

POWER SPECTRAL DENSITY - LOWERED POWER



XMIT 2022.02.07.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Keysight	N5182B	TEV	2021-04-27	2024-04-27
Block - DC	Fairview Microwave	SD3379	AMM	2021-09-14	2022-09-14
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2022-01-17	2023-01-17

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The fundamental emission power spectral density was measured using the channels and modes as called out on the following data sheets. The transmit power was set to levels seen in the datasheet.

The method of section 5.2.4.5 of ANSI C63.26 was used to make the measurement. The method uses trace averaging across ON and OFF times of EUT transmissions using the spectrum analyzer's RMS detector. Following the measurement a duty cycle correction was applied by adding $[10\log(1/D)]$, where D is the duty cycle, to the measured power to compute the PSD during the transmit times.

RF conducted emissions testing was performed on one port. The AHFII antenna ports are essentially electrically identical (the RF power variation between antenna ports is small) and 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.

The total PSD of all antenna ports (at the radio output) was determined per ANSI C63.26-2015 paragraph 6.4.3.2.4.

The EIRP calculations were based upon ANSI C63.26-2015 sections 6.4.3.2.4, section 6.4.6.3, section 6.4.5.3 and section 6.4.5.2

Compliance check for EIRP Limit of 3280W/MHz or 65.16dBm/MHz:

As shown in the EIRP calculation tables in the "PSD and EIRP Calculations" report sections, the highest AHFII antenna port 1 PSD level that will not cause the calculated EIRP to exceed the EIRP limit is 41.2dBm/MHz for Band n25 and 40.9dBm/MHz for Band n66. The maximum carrier power levels were reduced by changing the carrier power parameters in the configuration file for the base station to comply with the EIRP limit.

Compliance check for EIRP Limit of 1640W/MHz or 62.15dBm/MHz:

As shown in the EIRP calculation tables in the "PSD and EIRP Calculations" report sections, the highest AHFII antenna port 1 PSD level that will not cause the calculated EIRP to exceed the EIRP limit is 38.2dBm/MHz for Band n25 and 37.9dBm/MHz for Band n66. The maximum carrier power levels were reduced by changing the carrier power parameters in the configuration file for the base station to comply with the EIRP limit.

POWER SPECTRAL DENSITY - LOWERED POWER



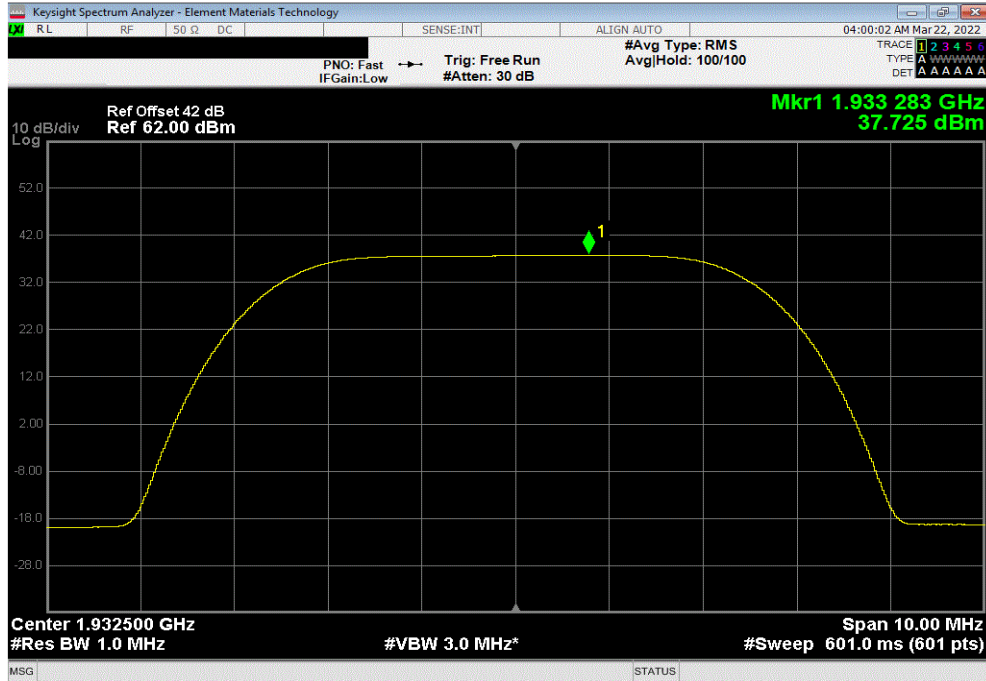
TuTt 2022.03.14.0 XMN 2022.02.07.0

EUT: AHFI Remote Radio Head		Work Order: NOKI0038	
Serial Number: YK214000035		Date: 22-Mar-22	
Customer: Nokia of America Corporation		Temperature: 22.7 °C	
Attendees: Mitchell Hill		Humidity: 24.4% RH	
Project: None		Barometric Pres.: 1023 mbar	
Tested by: Brandon Hobbs	Power: 54 VDC	Job Site: TX06	
TEST SPECIFICATIONS		Test Method	
FCC 24E:2022		ANSI C63.26:2015	
RSS-133 Issue 6:2013+A1:2018		RSS-133 Issue 6:2013+A1:2018	
COMMENTS			
All measurement path losses were accounted for in the reference level offset including any attenuators, filters and DC blocks. The Band n25 NR5, NR10, NR15 and NR20 carrier power levels were reduced to demonstrate compliance with EIRP limits. The maximum port 1 PSD Lower limit level is 38.2 dBm/MHz for the base station calculated EIRP level not to exceed the EIRP limit (1640Watts/MHz). The maximum port 1 PSD higher limit level is 41.2 dBm/MHz for the base station calculated EIRP level not to exceed the EIRP limit (3280 Watts/MHz).			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature	
		Initial Value dBm/MHz == PSD	Duty Cycle Factor (dB)
		Single Port dBm/MHz == PSD	Limit (dBm/MHz)
			Results
Port 1, Band n25, 1930 MHz - 1995 MHz, 5G NR			
256-QAM Modulation			
Single Carrier			
5 MHz Bandwidth, Low Limit			
	Low Channel, 1932.5 MHz	37.725	0
	5 MHz Bandwidth, High Limit		
	Low Channel, 1932.5 MHz	40.664	0
16-QAM Modulation			
Single Carrier			
10 MHz Bandwidth, Low Limit			
	Mid Channel, 1962.5 MHz	37.772	0
15 MHz Bandwidth, Low Limit			
	Mid Channel, 1962.5 MHz	37.712	0
20 MHz Bandwidth, Low Limit			
	Mid Channel, 1962.5 MHz	37.678	0

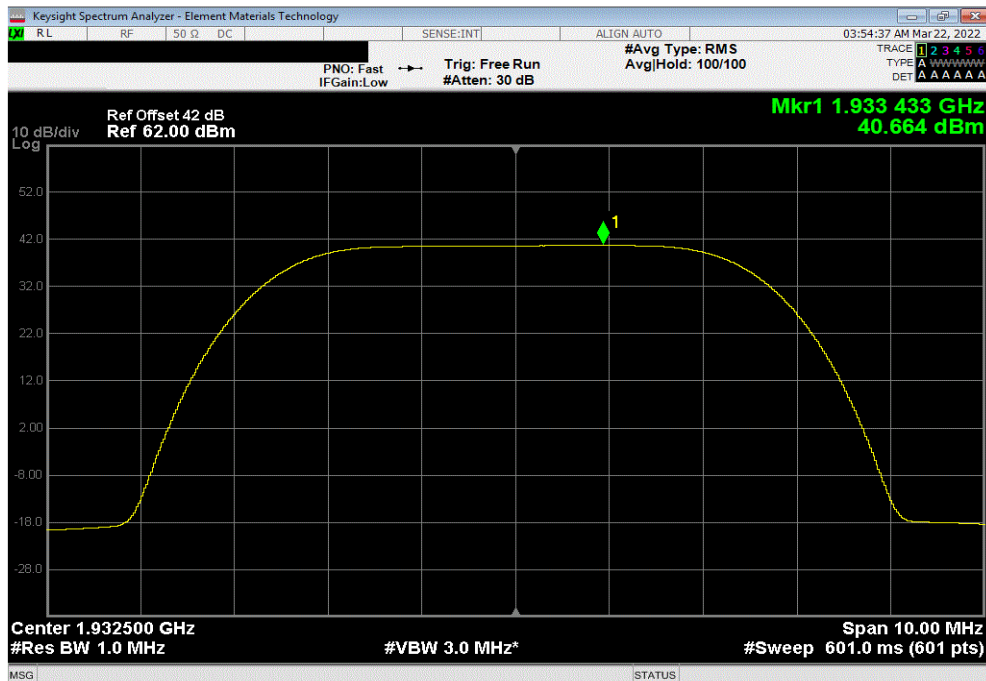
POWER SPECTRAL DENSITY - LOWERED POWER

TbTt 2022.03.14.0 XMI 2022.02.07.0

Port 1, Band n25, 1930 MHz - 1995 MHz, 5G NR, 256-QAM Modulation, Single Carrier, 5 MHz Bandwidth, Low Limit, Low Channel, 1932.5 MHz						
Initial Value	Duty Cycle	Single Port	Limit			
dBm/MHz == PSD	Factor (dB)	dBm/MHz == PSD	(dBm/MHz)	Results		
37.725	0	37.73	38.2	Pass		

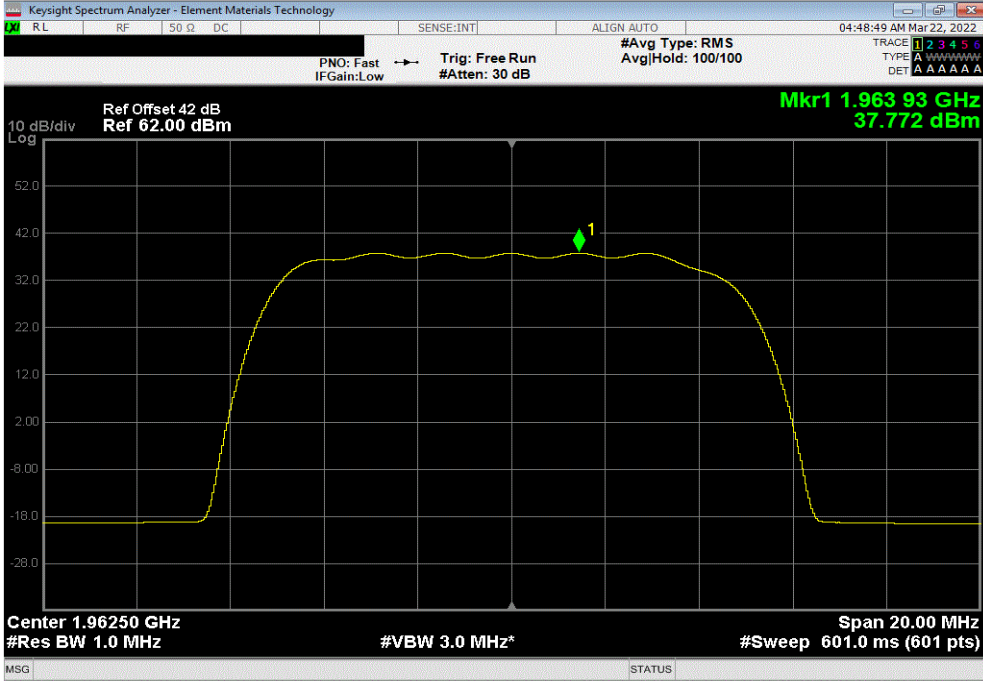


Port 1, Band n25, 1930 MHz - 1995 MHz, 5G NR, 256-QAM Modulation, Single Carrier, 5 MHz Bandwidth, High Limit, Low Channel, 1932.5 MHz						
Initial Value	Duty Cycle	Single Port	Limit			
dBm/MHz == PSD	Factor (dB)	dBm/MHz == PSD	(dBm/MHz)	Results		
40.664	0	40.66	41.2	Pass		

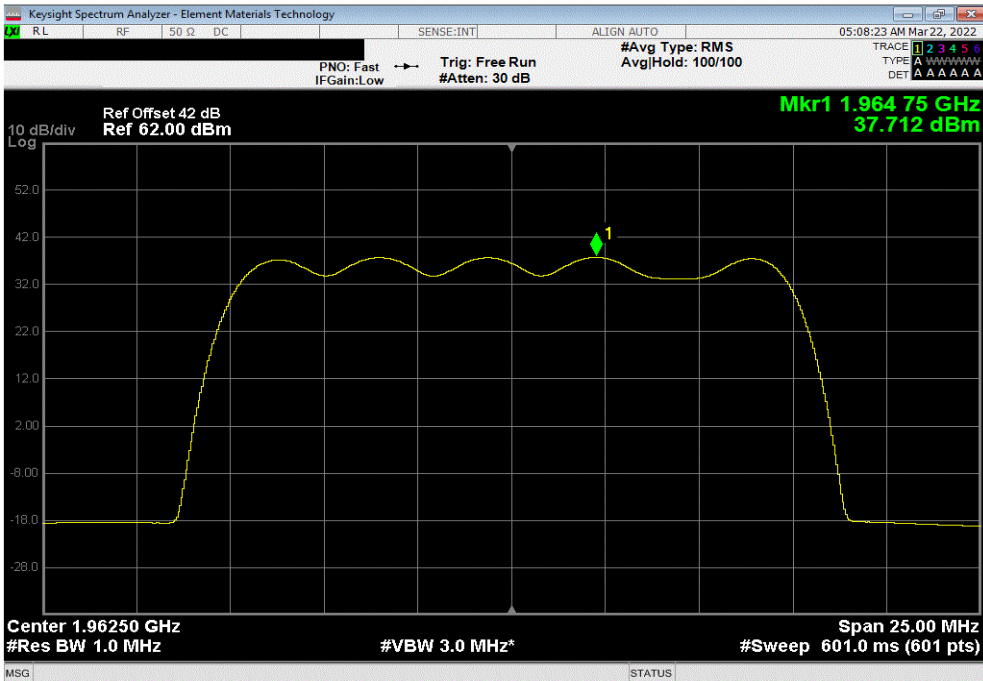


POWER SPECTRAL DENSITY - LOWERED POWER

Port 1, Band n25, 1930 MHz - 1995 MHz, 5G NR, 16-QAM Modulation, Single Carrier, 10 MHz Bandwidth, Low Limit, Mid Channel, 1962.5 MHz						
Initial Value	Duty Cycle	Single Port	Limit			
dBm/MHz == PSD	Factor (dB)	dBm/MHz == PSD	(dBm/MHz)	Results		
37.772	0	37.77	38.2	Pass		

