

PEAK TO AVERAGE POWER (PAPR) CCDF



TEST DESCRIPTION

Because the conducted Output Power was measured using a RMS Average detector, the Peak to Average Power Ratio (PAPR) was measured to show that the maximum peak-max-hold spectrum to the maximum of the average spectrum does not exceed the rule part defined limit.

The PAPR measurement method is described in ANSI C63.26 section 5.2.3.4.
The PAPR was measured using the CCDF function of the spectrum analyzer.

RF conducted emissions testing was performed only on one port. The AHFIHA antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in this certification testing) and antenna port 1 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraphs 5.2.5.3, 5.7.2i, and 6.4.

Per FCC 24.232(d) ,RSS 133 section 6.4, FCC 27.50(d)(5), RSS-139 section 5.5, and RSS-199 section 5.5, the peak to power average ratios (PAPR) of the equipment shall not exceed 13 dB for more than 0.1% of the time, using a signal that corresponds to the highest PAPR during periods of continuous transmission.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Keysight	N9030B	R336	2023-10-03	2024-10-03
Block - DC	Fairview Microwave	SD3379	AMM	2023-08-04	2024-08-04
Generator - Signal	Keysight	N5182B	TES	2021-09-14	2024-09-14

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EUT:	AirScale Base Transceiver Station Remote Radio Head Model AHFIHA	Work Order:	NOKI0072
Serial Number:	RW233403213	Date:	2023-12-04
Customer:	Nokia Solutions and Networks	Temperature:	23.9°C
Attendees:	John Rattanavong, Mitch Hill	Relative Humidity:	34.3%
Customer Project:	None	Bar. Pressure (PMSL):	1021 mbar
Tested By:	Jarrold Brenden	Job Site:	TX07
Power:	54VDC	Configuration:	NOKI0072-2
Signature:			

TEST SPECIFICATIONS

Specification:	Method:
FCC 24E:2024	ANSI C63.26:2015
FCC 27:2024	ANSI C63.26:2015
RSS-133 Issue 6:2013 +A1:2018	ANSI C63.26:2015
RSS-199 Issue 4:2023	ANSI C63.26:2015
RSS139 Issue 4:2022	ANSI C63.26:2015

COMMENTS

Losses in the measurement path were accounted for: DC Block, attenuators, filters, and cables. PCS Band n25, AWS Band n66, and BRS Band n7 carriers are enabled individually at maximum power (40W/carrier for 5 MHz carrier and 60W/carrier for 10 MHz to 40 MHz carriers).

DEVIATIONS FROM TEST STANDARD

None

TEST RESULTS

		0.1% PAPR Value (dB)	PAPR Limit (dB)	Results
Port 1	PCS Band n25, 1930 MHz - 1995 MHz			
	5 MHz Bandwidth			
	QPSK Modulation			
	Mid Ch, 1962.5 MHz	7.89	13	Pass
	16QAM Modulation			
	Mid Ch, 1962.5 MHz	7.93	13	Pass
	64QAM Modulation			
	Mid Ch, 1962.5 MHz	7.89	13	Pass
	256QAM Modulation			
	Low Ch, 1932.5 MHz	7.86	13	Pass
	Mid Ch, 1962.5 MHz	7.89	13	Pass
	High Ch, 1992.5 MHz	7.88	13	Pass
	10 MHz Bandwidth			
	QPSK Modulation			
	Mid Ch, 1962.5 MHz	7.87	13	Pass
	16QAM Modulation			
	Mid Ch, 1962.5 MHz	7.97	13	Pass
	64QAM Modulation			
	Mid Ch, 1962.5 MHz	7.84	13	Pass

PEAK TO AVERAGE POWER (PAPR) CCDF



		0.1% PAPR	PAPR	
		Value (dB)	Limit (dB)	Results
256QAM Modulation				
	Low Ch, 1935.0 MHz	7.84	13	Pass
	Mid Ch, 1962.5 MHz	7.88	13	Pass
	High Ch, 1990.0 MHz	7.85	13	Pass
15 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 1962.5 MHz	7.82	13	Pass
16QAM Modulation				
	Mid Ch, 1962.5 MHz	7.88	13	Pass
64QAM Modulation				
	Mid Ch, 1962.5 MHz	7.85	13	Pass
256QAM Modulation				
	Low Ch, 1937.5 MHz	7.88	13	Pass
	Mid Ch, 1962.5 MHz	7.84	13	Pass
	High Ch, 1987.5 MHz	7.84	13	Pass
20 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 1962.5 MHz	7.76	13	Pass
16QAM Modulation				
	Mid Ch, 1962.5 MHz	7.81	13	Pass
64QAM Modulation				
	Mid Ch, 1962.5 MHz	7.76	13	Pass
256QAM Modulation				
	Low Ch, 1940.0 MHz	7.81	13	Pass
	Mid Ch, 1962.5 MHz	7.78	13	Pass
	High Ch, 1985.0 MHz	7.75	13	Pass
25 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 1962.5 MHz	7.69	13	Pass
16QAM Modulation				
	Mid Ch, 1962.5 MHz	7.76	13	Pass
64QAM Modulation				
	Mid Ch, 1962.5 MHz	7.69	13	Pass
256QAM Modulation				
	Low Ch, 1942.5 MHz	7.82	13	Pass
	Mid Ch, 1962.5 MHz	7.71	13	Pass
	High Ch, 1982.5 MHz	7.72	13	Pass
30 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 1962.5 MHz	7.73	13	Pass
16QAM Modulation				
	Mid Ch, 1962.5 MHz	7.79	13	Pass
64QAM Modulation				
	Mid Ch, 1962.5 MHz	7.74	13	Pass
256QAM Modulation				
	Low Ch, 1945.0 MHz	7.88	13	Pass

PEAK TO AVERAGE POWER (PAPR) CCDF



		0.1% PAPR	PAPR	
		Value (dB)	Limit (dB)	Results
	Mid Ch, 1962.5 MHz	7.73	13	Pass
	High Ch, 1980.0 MHz	7.75	13	Pass
40 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 1962.5 MHz	7.75	13	Pass
16QAM Modulation				
	Mid Ch, 1962.5 MHz	7.8	13	Pass
64QAM Modulation				
	Mid Ch, 1962.5 MHz	7.74	13	Pass
256QAM Modulation				
	Low Ch, 1950.0 MHz	7.95	13	Pass
	Mid Ch, 1962.5 MHz	7.73	13	Pass
	High Ch, 1975.0 MHz	7.74	13	Pass
AWS Band n66, 2110 MHz - 2200 MHz				
5 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 2155.0 MHz	7.89	13	Pass
16QAM Modulation				
	Mid Ch, 2155.0 MHz	7.99	13	Pass
64QAM Modulation				
	Mid Ch, 2155.0 MHz	7.84	13	Pass
256QAM Modulation				
	Low Ch, 2112.5 MHz	7.88	13	Pass
	Mid Ch, 2155.0 MHz	7.89	13	Pass
	High Ch, 2197.5 MHz	7.88	13	Pass
10 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 2155.0 MHz	7.86	13	Pass
16QAM Modulation				
	Mid Ch, 2155.0 MHz	7.96	13	Pass
64QAM Modulation				
	Mid Ch, 2155.0 MHz	7.9	13	Pass
256QAM Modulation				
	Low Ch, 2115.0 MHz	7.88	13	Pass
	Mid Ch, 2155.0 MHz	7.88	13	Pass
	High Ch, 2195.0 MHz	7.86	13	Pass
15 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 2155.0 MHz	7.85	13	Pass
16QAM Modulation				
	Mid Ch, 2155.0 MHz	7.9	13	Pass
64QAM Modulation				
	Mid Ch, 2155.0 MHz	7.86	13	Pass
256QAM Modulation				
	Low Ch, 2117.5 MHz	7.84	13	Pass
	Mid Ch, 2155.0 MHz	7.86	13	Pass

PEAK TO AVERAGE POWER (PAPR) CCDF



		0.1% PAPR	PAPR	
		Value (dB)	Limit (dB)	Results
	High Ch, 2192.5 MHz	7.86	13	Pass
20 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 2155.0 MHz	7.78	13	Pass
16QAM Modulation				
	Mid Ch, 2155.0 MHz	7.83	13	Pass
64QAM Modulation				
	Mid Ch, 2155.0 MHz	7.76	13	Pass
256QAM Modulation				
	Low Ch, 2120.0 MHz	7.77	13	Pass
	Mid Ch, 2155.0 MHz	7.76	13	Pass
	High Ch, 2190.0 MHz	7.76	13	Pass
25 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 2155.0 MHz	7.69	13	Pass
16QAM Modulation				
	Mid Ch, 2155.0 MHz	7.77	13	Pass
64QAM Modulation				
	Mid Ch, 2155.0 MHz	7.71	13	Pass
256QAM Modulation				
	Low Ch, 2122.5 MHz	7.71	13	Pass
	Mid Ch, 2155.0 MHz	7.7	13	Pass
	High Ch, 2187.5 MHz	7.7	13	Pass
30 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 2155.0 MHz	7.75	13	Pass
16QAM Modulation				
	Mid Ch, 2155.0 MHz	7.81	13	Pass
64QAM Modulation				
	Mid Ch, 2155.0 MHz	7.76	13	Pass
256QAM Modulation				
	Low Ch, 2125.0 MHz	7.75	13	Pass
	Mid Ch, 2155.0 MHz	7.76	13	Pass
	High Ch, 2185.0 MHz	7.76	13	Pass
40 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 2155.0 MHz	7.74	13	Pass
16QAM Modulation				
	Mid Ch, 2155.0 MHz	7.8	13	Pass
64QAM Modulation				
	Mid Ch, 2155.0 MHz	7.74	13	Pass
256QAM Modulation				
	Low Ch, 2130.0 MHz	7.75	13	Pass
	Mid Ch, 2155.0 MHz	7.75	13	Pass
	High Ch, 2180.0 MHz	7.74	13	Pass
BRS Band n7, 2620 MHz - 2690 MHz				

PEAK TO AVERAGE POWER (PAPR) CCDF



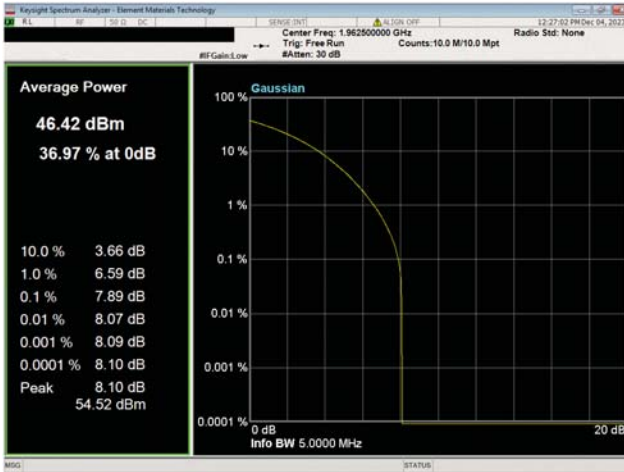
		0.1% PAPR	PAPR	
		Value (dB)	Limit (dB)	Results
5 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 2655.0 MHz	7.86	13	Pass
16QAM Modulation				
	Mid Ch, 2655.0 MHz	7.91	13	Pass
64QAM Modulation				
	Mid Ch, 2655.0 MHz	7.86	13	Pass
256QAM Modulation				
	Low Ch, 2622.5 MHz	7.86	13	Pass
	Mid Ch, 2655.0 MHz	7.85	13	Pass
	High Ch, 2687.5 MHz	7.86	13	Pass
10 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 2655.0 MHz	7.87	13	Pass
16QAM Modulation				
	Mid Ch, 2655.0 MHz	7.97	13	Pass
64QAM Modulation				
	Mid Ch, 2655.0 MHz	7.86	13	Pass
256QAM Modulation				
	Low Ch, 2625.0 MHz	7.87	13	Pass
	Mid Ch, 2655.0 MHz	7.88	13	Pass
	High Ch, 2685.0 MHz	7.86	13	Pass
15 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 2655.0 MHz	7.83	13	Pass
16QAM Modulation				
	Mid Ch, 2655.0 MHz	7.9	13	Pass
64QAM Modulation				
	Mid Ch, 2655.0 MHz	7.86	13	Pass
256QAM Modulation				
	Low Ch, 2627.5 MHz	7.84	13	Pass
	Mid Ch, 2655.0 MHz	7.86	13	Pass
	High Ch, 2682.5 MHz	7.85	13	Pass
20 MHz Bandwidth				
QPSK Modulation				
	Mid Ch, 2655.0 MHz	7.78	13	Pass
16QAM Modulation				
	Mid Ch, 2655.0 MHz	7.82	13	Pass
64QAM Modulation				
	Mid Ch, 2655.0 MHz	7.77	13	Pass
256QAM Modulation				
	Low Ch, 2630.0 MHz	7.77	13	Pass
	Mid Ch, 2655.0 MHz	7.78	13	Pass
	High Ch, 2680.0 MHz	7.77	13	Pass
25 MHz Bandwidth				
QPSK Modulation				

PEAK TO AVERAGE POWER (PAPR) CCDF

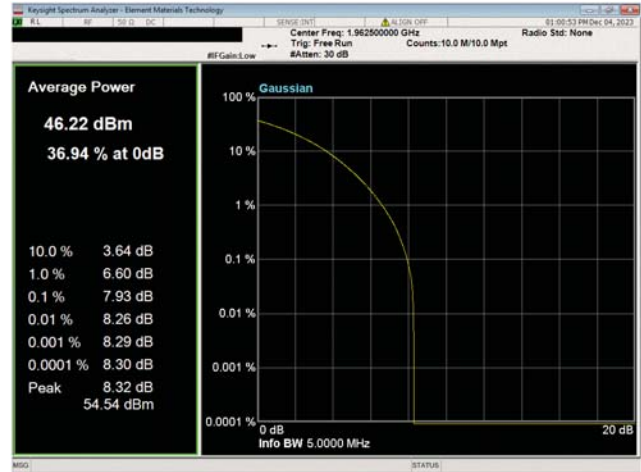


		0.1% PAPR	PAPR	
		Value (dB)	Limit (dB)	Results
	Mid Ch, 2655.0 MHz	7.69	13	Pass
	16QAM Modulation			
	Mid Ch, 2655.0 MHz	7.77	13	Pass
	64QAM Modulation			
	Mid Ch, 2655.0 MHz	7.69	13	Pass
	256QAM Modulation			
	Low Ch, 2632.5 MHz	7.71	13	Pass
	Mid Ch, 2655.0 MHz	7.7	13	Pass
	High Ch, 2677.5 MHz	7.7	13	Pass
30 MHz Bandwidth				
	QPSK Modulation			
	Mid Ch, 2655.0 MHz	7.75	13	Pass
	16QAM Modulation			
	Mid Ch, 2655.0 MHz	7.81	13	Pass
	64QAM Modulation			
	Mid Ch, 2655.0 MHz	7.75	13	Pass
	256QAM Modulation			
	Low Ch, 2635.0 MHz	7.75	13	Pass
	Mid Ch, 2655.0 MHz	7.76	13	Pass
	High Ch, 2675.0 MHz	7.75	13	Pass
40 MHz Bandwidth				
	QPSK Modulation			
	Mid Ch, 2655.0 MHz	7.74	13	Pass
	16QAM Modulation			
	Mid Ch, 2655.0 MHz	7.8	13	Pass
	64QAM Modulation			
	Mid Ch, 2655.0 MHz	7.74	13	Pass
	256QAM Modulation			
	Low Ch, 2640.0 MHz	7.75	13	Pass
	Mid Ch, 2655.0 MHz	7.74	13	Pass
	High Ch, 2670.0 MHz	7.74	13	Pass

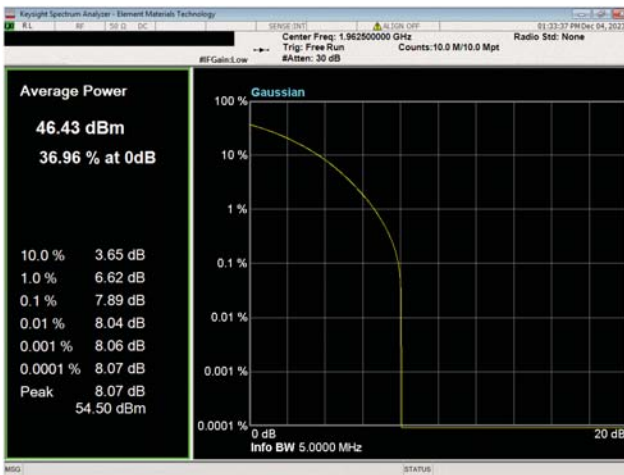
PEAK TO AVERAGE POWER (PAPR) CCDF



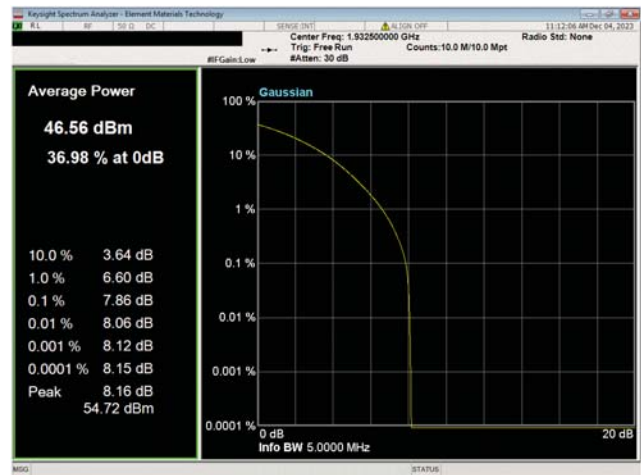
PCS Band n25, 1930 MHz - 1995 MHz
5 MHz Bandwidth
QPSK Modulation
Mid Ch, 1962.5 MHz



PCS Band n25, 1930 MHz - 1995 MHz
5 MHz Bandwidth
16QAM Modulation
Mid Ch, 1962.5 MHz



PCS Band n25, 1930 MHz - 1995 MHz
5 MHz Bandwidth
64QAM Modulation
Mid Ch, 1962.5 MHz

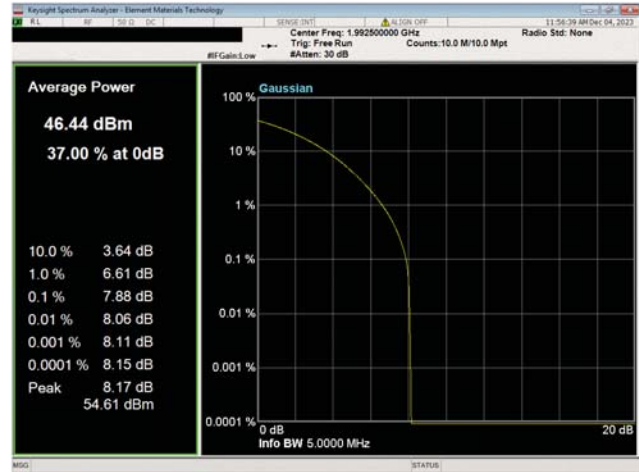


PCS Band n25, 1930 MHz - 1995 MHz
5 MHz Bandwidth
256QAM Modulation
Low Ch, 1932.5 MHz

