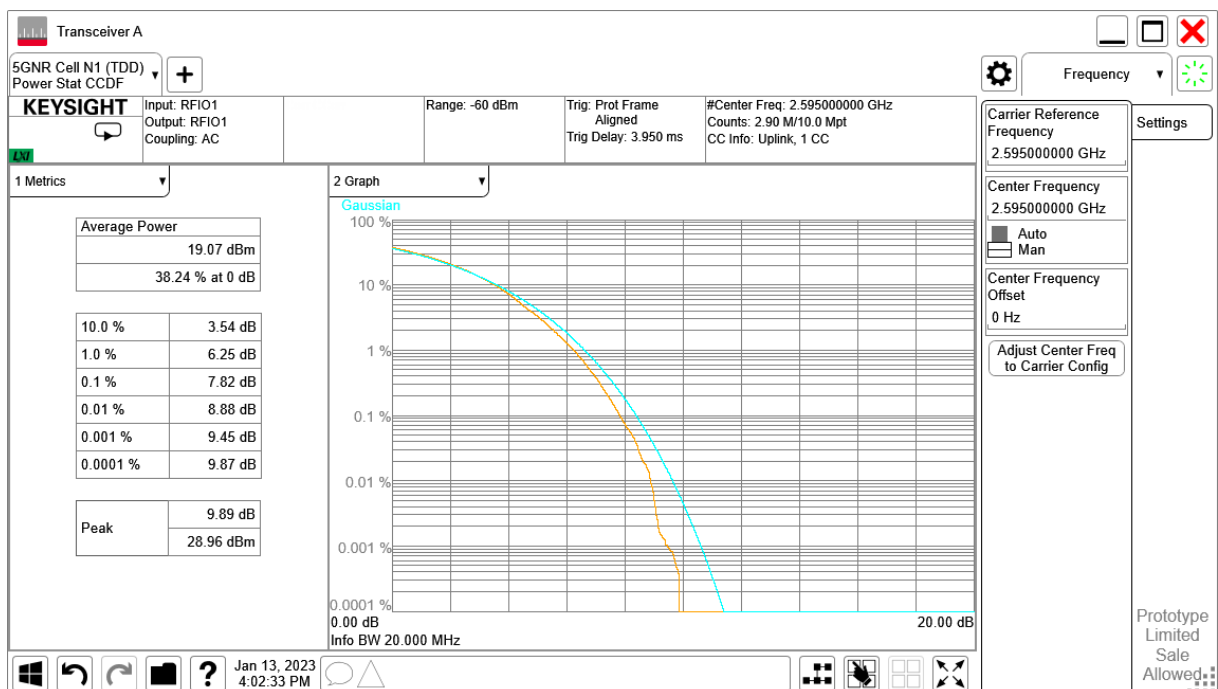




n38, DFT-s-256QAM (PAPR)

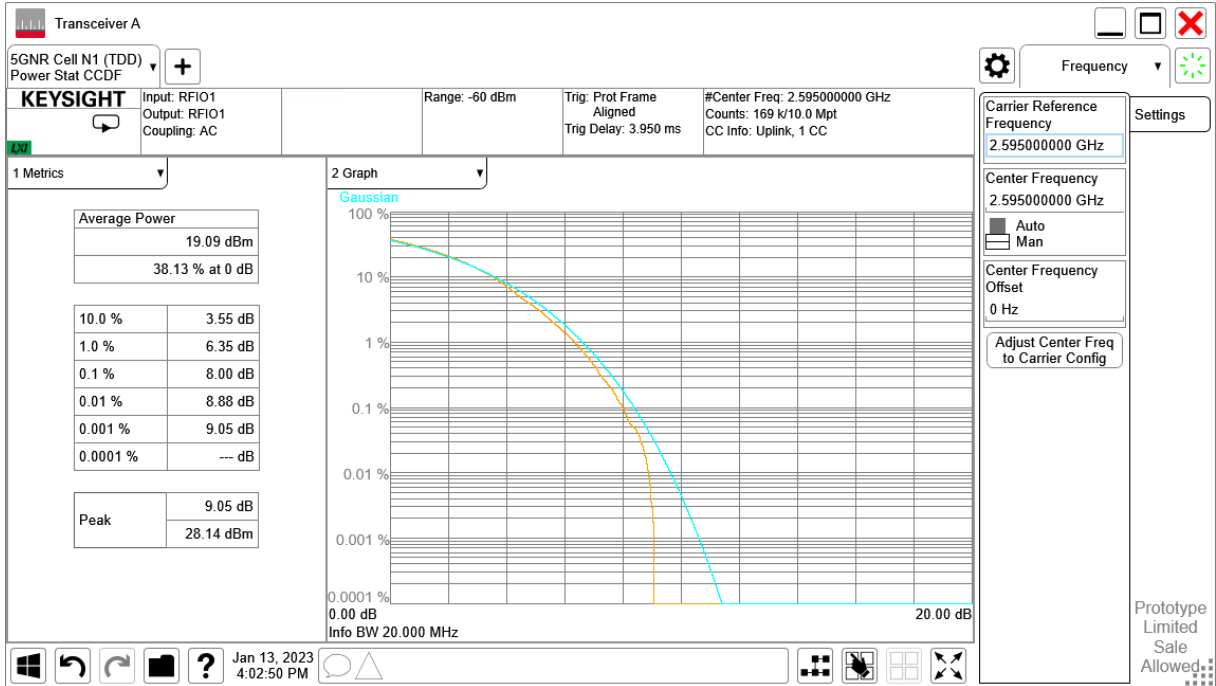


n38, CP-QPSK (PAPR)

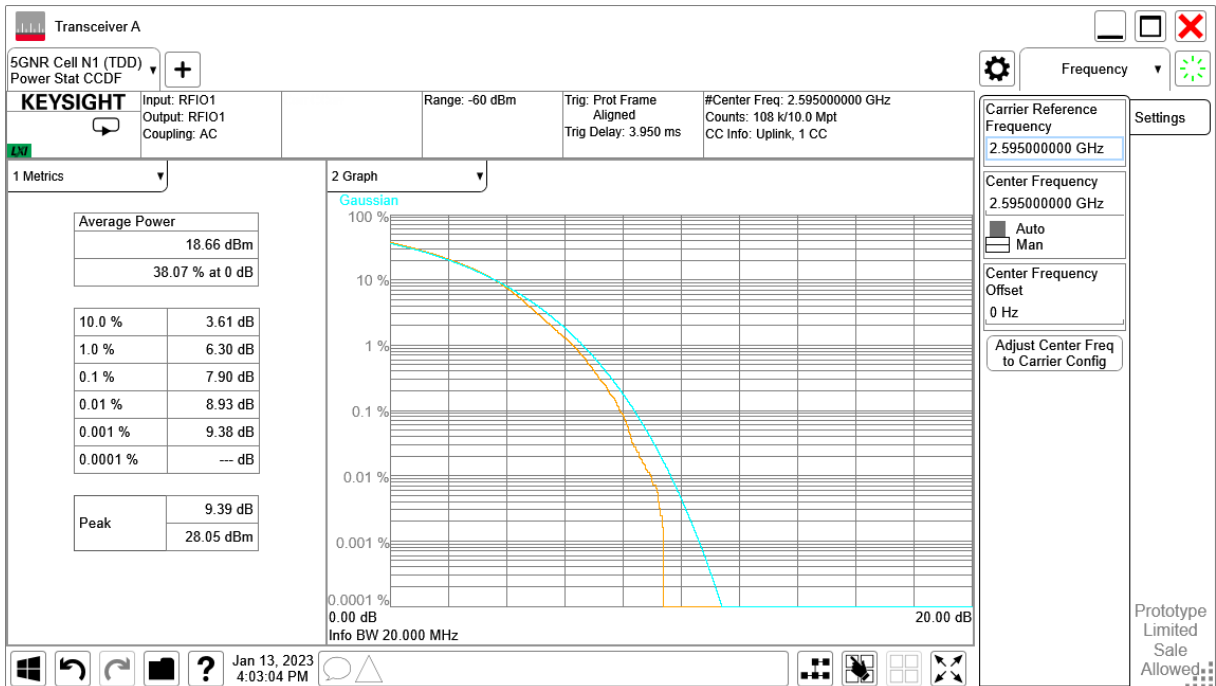




n38, CP-16QAM (PAPR)

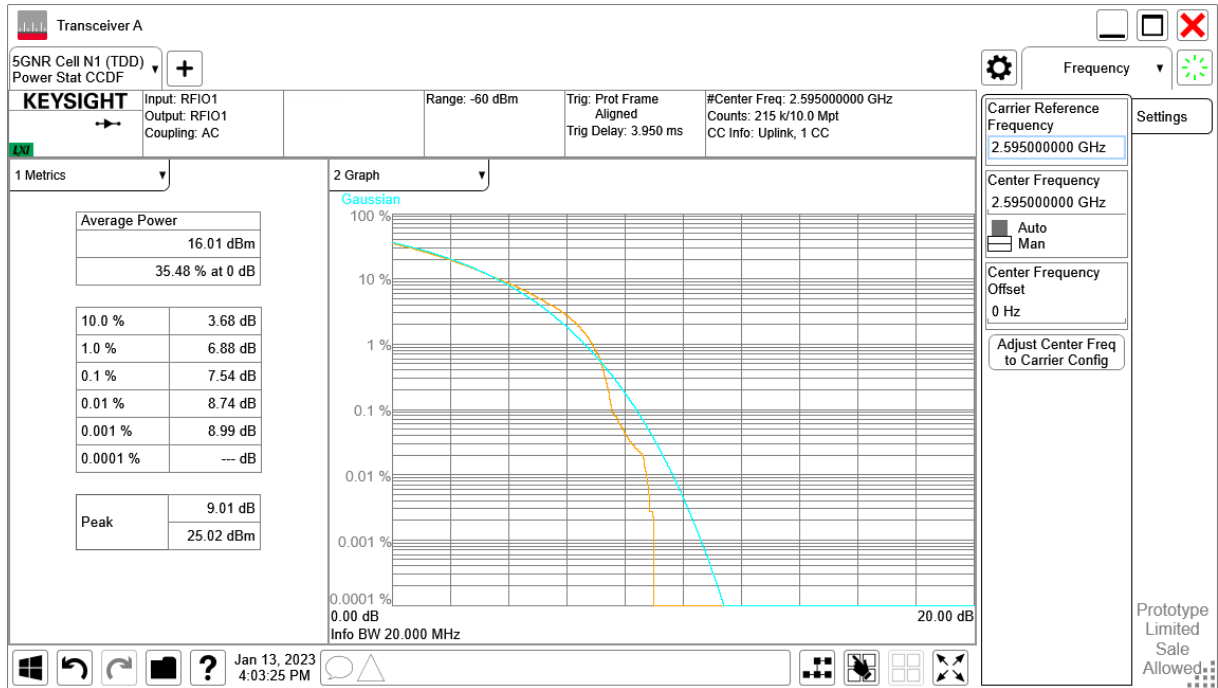


n38, CP-64QAM (PAPR)





n38, CP-256QAM (PAPR)

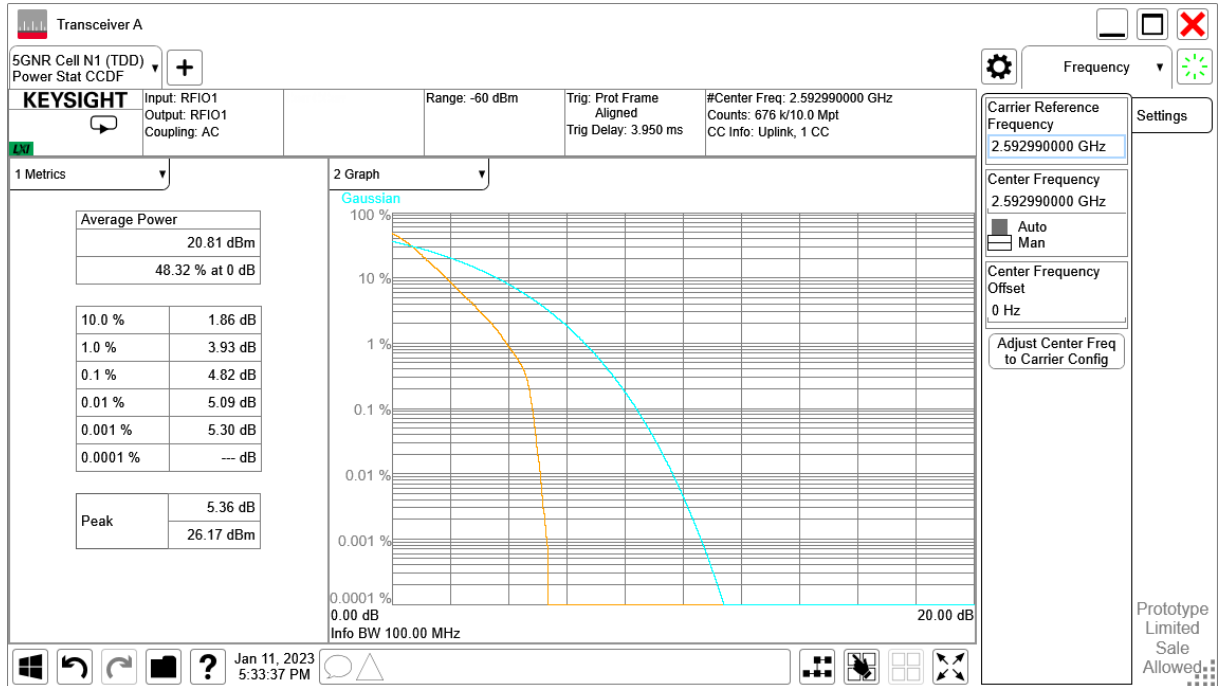




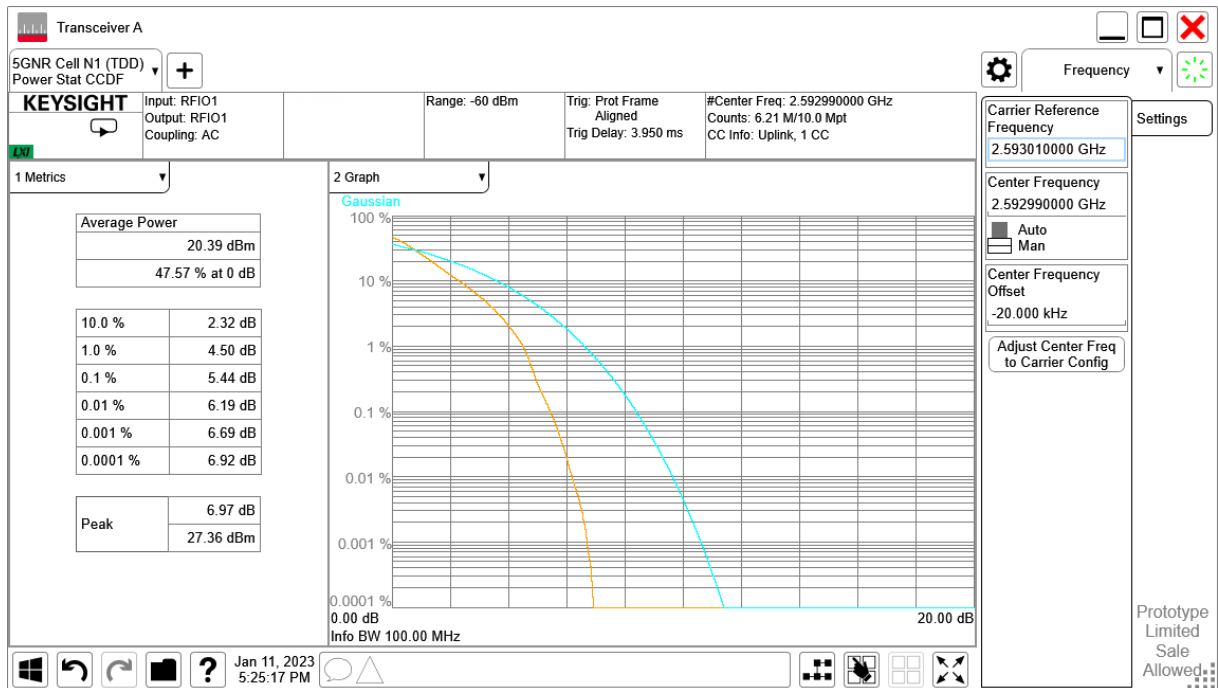
DC_66A_n41A,20MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
2593.0	4.82	5.44	6.15	6.25	6.08	7.96	7.92	7.97	7.48

DC_66A_n41A, DFT-s-pi/2 BPSK (PAPR)

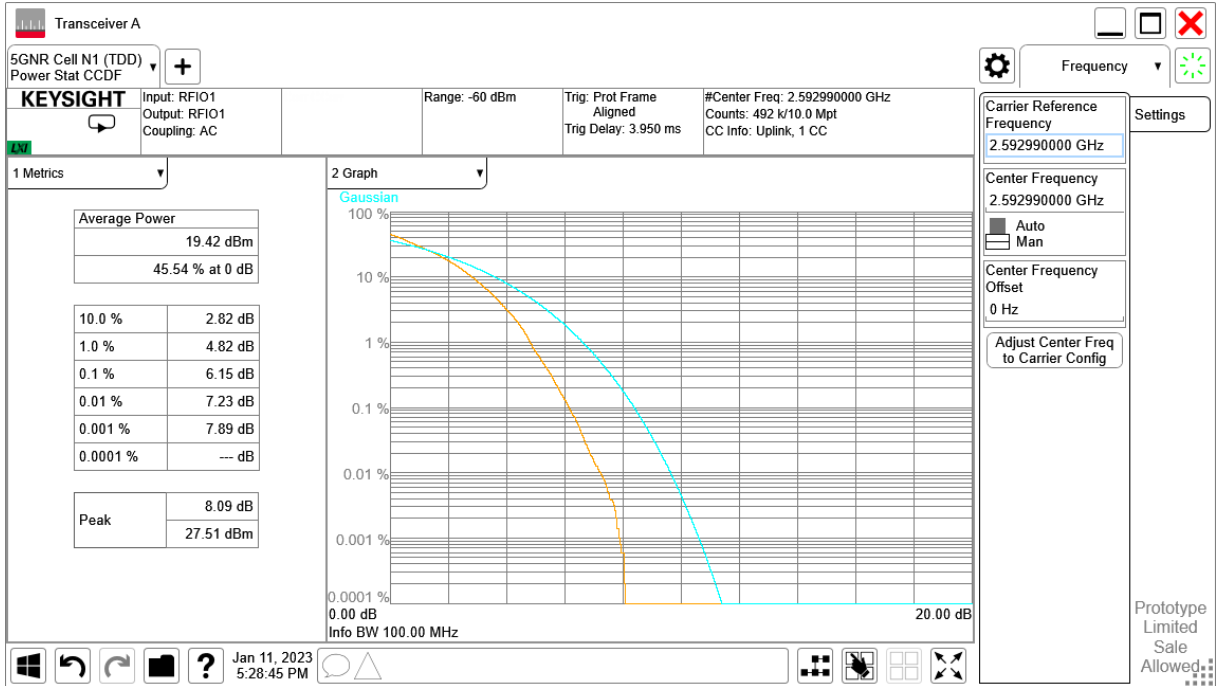


DC_66A_n41A, DFT-s-QPSK (PAPR)

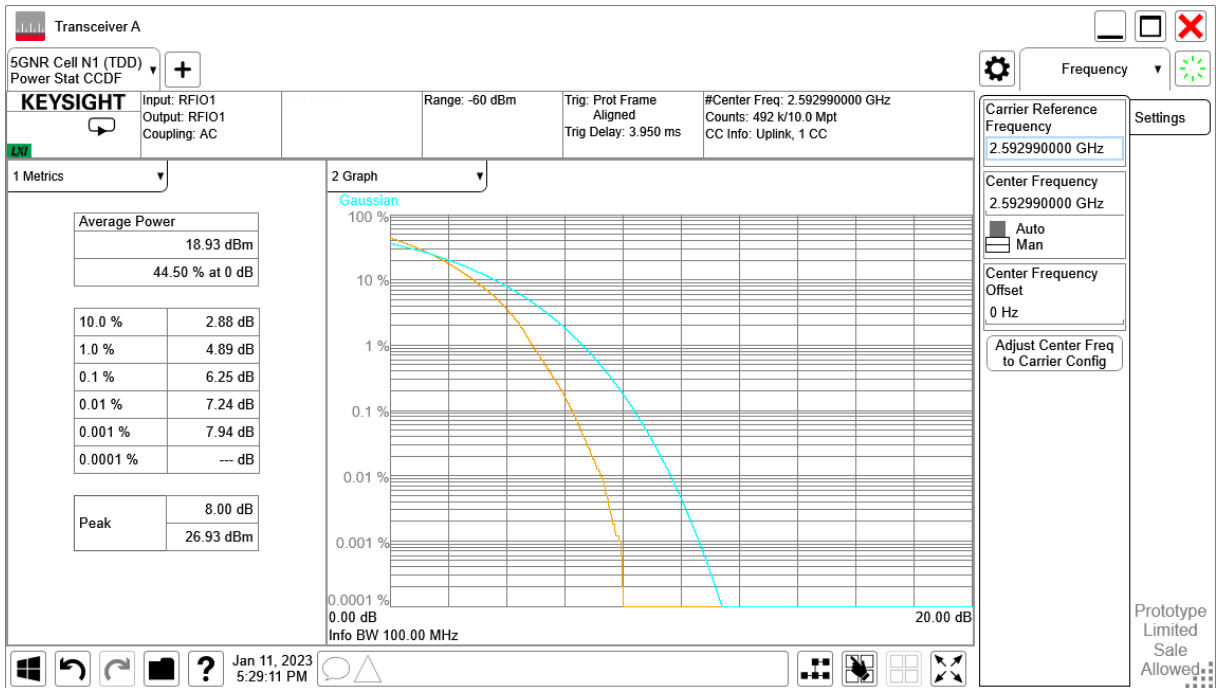




DC_66A_n41A, DFT-s-16QAM (PAPR)