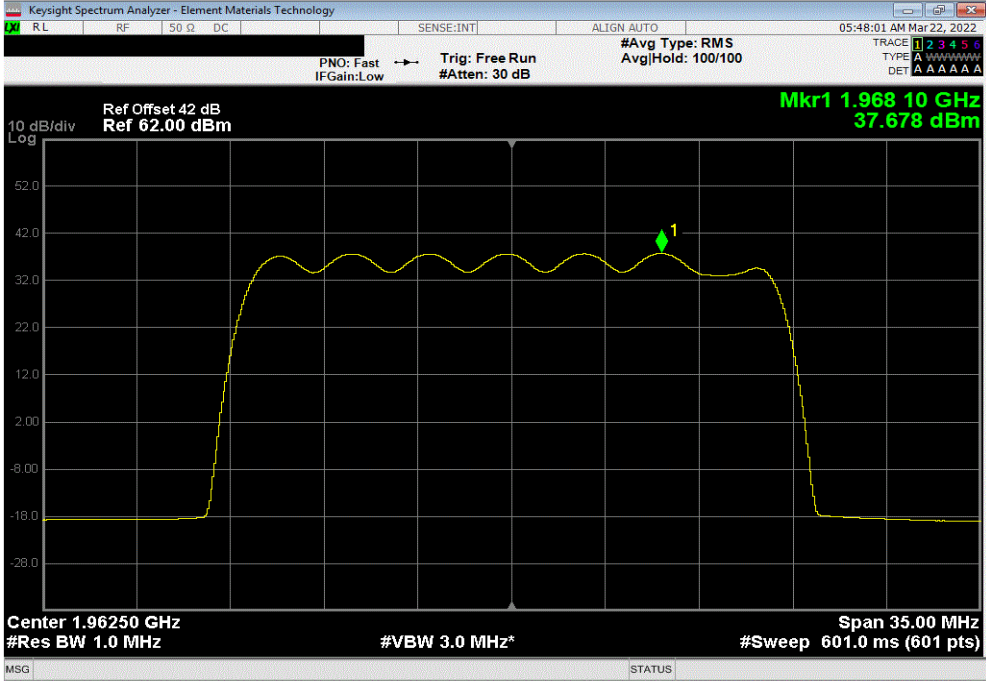


Port 1, Band n25, 1930 MHz - 1995 MHz, 5G NR, 16-QAM Modulation, Single Carrier, 15 MHz Bandwidth, Low Limit, Mid Channel, 1962.5 MHz						
Initial Value	Duty Cycle	Single Port	Limit			
dBm/MHz == PSD	Factor (dB)	dBm/MHz == PSD	(dBm/MHz)	Results		
37.712	0	37.71	38.2	Pass		



POWER SPECTRAL DENSITY - LOWERED POWER


Port 1, Band n25, 1930 MHz - 1995 MHz, 5G NR, 16-QAM Modulation, Single Carrier, 20 MHz Bandwidth, Low Limit, Mid Channel, 1962.5 MHz						
Initial Value	Duty Cycle	Single Port	Limit			
dBm/MHz == PSD	Factor (dB)	dBm/MHz == PSD	(dBm/MHz)	Results		
37.678	0	37.68	38.2	Pass		



POWER SPECTRAL DENSITY - LOWERED POWER



TbTtx 2022.03.14.0 XMi 2022.02.07.0

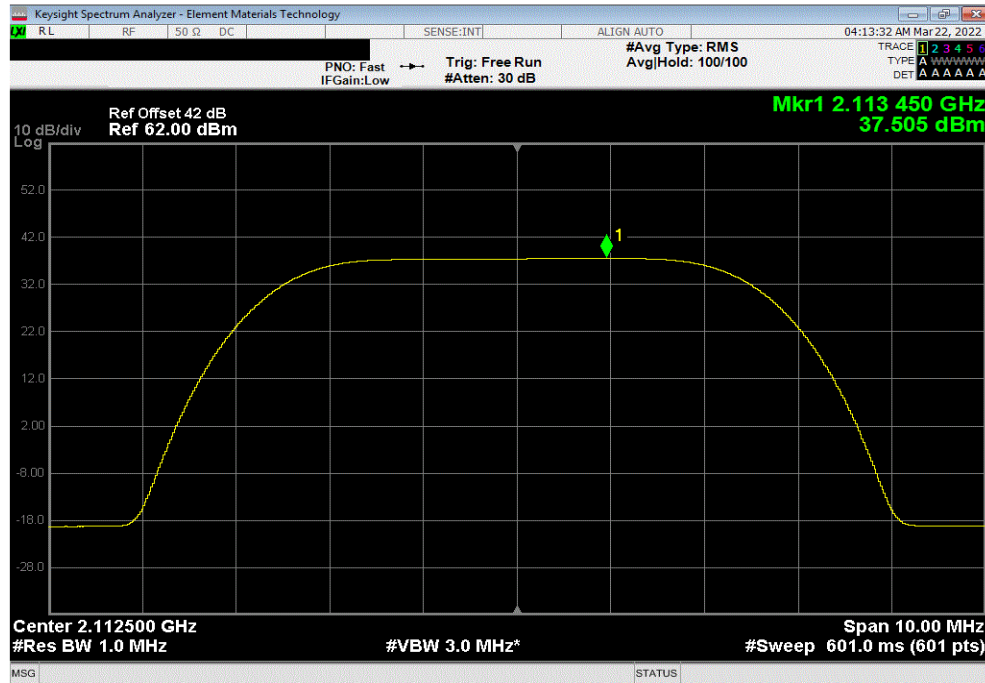
EUT:	AHFII Remote Radio Head		Work Order:	NOKI0038		
Serial Number:	YK214000036		Date:	22-Mar-22		
Customer:	Nokia of America Corporation		Temperature:	22.6 °C		
Attendees:	Mitchell Hill		Humidity:	23.7% RH		
Project:	None		Barometric Pres.:	1026 mbar		
Tested by:	Mark Baytan	Power:	54 VDC	Job Site:	TX09	
TEST SPECIFICATIONS			Test Method			
FCC 27:2022			ANSI C63.26:2015			
RSS-139 Issue 3:2015			RSS-139 Issue 3:2015			
RSS-170 Issue 3:2015			RSS-170 Issue 3:2015			
COMMENTS						
All measurement path losses were accounted for in the reference level offset including any attenuators, filters and DC blocks. The Band n66 NR5, NR10, NR15 and NR20 carrier power levels were reduced to demonstrate compliance with EIRP limits. The maximum port 1 PSD Lower limit level is 37.9 dBm/MHz for the base station calculated EIRP level not to exceed the EIRP limit (1640Watts/MHz). The maximum port 1 PSD higher limit level is 40.9 dBm/MHz for the base station calculated EIRP level not to exceed the EIRP limit (3280 Watts/MHz).						
DEVIATIONS FROM TEST STANDARD						
None						
Configuration #	2	<div>Signature</div> 				
		Initial Value dBm/MHz == PSD	Duty Cycle Factor (dB)	Single Port dBm/MHz == PSD	Limit (dBm/MHz)	Results
Port 1, Band n66, 2110 MHz - 2200 MHz, 5G NR						
QPSK Modulation						
Single Carrier						
5 MHz Bandwidth, Low Limit						
	Low Channel, 2112.5 MHz	37.505	0	37.5	37.9	Pass
5 MHz Bandwidth, High Limit						
	Low Channel, 2112.5 MHz	40.491	0	40.5	40.9	Pass
16-QAM Modulation						
Single Carrier						
10 MHz Bandwidth, Low Limit						
	Mid Channel, 2155.0 MHz	37.601	0	37.6	37.9	Pass
15 MHz Bandwidth, Low Limit						
	Mid Channel, 2155.0 MHz	37.405	0	37.4	37.9	Pass
20 MHz Bandwidth, Low Limit						
	Mid Channel, 2155.0 MHz	37.331	0	37.3	37.9	Pass

POWER SPECTRAL DENSITY - LOWERED POWER

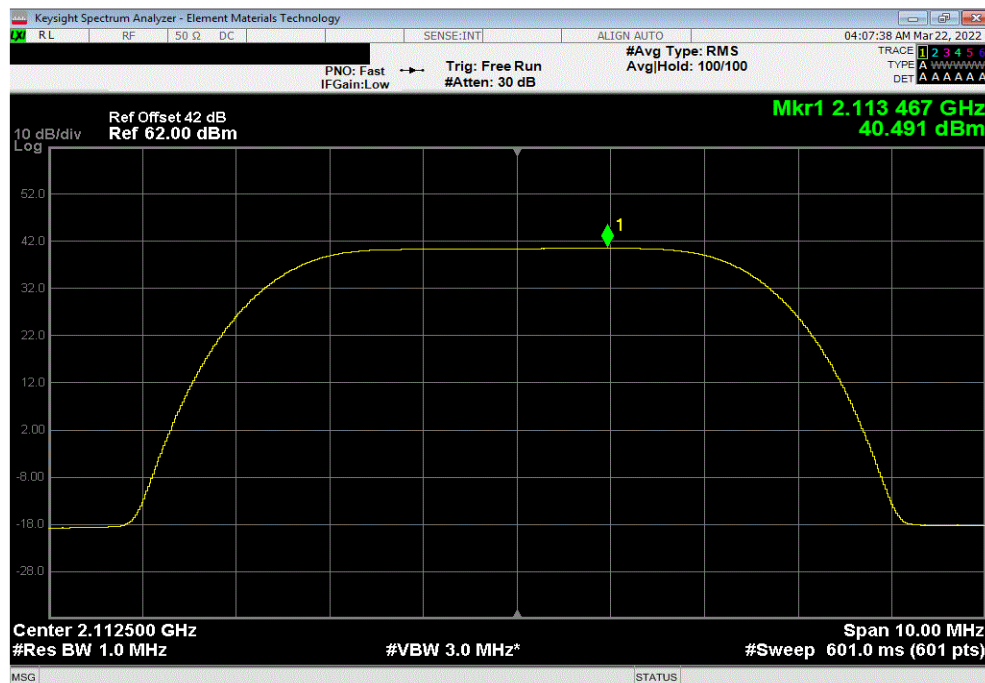


TbTx 2022.03.14.0 XMit 2022.02.07.0

Port 1, Band n66, 2110 MHz - 2200 MHz, 5G NR, QPSK Modulation, Single Carrier, 5 MHz Bandwidth, Low Limit, Low Channel, 2112.5 MHz						
Initial Value	Duty Cycle	Single Port		Limit	Results	
dBm/MHz == PSD	Factor (dB)	dBm/MHz == PSD	(dBm/MHz)			
37.505	0	37.5	37.9		Pass	



Port 1, Band n66, 2110 MHz - 2200 MHz, 5G NR, QPSK Modulation, Single Carrier, 5 MHz Bandwidth, High Limit, Low Channel, 2112.5 MHz						
Initial Value	Duty Cycle	Single Port		Limit	Results	
dBm/MHz == PSD	Factor (dB)	dBm/MHz == PSD	(dBm/MHz)			
40.491	0	40.5	40.9		Pass	

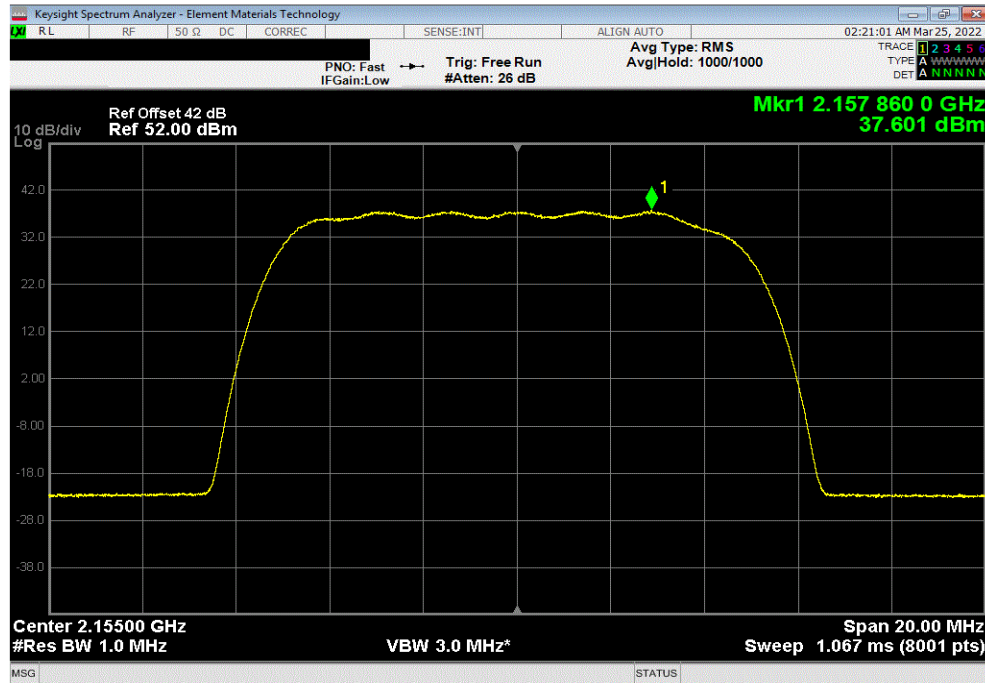


POWER SPECTRAL DENSITY - LOWERED POWER

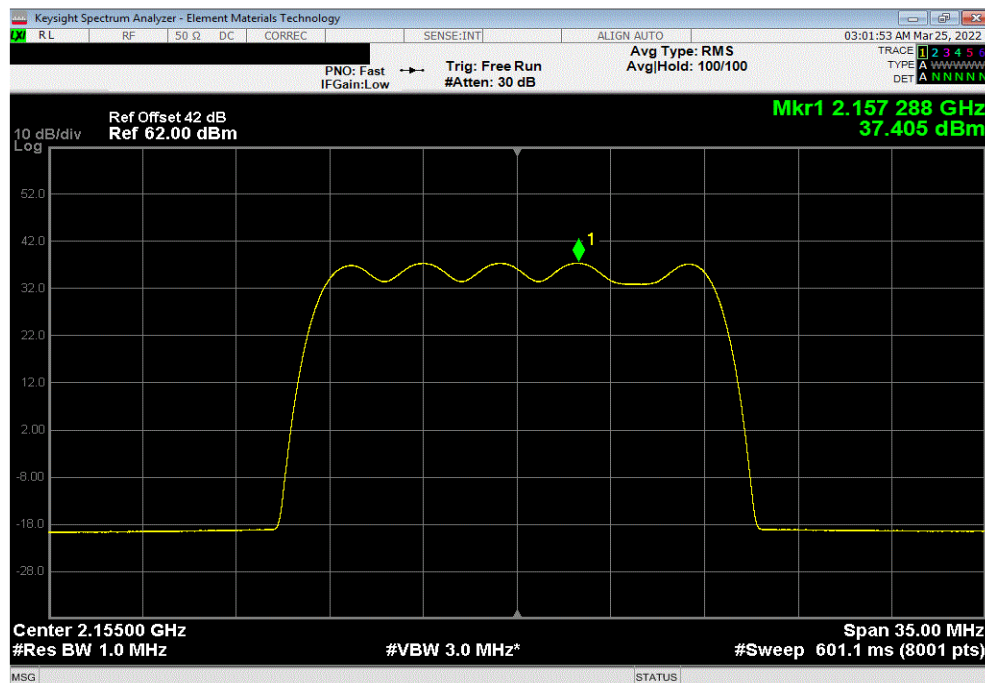


TbTx 2022.03.14.0 XMit 2022.02.07.0

Port 1, Band n66, 2110 MHz - 2200 MHz, 5G NR, 16-QAM Modulation, Single Carrier, 10 MHz Bandwidth, Low Limit, Mid Channel, 2155.0 MHz						
Initial Value	Duty Cycle	Single Port		Limit	Results	
dBm/MHz == PSD	Factor (dB)	dBm/MHz == PSD		(dBm/MHz)		
37.601	0	37.6		37.9	Pass	