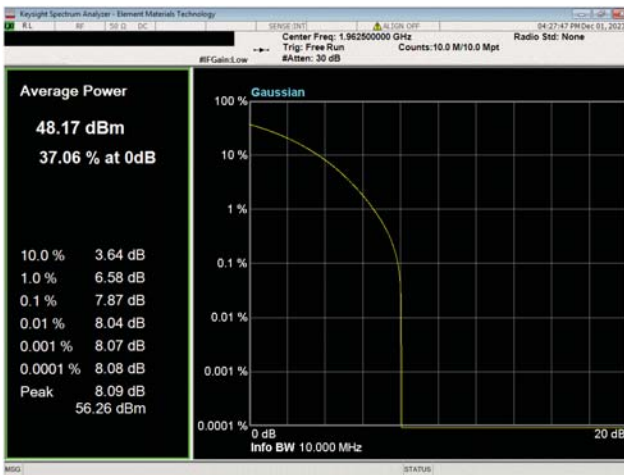
PEAK TO AVERAGE POWER (PAPR) CCDF



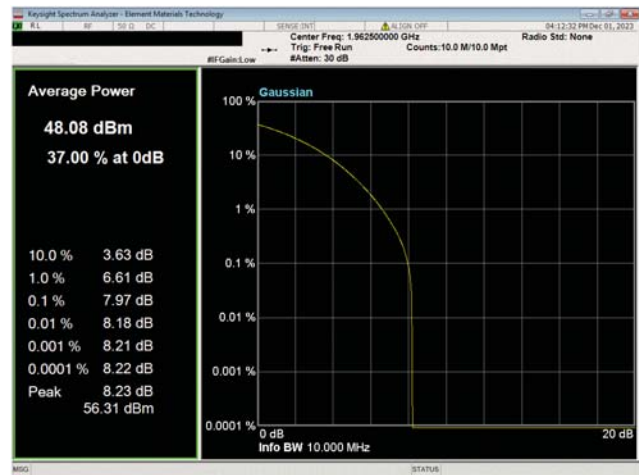
PCS Band n25, 1930 MHz - 1995 MHz
5 MHz Bandwidth
256QAM Modulation
Mid Ch, 1962.5 MHz



PCS Band n25, 1930 MHz - 1995 MHz
5 MHz Bandwidth
256QAM Modulation
High Ch, 1992.5 MHz

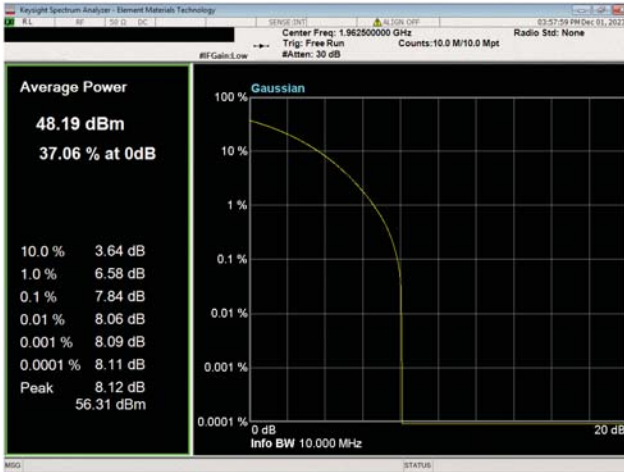


PCS Band n25, 1930 MHz - 1995 MHz
10 MHz Bandwidth
QPSK Modulation
Mid Ch, 1962.5 MHz

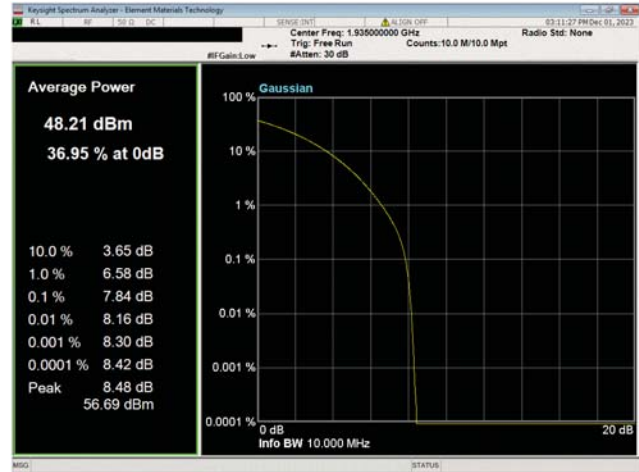


PCS Band n25, 1930 MHz - 1995 MHz
10 MHz Bandwidth
16QAM Modulation
Mid Ch, 1962.5 MHz

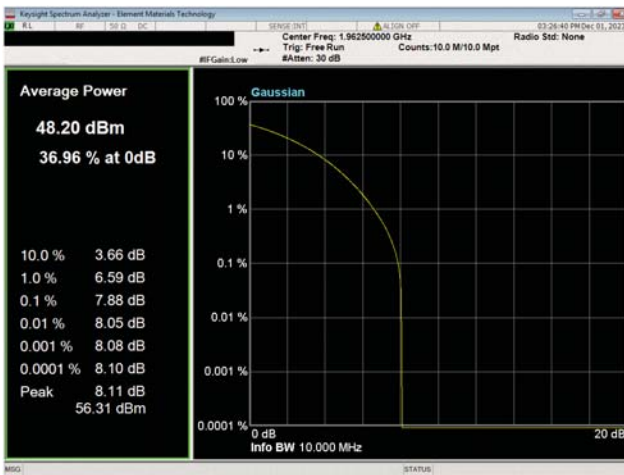
PEAK TO AVERAGE POWER (PAPR) CCDF



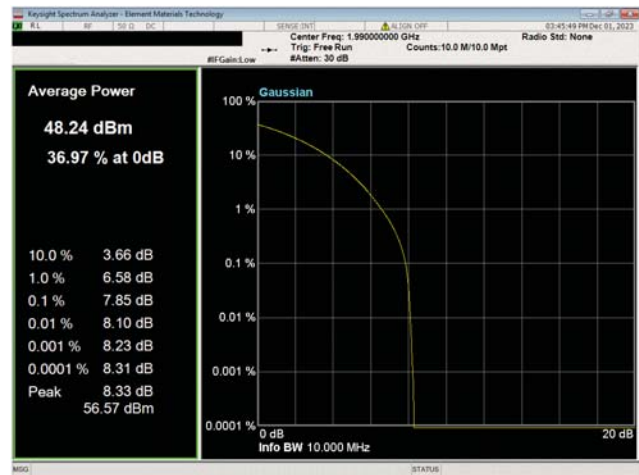
PCS Band n25, 1930 MHz - 1995 MHz
10 MHz Bandwidth
64QAM Modulation
Mid Ch, 1962.5 MHz



PCS Band n25, 1930 MHz - 1995 MHz
10 MHz Bandwidth
256QAM Modulation
Low Ch, 1935.0 MHz

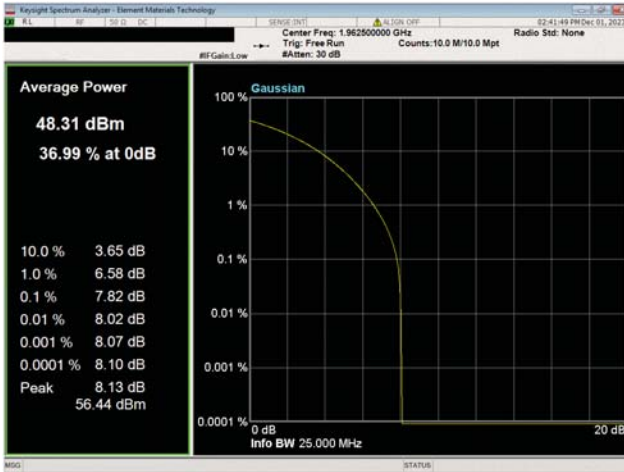


PCS Band n25, 1930 MHz - 1995 MHz
10 MHz Bandwidth
256QAM Modulation
Mid Ch, 1962.5 MHz

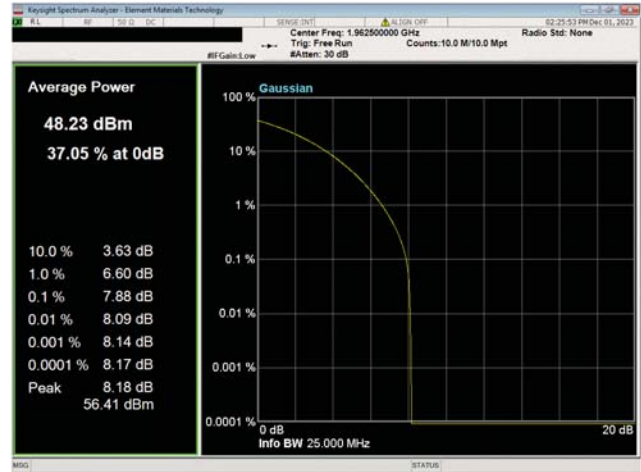


PCS Band n25, 1930 MHz - 1995 MHz
10 MHz Bandwidth
256QAM Modulation
High Ch, 1990.0 MHz

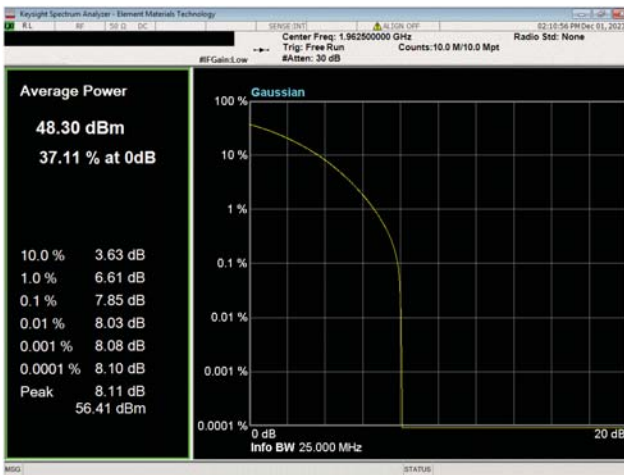
PEAK TO AVERAGE POWER (PAPR) CCDF



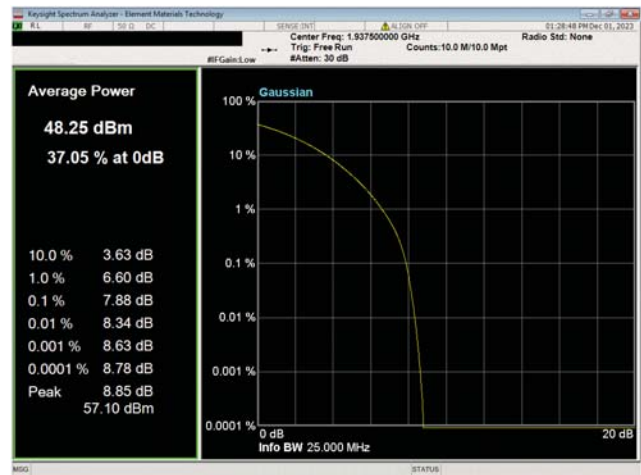
PCS Band n25, 1930 MHz - 1995 MHz
15 MHz Bandwidth
QPSK Modulation
Mid Ch, 1962.5 MHz



PCS Band n25, 1930 MHz - 1995 MHz
15 MHz Bandwidth
16QAM Modulation
Mid Ch, 1962.5 MHz

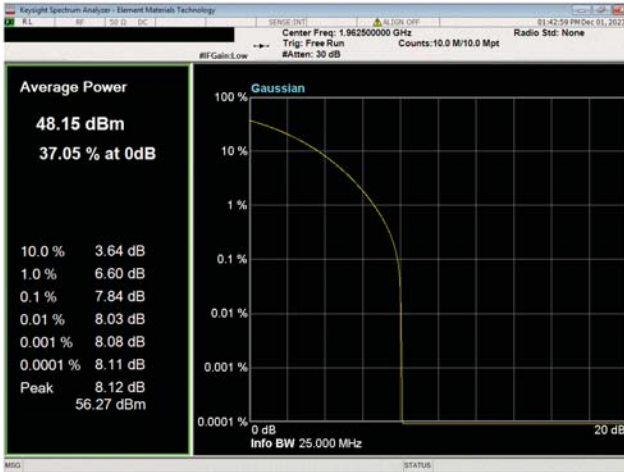


PCS Band n25, 1930 MHz - 1995 MHz
15 MHz Bandwidth
64QAM Modulation
Mid Ch, 1962.5 MHz

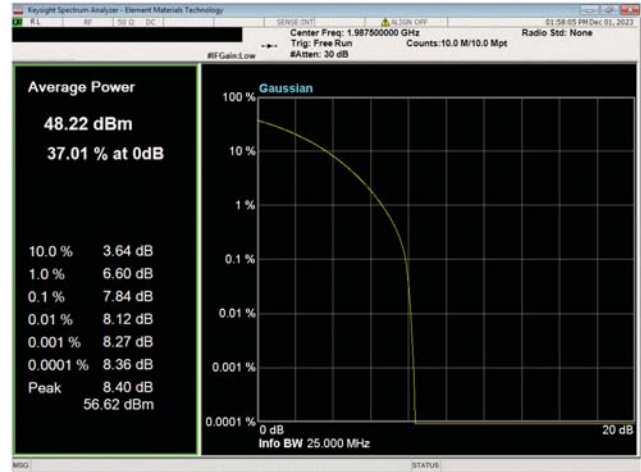


PCS Band n25, 1930 MHz - 1995 MHz
15 MHz Bandwidth
256QAM Modulation
Low Ch, 1937.5 MHz

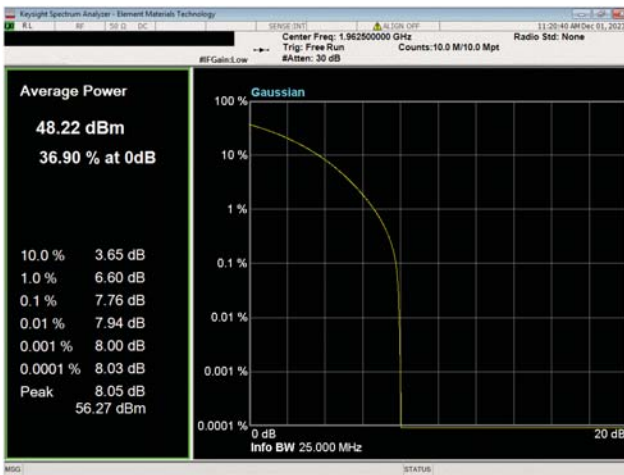
PEAK TO AVERAGE POWER (PAPR) CCDF



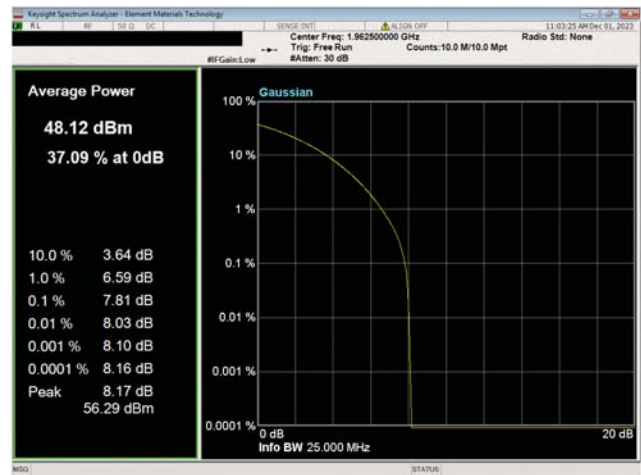
PCS Band n25, 1930 MHz - 1995 MHz
15 MHz Bandwidth
256QAM Modulation
Mid Ch, 1962.5 MHz



PCS Band n25, 1930 MHz - 1995 MHz
15 MHz Bandwidth
256QAM Modulation
High Ch, 1987.5 MHz

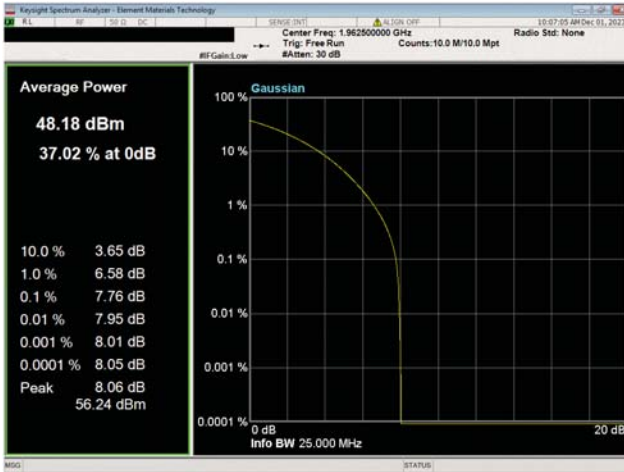


PCS Band n25, 1930 MHz - 1995 MHz
20 MHz Bandwidth
QPSK Modulation
Mid Ch, 1962.5 MHz

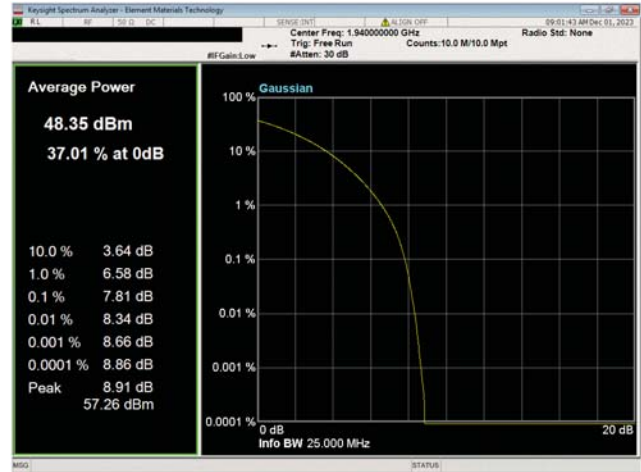


PCS Band n25, 1930 MHz - 1995 MHz
20 MHz Bandwidth
16QAM Modulation
Mid Ch, 1962.5 MHz