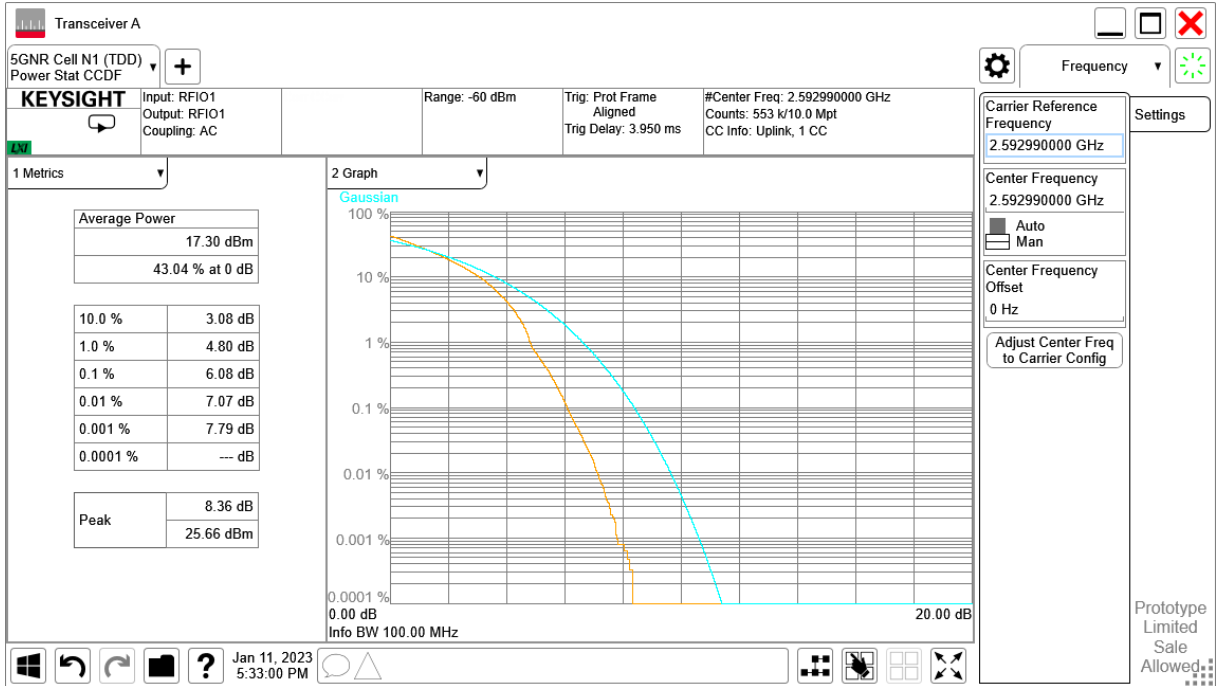


DC_66A_n41A, DFT-s-64QAM (PAPR)

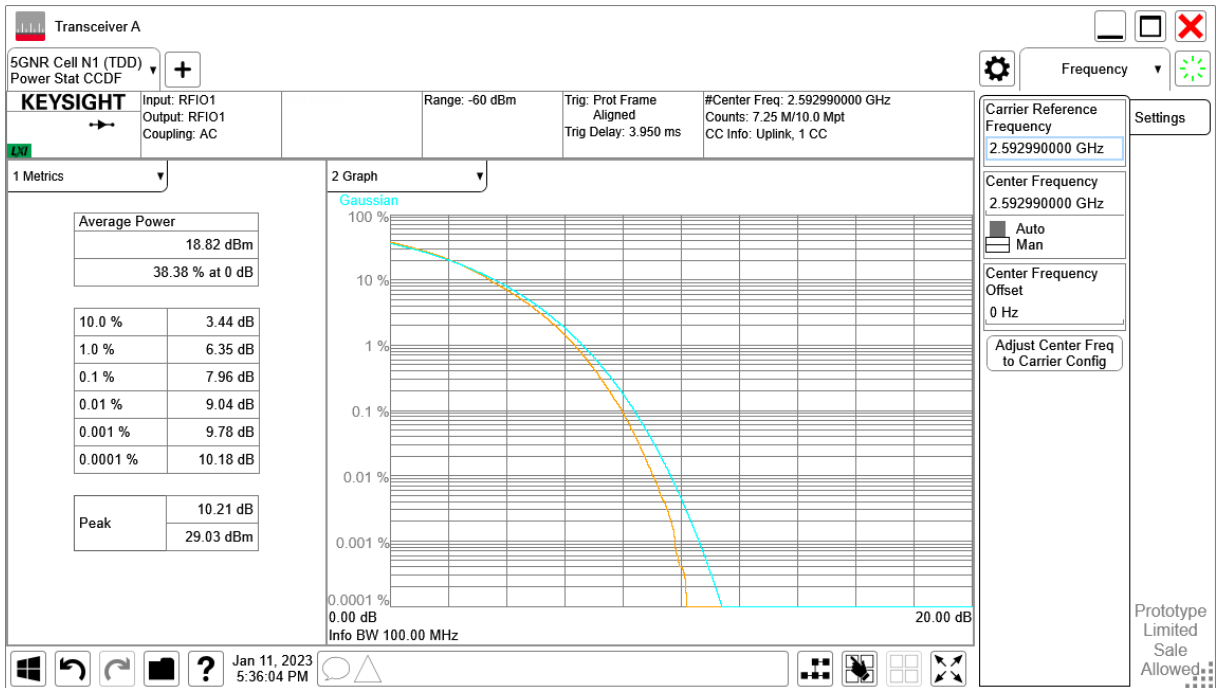




DC_66A_n41A, DFT-s-256QAM (PAPR)

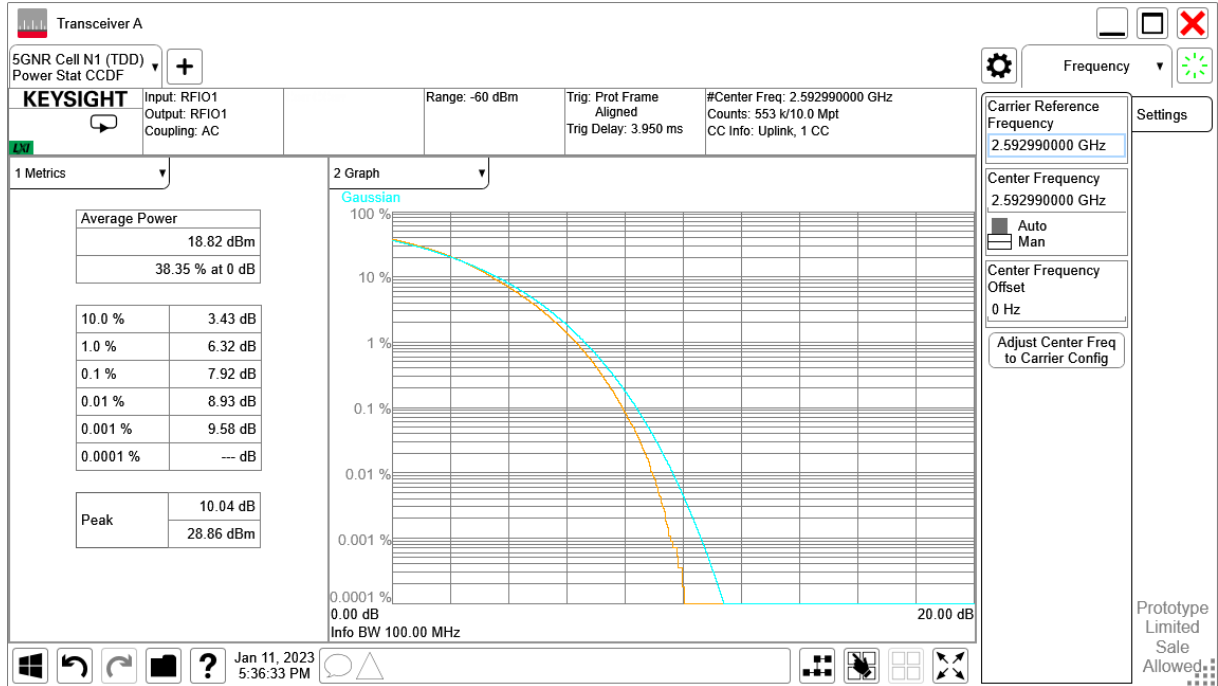


DC_66A_n41A, CP-QPSK (PAPR)

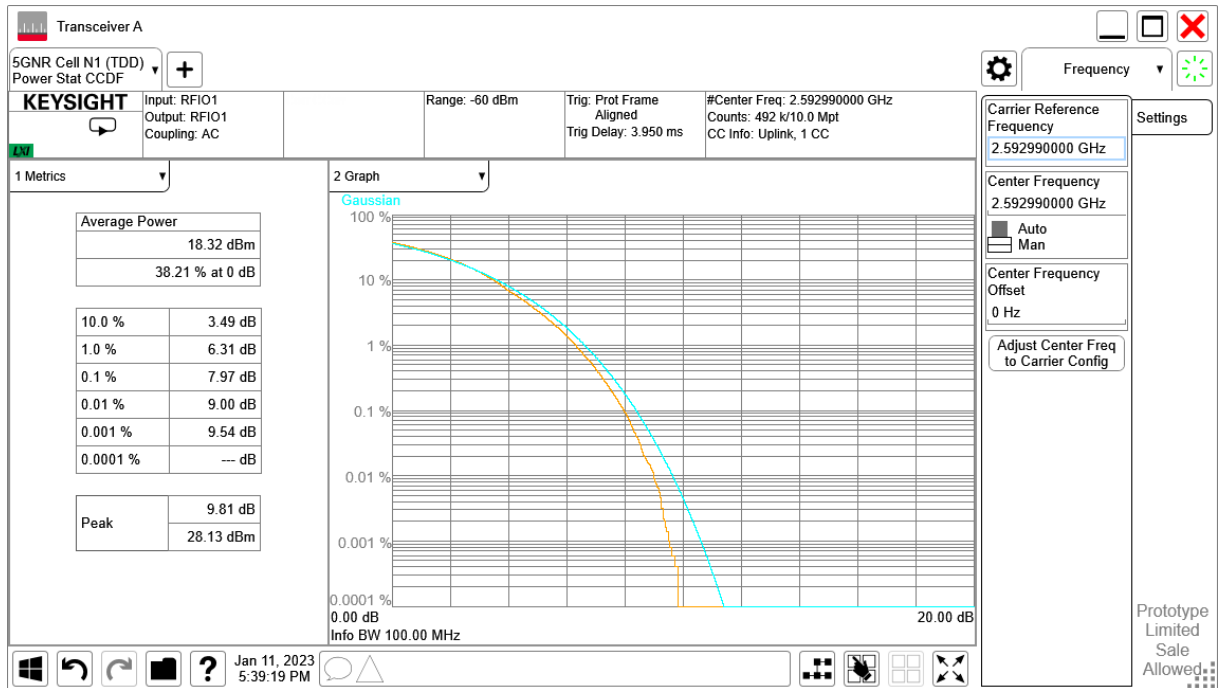




DC_66A_n41A, CP-16QAM (PAPR)



DC_66A_n41A, CP-64QAM (PAPR)





DC_66A_n41A, CP-256QAM (PAPR)

Transceiver A

5GNR Cell N1 (TDD) Power Stat CCDF

KEYSIGHT Input: RFIO1 Output: RFIO1 Coupling: AC

Range: -60 dBm Trig: Prot Frame Aligned Trig Delay: 3.950 ms #Center Freq: 2.592990000 GHz Counts: 430 k/10.0 Mpt CC Info: Uplink, 1 CC

Carrier Reference Frequency: 2.592990000 GHz

Center Frequency: 2.592990000 GHz

Center Frequency Offset: 0 Hz

Adjust Center Freq to Carrier Config

Settings

1 Metrics

Average Power	
	15.64 dBm
	36.75 % at 0 dB
10.0 %	3.71 dB
1.0 %	6.39 dB
0.1 %	7.48 dB
0.01 %	8.58 dB
0.001 %	9.33 dB
0.0001 %	---

Peak	9.56 dB
	25.20 dBm

2 Graph

Gaussian

0.00 dB

Info BW 100.00 MHz

20.00 dB

Jan 11, 2023 5:38:23 PM

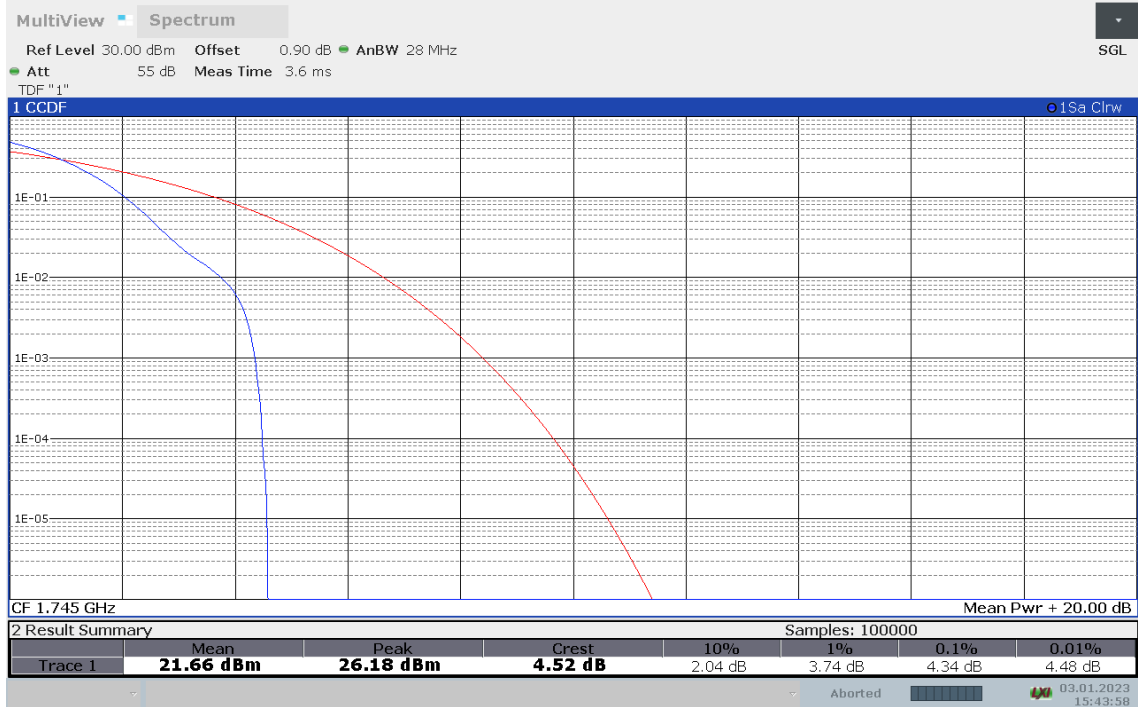
Prototype Limited Sale Allowed



DC_12A_n66A,40MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
1745	4.34	4.72	6.14	6.36	6.52	8.22	8.30	8.24	8.62

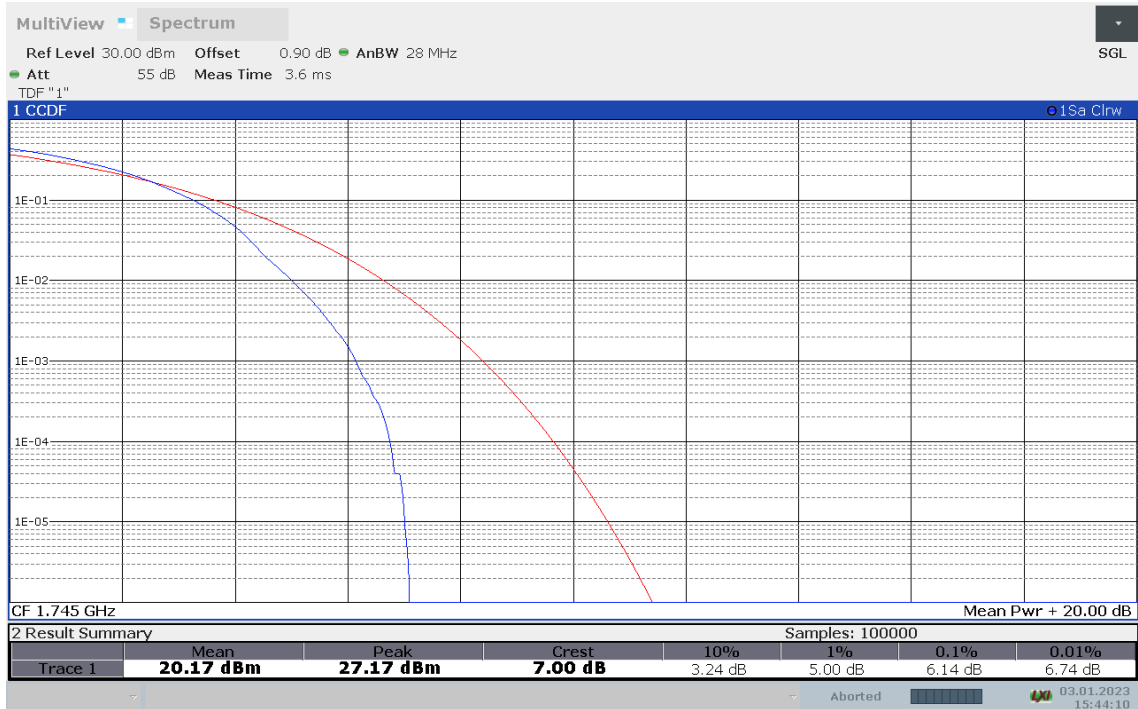
DC_12A_n66A, DFT-s-pi/2 BPSK (PAPR)



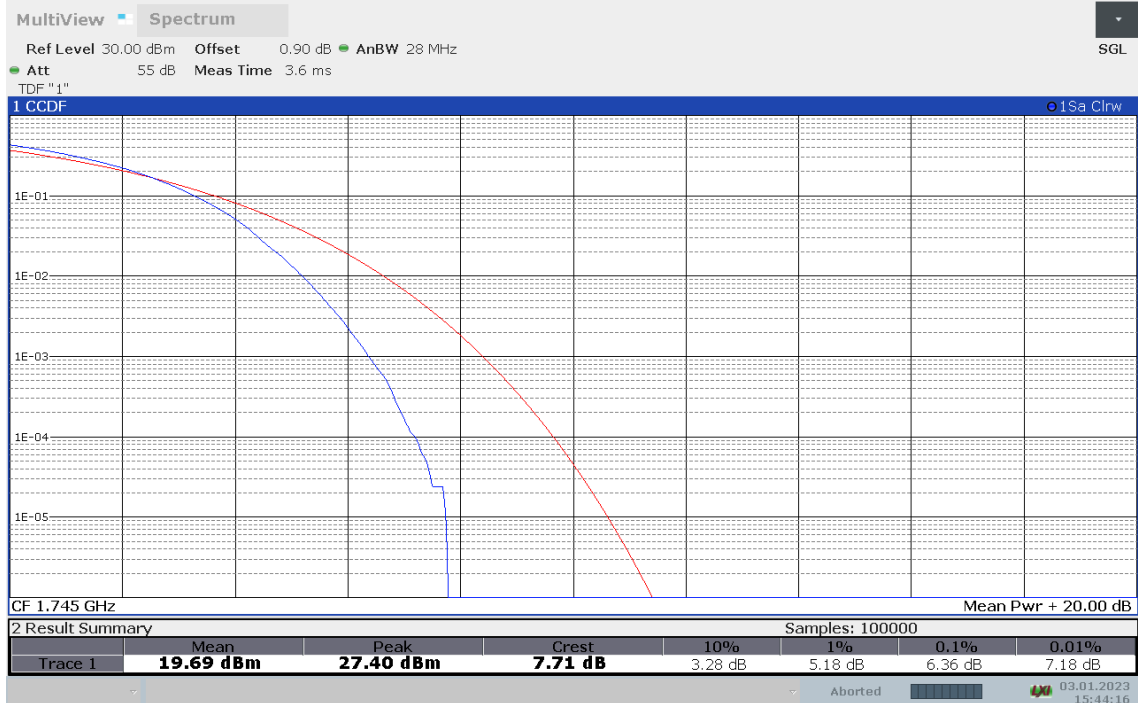
DC_12A_n66A, DFT-s-QPSK (PAPR)