Port 1, Band n66, 2110 MHz - 2200 MHz, 5G NR, 16-QAM Modulation, Single Carrier, 15 MHz Bandwidth, Low Limit, Mid Channel, 2155.0 MHz						
Initial Value	Duty Cycle	Single Port		Limit	Results	
dBm/MHz == PSD	Factor (dB)	dBm/MHz == PSD		(dBm/MHz)		
37.405	0	37.4		37.9	Pass	

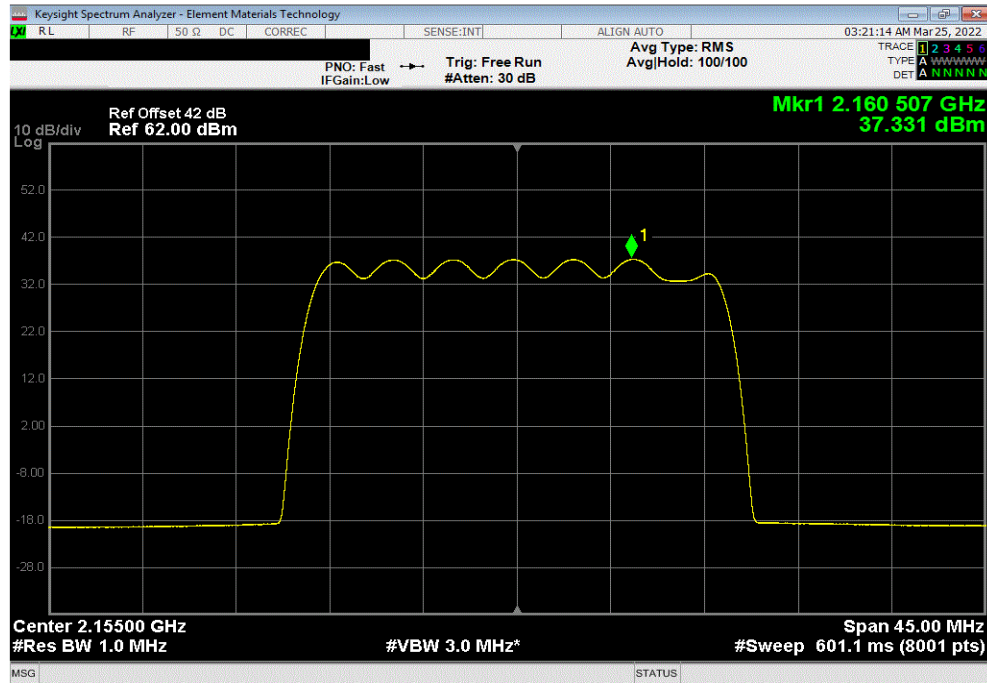


POWER SPECTRAL DENSITY - LOWERED POWER



TbTx 2022.03.14.0 XMt 2022.02.07.0

Port 1, Band n66, 2110 MHz - 2200 MHz, 5G NR, 16-QAM Modulation, Single Carrier, 20 MHz Bandwidth, Low Limit, Mid Channel, 2155.0 MHz						
Initial Value	Duty Cycle	Single Port	Limit			
dBm/MHz == PSD	Factor (dB)	dBm/MHz == PSD	(dBm/MHz)	Results		
37.331	0	37.3	37.9	Pass		



PEAK TO AVERAGE (PAPR) CCDF



XMIT 2020.12.30.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFQ	2022-01-17	2023-01-17
Block - DC	Fairview Microwave	SD3379	AMM	2021-09-14	2022-09-14
Spectrum Analyzer	Agilent Technologies, Inc.	N9020A	R316	2021-08-19	2023-08-19

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

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.


Per FCC part 24.232(d) and RSS 133 6.4, the PAPR limit shall not exceed 13 dB for more than the ANSI described 0.1% of the time.

Per FCC part 27.50(d)(5), RSS-139 6.5, and RSS-170 5.3.1, the maximum peak-to-average power ratio (PAPR) is 13dB.

RF conducted emissions testing was performed only on one port. The testing was performed on the same version of hardware (AHFII) as the original certification test. The AHFII 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.

PEAK TO AVERAGE (PAPR) CCDF



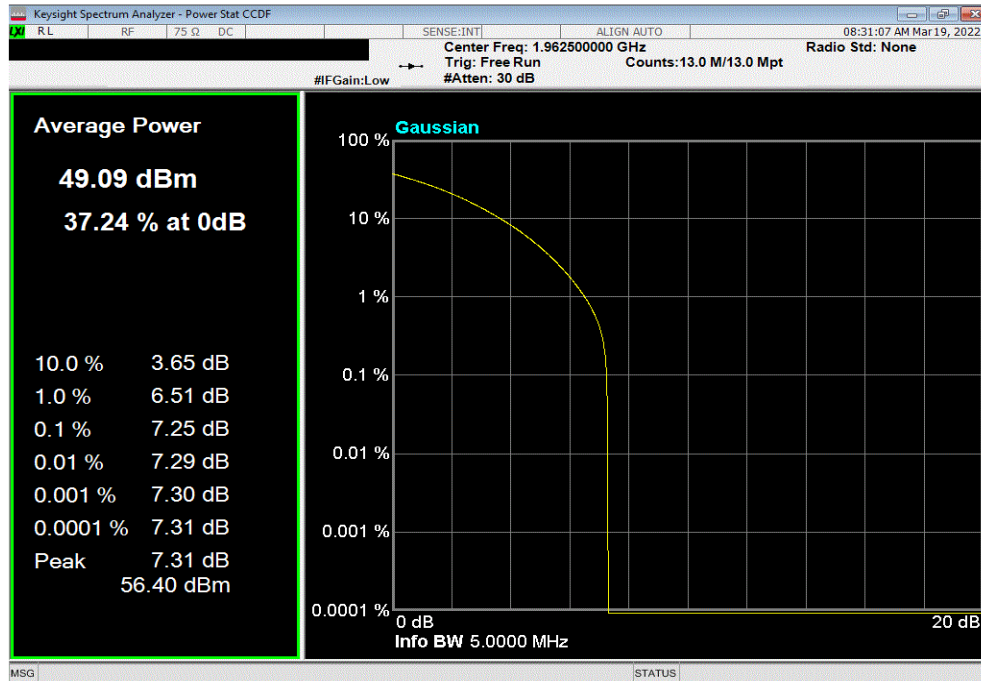
EUT: AHFII Remote Radio Head		Work Order: NOKI0038
Serial Number: YK214000035		Date: 18-Mar-22
Customer: Nokia of America Corporation		Temperature: 19.6 °C
Attendees: Mitchell Hill		Humidity: 30.9% RH
Project: None		Barometric Pres.: 1018 mbar
Tested by: Brandon Hobbs	Power: 54 VDC	Job Site: TX06
TEST SPECIFICATIONS		Test Method
FCC 24E:2022		ANSI C63.26:2015
RSS-133 Issue 6:2013+A1:2018		RSS-133 Issue 6:2013+A1:2018
COMMENTS		
All measurement path losses were accounted for in the reference level offset including any attenuators, filters and DC blocks. Band n25 carriers are enabled at maximum power (80 watts/carrier).		
DEVIATIONS FROM TEST STANDARD		
None		
Configuration #	2	Signature 
		PAPR Value (dB) PAPR Limit (dB) Results
Band n25, 1930 MHz - 1995 MHz, 5G NR		
Port 1		
5 MHz Bandwidth		
QPSK Modulation		
Mid Channel, 1962.5 MHz		7.25 13 Pass
16-QAM Modulation		
Mid Channel, 1962.5 MHz		7.43 13 Pass
64-QAM Modulation		
Mid Channel, 1962.5 MHz		7.24 13 Pass
256-QAM Modulation		
Low Channel, 1932.5 MHz		7.27 13 Pass
Mid Channel, 1962.5 MHz		7.26 13 Pass
High Channel, 1992.5 MHz		7.24 13 Pass
10 MHz Bandwidth		
256-QAM Modulation		
Low Channel, 1935 MHz		7.32 13 Pass
Mid Channel, 1962.5 MHz		7.25 13 Pass
High Channel, 1990 MHz		7.26 13 Pass
15 MHz Bandwidth		
256-QAM Modulation		
Low Channel, 1937.5 MHz		7.40 13 Pass
Mid Channel, 1962.5 MHz		7.22 13 Pass
High Channel, 1987.5 MHz		7.28 13 Pass
20 MHz Bandwidth		
256-QAM Modulation		
Low Channel, 1940 MHz		7.39 13 Pass
Mid Channel, 1962.5 MHz		7.12 13 Pass
High Channel, 1985 MHz		7.23 13 Pass
30 MHz Bandwidth		
256-QAM Modulation		
Low Channel, 1945 MHz		7.55 13 Pass
Mid Channel, 1962.5 MHz		7.13 13 Pass
High Channel, 1980 MHz		7.30 13 Pass

PEAK TO AVERAGE (PAPR) CCDF

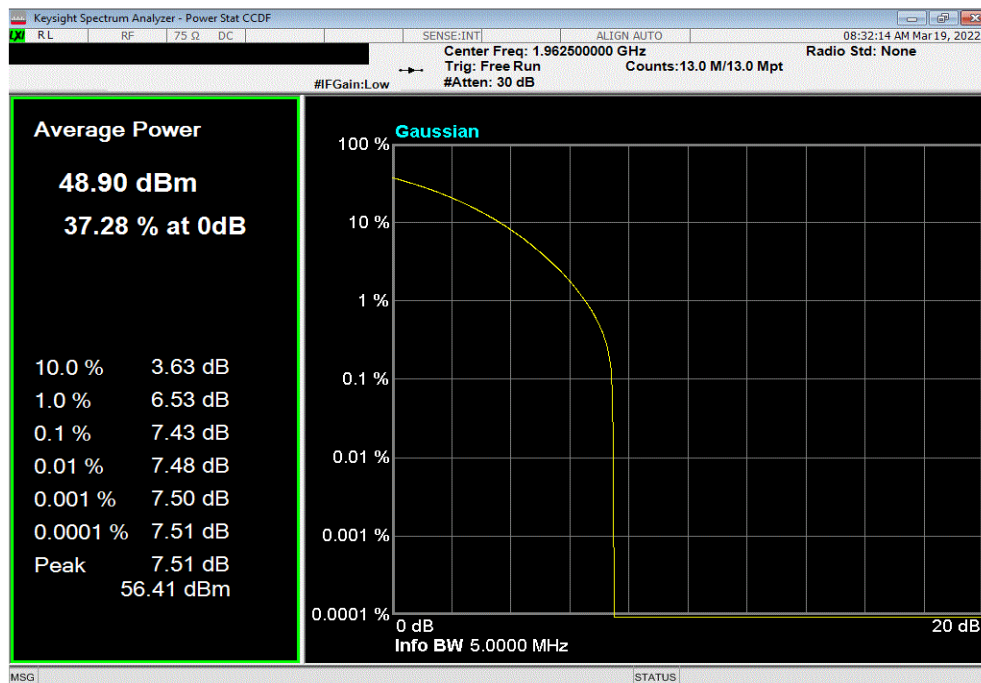


TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 5 MHz Bandwidth, QPSK Modulation, Mid Channel, 1962.5 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	7.25	13	Pass			



Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 5 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1962.5 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	7.43	13	Pass			

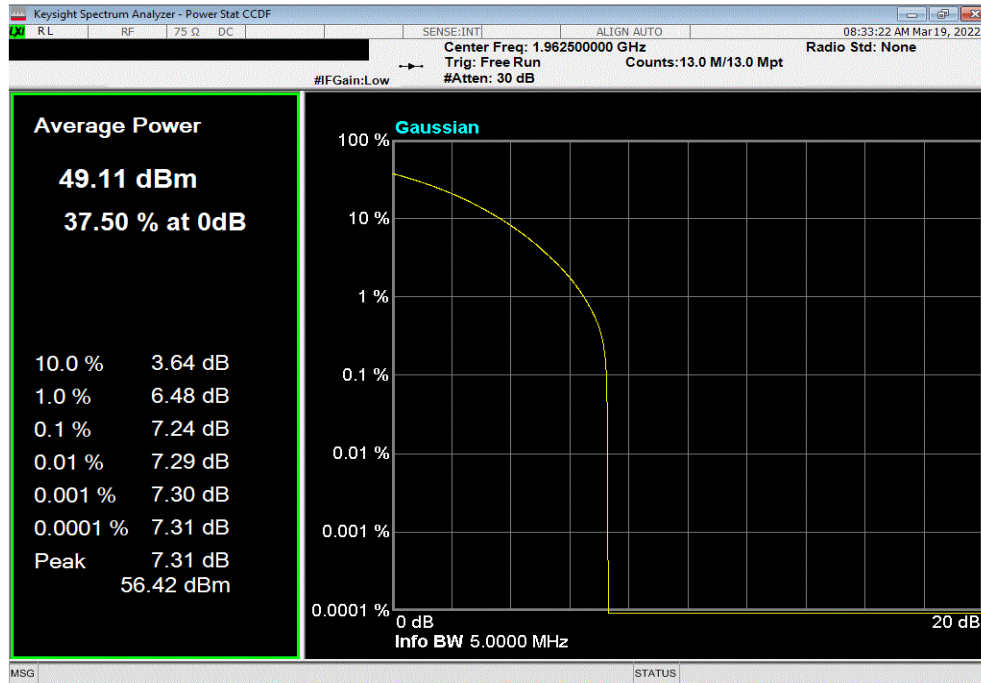


PEAK TO AVERAGE (PAPR) CCDF

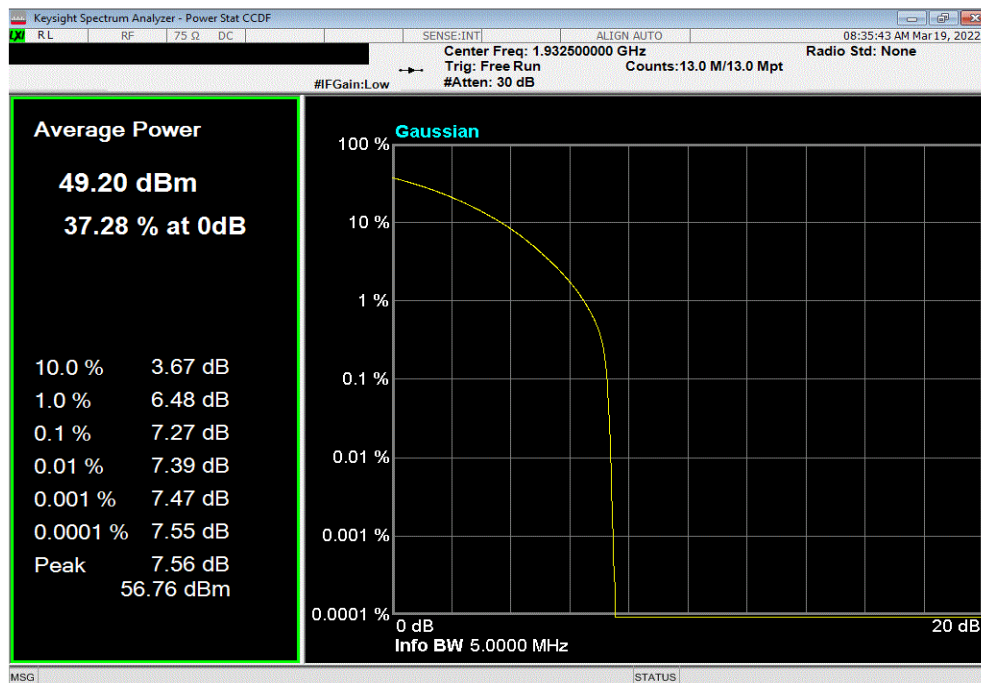


TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 5 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1962.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.24	13	Pass



Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 5 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1932.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.27	13	Pass

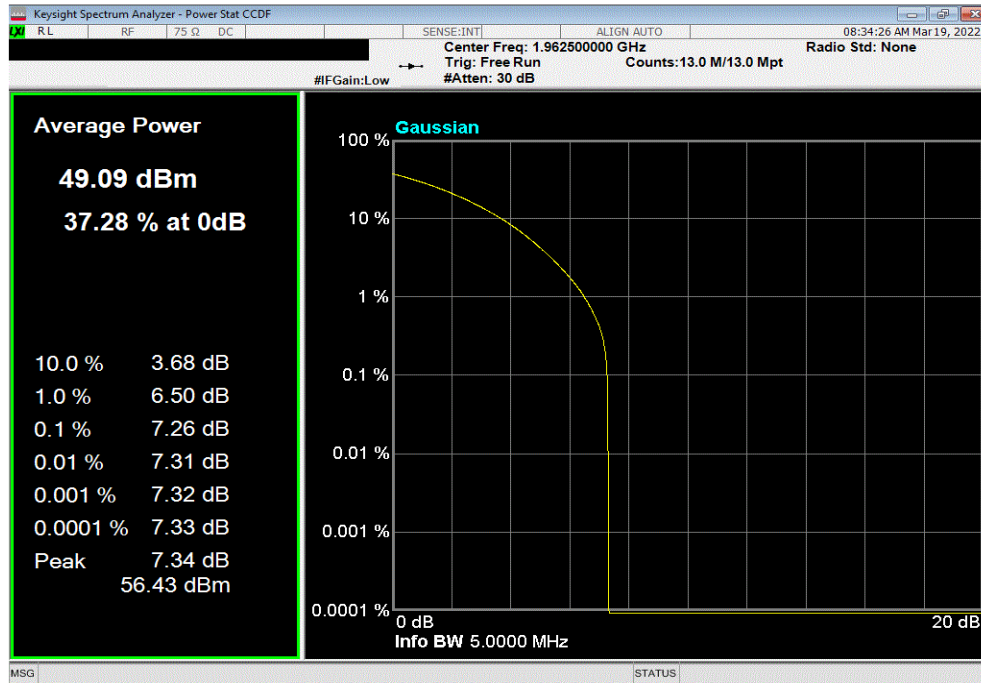


PEAK TO AVERAGE (PAPR) CCDF

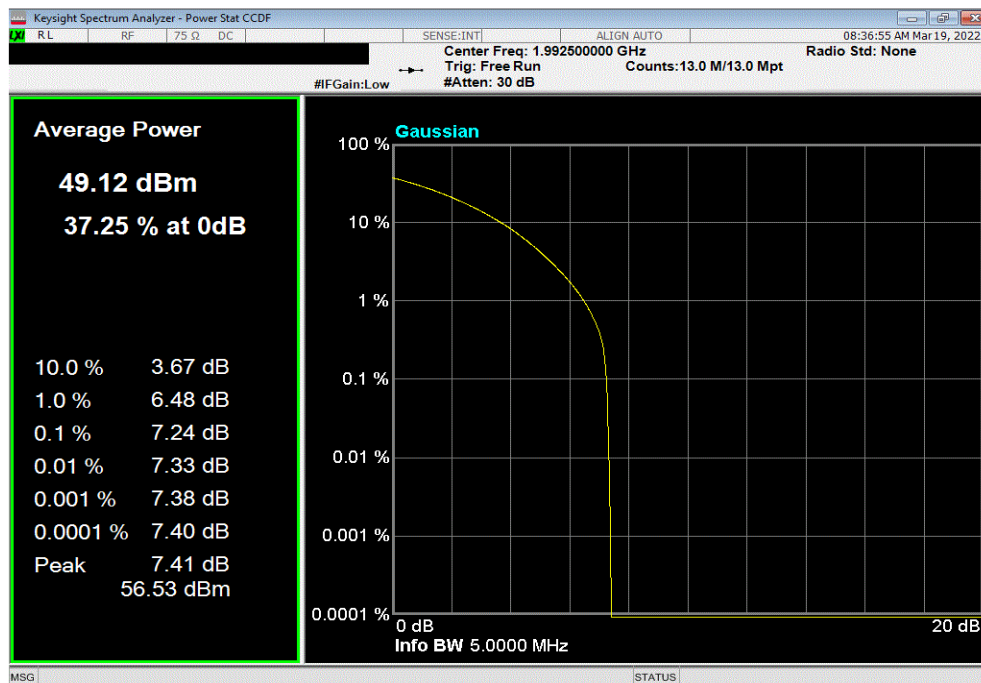


TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 5 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.26	13	Pass



Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 5 MHz Bandwidth, 256-QAM Modulation, High Channel, 1992.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.24	13	Pass

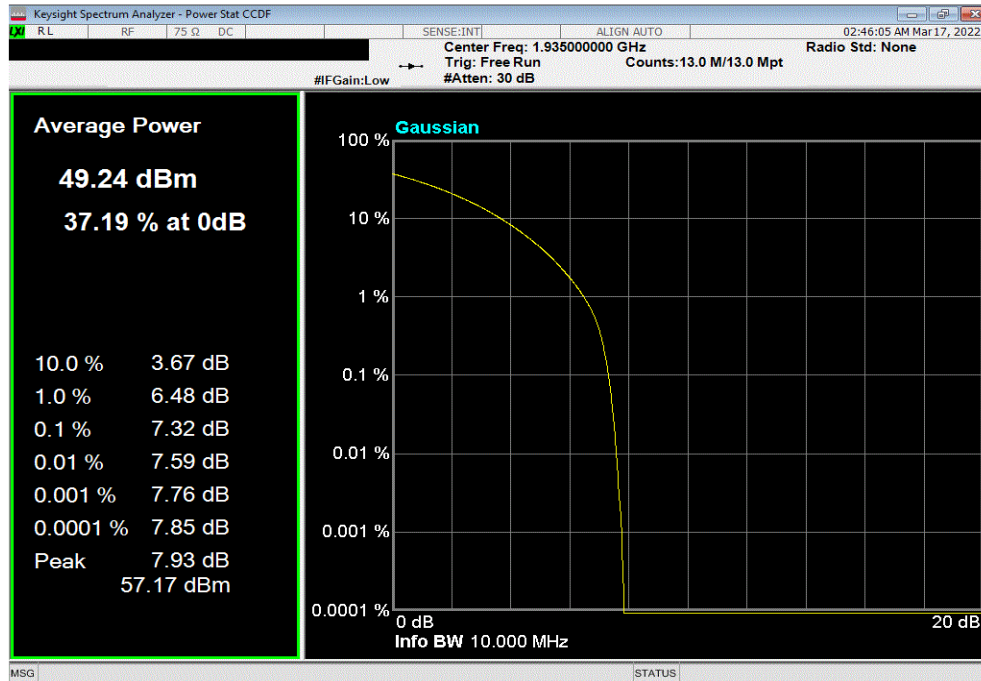


PEAK TO AVERAGE (PAPR) CCDF

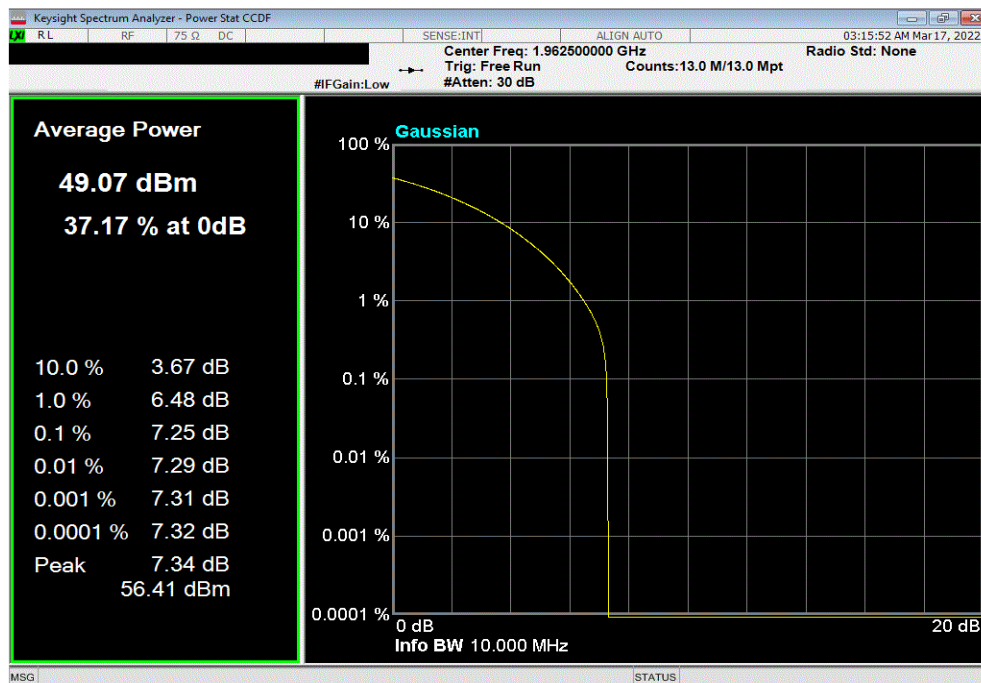


TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 10 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1935 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	7.32	13	Pass			



Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 10 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	7.25	13	Pass			

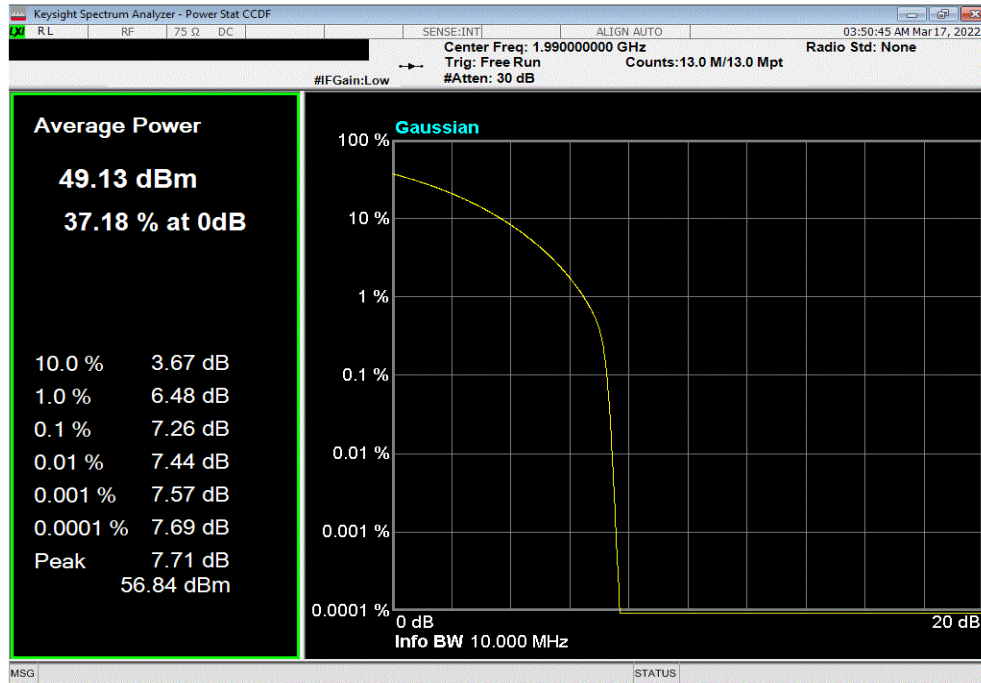


PEAK TO AVERAGE (PAPR) CCDF

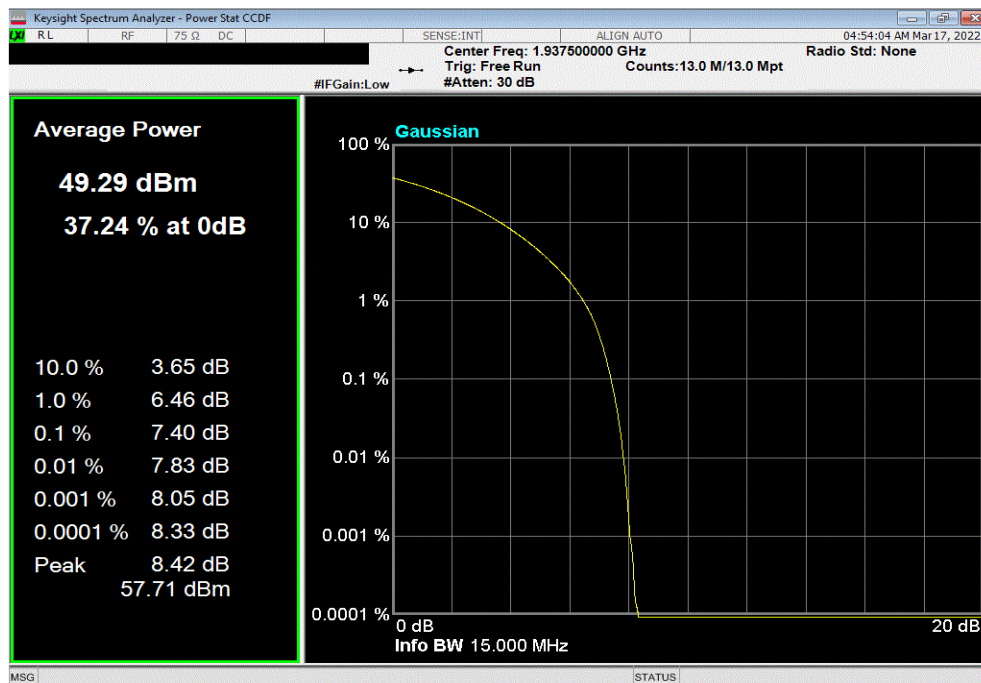


TbTx 2022.03.14.0 XMI 2022.02.07.0

Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 10 MHz Bandwidth, 256-QAM Modulation, High Channel, 1990 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	7.26	13	Pass			



Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 15 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1937.5 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	7.4	13	Pass			

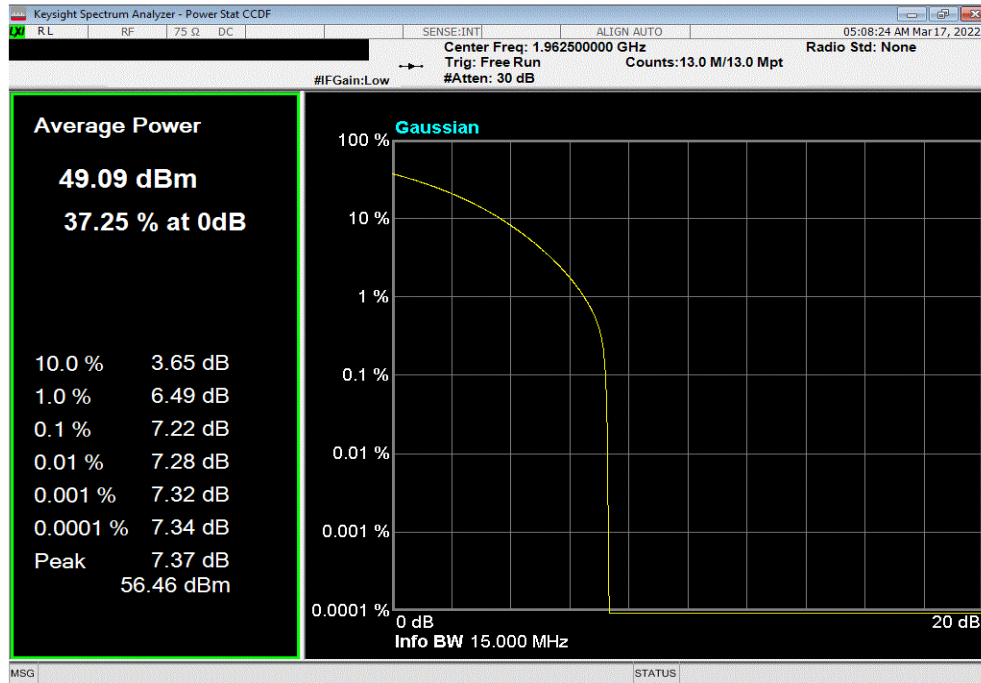


PEAK TO AVERAGE (PAPR) CCDF

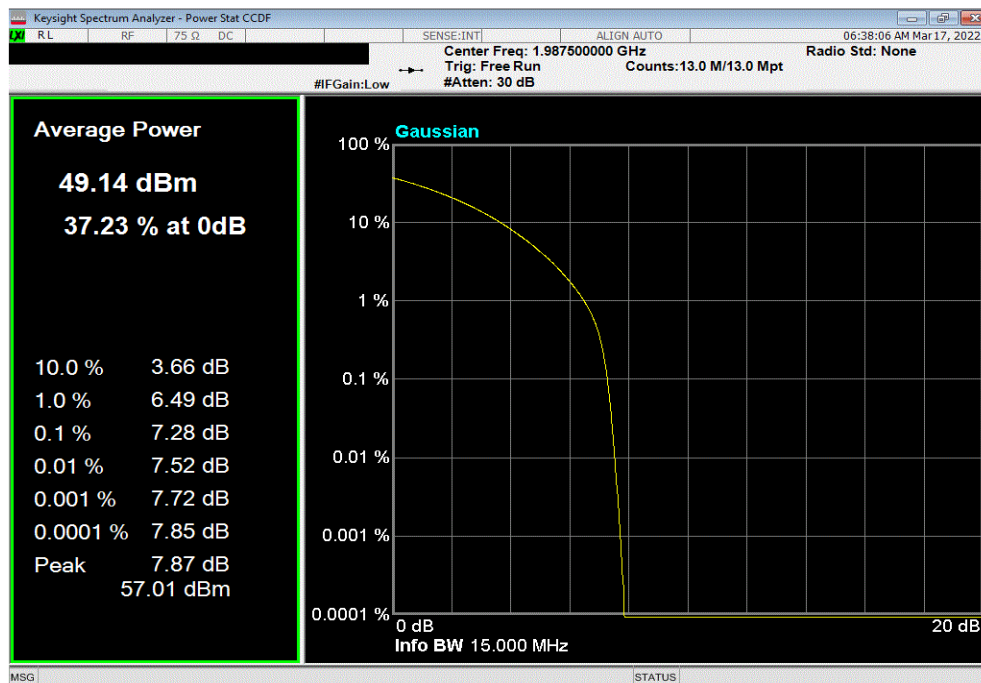


TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 15 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.22	13	Pass



Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 15 MHz Bandwidth, 256-QAM Modulation, High Channel, 1987.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.28	13	Pass

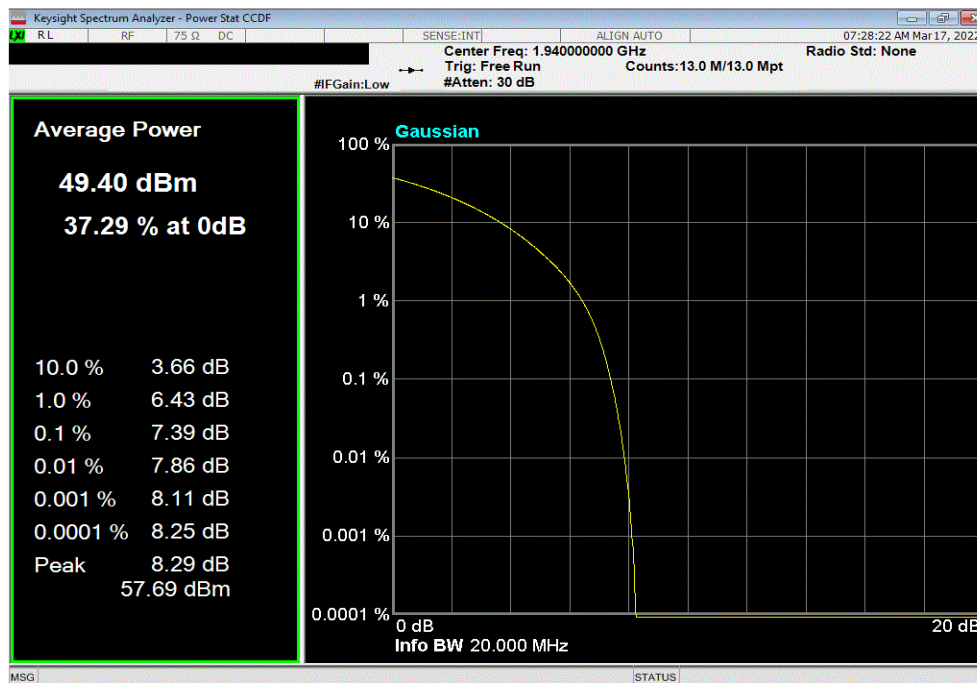


PEAK TO AVERAGE (PAPR) CCDF

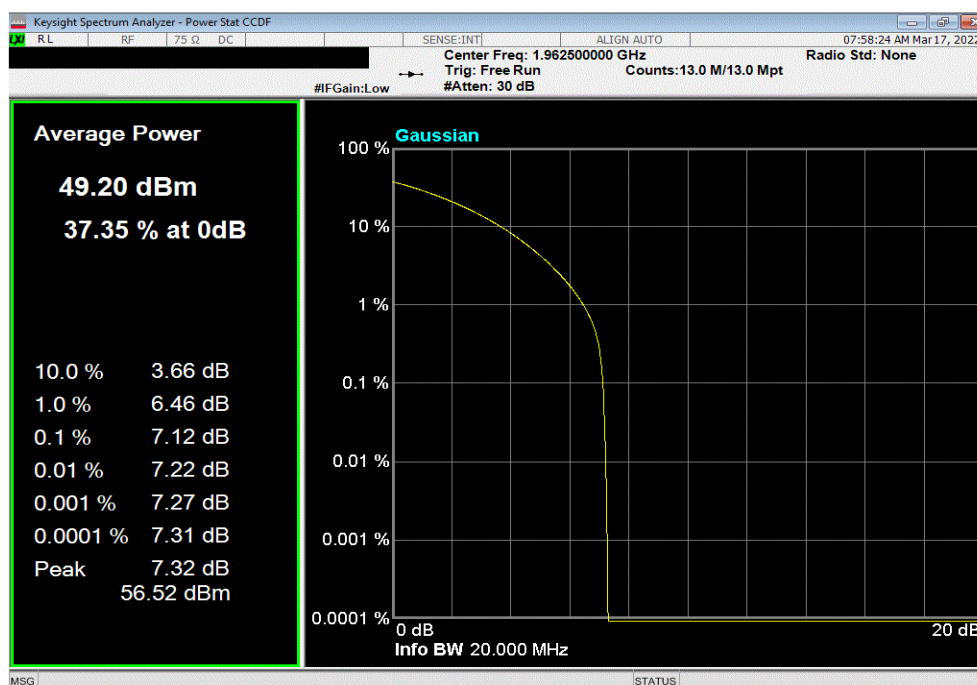


TbTx 2022.03.14.0 XMI 2022.02.07.0

Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 20 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1940 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	7.39	13	Pass			



Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 20 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz.						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	7.12	13	Pass			

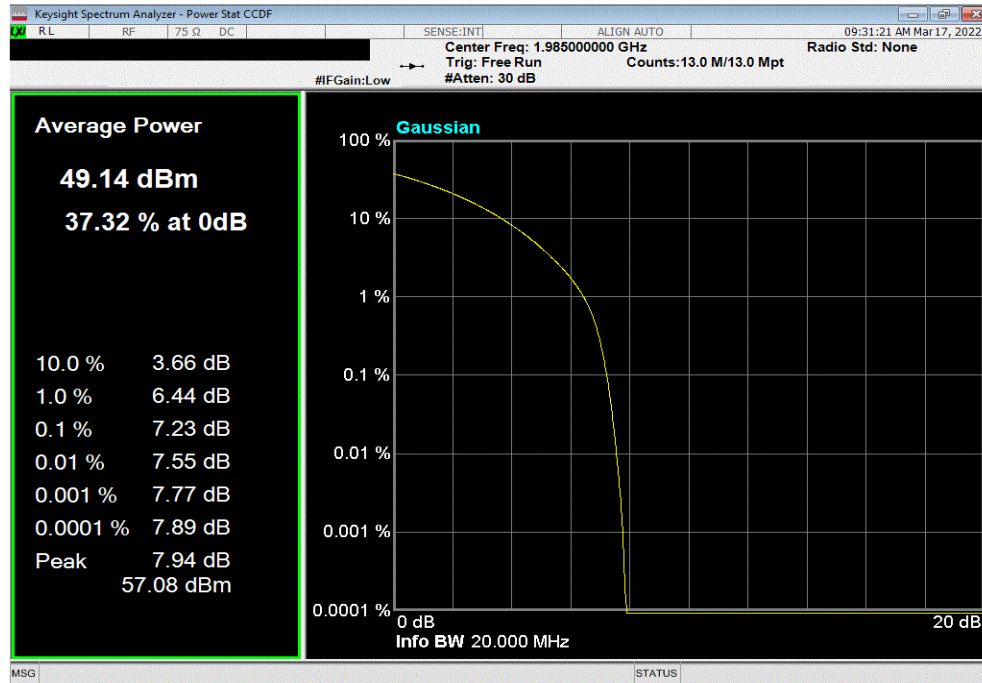


PEAK TO AVERAGE (PAPR) CCDF

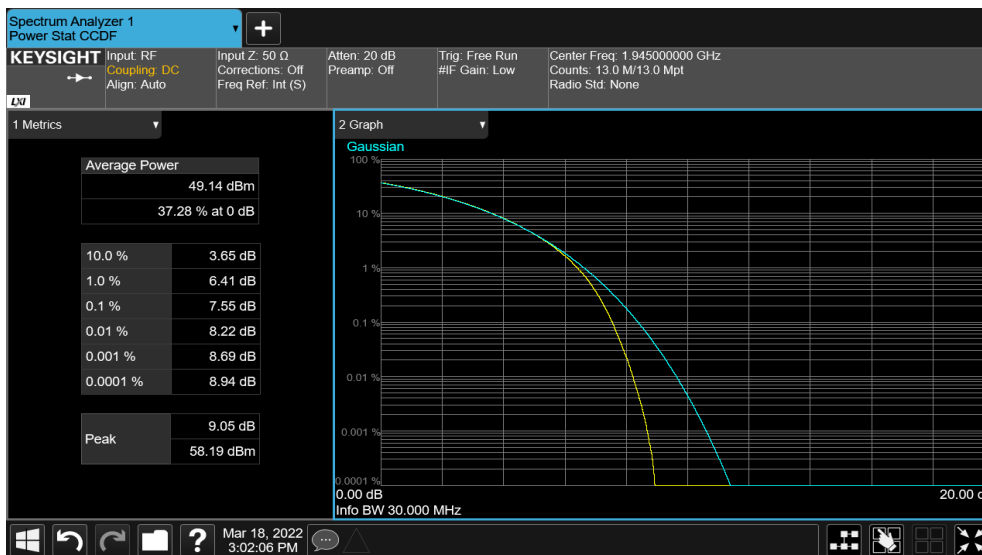


TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 20 MHz Bandwidth, 256-QAM Modulation, High Channel, 1985 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.23	13	Pass



Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 30 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1945 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.55	13	Pass