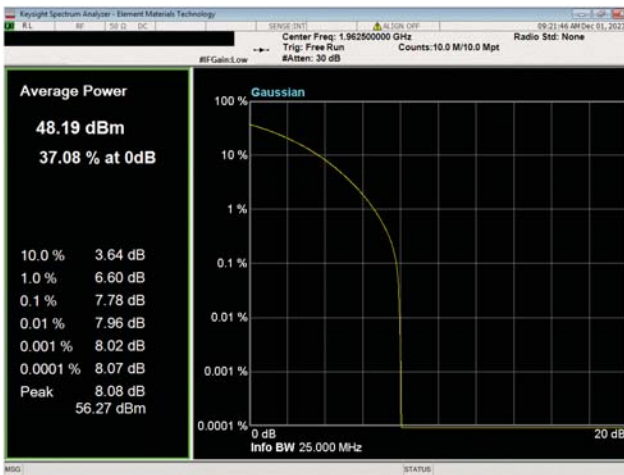
PEAK TO AVERAGE POWER (PAPR) CCDF



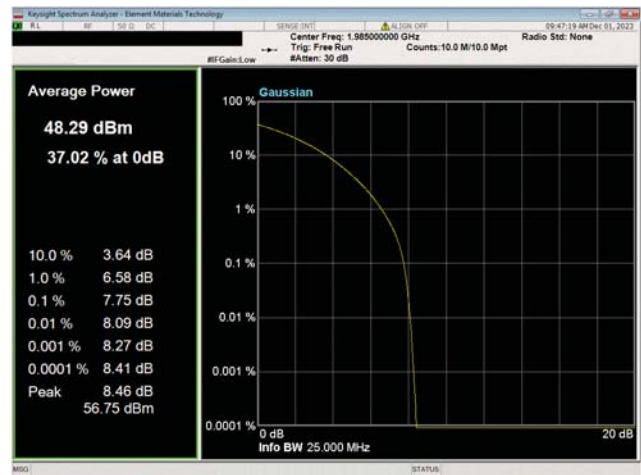
PCS Band n25, 1930 MHz - 1995 MHz
20 MHz Bandwidth
64QAM Modulation
Mid Ch, 1962.5 MHz



PCS Band n25, 1930 MHz - 1995 MHz
20 MHz Bandwidth
256QAM Modulation
Low Ch, 1940.0 MHz

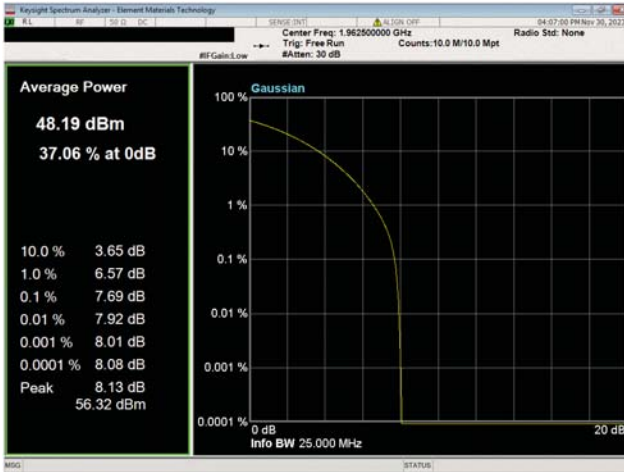


PCS Band n25, 1930 MHz - 1995 MHz
20 MHz Bandwidth
256QAM Modulation
Mid Ch, 1962.5 MHz

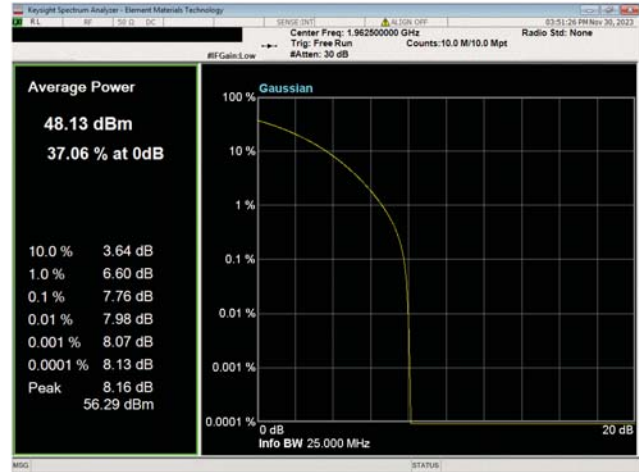


PCS Band n25, 1930 MHz - 1995 MHz
20 MHz Bandwidth
256QAM Modulation
High Ch, 1985.0 MHz

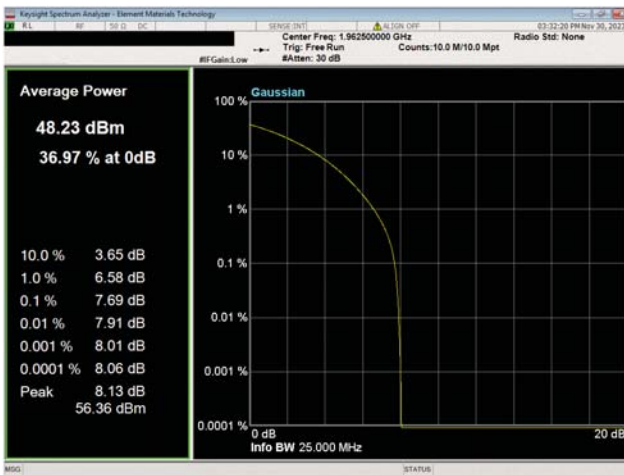
PEAK TO AVERAGE POWER (PAPR) CCDF



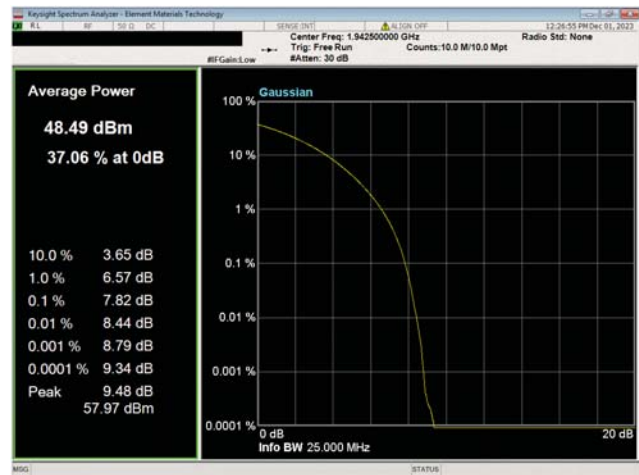
PCS Band n25, 1930 MHz - 1995 MHz
25 MHz Bandwidth
QPSK Modulation
Mid Ch, 1962.5 MHz



PCS Band n25, 1930 MHz - 1995 MHz
25 MHz Bandwidth
16QAM Modulation
Mid Ch, 1962.5 MHz

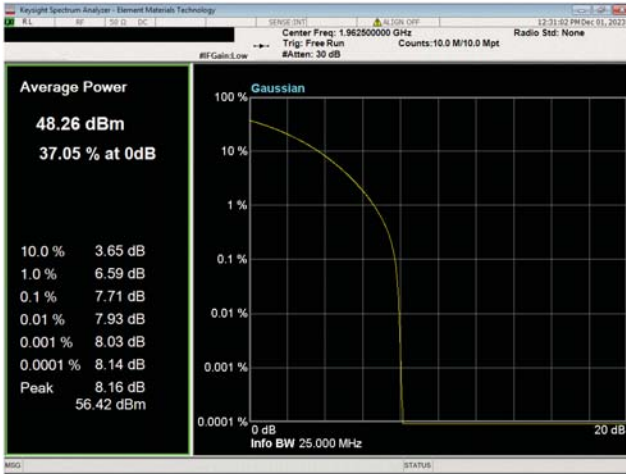


PCS Band n25, 1930 MHz - 1995 MHz
25 MHz Bandwidth
64QAM Modulation
Mid Ch, 1962.5 MHz

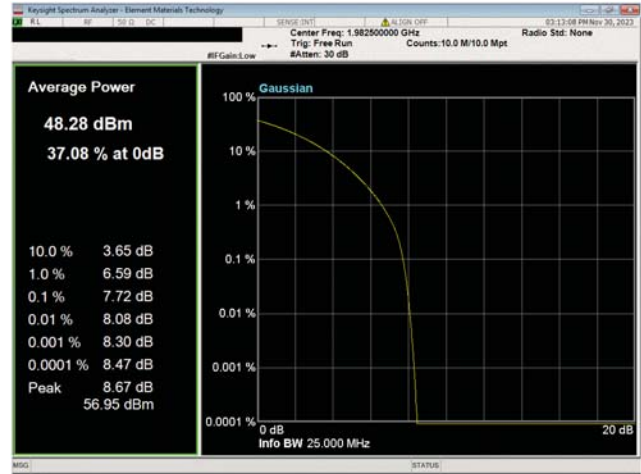


PCS Band n25, 1930 MHz - 1995 MHz
25 MHz Bandwidth
256QAM Modulation
Low Ch, 1942.5 MHz

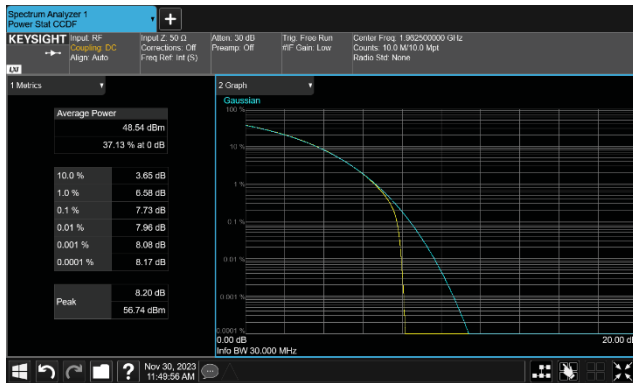
PEAK TO AVERAGE POWER (PAPR) CCDF



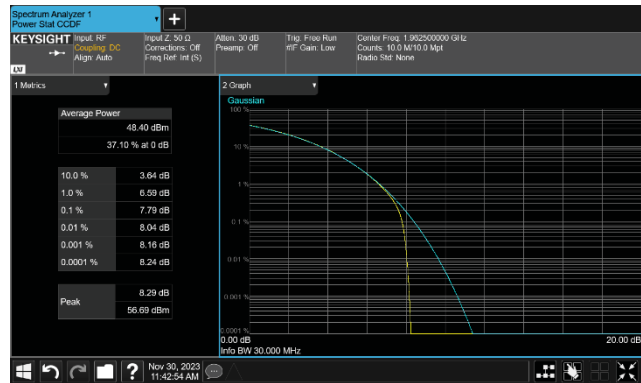
PCS Band n25, 1930 MHz - 1995 MHz
25 MHz Bandwidth
256QAM Modulation
Mid Ch, 1962.5 MHz



PCS Band n25, 1930 MHz - 1995 MHz
25 MHz Bandwidth
256QAM Modulation
High Ch, 1982.5 MHz

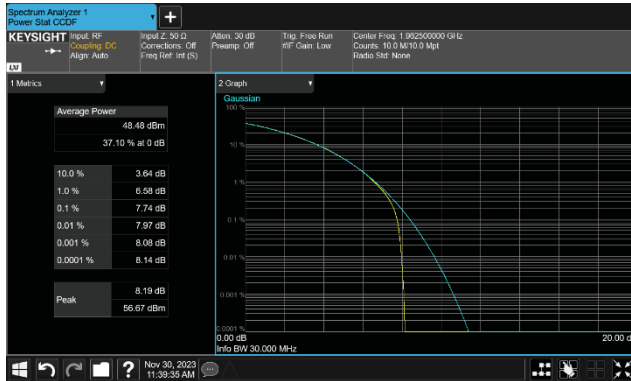


PCS Band n25, 1930 MHz - 1995 MHz
30 MHz Bandwidth
QPSK Modulation
Mid Ch, 1962.5 MHz

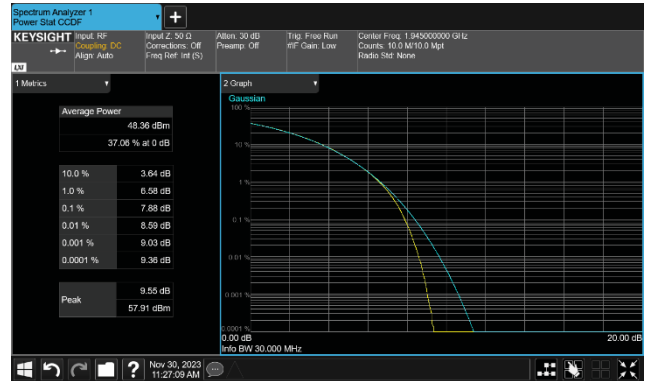


PCS Band n25, 1930 MHz - 1995 MHz
30 MHz Bandwidth
16QAM Modulation
Mid Ch, 1962.5 MHz

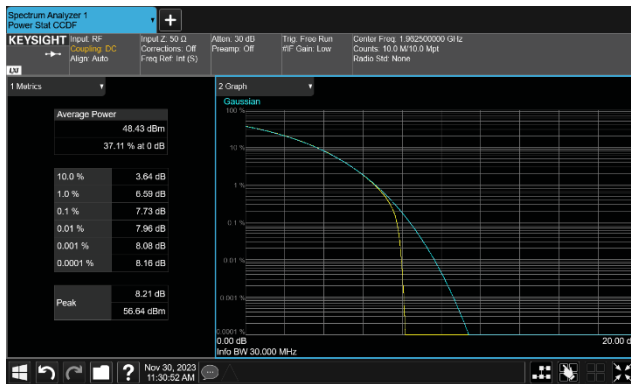
PEAK TO AVERAGE POWER (PAPR) CCDF



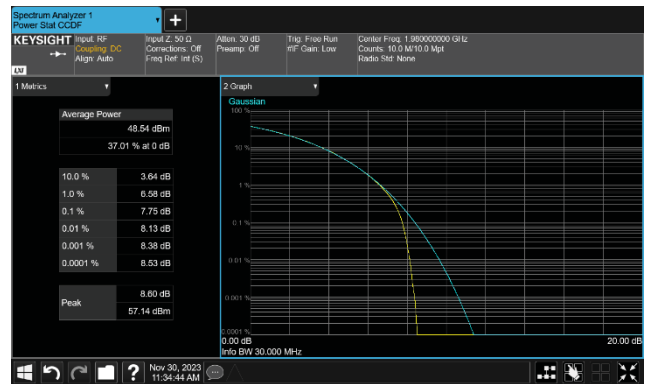
PCS Band n25, 1930 MHz - 1995 MHz
30 MHz Bandwidth
64QAM Modulation
Mid Ch, 1962.5 MHz



PCS Band n25, 1930 MHz - 1995 MHz
30 MHz Bandwidth
256QAM Modulation
Low Ch, 1945.0 MHz

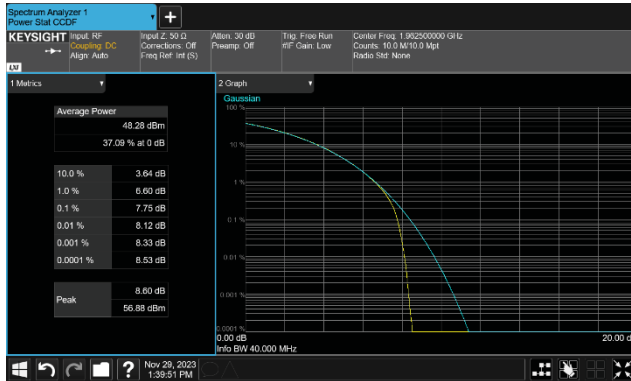


PCS Band n25, 1930 MHz - 1995 MHz
30 MHz Bandwidth
256QAM Modulation
Mid Ch, 1962.5 MHz

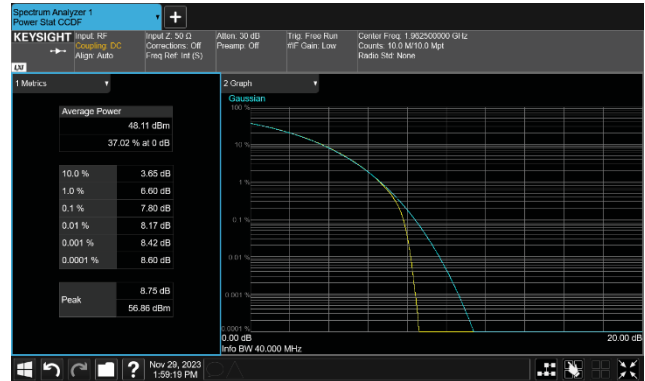


PCS Band n25, 1930 MHz - 1995 MHz
30 MHz Bandwidth
256QAM Modulation
High Ch, 1980.0 MHz

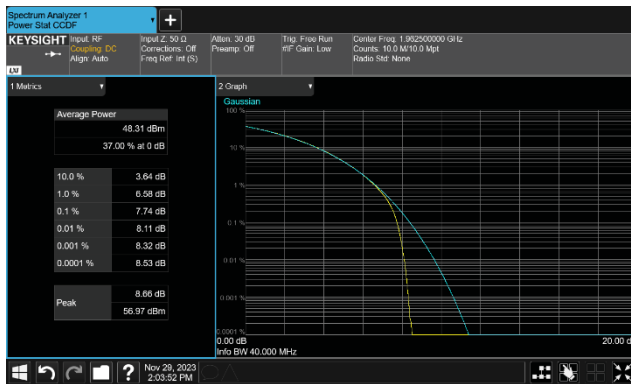
PEAK TO AVERAGE POWER (PAPR) CCDF



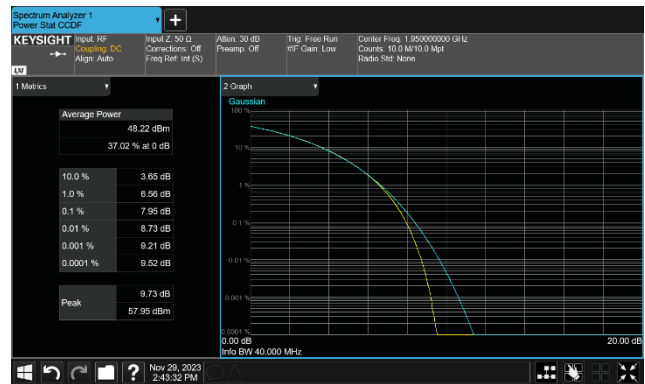
PCS Band n25, 1930 MHz - 1995 MHz
40 MHz Bandwidth
QPSK Modulation
Mid Ch, 1962.5 MHz



PCS Band n25, 1930 MHz - 1995 MHz
40 MHz Bandwidth
16QAM Modulation
Mid Ch, 1962.5 MHz

