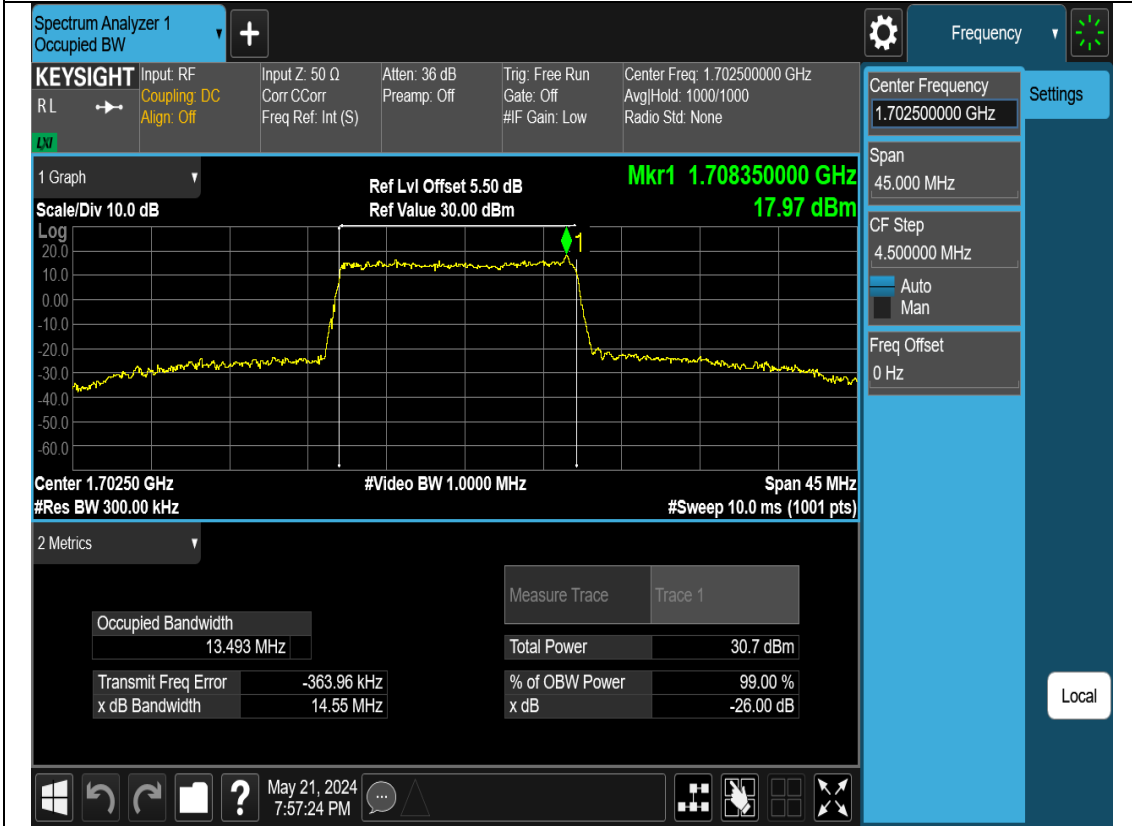
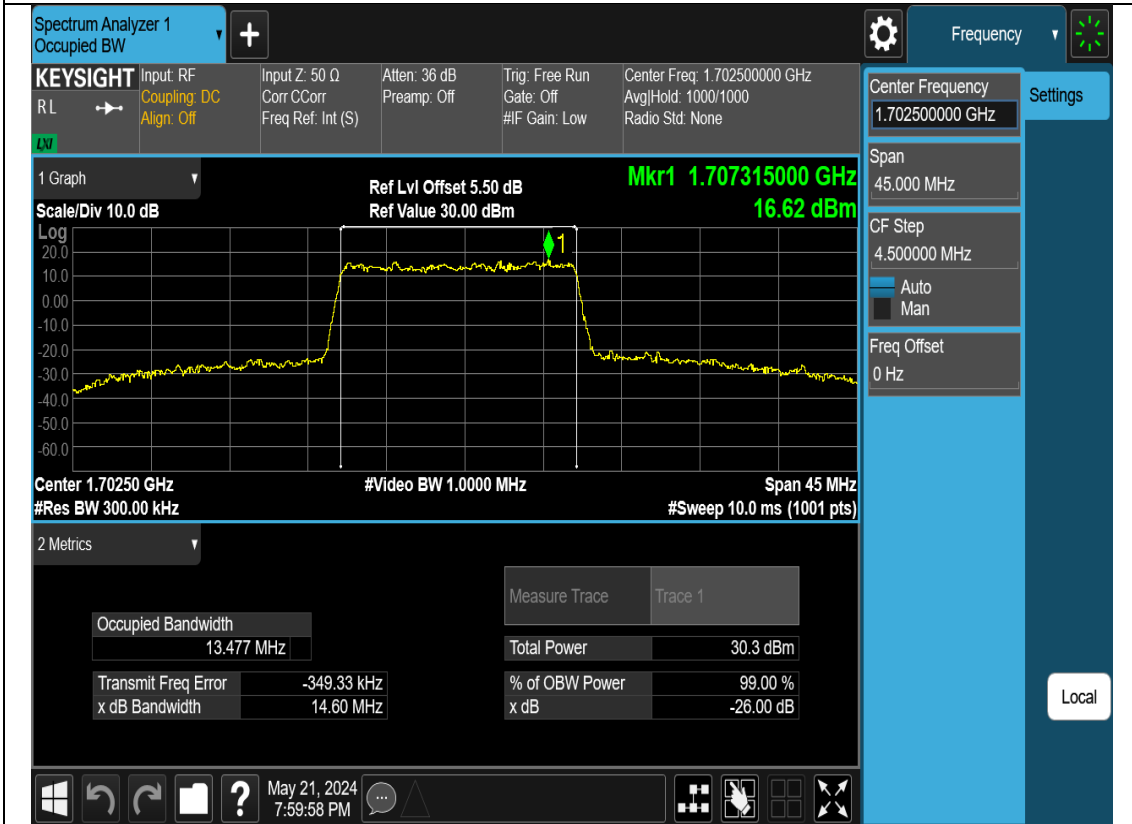


