

OUTPUT POWER



XMH 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
Block - DC	Fairview Microwave	SD3379	AMM	2020-09-21	2021-09-21
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFN	2021-01-06	2022-01-06
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

The method in section 5.2.4.4 of ANSI C63.26 was used to make the measurements. This method uses trace averaging across the ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding $[10 \log (1/D)]$, where D is the duty cycle in decimal, to the measured power to compute the average power during the actual transmission times

RF conducted emissions testing was performed only on one port. The testing was performed on the same version of hardware (FXFC) as the original certification test. The FXFC antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the original certification testing) and antenna port 3 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 average transmit power of all antenna ports was determined per ANSI C63.26-2105 paragraph 6.4.3.1.

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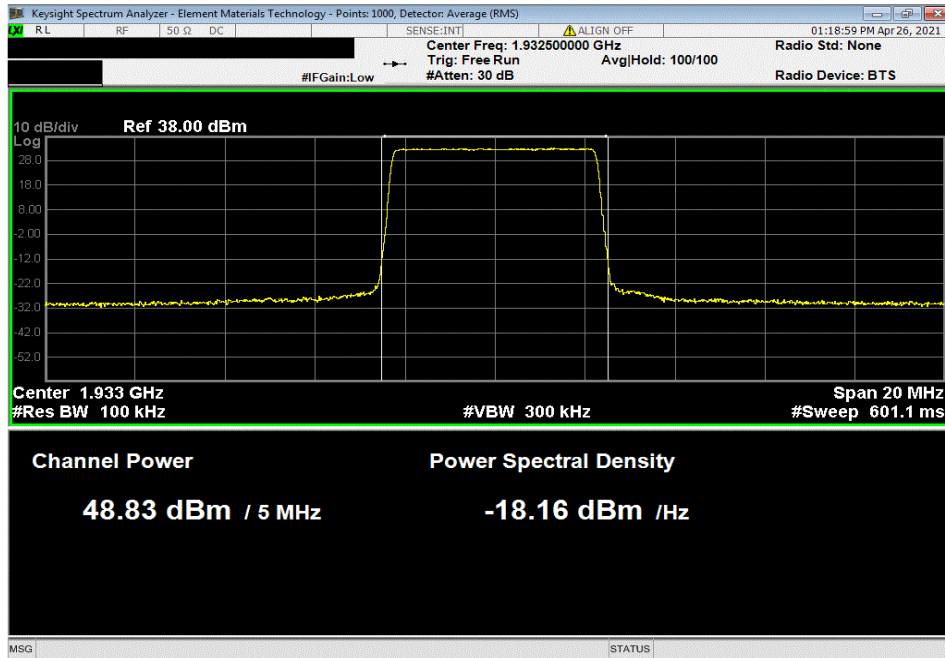
EUT: FXFC (FCC/ISED C2PC)			Work Order: NOKI0029			
Serial Number: 1M152245671			Date: 27-Apr-21			
Customer: Nokia Solutions and Networks			Temperature: 22 °C			
Attendees: David Le, John Rattanavong			Humidity: 51.8% RH			
Project: None			Barometric Pres.: 1014 mbar			
Tested by: Brandon Hobbs		Power: 54 VDC	Job Site: TX05			
TEST SPECIFICATIONS			Test Method			
FCC 24E:2021			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 n2 carriers were enabled at maximum power (80watts/carrier). The following is the output power measurements at the radio output ports. The output power was measured for a single carrier over the carrier channel bandwidth on port 3. The total output power for multiport (2x2 MIMO & 4x4 MIMO) operation was determined based upon ANSI 63.26 clauses 6.4.3.1 and 6.4.3.2.4 (10 log Nout). The total output power for two port operation is single port power + 3dB [i.e. 10log(2)]. The total output power for four port operation is single port power + 6dB [i.e. 10log(4)].						
DEVIATIONS FROM TEST STANDARD						
None						
Configuration #	2	Signature				
		Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)
		dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW
Band n2, 1930 MHz - 1990 MHz, 5G NR						
Port 3						
5 MHz Bandwidth						
QPSK Modulation						
Low Channel, 1932.5 MHz		48.829	0	48.8	51.8	54.8
Mid Channel, 1960 MHz		49.155	0	49.2	52.2	55.2
High Channel, 1987.5 MHz		48.900	0	48.9	51.9	54.9
16-QAM Modulation						
Low Channel, 1932.5 MHz		48.776	0	48.8	51.8	54.8
Mid Channel, 1960 MHz		48.871	0	48.9	51.9	54.9
High Channel, 1987.5 MHz		48.612	0	48.6	51.6	54.6
64-QAM Modulation						
Low Channel, 1932.5 MHz		48.911	0	48.9	51.9	54.9
Mid Channel, 1960 MHz		49.094	0	49.1	52.1	55.1
High Channel, 1987.5 MHz		48.820	0	48.8	51.8	54.8
256-QAM Modulation						
Low Channel, 1932.5 MHz		48.973	0	49.0	52.0	55.0
Mid Channel, 1960 MHz		49.146	0	49.1	52.1	55.1
High Channel, 1987.5 MHz		48.887	0	48.9	51.9	54.9
10 MHz Bandwidth						
QPSK Modulation						
Low Channel, 1935 MHz		48.974	0	49.0	52.0	55.0
Mid Channel, 1960 MHz		49.145	0	49.1	52.1	55.1
High Channel, 1985 MHz		48.930	0	48.9	51.9	54.9
16-QAM Modulation						
Low Channel, 1935 MHz		48.888	0	48.9	51.9	54.9
Mid Channel, 1960 MHz		49.033	0	49.0	52.0	55.0
High Channel, 1985 MHz		48.852	0	48.9	51.9	54.9
64-QAM Modulation						
Low Channel, 1935 MHz		49.037	0	49.0	52.0	55.0
Mid Channel, 1960 MHz		49.197	0	49.2	52.2	55.2
High Channel, 1985 MHz		48.918	0	48.9	51.9	54.9
256-QAM Modulation						
Low Channel, 1935 MHz		49.066	0	49.1	52.1	55.1
Mid Channel, 1960 MHz		49.220	0	49.2	52.2	55.2
High Channel, 1985 MHz		48.992	0	49.0	52.0	55.0
15 MHz Bandwidth						
QPSK Modulation						
Low Channel, 1937.5 MHz		48.993	0	49.0	52.0	55.0
Mid Channel, 1960 MHz		49.181	0	49.2	52.2	55.2
High Channel, 1982.5 MHz		48.993	0	49.0	52.0	55.0
16-QAM Modulation						
Low Channel, 1937.5 MHz		48.970	0	49.0	52.0	55.0
Mid Channel, 1960 MHz		49.112	0	49.1	52.1	55.1
High Channel, 1982.5 MHz		48.932	0	48.9	51.9	54.9
64-QAM Modulation						
Low Channel, 1937.5 MHz		49.022	0	49.0	52.0	55.0
Mid Channel, 1960 MHz		49.137	0	49.1	52.1	55.1
High Channel, 1982.5 MHz		48.978	0	49.0	52.0	55.0
256-QAM Modulation						
Low Channel, 1937.5 MHz		49.096	0	49.1	52.1	55.1
Mid Channel, 1960 MHz		49.156	0	49.2	52.2	55.2
High Channel, 1982.5 MHz		49.022	0	49.0	52.0	55.0
20 MHz Bandwidth						
QPSK Modulation						
Low Channel, 1940 MHz		49.211	0	49.2	52.2	55.2
Mid Channel, 1960 MHz		49.240	0	49.2	52.2	55.2
High Channel, 1980 MHz		49.101	0	49.1	52.1	55.1
16-QAM Modulation						
Low Channel, 1940 MHz		49.079	0	49.1	52.1	55.1
Mid Channel, 1960 MHz		49.166	0	49.2	52.2	55.2
High Channel, 1980 MHz		49.060	0	49.1	52.1	55.1
64-QAM Modulation						
Low Channel, 1940 MHz		49.141	0	49.1	52.1	55.1
Mid Channel, 1960 MHz		49.218	0	49.2	52.2	55.2
High Channel, 1980 MHz		49.087	0	49.1	52.1	55.1
256-QAM Modulation						
Low Channel, 1940 MHz		49.193	0	49.2	52.2	55.2
Mid Channel, 1960 MHz		49.278	0	49.3	52.3	55.3
High Channel, 1980 MHz		49.129	0	49.1	52.1	55.1

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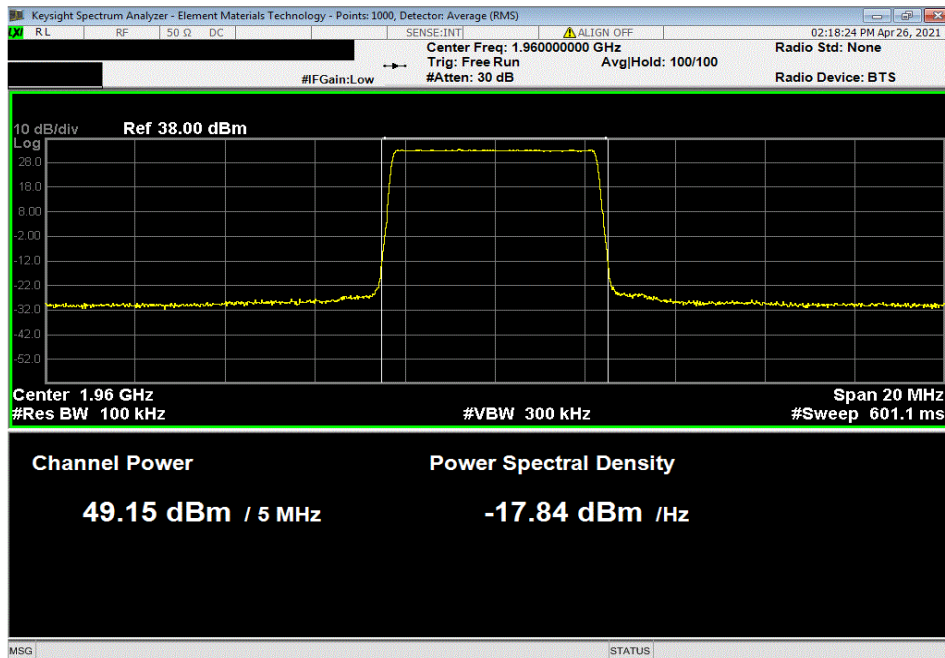


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Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, QPSK Modulation , Low Channel, 1932.5 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
48.829	0	48.83	51.83	54.83		



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, QPSK Modulation , Mid Channel, 1960 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
49.155	0	49.16	52.16	55.16		

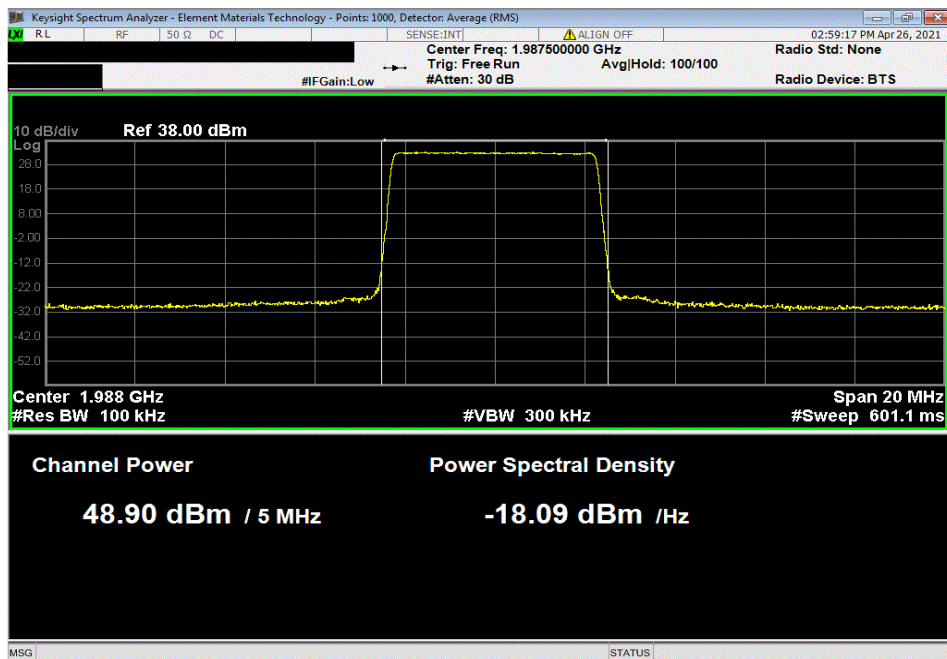


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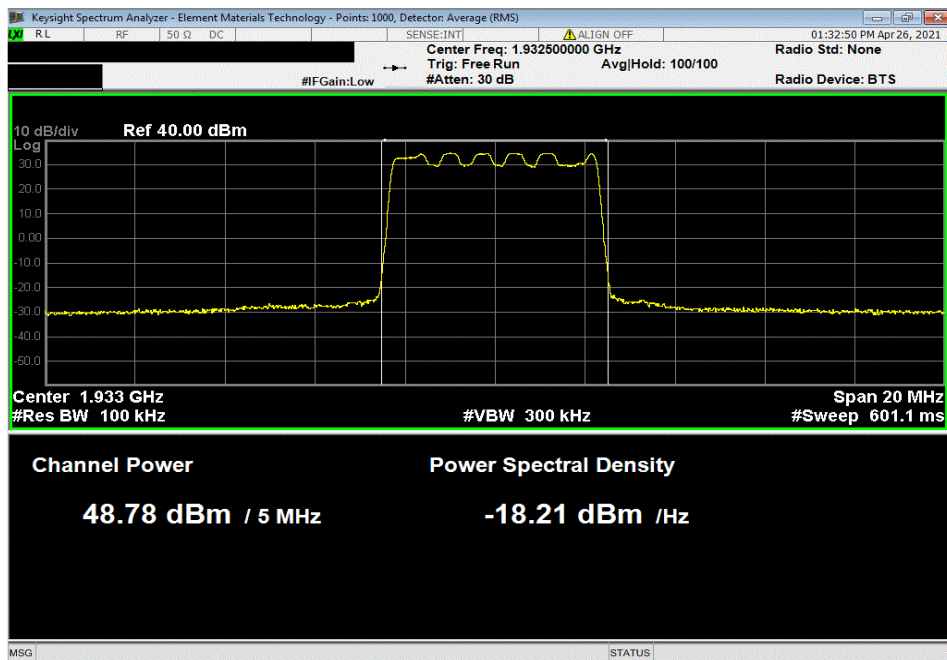


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Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, QPSK Modulation , High Channel, 1987.5 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
48.9	0	48.90	51.90	54.90		



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 16-QAM Modulation, Low Channel, 1932.5 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
48.776	0	48.78	51.78	54.78		

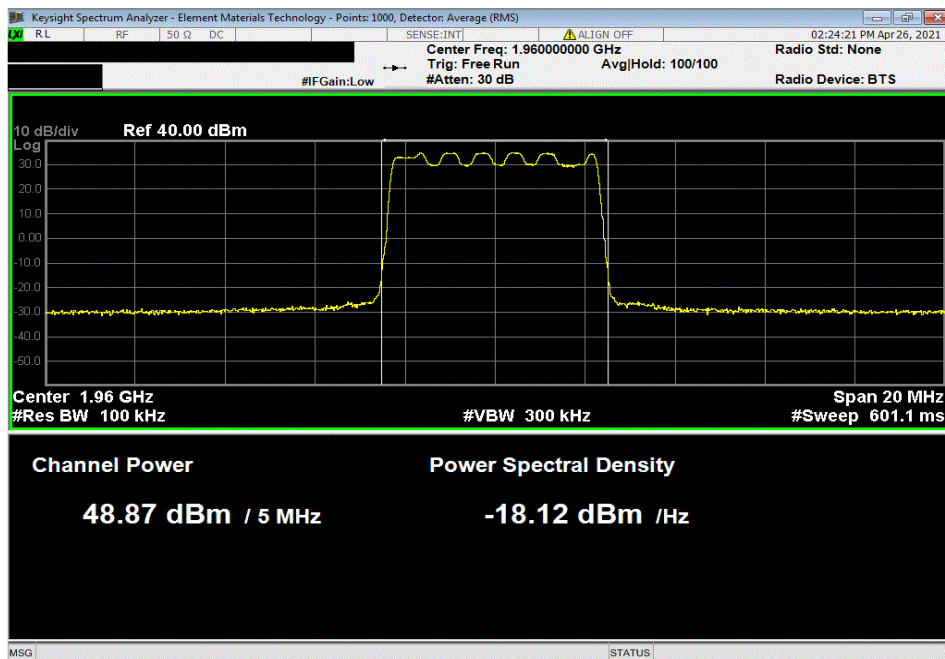


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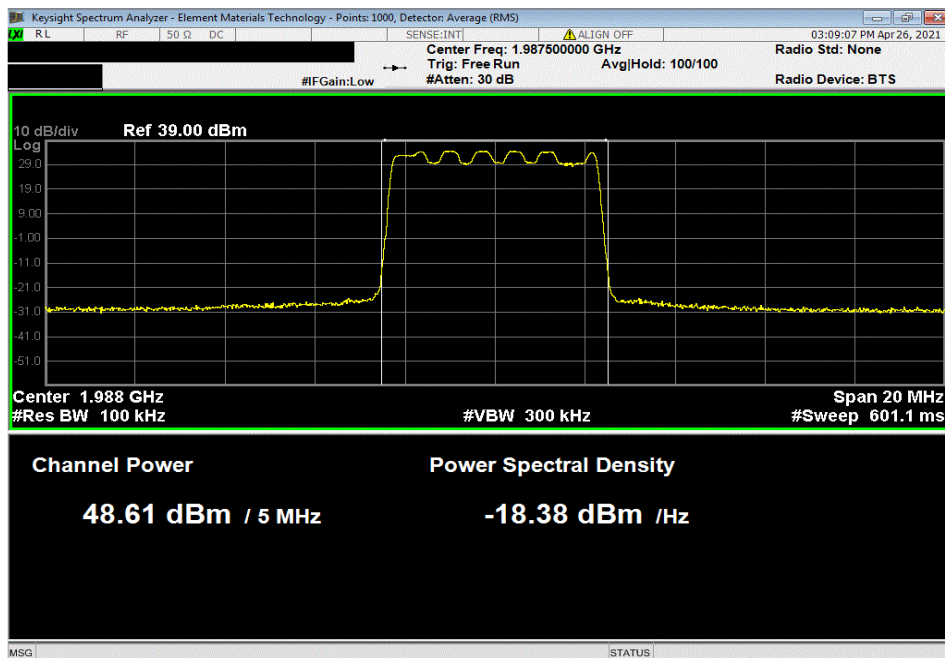


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Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1960 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.871	0	48.87	51.87	54.87	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 16-QAM Modulation, High Channel, 1987.5 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.612	0	48.61	51.61	54.61	

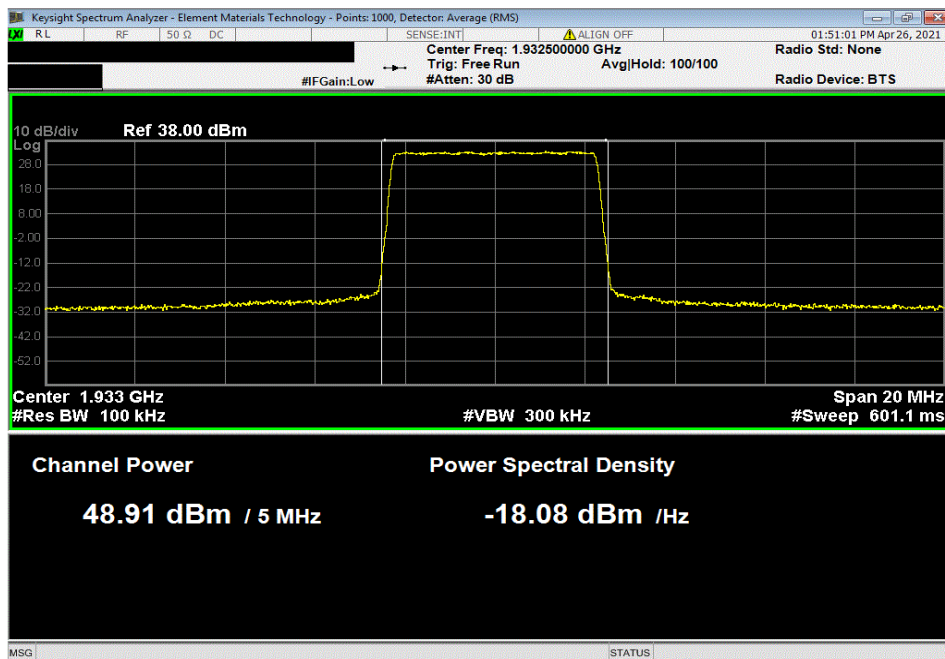


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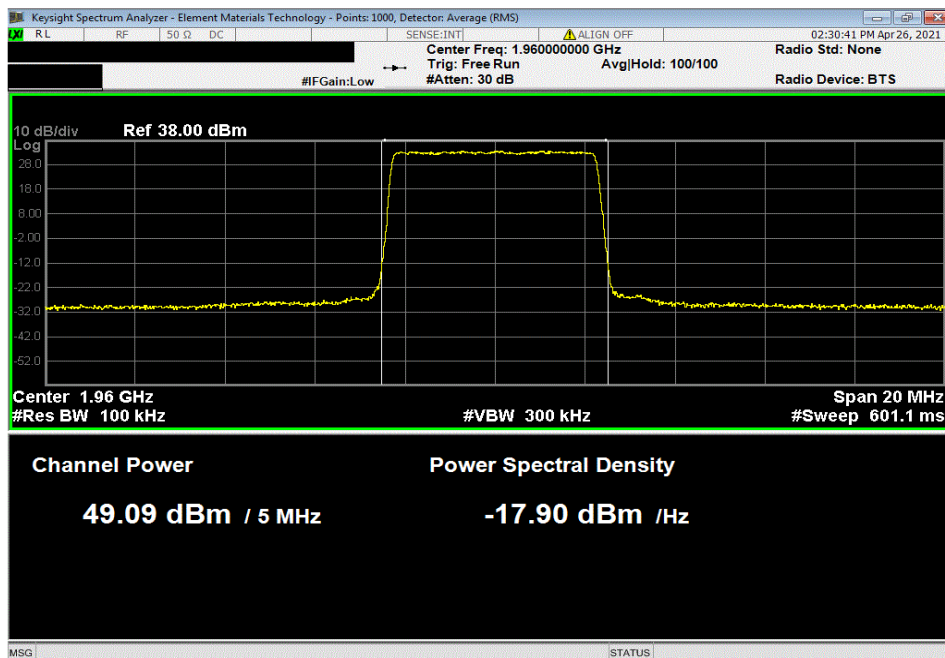


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Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 64-QAM Modulation, Low Channel, 1932.5 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
48.911	0	48.91	51.91	54.91		



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1960 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
49.094	0	49.09	52.09	55.09		