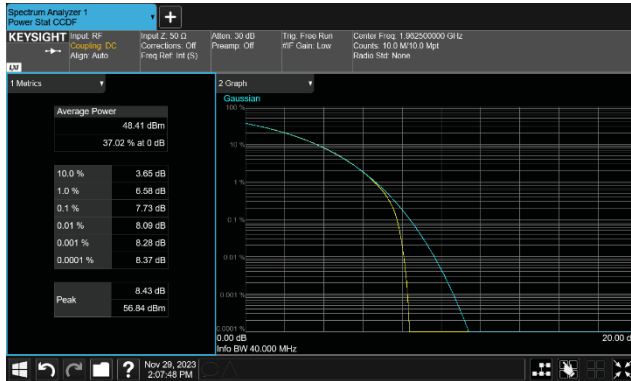


PCS Band n25, 1930 MHz - 1995 MHz
40 MHz Bandwidth
64QAM Modulation
Mid Ch, 1962.5 MHz

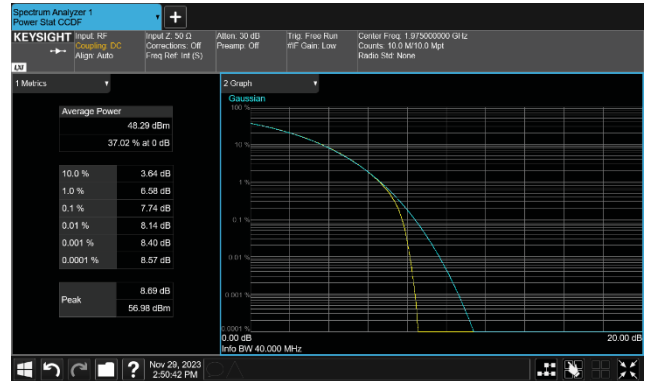


PCS Band n25, 1930 MHz - 1995 MHz
40 MHz Bandwidth
256QAM Modulation
Low Ch, 1950.0 MHz

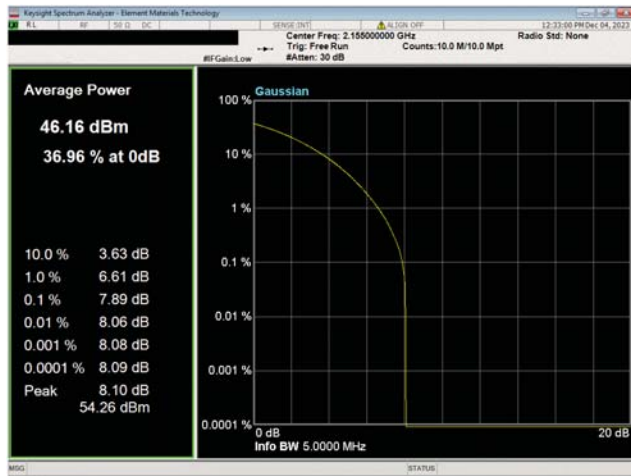
PEAK TO AVERAGE POWER (PAPR) CCDF



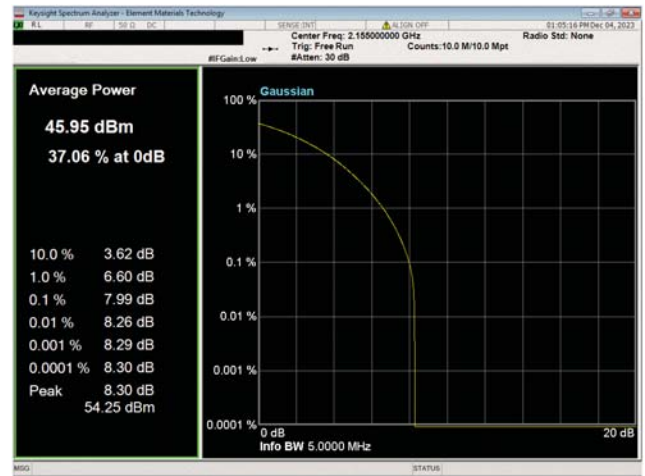
PCS Band n25, 1930 MHz - 1995 MHz
40 MHz Bandwidth
256QAM Modulation
Mid Ch, 1962.5 MHz



PCS Band n25, 1930 MHz - 1995 MHz
40 MHz Bandwidth
256QAM Modulation
High Ch, 1975.0 MHz

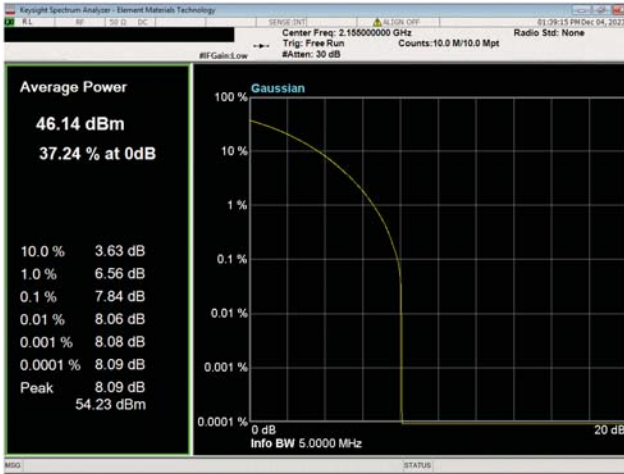


AWS Band n66, 2110 MHz - 2200 MHz
5 MHz Bandwidth
QPSK Modulation
Mid Ch, 2155.0 MHz

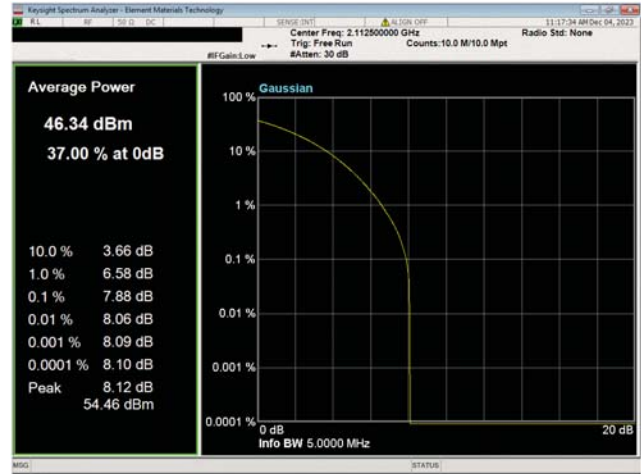


AWS Band n66, 2110 MHz - 2200 MHz
5 MHz Bandwidth
16QAM Modulation
Mid Ch, 2155.0 MHz

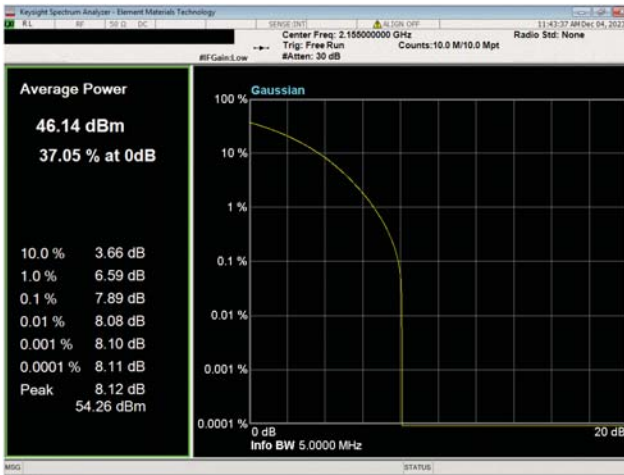
PEAK TO AVERAGE POWER (PAPR) CCDF



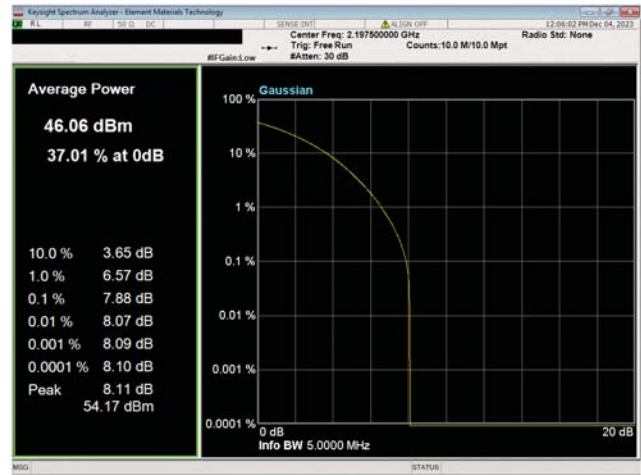
AWS Band n66, 2110 MHz - 2200 MHz
5 MHz Bandwidth
64QAM Modulation
Mid Ch, 2155.0 MHz



AWS Band n66, 2110 MHz - 2200 MHz
5 MHz Bandwidth
256QAM Modulation
Low Ch, 2112.5 MHz

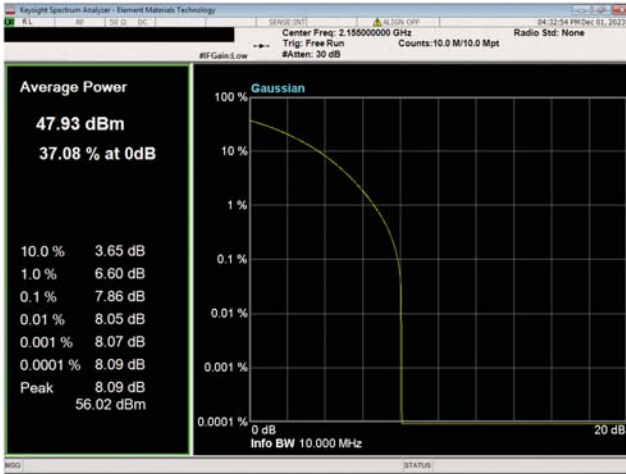


AWS Band n66, 2110 MHz - 2200 MHz
5 MHz Bandwidth
256QAM Modulation
Mid Ch, 2155.0 MHz

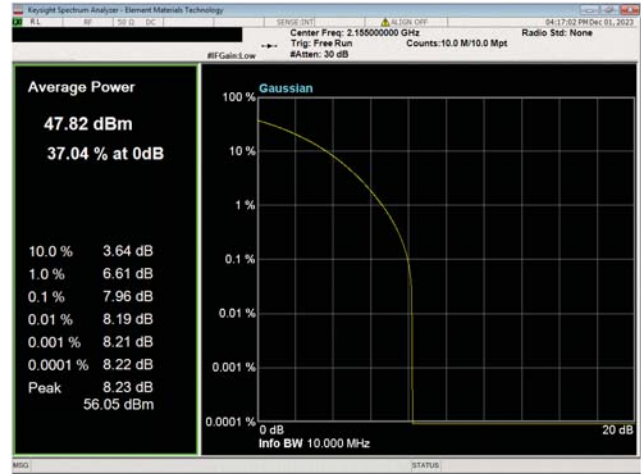


AWS Band n66, 2110 MHz - 2200 MHz
5 MHz Bandwidth
256QAM Modulation
High Ch, 2197.5 MHz

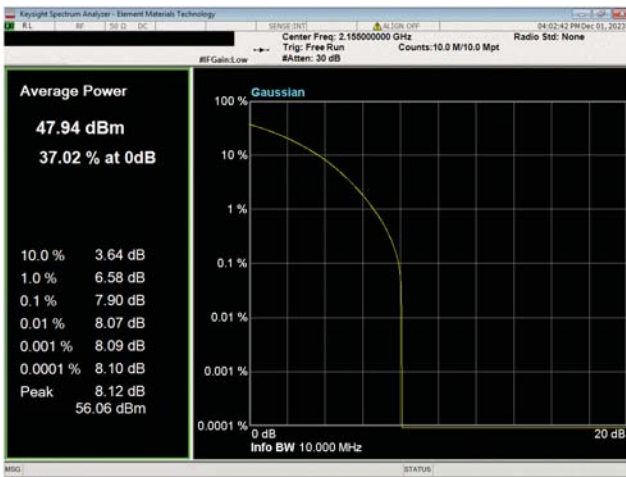
PEAK TO AVERAGE POWER (PAPR) CCDF



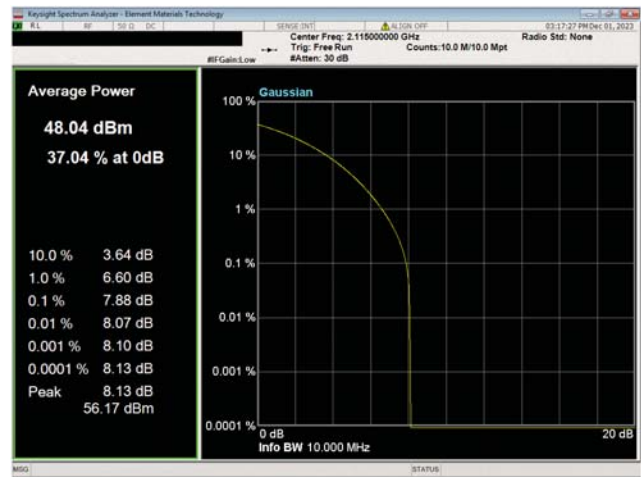
AWS Band n66, 2110 MHz - 2200 MHz
10 MHz Bandwidth
QPSK Modulation
Mid Ch, 2155.0 MHz



AWS Band n66, 2110 MHz - 2200 MHz
10 MHz Bandwidth
16QAM Modulation
Mid Ch, 2155.0 MHz

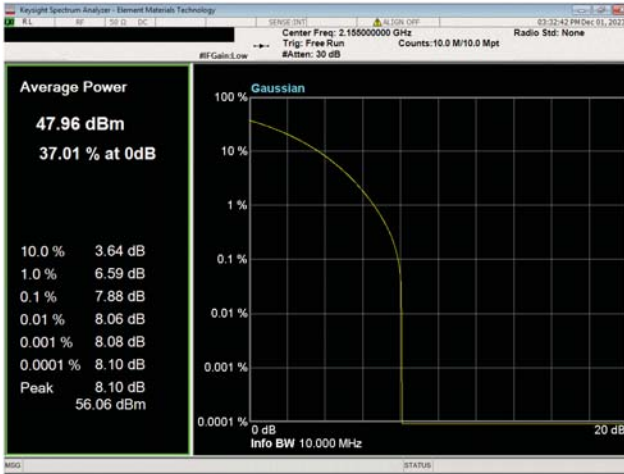


AWS Band n66, 2110 MHz - 2200 MHz
10 MHz Bandwidth
64QAM Modulation
Mid Ch, 2155.0 MHz

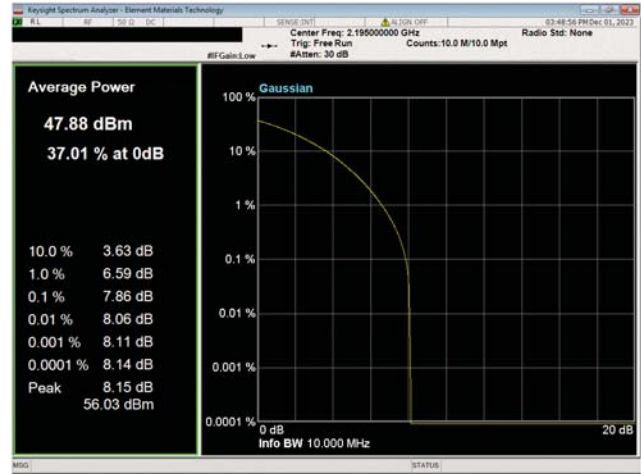


AWS Band n66, 2110 MHz - 2200 MHz
10 MHz Bandwidth
256QAM Modulation
Low Ch, 2115.0 MHz

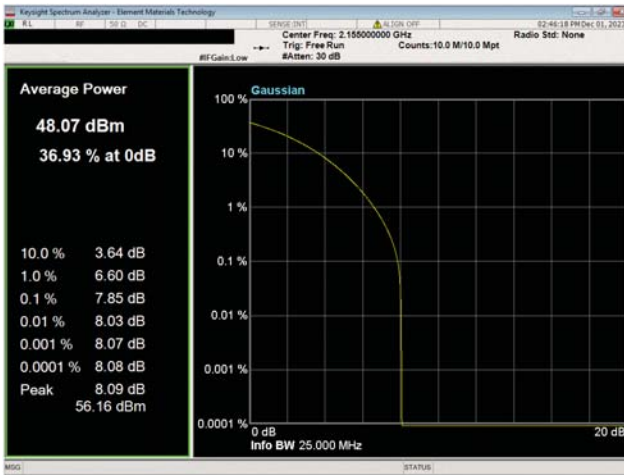
PEAK TO AVERAGE POWER (PAPR) CCDF



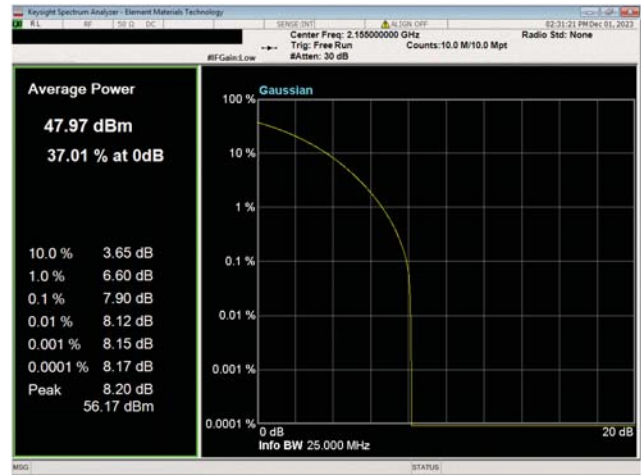
AWS Band n66, 2110 MHz - 2200 MHz
10 MHz Bandwidth
256QAM Modulation
Mid Ch, 2155.0 MHz



AWS Band n66, 2110 MHz - 2200 MHz
10 MHz Bandwidth
256QAM Modulation
High Ch, 2195.0 MHz

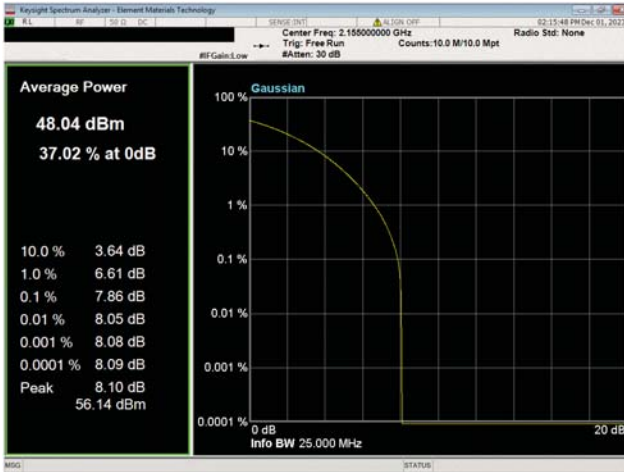


AWS Band n66, 2110 MHz - 2200 MHz
15 MHz Bandwidth
QPSK Modulation
Mid Ch, 2155.0 MHz