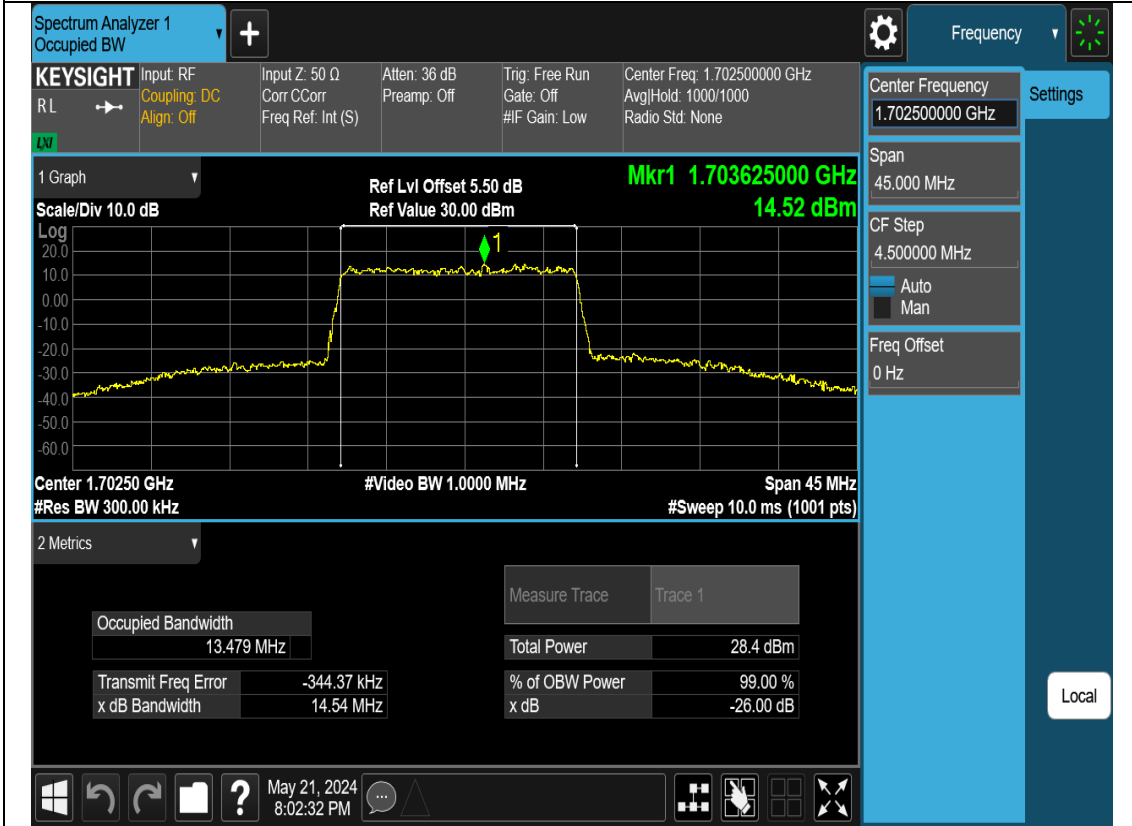
N70-15M-OBW-M-DFT-s-OFDM-16QAM



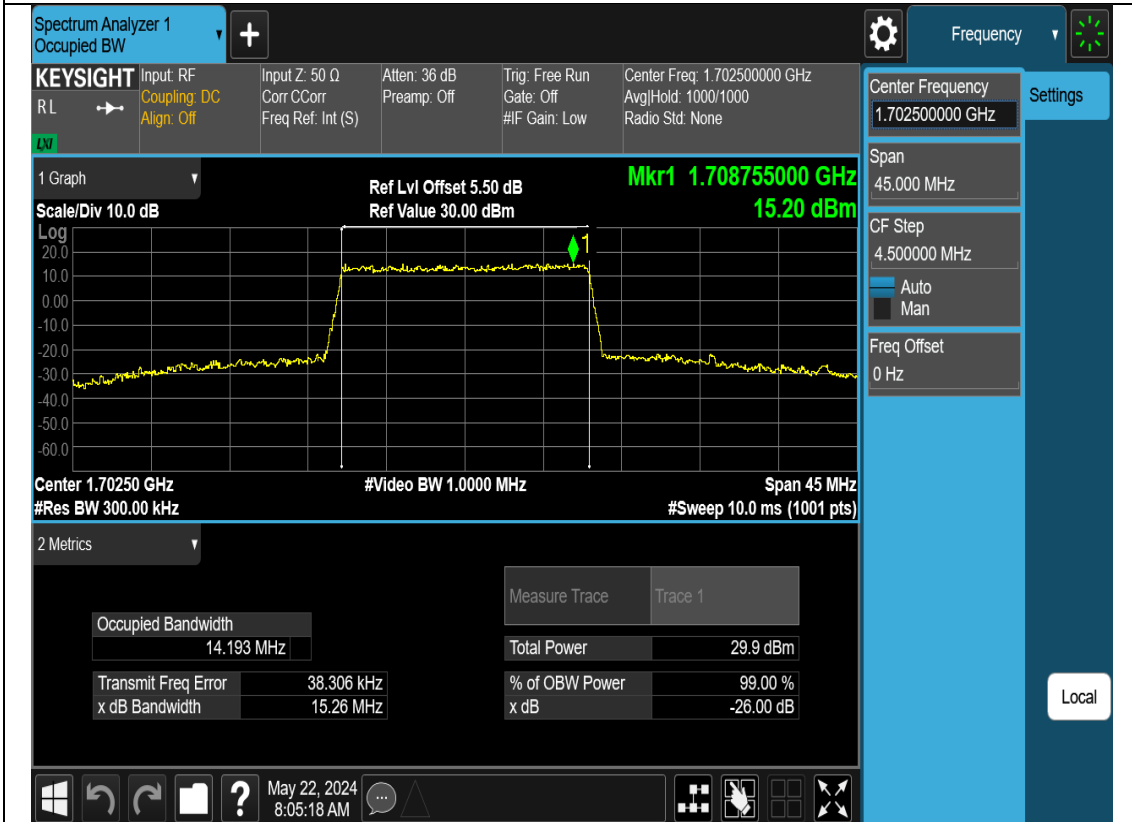
N70-15M-OBW-M-DFT-s-OFDM-64QAM



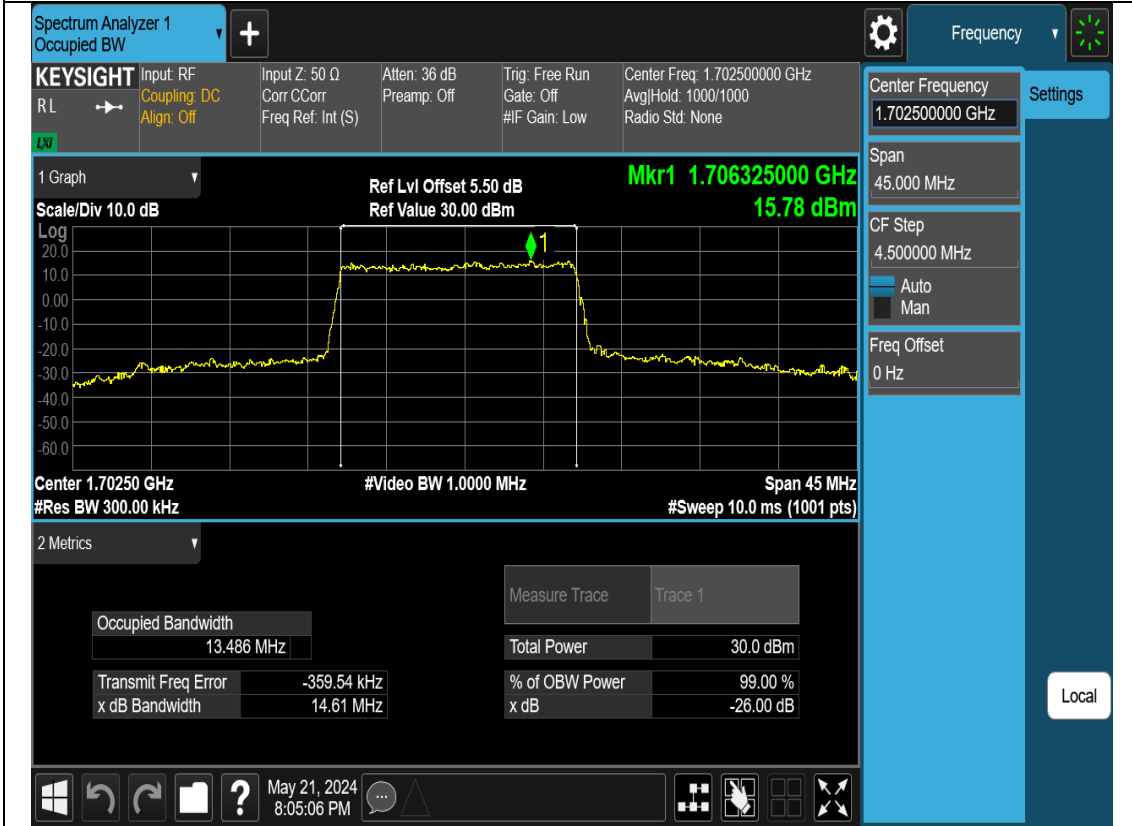
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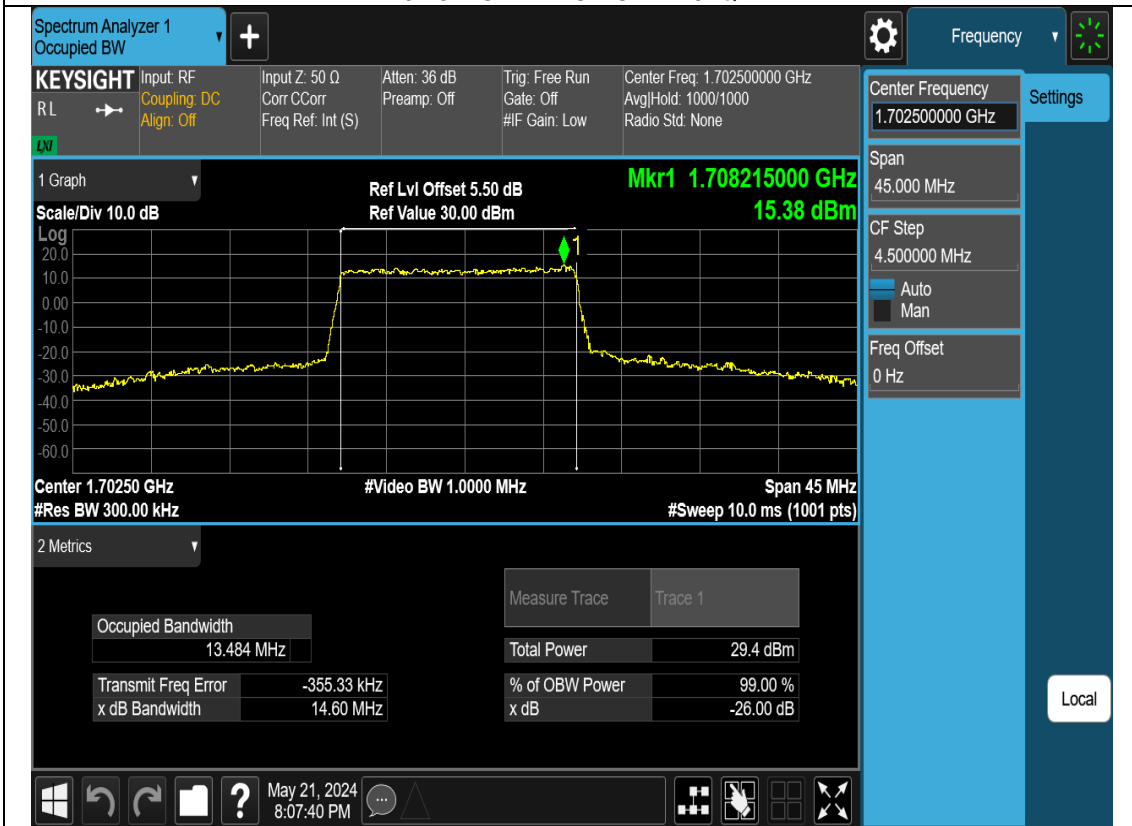
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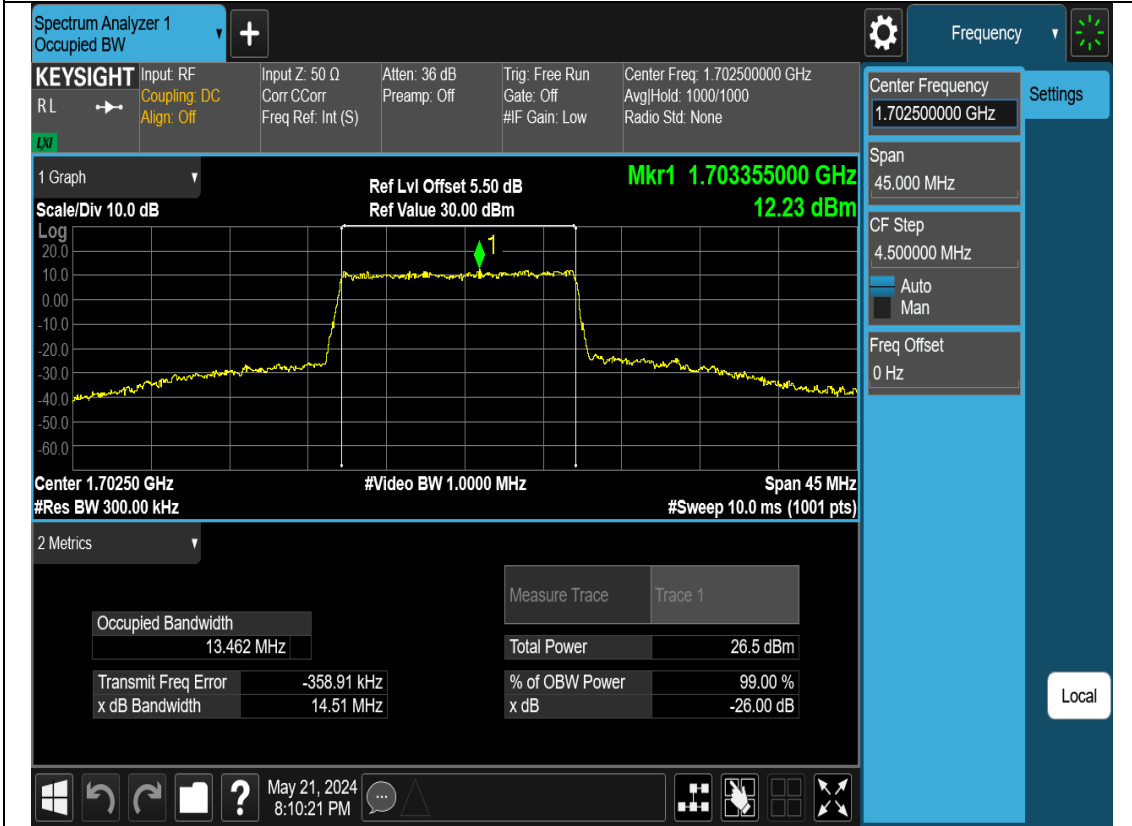
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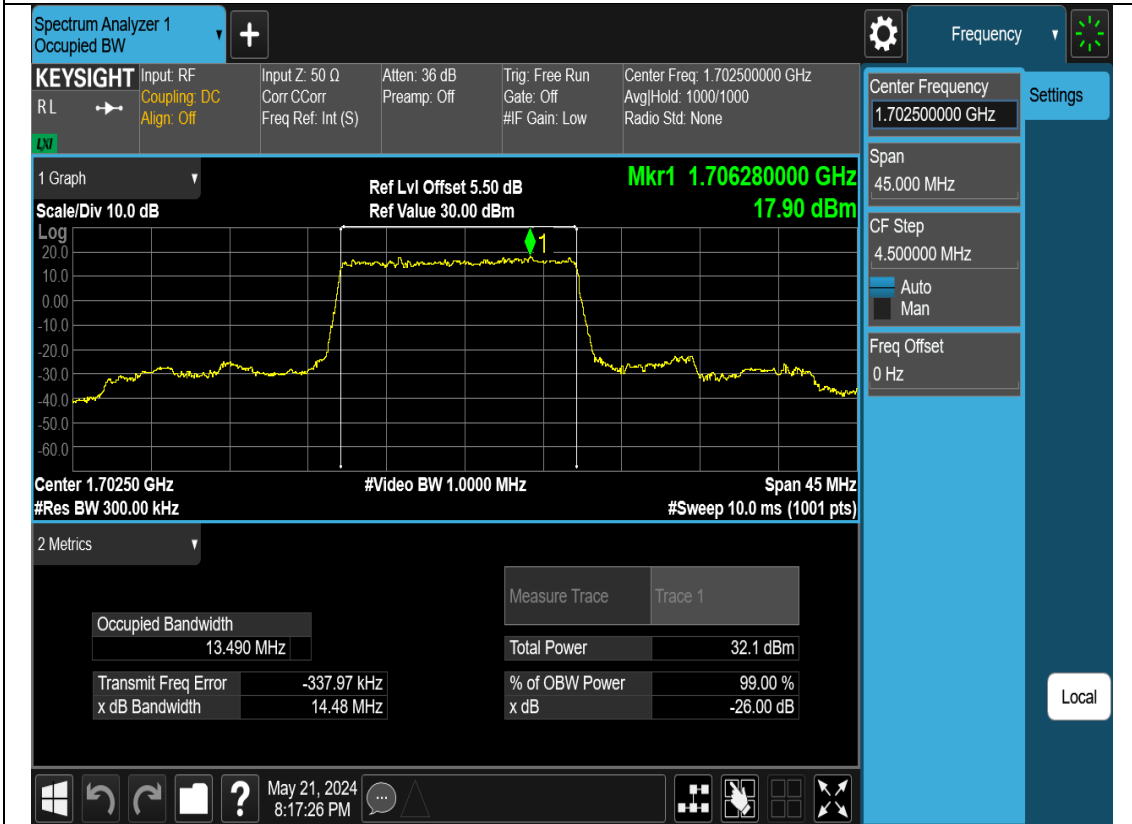
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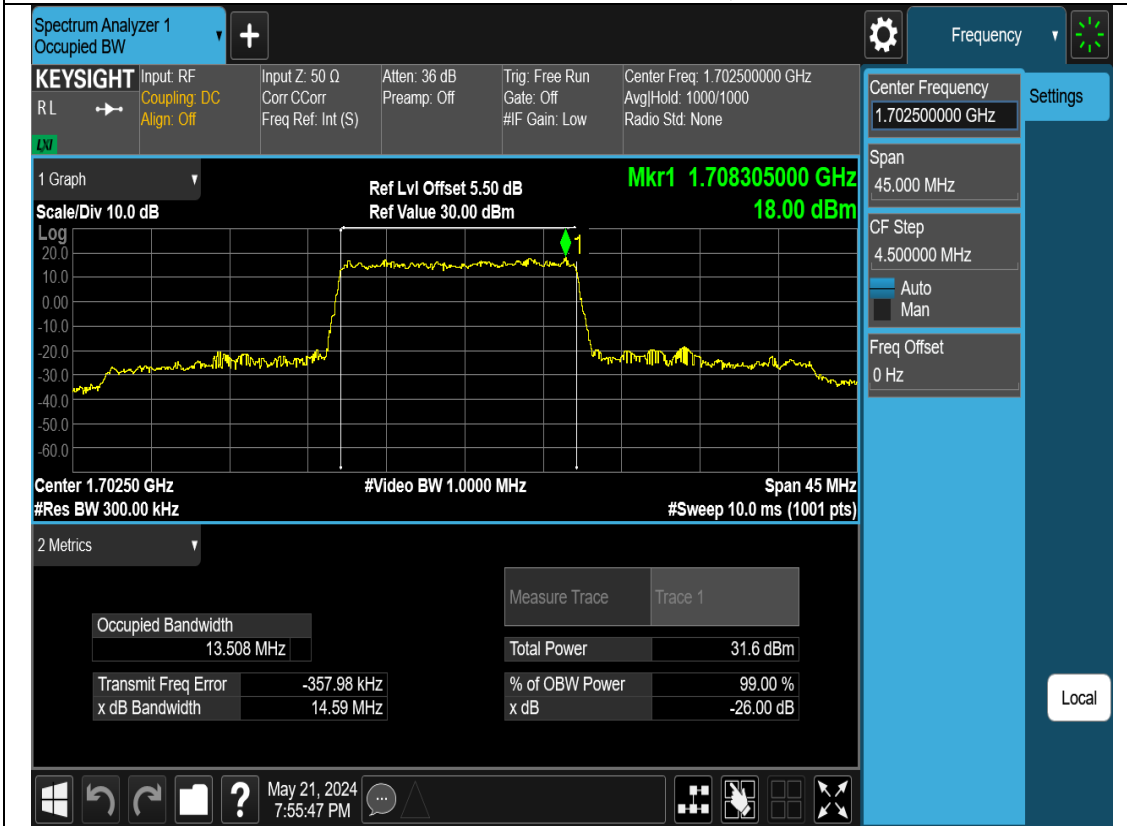
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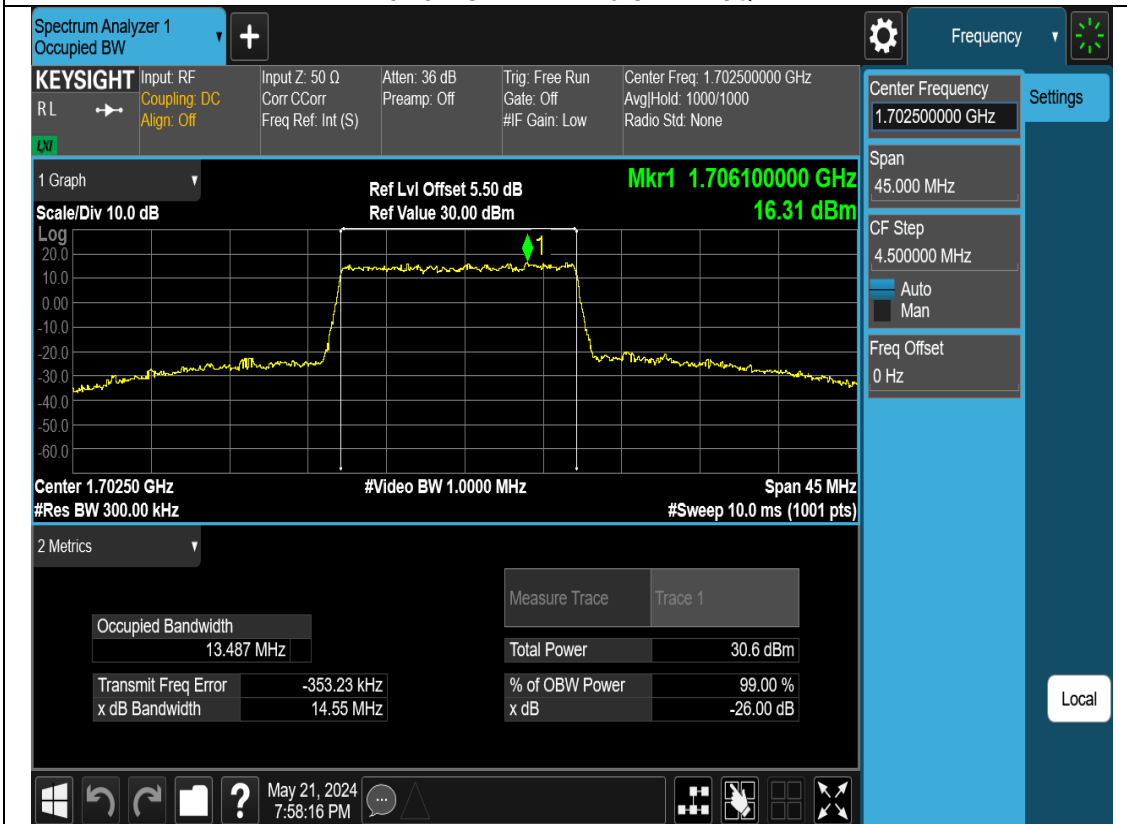
N70-15M-OBW-H-DFT-s-OFDM-Pi2 BPSK