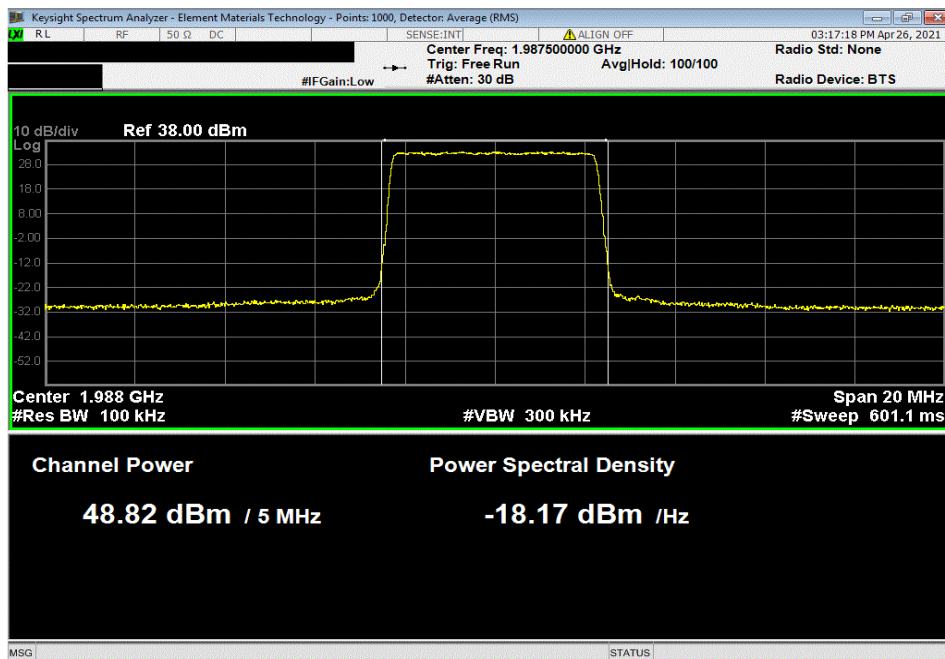


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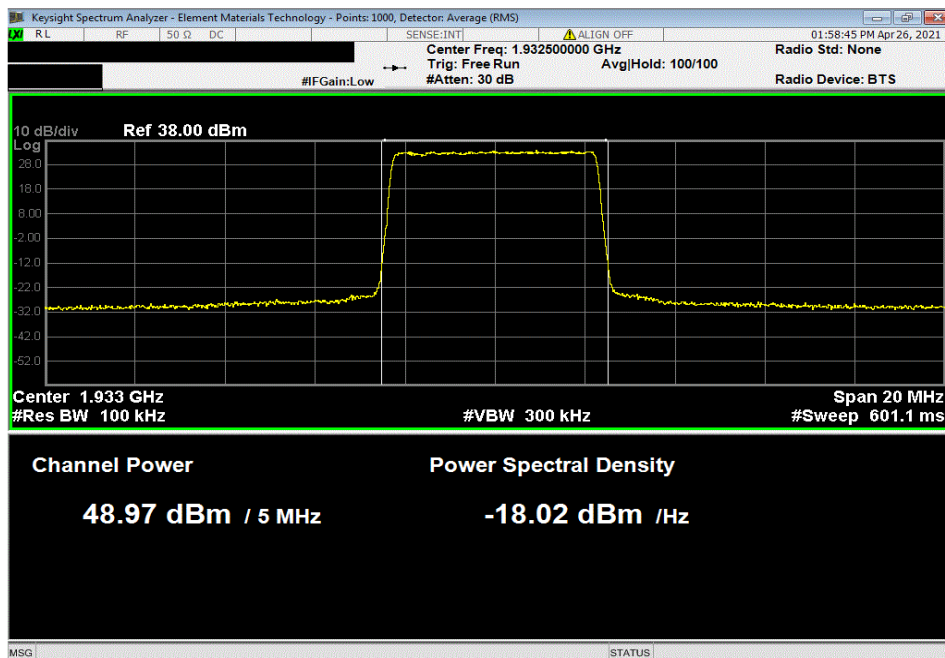


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Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 64-QAM Modulation, High Channel, 1987.5 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.82	0	48.82	51.82	54.82	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1932.5 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.973	0	48.97	51.97	54.97	

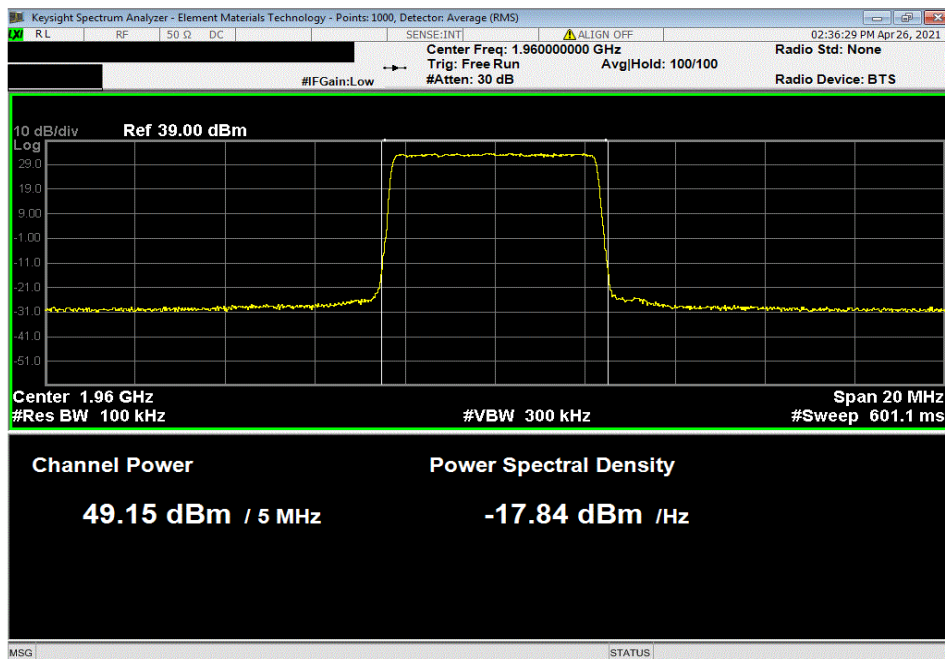


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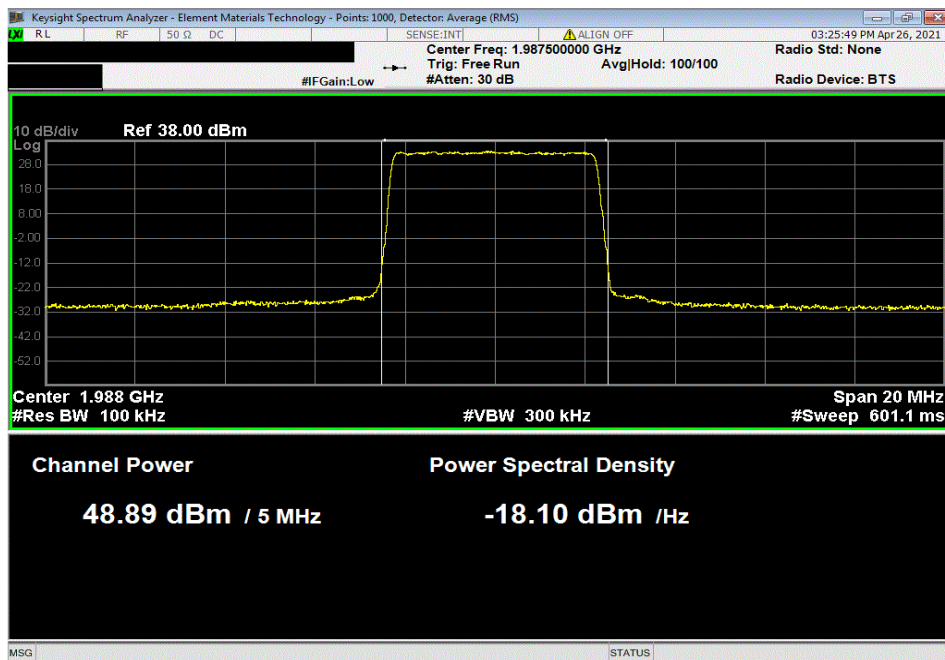


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Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1960 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.146	0	49.15	52.15	55.15	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 256-QAM Modulation, High Channel, 1987.5 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.887	0	48.89	51.89	54.89	

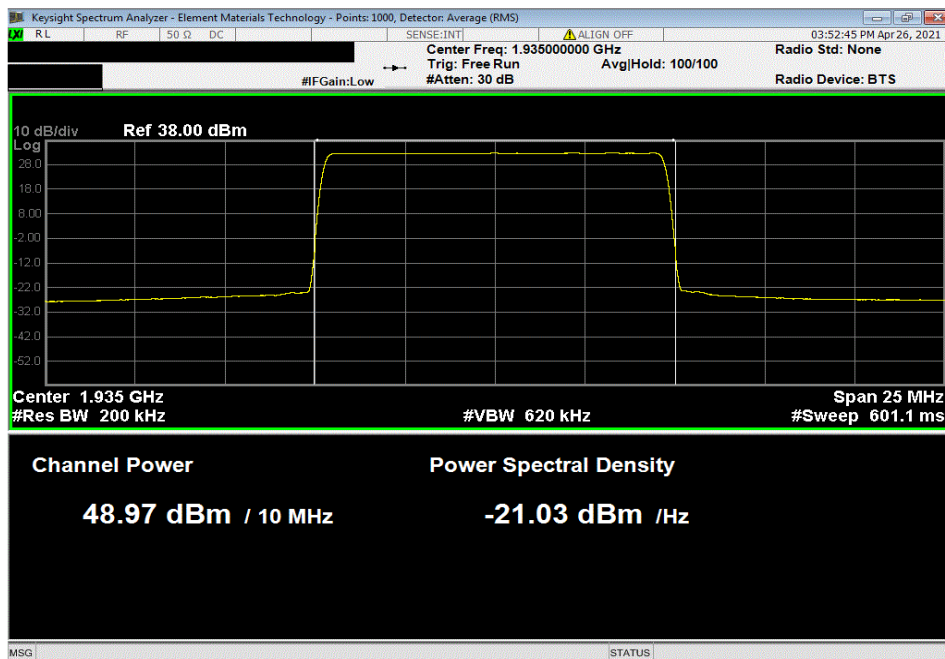


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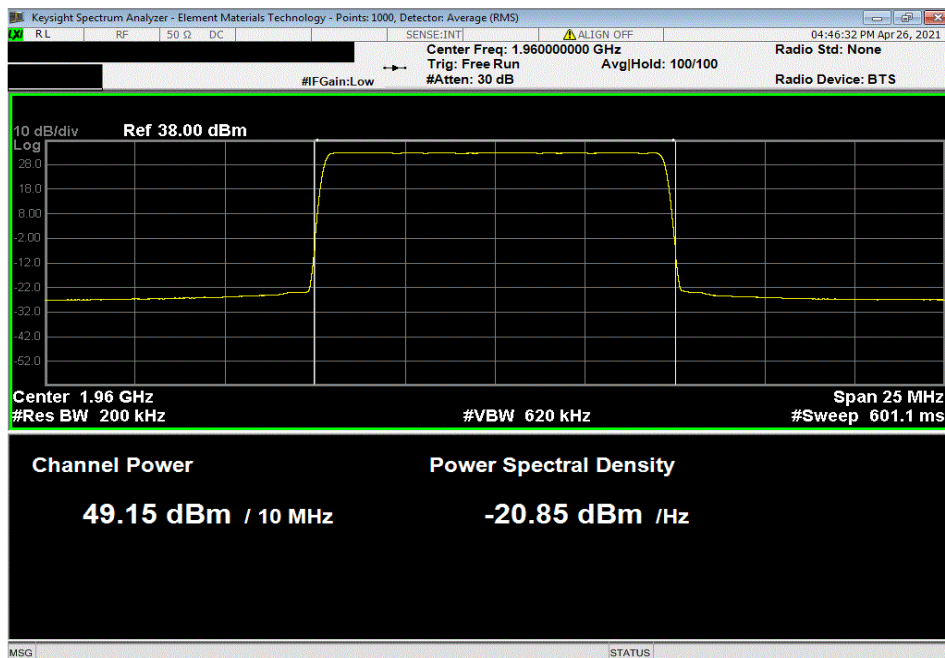


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Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, QPSK Modulation , Low Channel, 1935 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.974	0	48.97	51.97	54.97	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, QPSK Modulation , Mid Channel, 1960 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.145	0	49.15	52.15	55.15	

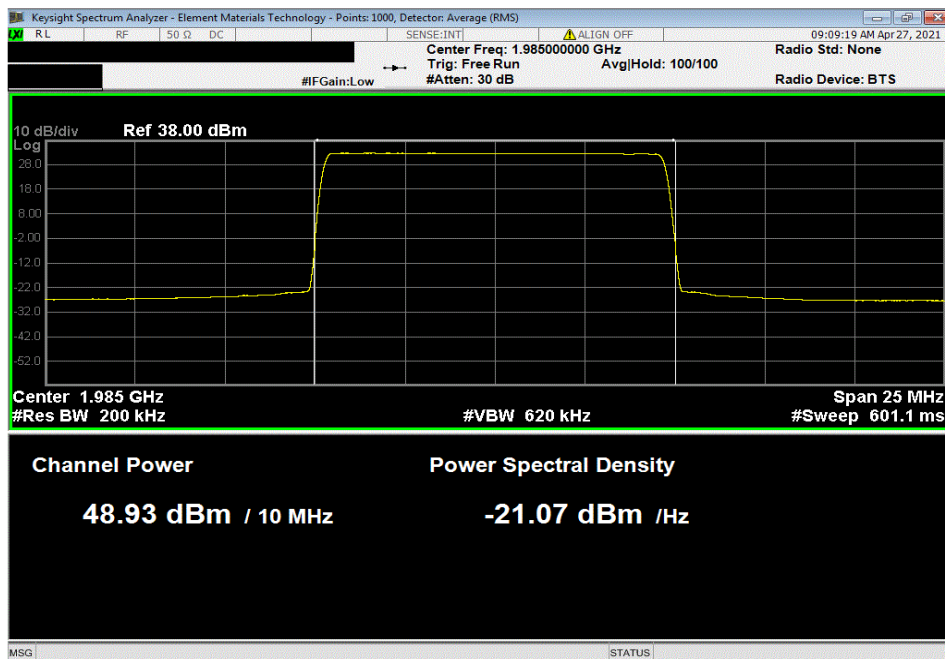


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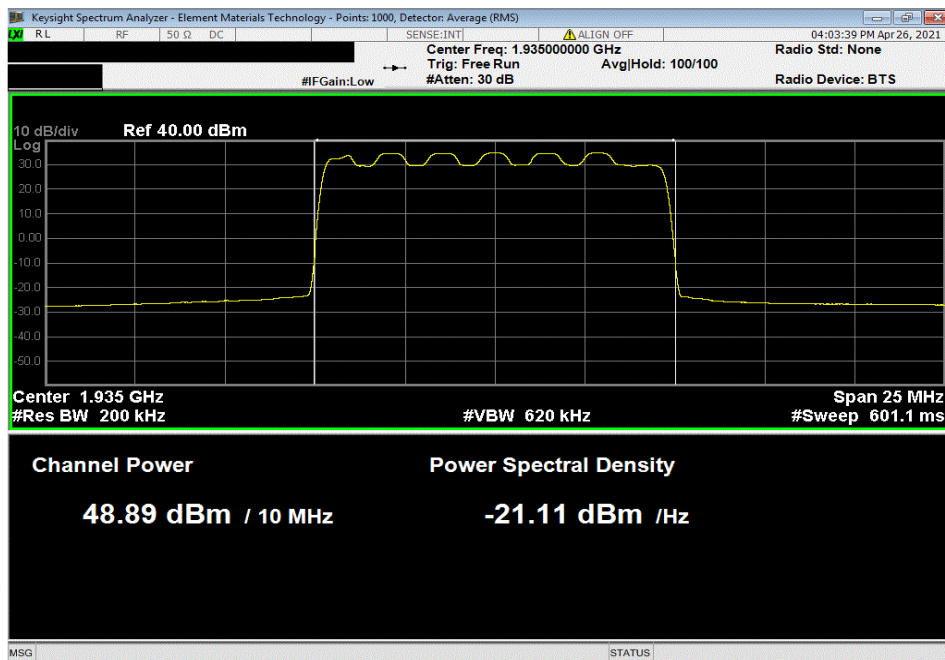


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Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, QPSK Modulation , High Channel, 1985 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.93	0	48.93	51.93	54.93	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 16-QAM Modulation, Low Channel, 1935 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.888	0	48.89	51.89	54.89	

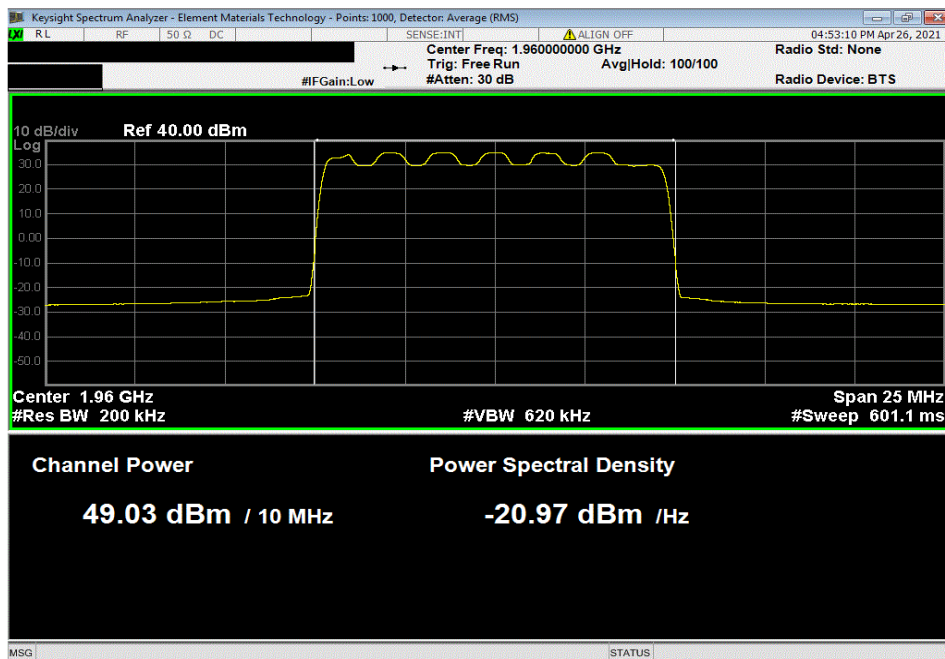


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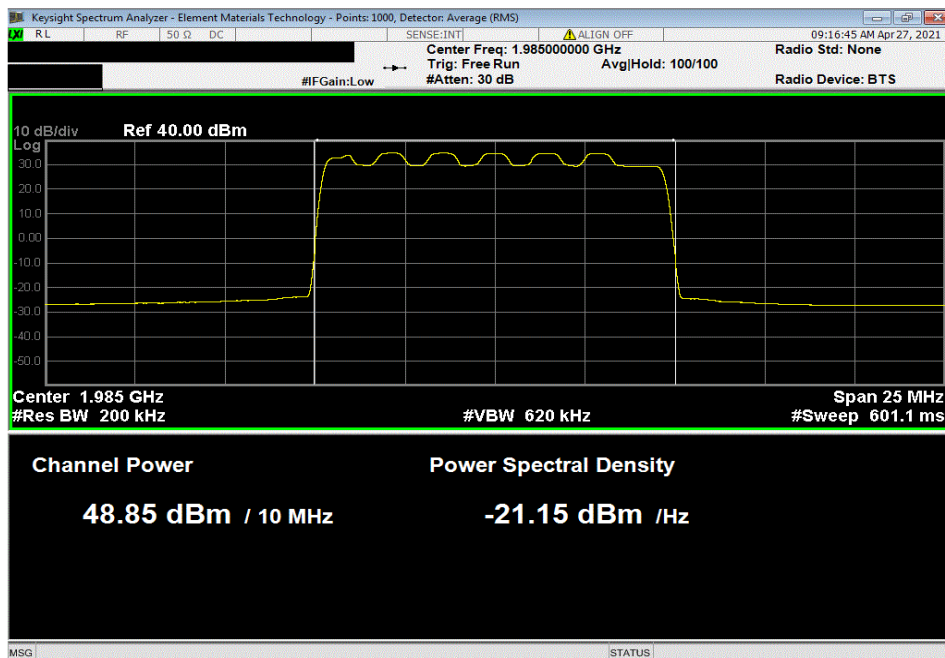


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Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1960 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.033	0	49.03	52.03	55.03	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 16-QAM Modulation, High Channel, 1985 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.852	0	48.85	51.85	54.85	

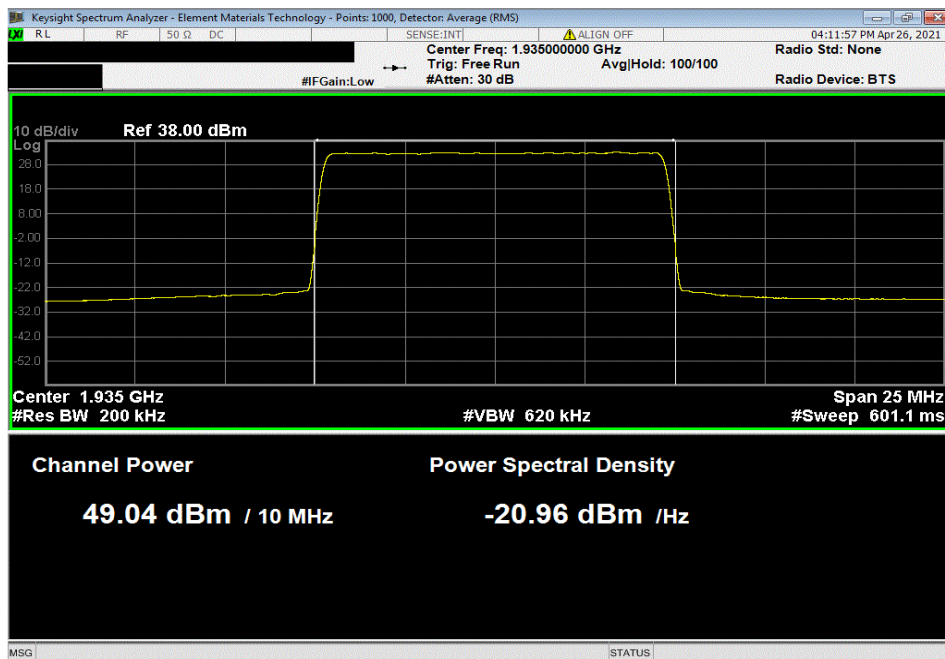


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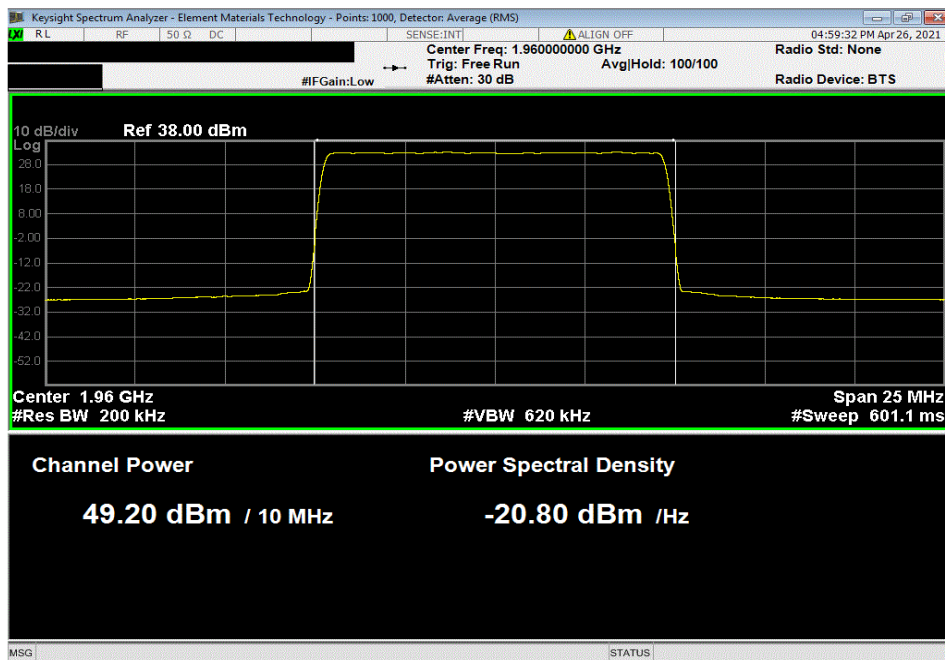


TXTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 64-QAM Modulation, Low Channel, 1935 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.037	0	49.04	52.04	55.04	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1960 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.197	0	49.20	52.20	55.20	