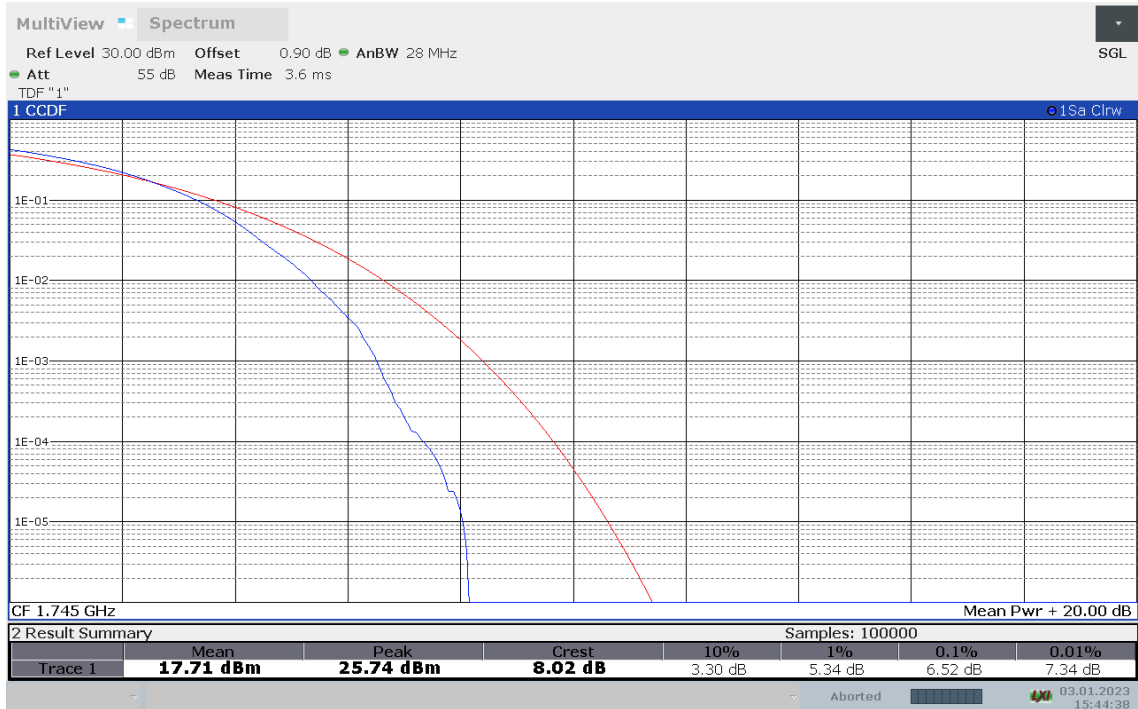
DC_12A_n66A, DFT-s-16QAM (PAPR)



DC_12A_n66A, DFT-s-64QAM (PAPR)



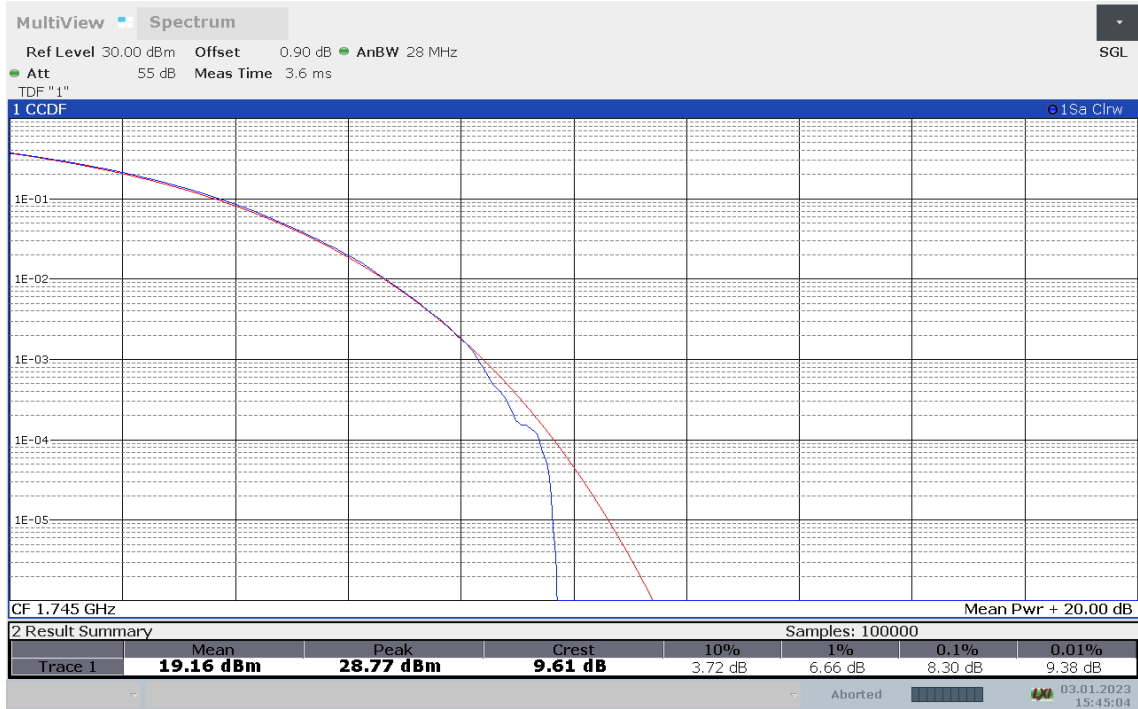
DC_12A_n66A, DFT-s-256QAM (PAPR)



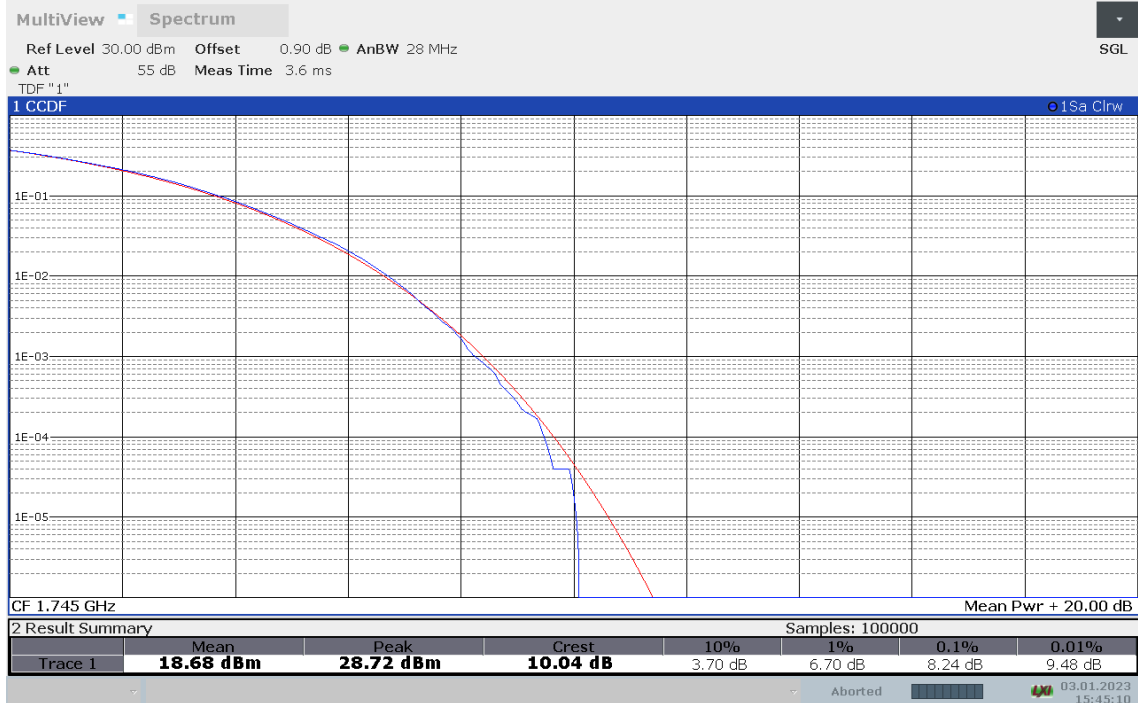
DC_12A_n66A, CP-QPSK (PAPR)



DC_12A_n66A, CP-16QAM (PAPR)

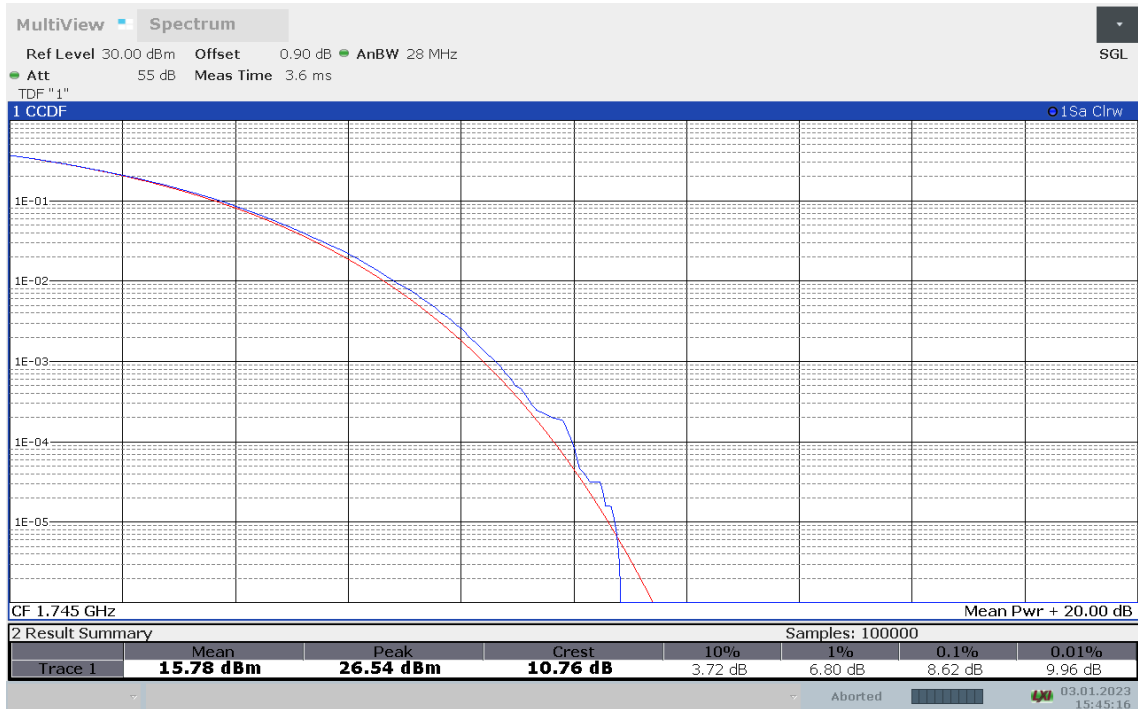


DC_12A_n66A, CP-64QAM (PAPR)





DC_12A_n66A, CP-256QAM (PAPR)

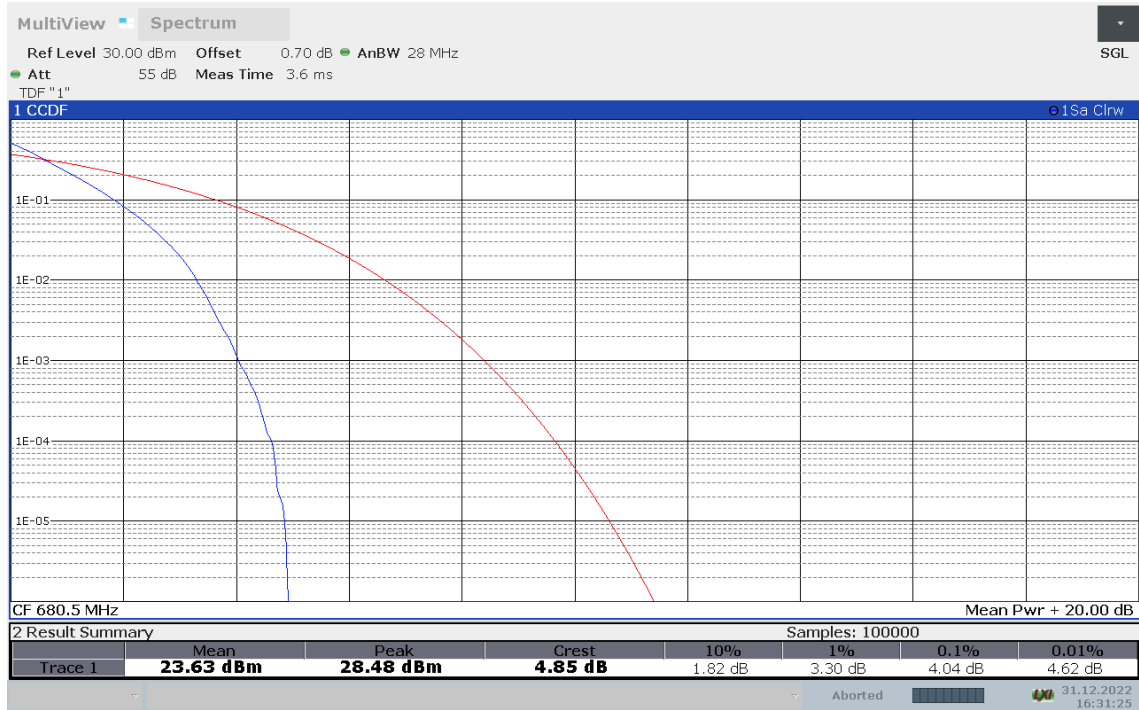




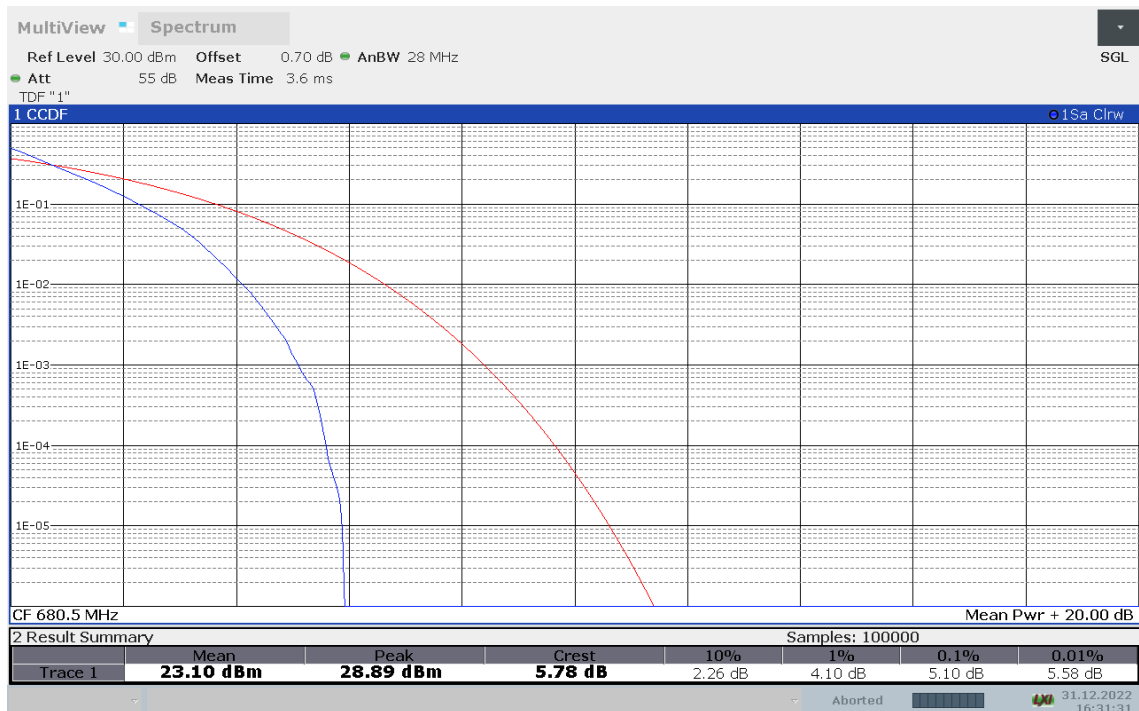
n71,20MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
680.5	4.04	5.10	5.90	6.12	6.38	7.50	7.50	7.68	8.24

n71, DFT-s-pi/2 BPSK (PAPR)



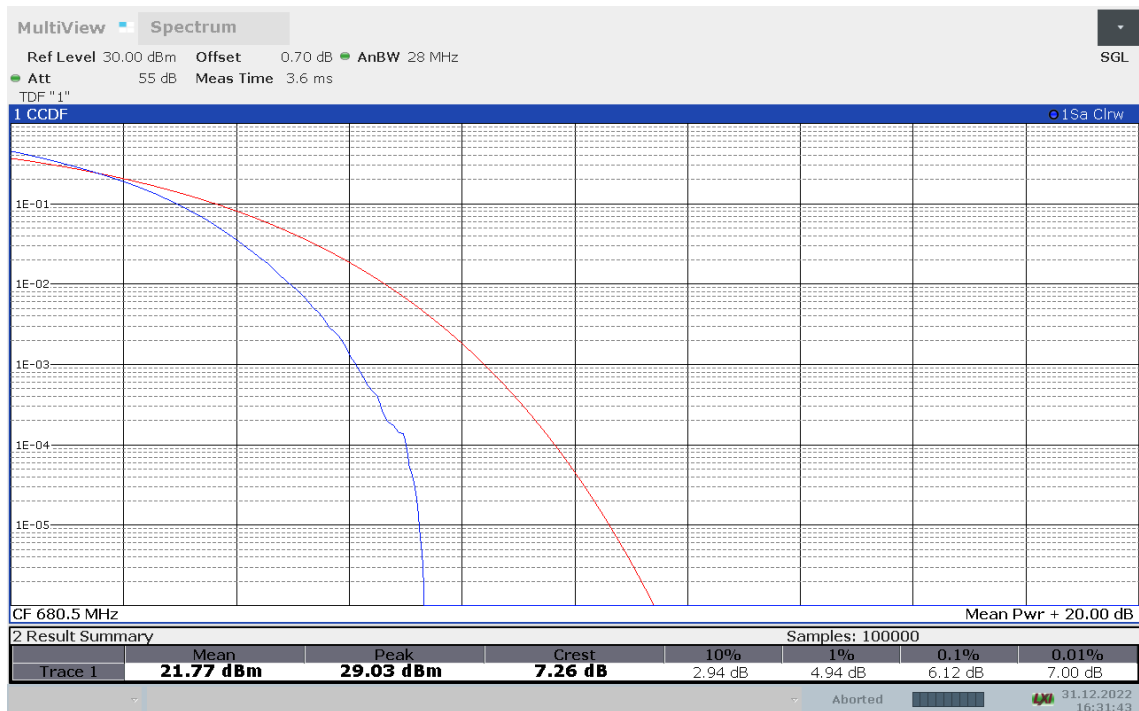
n71, DFT-s-QPSK (PAPR)



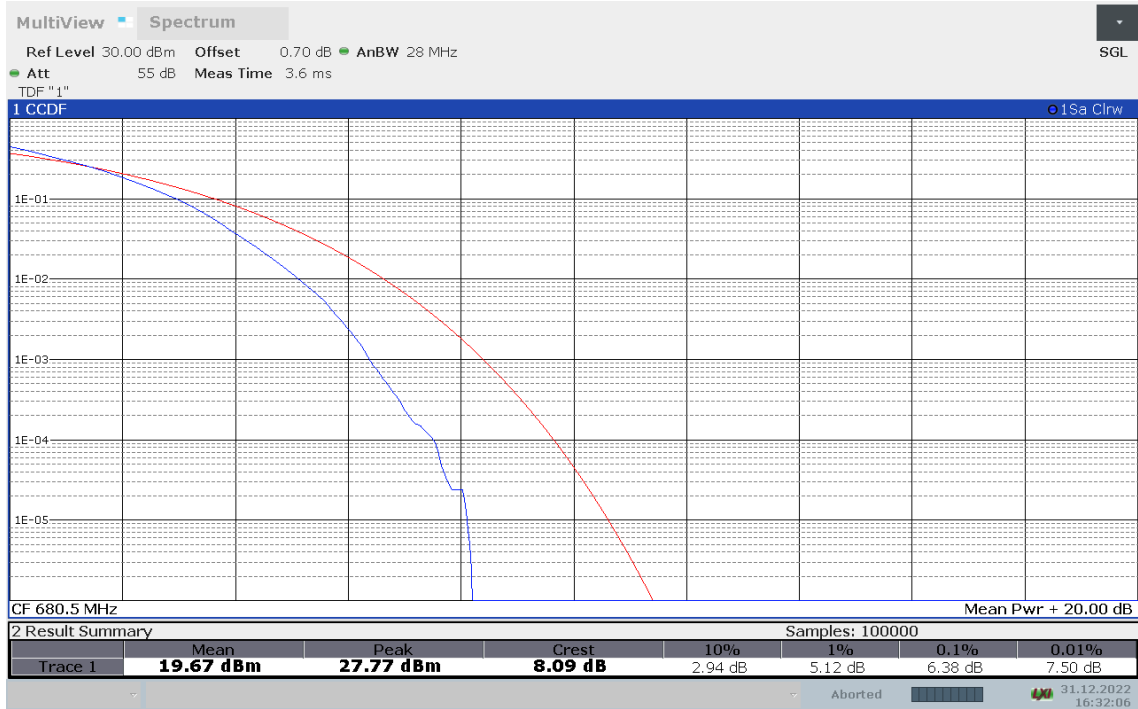
n71, DFT-s-16QAM (PAPR)