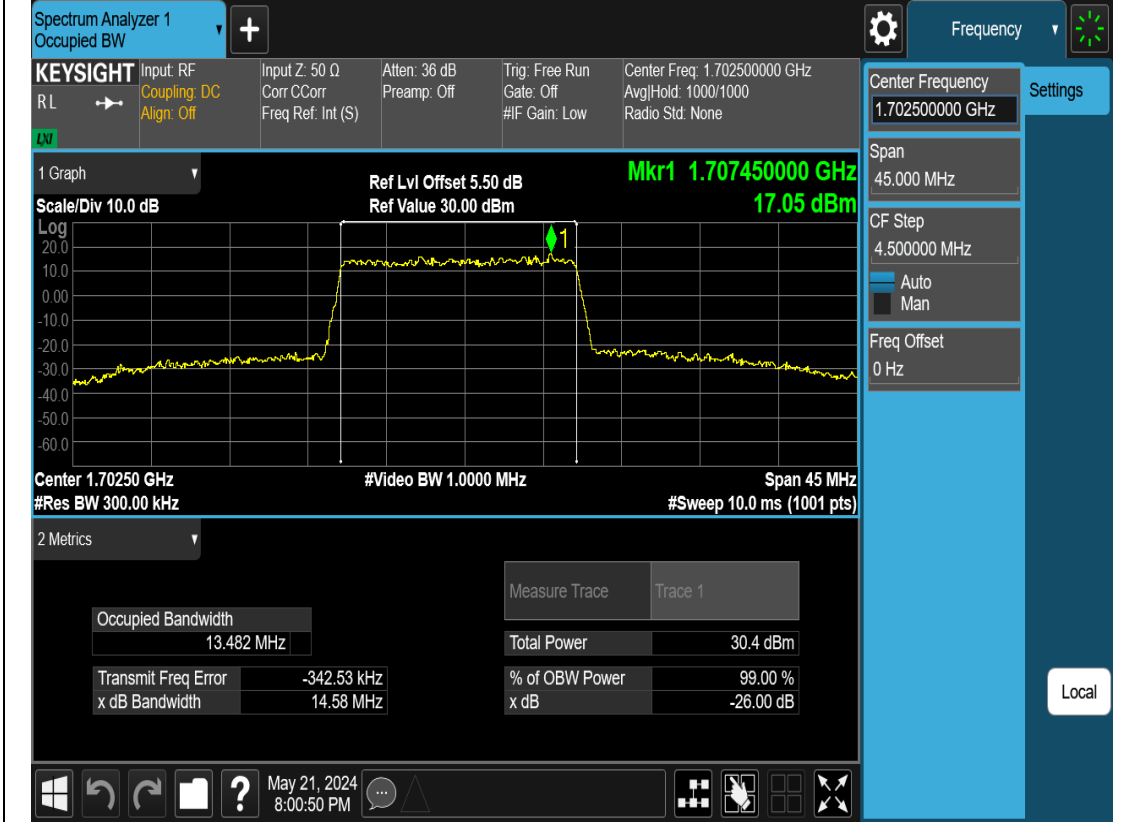
N70-15M-OBW-H-DFT-s-OFDM-QPSK



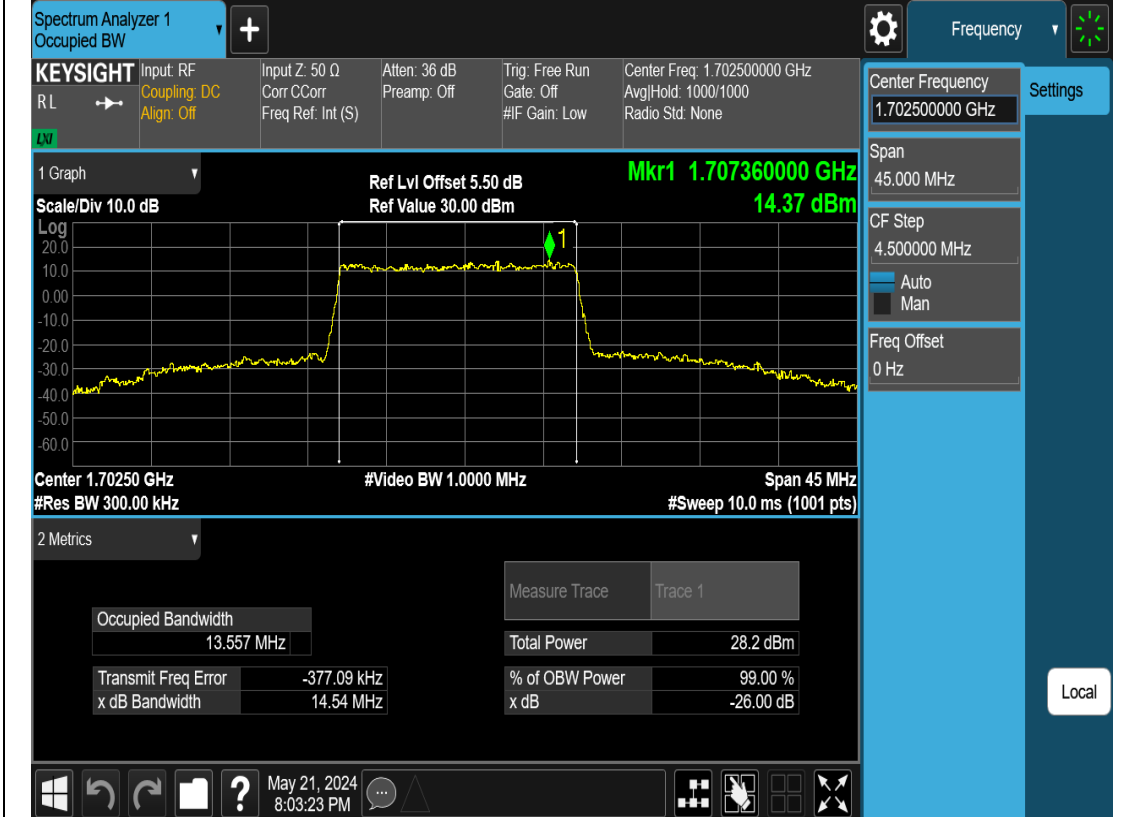
N70-15M-OBW-H-DFT-s-OFDM-16QAM



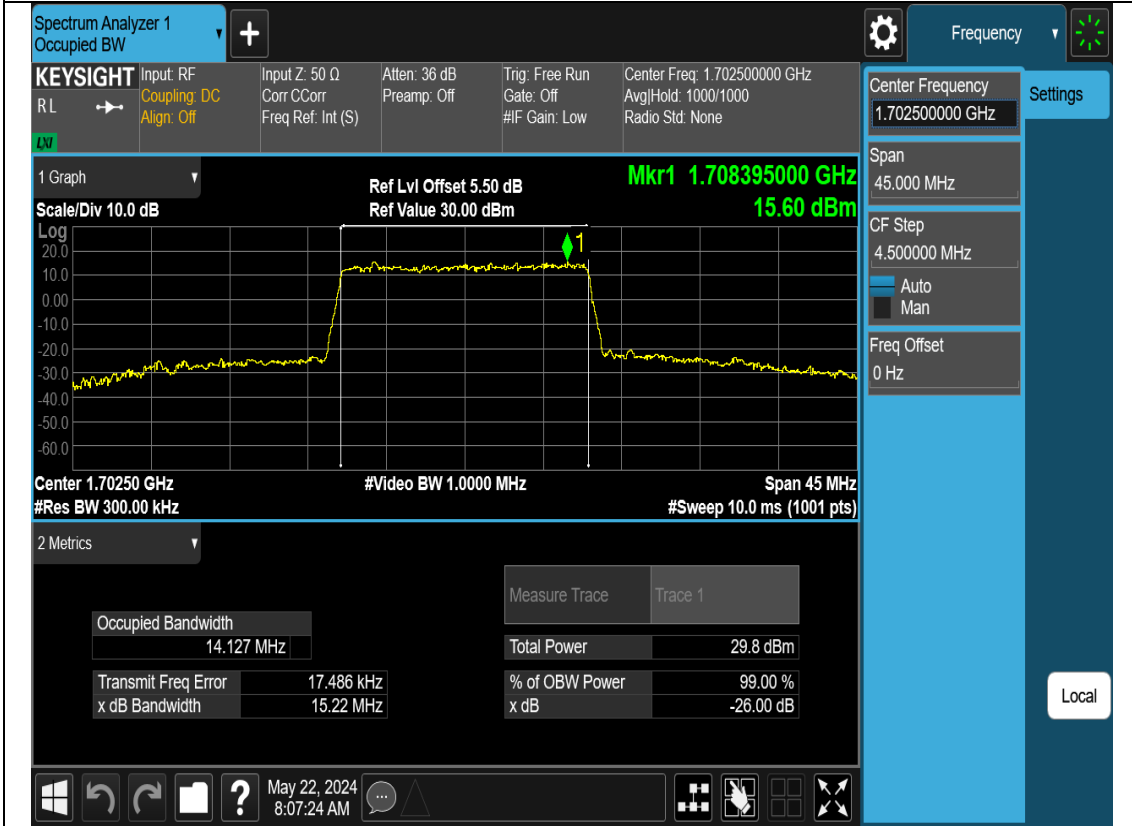
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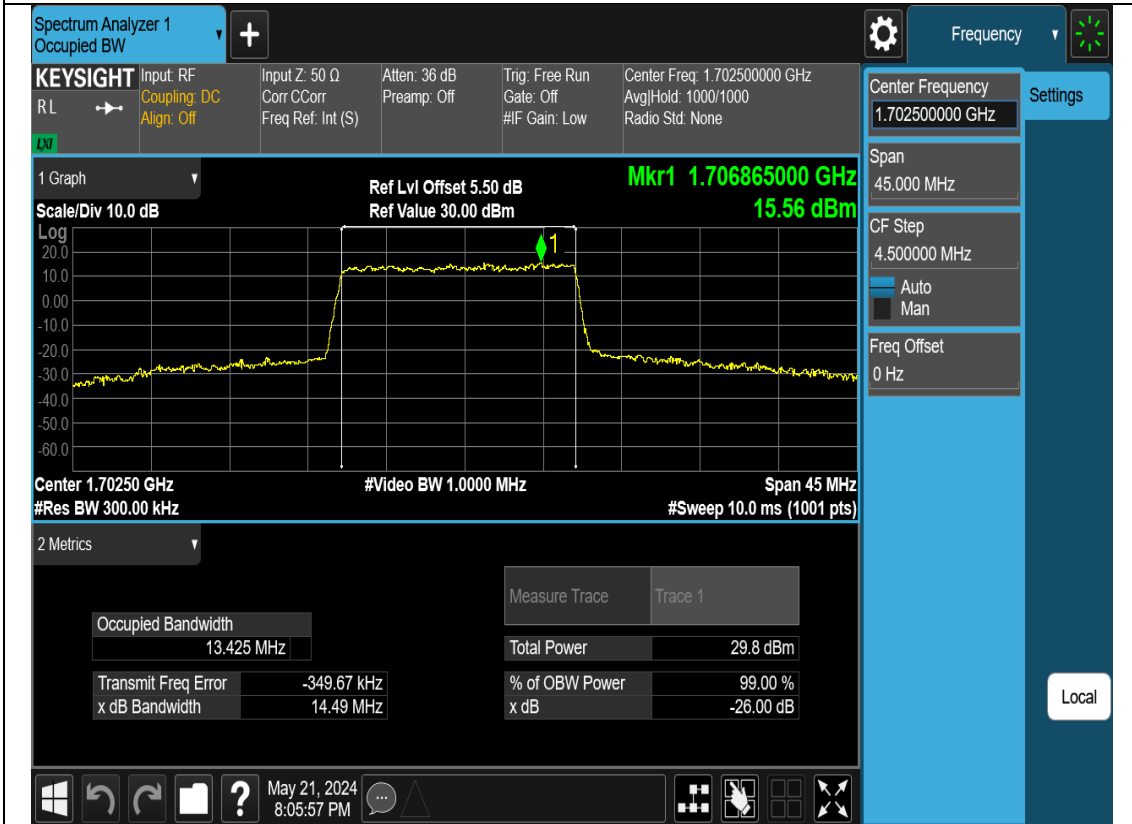
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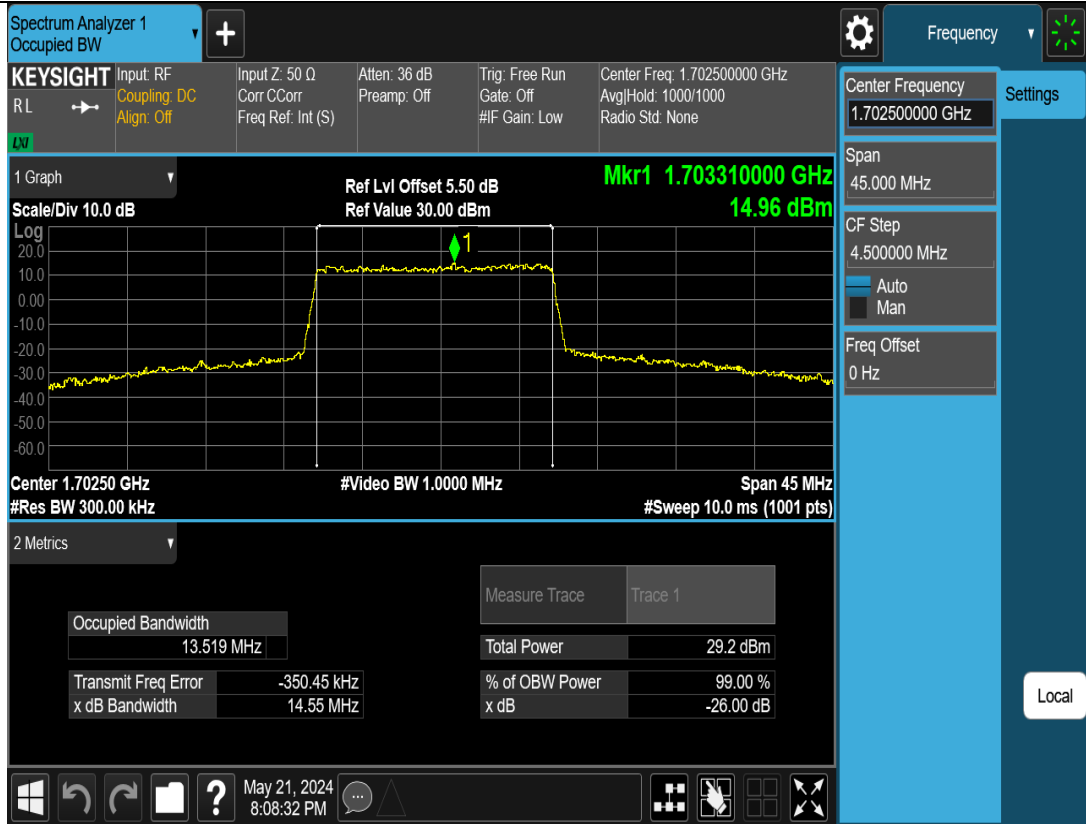
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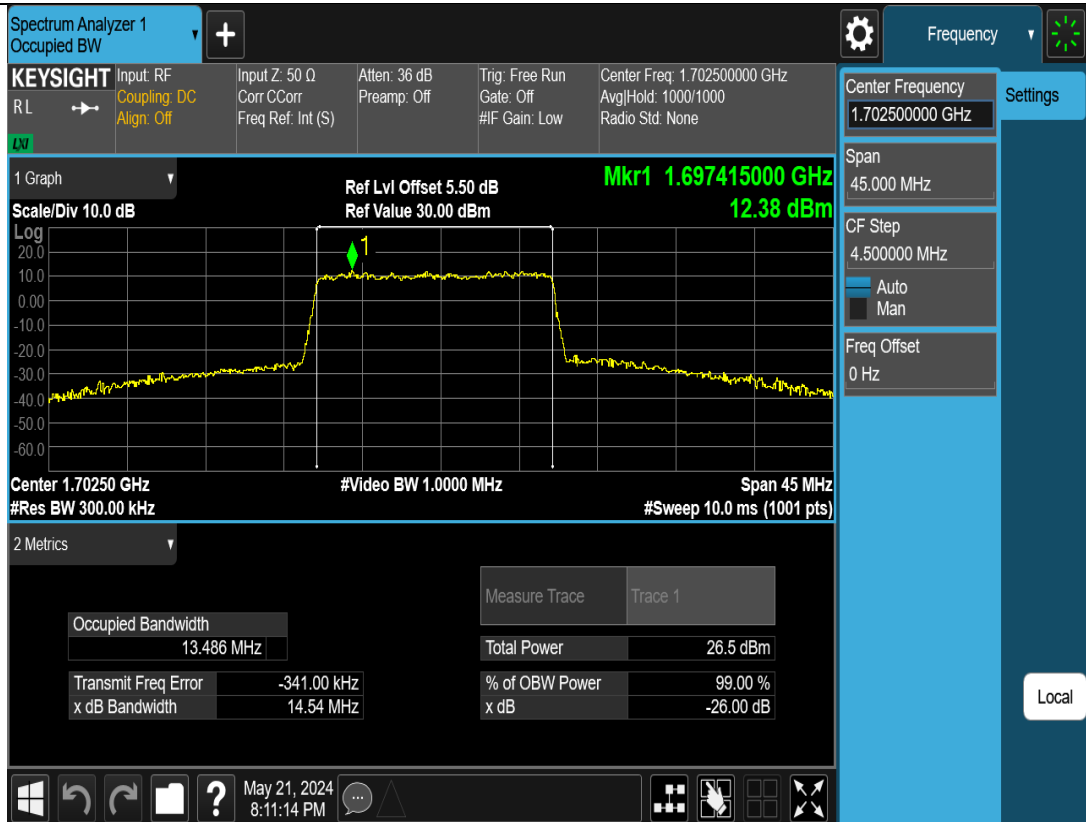
N70-15M-OBW-H-CP-OFDM-16QAM