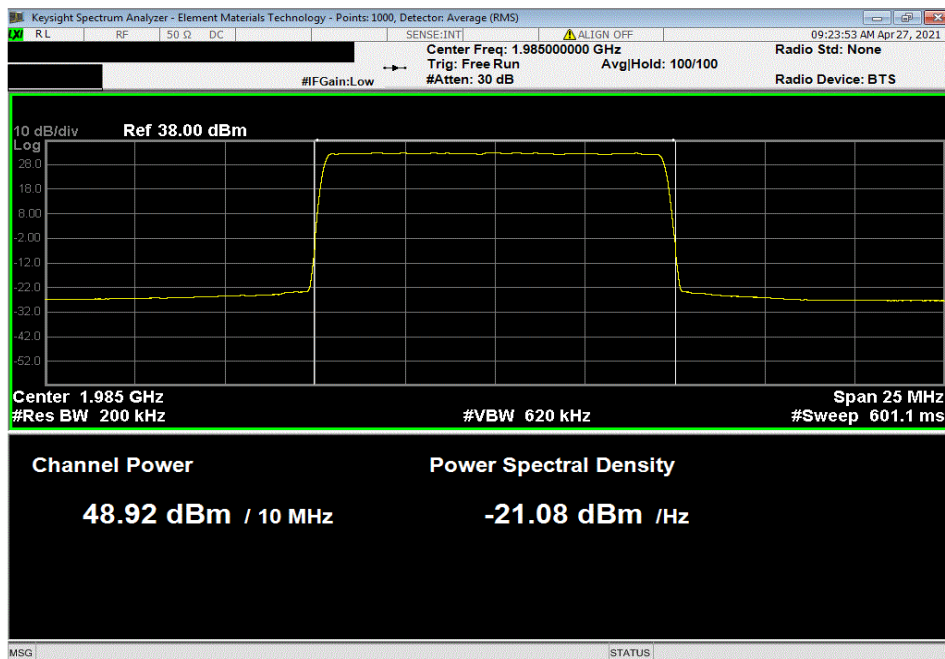


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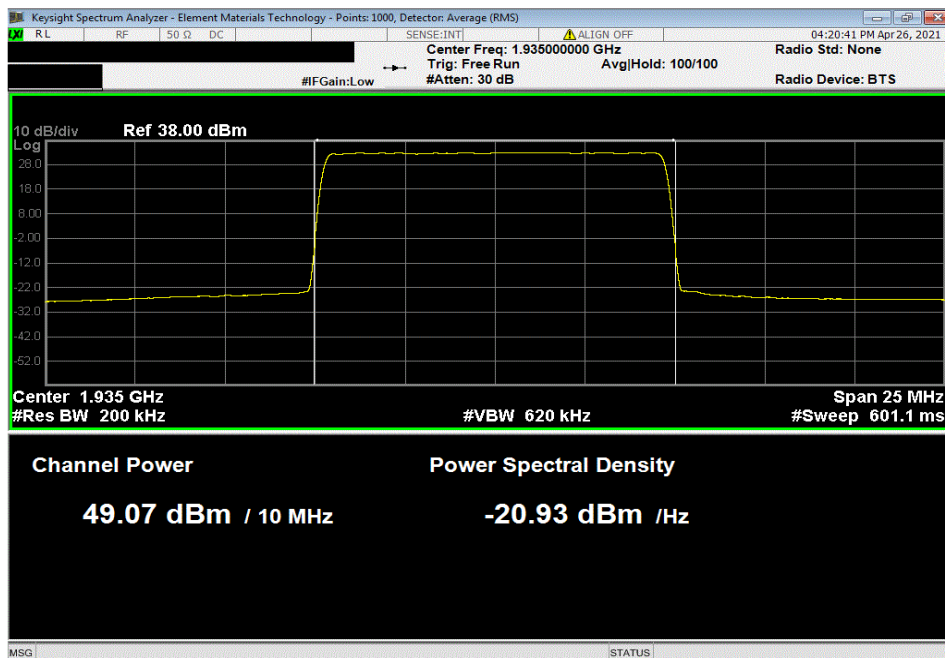


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Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 64-QAM Modulation, High Channel, 1985 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
48.918	0	48.92	51.92	54.92		



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1935 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
49.066	0	49.07	52.07	55.07		

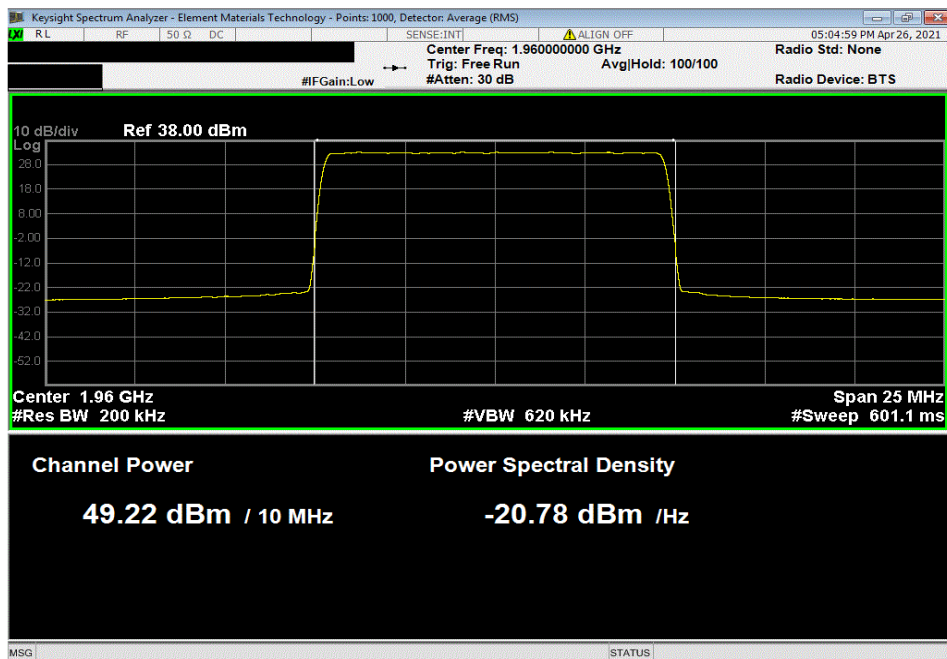


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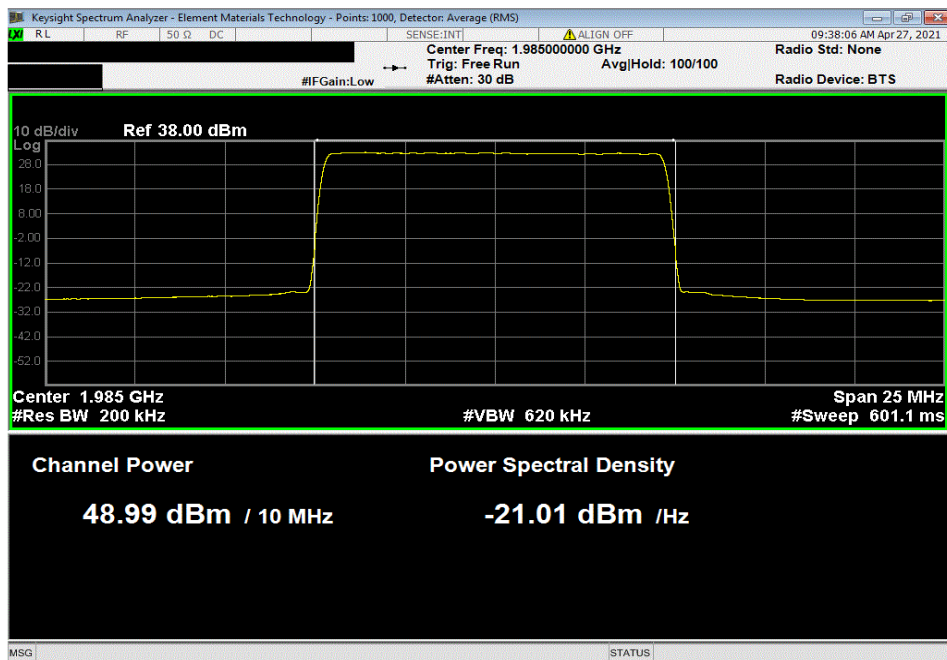


TXTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1960 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
49.22	0	49.22	52.22	55.22		



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 256-QAM Modulation, High Channel, 1985 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
48.992	0	48.99	51.99	54.99		

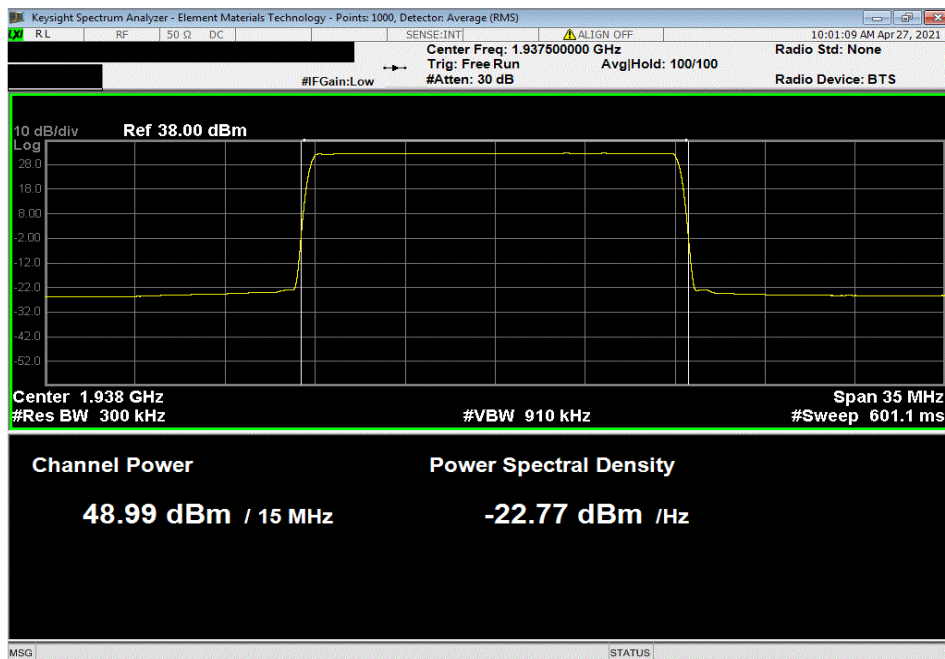


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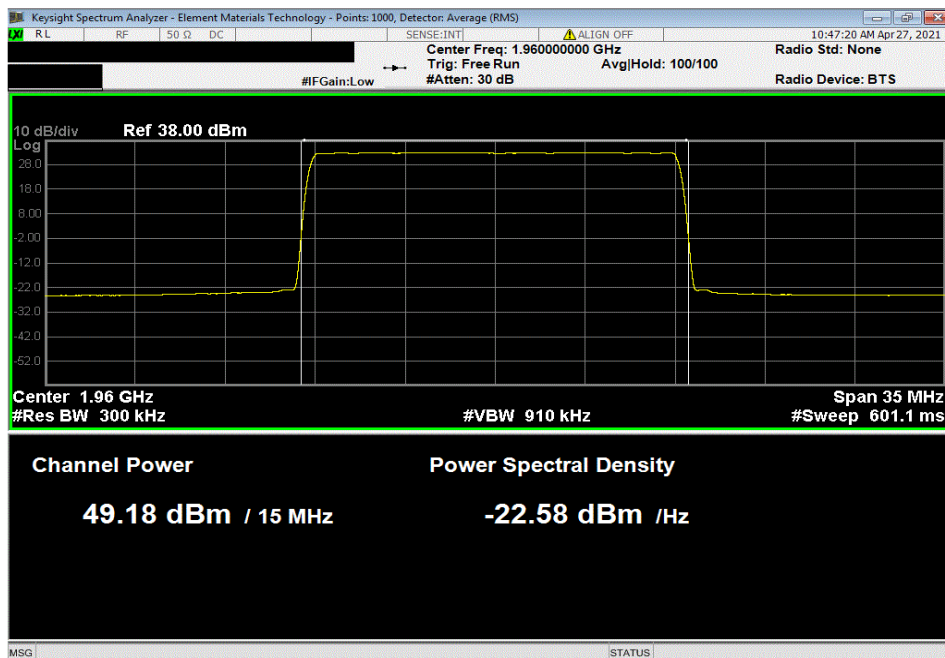


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Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, QPSK Modulation , Low Channel, 1937.5 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.993	0	48.99	51.99	54.99	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, QPSK Modulation , Mid Channel, 1960 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.181	0	49.18	52.18	55.18	

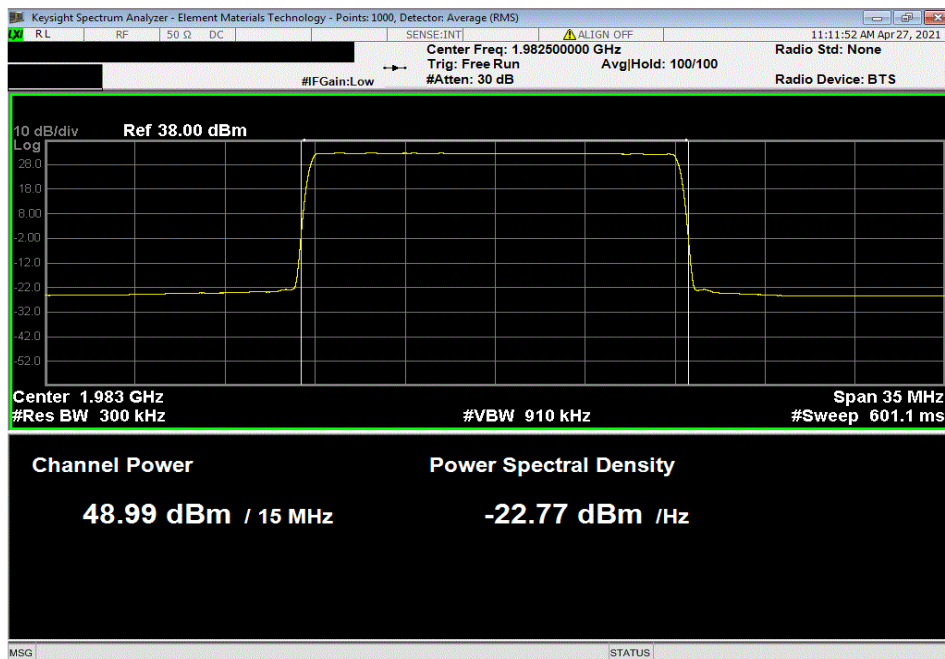


OUTPUT POWER

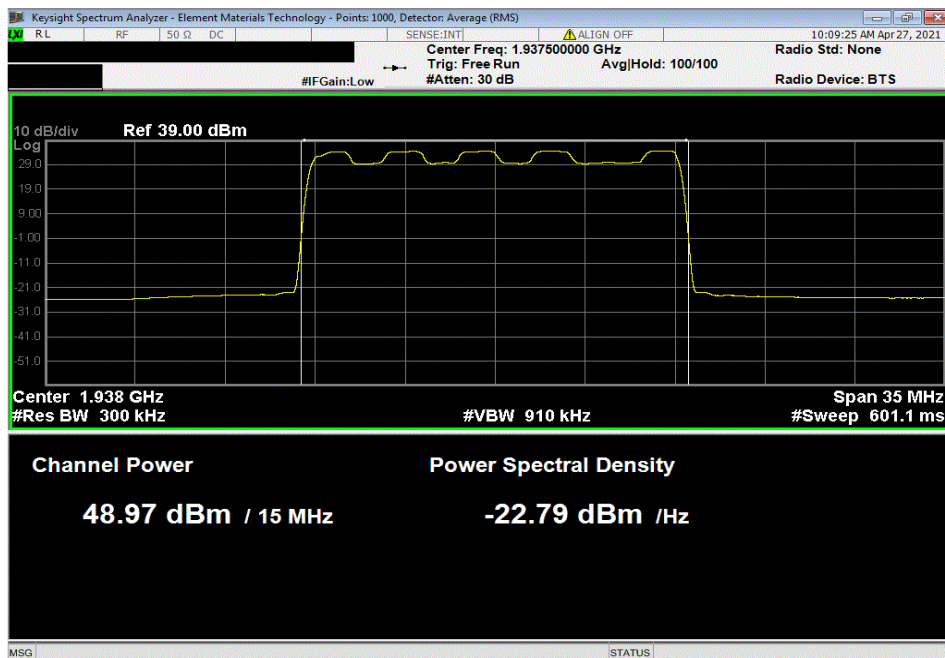


TWTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, QPSK Modulation, High Channel, 1982.5 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.993	0	48.99	51.99	54.99	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 16-QAM Modulation, Low Channel, 1937.5 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.97	0	48.97	51.97	54.97	

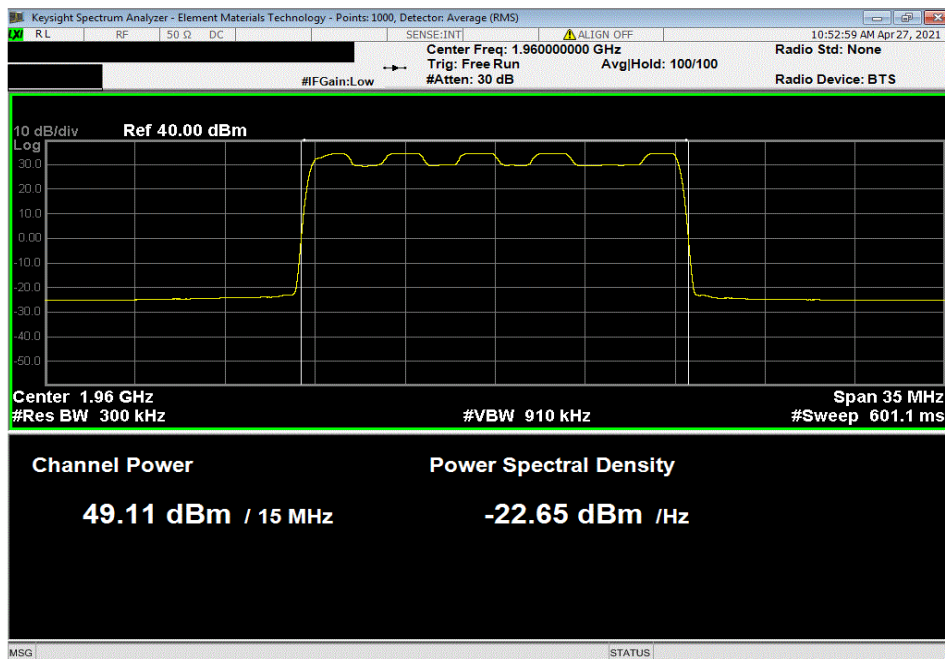


OUTPUT POWER

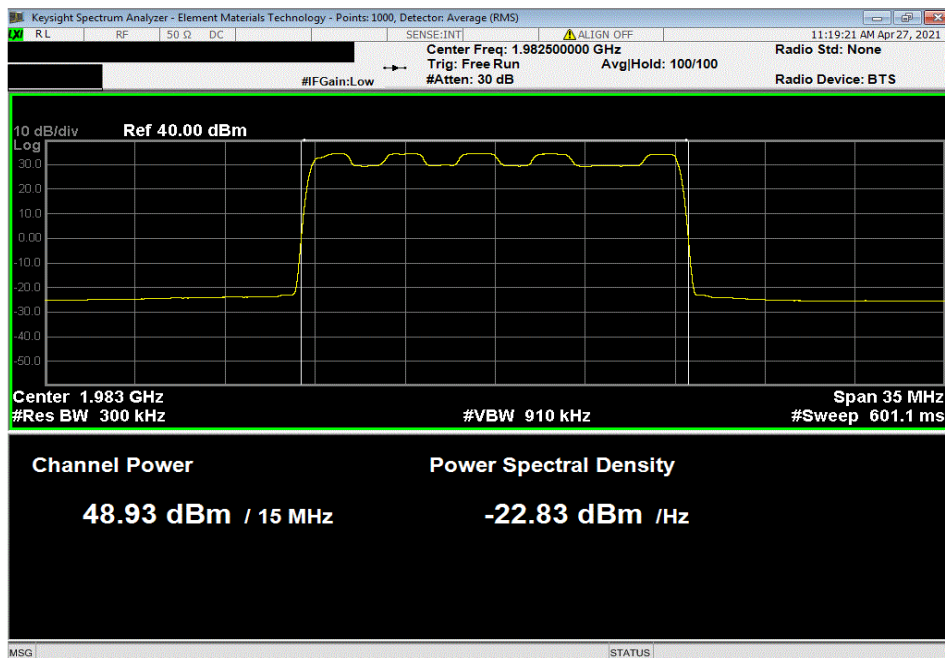


TWTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1960 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.112	0	49.11	52.11	55.11	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 16-QAM Modulation, High Channel, 1982.5 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
48.932	0	48.93	51.93	54.93	

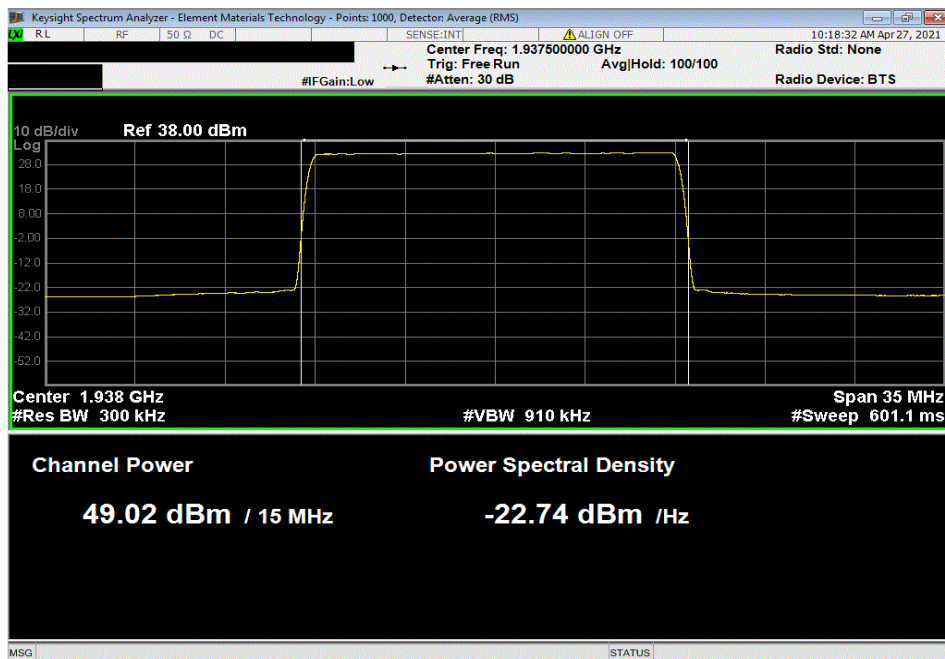


OUTPUT POWER

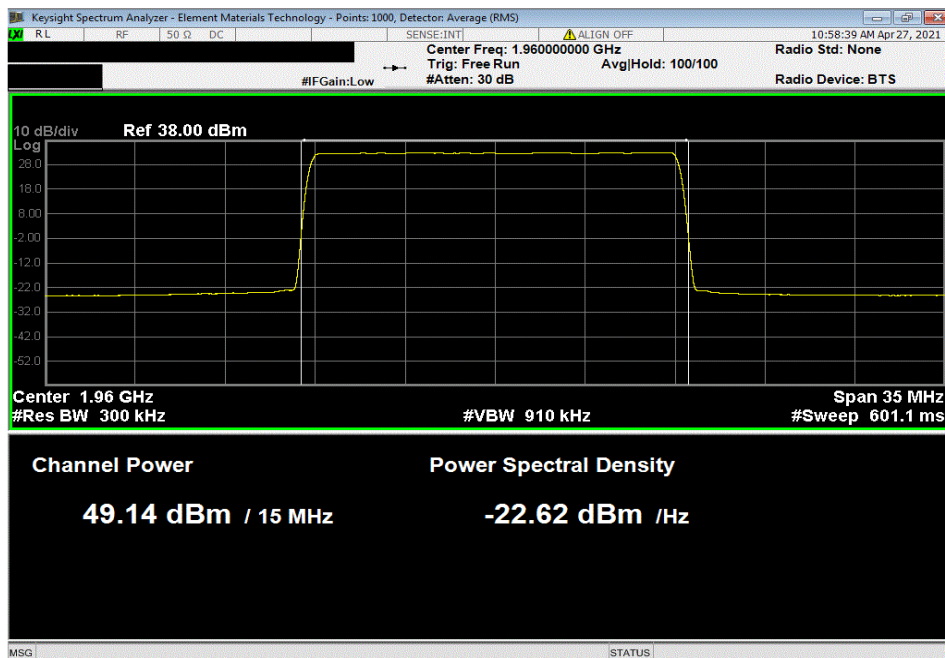


TWTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 64-QAM Modulation, Low Channel, 1937.5 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.022	0	49.02	52.02	55.02	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1960 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.137	0	49.14	52.14	55.14	