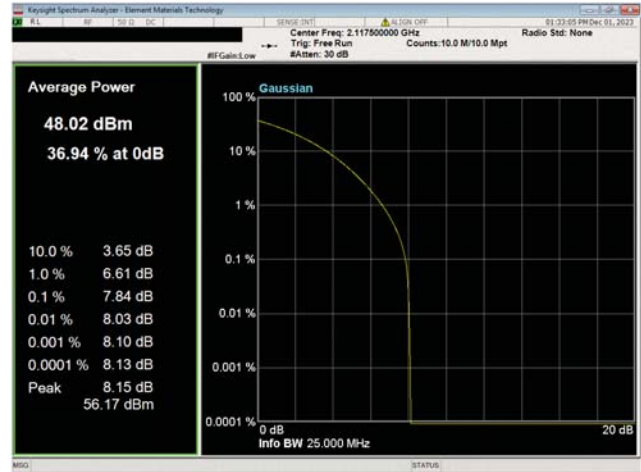


AWS Band n66, 2110 MHz - 2200 MHz
15 MHz Bandwidth
16QAM Modulation
Mid Ch, 2155.0 MHz

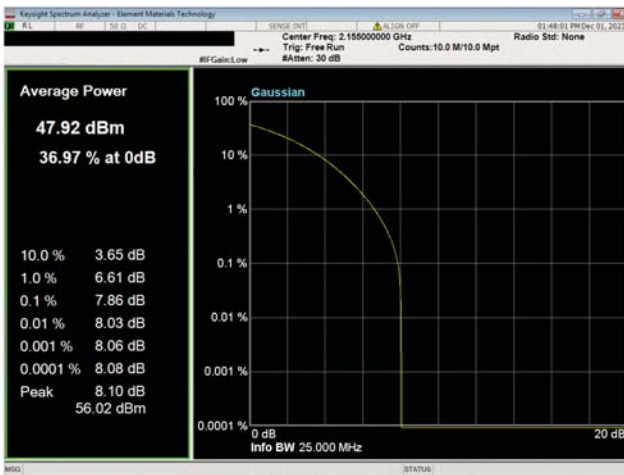
PEAK TO AVERAGE POWER (PAPR) CCDF



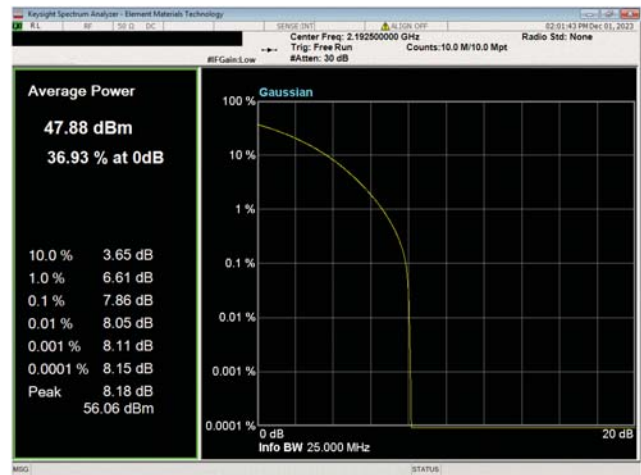
AWS Band n66, 2110 MHz - 2200 MHz
15 MHz Bandwidth
64QAM Modulation
Mid Ch, 2155.0 MHz



AWS Band n66, 2110 MHz - 2200 MHz
15 MHz Bandwidth
256QAM Modulation
Low Ch, 2117.5 MHz

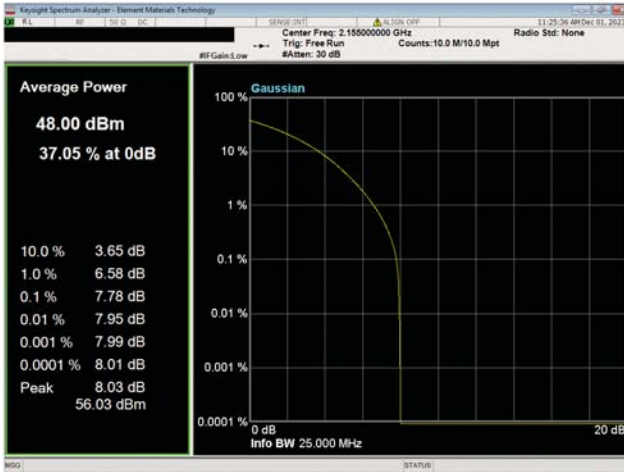


AWS Band n66, 2110 MHz - 2200 MHz
15 MHz Bandwidth
256QAM Modulation
Mid Ch, 2155.0 MHz

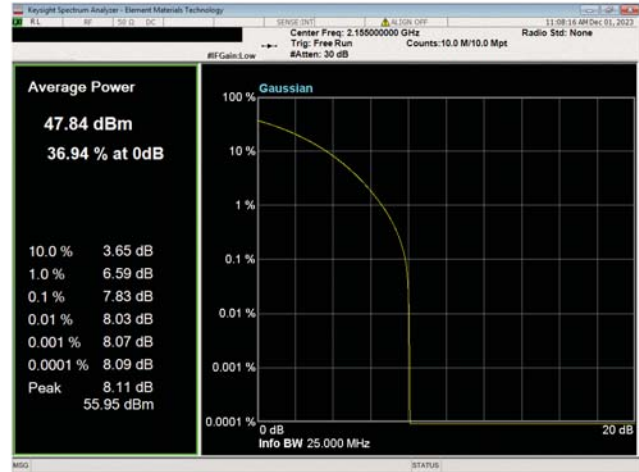


AWS Band n66, 2110 MHz - 2200 MHz
15 MHz Bandwidth
256QAM Modulation
High Ch, 2192.5 MHz

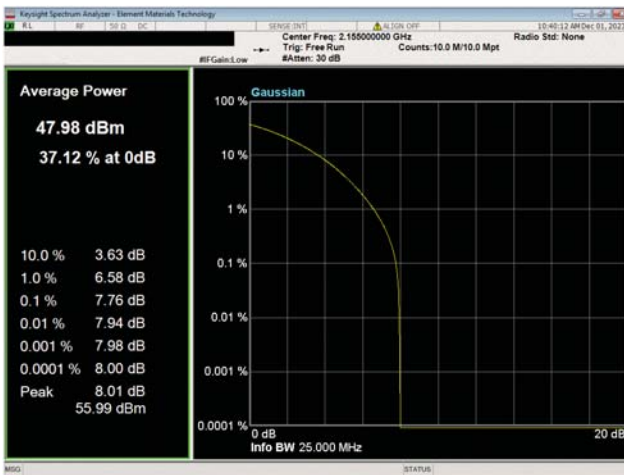
PEAK TO AVERAGE POWER (PAPR) CCDF



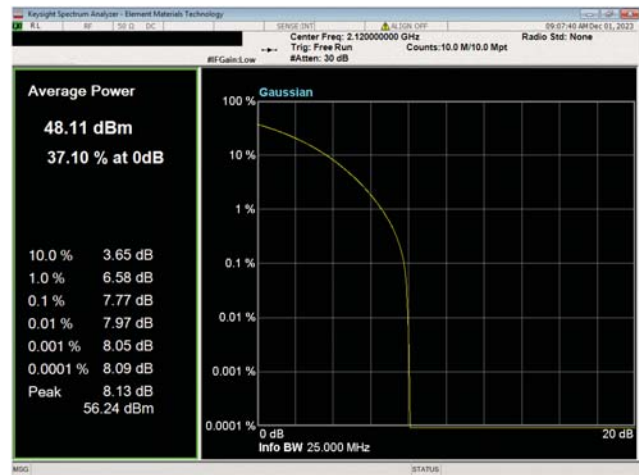
AWS Band n66, 2110 MHz - 2200 MHz
20 MHz Bandwidth
QPSK Modulation
Mid Ch, 2155.0 MHz



AWS Band n66, 2110 MHz - 2200 MHz
20 MHz Bandwidth
16QAM Modulation
Mid Ch, 2155.0 MHz

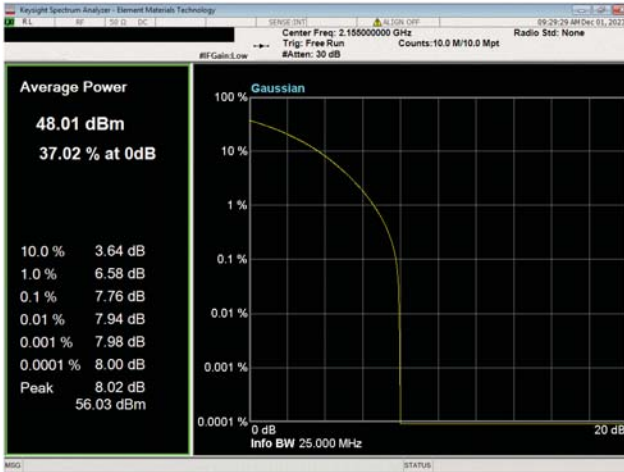


AWS Band n66, 2110 MHz - 2200 MHz
20 MHz Bandwidth
64QAM Modulation
Mid Ch, 2155.0 MHz

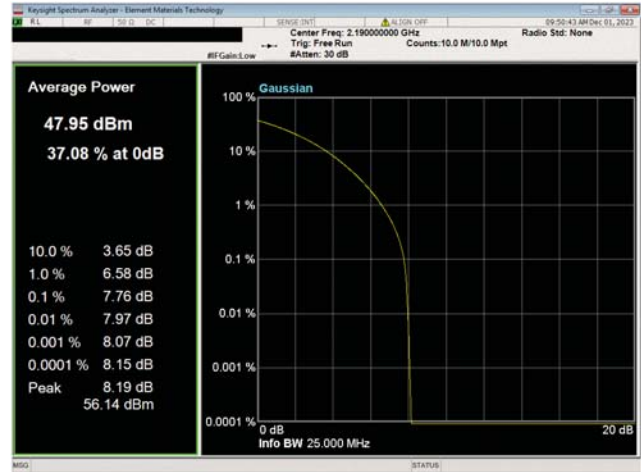


AWS Band n66, 2110 MHz - 2200 MHz
20 MHz Bandwidth
256QAM Modulation
Low Ch, 2120.0 MHz

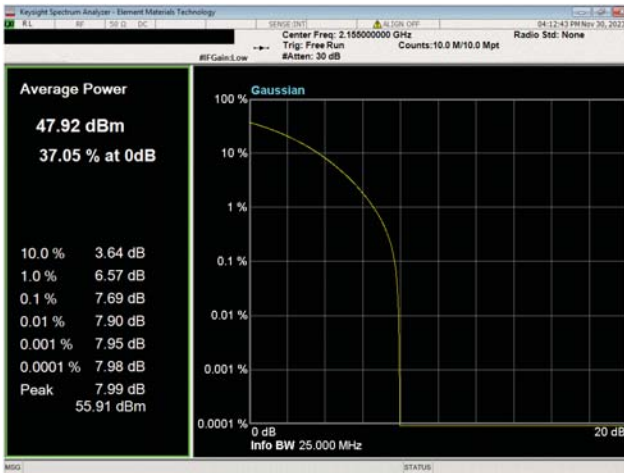
PEAK TO AVERAGE POWER (PAPR) CCDF



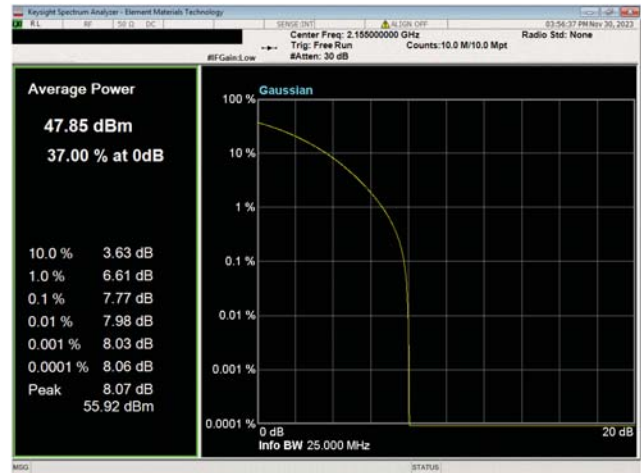
AWS Band n66, 2110 MHz - 2200 MHz
20 MHz Bandwidth
256QAM Modulation
Mid Ch, 2155.0 MHz



AWS Band n66, 2110 MHz - 2200 MHz
20 MHz Bandwidth
256QAM Modulation
High Ch, 2190.0 MHz

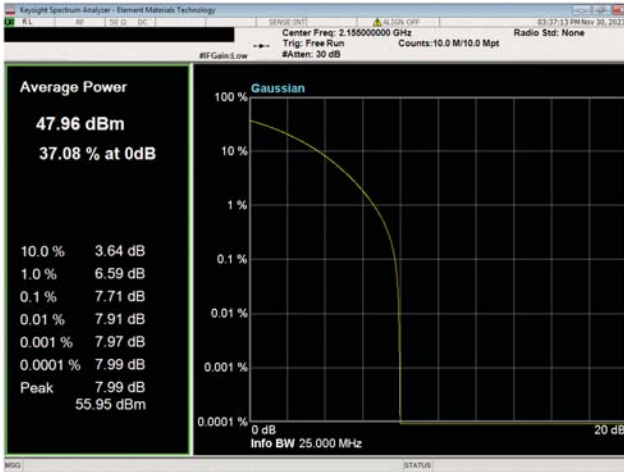


AWS Band n66, 2110 MHz - 2200 MHz
25 MHz Bandwidth
QPSK Modulation
Mid Ch, 2155.0 MHz

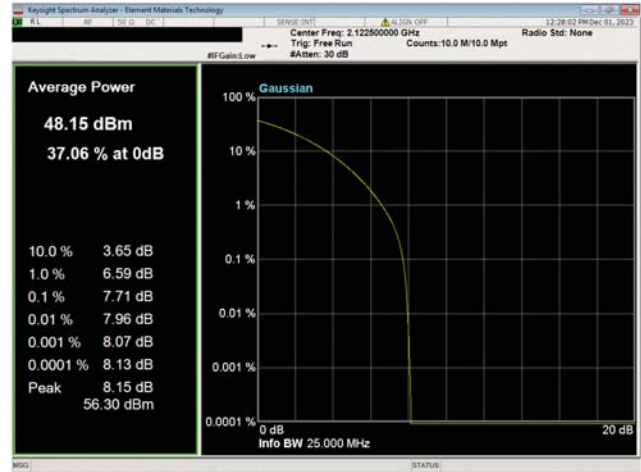


AWS Band n66, 2110 MHz - 2200 MHz
25 MHz Bandwidth
16QAM Modulation
Mid Ch, 2155.0 MHz

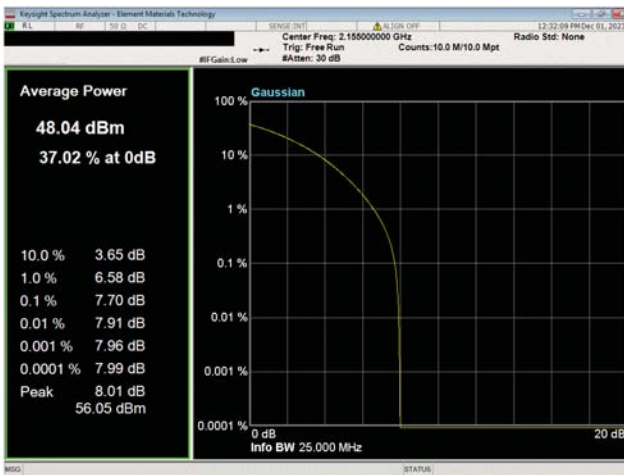
PEAK TO AVERAGE POWER (PAPR) CCDF



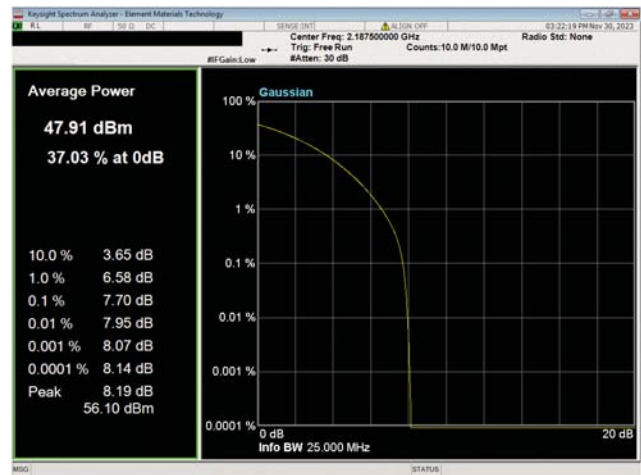
AWS Band n66, 2110 MHz - 2200 MHz
25 MHz Bandwidth
64QAM Modulation
Mid Ch, 2155.0 MHz



AWS Band n66, 2110 MHz - 2200 MHz
25 MHz Bandwidth
256QAM Modulation
Low Ch, 2122.5 MHz

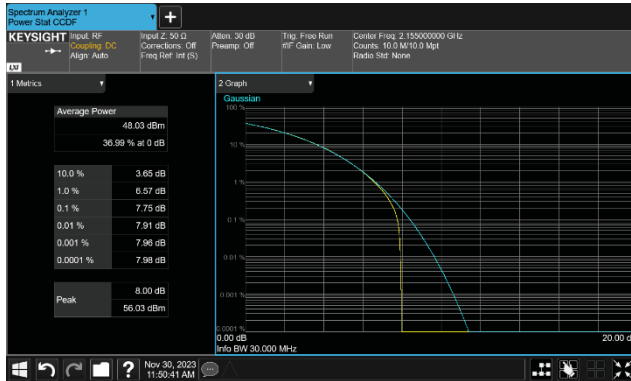


AWS Band n66, 2110 MHz - 2200 MHz
25 MHz Bandwidth
256QAM Modulation
Mid Ch, 2155.0 MHz