N70-15M-OBW-H-CP-OFDM-64QAM



N70-15M-OBW-H-CP-OFDM-256QAM







# Peak-Average Ratio

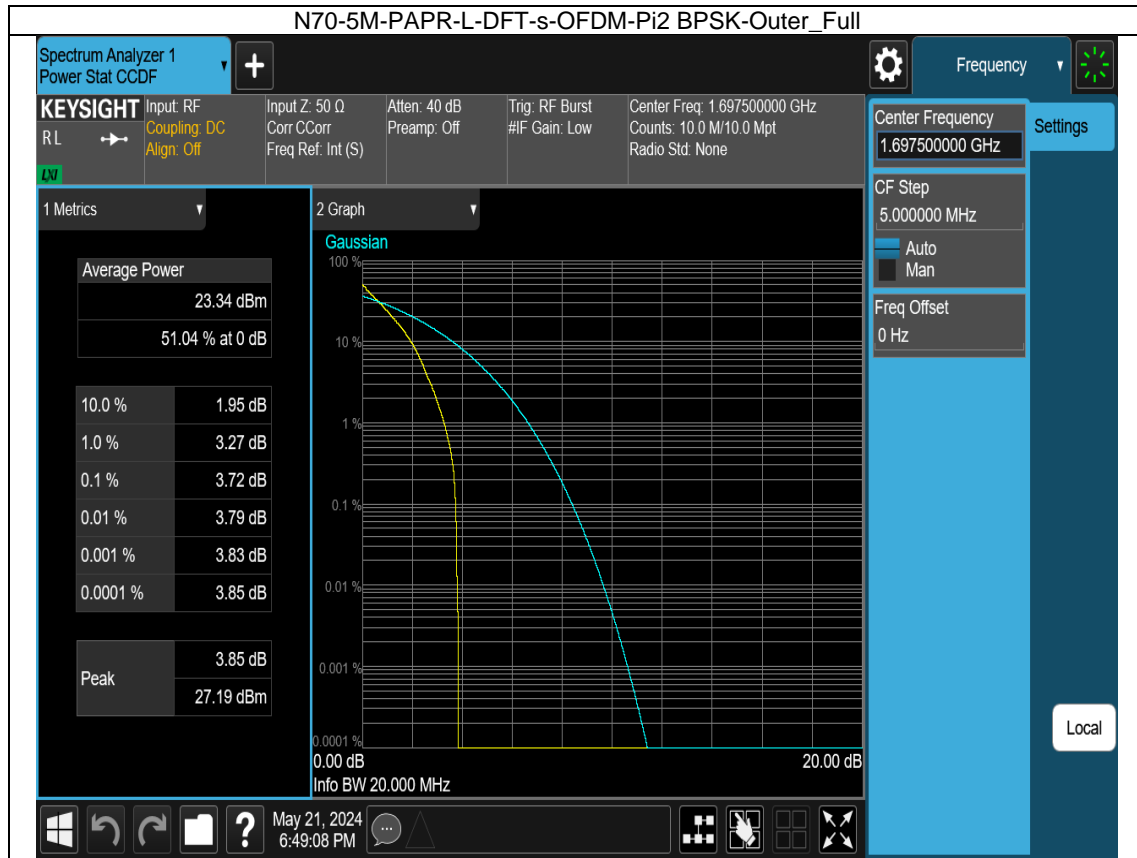
## Test Result

5G NR n70 SCS=15kHz 5MHz					
Modulation	CH	RB Allocation	Peak-Average Ratio (dB)	Limit	Verdict
DFT-s-OFDM PI/2 BPSK	Low CH	Outer_Full	3.72	<=13	Pass
DFT-s-OFDM QPSK		Outer_Full	4.97	<=13	Pass
DFT-s-OFDM 16QAM		Outer_Full	5.41	<=13	Pass
DFT-s-OFDM 64QAM		Outer_Full	5.82	<=13	Pass
DFT-s-OFDM 256QAM		Outer_Full	6.69	<=13	Pass
CP-OFDM QPSK		Outer_Full	6.99	<=13	Pass
CP-OFDM 16QAM		Outer_Full	7.20	<=13	Pass
CP-OFDM 64QAM		Outer_Full	6.85	<=13	Pass
CP-OFDM 256QAM		Outer_Full	8.27	<=13	Pass
DFT-s-OFDM PI/2 BPSK		Middle CH	Outer_Full	3.99	<=13
DFT-s-OFDM QPSK	Outer_Full		5.25	<=13	Pass
DFT-s-OFDM 16QAM	Outer_Full		5.32	<=13	Pass
DFT-s-OFDM 64QAM	Outer_Full		5.87	<=13	Pass
DFT-s-OFDM 256QAM	Outer_Full		6.73	<=13	Pass
CP-OFDM QPSK	Outer_Full		6.61	<=13	Pass
CP-OFDM 16QAM	Outer_Full		7.52	<=13	Pass
CP-OFDM 64QAM	Outer_Full		7.25	<=13	Pass
CP-OFDM 256QAM	Outer_Full		8.39	<=13	Pass
DFT-s-OFDM PI/2 BPSK	High CH		Outer_Full	3.57	<=13
DFT-s-OFDM QPSK		Outer_Full	5.06	<=13	Pass
DFT-s-OFDM 16QAM		Outer_Full	5.08	<=13	Pass
DFT-s-OFDM 64QAM		Outer_Full	5.91	<=13	Pass
DFT-s-OFDM 256QAM		Outer_Full	6.75	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.12	<=13	Pass
CP-OFDM 16QAM		Outer_Full	7.23	<=13	Pass
CP-OFDM 64QAM		Outer_Full	6.81	<=13	Pass
CP-OFDM 256QAM		Outer_Full	8.21	<=13	Pass

5G NR n70 SCS=15kHz 10MHz					
Modulation	CH	RB Allocation	Peak-Average Ratio (dB)	Limit	Verdict
DFT-s-OFDM PI/2 BPSK	Low CH	Outer_Full	4.12	<=13	Pass
DFT-s-OFDM QPSK		Outer_Full	5.30	<=13	Pass
DFT-s-OFDM 16QAM		Outer_Full	6.09	<=13	Pass
DFT-s-OFDM 64QAM		Outer_Full	6.46	<=13	Pass
DFT-s-OFDM 256QAM		Outer_Full	6.73	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.23	<=13	Pass
CP-OFDM 16QAM		Outer_Full	7.39	<=13	Pass
CP-OFDM 64QAM		Outer_Full	7.14	<=13	Pass
CP-OFDM 256QAM		Outer_Full	8.55	<=13	Pass
DFT-s-OFDM PI/2 BPSK	Middle CH	Outer_Full	4.16	<=13	Pass
DFT-s-OFDM QPSK		Outer_Full	5.39	<=13	Pass
DFT-s-OFDM 16QAM		Outer_Full	6.15	<=13	Pass
DFT-s-OFDM 64QAM		Outer_Full	6.48	<=13	Pass
DFT-s-OFDM 256QAM		Outer_Full	6.73	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.43	<=13	Pass
CP-OFDM 16QAM		Outer_Full	7.48	<=13	Pass
CP-OFDM 64QAM		Outer_Full	7.41	<=13	Pass
CP-OFDM 256QAM		Outer_Full	8.63	<=13	Pass
DFT-s-OFDM PI/2 BPSK	High CH	Outer_Full	4.18	<=13	Pass
DFT-s-OFDM QPSK		Outer_Full	5.44	<=13	Pass
DFT-s-OFDM 16QAM		Outer_Full	6.19	<=13	Pass
DFT-s-OFDM 64QAM		Outer_Full	6.50	<=13	Pass
DFT-s-OFDM 256QAM		Outer_Full	6.71	<=13	Pass
CP-OFDM QPSK		Outer_Full	6.95	<=13	Pass
CP-OFDM 16QAM		Outer_Full	7.01	<=13	Pass
CP-OFDM 64QAM		Outer_Full	7.55	<=13	Pass
CP-OFDM 256QAM		Outer_Full	8.33	<=13	Pass

5G NR n70 SCS=15kHz 15MHz					
Modulation	CH	RB Allocation	Peak-Average Ratio (dB)	Limit	Verdict
DFT-s-OFDM PI/2 BPSK	Low CH	Outer_Full	4.27	<=13	Pass
DFT-s-OFDM QPSK		Outer_Full	5.45	<=13	Pass
DFT-s-OFDM 16QAM		Outer_Full	6.21	<=13	Pass
DFT-s-OFDM 64QAM		Outer_Full	6.43	<=13	Pass
DFT-s-OFDM 256QAM		Outer_Full	6.65	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.06	<=13	Pass
CP-OFDM 16QAM		Outer_Full	7.05	<=13	Pass
CP-OFDM 64QAM		Outer_Full	7.44	<=13	Pass
CP-OFDM 256QAM		Outer_Full	8.37	<=13	Pass
DFT-s-OFDM PI/2 BPSK	Middle CH	Outer_Full	4.24	<=13	Pass
DFT-s-OFDM QPSK		Outer_Full	5.43	<=13	Pass
DFT-s-OFDM 16QAM		Outer_Full	6.18	<=13	Pass
DFT-s-OFDM 64QAM		Outer_Full	6.58	<=13	Pass
DFT-s-OFDM 256QAM		Outer_Full	6.76	<=13	Pass
CP-OFDM QPSK		Outer_Full	6.93	<=13	Pass
CP-OFDM 16QAM		Outer_Full	6.93	<=13	Pass
CP-OFDM 64QAM		Outer_Full	7.41	<=13	Pass
CP-OFDM 256QAM		Outer_Full	8.52	<=13	Pass
DFT-s-OFDM PI/2 BPSK	High CH	Outer_Full	4.23	<=13	Pass
DFT-s-OFDM QPSK		Outer_Full	5.41	<=13	Pass
DFT-s-OFDM 16QAM		Outer_Full	6.19	<=13	Pass
DFT-s-OFDM 64QAM		Outer_Full	6.45	<=13	Pass
DFT-s-OFDM 256QAM		Outer_Full	6.88	<=13	Pass
CP-OFDM QPSK		Outer_Full	7.57	<=13	Pass
CP-OFDM 16QAM		Outer_Full	6.98	<=13	Pass
CP-OFDM 64QAM		Outer_Full	7.39	<=13	Pass
CP-OFDM 256QAM		Outer_Full	8.52	<=13	Pass

# Test Graph



N70-5M-PAPR-L-DFT-s-OFDM-QPSK-Outer\_Full

Spectrum Analyzer 1  
Power Stat CCDF

KEYSIGHT Input RF  
R.L. Coupling: DC  
Align: Off

Input Z: 50 Ω  
Corr: CCorr  
Freq Ref: Int (S)

Atten: 40 dB  
Preamp: Off

Trig: RF Burst  
#IF Gain: Low

Center Freq: 1.697500000 GHz  
Counts: 10.0 M/10.0 Mpt  
Radio Std: None

Center Frequency: 1.697500000 GHz

CF Step: 5.000000 MHz

Freq Offset: 0 Hz

1 Metrics

Average Power

23.16 dBm

49.09 % at 0 dB

10.0 %	2.31 dB
1.0 %	4.30 dB
0.1 %	4.97 dB
0.01 %	5.29 dB
0.001 %	5.67 dB
0.0001 %	5.75 dB

Peak

5.76 dB

28.92 dBm

2 Graph

Gaussian

0.0001 %

0.001 %

0.01 %

0.1 %

1 %

10 %

100 %

0.00 dB

20.00 dB

Info BW 20.000 MHz

May 21, 2024 6:24:29 PM

Local

N70-5M-PAPR-L-DFT-s-OFDM-16QAM-Outer\_Full

Spectrum Analyzer 1  
Power Stat CCDF

KEYSIGHT Input RF  
R.L. Coupling: DC  
Align: Off

Input Z: 50 Ω  
Corr: CCorr  
Freq Ref: Int (S)

Atten: 40 dB  
Preamp: Off

Trig: RF Burst  
#IF Gain: Low

Center Freq: 1.697500000 GHz  
Counts: 10.0 M/10.0 Mpt  
Radio Std: None

Center Frequency: 1.697500000 GHz

CF Step: 5.000000 MHz

Freq Offset: 0 Hz

1 Metrics

Average Power

23.21 dBm

49.15 % at 0 dB

10.0 %	2.31 dB
1.0 %	4.30 dB
0.1 %	5.41 dB
0.01 %	5.67 dB
0.001 %	5.74 dB
0.0001 %	5.75 dB