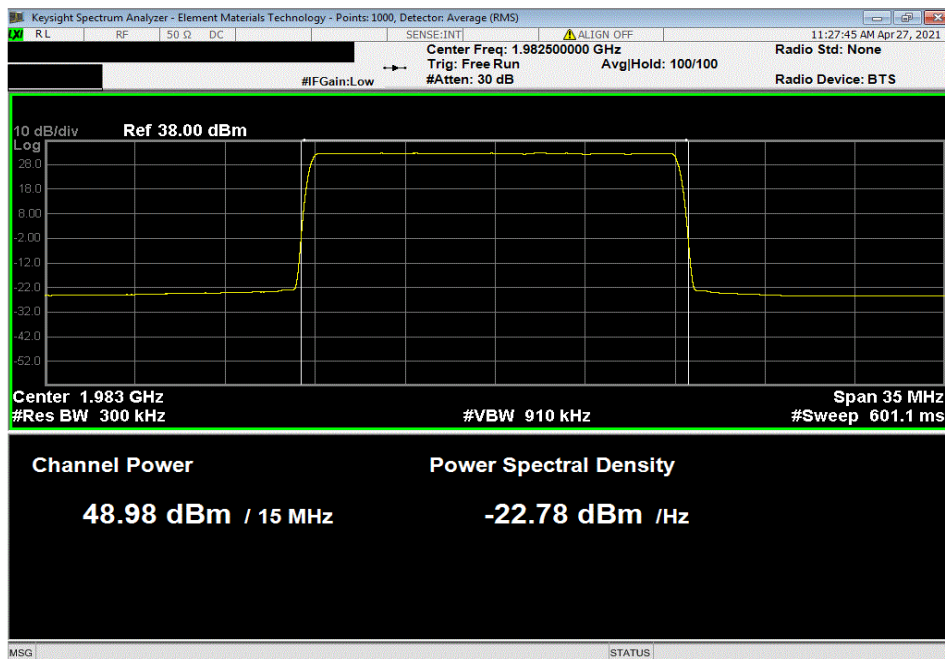


OUTPUT POWER

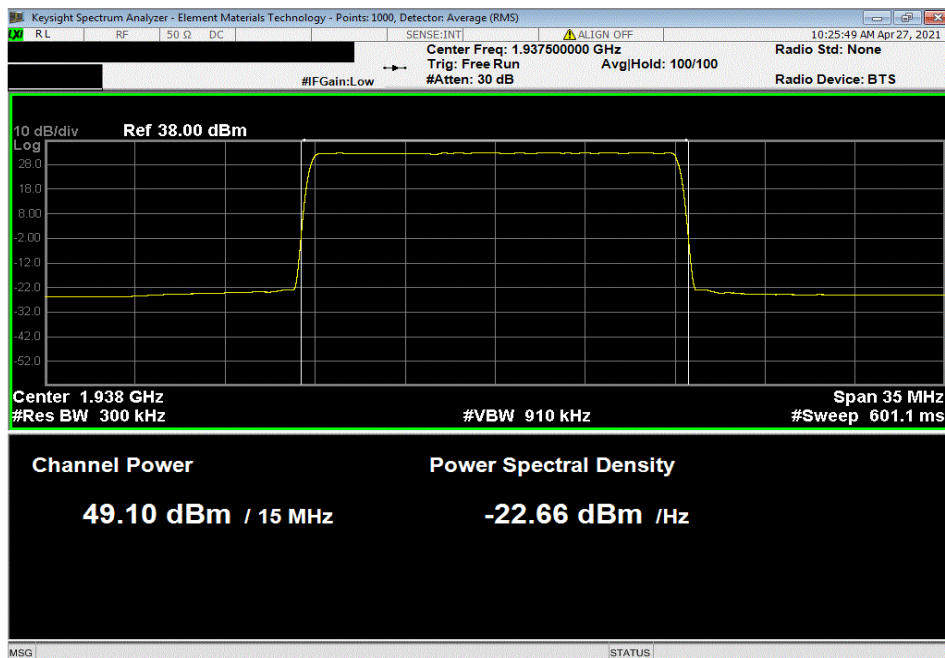


TWTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 64-QAM Modulation, High Channel, 1982.5 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
48.978	0	48.98	51.98	54.98		



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1937.5 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
49.096	0	49.10	52.10	55.10		

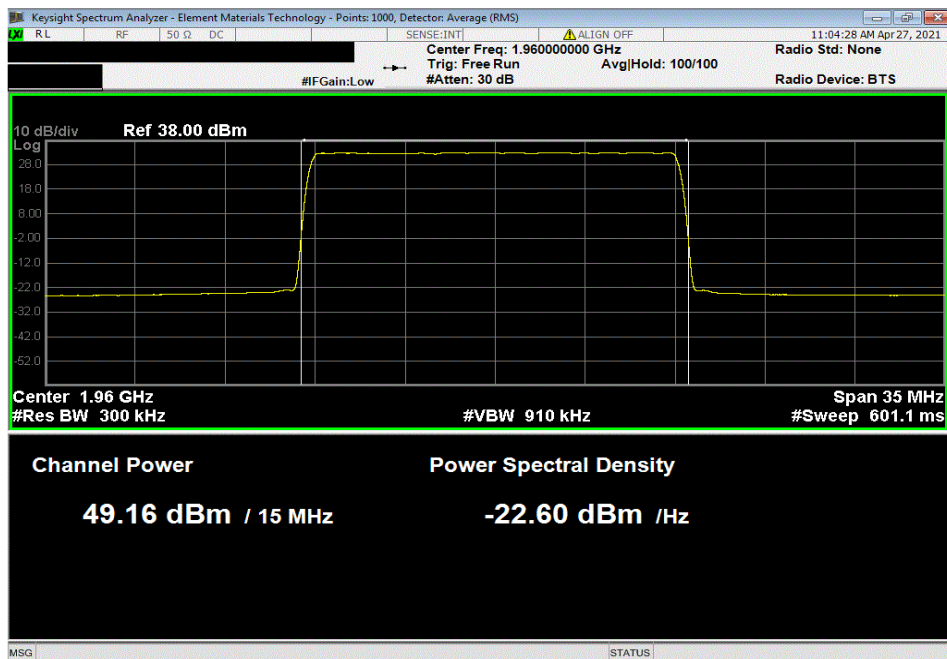


OUTPUT POWER

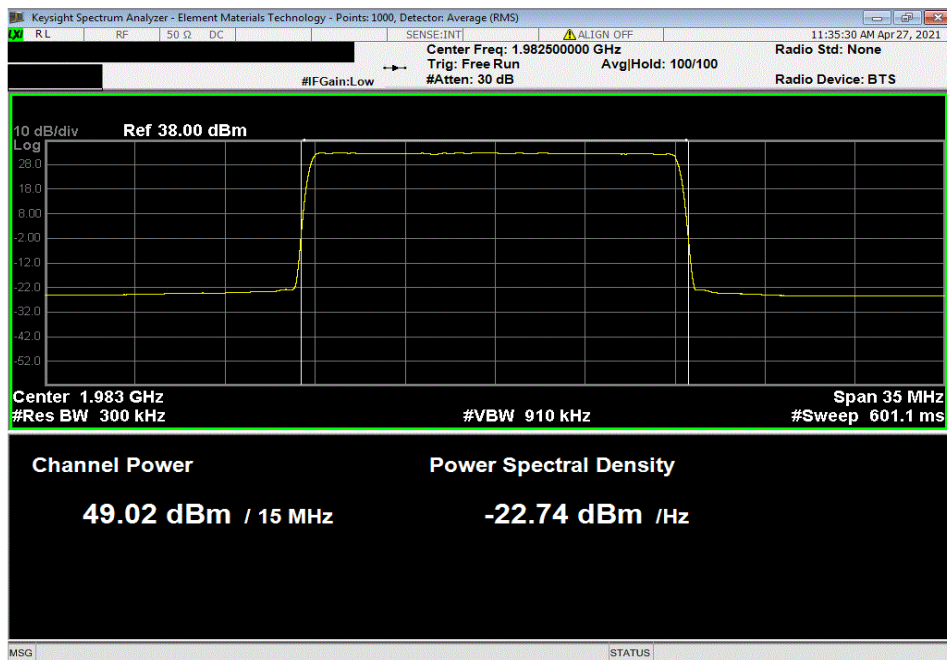


TWTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1960 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
49.156	0	49.16	52.16	55.16		



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 256-QAM Modulation, High Channel, 1982.5 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
49.022	0	49.02	52.02	55.02		

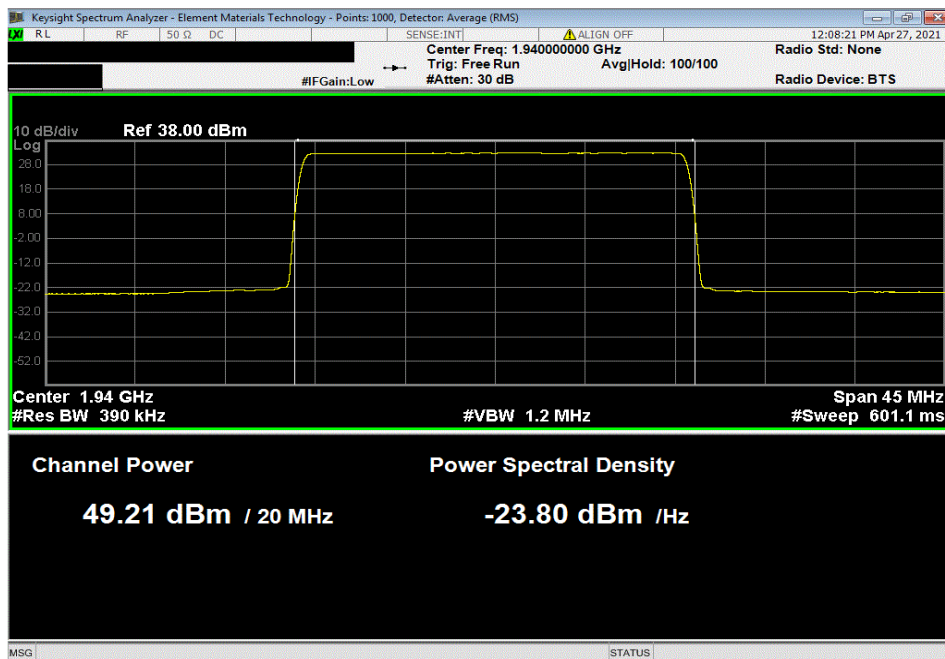


OUTPUT POWER

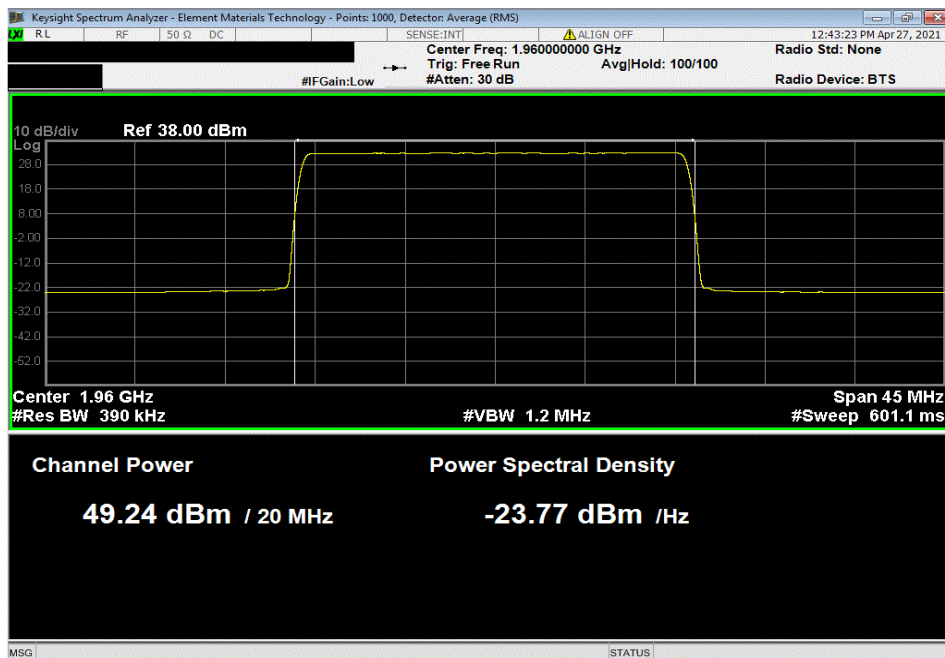


TWTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, QPSK Modulation , Low Channel, 1940 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.211	0	49.21	52.21	55.21	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, QPSK Modulation , Mid Channel, 1960 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.24	0	49.24	52.24	55.24	

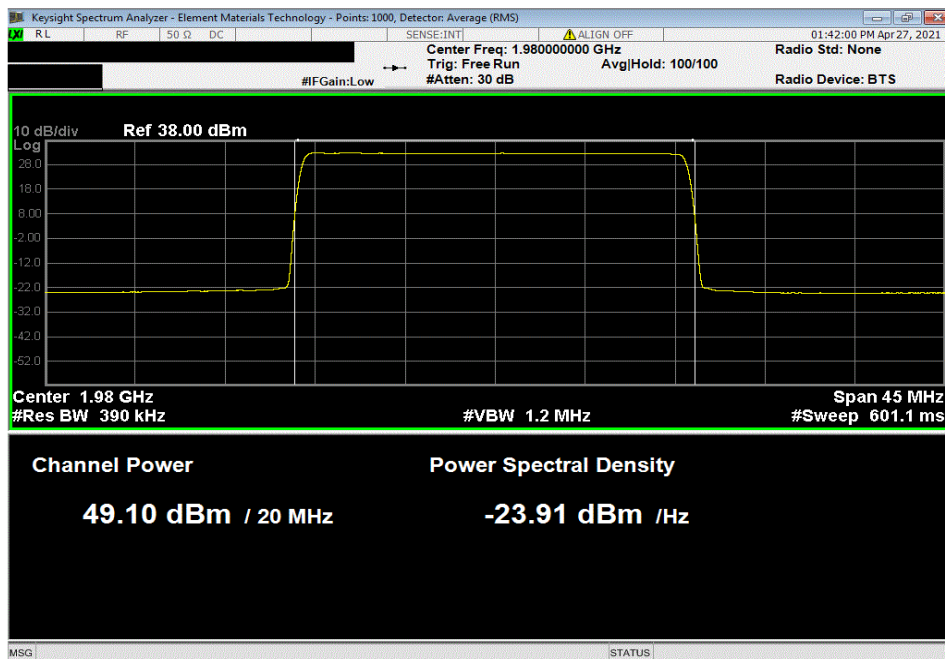


OUTPUT POWER

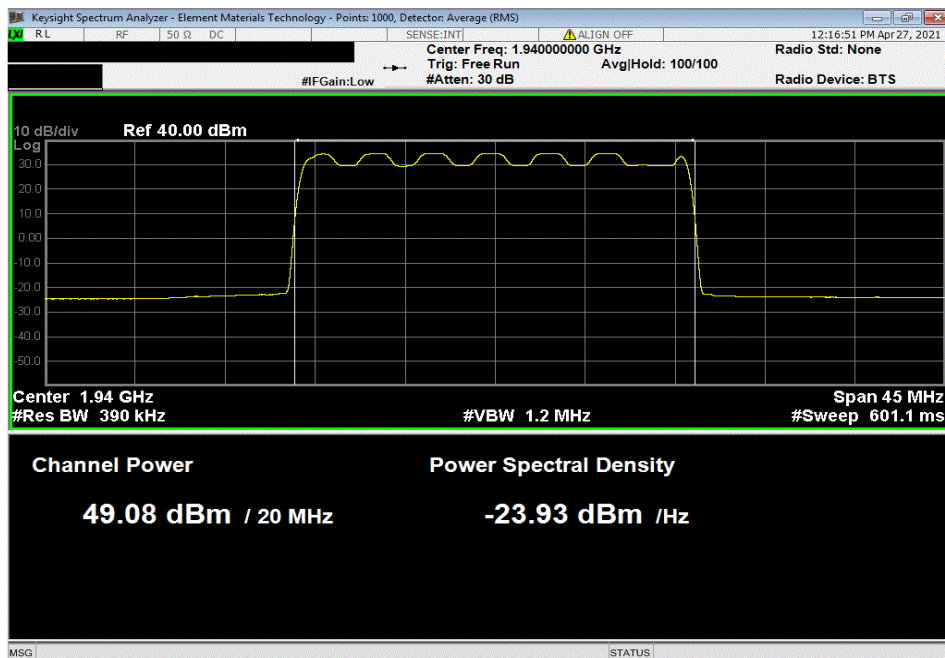


TWTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, QPSK Modulation , High Channel, 1980 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
49.101	0	49.10	52.10	55.10		



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 16-QAM Modulation, Low Channel, 1940 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
49.079	0	49.08	52.08	55.08		

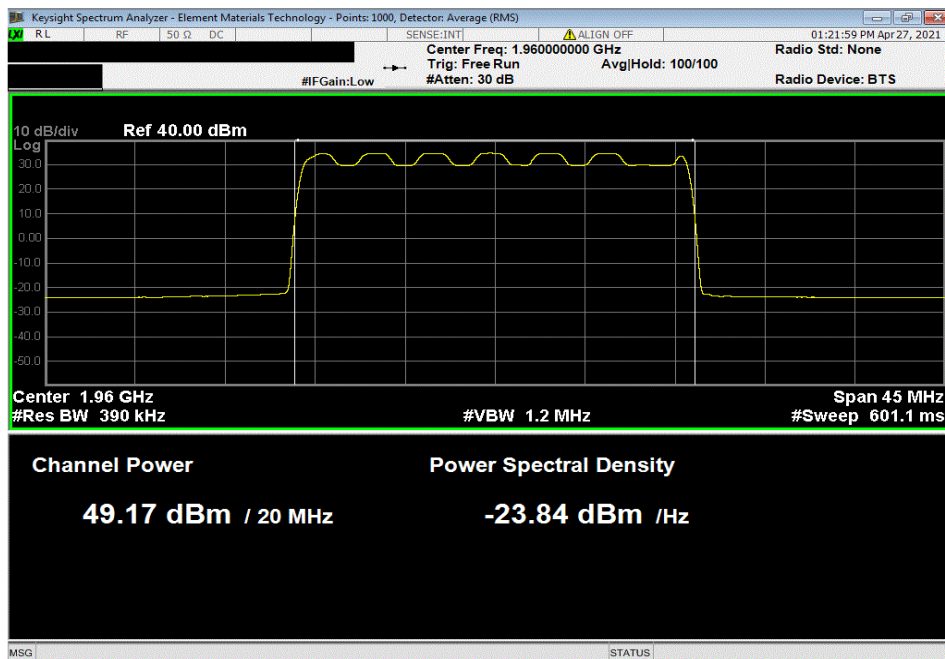


OUTPUT POWER

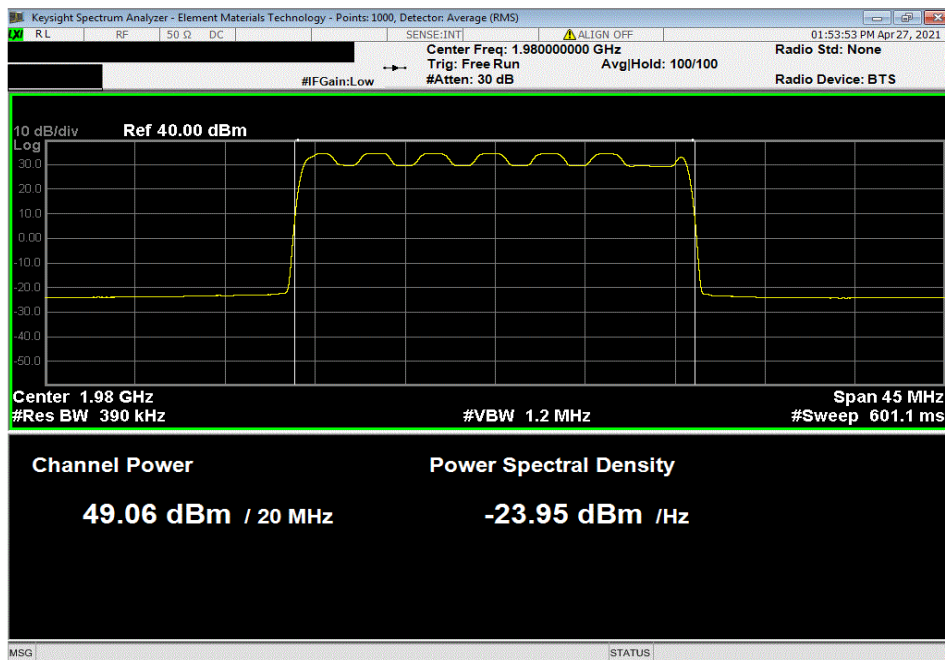


TWTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1960 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.166	0	49.17	52.17	55.17	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 16-QAM Modulation, High Channel, 1980 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.06	0	49.06	52.06	55.06	

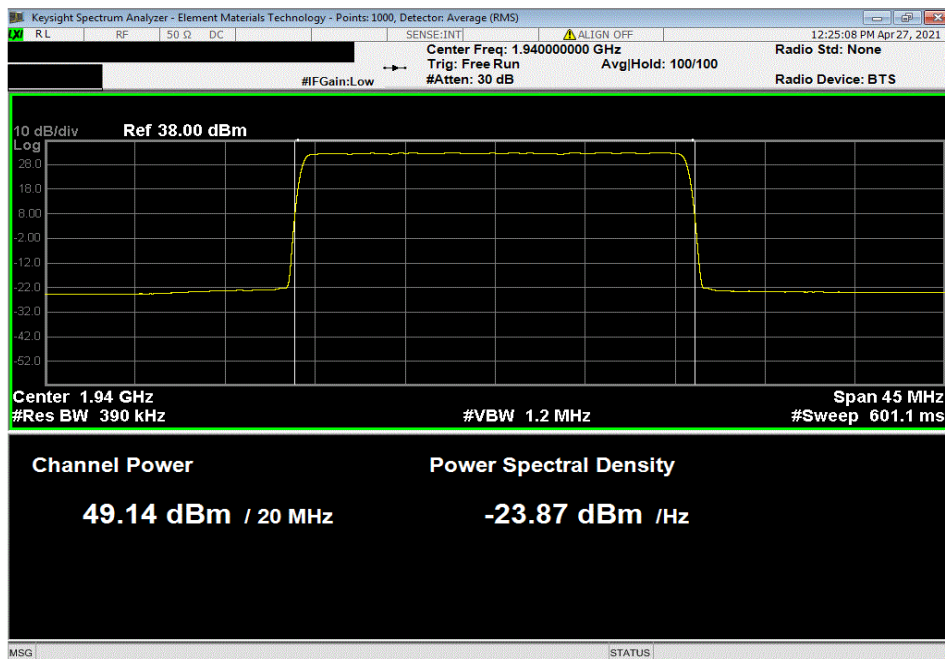


OUTPUT POWER

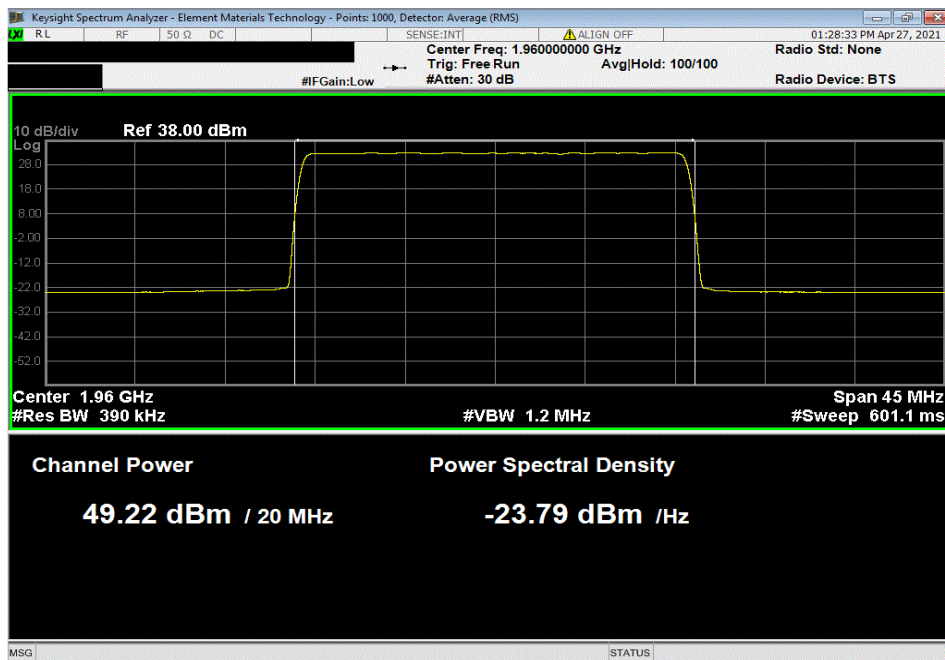


TWTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 64-QAM Modulation, Low Channel, 1940 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.141	0	49.14	52.14	55.14	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1960 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.218	0	49.22	52.22	55.22	