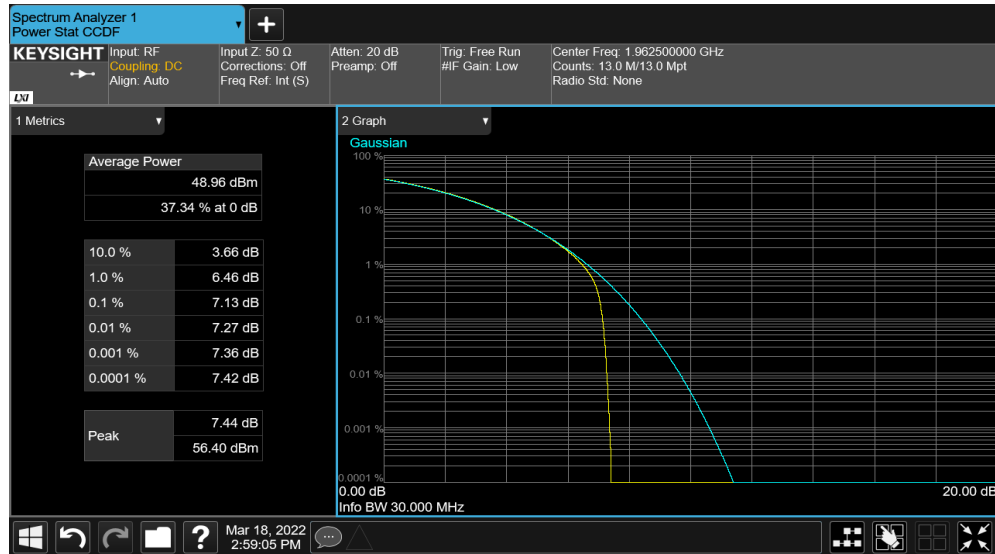


PEAK TO AVERAGE (PAPR) CCDF

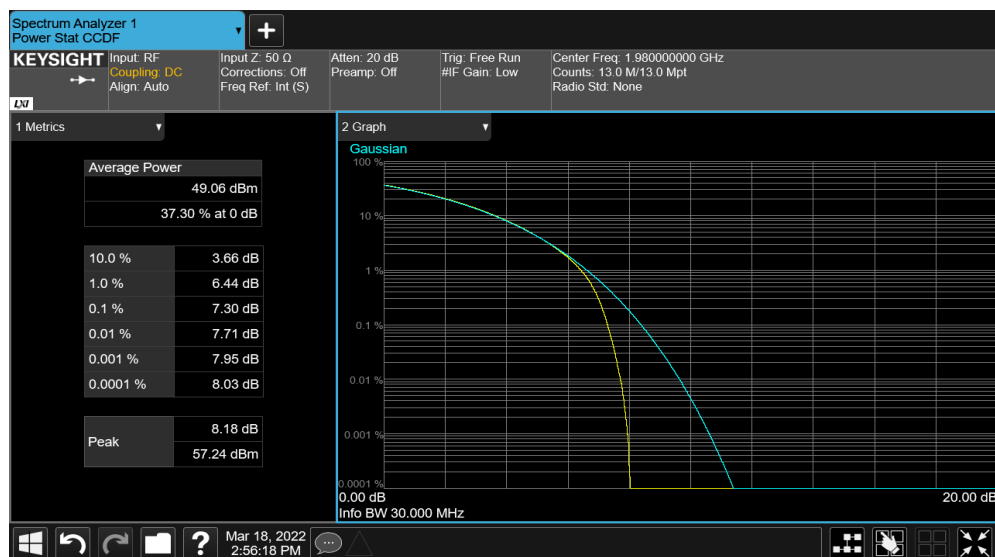


TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 30 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.13	13	Pass



Band n25, 1930 MHz - 1995 MHz, 5G NR, Port 1, 30 MHz Bandwidth, 256-QAM Modulation, High Channel, 1980 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.3	13	Pass



PEAK TO AVERAGE (PAPR) CCDF



ThxTx 2022.03.14.0 XMM 2022.02.07.0

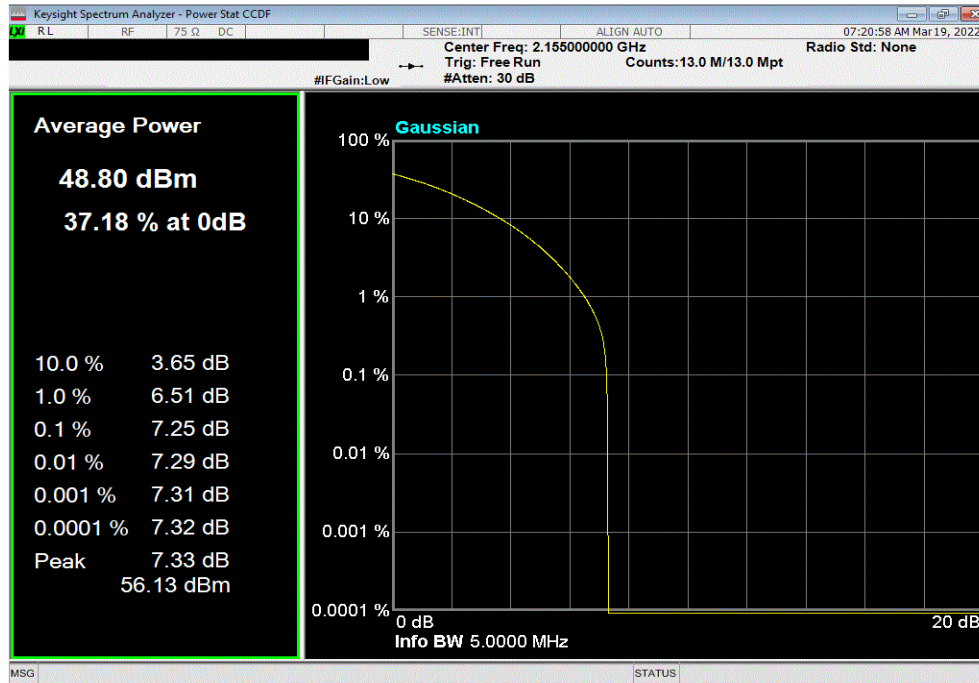
EUT: AHFI Remote Radio Head		Work Order: NOKI0038
Serial Number: YK214000035		Date: 19-Mar-22
Customer: Nokia of America Corporation		Temperature: 22.1 °C
Attendees: Mitchell Hill		Humidity: 43.2% RH
Project: None		Barometric Pres.:
Tested by: Brandon Hobbs	Power: 54 VDC	Job Site: TX09
TEST SPECIFICATIONS		
FCC 27:2022		Test Method
RSS-139 Issue 3:2015, RSS-170 Issue 3:2015		ANSI C63.26:2015
COMMENTS		RSS-139 Issue 3:2015, RSS-170 Issue 3:2015
All measurement path losses were accounted for in the reference level offset including any attenuators, filters and DC blocks. Band n66 carriers are enabled at maximum power (80 watts/carrier).		
DEVIATIONS FROM TEST STANDARD		
None		
Configuration #	2	Signature
		PAPR Value (dB) PAPR Limit (dB) Results
Band n66, 2110 MHz - 2200 MHz, 5G NR		
Port 1		
5 MHz Bandwidth		
QPSK Modulation		
Mid Channel, 2155 MHz		7.25 13 Pass
16-QAM Modulation		
Mid Channel, 2155 MHz		7.43 13 Pass
64-QAM Modulation		
Mid Channel, 2155 MHz		7.25 13 Pass
256-QAM Modulation		
Low Channel, 2112.5 MHz		7.26 13 Pass
Mid Channel, 2155 MHz		7.26 13 Pass
High Channel, 2197.5 MHz		7.26 13 Pass
10 MHz Bandwidth		
256-QAM Modulation		
Low Channel, 2115 MHz		7.26 13 Pass
Mid Channel, 2155 MHz		7.26 13 Pass
High Channel, 2195 MHz		7.26 13 Pass
15 MHz Bandwidth		
256-QAM Modulation		
Low Channel, 2117.5 MHz		7.27 13 Pass
Mid Channel, 2155 MHz		7.23 13 Pass
High Channel, 2192.5 MHz		7.26 13 Pass
20 MHz Bandwidth		
256-QAM Modulation		
Low Channel, 2120 MHz		7.21 13 Pass
Mid Channel, 2155 MHz		7.13 13 Pass
High Channel, 2190 MHz		7.19 13 Pass
30 MHz Bandwidth		
256-QAM Modulation		
Low Channel, 2125 MHz		7.27 13 Pass
Mid Channel, 2155 MHz		7.11 13 Pass
High Channel, 2185 MHz		7.24 13 Pass

PEAK TO AVERAGE (PAPR) CCDF

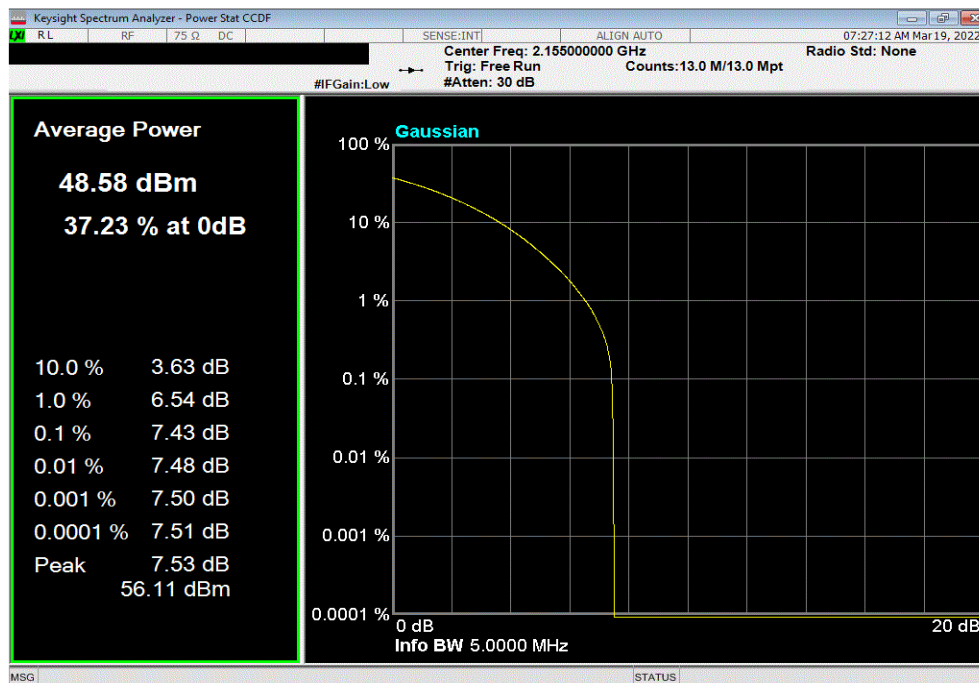


TbTx 2022.03.14.0 XMit 2022.02.07.0

Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 5 MHz Bandwidth, QPSK Modulation, Mid Channel, 2155 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.25	13	Pass



Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 5 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 2155 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.43	13	Pass

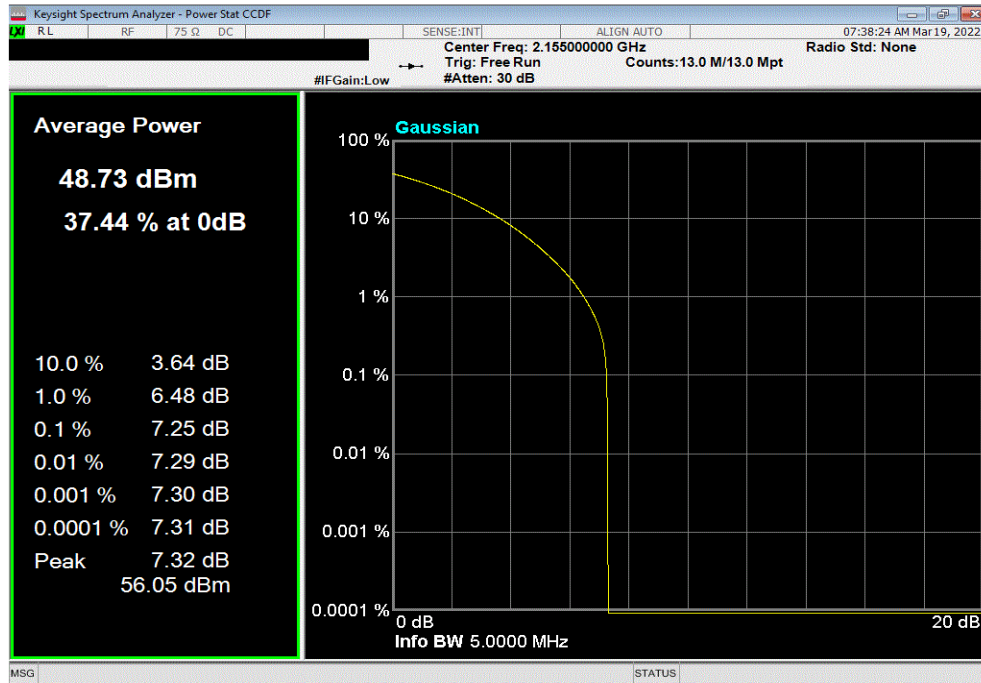


PEAK TO AVERAGE (PAPR) CCDF

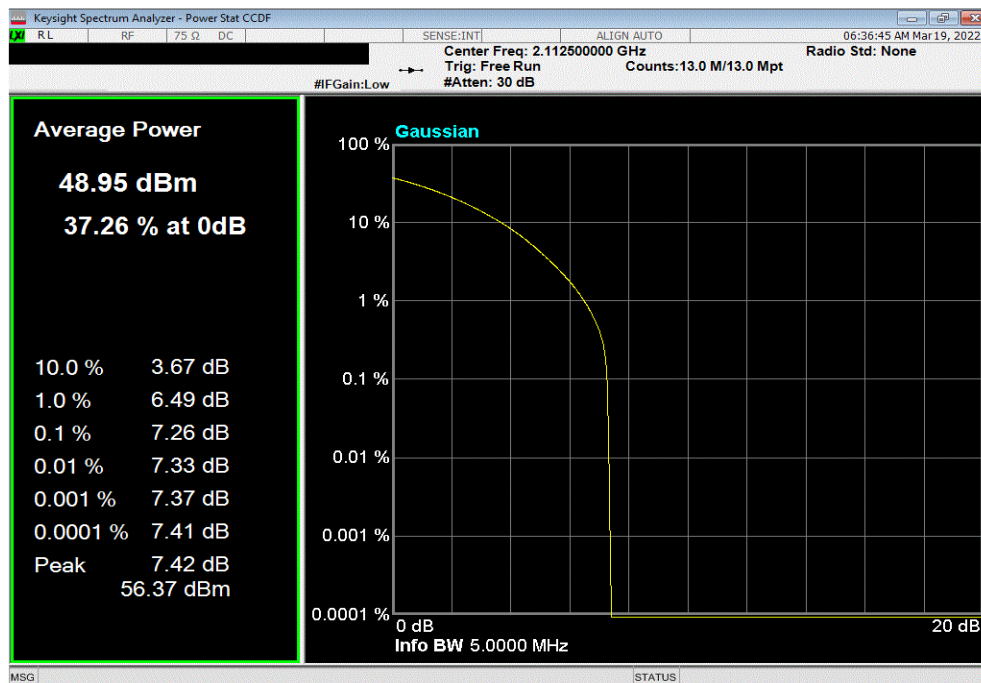


TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 5 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 2155 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.25	13	Pass



Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 5 MHz Bandwidth, 256-QAM Modulation, Low Channel, 2112.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.26	13	Pass