Peak

5.76 dB

28.97 dBm

2 Graph

Gaussian

0.0001 %

0.001 %

0.01 %

0.1 %

1 %

10 %

100 %

0.00 dB

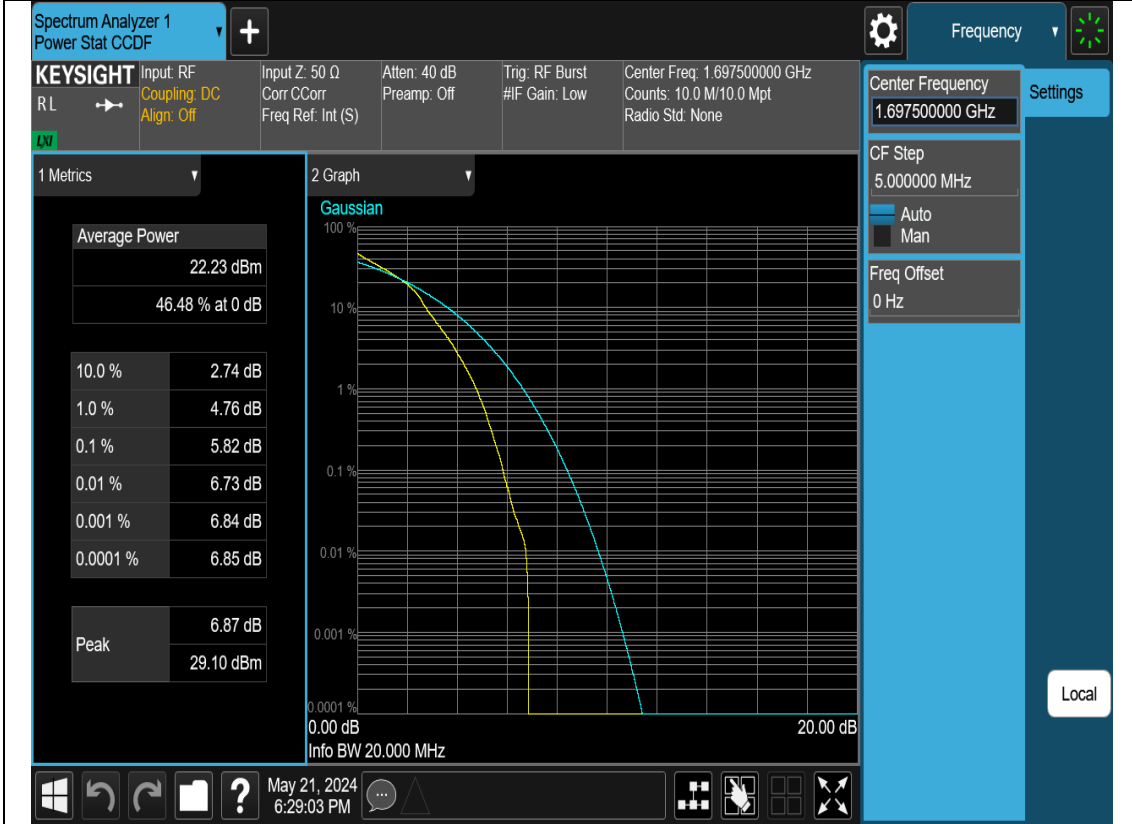
20.00 dB

Info BW 20.000 MHz

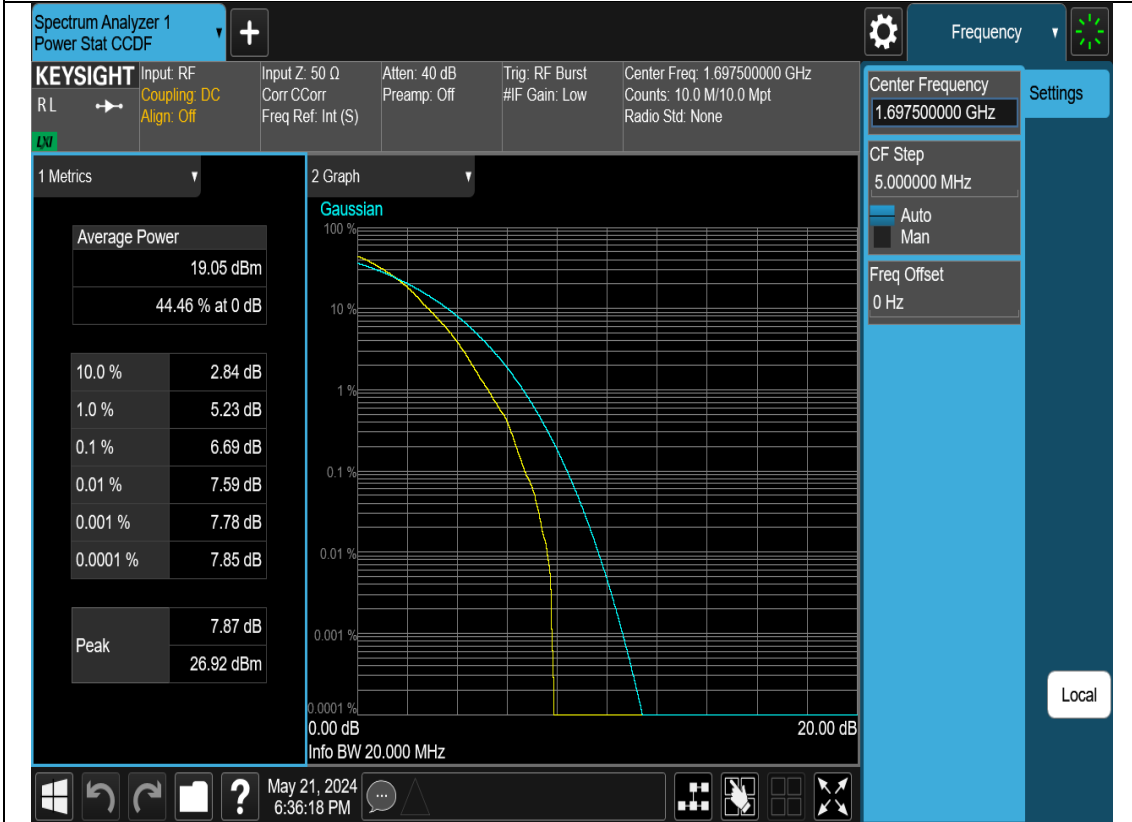
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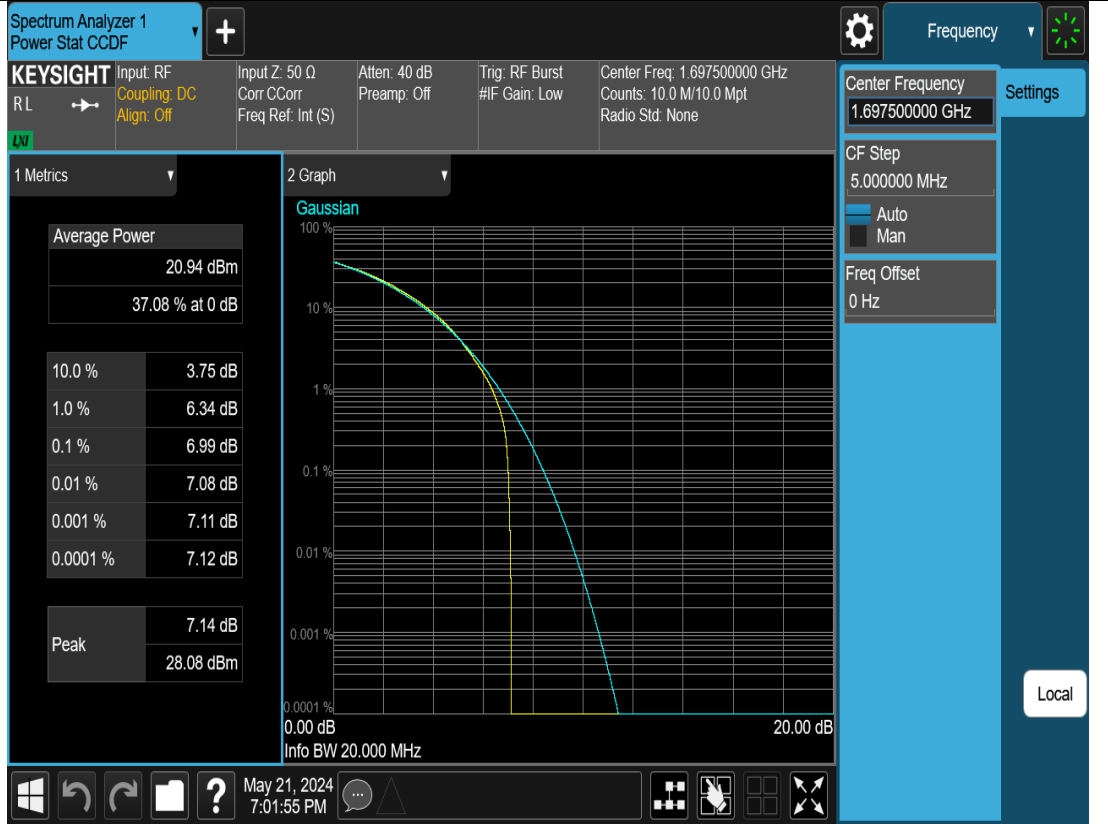
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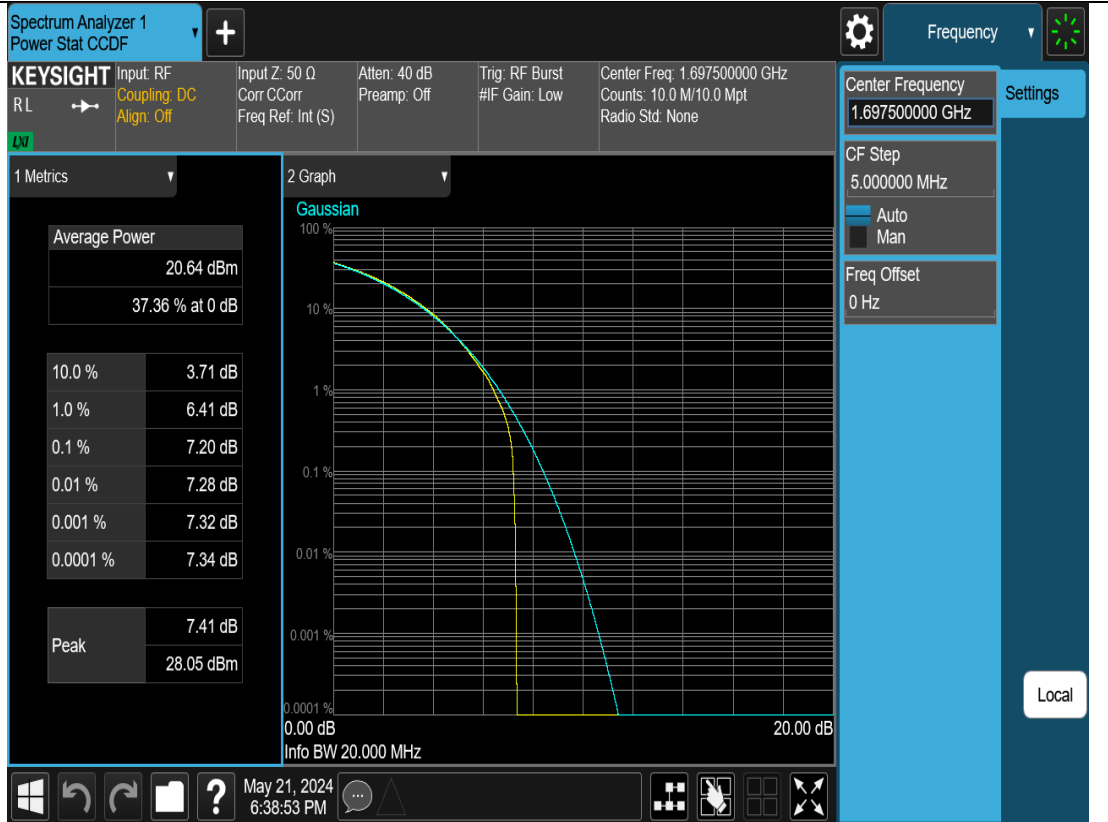
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N70-5M-PAPR-L-CP-OFDM-QPSK-Outer\_Full

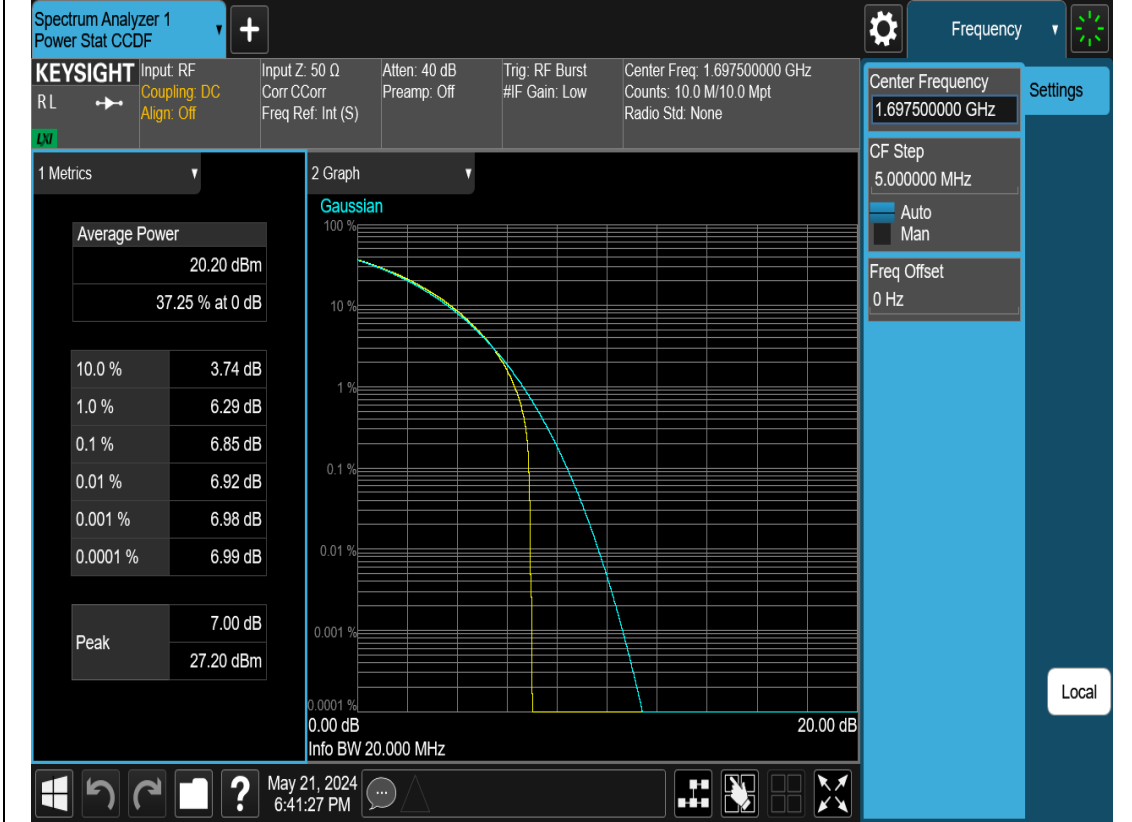


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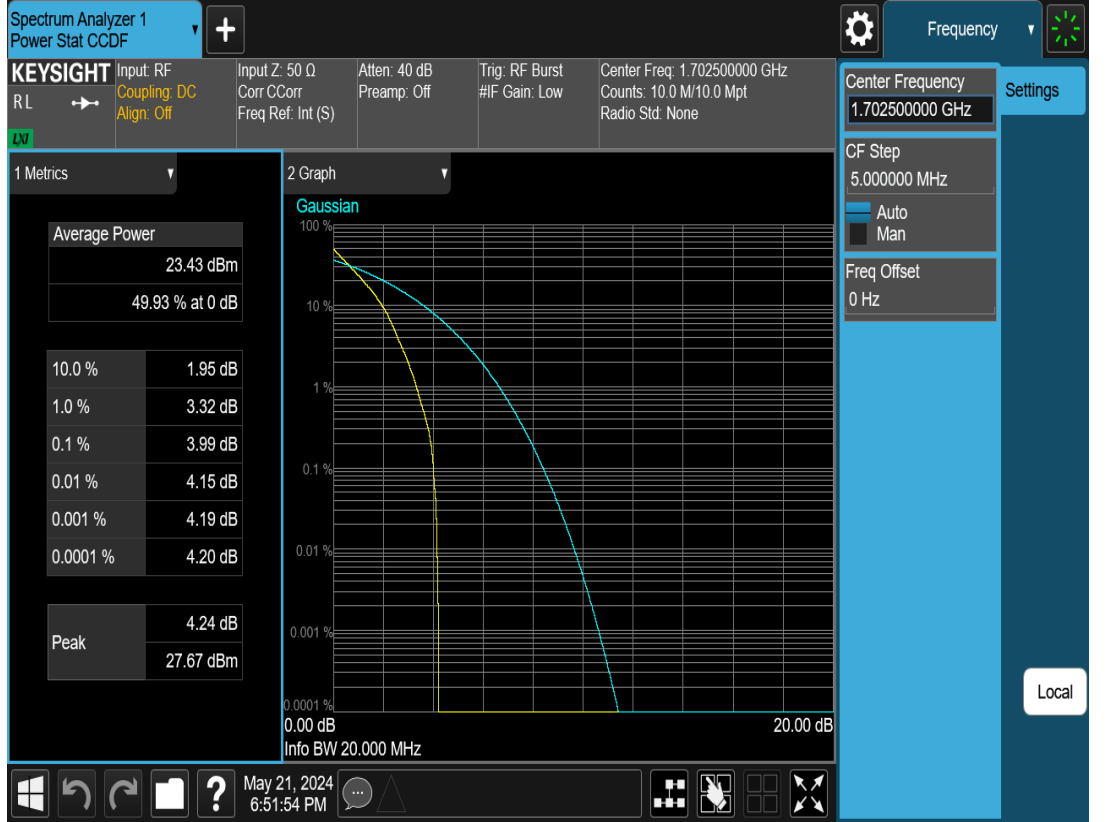
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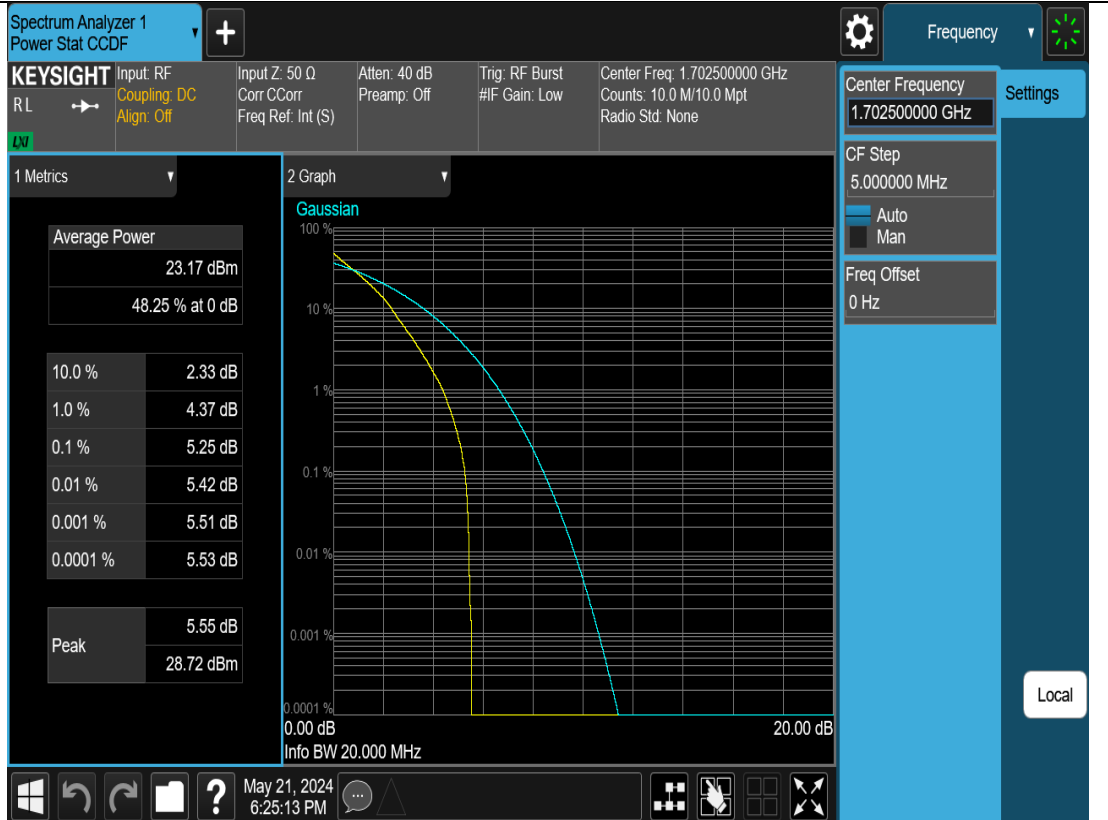
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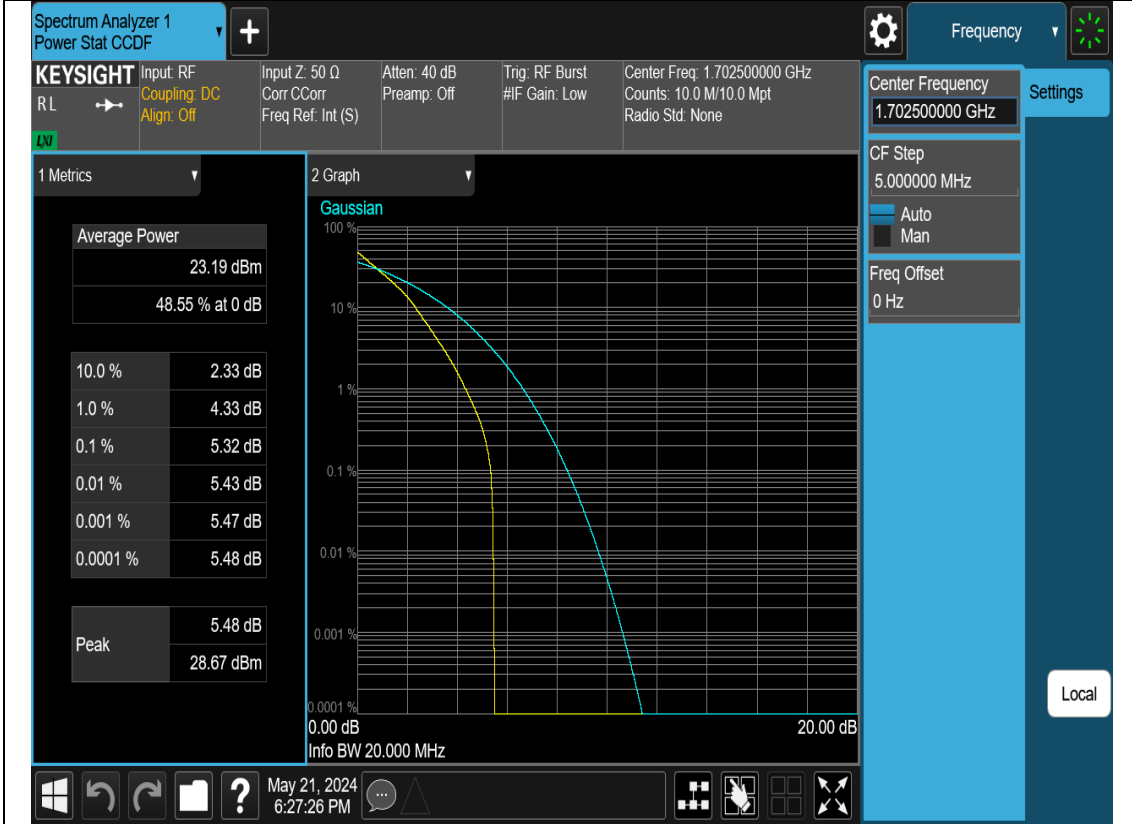
N70-5M-PAPR-M-DFT-s-OFDM-Pi2 BPSK-Outer\_Full