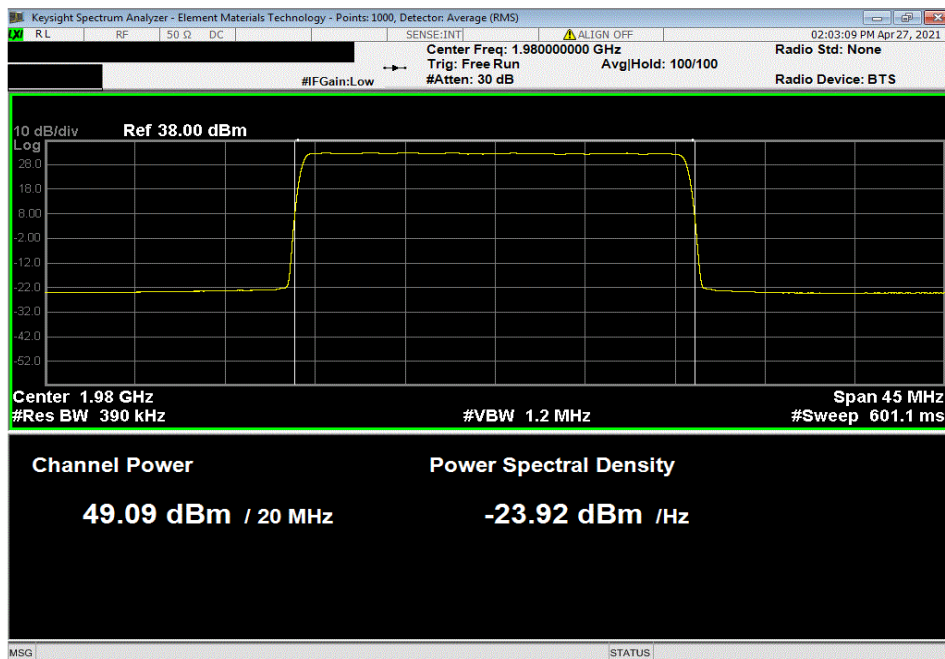


OUTPUT POWER

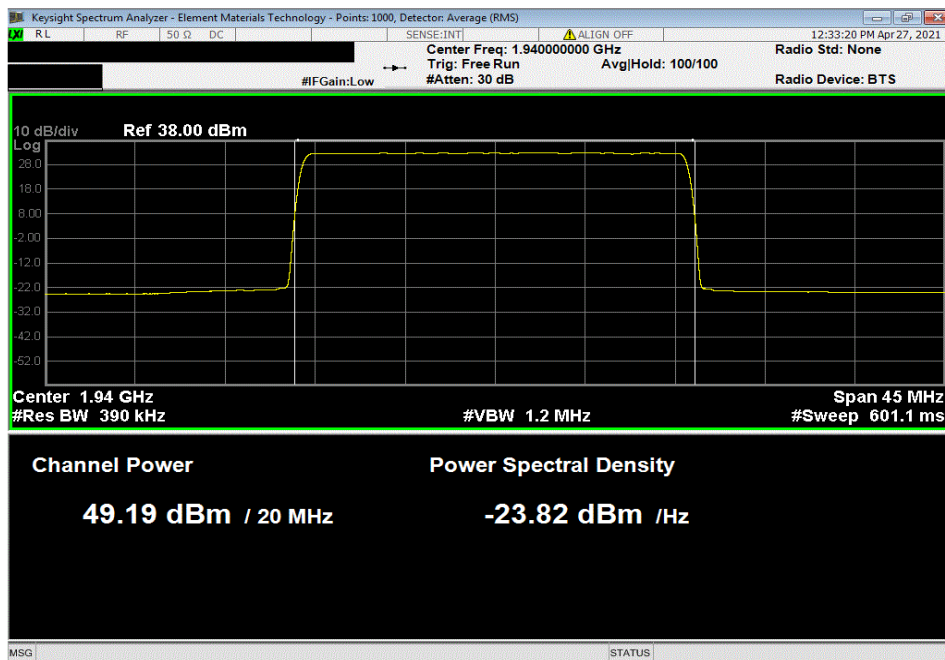


TWTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 64-QAM Modulation, High Channel, 1980 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.087	0	49.09	52.09	55.09	



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1940 MHz					
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)	
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW	
49.193	0	49.19	52.19	55.19	

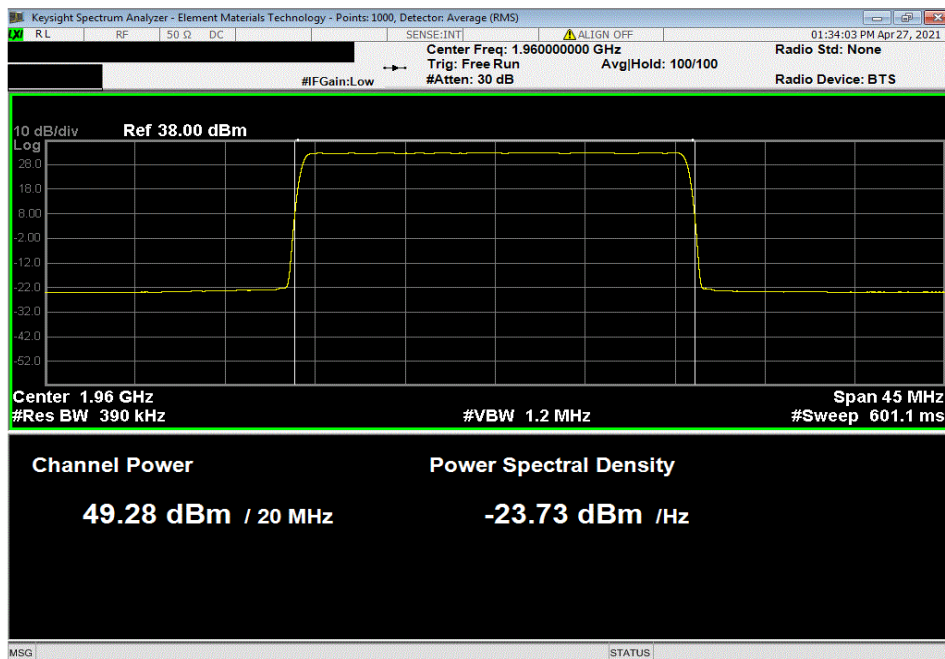


OUTPUT POWER

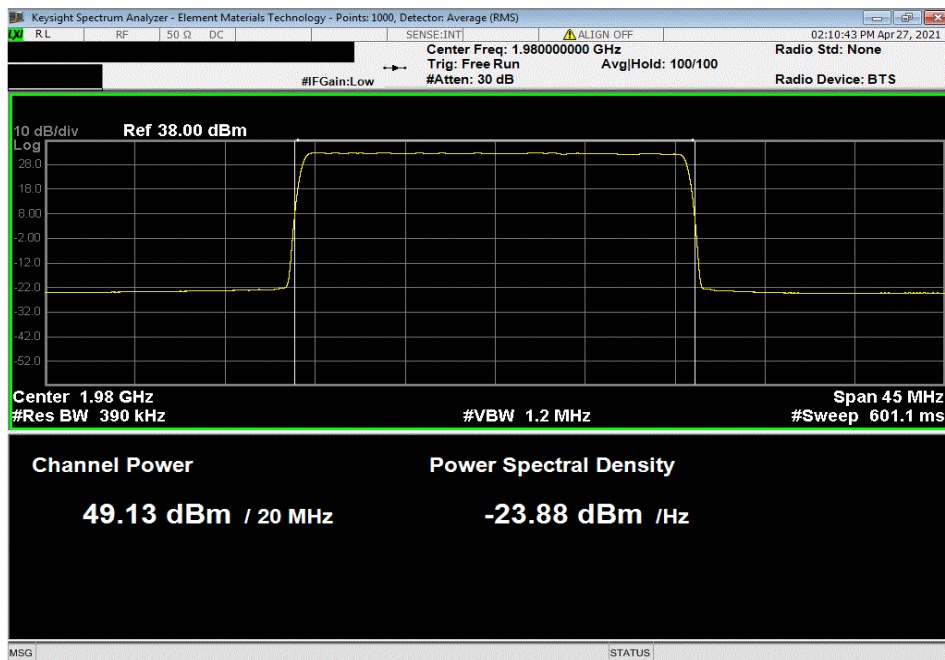


TXTx 2019.08.30.0 XMM 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1960 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
49.278	0	49.28	52.28	55.28		



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 256-QAM Modulation, High Channel, 1980 MHz						
Initial Value	Duty Cycle	Single Port	Two Port (2x2 MIMO)	Four Port (4x4 MIMO)		
dBm/Carrier BW		dBm/Carrier BW	dBm/Carrier BW	dBm/Carrier BW		
49.129	0	49.13	52.13	55.13		



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
Block - DC	Fairview Microwave	SD3379	AMM	2020-09-21	2021-09-21
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFN	2021-01-06	2022-01-06

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.

RF conducted emissions testing was performed only on one port. The testing was performed on the same version of hardware (FXFC) as the original certification test. The FXFC antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the original certification testing) and antenna port 3 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraph 5.7.2i.

PEAK TO AVERAGE (PAPR) CCDF



TWTV 2019.08.30.0 XMI 2020.12.30.0

EUT: FXFC (FCC/ISED C2PC)		Work Order: NOKI0029	
Serial Number: 1M152245671		Date: 27-Apr-21	
Customer: Nokia Solutions and Networks		Temperature: 23.9 °C	
Attendees: David Le, John Rattanavong		Humidity: 47% RH	
Project: None		Barometric Pres.: 1014 mbar	
Tested by: Brandon Hobbs	Power: 54 VDC	Job Site: TX05	
TEST SPECIFICATIONS		Test Method	
FCC 24E:2021		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 n2 carriers were enabled at maximum power (80watts/carrier)			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature	
		PAPR Value (dB)	PAPR Limit (dB) Results

Band n2, 1930 MHz - 1990 MHz, 5G NR

Port 3

5 MHz Bandwidth

QPSK Modulation

Low Channel, 1932.5 MHz
Mid Channel, 1960 MHz
High Channel, 1987.5 MHz

6.56 13 Pass
6.55 13 Pass
6.58 13 Pass

16-QAM Modulation

Low Channel, 1932.5 MHz
Mid Channel, 1960 MHz
High Channel, 1987.5 MHz

6.74 13 Pass
6.74 13 Pass
6.78 13 Pass

64-QAM Modulation

Low Channel, 1932.5 MHz
Mid Channel, 1960 MHz
High Channel, 1987.5 MHz

6.56 13 Pass
6.55 13 Pass
6.56 13 Pass

256-QAM Modulation

Low Channel, 1932.5 MHz
Mid Channel, 1960 MHz
High Channel, 1987.5 MHz

6.55 13 Pass
6.51 13 Pass
6.54 13 Pass

10 MHz Bandwidth

QPSK Modulation

Low Channel, 1935 MHz
Mid Channel, 1960 MHz
High Channel, 1985 MHz

6.71 13 Pass
6.57 13 Pass
6.63 13 Pass

16-QAM Modulation

Low Channel, 1935 MHz
Mid Channel, 1960 MHz
High Channel, 1985 MHz

6.80 13 Pass
6.71 13 Pass
6.74 13 Pass

64-QAM Modulation

Low Channel, 1935 MHz
Mid Channel, 1960 MHz
High Channel, 1985 MHz

6.67 13 Pass
6.58 13 Pass
6.69 13 Pass

256-QAM Modulation

Low Channel, 1935 MHz
Mid Channel, 1960 MHz
High Channel, 1985 MHz

6.67 13 Pass
6.56 13 Pass
6.67 13 Pass

15 MHz Bandwidth

QPSK Modulation

Low Channel, 1937.5 MHz
Mid Channel, 1960 MHz
High Channel, 1982.5 MHz

6.76 13 Pass
6.55 13 Pass
6.71 13 Pass

16-QAM Modulation

Low Channel, 1937.5 MHz
Mid Channel, 1960 MHz
High Channel, 1982.5 MHz

6.81 13 Pass
6.66 13 Pass
6.80 13 Pass

64-QAM Modulation

Low Channel, 1937.5 MHz
Mid Channel, 1960 MHz
High Channel, 1982.5 MHz

6.77 13 Pass
6.57 13 Pass
6.73 13 Pass

256-QAM Modulation

Low Channel, 1937.5 MHz
Mid Channel, 1960 MHz
High Channel, 1982.5 MHz

6.77 13 Pass
6.54 13 Pass
6.72 13 Pass

20 MHz Bandwidth

QPSK Modulation

Low Channel, 1940 MHz
Mid Channel, 1960 MHz
High Channel, 1980 MHz

6.82 13 Pass
6.49 13 Pass
6.73 13 Pass

16-QAM Modulation

Low Channel, 1940 MHz
Mid Channel, 1960 MHz
High Channel, 1980 MHz

6.86 13 Pass
6.57 13 Pass
6.79 13 Pass

64-QAM Modulation

Low Channel, 1940 MHz
Mid Channel, 1960 MHz
High Channel, 1980 MHz

6.79 13 Pass
6.50 13 Pass
6.73 13 Pass

256-QAM Modulation

Low Channel, 1940 MHz
Mid Channel, 1960 MHz
High Channel, 1980 MHz

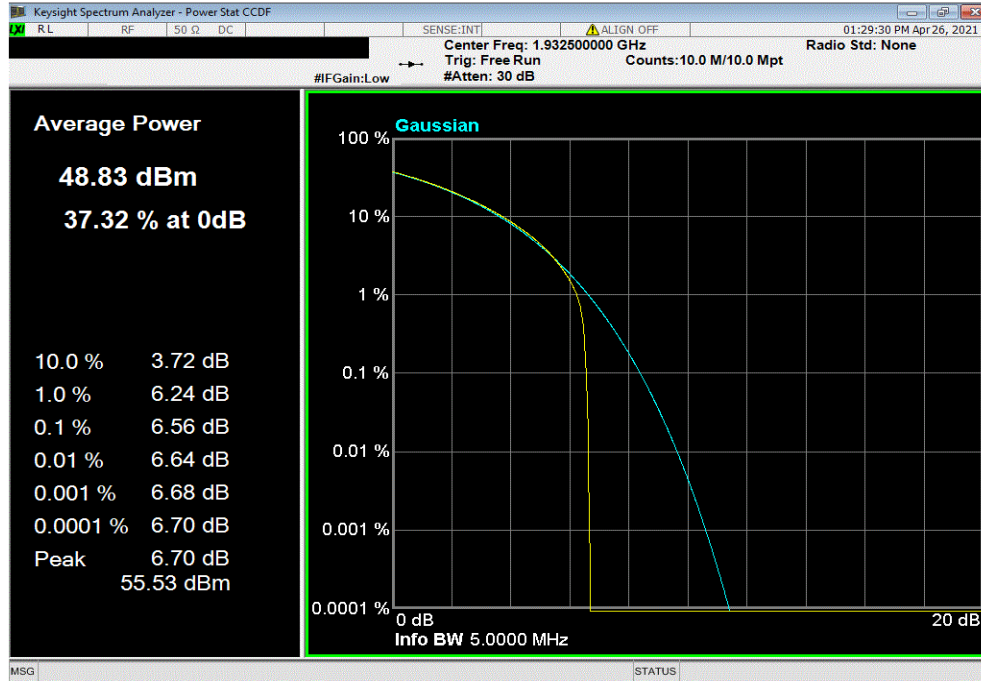
6.86 13 Pass
6.50 13 Pass
6.75 13 Pass

PEAK TO AVERAGE (PAPR) CCDF

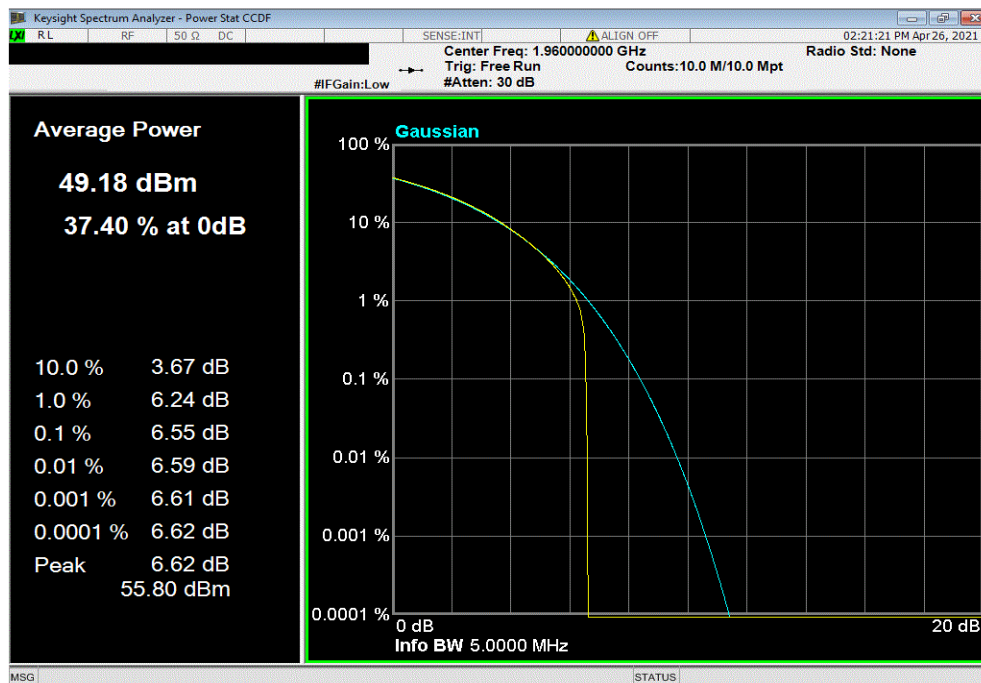


TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, QPSK Modulation , Low Channel, 1932.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.56	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, QPSK Modulation , Mid Channel, 1960 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.55	13	Pass

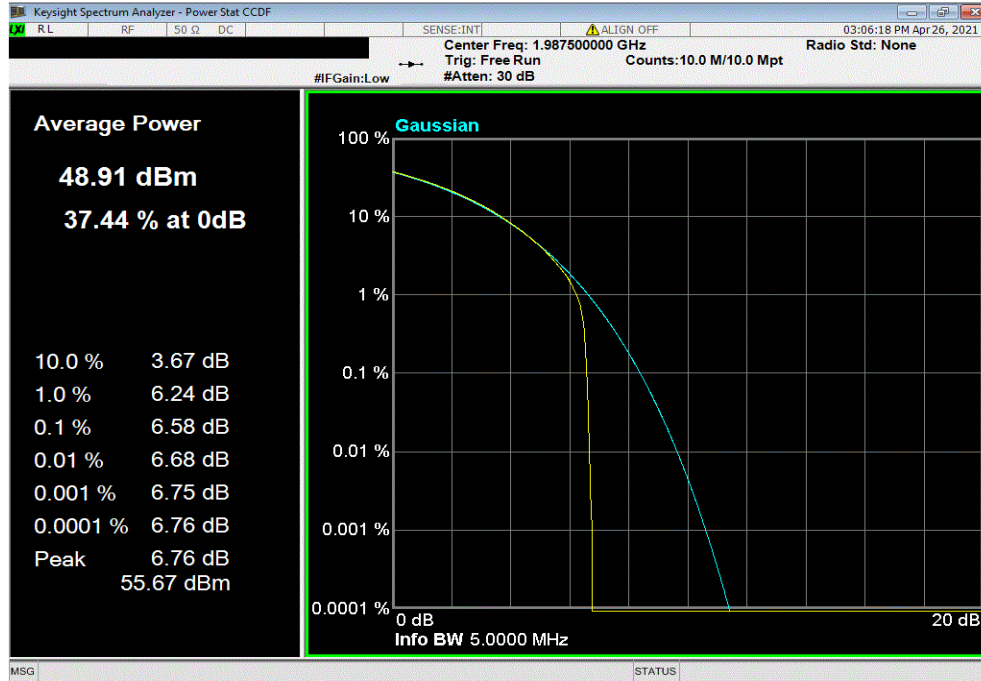


PEAK TO AVERAGE (PAPR) CCDF

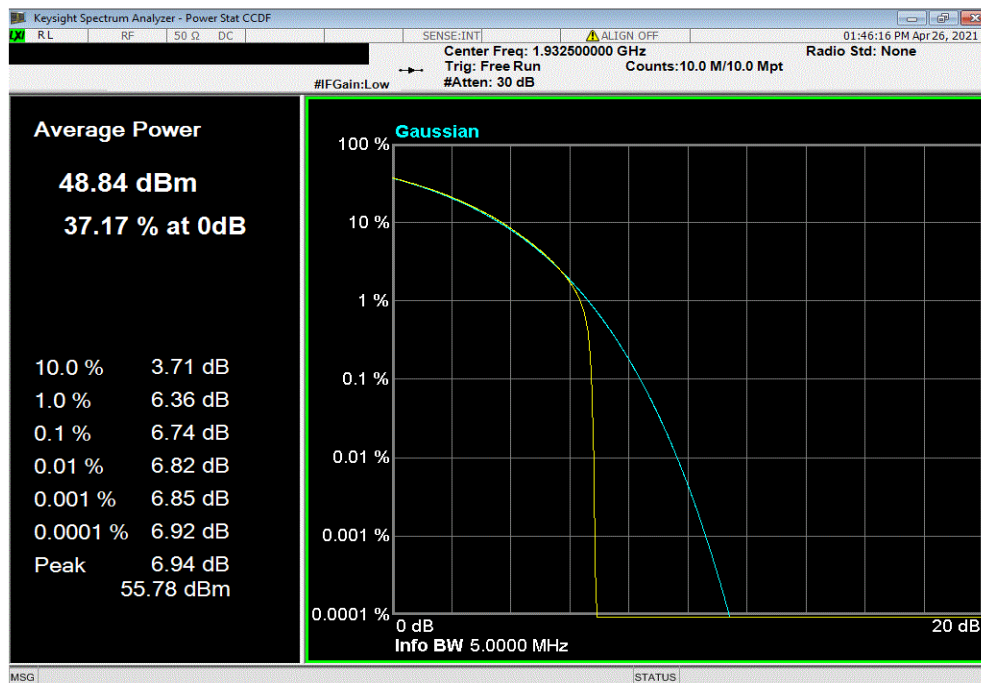


TbTx 2019.08.30.0 XbTx 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, QPSK Modulation , High Channel, 1987.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.58	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 16-QAM Modulation, Low Channel, 1932.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.74	13	Pass

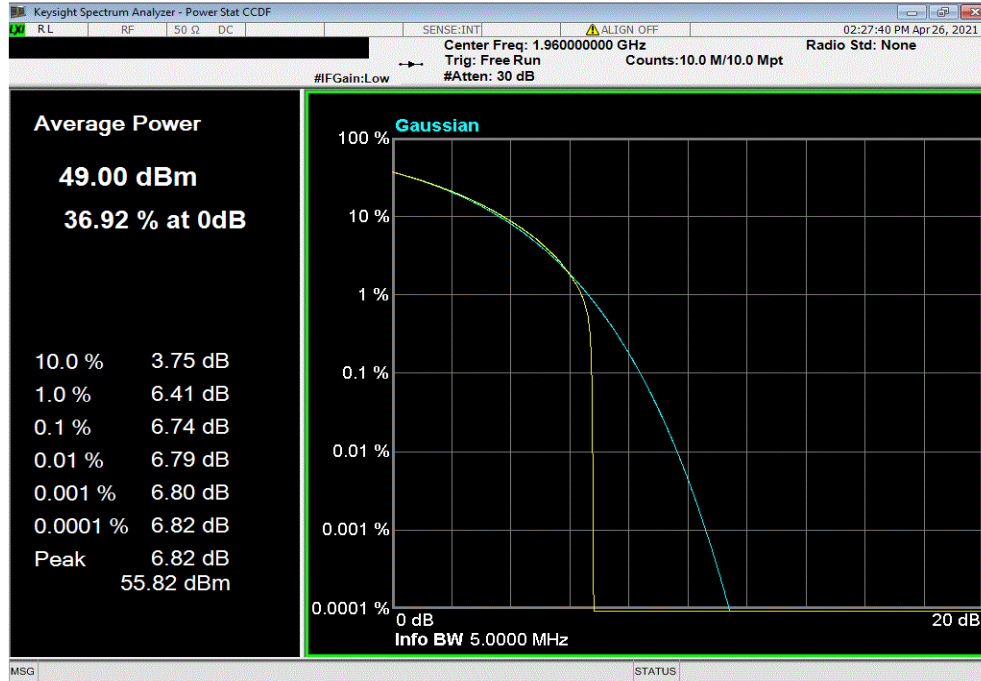


PEAK TO AVERAGE (PAPR) CCDF

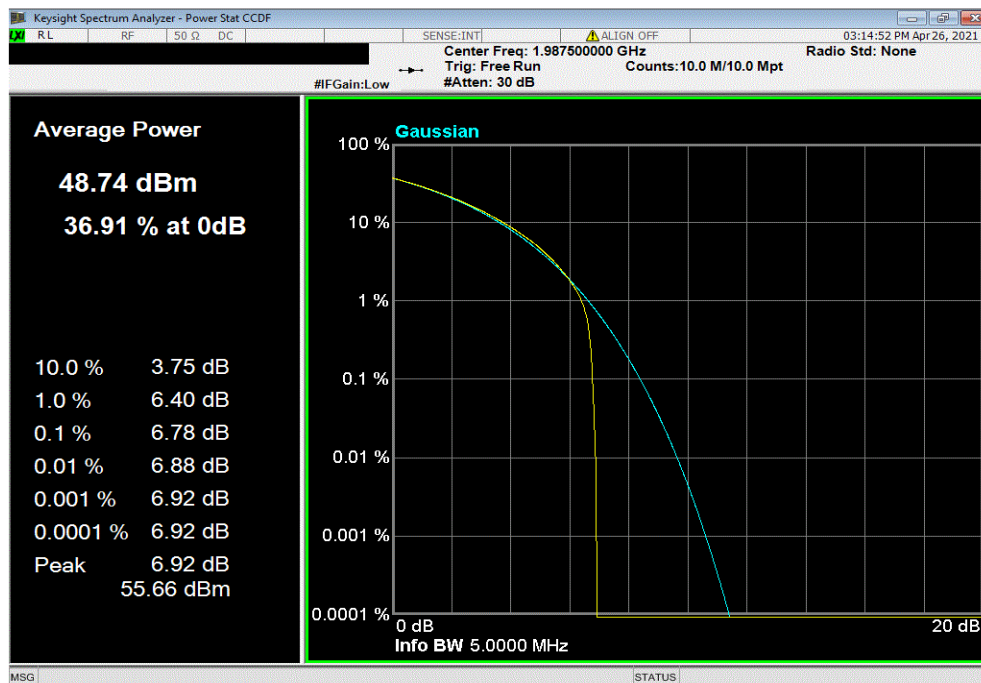


TbTx 2019.08.30.0 XbTx 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1960 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.74	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 16-QAM Modulation, High Channel, 1987.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.78	13	Pass