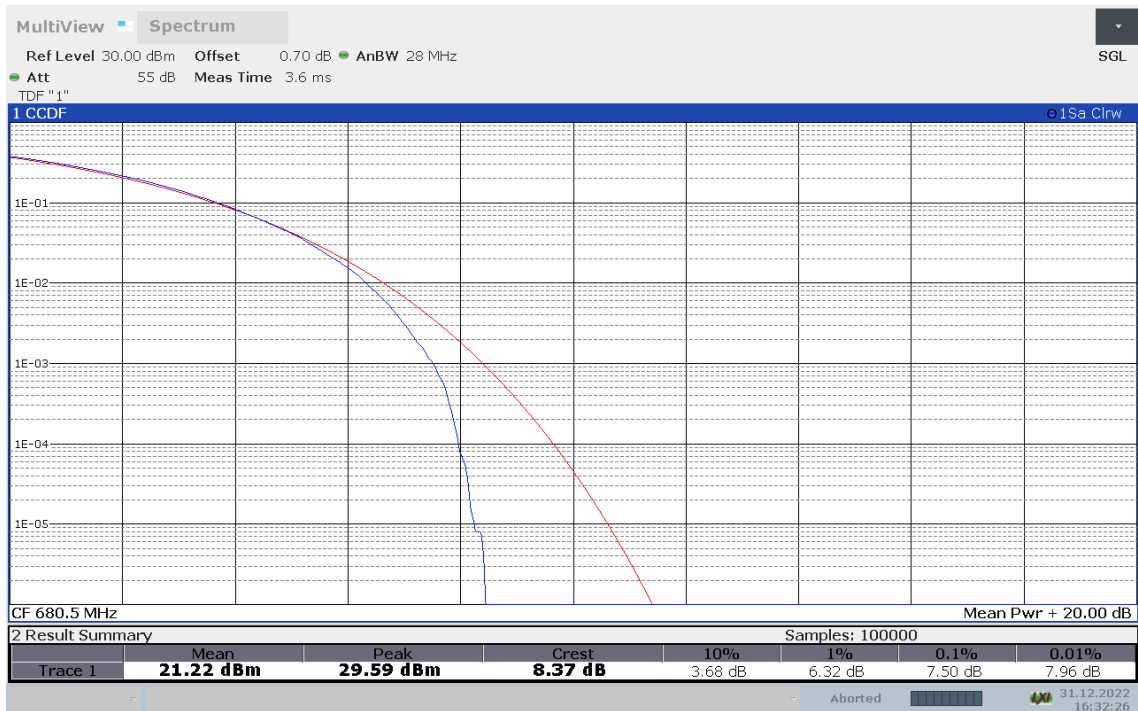
n71, DFT-s-64QAM (PAPR)



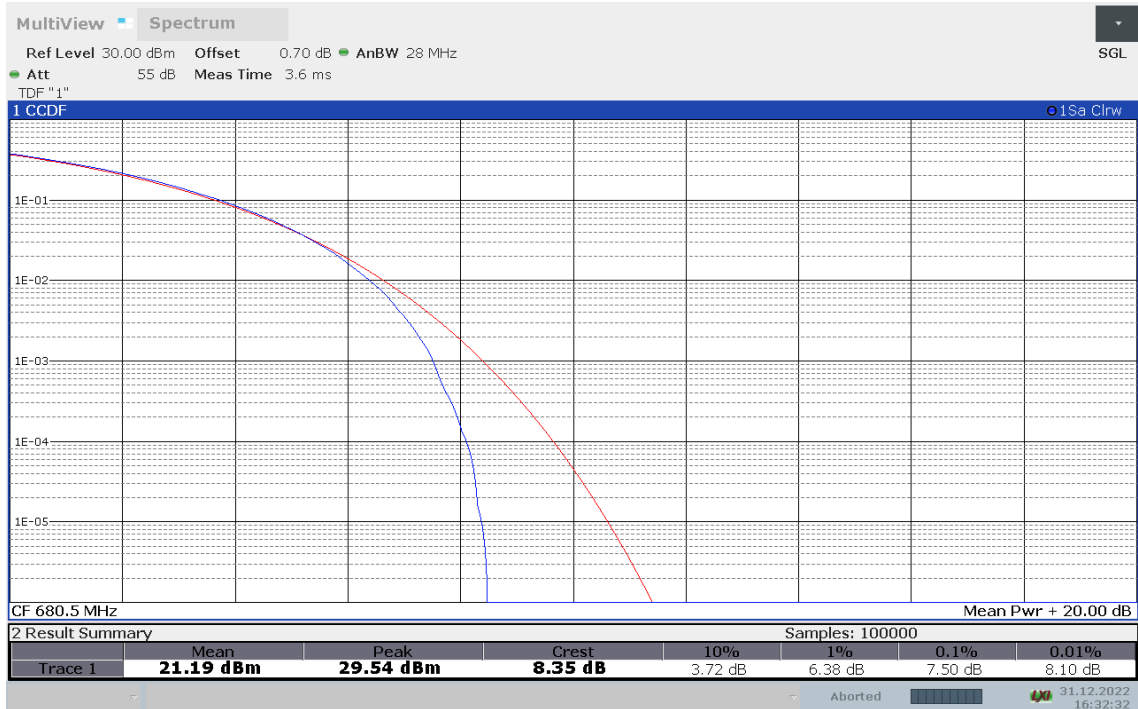
n71, DFT-s-256QAM (PAPR)



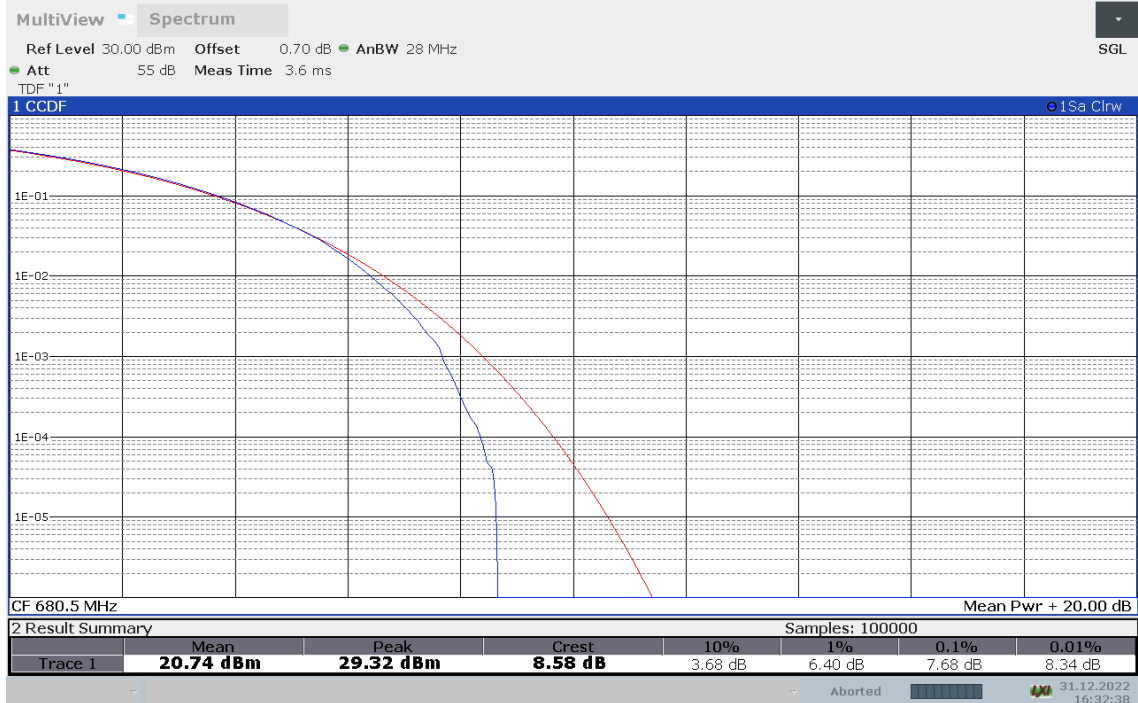
n71, CP-QPSK (PAPR)



n71, CP-16QAM (PAPR)

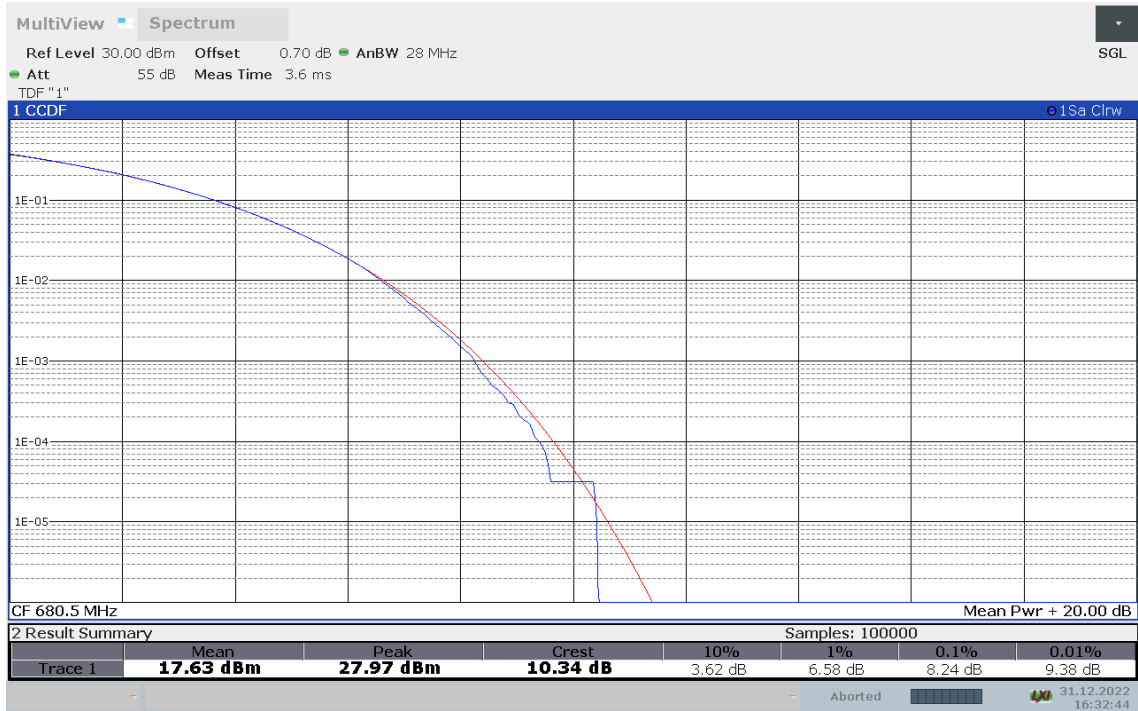


n71, CP-64QAM (PAPR)





n71, CP-256QAM (PAPR)

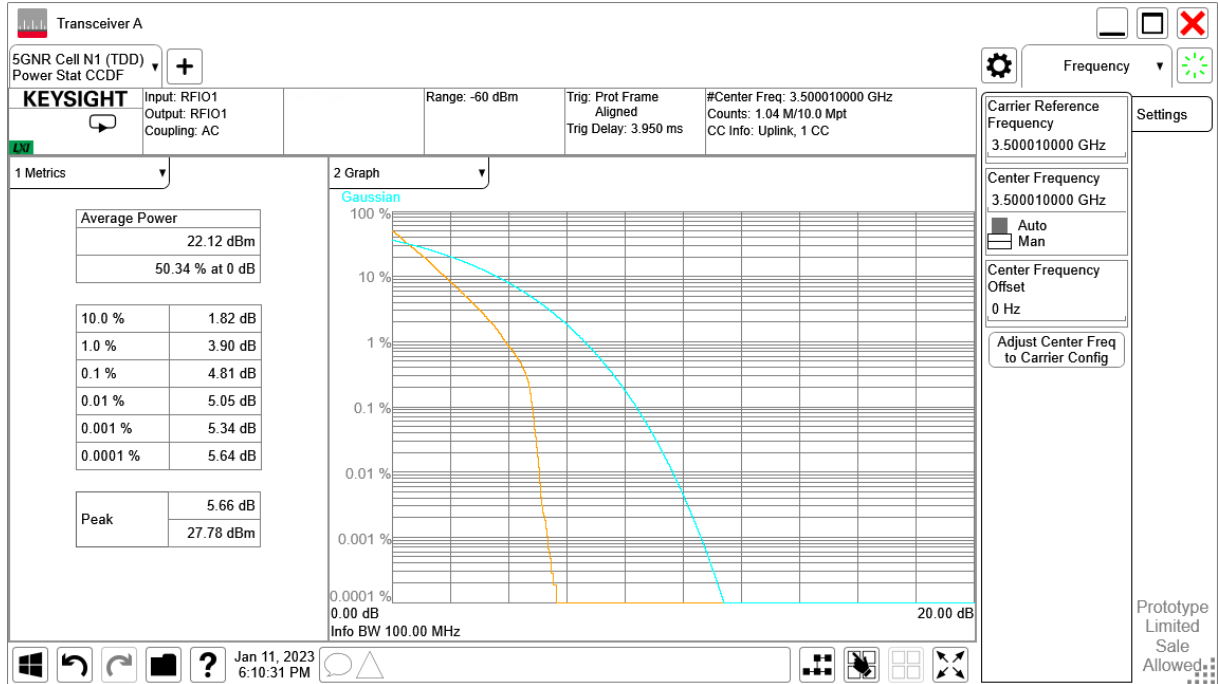




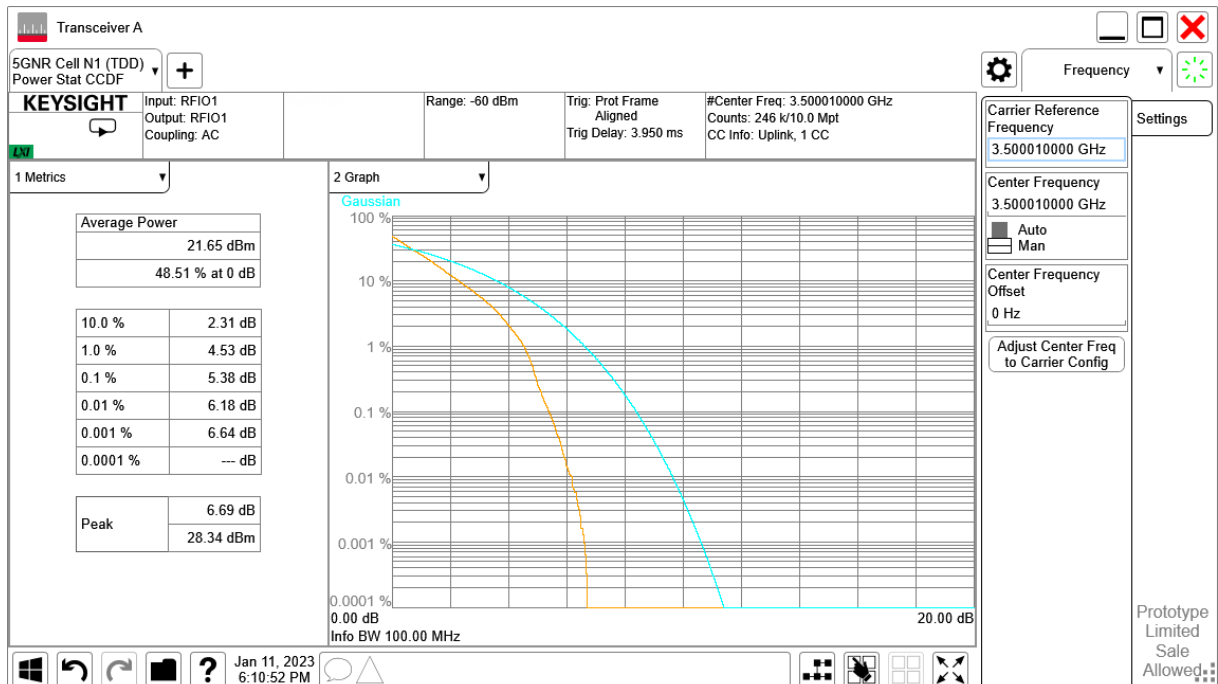
n77L, 100MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3500.01	4.81	5.38	5.99	6.24	6.05	7.77	7.68	7.81	6.05

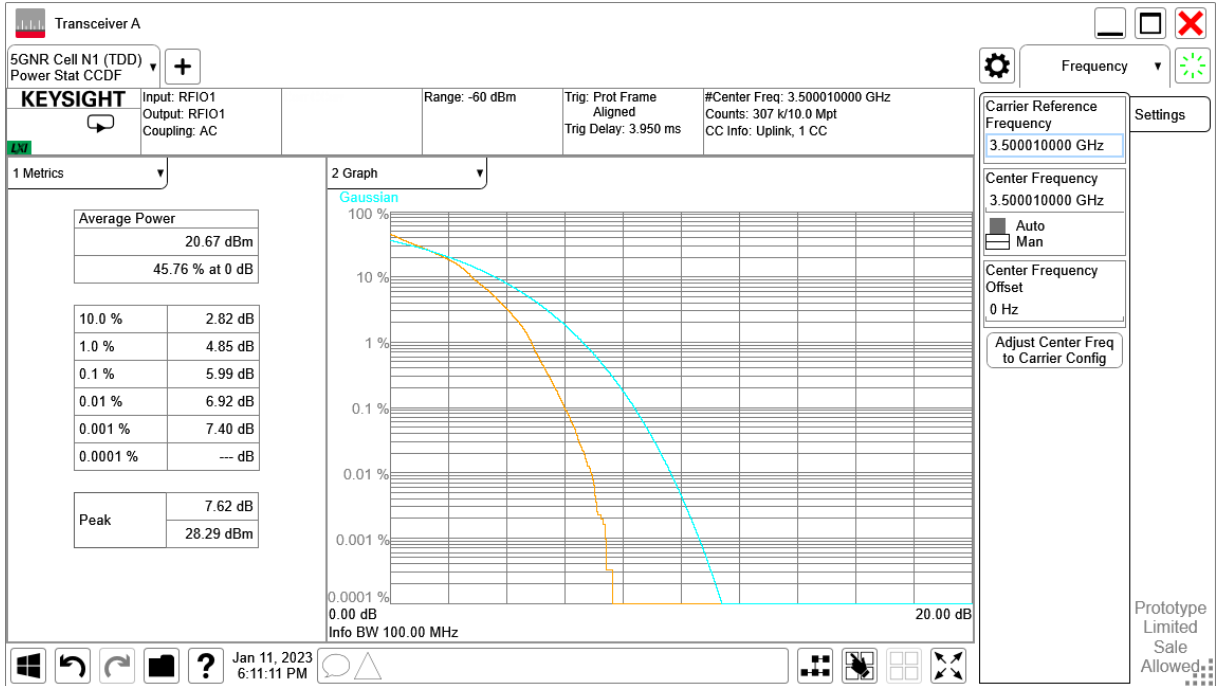
n77L, 100MHz Bandwidth, DFT-s-pi/2 BPSK (PAPR)



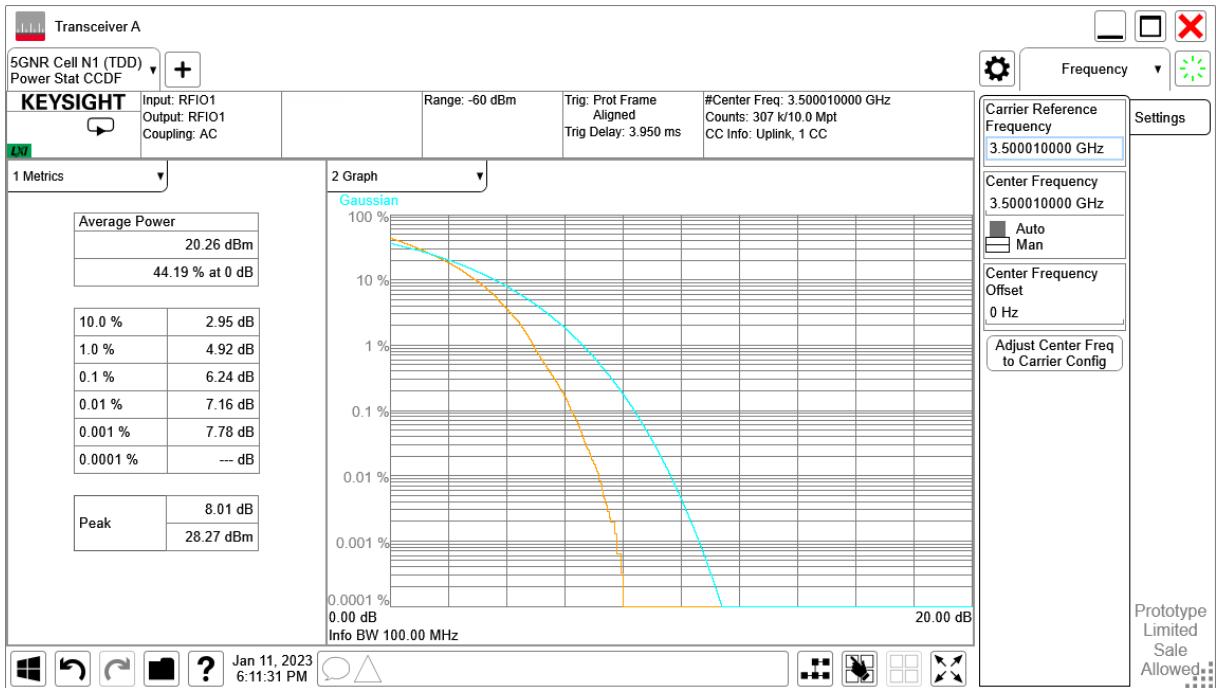
n77L, 100MHz Bandwidth, DFT-s-QPSK (PAPR)