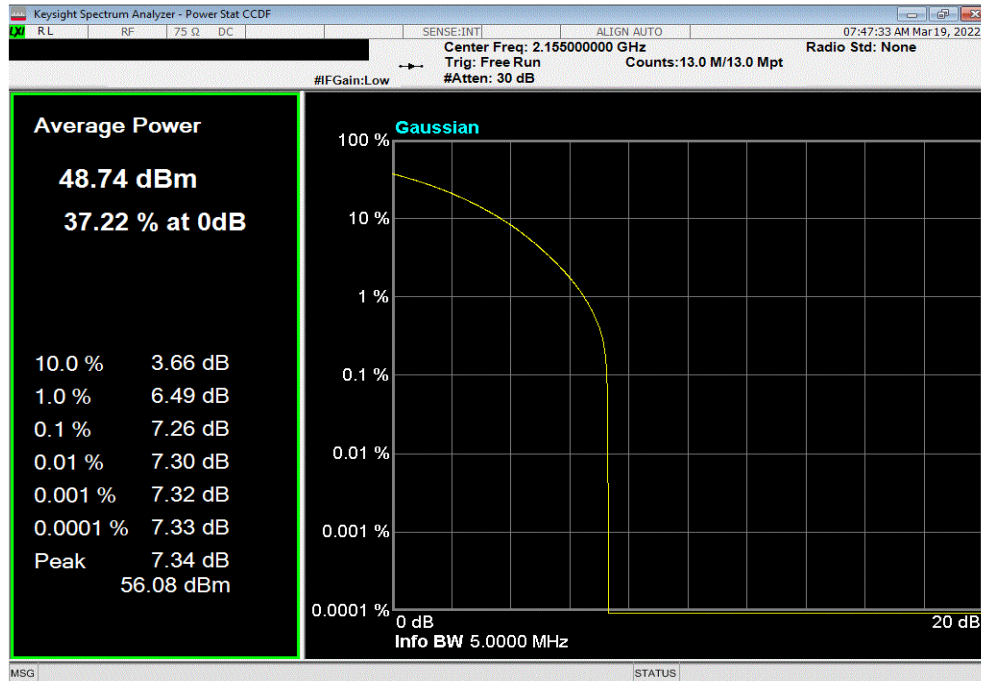


PEAK TO AVERAGE (PAPR) CCDF

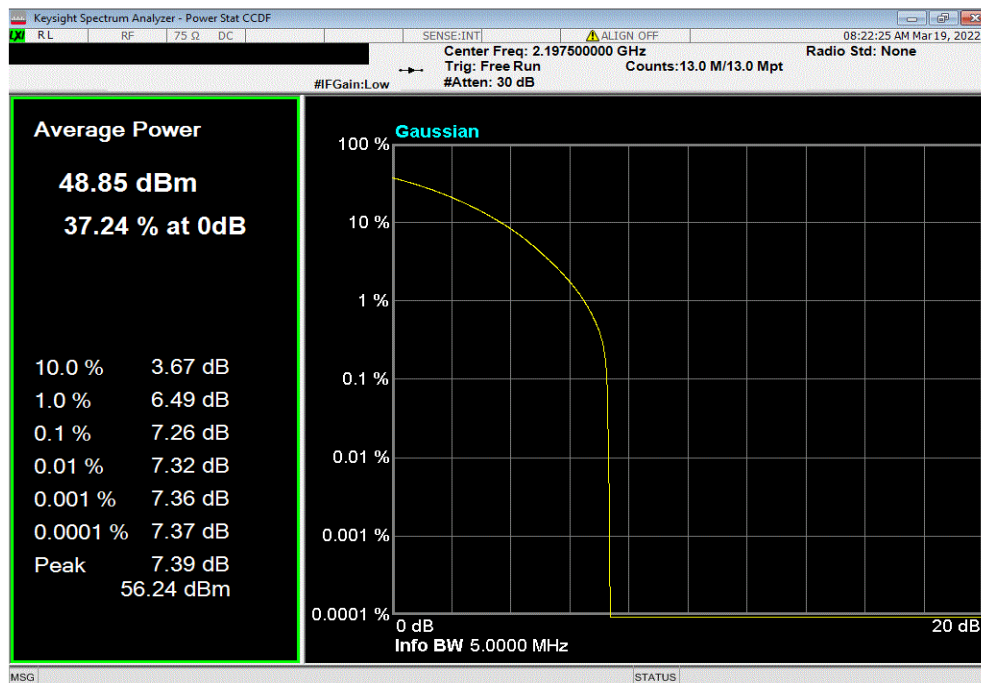


TbTtx 2022.03.14.0 XMt 2022.02.07.0

Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 5 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 2155 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.26	13	Pass



Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 5 MHz Bandwidth, 256-QAM Modulation, High Channel, 2197.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.26	13	Pass

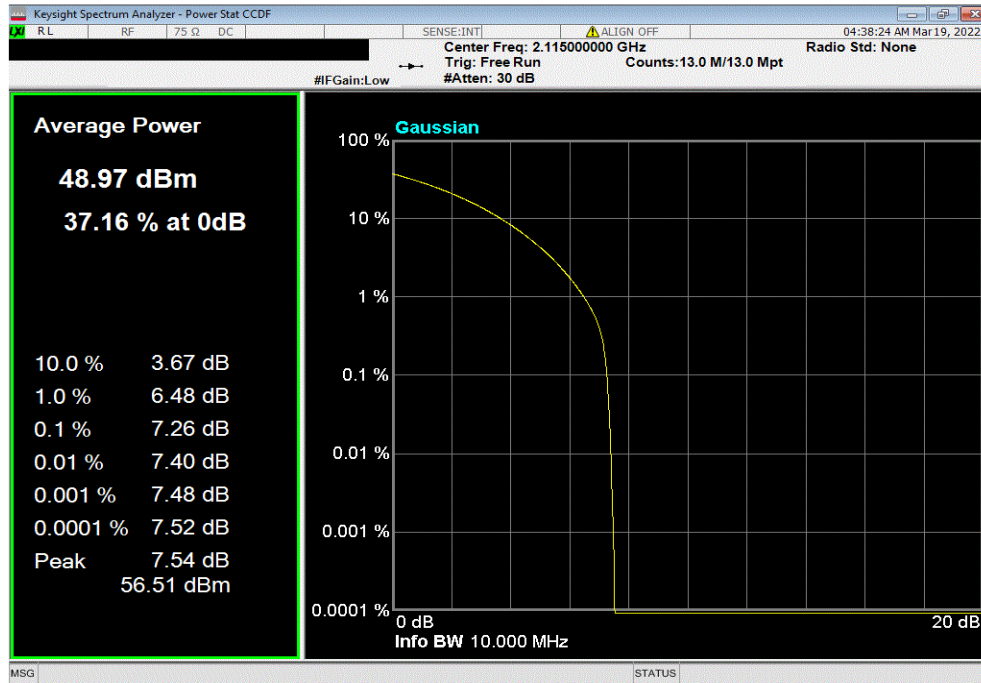


PEAK TO AVERAGE (PAPR) CCDF

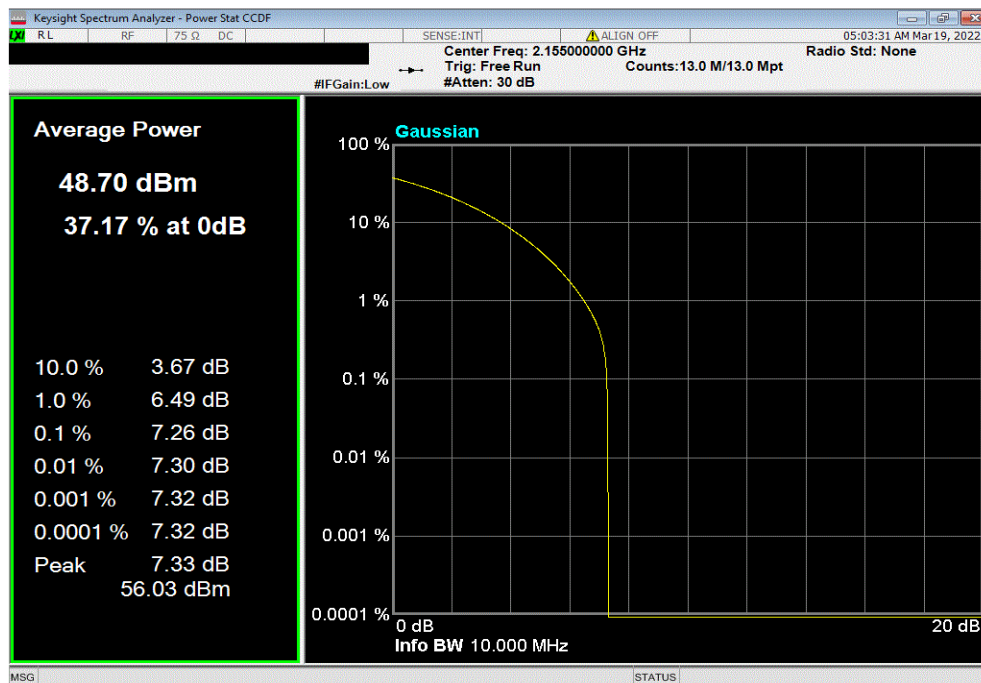


TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 10 MHz Bandwidth, 256-QAM Modulation, Low Channel, 2115 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.26	13	Pass



Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 10 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 2155 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.26	13	Pass

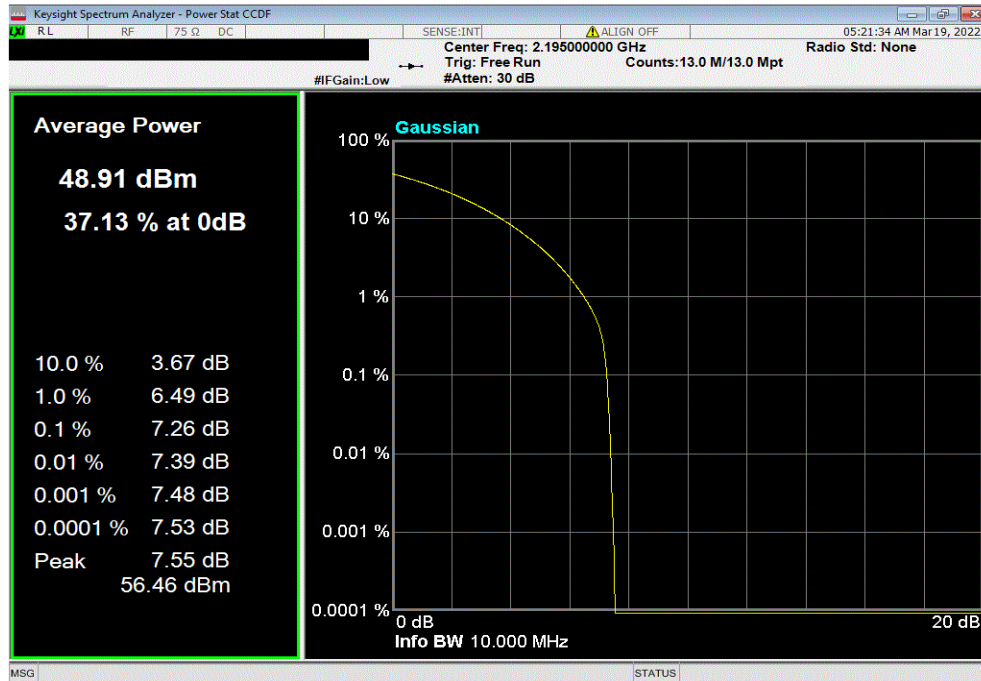


PEAK TO AVERAGE (PAPR) CCDF

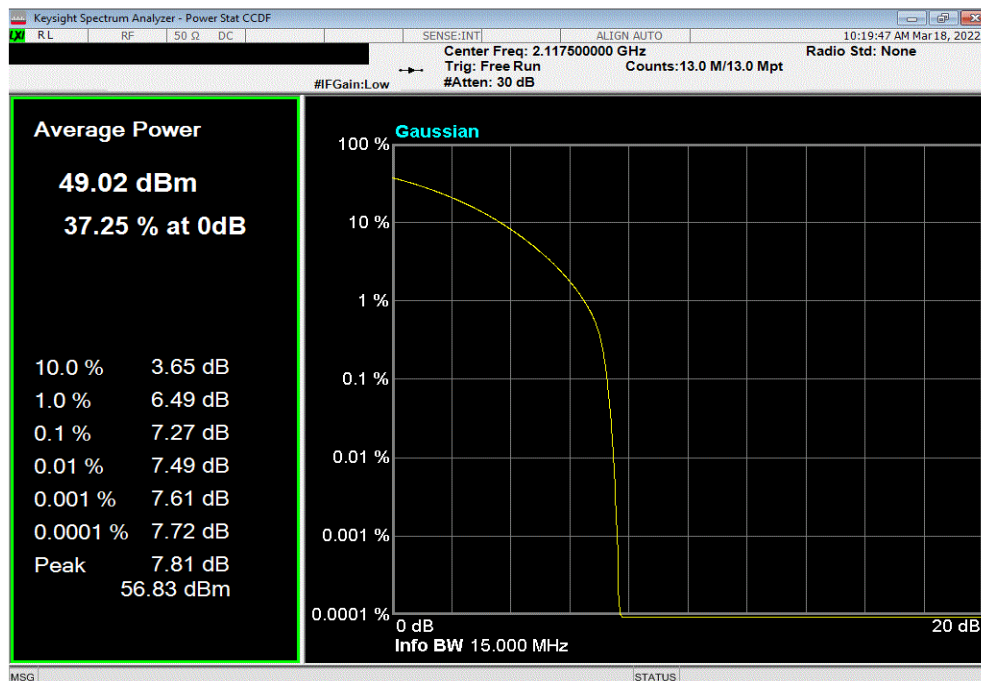


TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 10 MHz Bandwidth, 256-QAM Modulation, High Channel, 2195 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	7.26	13	Pass			



Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 15 MHz Bandwidth, 256-QAM Modulation, Low Channel, 2117.5 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	7.27	13	Pass			