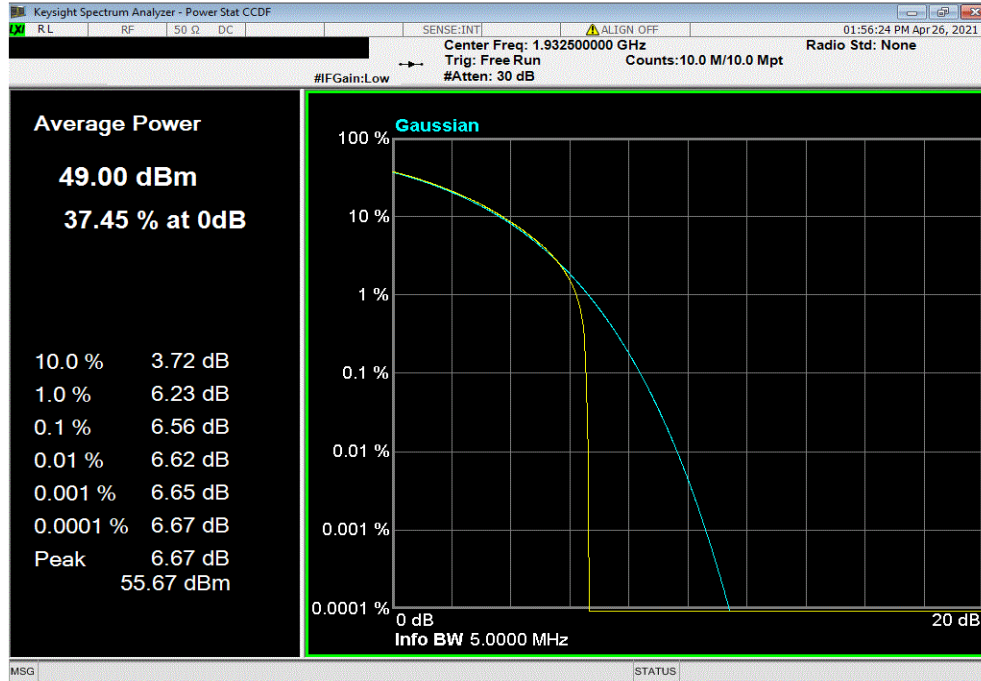


PEAK TO AVERAGE (PAPR) CCDF

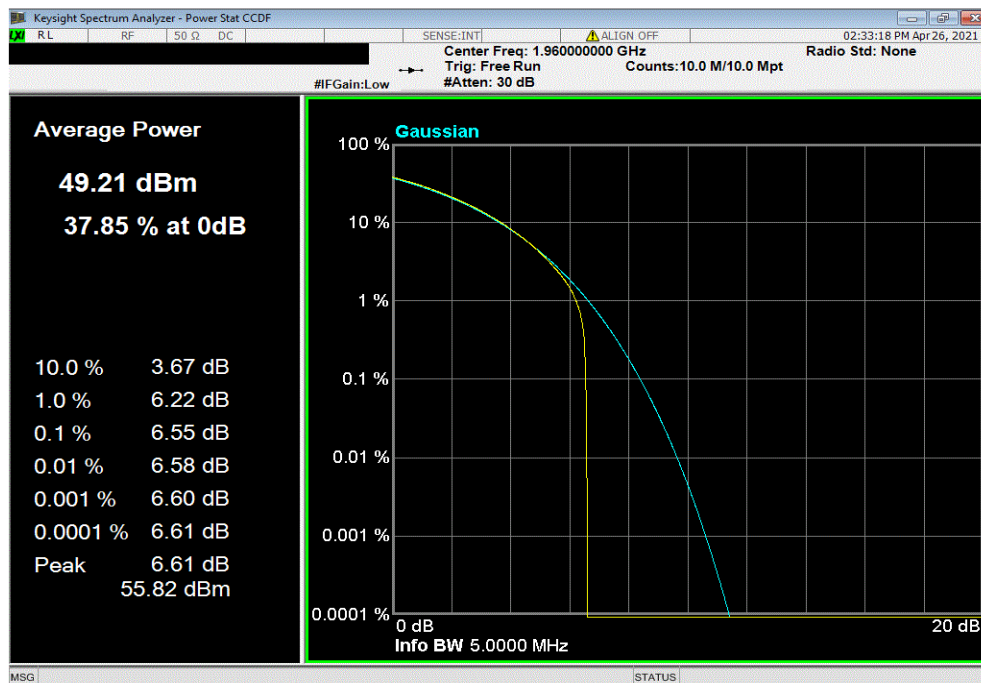


TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 64-QAM Modulation, Low Channel, 1932.5 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.56	13	Pass			



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1960 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.55	13	Pass			

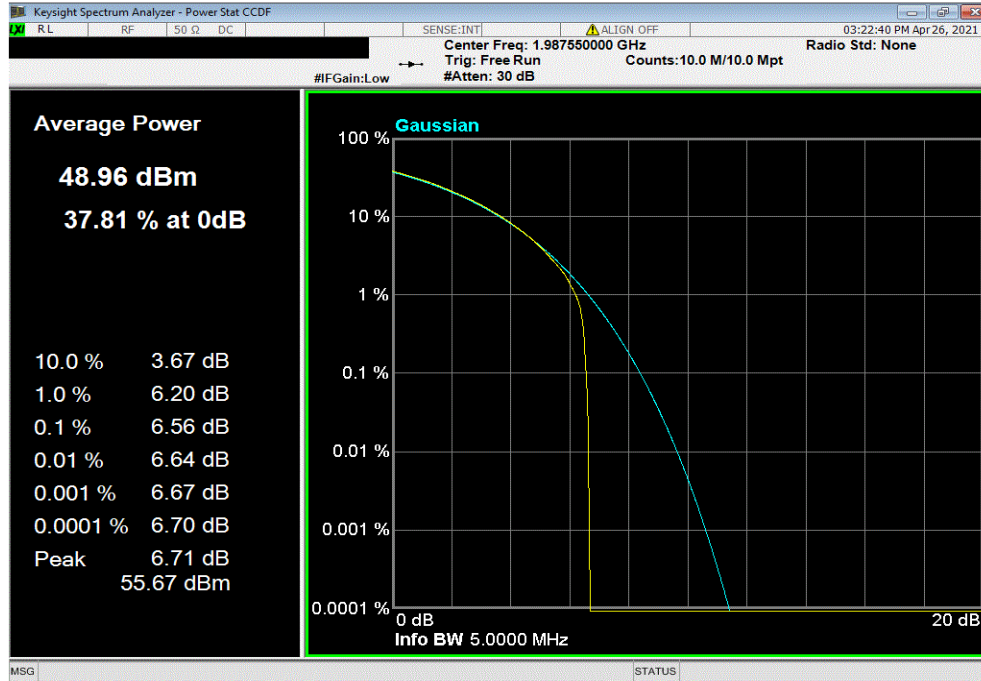


PEAK TO AVERAGE (PAPR) CCDF

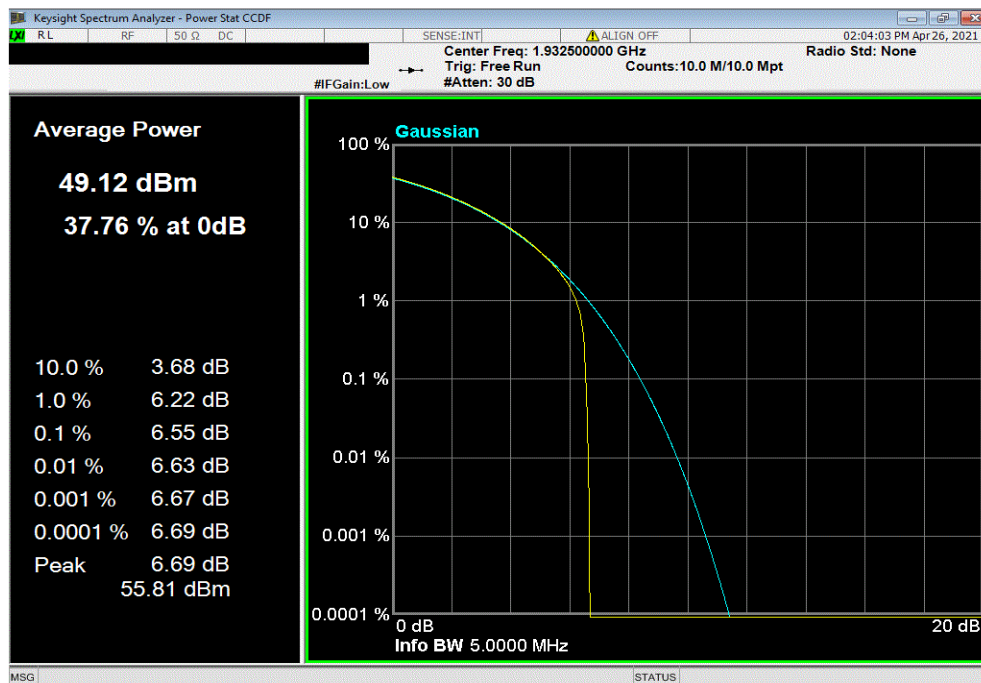


TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 64-QAM Modulation, High Channel, 1987.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.56	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1932.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.55	13	Pass

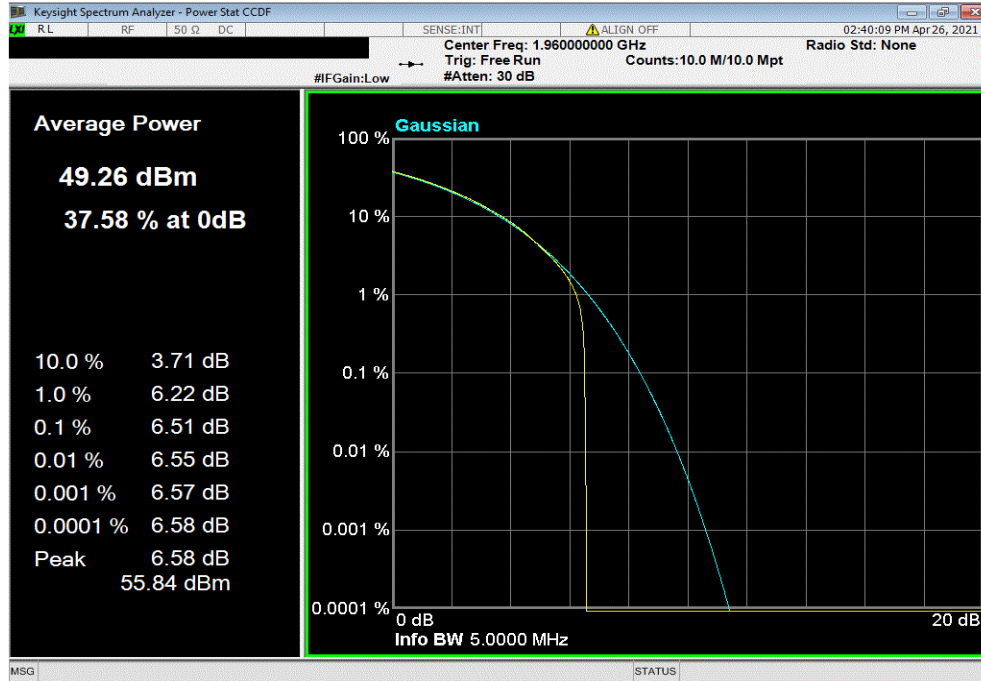


PEAK TO AVERAGE (PAPR) CCDF

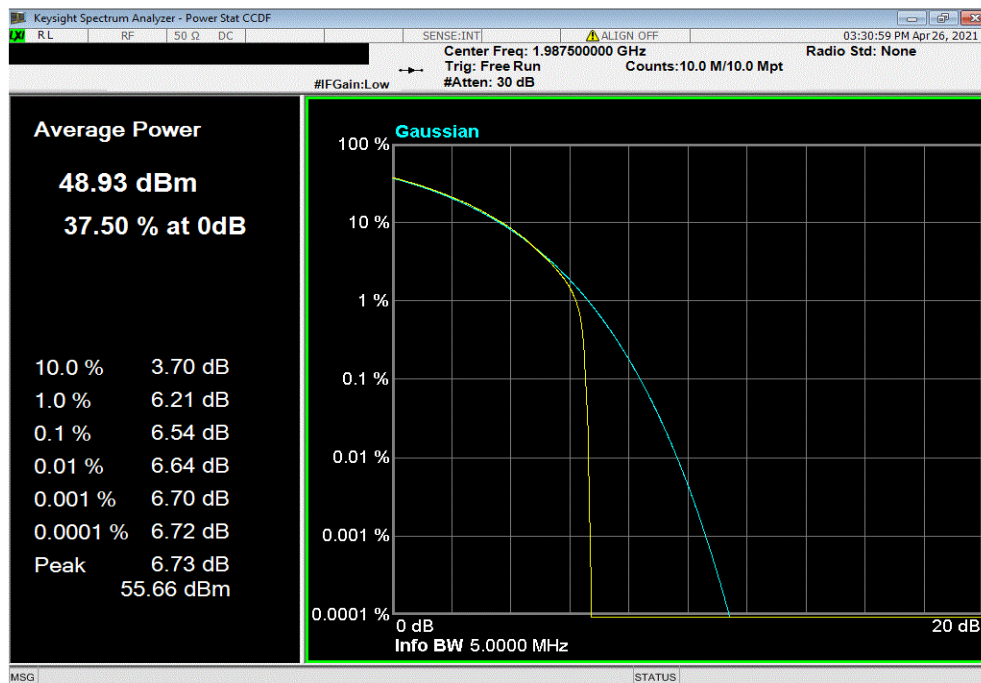


TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1960 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.51	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 5 MHz Bandwidth, 256-QAM Modulation, High Channel, 1987.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.54	13	Pass

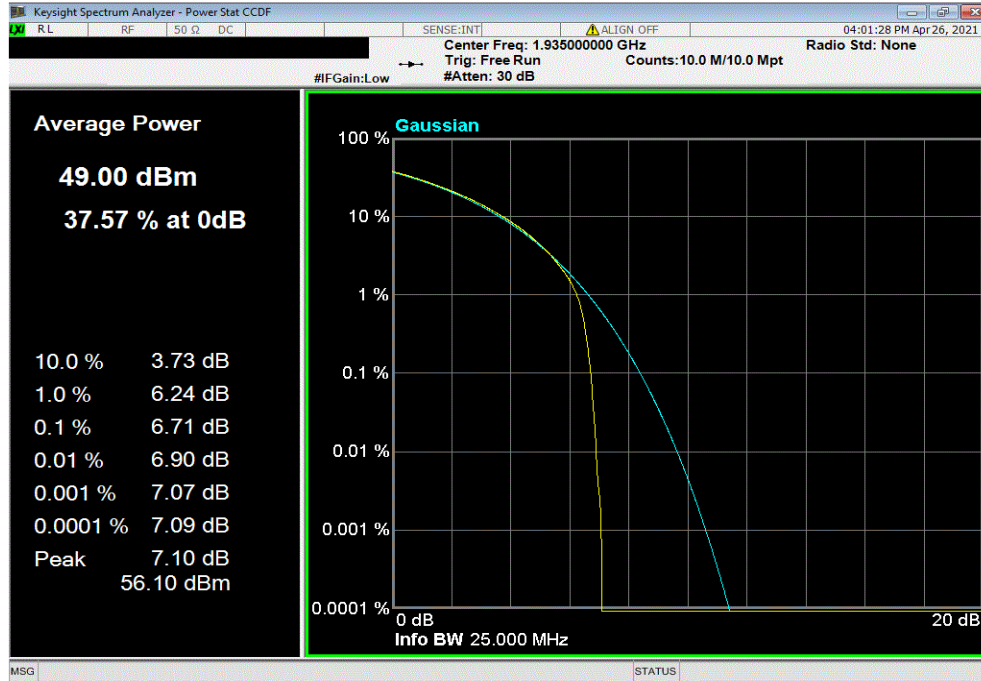


PEAK TO AVERAGE (PAPR) CCDF

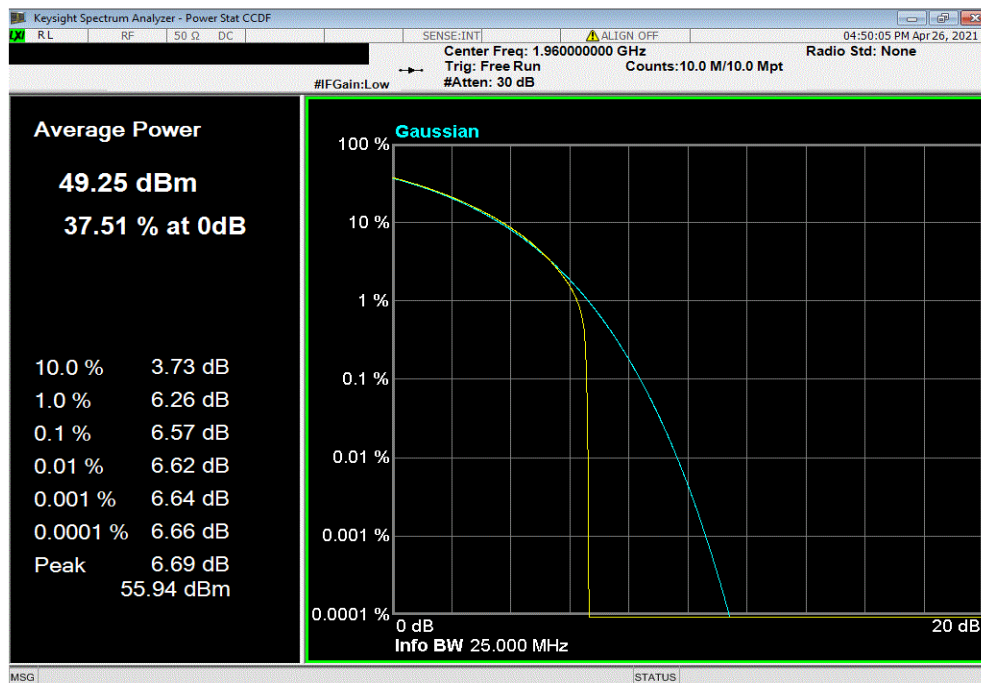


TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, QPSK Modulation, Low Channel, 1935 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.71	13	Pass			



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, QPSK Modulation, Mid Channel, 1960 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.57	13	Pass			

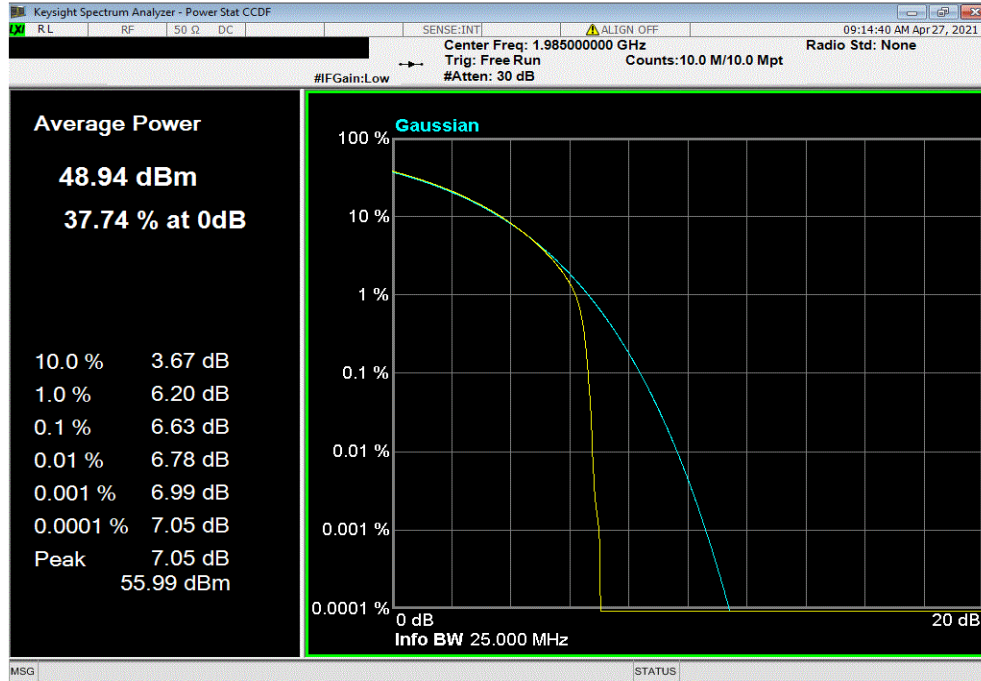


PEAK TO AVERAGE (PAPR) CCDF

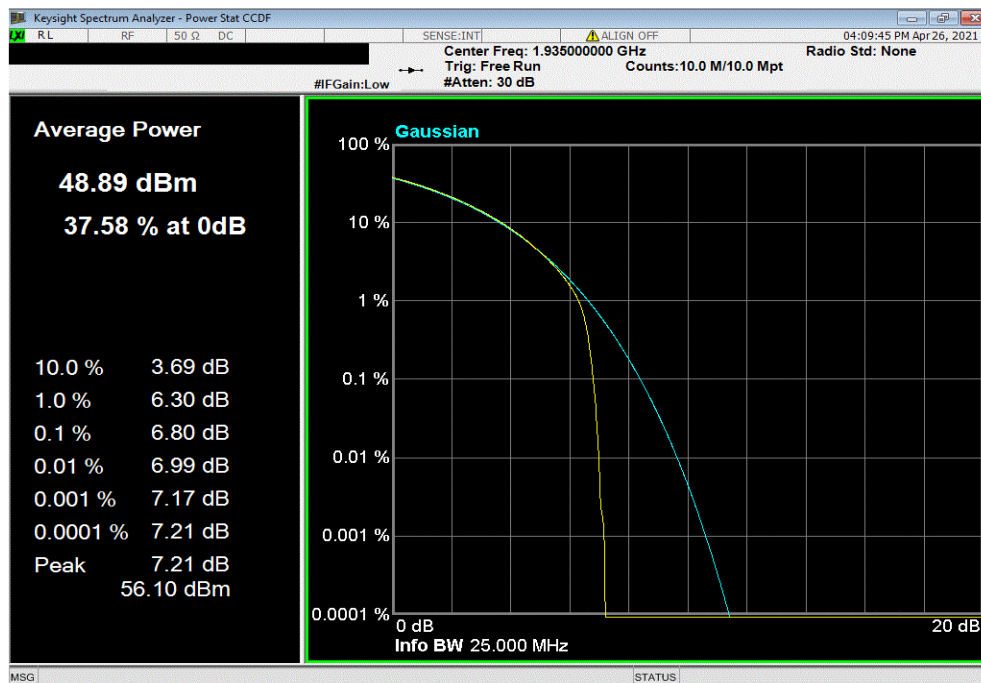


TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, QPSK Modulation, High Channel, 1985 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.63	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 16-QAM Modulation, Low Channel, 1935 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.8	13	Pass