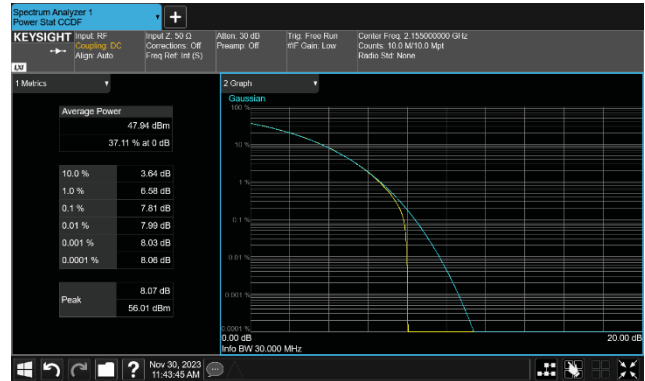


AWS Band n66, 2110 MHz - 2200 MHz
25 MHz Bandwidth
256QAM Modulation
High Ch, 2187.5 MHz

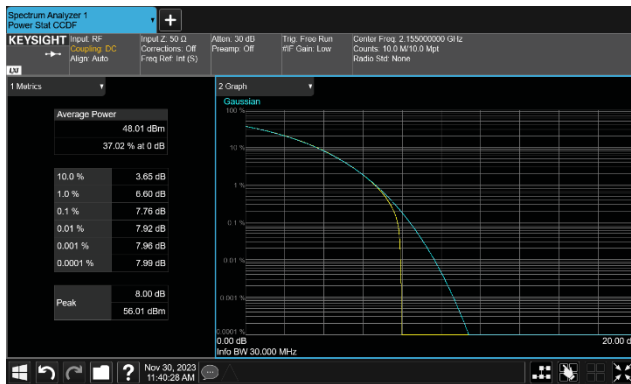
PEAK TO AVERAGE POWER (PAPR) CCDF



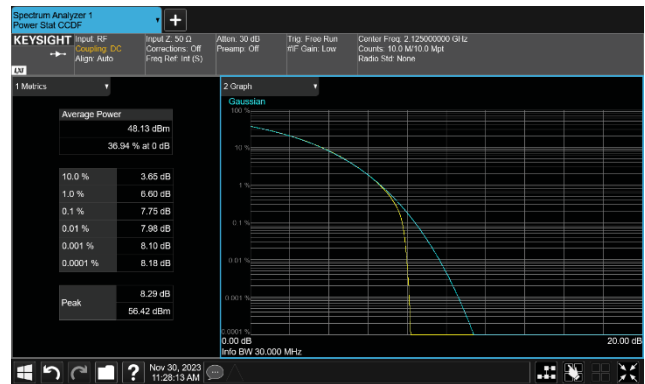
AWS Band n66, 2110 MHz - 2200 MHz
30 MHz Bandwidth
QPSK Modulation
Mid Ch, 2155.0 MHz



AWS Band n66, 2110 MHz - 2200 MHz
30 MHz Bandwidth
16QAM Modulation
Mid Ch, 2155.0 MHz

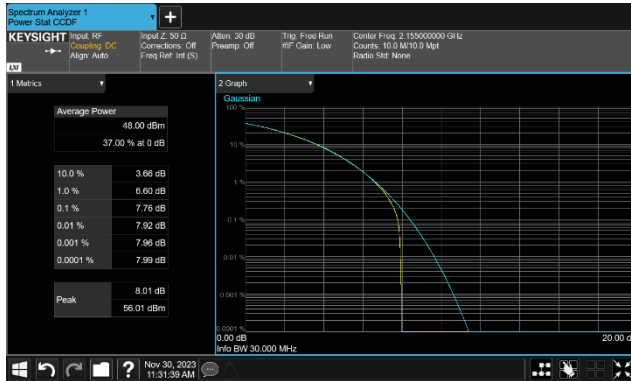


AWS Band n66, 2110 MHz - 2200 MHz
30 MHz Bandwidth
64QAM Modulation
Mid Ch, 2155.0 MHz

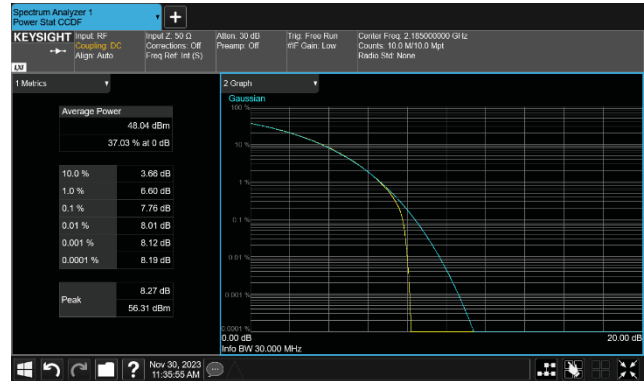


AWS Band n66, 2110 MHz - 2200 MHz
30 MHz Bandwidth
256QAM Modulation
Low Ch, 2125.0 MHz

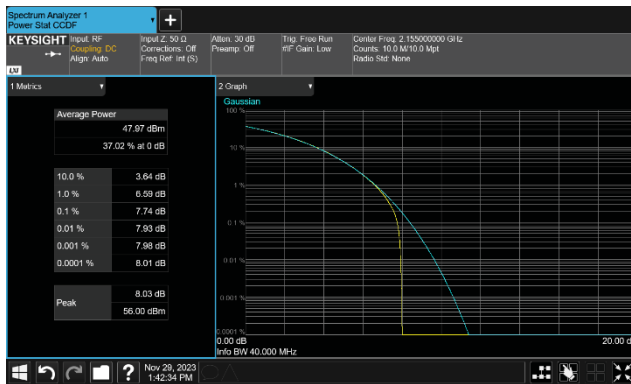
PEAK TO AVERAGE POWER (PAPR) CCDF



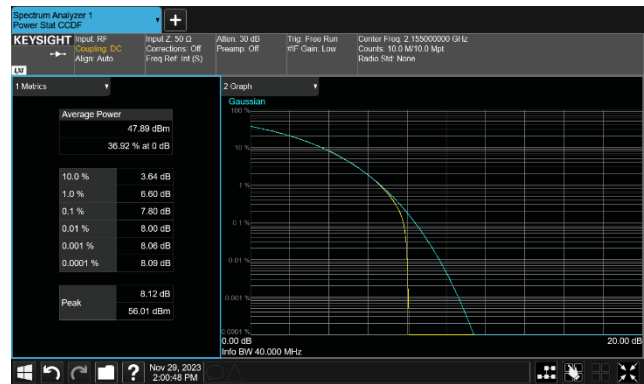
AWS Band n66, 2110 MHz - 2200 MHz
30 MHz Bandwidth
256QAM Modulation
Mid Ch, 2155.0 MHz



AWS Band n66, 2110 MHz - 2200 MHz
30 MHz Bandwidth
256QAM Modulation
High Ch, 2185.0 MHz

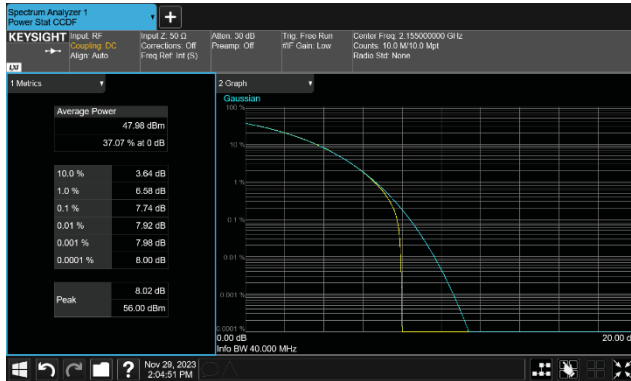


AWS Band n66, 2110 MHz - 2200 MHz
40 MHz Bandwidth
QPSK Modulation
Mid Ch, 2155.0 MHz

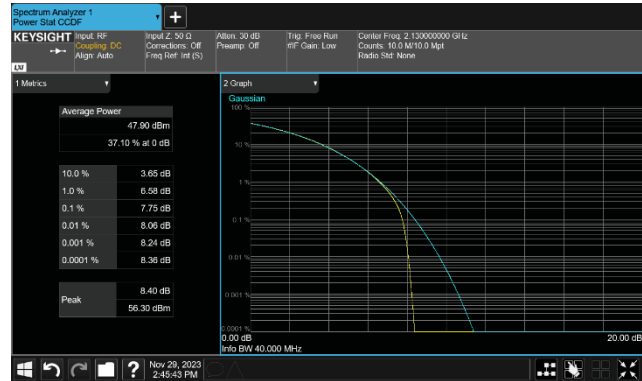


AWS Band n66, 2110 MHz - 2200 MHz
40 MHz Bandwidth
16QAM Modulation
Mid Ch, 2155.0 MHz

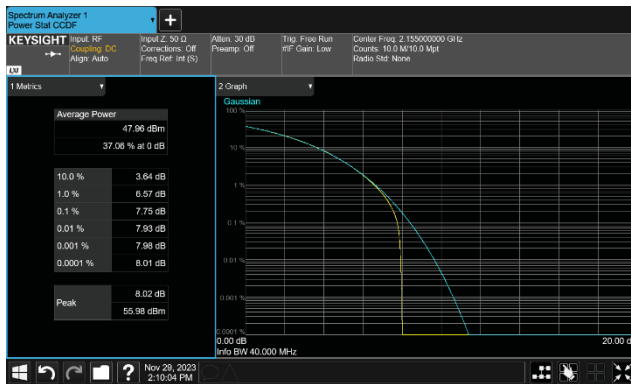
PEAK TO AVERAGE POWER (PAPR) CCDF



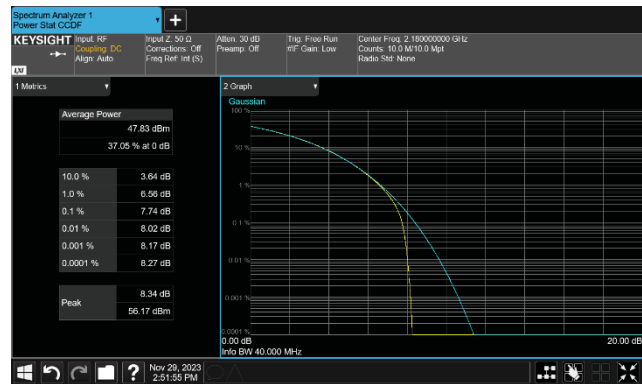
AWS Band n66, 2110 MHz - 2200 MHz
40 MHz Bandwidth
64QAM Modulation
Mid Ch, 2155.0 MHz



AWS Band n66, 2110 MHz - 2200 MHz
40 MHz Bandwidth
256QAM Modulation
Low Ch, 2130.0 MHz

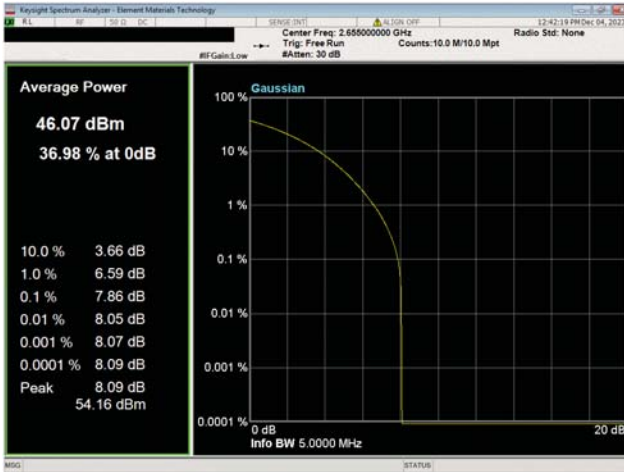


AWS Band n66, 2110 MHz - 2200 MHz
40 MHz Bandwidth
256QAM Modulation
Mid Ch, 2155.0 MHz

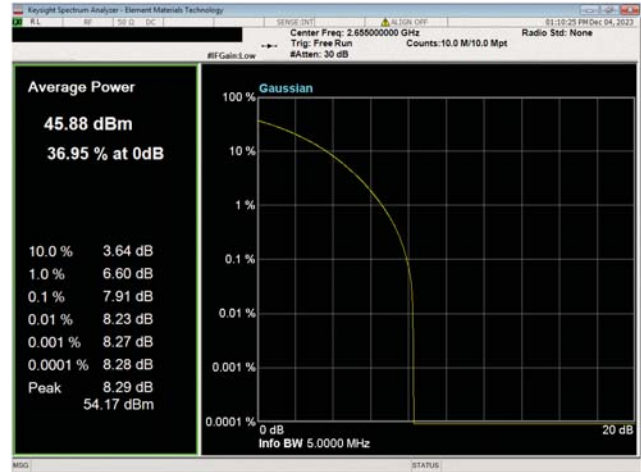


AWS Band n66, 2110 MHz - 2200 MHz
40 MHz Bandwidth
256QAM Modulation
High Ch, 2180.0 MHz

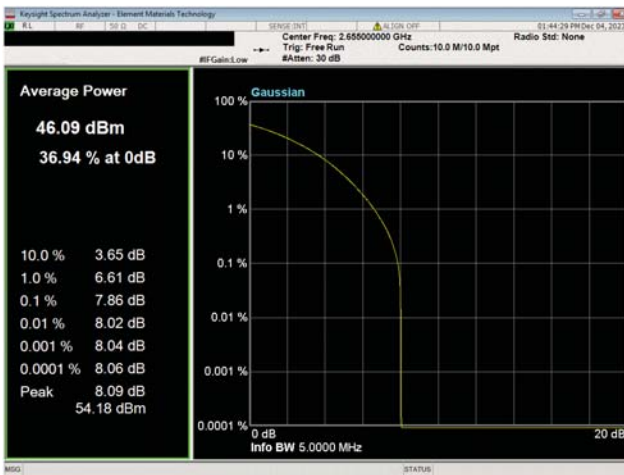
PEAK TO AVERAGE POWER (PAPR) CCDF



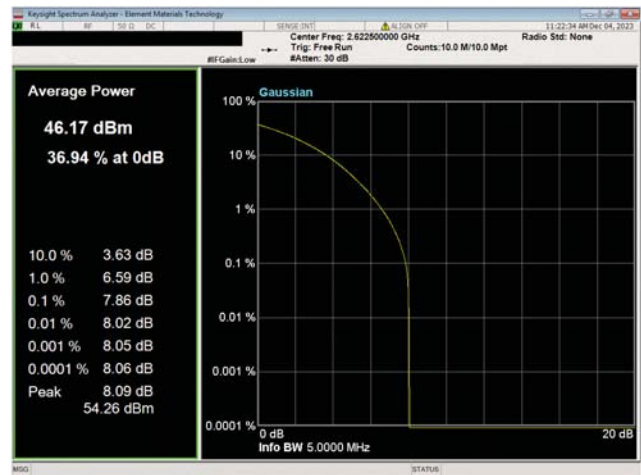
BRS Band n7, 2620 MHz - 2690 MHz
5 MHz Bandwidth
QPSK Modulation
Mid Ch, 2655.0 MHz



BRS Band n7, 2620 MHz - 2690 MHz
5 MHz Bandwidth
16QAM Modulation
Mid Ch, 2655.0 MHz

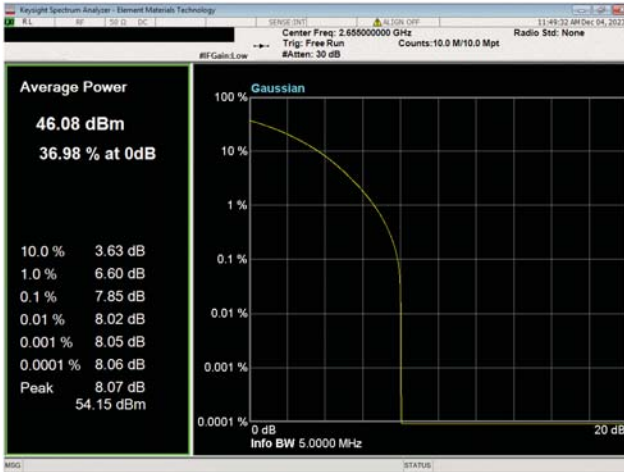


BRS Band n7, 2620 MHz - 2690 MHz
5 MHz Bandwidth
64QAM Modulation
Mid Ch, 2655.0 MHz

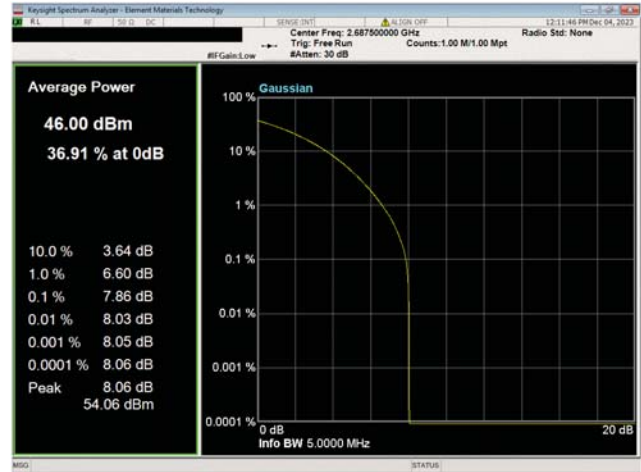


BRS Band n7, 2620 MHz - 2690 MHz
5 MHz Bandwidth
256QAM Modulation
Low Ch, 2622.5 MHz

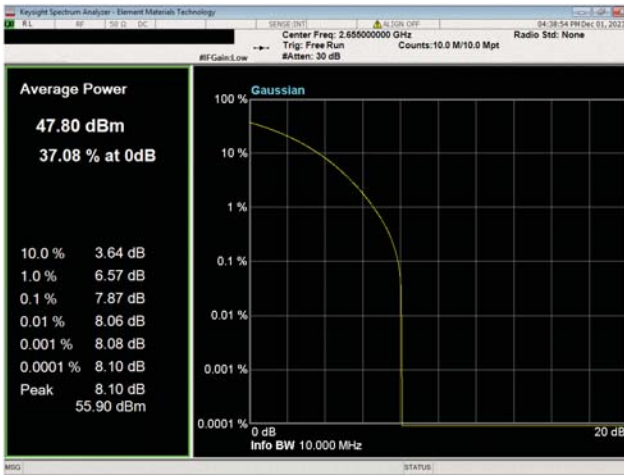
PEAK TO AVERAGE POWER (PAPR) CCDF



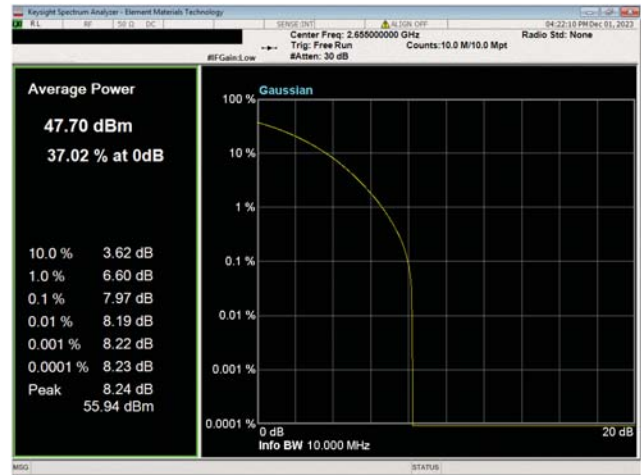
BRS Band n7, 2620 MHz - 2690 MHz
5 MHz Bandwidth
256QAM Modulation
Mid Ch, 2655.0 MHz