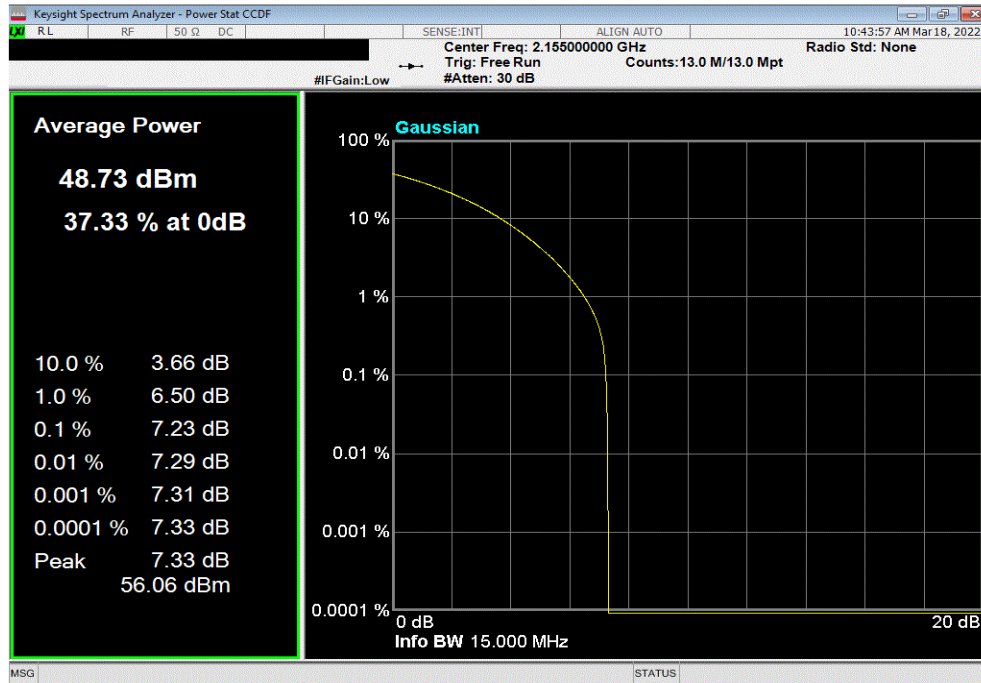


PEAK TO AVERAGE (PAPR) CCDF

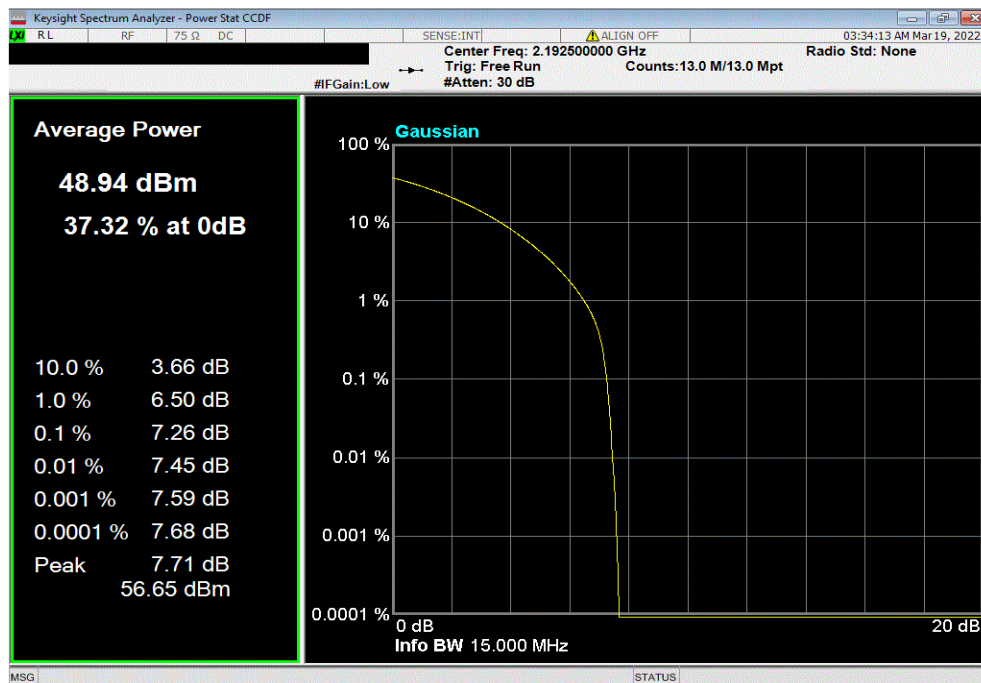


TbTx 2022.03.14.0 XMI 2022.02.07.0

Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 15 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 2155 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.23	13	Pass



Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 15 MHz Bandwidth, 256-QAM Modulation, High Channel, 2192.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.26	13	Pass

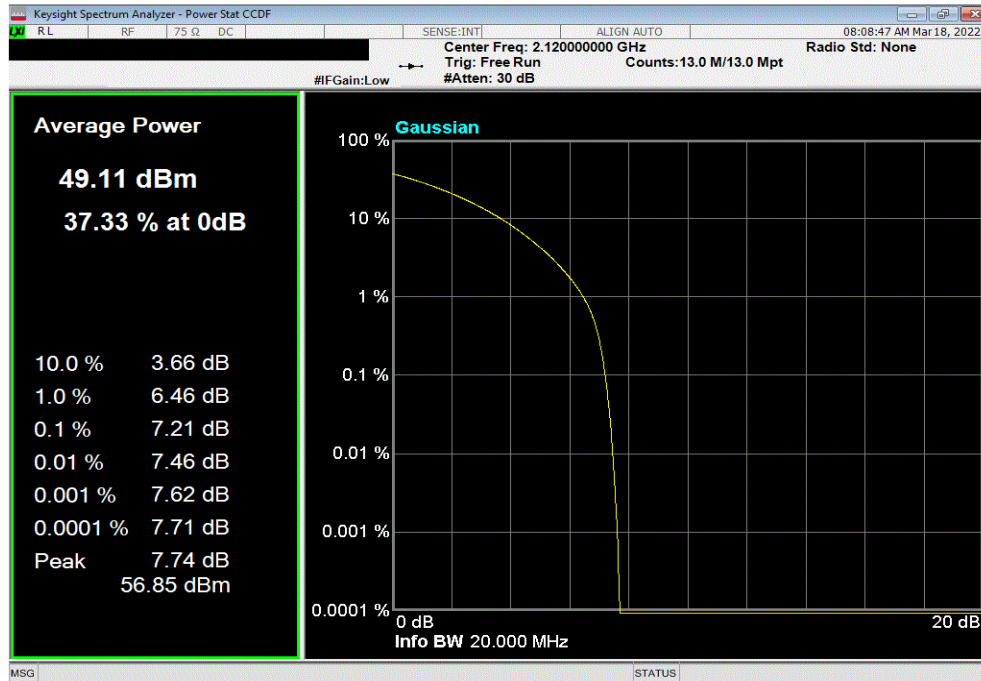


PEAK TO AVERAGE (PAPR) CCDF

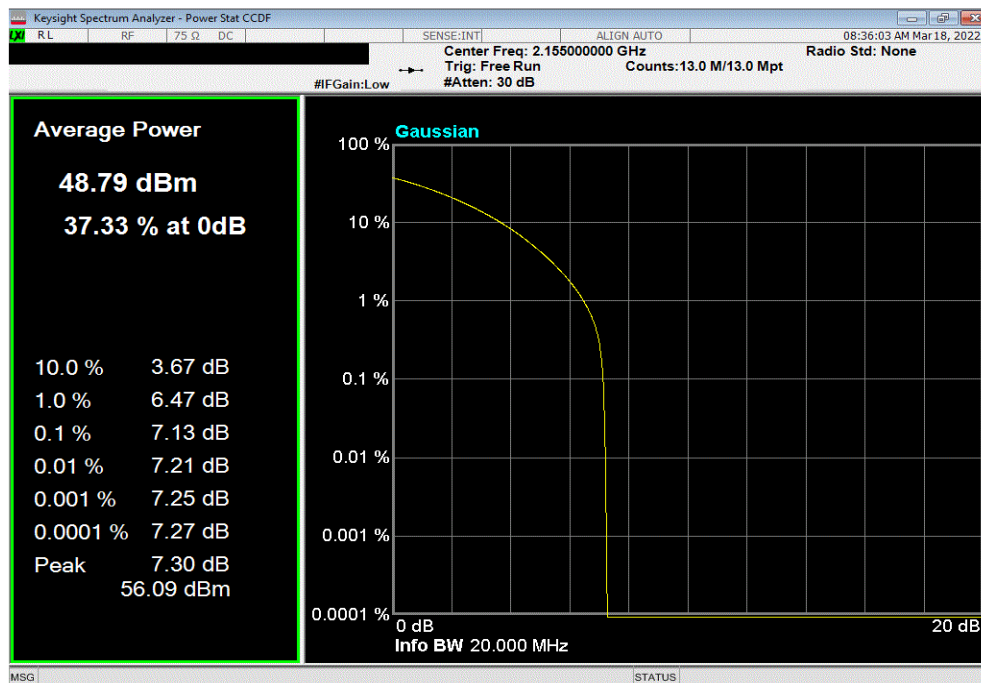


TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 20 MHz Bandwidth, 256-QAM Modulation, Low Channel, 2120 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	7.21	13	Pass			



Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 20 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 2155 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	7.13	13	Pass			

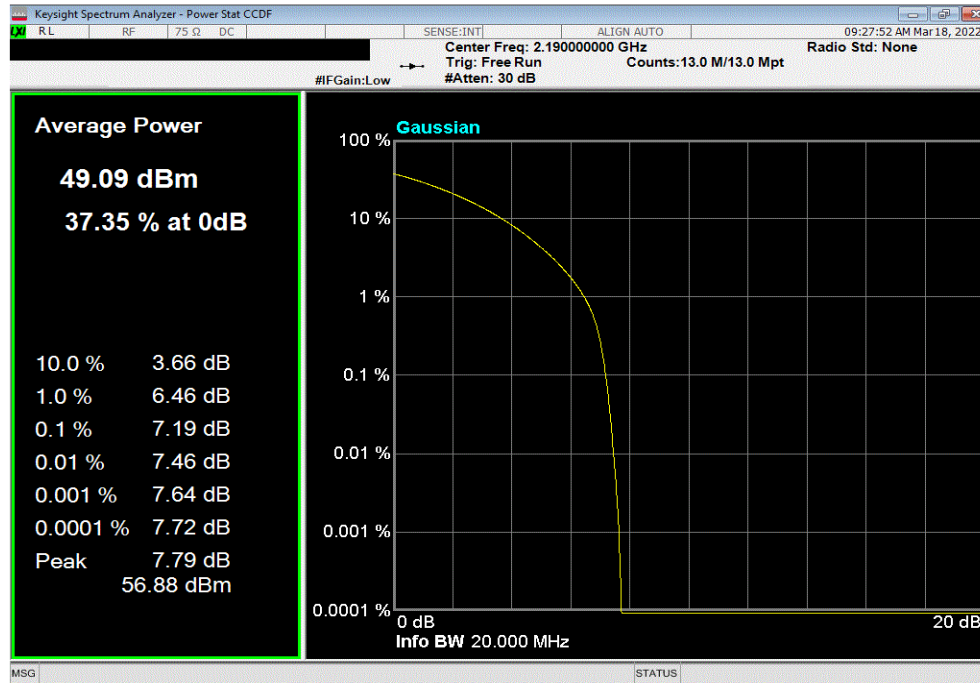


PEAK TO AVERAGE (PAPR) CCDF

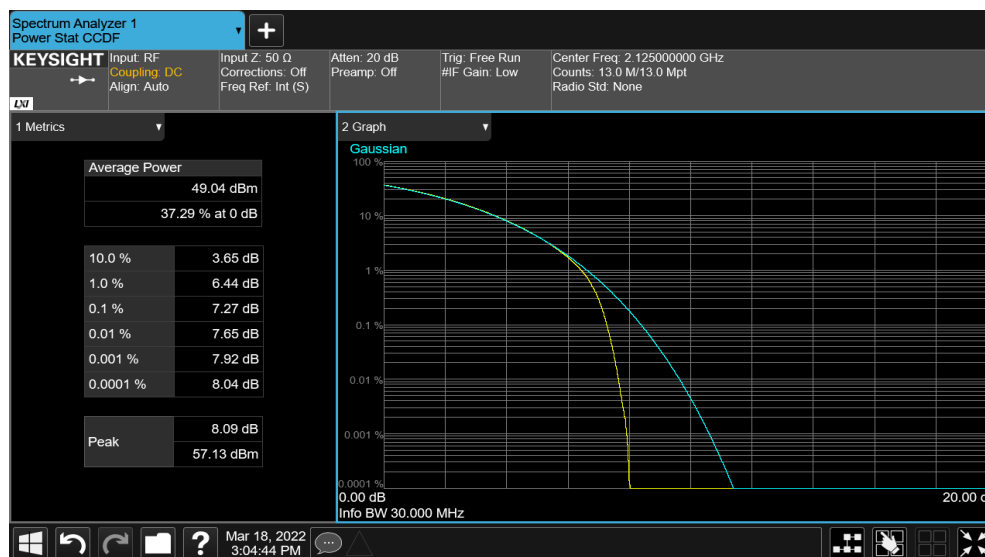


TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 20 MHz Bandwidth, 256-QAM Modulation, High Channel, 2190 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.19	13	Pass



Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 30 MHz Bandwidth, 256-QAM Modulation, Low Channel, 2125 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.27	13	Pass

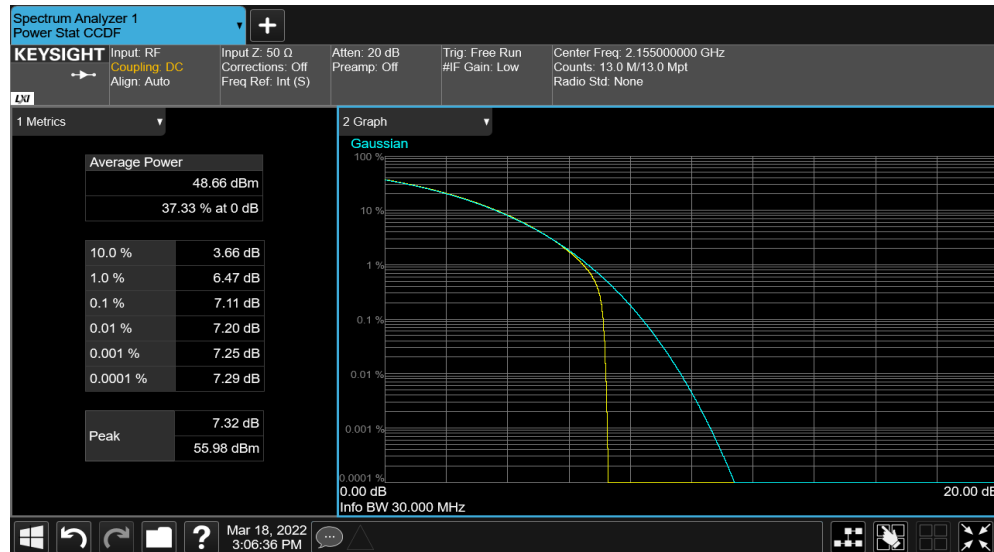


PEAK TO AVERAGE (PAPR) CCDF



TbTx 2022.03.14.0 XMt 2022.02.07.0

Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 30 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 2155 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.11	13	Pass



Band n66, 2110 MHz - 2200 MHz, 5G NR, Port 1, 30 MHz Bandwidth, 256-QAM Modulation, High Channel, 2185 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				7.24	13	Pass