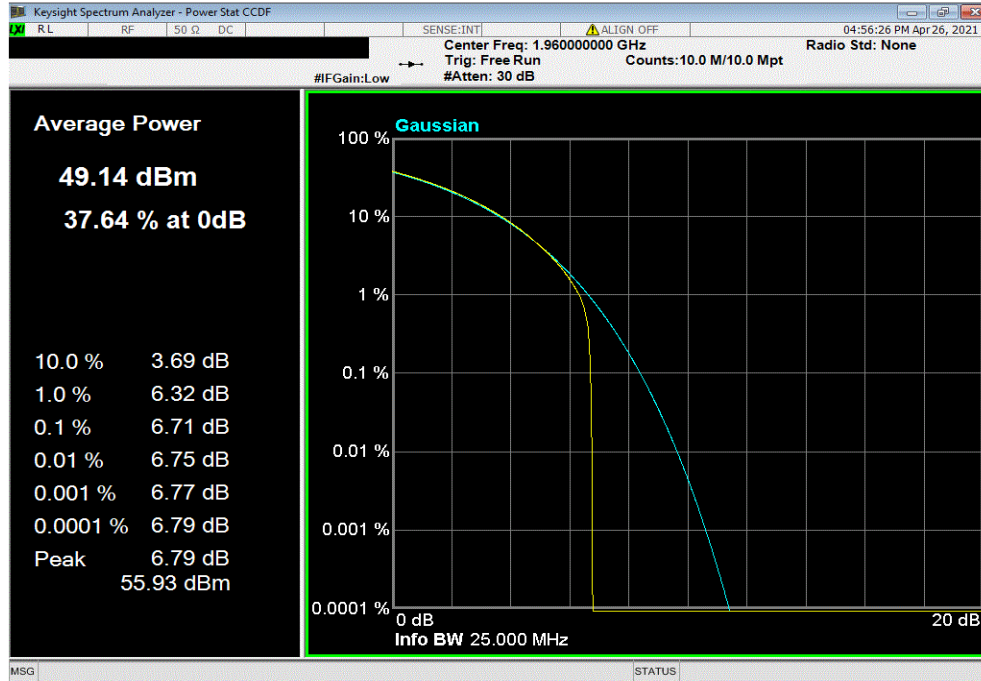


PEAK TO AVERAGE (PAPR) CCDF

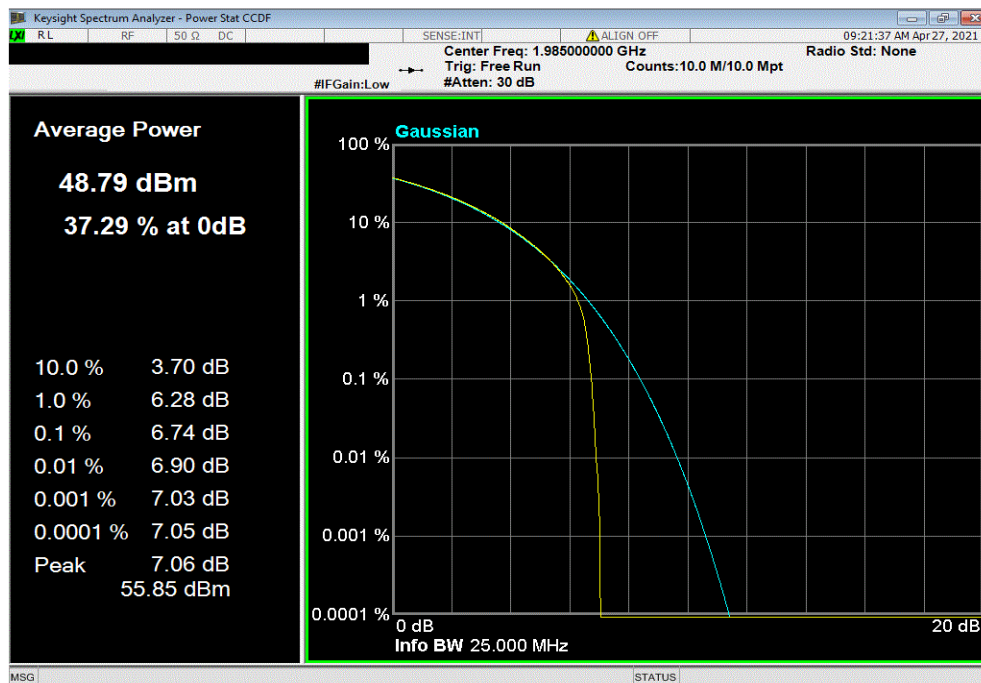


TbTx 2019.08.30.0 XbTx 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1960 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.71	13	Pass			



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 16-QAM Modulation, High Channel, 1985 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.74	13	Pass			

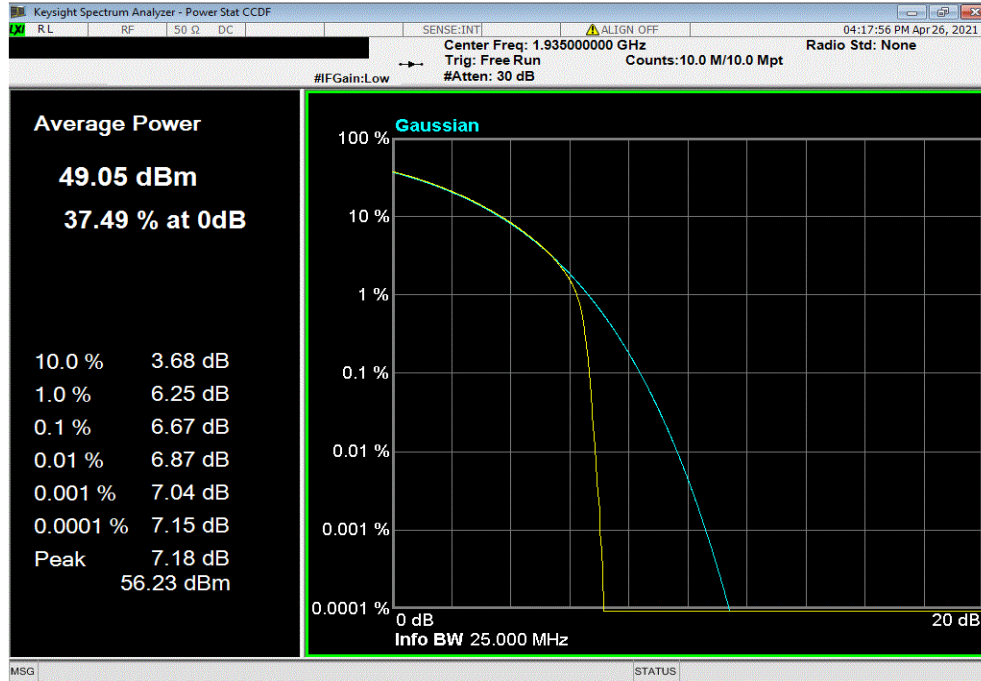


PEAK TO AVERAGE (PAPR) CCDF

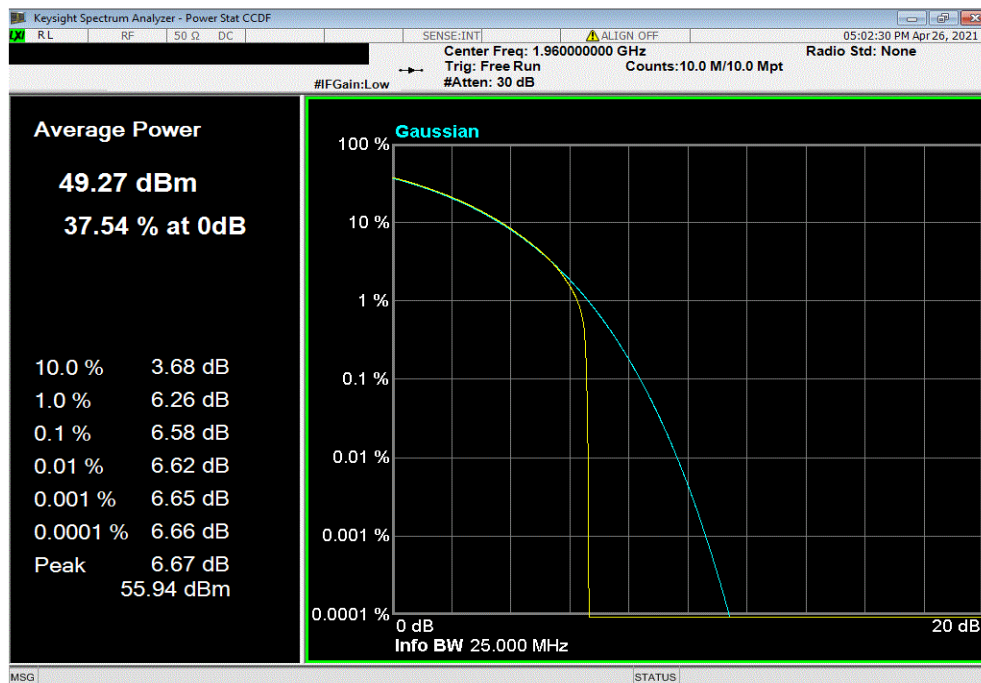


TbTx 2019.08.30.0 XbTx 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 64-QAM Modulation, Low Channel, 1935 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.67	13	Pass			



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1960 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.58	13	Pass			

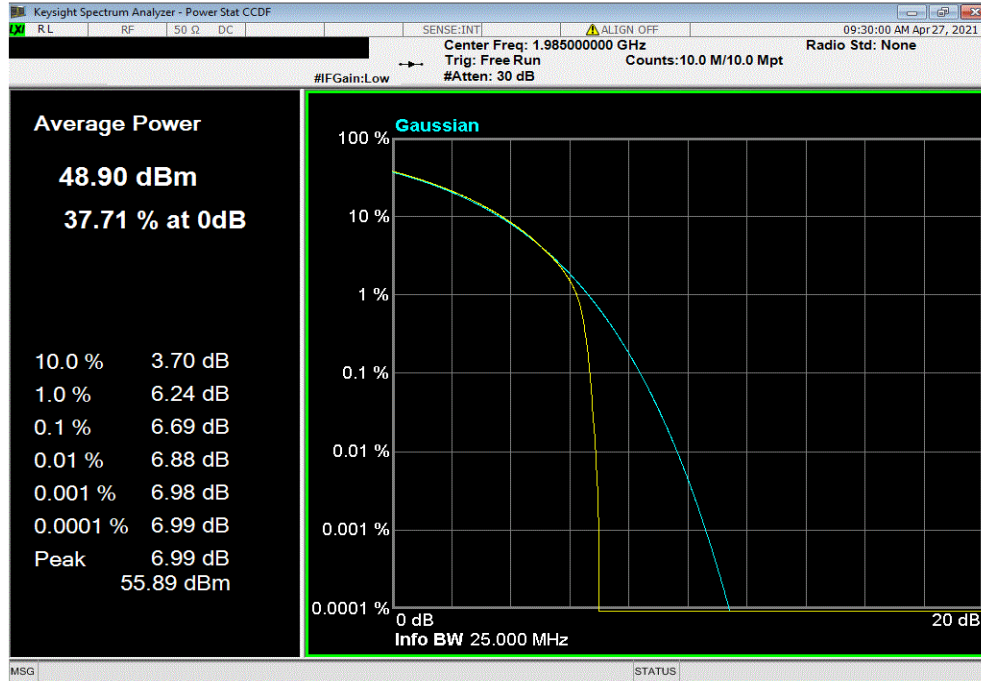


PEAK TO AVERAGE (PAPR) CCDF

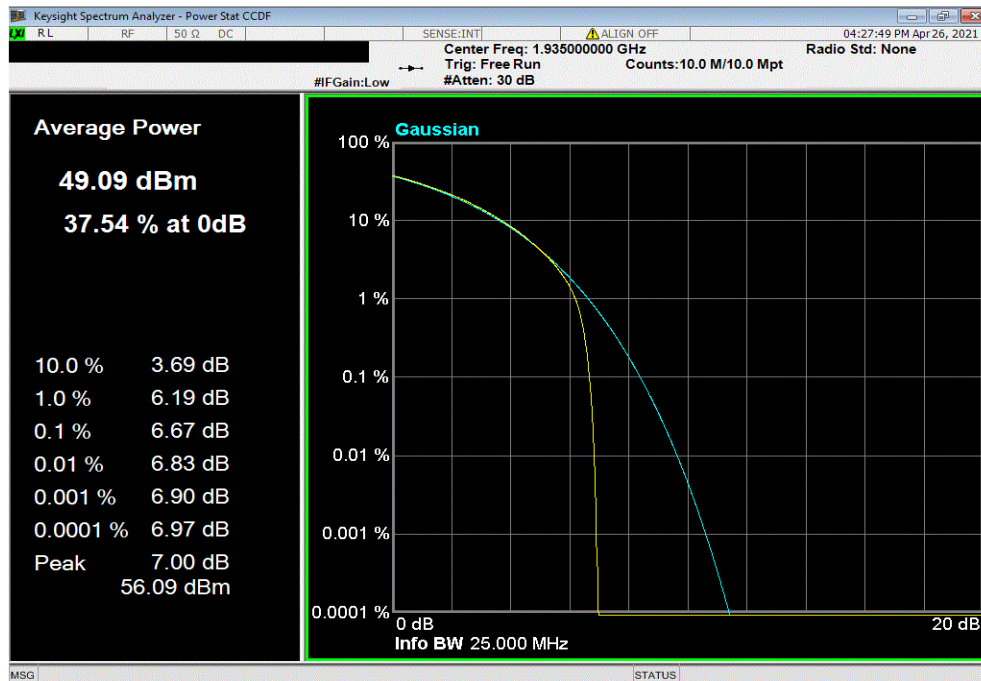


TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 64-QAM Modulation, High Channel, 1985 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.69	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1935 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.67	13	Pass

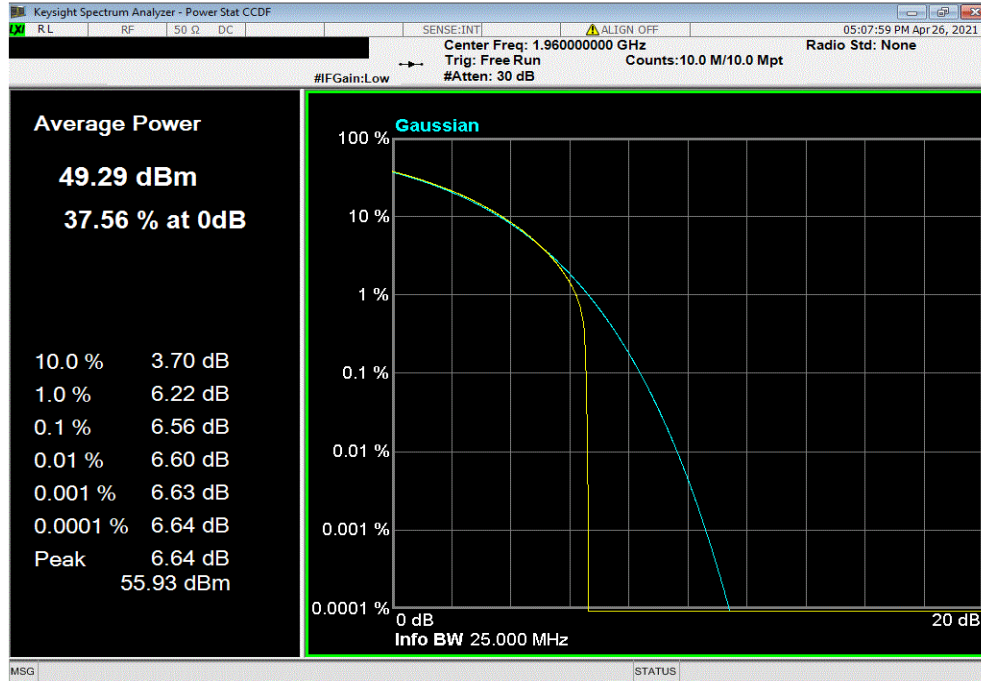


PEAK TO AVERAGE (PAPR) CCDF

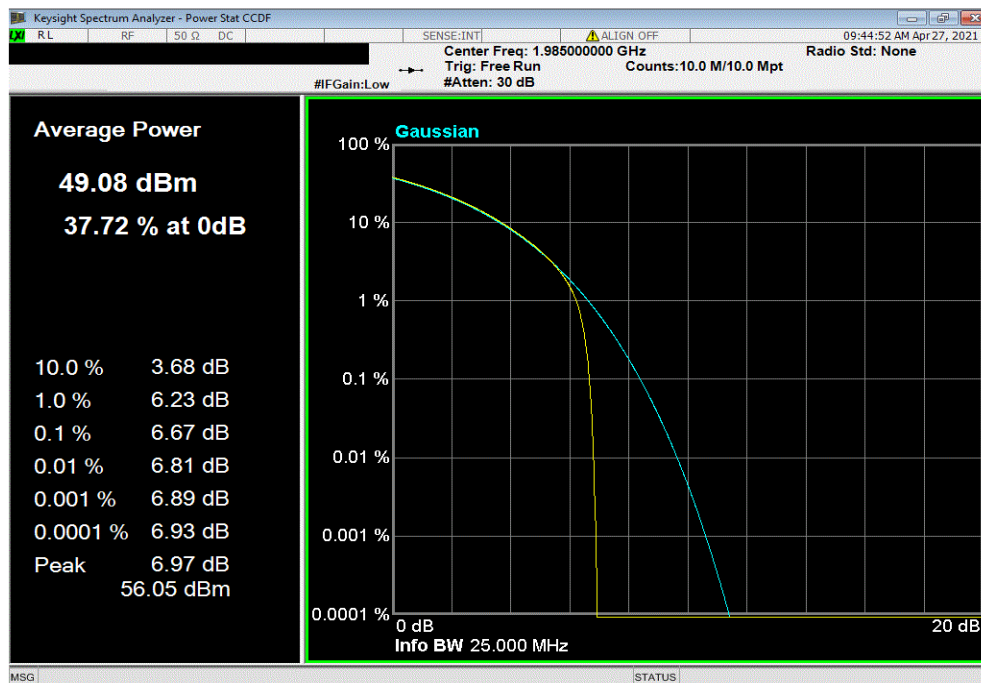


TbTx 2019.08.30.0 XbTx 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1960 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.56	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 10 MHz Bandwidth, 256-QAM Modulation, High Channel, 1985 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.67	13	Pass

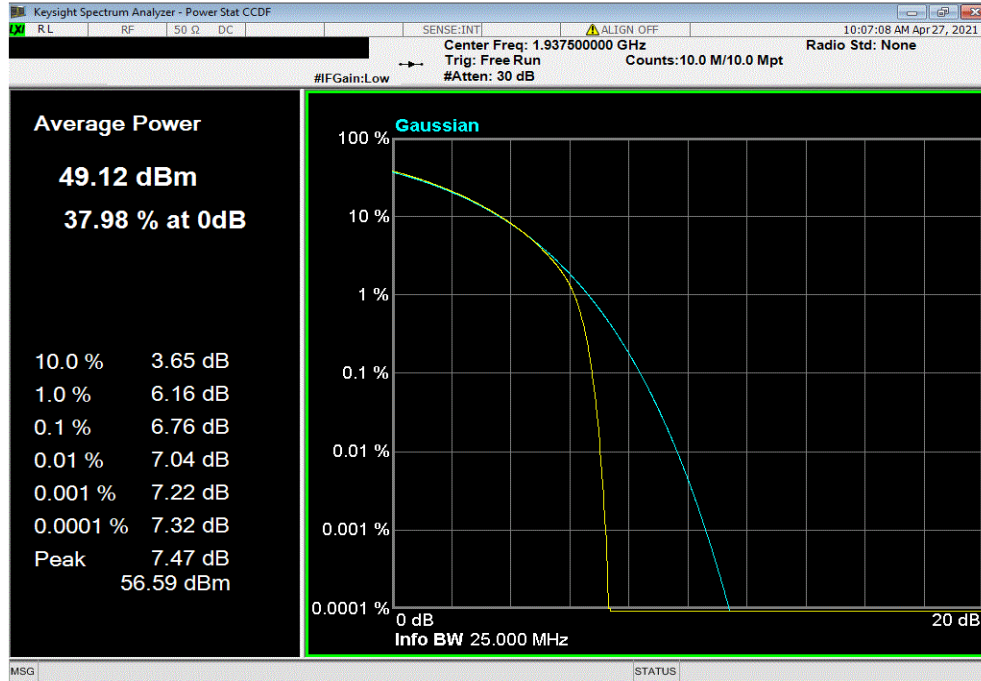


PEAK TO AVERAGE (PAPR) CCDF

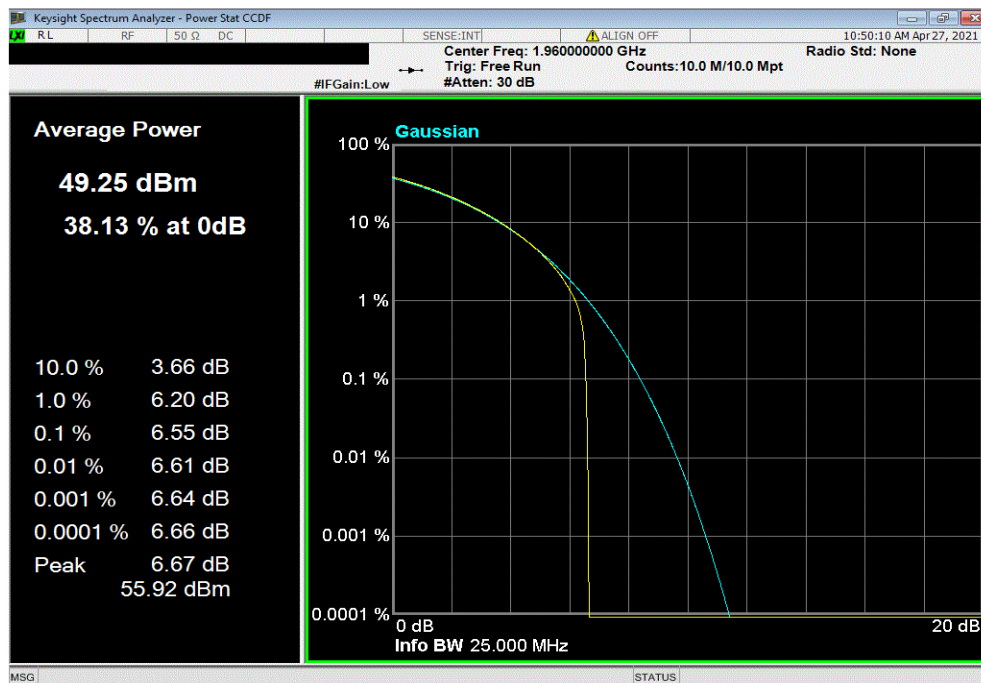


TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, QPSK Modulation , Low Channel, 1937.5 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.76	13	Pass			



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, QPSK Modulation , Mid Channel, 1960 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.55	13	Pass			

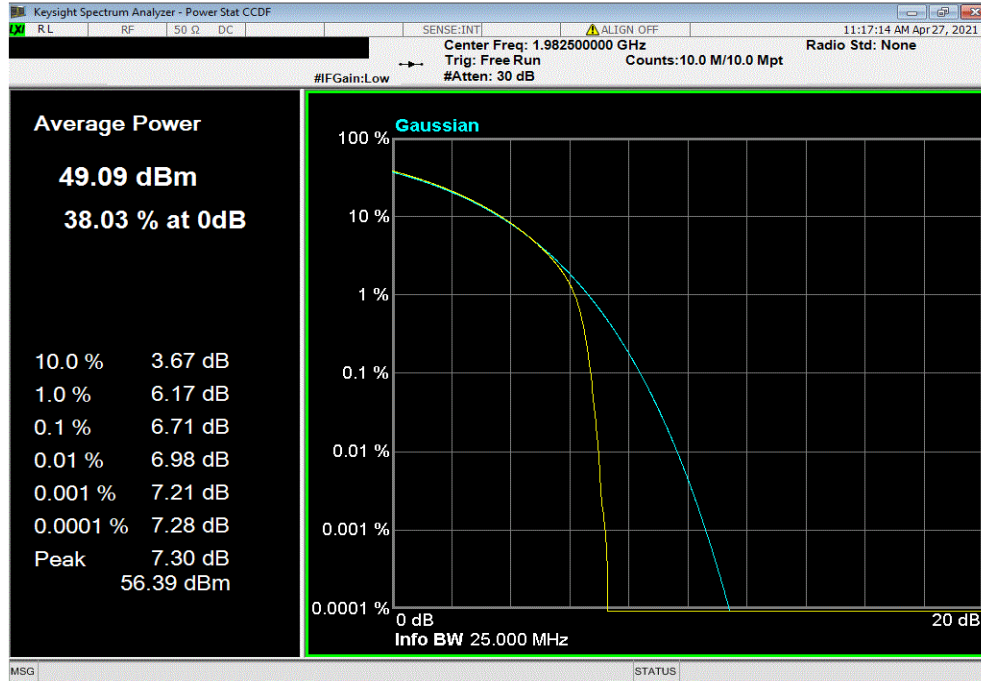


PEAK TO AVERAGE (PAPR) CCDF

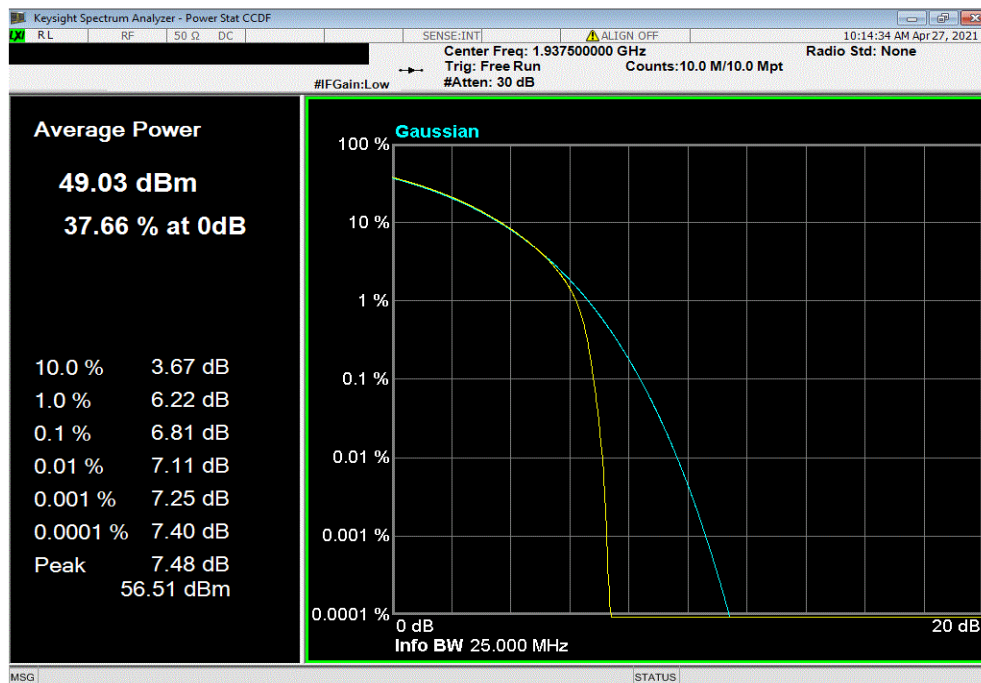


TbTx 2019.08.30.0 XbTx 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, QPSK Modulation, High Channel, 1982.5 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.71	13	Pass			