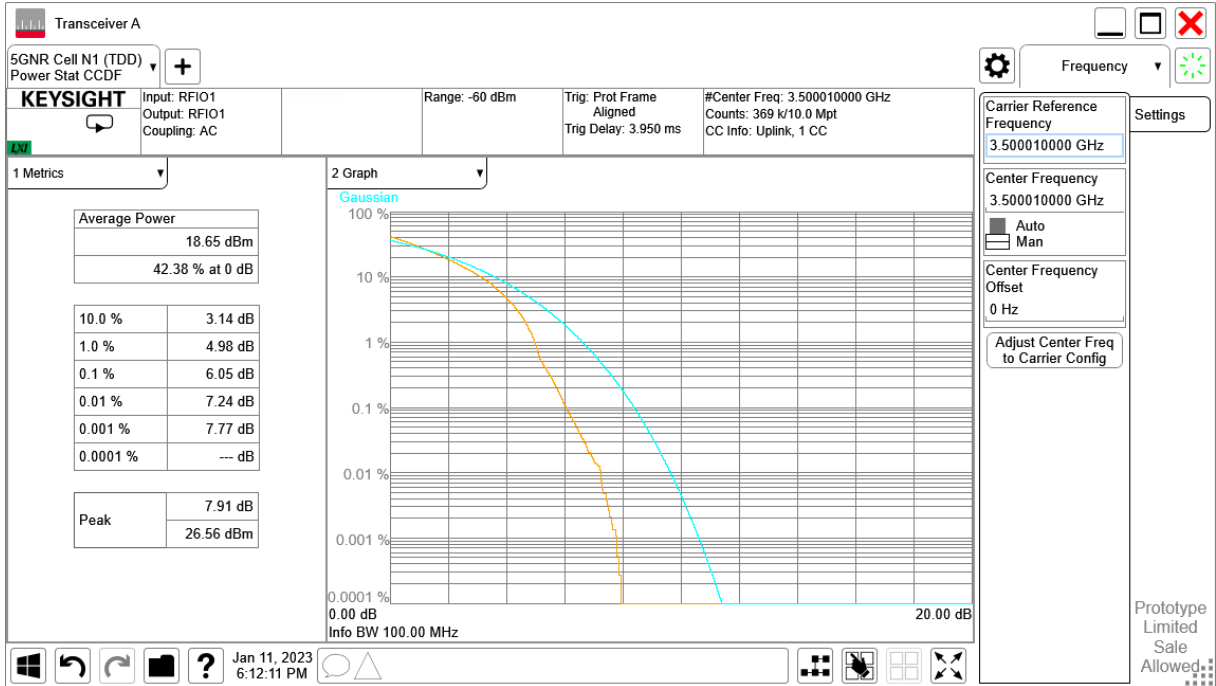
n77L, 100MHz Bandwidth, DFT-s-16QAM (PAPR)



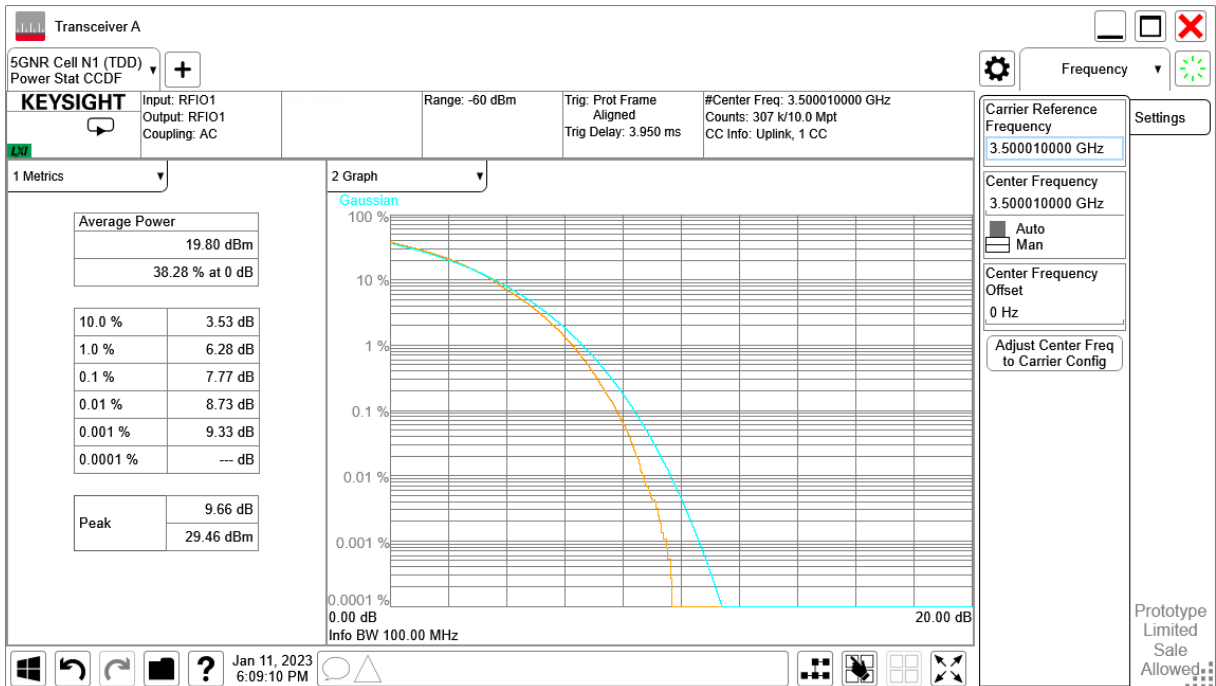
n77L, 100MHz Bandwidth, DFT-s-64QAM (PAPR)



n77L, 100MHz Bandwidth, DFT-s-256QAM (PAPR)

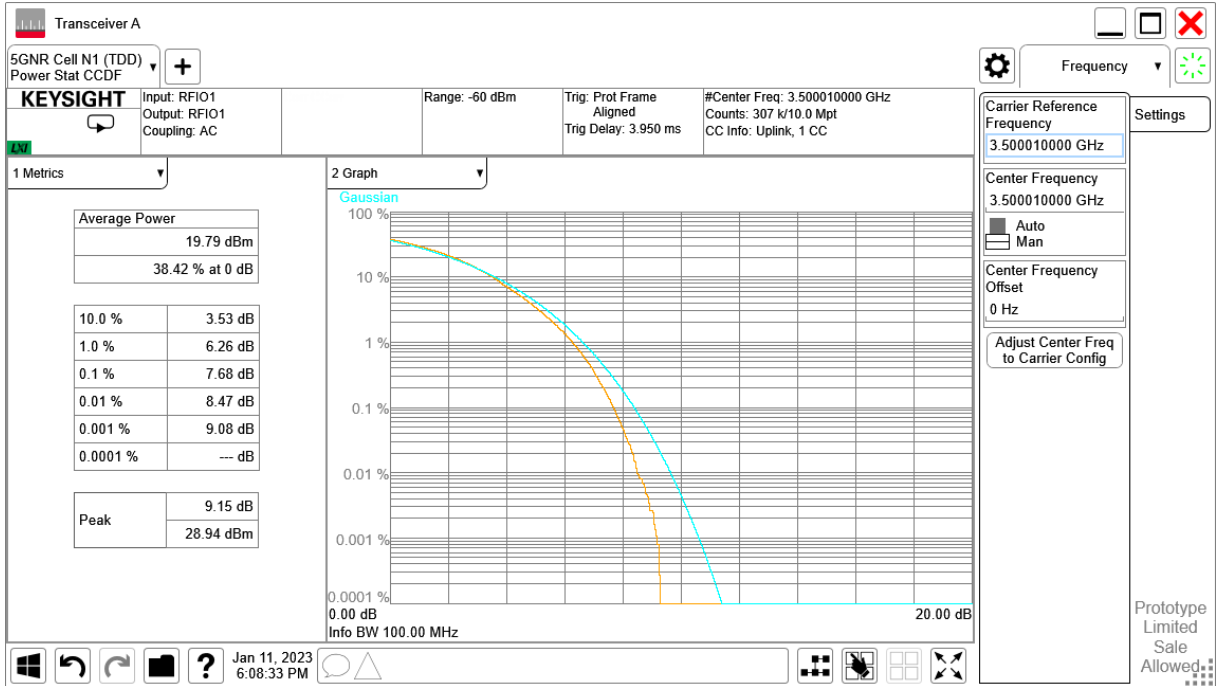


n77L, 100MHz Bandwidth, CP-QPSK (PAPR)

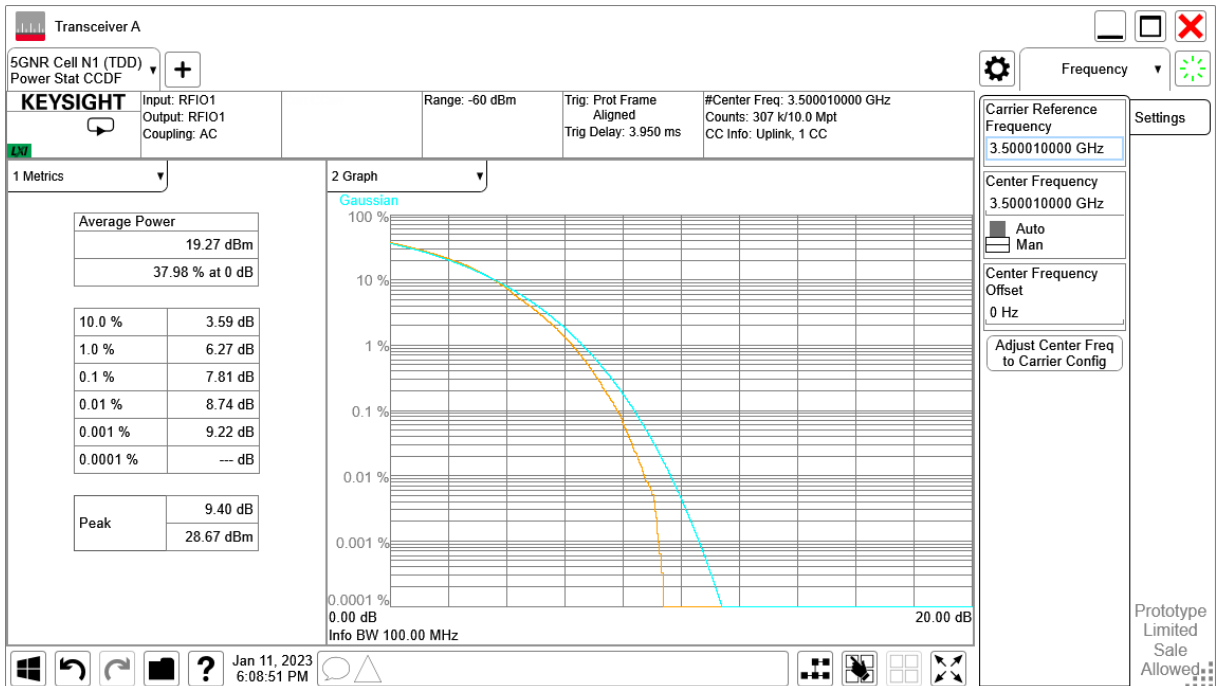




n77L, 100MHz Bandwidth, CP-16QAM (PAPR)

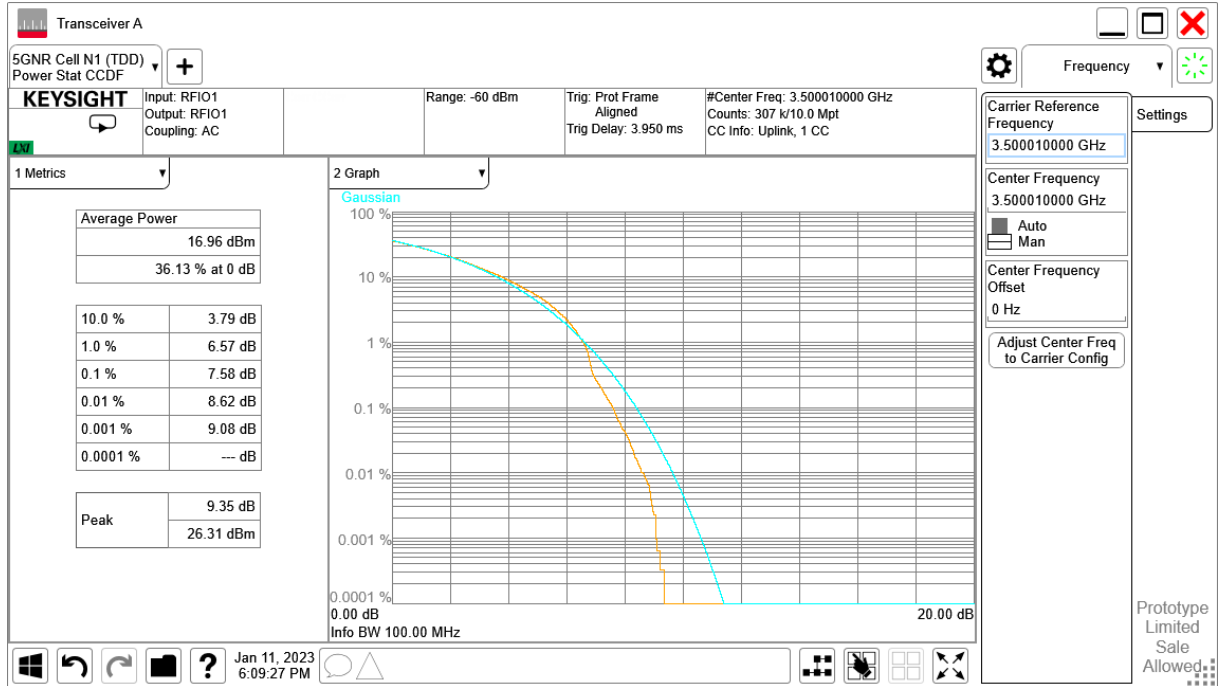


n77L, 100MHz Bandwidth, CP-64QAM (PAPR)





n77L, 100MHz Bandwidth, CP-256QAM (PAPR)

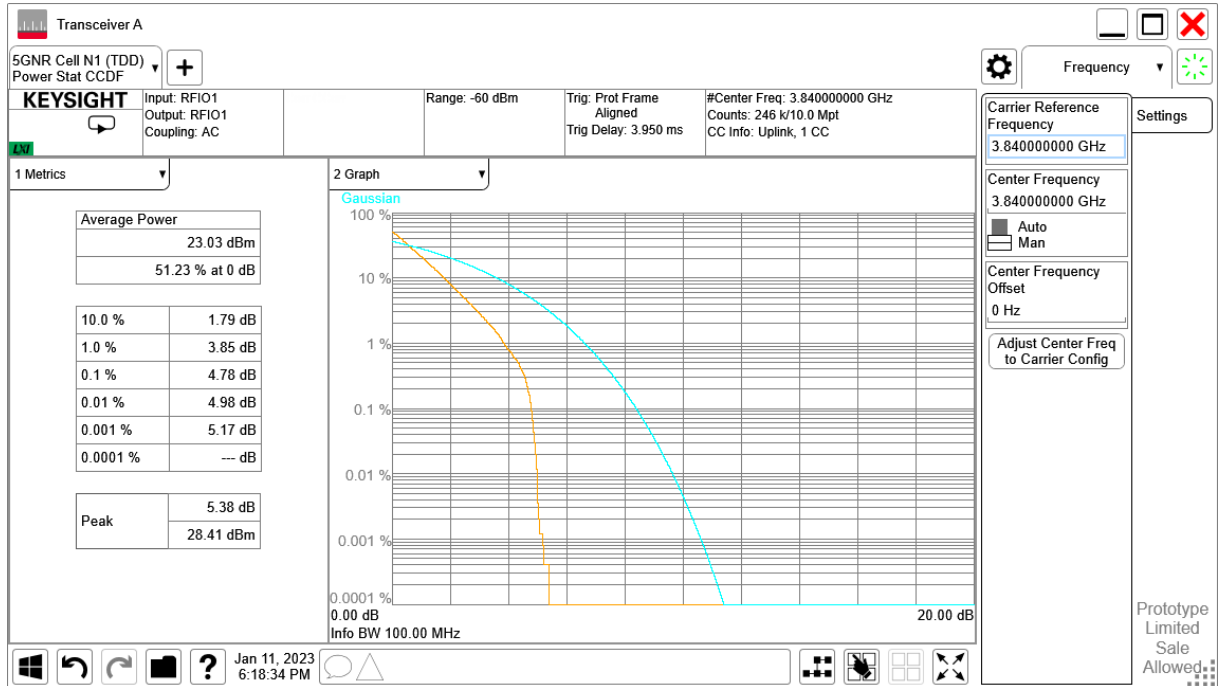




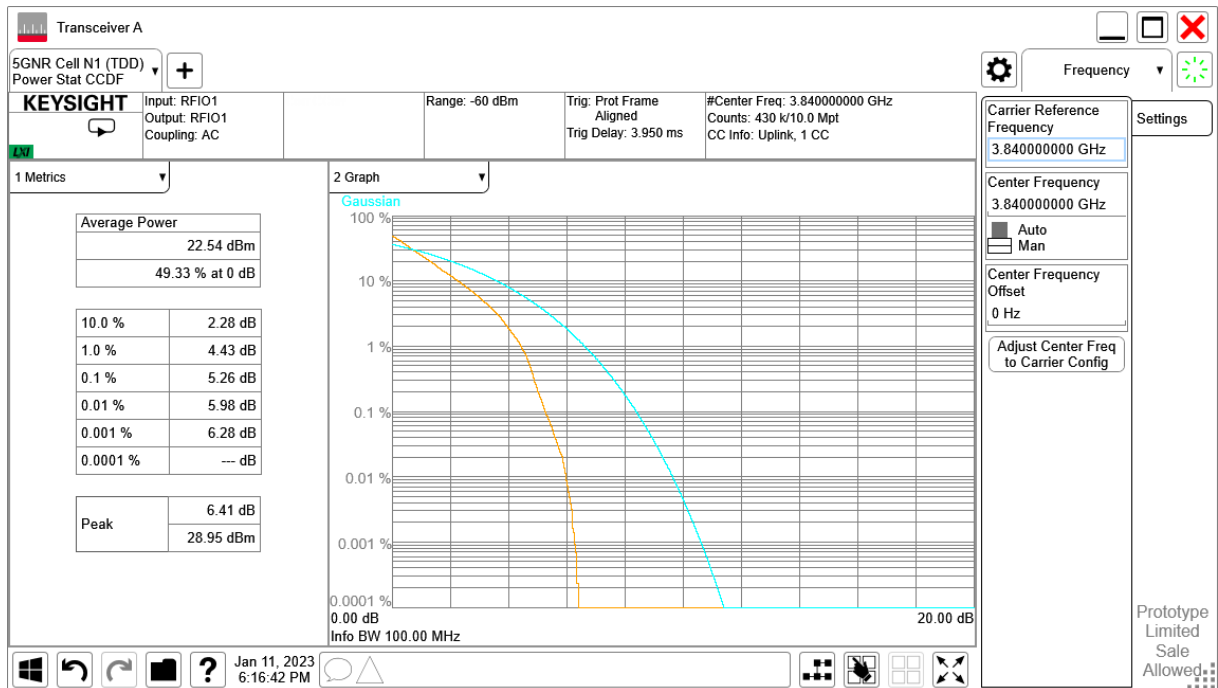
n77H,100MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3840.0	4.78	5.26	5.85	6.05	6.05	7.70	7.67	7.78	7.80

n77H, 100MHz Bandwidth, DFT-s-pi/2 BPSK (PAPR)