BRS Band n7, 2620 MHz - 2690 MHz
5 MHz Bandwidth
256QAM Modulation
High Ch, 2687.5 MHz

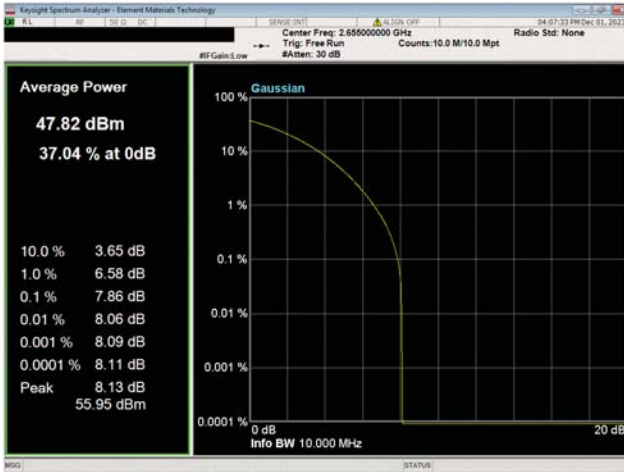


BRS Band n7, 2620 MHz - 2690 MHz
10 MHz Bandwidth
QPSK Modulation
Mid Ch, 2655.0 MHz

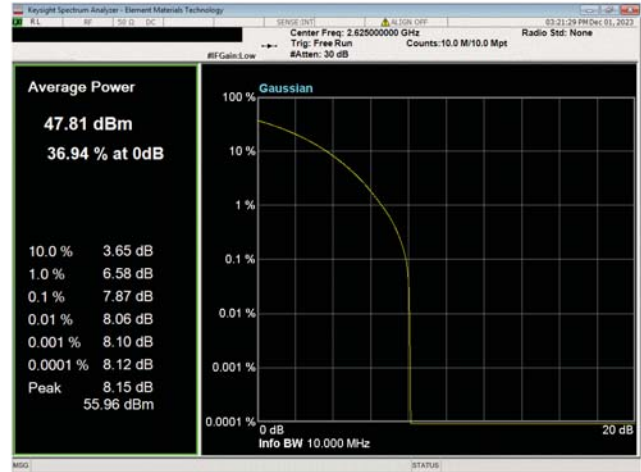


BRS Band n7, 2620 MHz - 2690 MHz
10 MHz Bandwidth
16QAM Modulation
Mid Ch, 2655.0 MHz

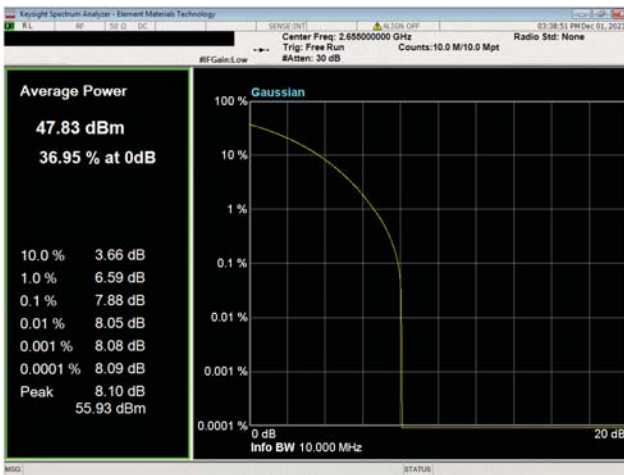
PEAK TO AVERAGE POWER (PAPR) CCDF



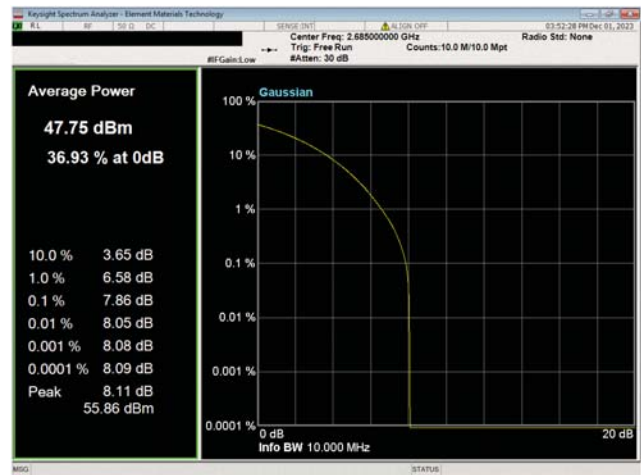
BRS Band n7, 2620 MHz - 2690 MHz
10 MHz Bandwidth
64QAM Modulation
Mid Ch, 2655.0 MHz



BRS Band n7, 2620 MHz - 2690 MHz
10 MHz Bandwidth
256QAM Modulation
Low Ch, 2625.0 MHz

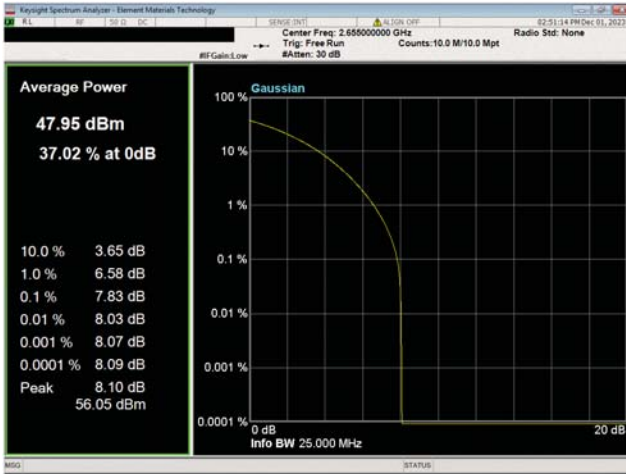


BRS Band n7, 2620 MHz - 2690 MHz
10 MHz Bandwidth
256QAM Modulation
Mid Ch, 2655.0 MHz

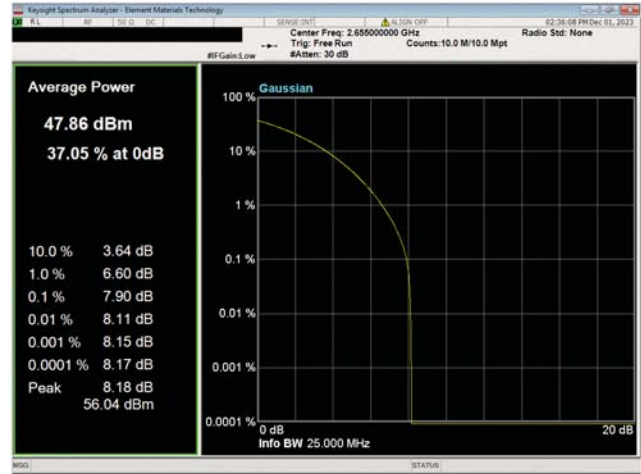


BRS Band n7, 2620 MHz - 2690 MHz
10 MHz Bandwidth
256QAM Modulation
High Ch, 2685.0 MHz

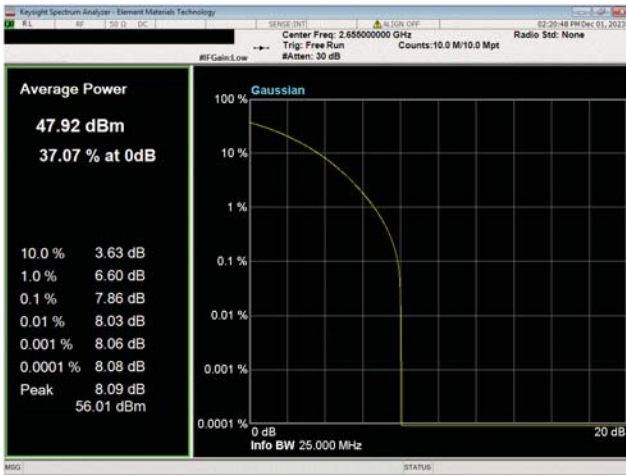
PEAK TO AVERAGE POWER (PAPR) CCDF



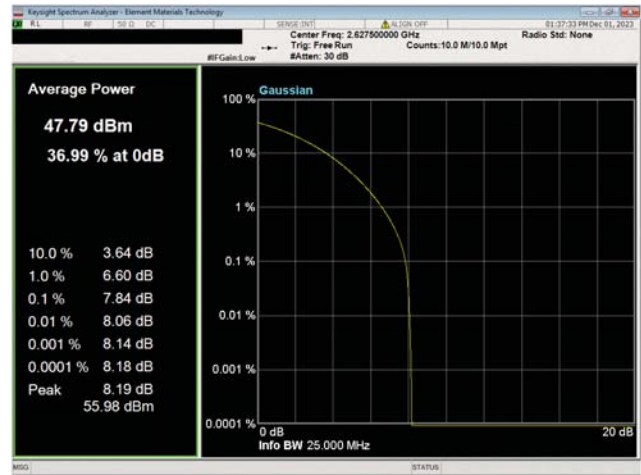
BRS Band n7, 2620 MHz - 2690 MHz
15 MHz Bandwidth
QPSK Modulation
Mid Ch, 2655.0 MHz



BRS Band n7, 2620 MHz - 2690 MHz
15 MHz Bandwidth
16QAM Modulation
Mid Ch, 2655.0 MHz

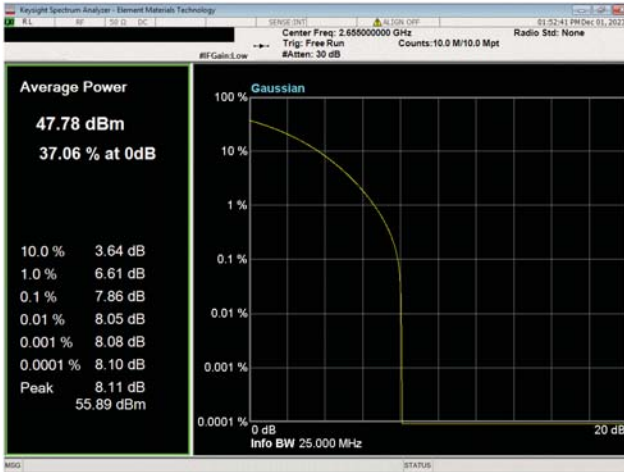


BRS Band n7, 2620 MHz - 2690 MHz
15 MHz Bandwidth
64QAM Modulation
Mid Ch, 2655.0 MHz

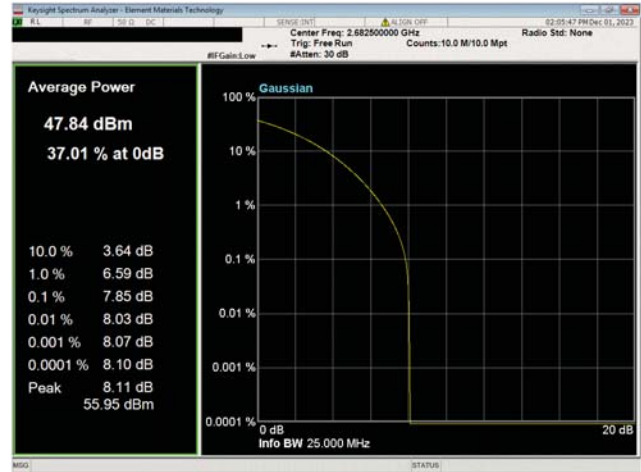


BRS Band n7, 2620 MHz - 2690 MHz
15 MHz Bandwidth
256QAM Modulation
Low Ch, 2627.5 MHz

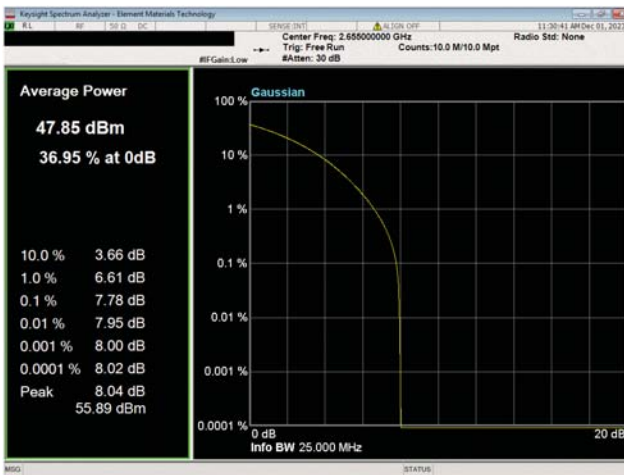
PEAK TO AVERAGE POWER (PAPR) CCDF



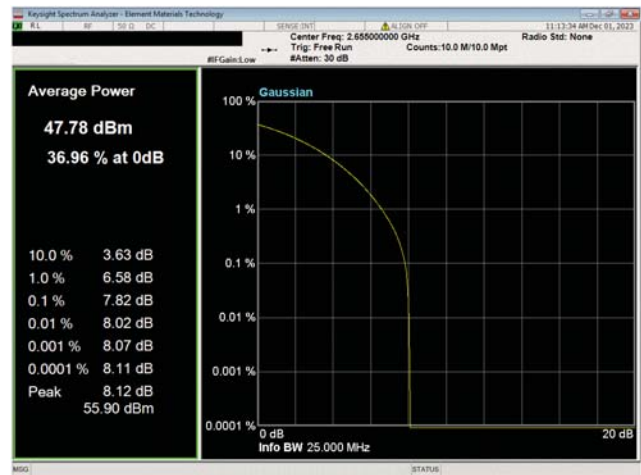
BRS Band n7, 2620 MHz - 2690 MHz
15 MHz Bandwidth
256QAM Modulation
Mid Ch, 2655.0 MHz



BRS Band n7, 2620 MHz - 2690 MHz
15 MHz Bandwidth
256QAM Modulation
High Ch, 2682.5 MHz

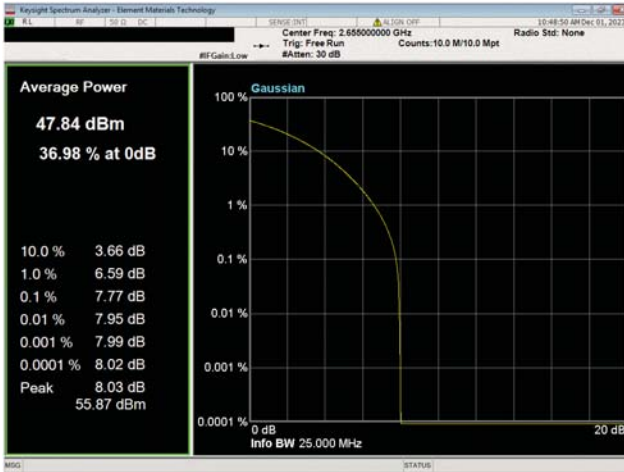


BRS Band n7, 2620 MHz - 2690 MHz
20 MHz Bandwidth
QPSK Modulation
Mid Ch, 2655.0 MHz

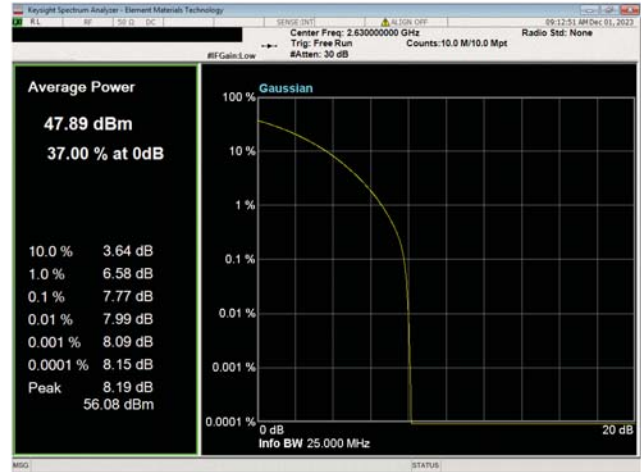


BRS Band n7, 2620 MHz - 2690 MHz
20 MHz Bandwidth
16QAM Modulation
Mid Ch, 2655.0 MHz

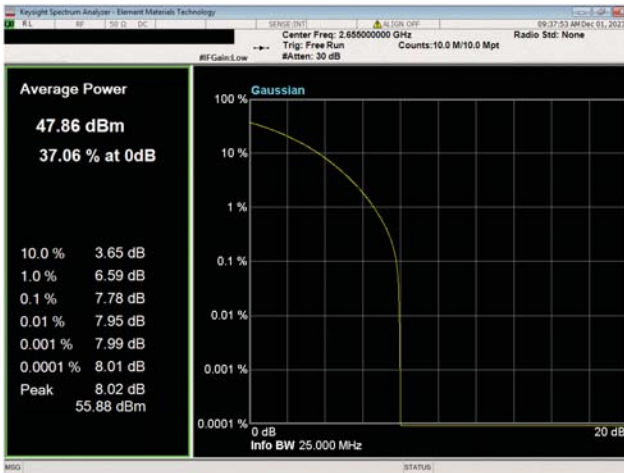
PEAK TO AVERAGE POWER (PAPR) CCDF



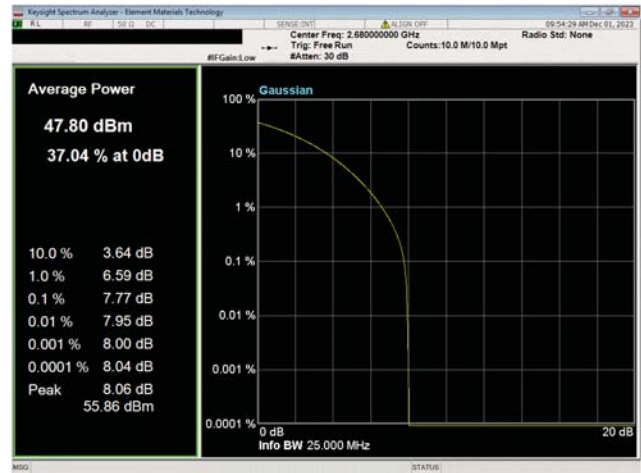
BRS Band n7, 2620 MHz - 2690 MHz
20 MHz Bandwidth
64QAM Modulation
Mid Ch, 2655.0 MHz



BRS Band n7, 2620 MHz - 2690 MHz
20 MHz Bandwidth
256QAM Modulation
Low Ch, 2630.0 MHz