N70-5M-PAPR-M-DFT-s-OFDM-QPSK-Outer\_Full



N70-5M-PAPR-M-DFT-s-OFDM-16QAM-Outer\_Full



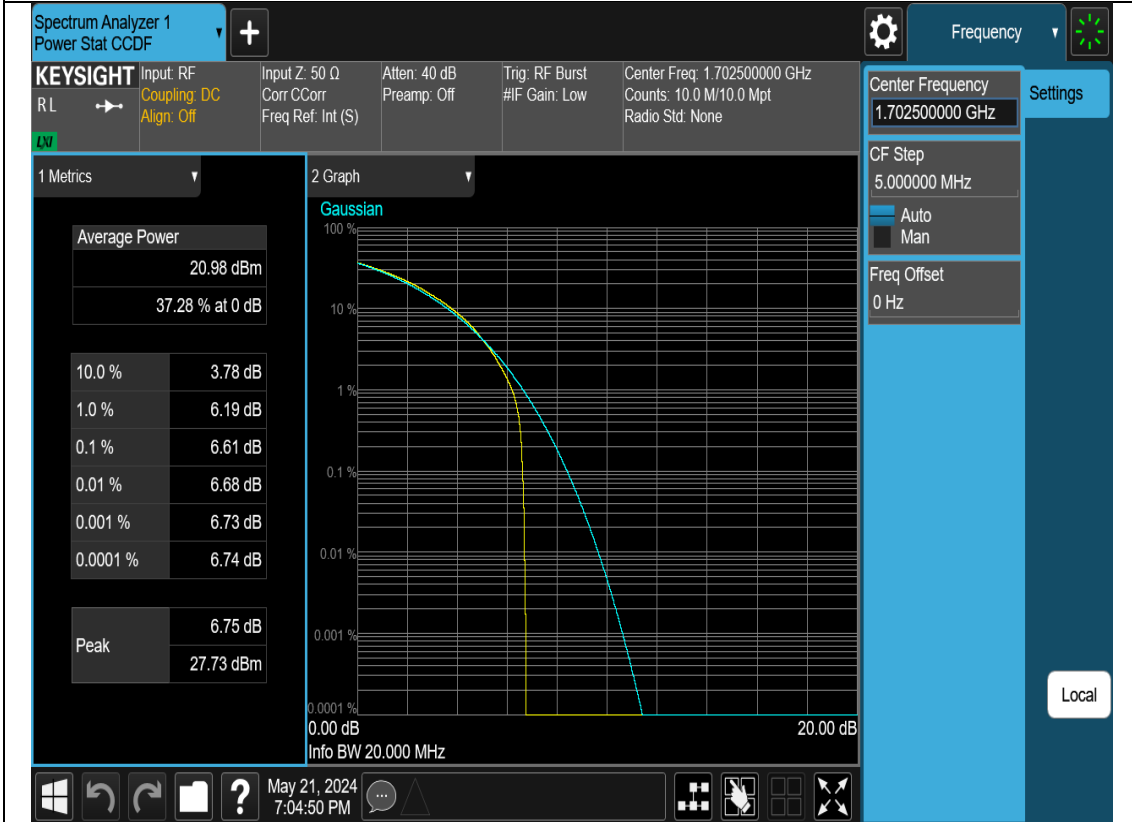
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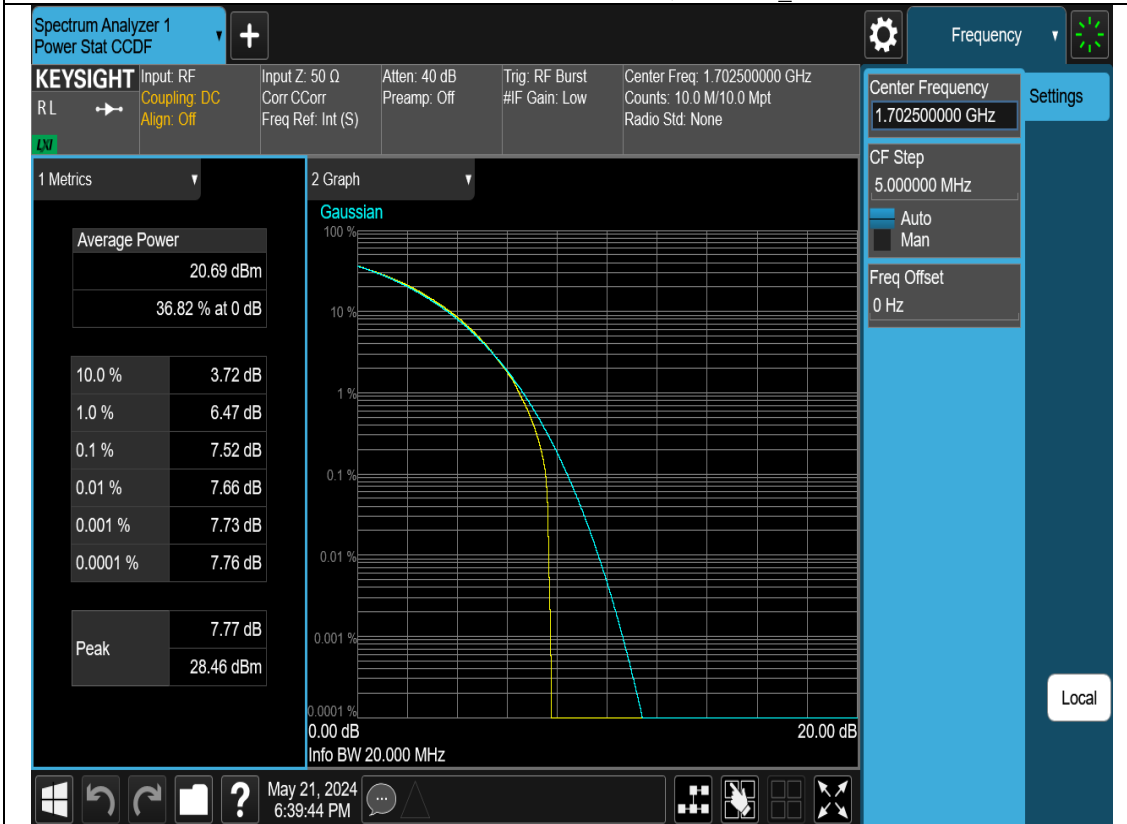
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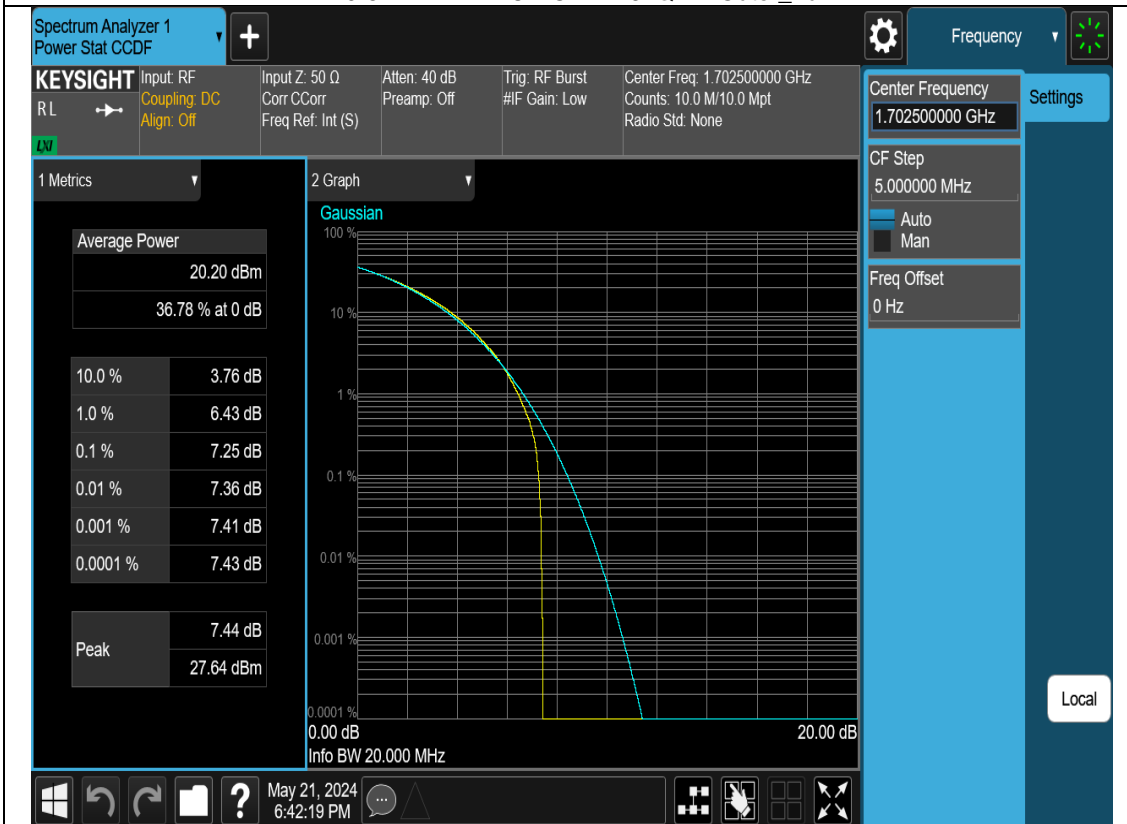
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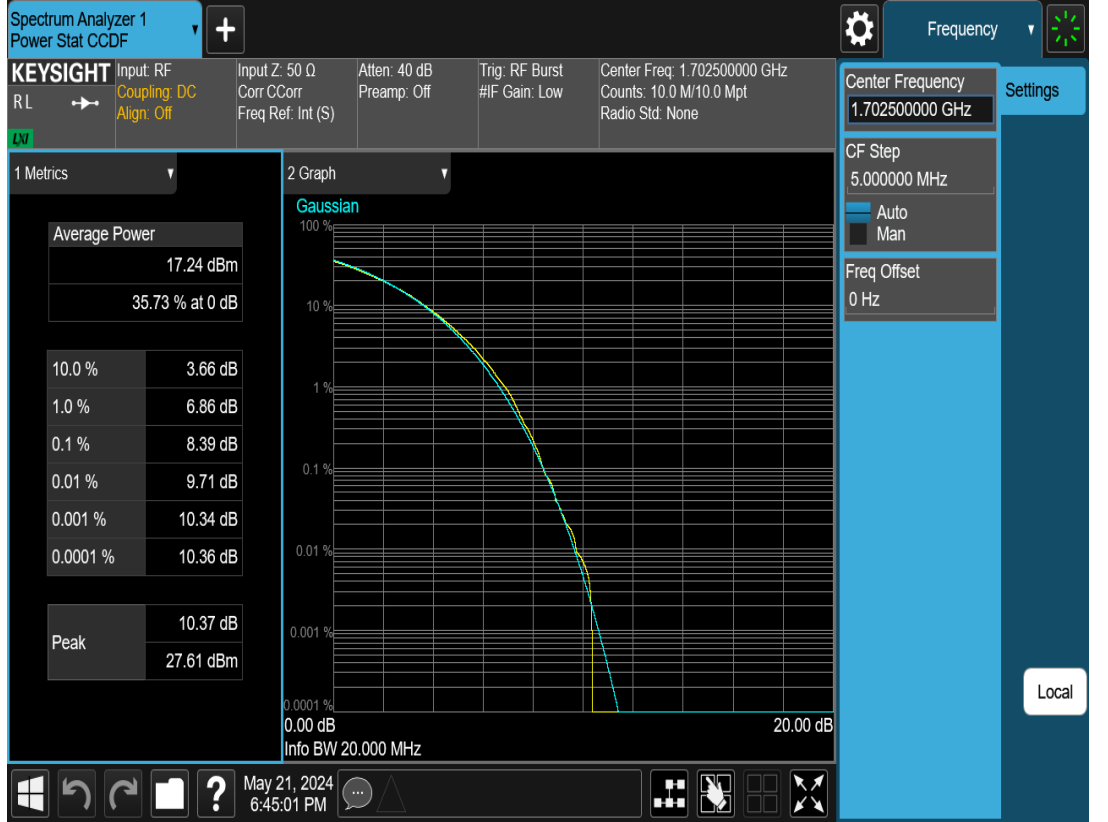
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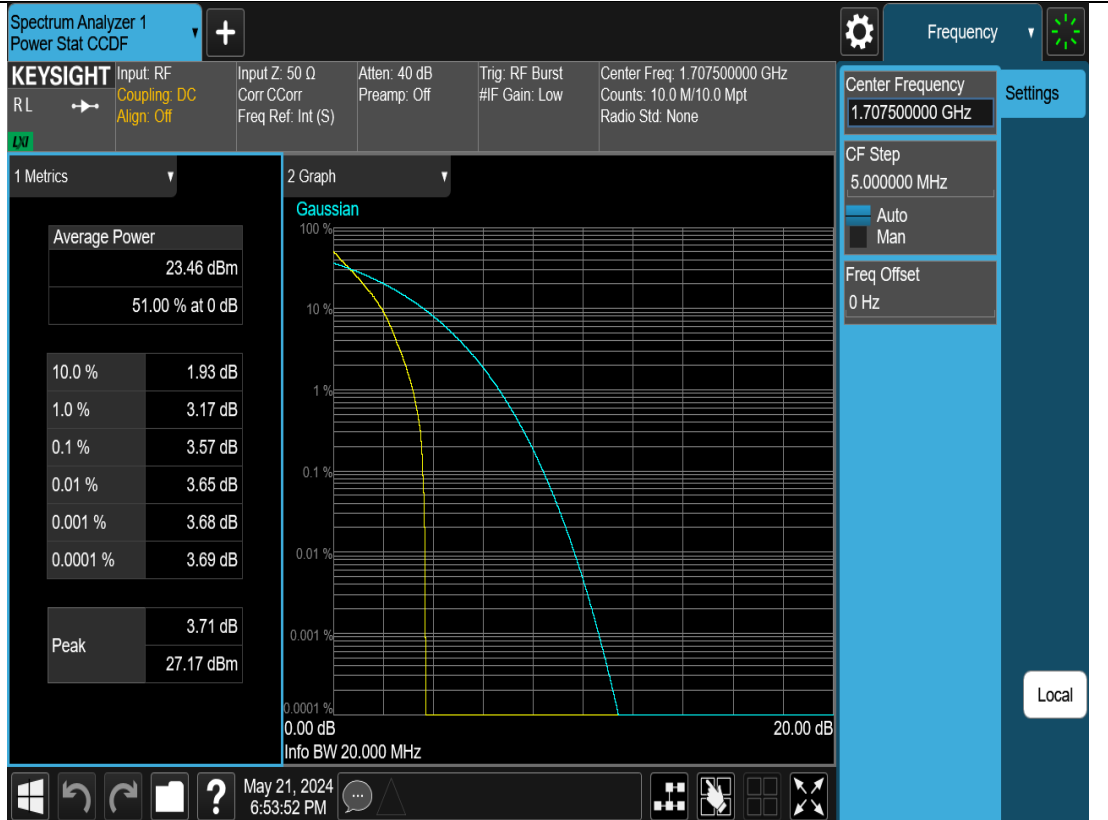
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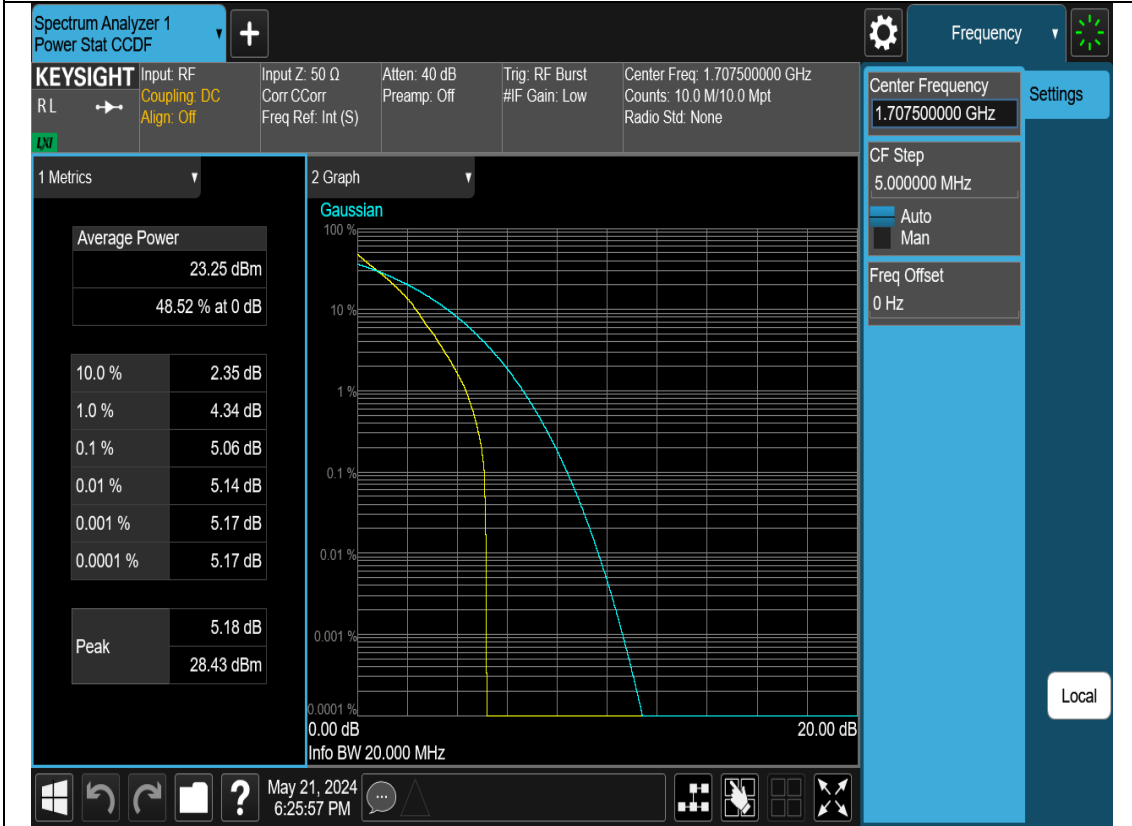
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N70-5M-PAPR-H-DFT-s-OFDM-Pi2 BPSK-Outer\_Full