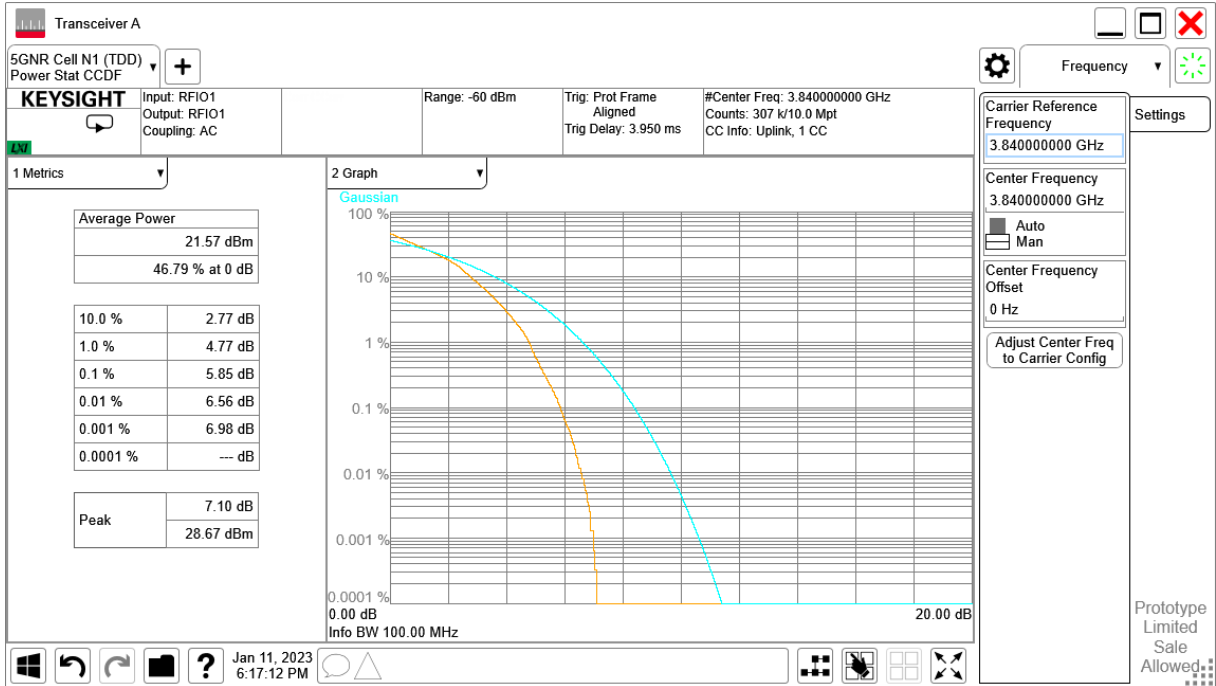


n77H, 100MHz Bandwidth, DFT-s-QPSK (PAPR)

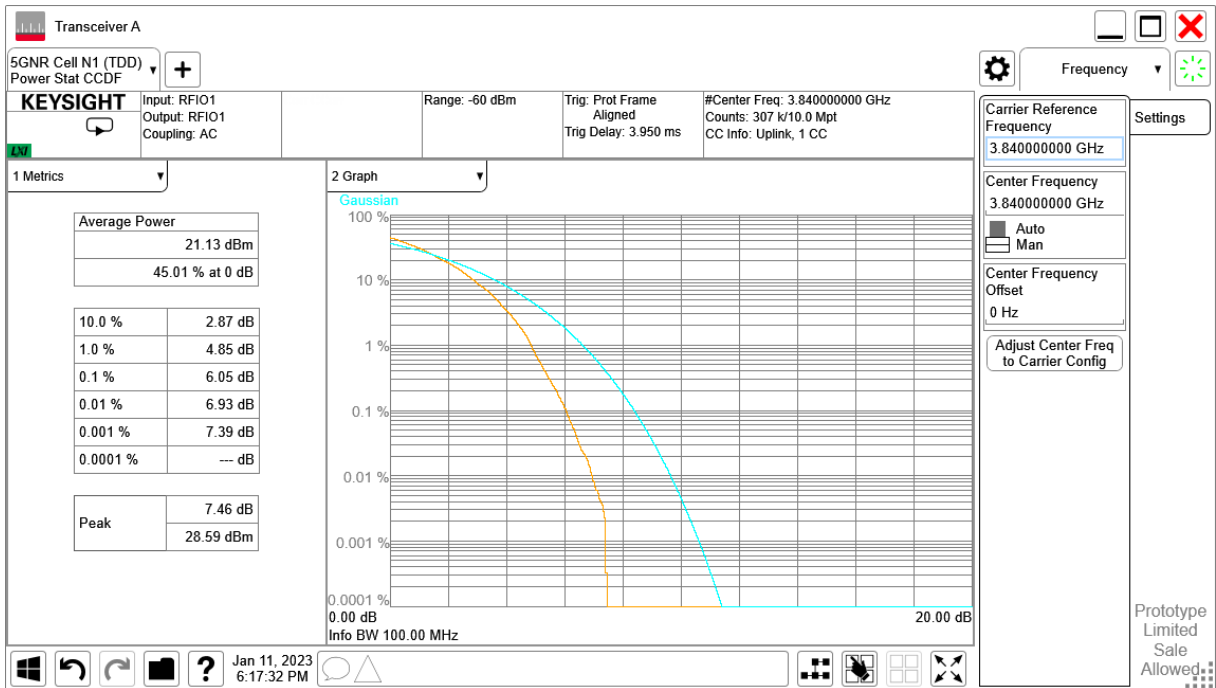




n77H, 100MHz Bandwidth, DFT-s-16QAM (PAPR)

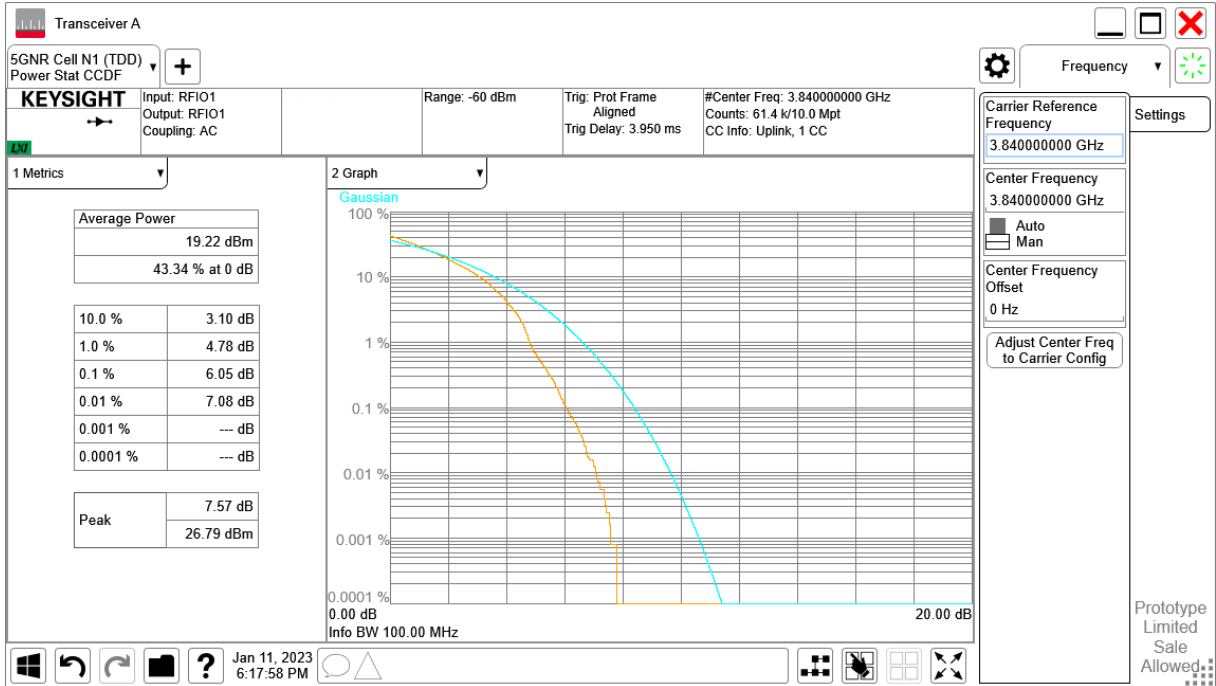


n77H, 100MHz Bandwidth, DFT-s-64QAM (PAPR)

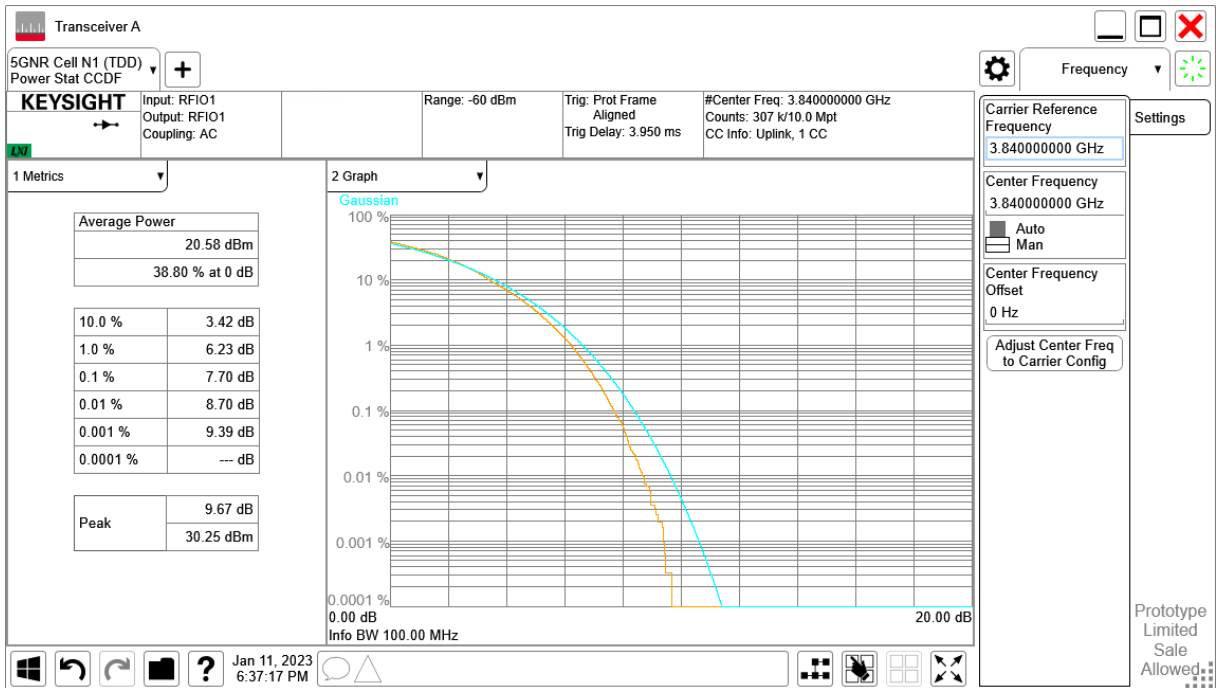




n77H, 100MHz Bandwidth, DFT-s-256QAM (PAPR)

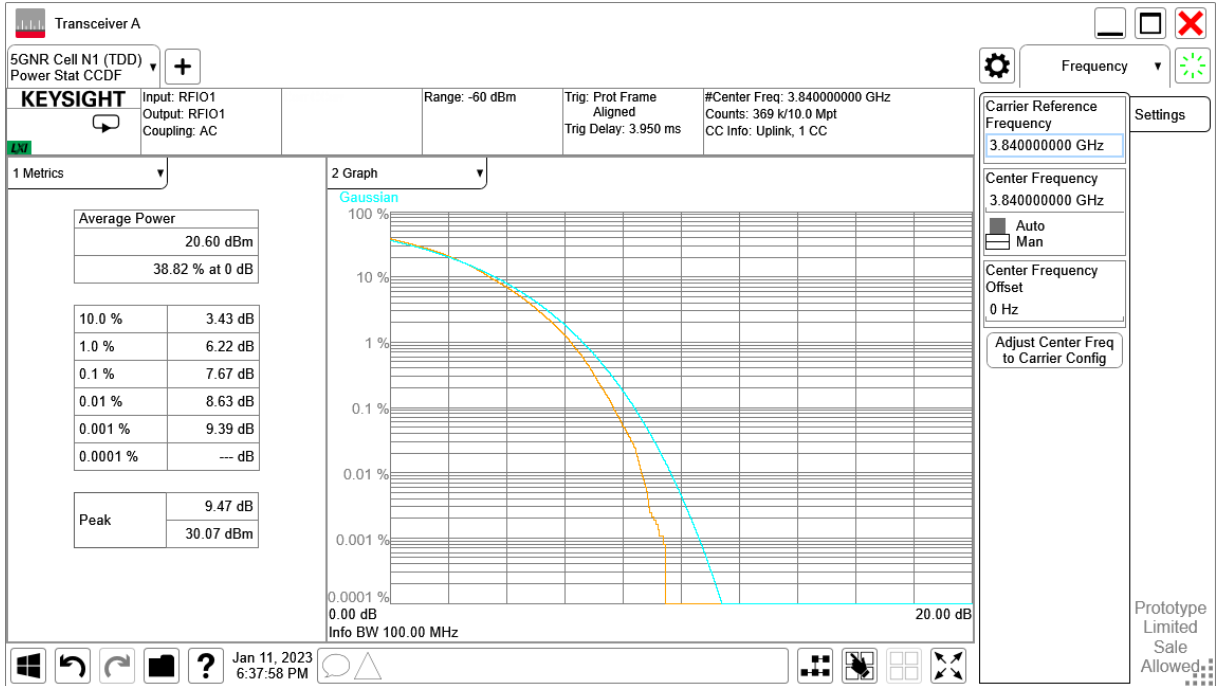


n77H, 100MHz Bandwidth, CP-QPSK (PAPR)

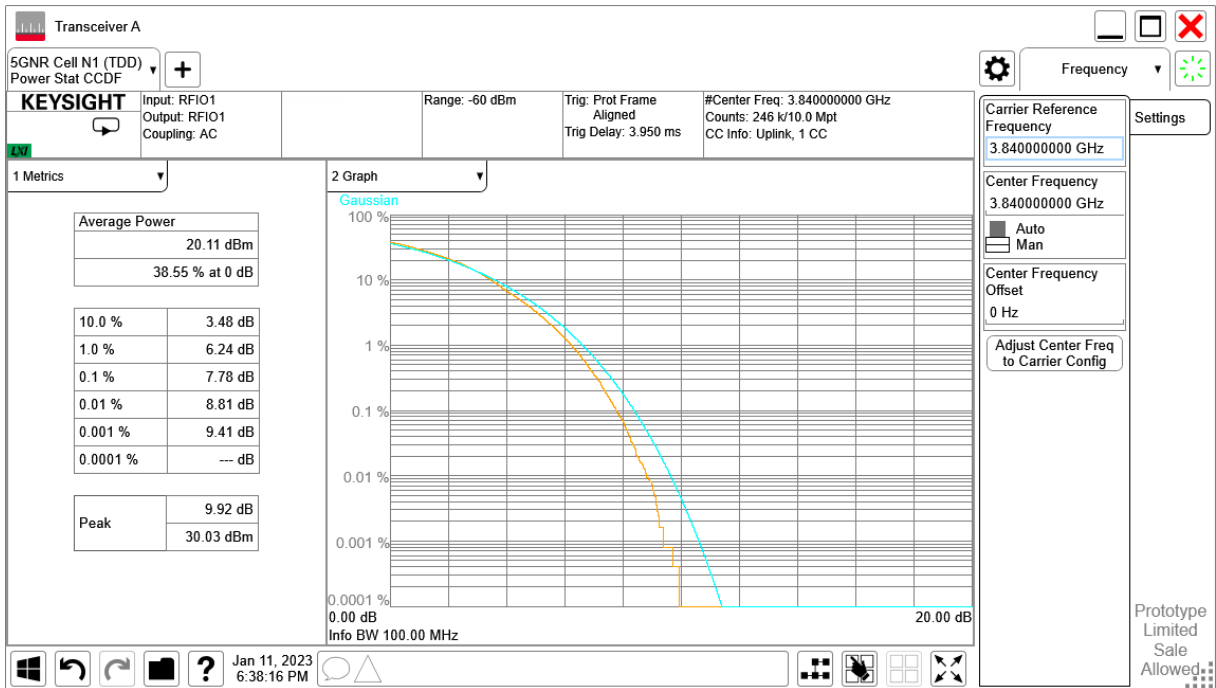




n77H, 100MHz Bandwidth, CP-16QAM (PAPR)

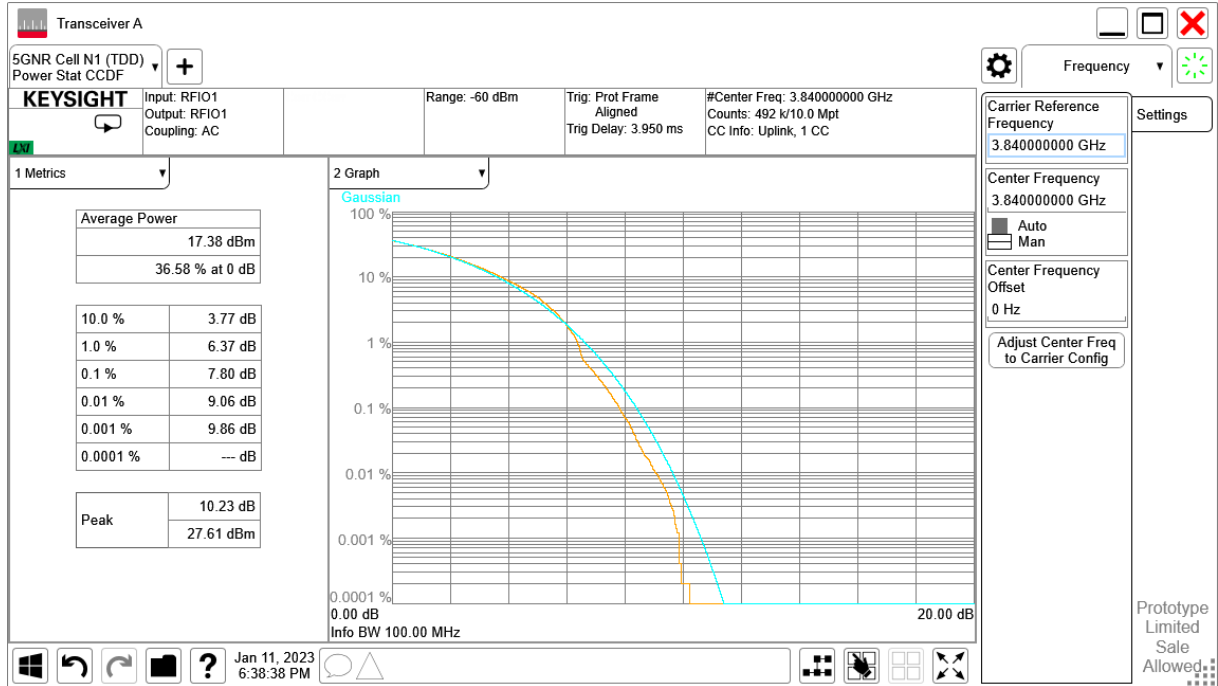


n77H, 100MHz Bandwidth, CP-64QAM (PAPR)





n77H, 100MHz Bandwidth, CP-256QAM (PAPR)