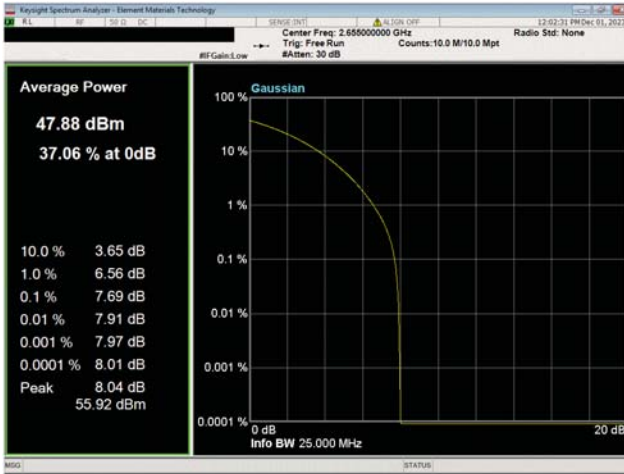


BRS Band n7, 2620 MHz - 2690 MHz
20 MHz Bandwidth
256QAM Modulation
Mid Ch, 2655.0 MHz

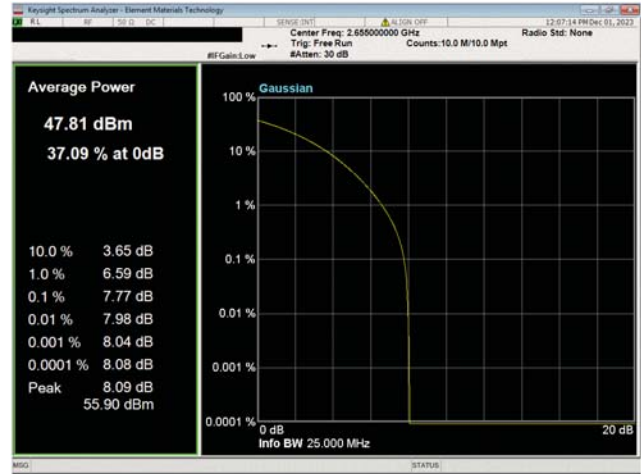


BRS Band n7, 2620 MHz - 2690 MHz
20 MHz Bandwidth
256QAM Modulation
High Ch, 2680.0 MHz

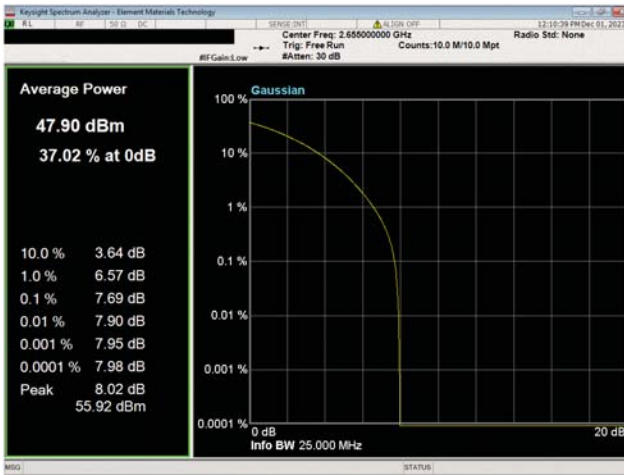
PEAK TO AVERAGE POWER (PAPR) CCDF



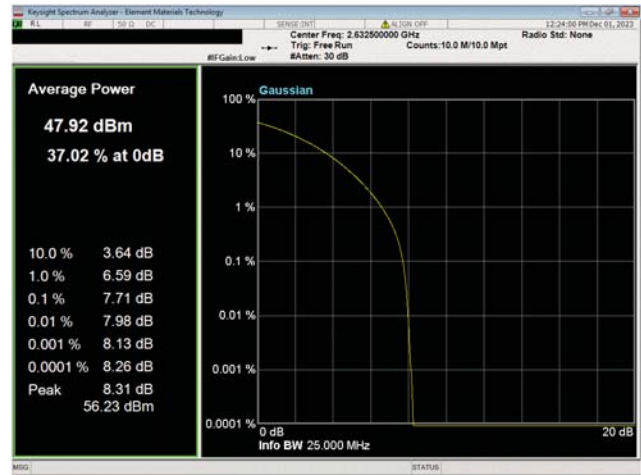
BRS Band n7, 2620 MHz - 2690 MHz
25 MHz Bandwidth
QPSK Modulation
Mid Ch, 2655.0 MHz



BRS Band n7, 2620 MHz - 2690 MHz
25 MHz Bandwidth
16QAM Modulation
Mid Ch, 2655.0 MHz

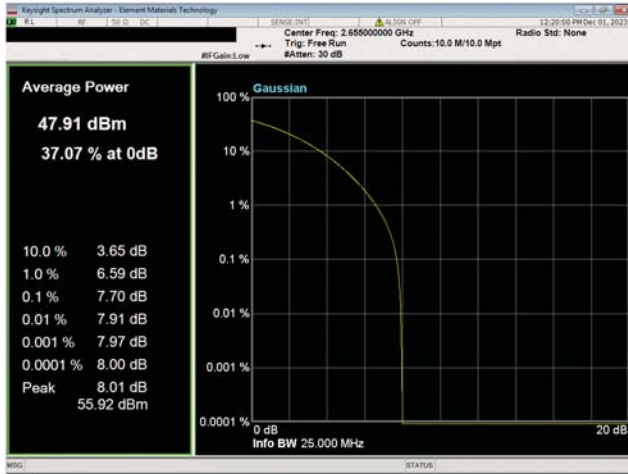


BRS Band n7, 2620 MHz - 2690 MHz
25 MHz Bandwidth
64QAM Modulation
Mid Ch, 2655.0 MHz

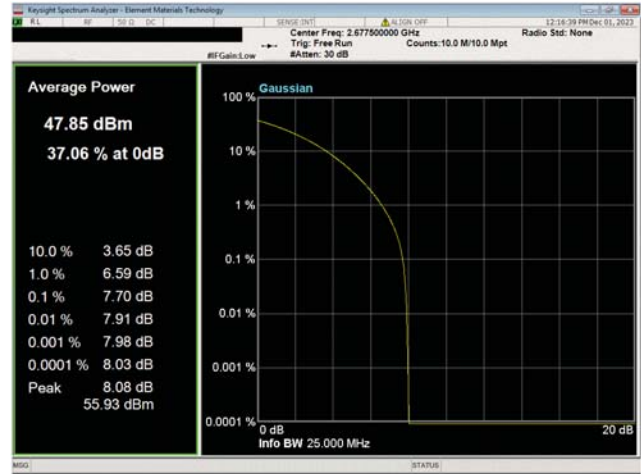


BRS Band n7, 2620 MHz - 2690 MHz
25 MHz Bandwidth
256QAM Modulation
Low Ch, 2632.5 MHz

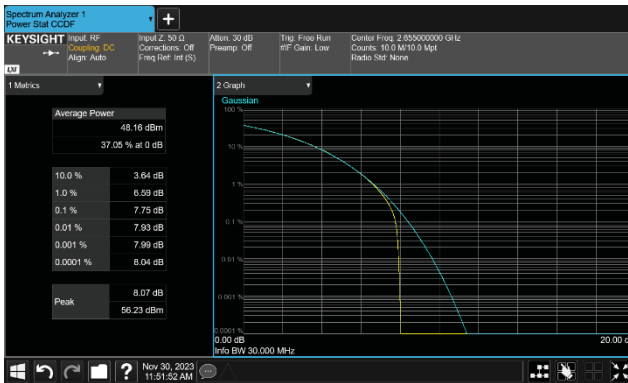
PEAK TO AVERAGE POWER (PAPR) CCDF



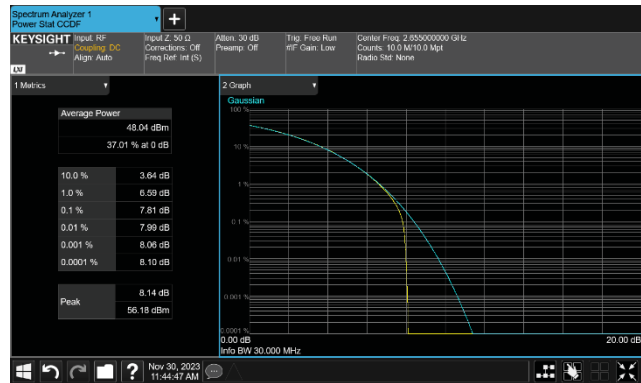
BRS Band n7, 2620 MHz - 2690 MHz
25 MHz Bandwidth
256QAM Modulation
Mid Ch, 2655.0 MHz



BRS Band n7, 2620 MHz - 2690 MHz
25 MHz Bandwidth
256QAM Modulation
High Ch, 2677.5 MHz

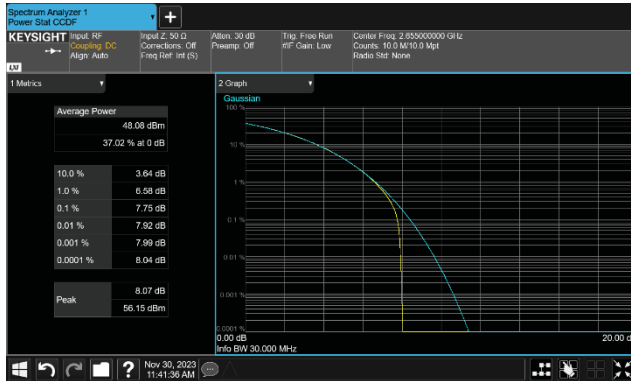


BRS Band n7, 2620 MHz - 2690 MHz
30 MHz Bandwidth
QPSK Modulation
Mid Ch, 2655.0 MHz

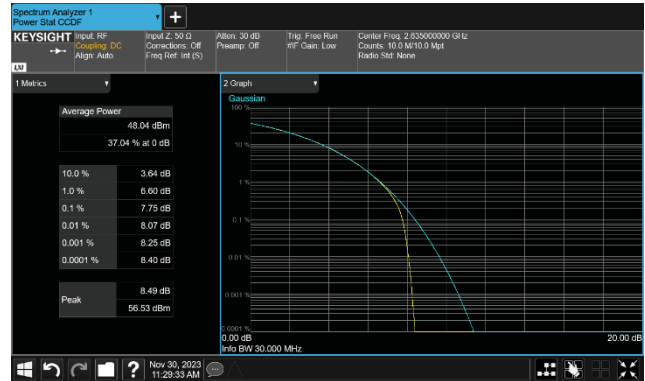


BRS Band n7, 2620 MHz - 2690 MHz
30 MHz Bandwidth
16QAM Modulation
Mid Ch, 2655.0 MHz

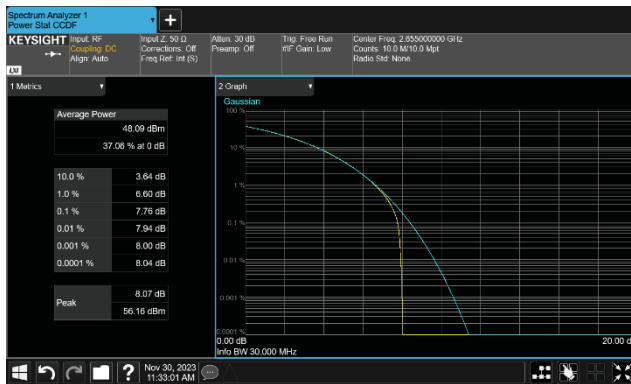
PEAK TO AVERAGE POWER (PAPR) CCDF



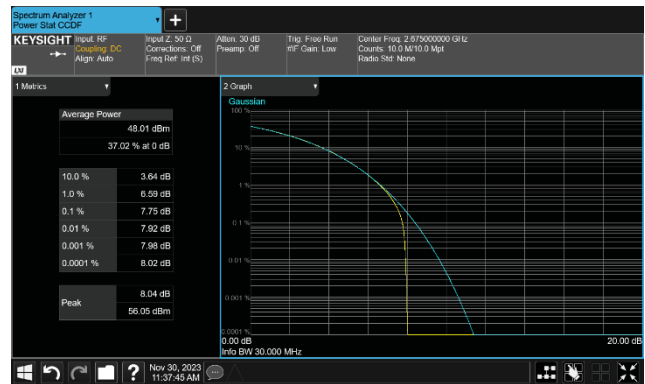
BRS Band n7, 2620 MHz - 2690 MHz
30 MHz Bandwidth
64QAM Modulation
Mid Ch, 2655.0 MHz



BRS Band n7, 2620 MHz - 2690 MHz
30 MHz Bandwidth
256QAM Modulation
Low Ch, 2635.0 MHz

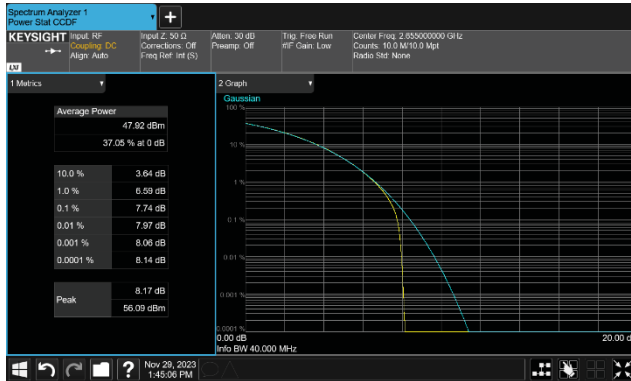


BRS Band n7, 2620 MHz - 2690 MHz
30 MHz Bandwidth
256QAM Modulation
Mid Ch, 2655.0 MHz

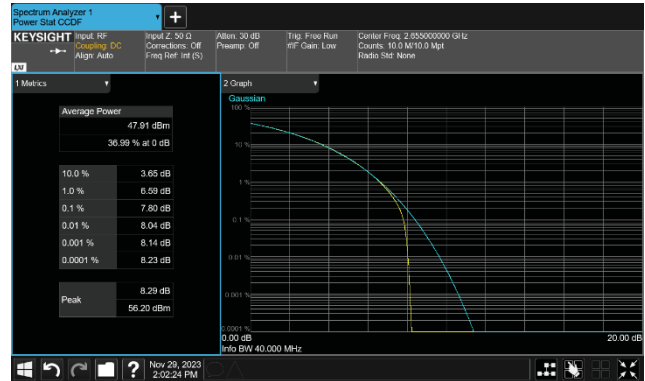


BRS Band n7, 2620 MHz - 2690 MHz
30 MHz Bandwidth
256QAM Modulation
High Ch, 2675.0 MHz

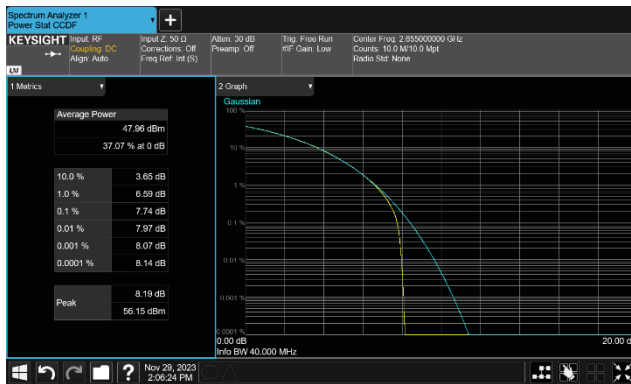
PEAK TO AVERAGE POWER (PAPR) CCDF



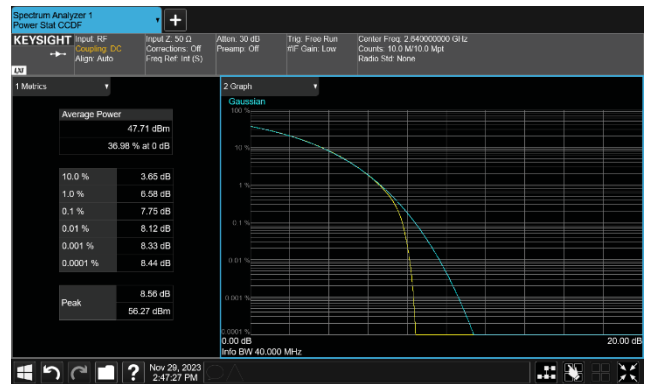
BRS Band n7, 2620 MHz - 2690 MHz
40 MHz Bandwidth
QPSK Modulation
Mid Ch, 2655.0 MHz



BRS Band n7, 2620 MHz - 2690 MHz
40 MHz Bandwidth
16QAM Modulation
Mid Ch, 2655.0 MHz

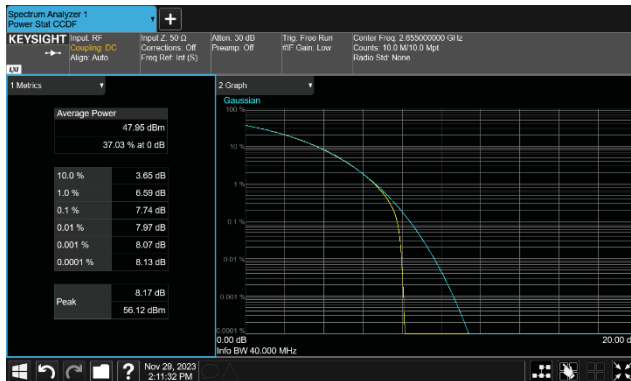


BRS Band n7, 2620 MHz - 2690 MHz
40 MHz Bandwidth
64QAM Modulation
Mid Ch, 2655.0 MHz

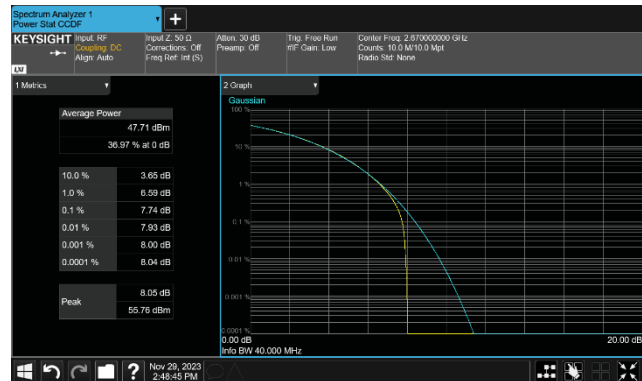


BRS Band n7, 2620 MHz - 2690 MHz
40 MHz Bandwidth
256QAM Modulation
Low Ch, 2640.0 MHz

PEAK TO AVERAGE POWER (PAPR) CCDF



BRS Band n7, 2620 MHz - 2690 MHz
40 MHz Bandwidth
256QAM Modulation
Mid Ch, 2655.0 MHz



BRS Band n7, 2620 MHz - 2690 MHz
40 MHz Bandwidth
256QAM Modulation
High Ch, 2670.0 MHz