N70-5M-PAPR-H-DFT-s-OFDM-QPSK-Outer\_Full



N70-5M-PAPR-H-DFT-s-OFDM-16QAM-Outer\_Full



N70-5M-PAPR-H-DFT-s-OFDM-64QAM-Outer\_Full



N70-5M-PAPR-H-DFT-s-OFDM-256QAM-Outer\_Full

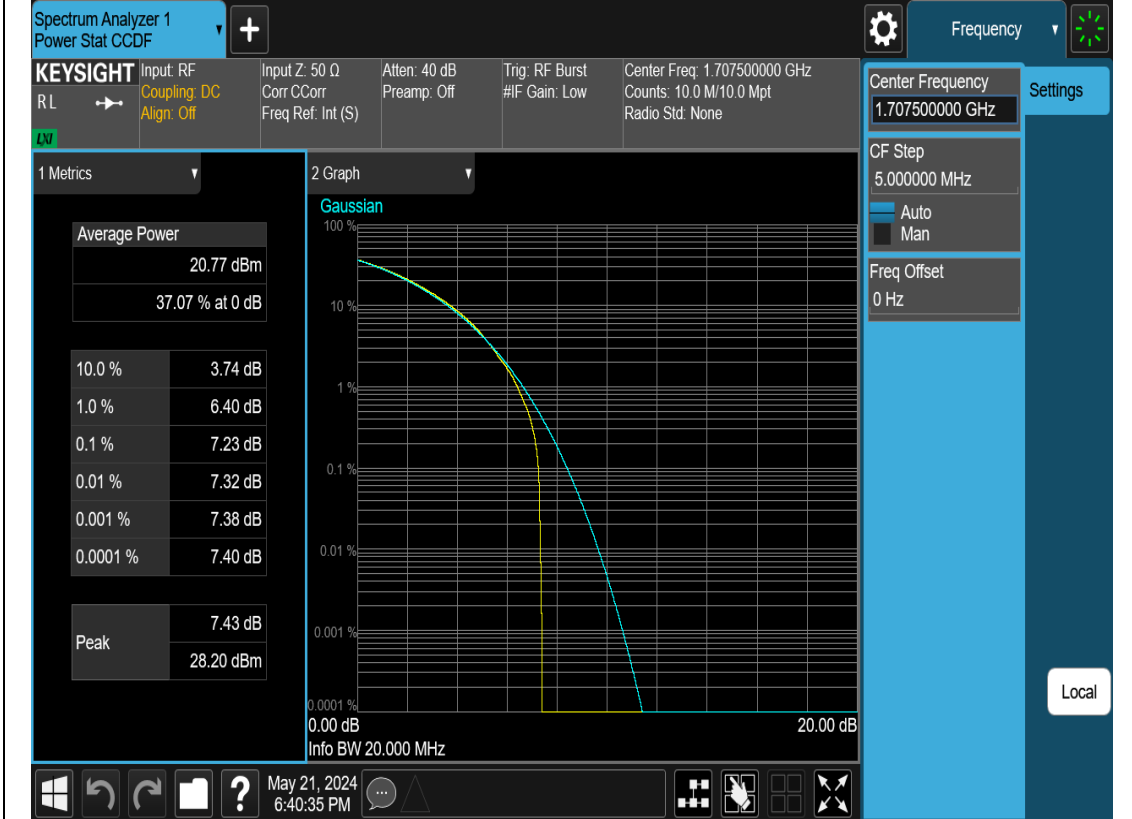




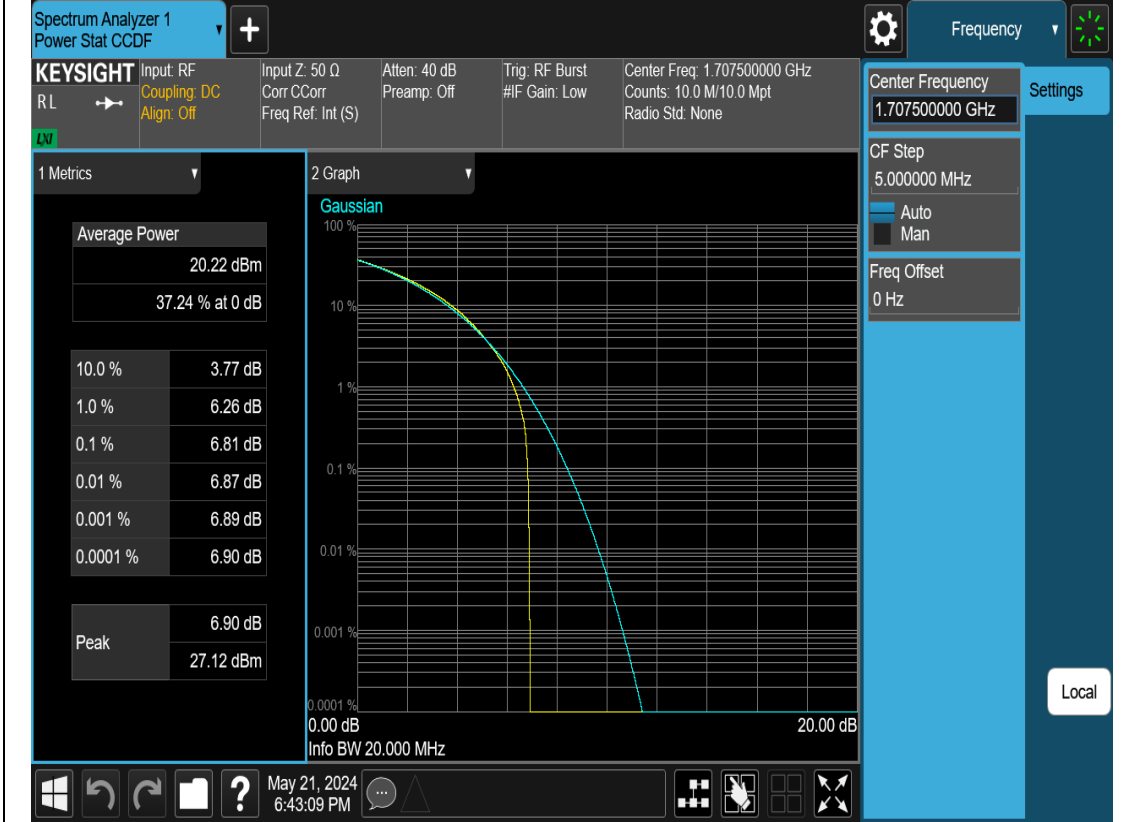
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N70-5M-PAPR-H-CP-OFDM-16QAM-Outer\_Full



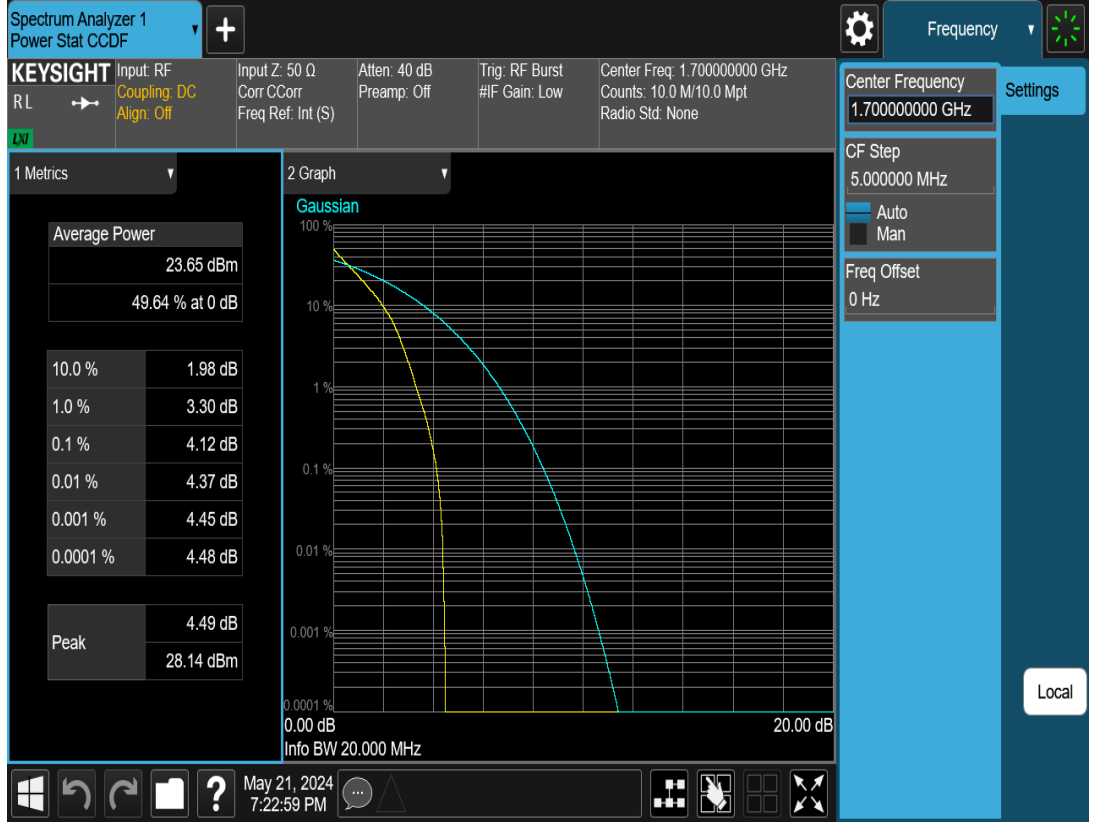
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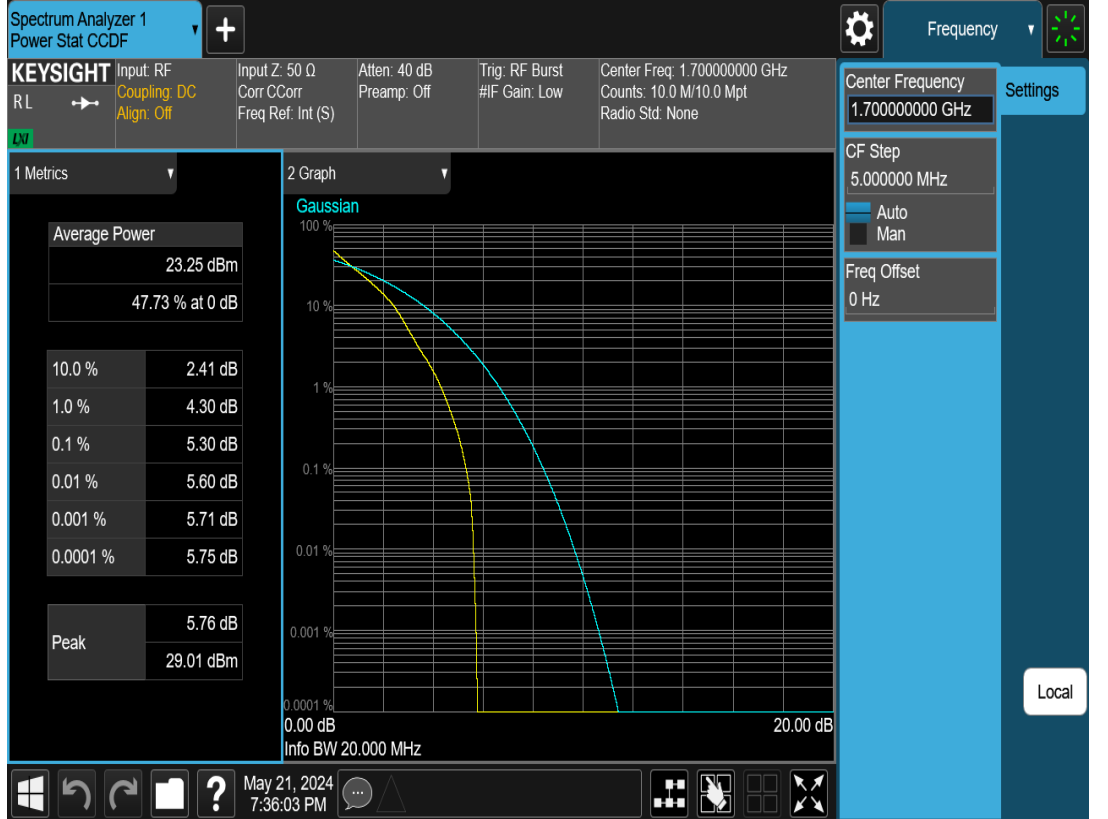
N70-5M-PAPR-H-CP-OFDM-256QAM-Outer\_Full



N70-10M-PAPR-L-DFT-s-OFDM-Pi2 BPSK-Outer\_Full



N70-10M-PAPR-L-DFT-s-OFDM-QPSK-Outer\_Full



N70-10M-PAPR-L-DFT-s-OFDM-16QAM-Outer\_Full



N70-10M-PAPR-L-DFT-s-OFDM-64QAM-Outer\_Full



N70-10M-PAPR-L-DFT-s-OFDM-256QAM-Outer\_Full



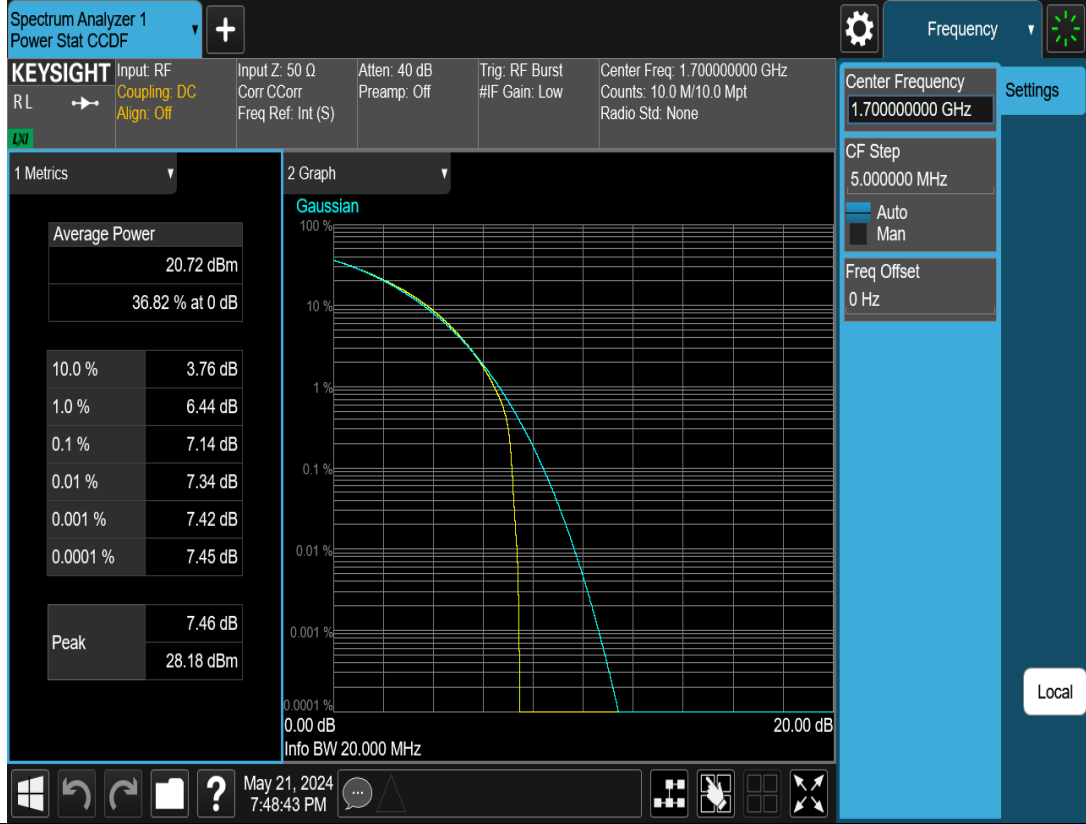
N70-10M-PAPR-L-CP-OFDM-QPSK-Outer\_Full



N70-10M-PAPR-L-CP-OFDM-16QAM-Outer\_Full



N70-10M-PAPR-L-CP-OFDM-64QAM-Outer\_Full



N70-10M-PAPR-L-CP-OFDM-256QAM-Outer\_Full



N70-10M-PAPR-M-DFT-s-OFDM-Pi2 BPSK-Outer\_Full



N70-10M-PAPR-M-DFT-s-OFDM-QPSK-Outer\_Full

Spectrum Analyzer 1  
Power Stat CCDF

KEYSIGHT Input RF  
R.L. Coupling: DC  
Align: Off

Input Z: 50 Ω  
Corr: CCorr  
Freq Ref: Int (S)