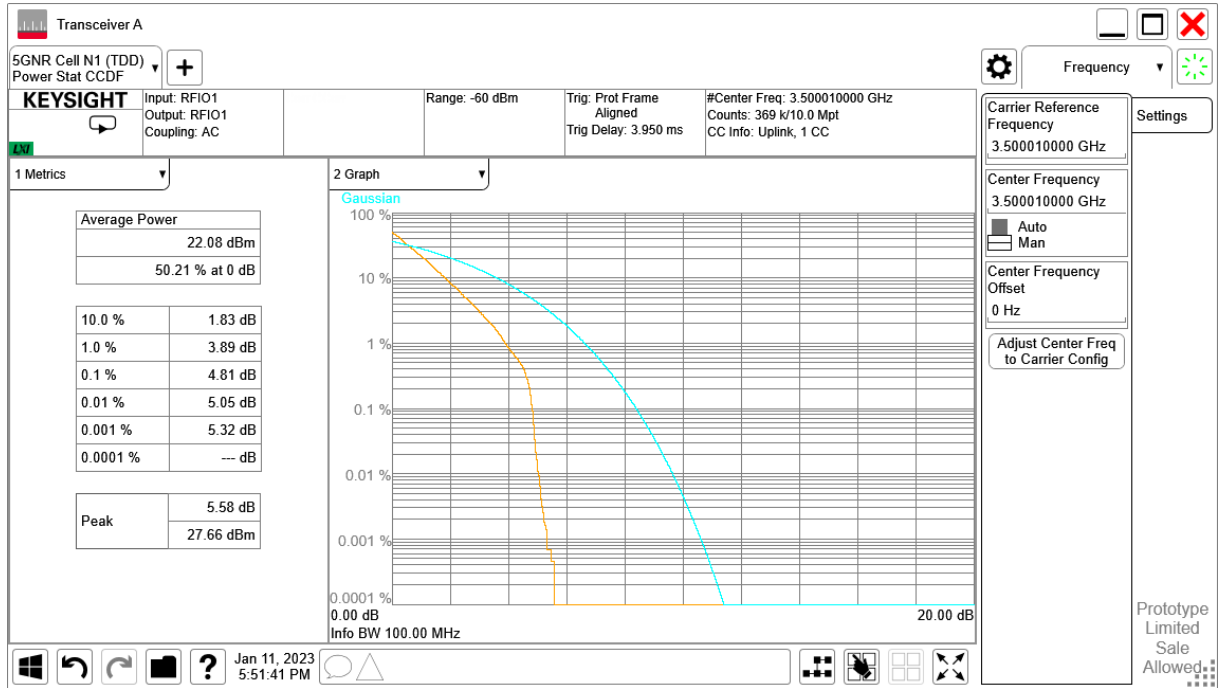




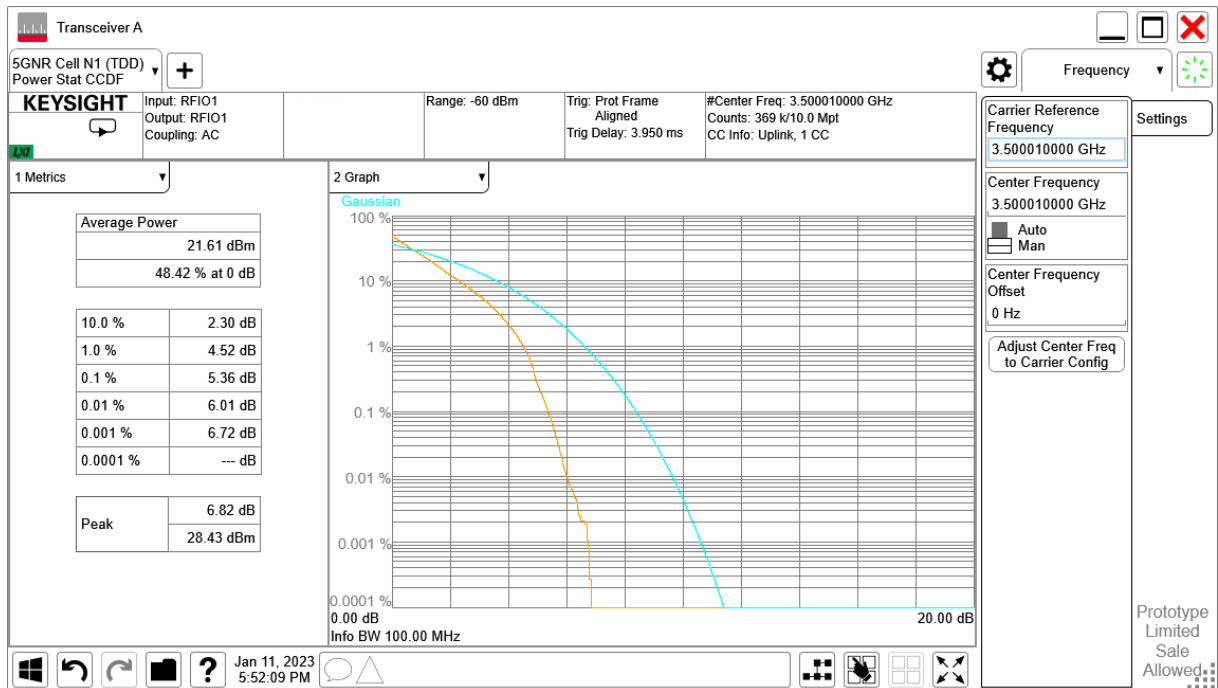
n78L,100MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3500.01	4.81	5.36	6.03	6.21	6.06	7.77	7.75	7.77	7.51

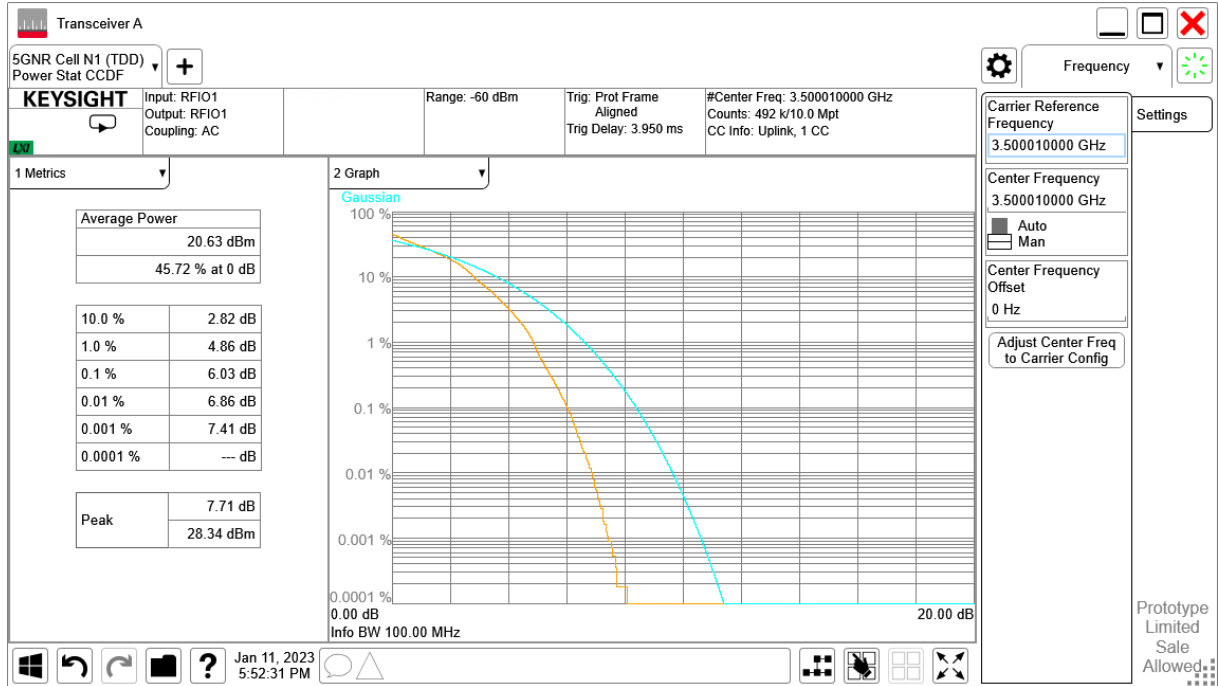
n78L, 100MHz Bandwidth, DFT-s-pi/2 BPSK (PAPR)



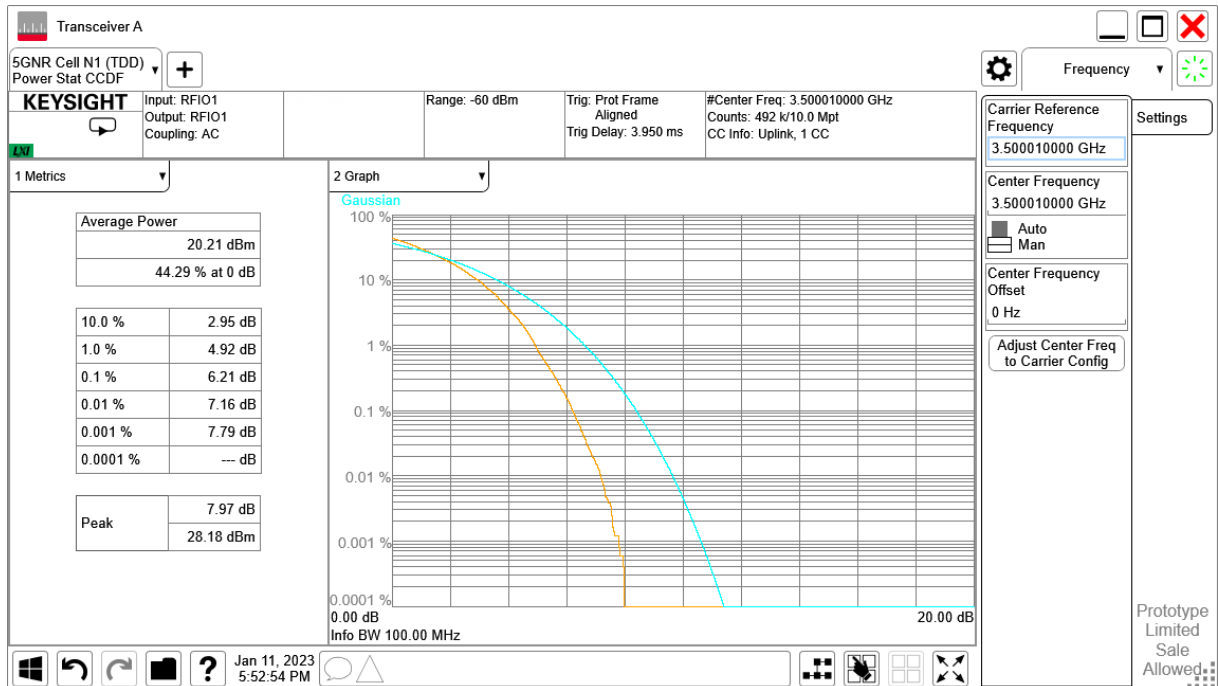
n78L, 100MHz Bandwidth, DFT-s-QPSK (PAPR)



n78L, 100MHz Bandwidth, DFT-s-16QAM (PAPR)

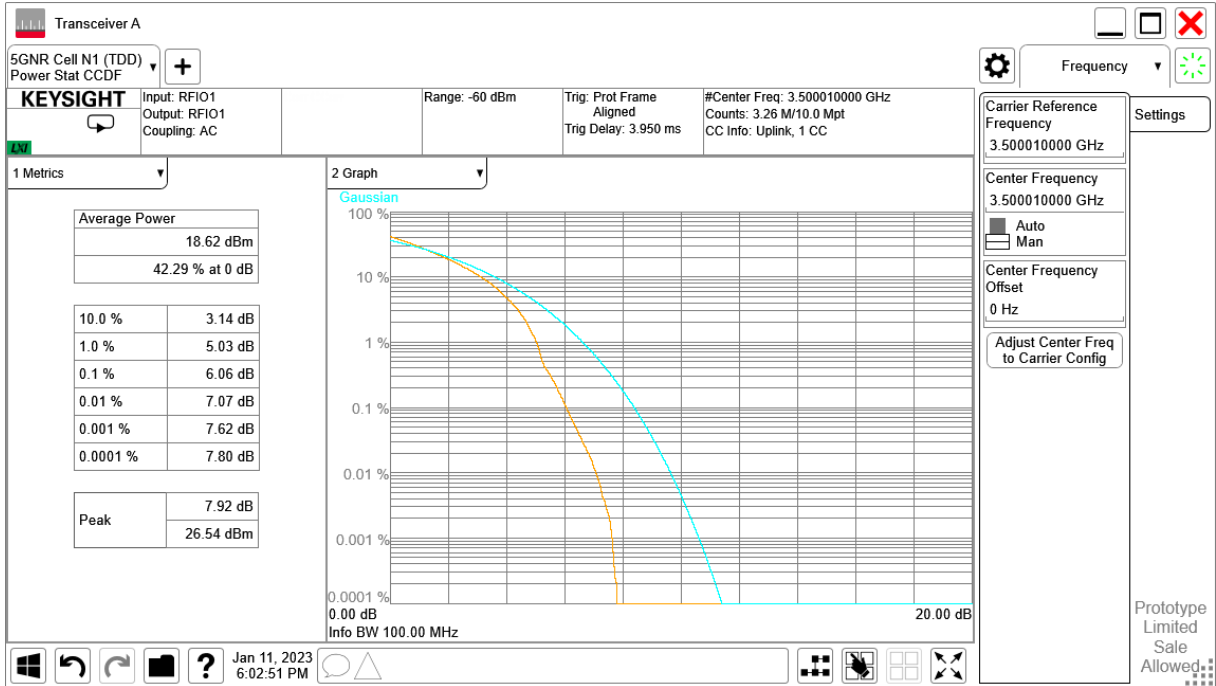


n78L, 100MHz Bandwidth, DFT-s-64QAM (PAPR)

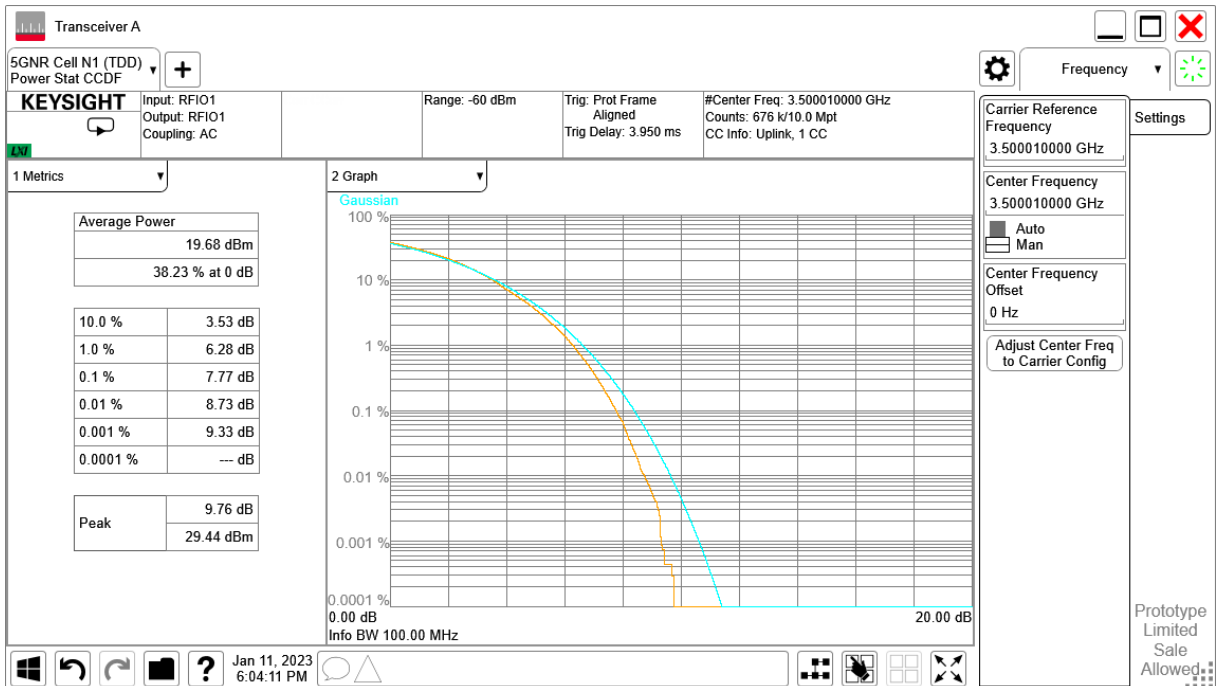




n78L, 100MHz Bandwidth, DFT-s-256QAM (PAPR)

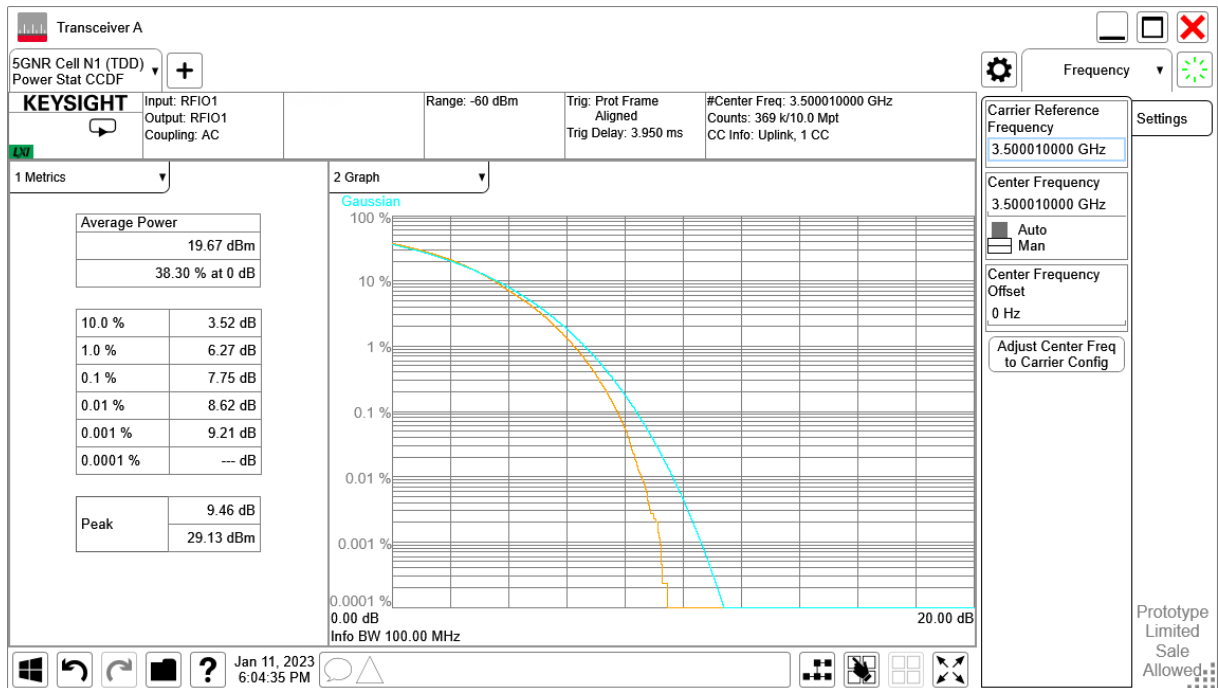


n78L, 100MHz Bandwidth, CP-QPSK (PAPR)

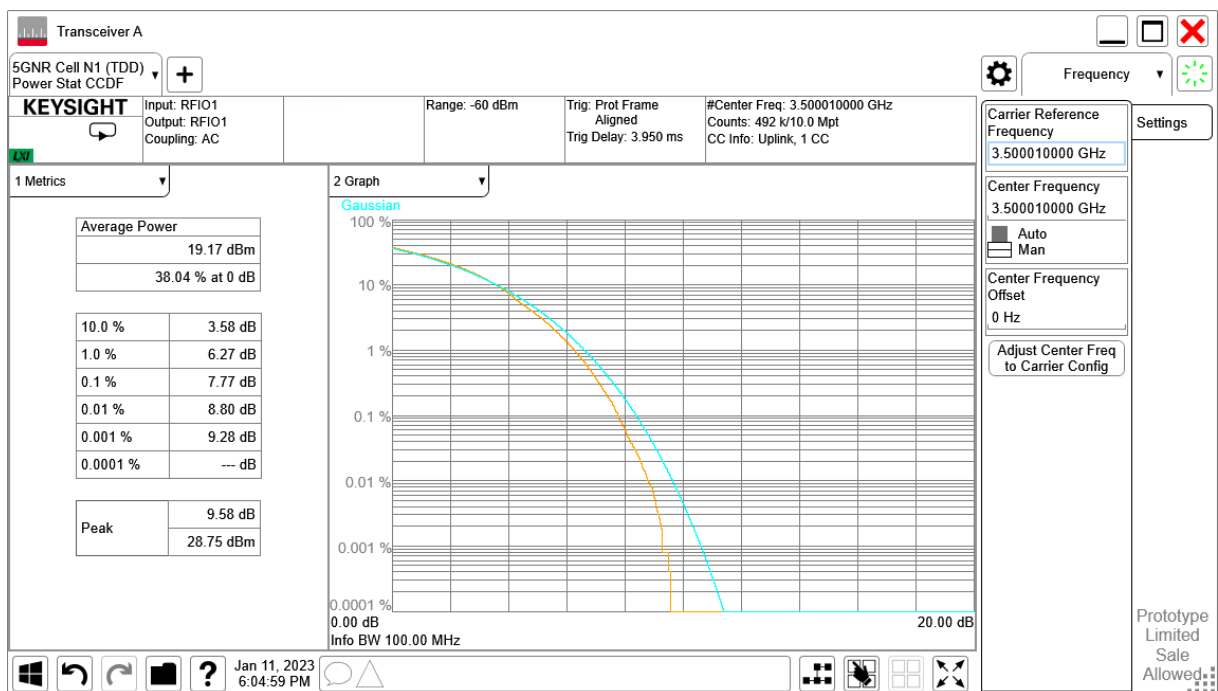




n78L, 100MHz Bandwidth, CP-16QAM (PAPR)