Atten: 40 dB  
Preamp: Off

Trig: RF Burst  
#IF Gain: Low

Center Freq: 1.702500000 GHz  
Counts: 10.0 M/10.0 Mpt  
Radio Std: None

Center Frequency: 1.702500000 GHz

CF Step: 5.000000 MHz

Freq Offset: 0 Hz

1 Metrics

Average Power

23.22 dBm

47.64 % at 0 dB

10.0 %	2.42 dB
1.0 %	4.33 dB
0.1 %	5.39 dB
0.01 %	5.81 dB
0.001 %	5.93 dB
0.0001 %	5.98 dB

Peak

5.98 dB

29.20 dBm

2 Graph

Gaussian

100 %

10 %

1 %

0.1 %

0.01 %

0.001 %

0.0001 %

0.00 dB

20.00 dB

Info BW 20.000 MHz

May 21, 2024 7:36:49 PM

Local

N70-10M-PAPR-M-DFT-s-OFDM-16QAM-Outer\_Full

Spectrum Analyzer 1  
Power Stat CCDF

KEYSIGHT Input RF  
R.L. Coupling: DC  
Align: Off

Input Z: 50 Ω  
Corr: CCorr  
Freq Ref: Int (S)

Atten: 40 dB  
Preamp: Off

Trig: RF Burst  
#IF Gain: Low

Center Freq: 1.702500000 GHz  
Counts: 10.0 M/10.0 Mpt  
Radio Std: None

Center Frequency: 1.702500000 GHz

CF Step: 5.000000 MHz

Freq Offset: 0 Hz

1 Metrics

Average Power

22.18 dBm

45.14 % at 0 dB

10.0 %	2.85 dB
1.0 %	4.89 dB
0.1 %	6.15 dB
0.01 %	6.68 dB
0.001 %	6.81 dB
0.0001 %	6.83 dB

Peak

6.83 dB

29.01 dBm

2 Graph

Gaussian

100 %

10 %

1 %

0.1 %

0.01 %

0.001 %

0.0001 %

0.00 dB

20.00 dB

Info BW 20.000 MHz

May 21, 2024 7:39:18 PM

Local



N70-10M-PAPR-M-DFT-s-OFDM-64QAM-Outer\_Full

Spectrum Analyzer 1  
Power Stat CCDF

KEYSIGHT Input RF  
R.L. Coupling: DC  
Align: Off

Input Z: 50 Ω  
Corr: CCorr  
Freq Ref: Int (S)

Atten: 40 dB  
Preamp: Off

Trig: RF Burst  
#IF Gain: Low

Center Freq: 1.702500000 GHz  
Counts: 10.0 M/10.0 Mpt  
Radio Std: None

Center Frequency: 1.702500000 GHz

CF Step: 5.000000 MHz

Freq Offset: 0 Hz

1 Metrics

Average Power

21.80 dBm

44.22 % at 0 dB

10.0 %	2.94 dB
1.0 %	5.19 dB
0.1 %	6.48 dB
0.01 %	7.13 dB
0.001 %	7.26 dB
0.0001 %	7.28 dB

Peak

7.29 dB

29.09 dBm

2 Graph

Gaussian

0.0001 %

0.001 %

0.01 %

0.1 %

1 %

10 %

100 %

0.00 dB

20.00 dB

Info BW 20.000 MHz

May 21, 2024 7:41:53 PM

Local

N70-10M-PAPR-M-DFT-s-OFDM-256QAM-Outer\_Full

Spectrum Analyzer 1  
Power Stat CCDF

KEYSIGHT Input RF  
R.L. Coupling: DC  
Align: Off

Input Z: 50 Ω  
Corr: CCorr  
Freq Ref: Int (S)

Atten: 40 dB  
Preamp: Off

Trig: RF Burst  
#IF Gain: Low

Center Freq: 1.702500000 GHz  
Counts: 10.0 M/10.0 Mpt  
Radio Std: None

Center Frequency: 1.702500000 GHz

CF Step: 5.000000 MHz

Freq Offset: 0 Hz

1 Metrics

Average Power

19.74 dBm

43.28 % at 0 dB

10.0 %	2.98 dB
1.0 %	5.25 dB
0.1 %	6.73 dB
0.01 %	7.85 dB
0.001 %	8.46 dB
0.0001 %	8.51 dB

Peak

8.51 dB

28.25 dBm

2 Graph

Gaussian

0.0001 %

0.001 %

0.01 %

0.1 %

1 %

10 %

100 %

0.00 dB

20.00 dB

Info BW 20.000 MHz

May 21, 2024 7:44:26 PM

Local

N70-10M-PAPR-M-CP-OFDM-QPSK-Outer\_Full

Spectrum Analyzer 1  
Power Stat CCDF

KEYSIGHT Input RF  
RL Coupling: DC  
Align: Off

Input Z: 50 Ω  
Corr: CCorr  
Freq Ref: Int (S)

Atten: 40 dB  
Preamp: Off

Trig: RF Burst  
#IF Gain: Low

Center Freq: 1.702500000 GHz  
Counts: 10.0 M/10.0 Mpt  
Radio Std: None

Center Frequency: 1.702500000 GHz

CF Step: 5.000000 MHz

Freq Offset: 0 Hz

1 Metrics

Average Power

21.14 dBm

36.65 % at 0 dB

10.0 %	3.75 dB
1.0 %	6.53 dB
0.1 %	7.43 dB
0.01 %	7.60 dB
0.001 %	7.75 dB
0.0001 %	7.78 dB

Peak

7.78 dB

28.92 dBm

2 Graph

Gaussian

0.0001 %  
0.001 %  
0.01 %  
0.1 %  
1 %  
10 %  
100 %

0.00 dB  
20.00 dB

Info BW 20.000 MHz

May 21, 2024  
7:13:52 PM

Local

N70-10M-PAPR-M-CP-OFDM-16QAM-Outer\_Full

Spectrum Analyzer 1  
Power Stat CCDF

KEYSIGHT Input RF  
RL Coupling: DC  
Align: Off

Input Z: 50 Ω  
Corr: CCorr  
Freq Ref: Int (S)

Atten: 40 dB  
Preamp: Off

Trig: RF Burst  
#IF Gain: Low

Center Freq: 1.702500000 GHz  
Counts: 10.0 M/10.0 Mpt  
Radio Std: None

Center Frequency: 1.702500000 GHz

CF Step: 5.000000 MHz

Freq Offset: 0 Hz

1 Metrics

Average Power

21.24 dBm

36.47 % at 0 dB

10.0 %	3.77 dB
1.0 %	6.48 dB
0.1 %	7.48 dB
0.01 %	7.68 dB
0.001 %	7.75 dB
0.0001 %	7.76 dB

Peak

7.77 dB

29.01 dBm

2 Graph

Gaussian

0.0001 %  
0.001 %  
0.01 %  
0.1 %  
1 %  
10 %  
100 %

0.00 dB  
20.00 dB

Info BW 20.000 MHz

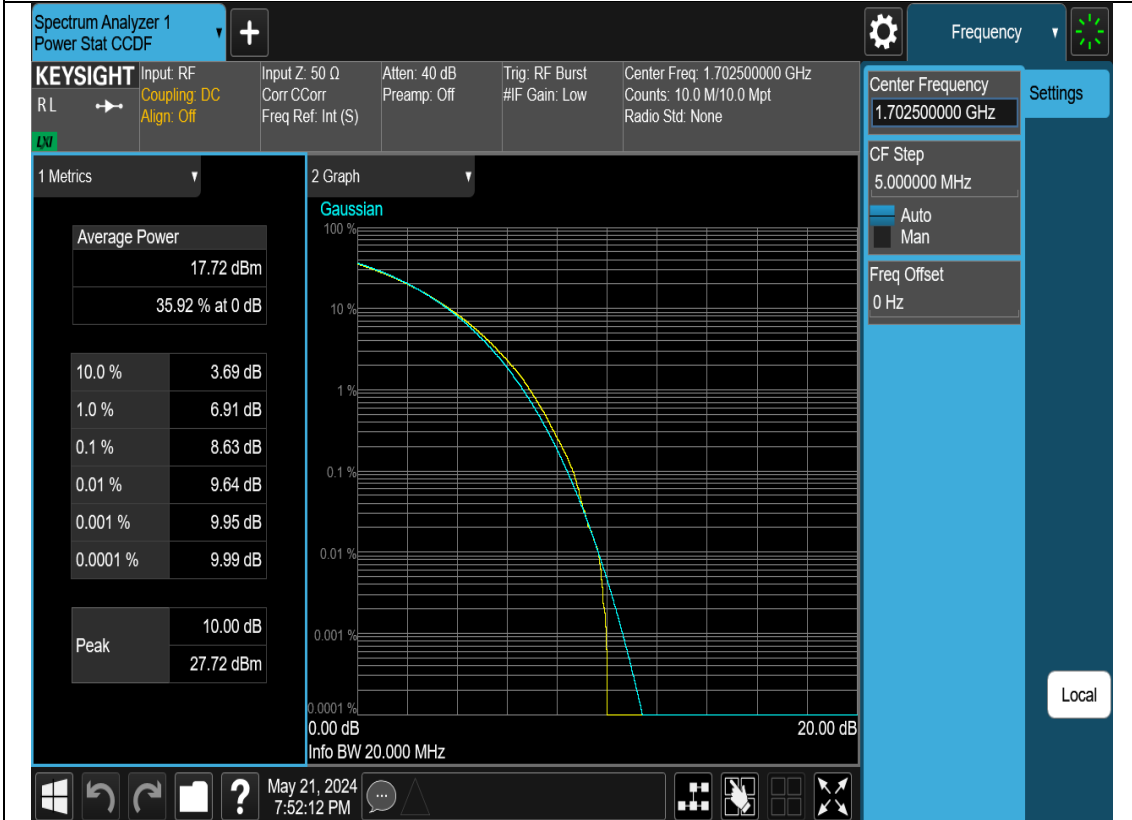
May 21, 2024  
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Local

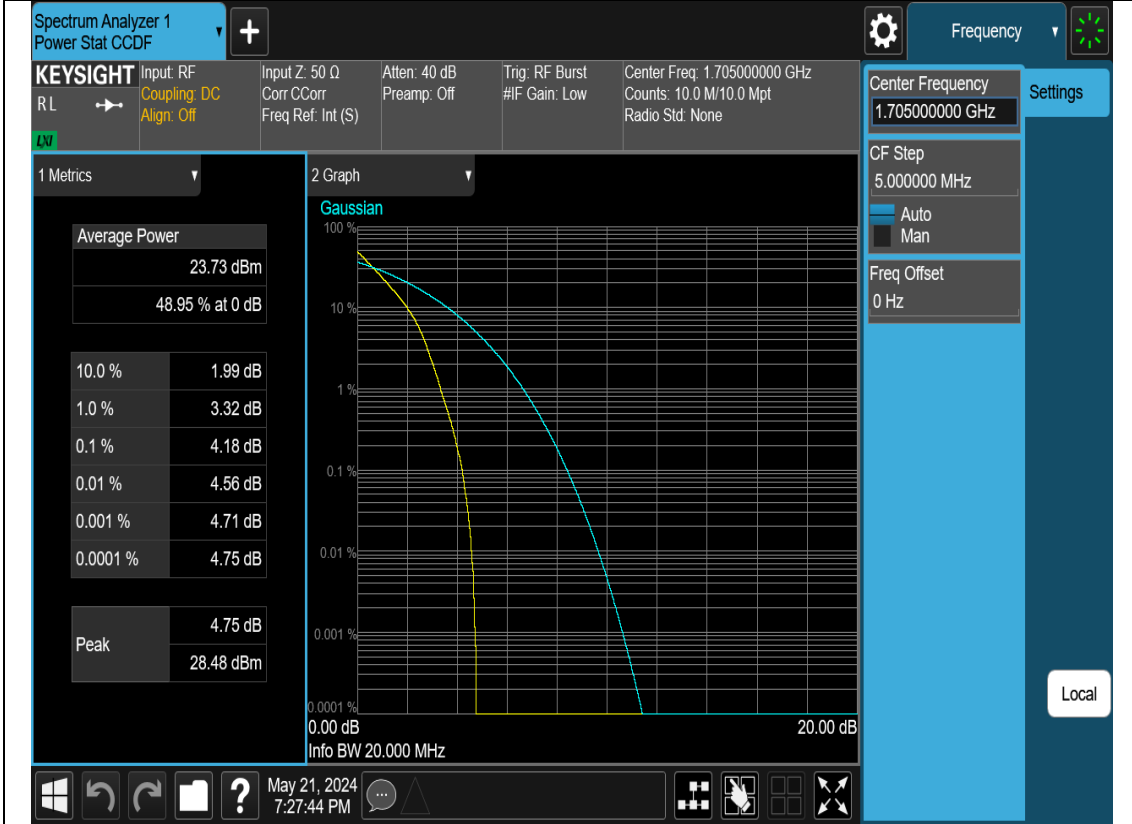
N70-10M-PAPR-M-CP-OFDM-64QAM-Outer\_Full



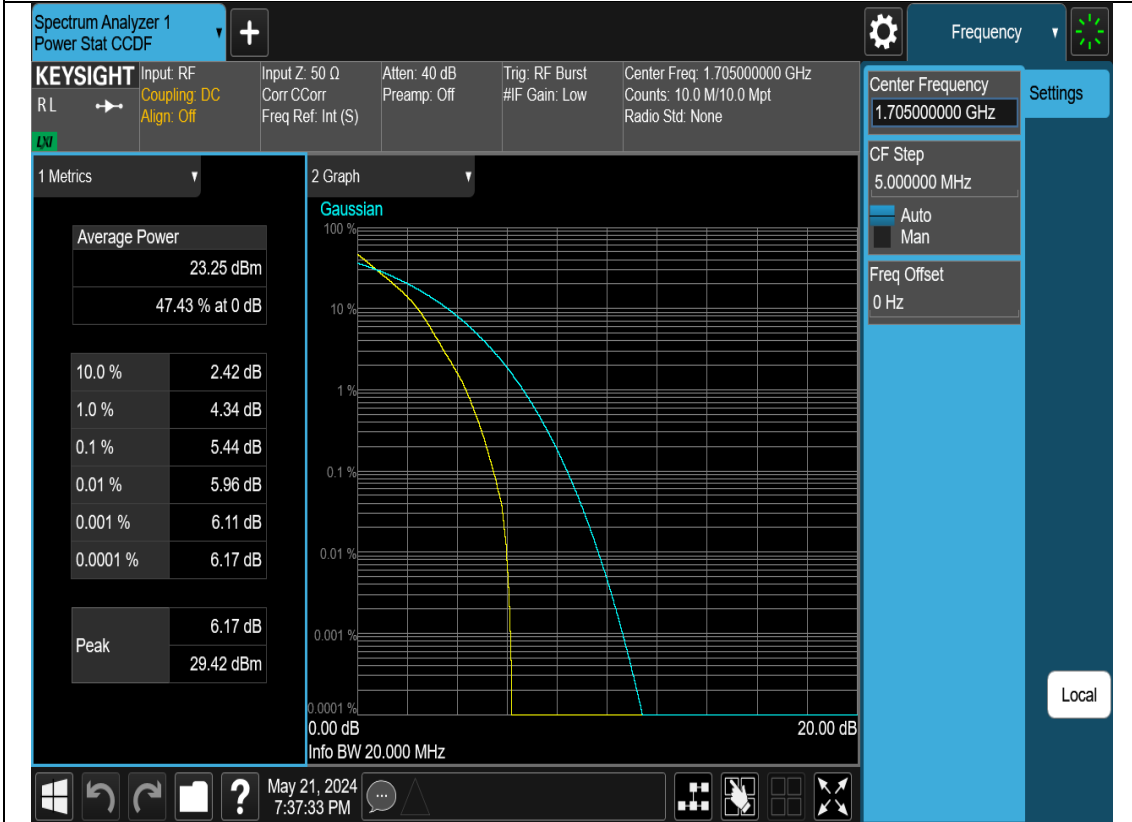
N70-10M-PAPR-M-CP-OFDM-256QAM-Outer\_Full



N70-10M-PAPR-H-DFT-s-OFDM-Pi2 BPSK-Outer\_Full



N70-10M-PAPR-H-DFT-s-OFDM-QPSK-Outer\_Full



N70-10M-PAPR-H-DFT-s-OFDM-16QAM-Outer\_Full



N70-10M-PAPR-H-DFT-s-OFDM-64QAM-Outer\_Full