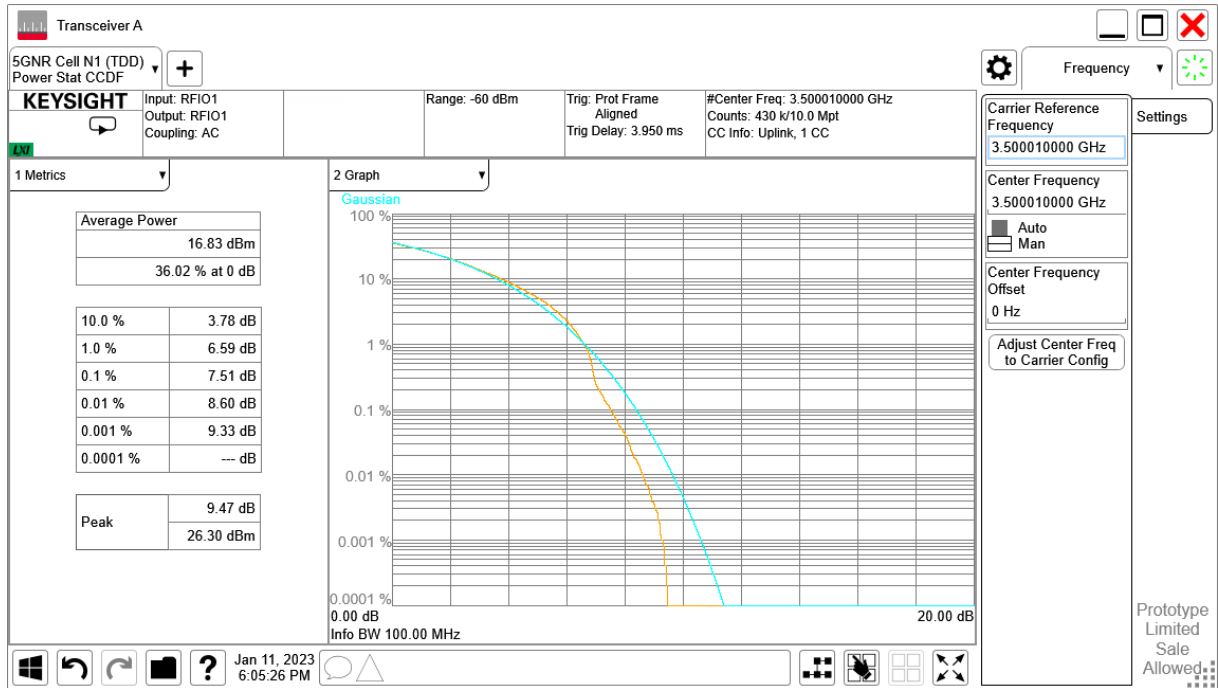


n78L, 100MHz Bandwidth, CP-64QAM (PAPR)





n78L, 100MHz Bandwidth, CP-256QAM (PAPR)

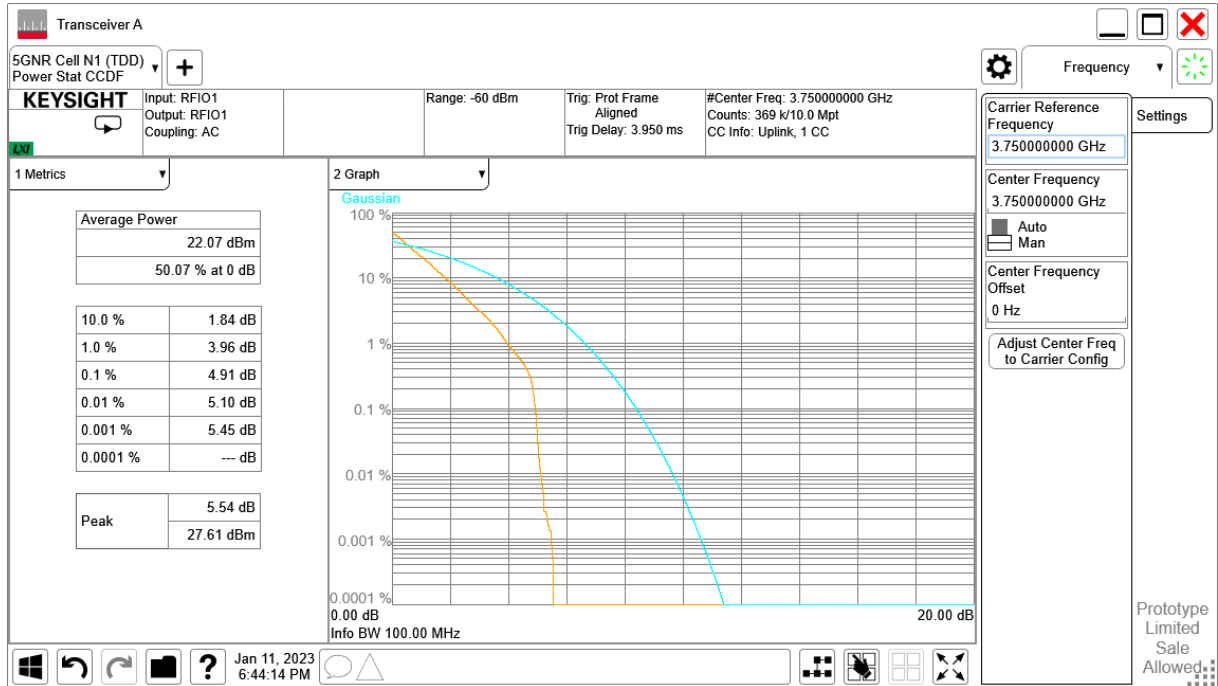




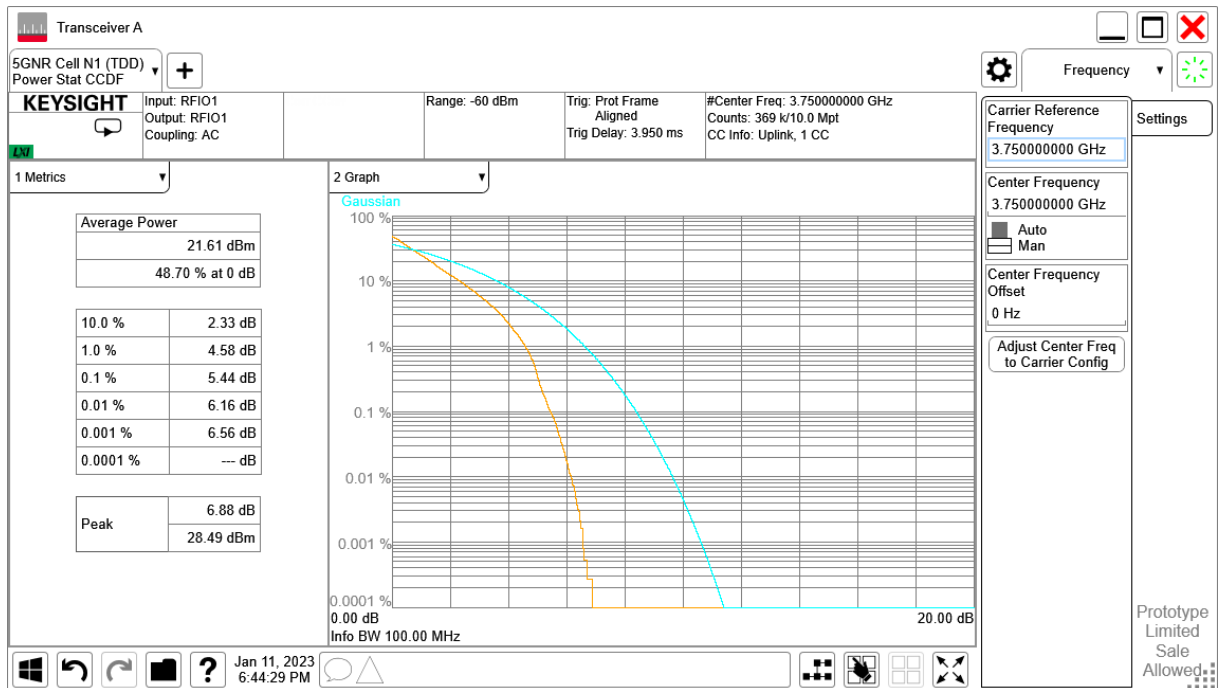
n78H,100MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
3750.0	4.91	5.44	6.04	6.18	6.15	7.78	7.84	7.83	7.89

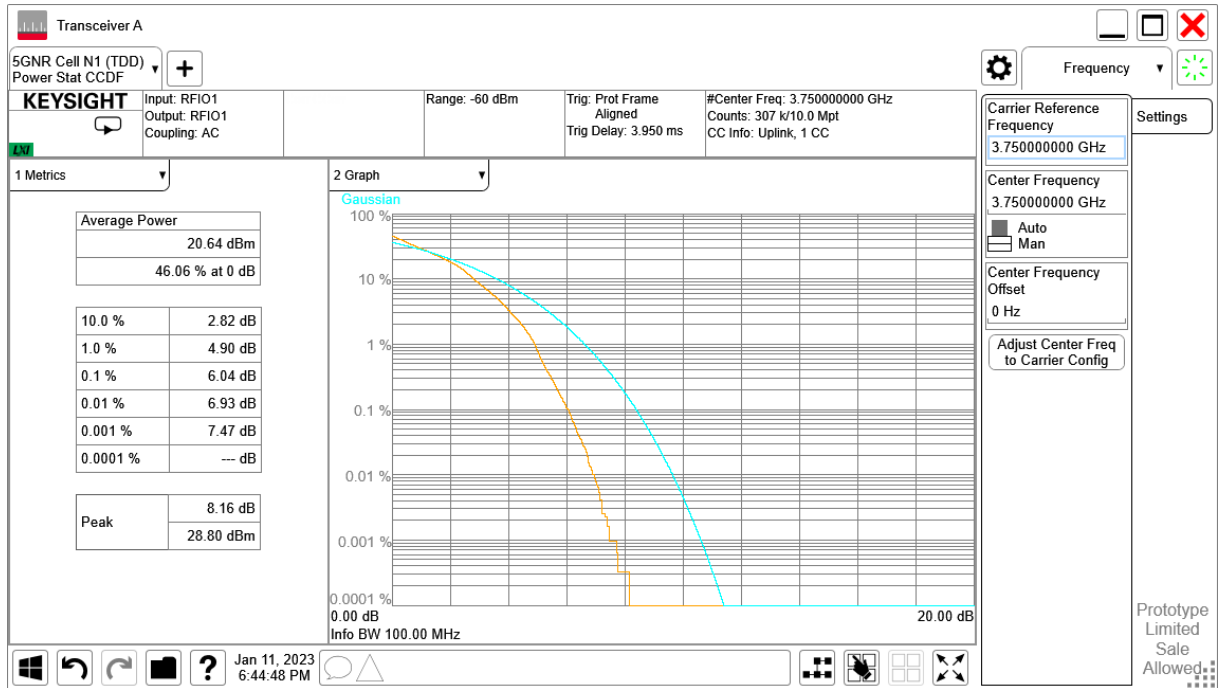
n78H, 100MHz Bandwidth, DFT-s-pi/2 BPSK (PAPR)



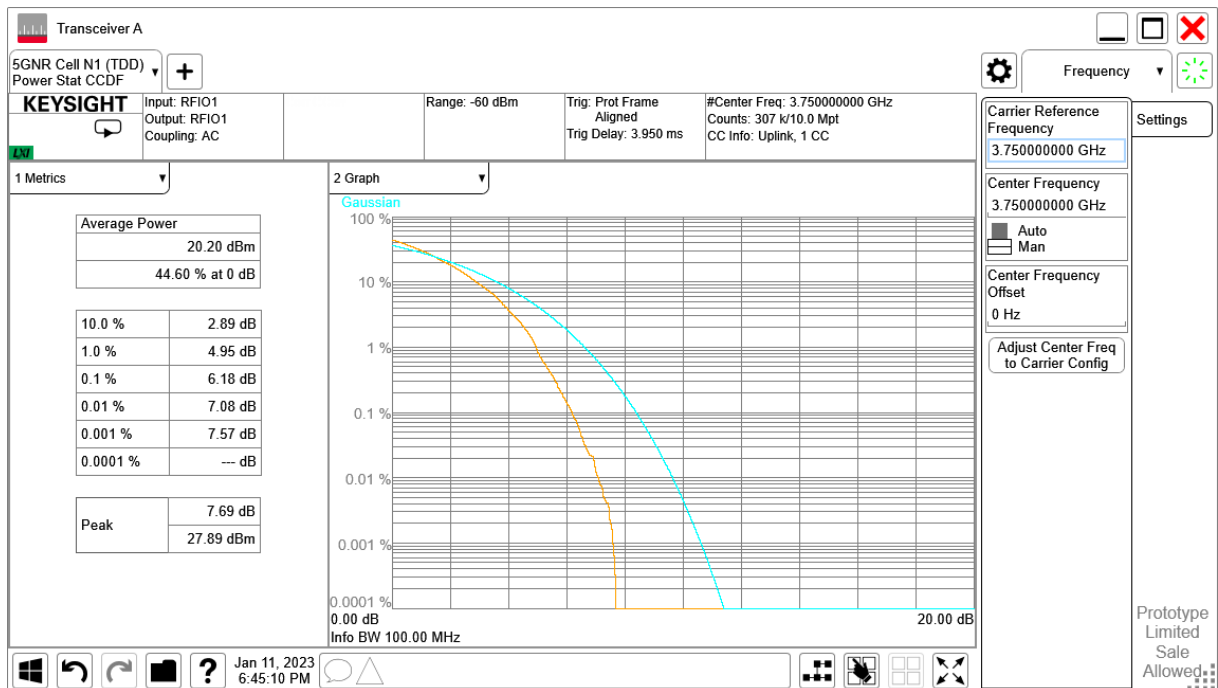
n78H, 100MHz Bandwidth, DFT-s-QPSK (PAPR)



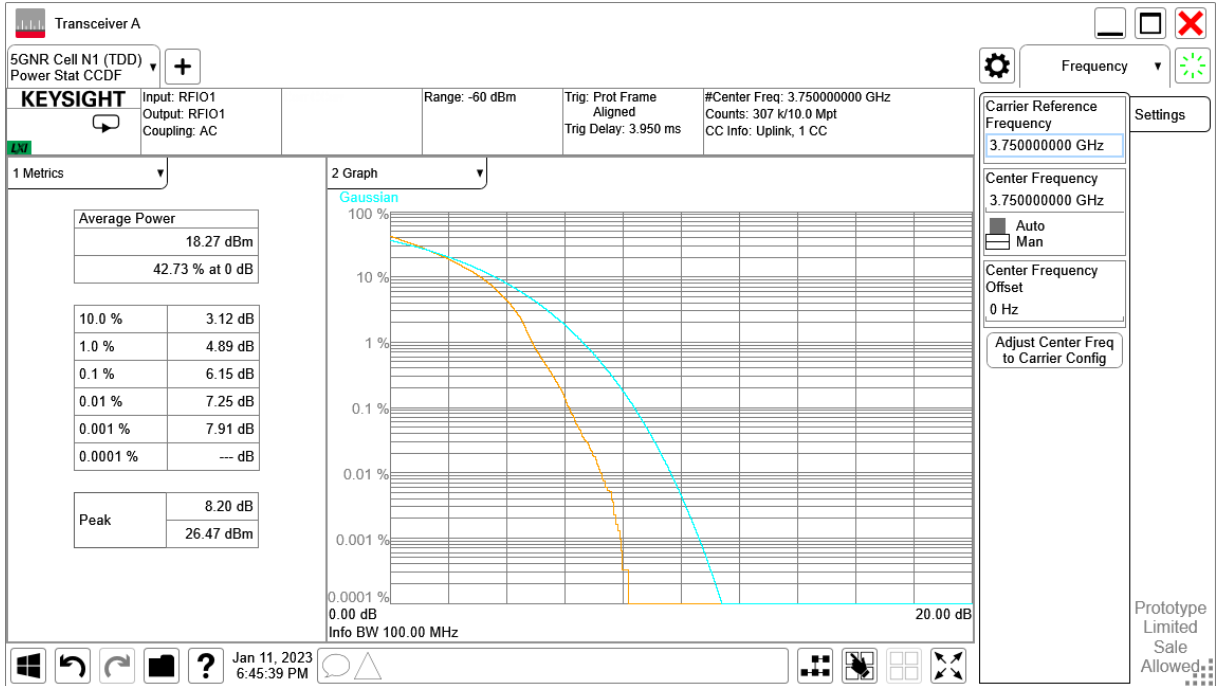
n78H, 100MHz Bandwidth, DFT-s-16QAM (PAPR)



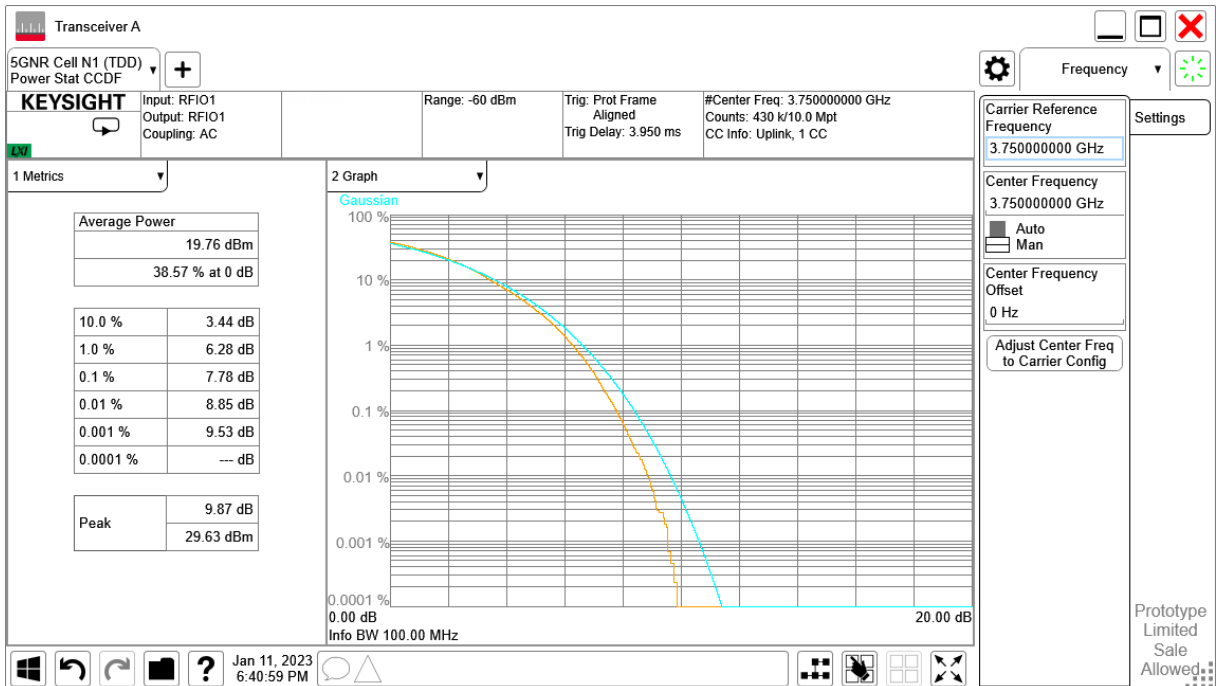
n78H, 100MHz Bandwidth, DFT-s-64QAM (PAPR)



n78H, 100MHz Bandwidth, DFT-s-256QAM (PAPR)

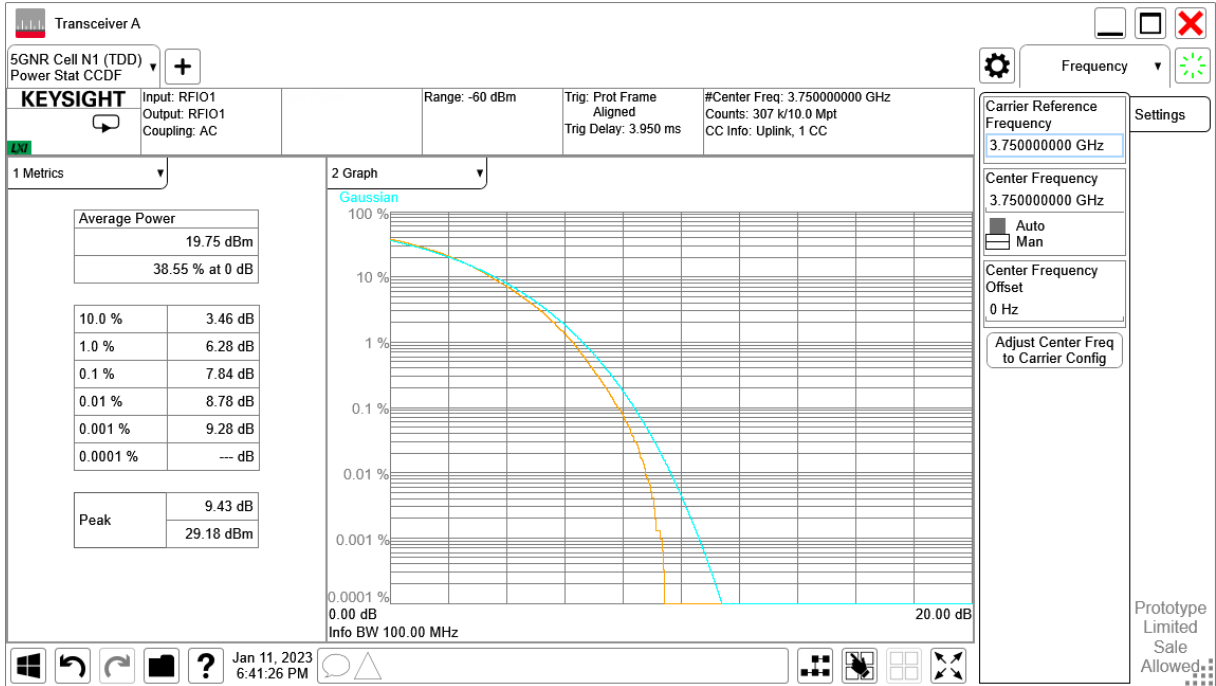


n78H, 100MHz Bandwidth, CP-QPSK (PAPR)





n78H, 100MHz Bandwidth, CP-16QAM (PAPR)



n78H, 100MHz Bandwidth, CP-64QAM (PAPR)