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 16-QAM Modulation, Low Channel, 1937.5 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.81	13	Pass			

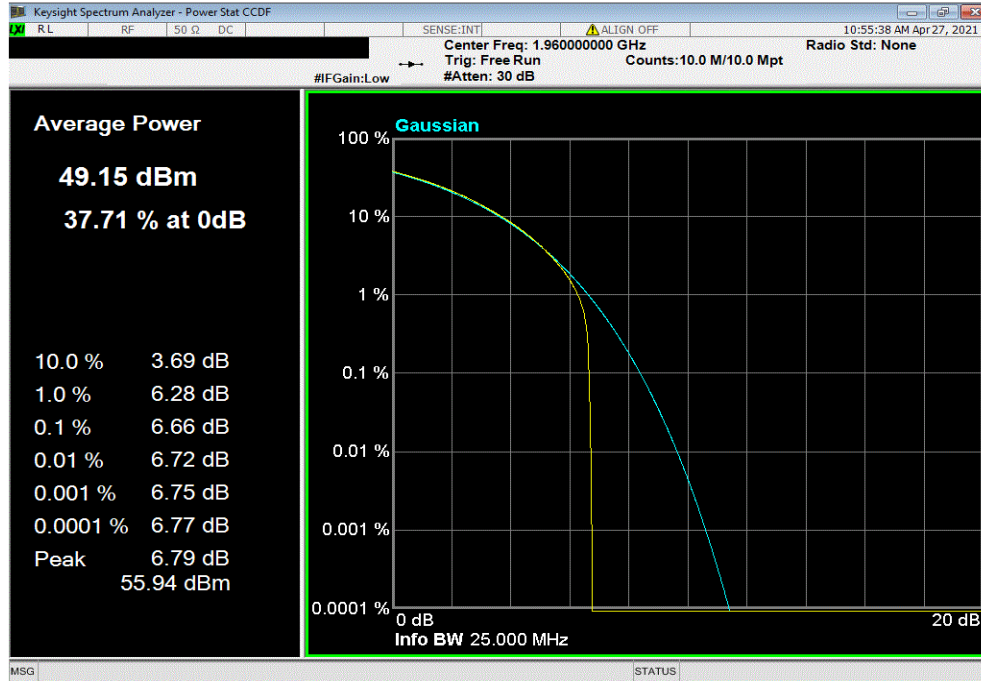


PEAK TO AVERAGE (PAPR) CCDF

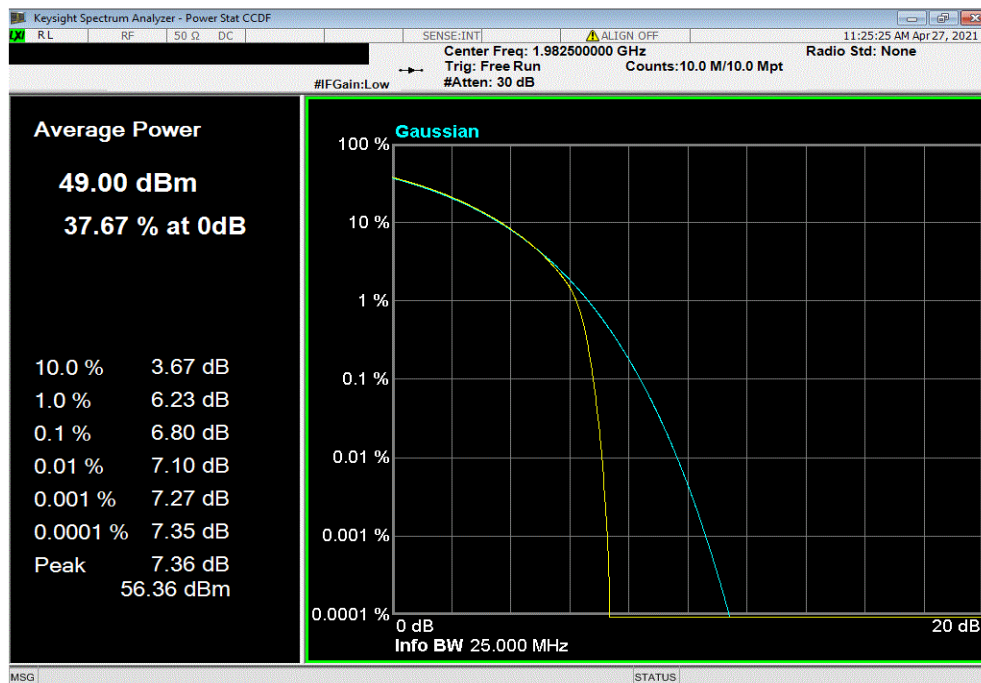


TbTx 2019.08.30.0 XbTx 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1960 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.66	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 16-QAM Modulation, High Channel, 1982.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.8	13	Pass

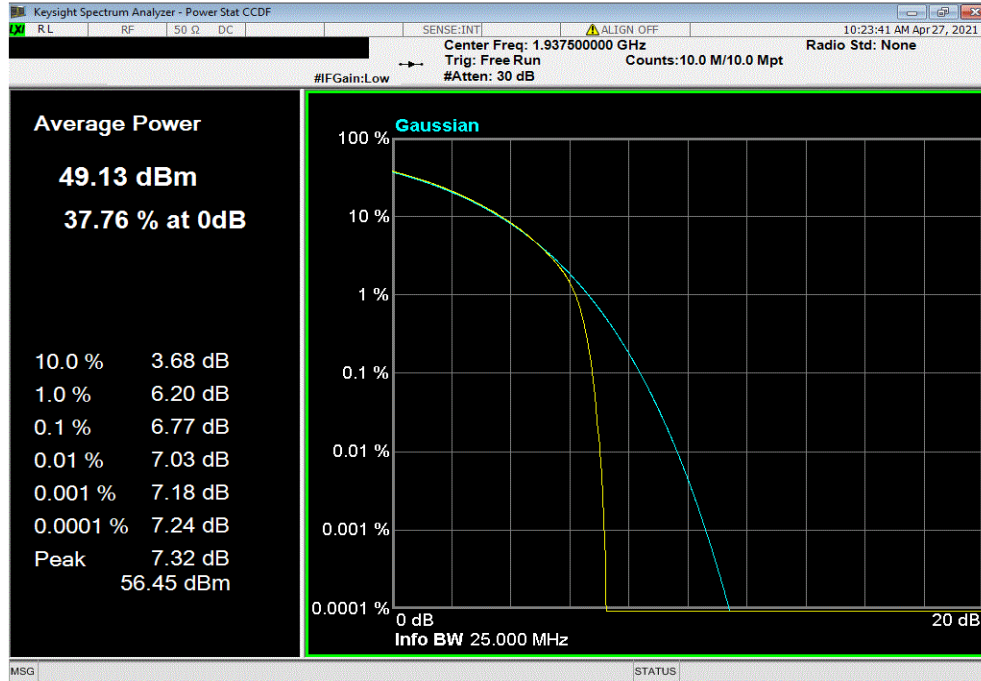


PEAK TO AVERAGE (PAPR) CCDF

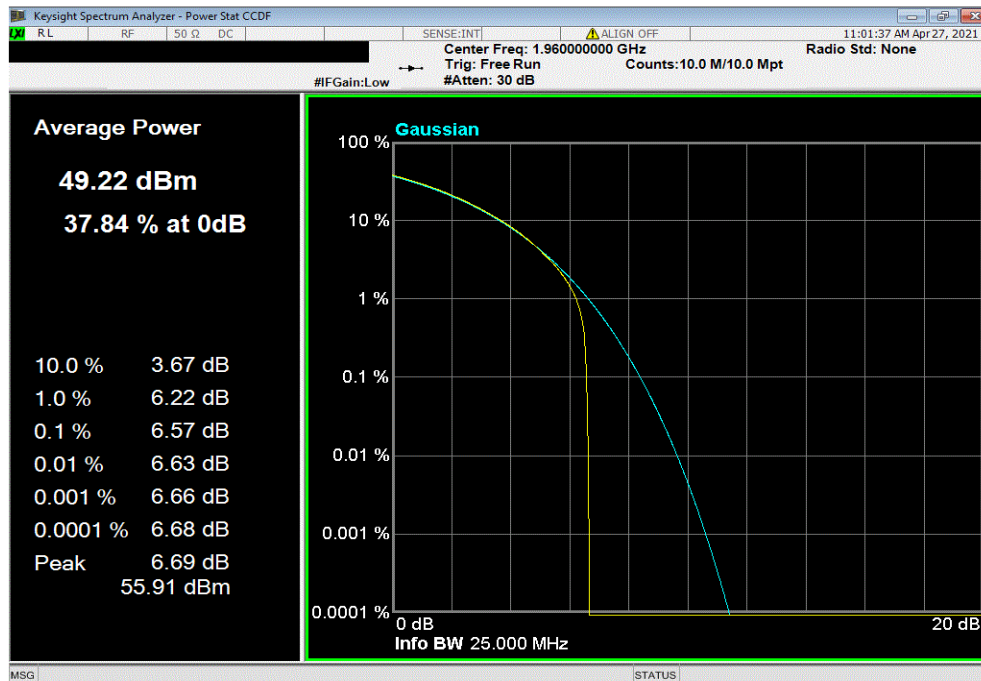


TbTx 2019.08.30.0 XbTx 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 64-QAM Modulation, Low Channel, 1937.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.77	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1960 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.57	13	Pass

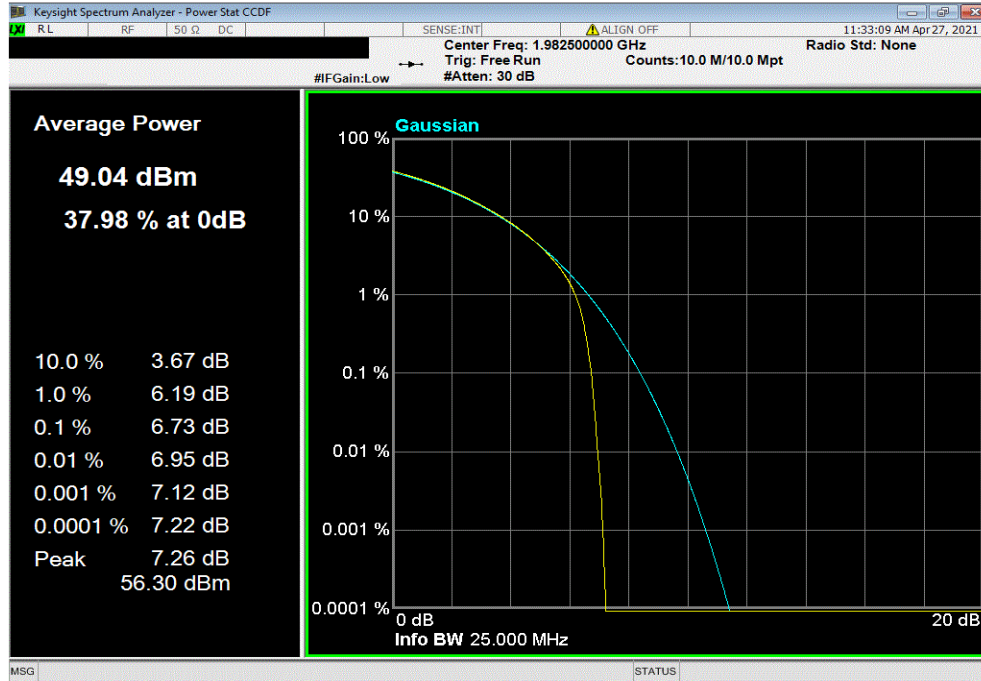


PEAK TO AVERAGE (PAPR) CCDF

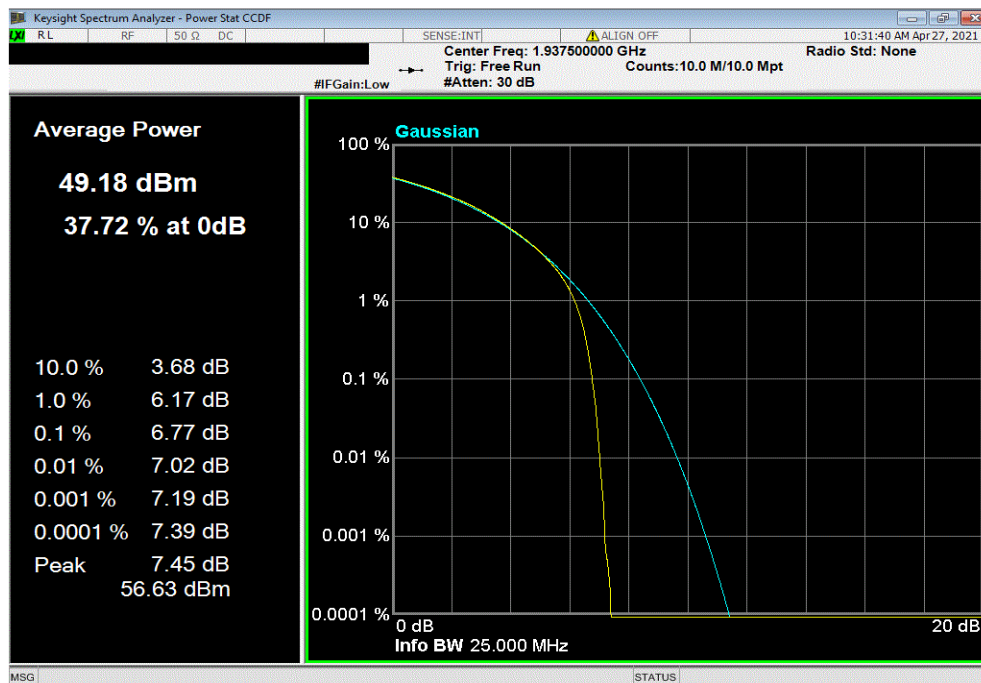


TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 64-QAM Modulation, High Channel, 1982.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.73	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1937.5 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.77	13	Pass

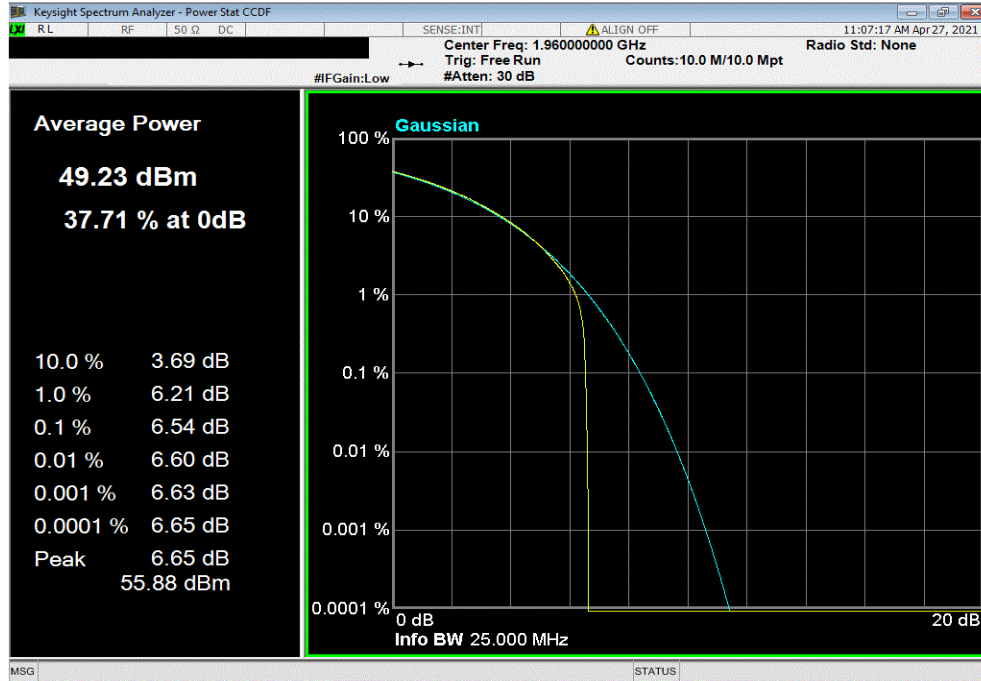


PEAK TO AVERAGE (PAPR) CCDF

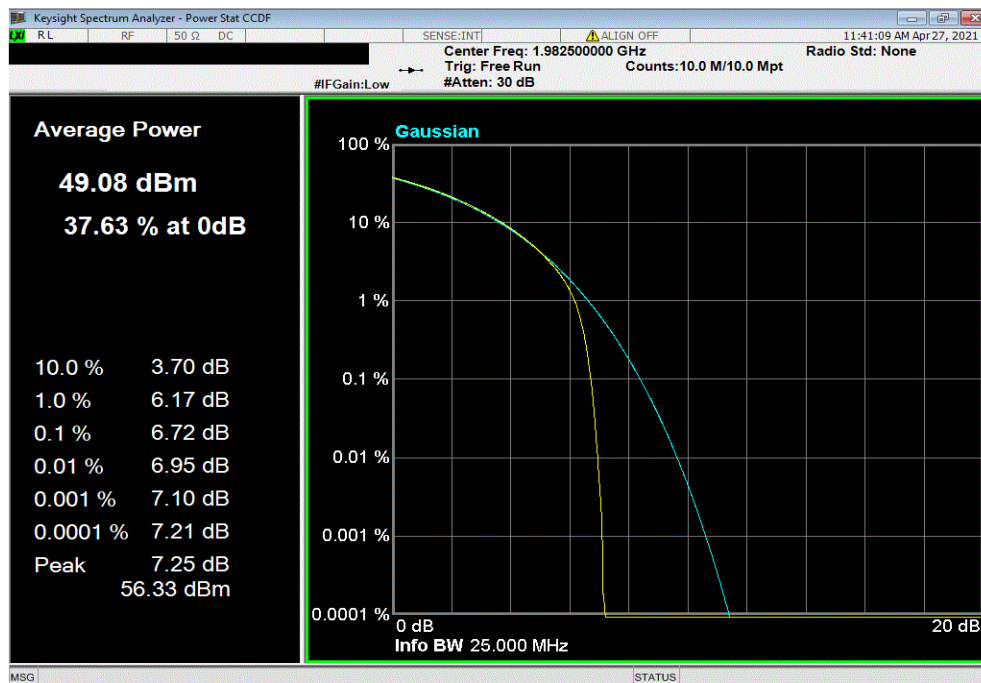


TbTx 2019.08.30.0 XbTx 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1960 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.54	13	Pass			



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 15 MHz Bandwidth, 256-QAM Modulation, High Channel, 1982.5 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.72	13	Pass			

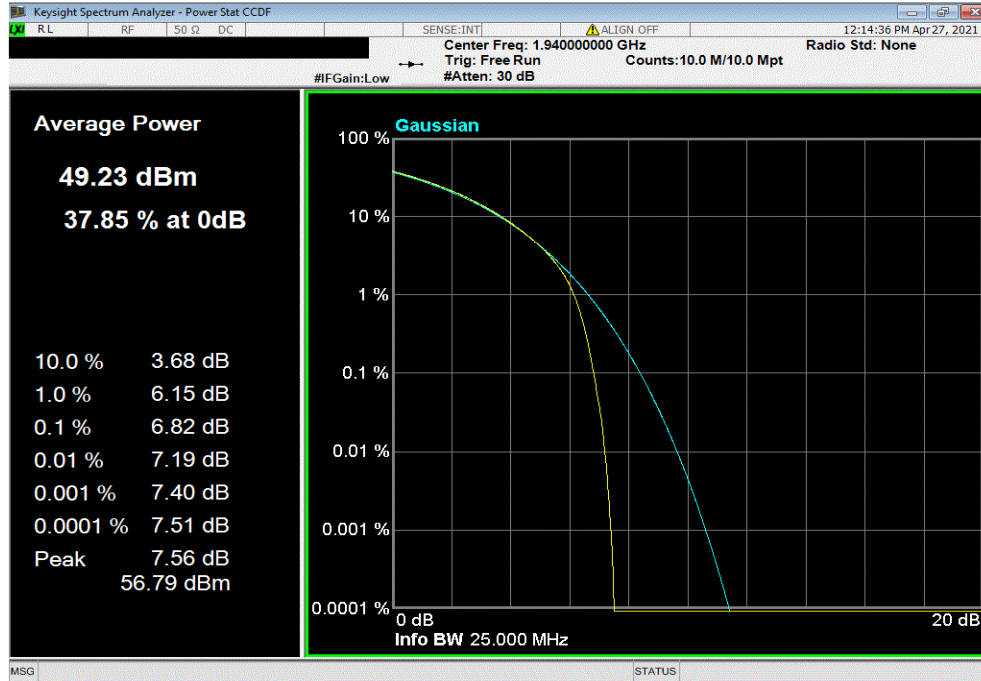


PEAK TO AVERAGE (PAPR) CCDF

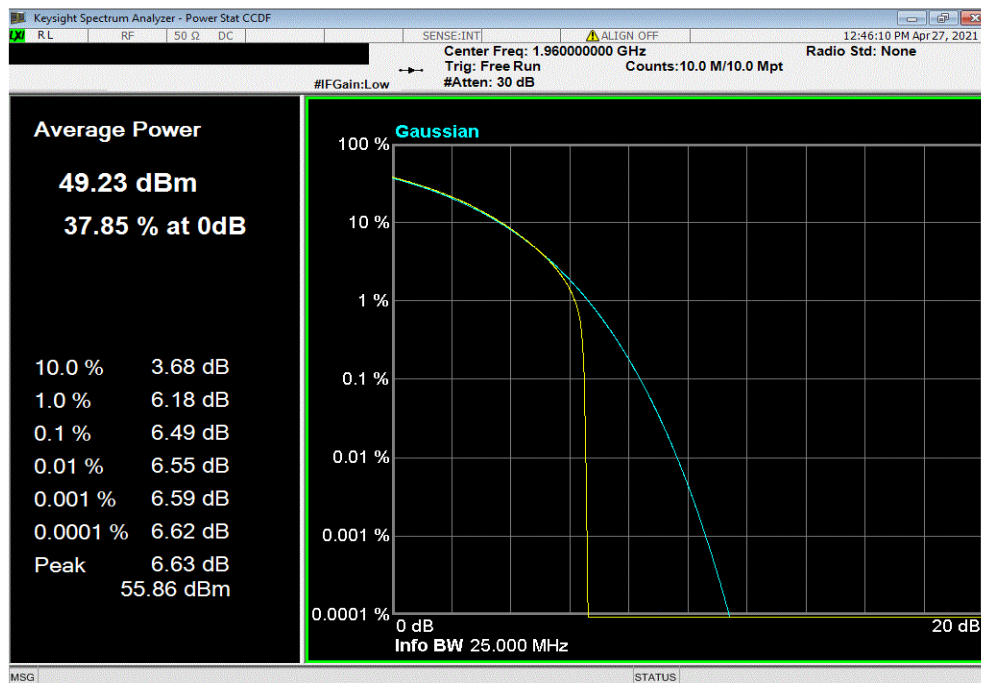


TbTx 2019.08.30.0 XbTx 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, QPSK Modulation, Low Channel, 1940 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.82	13	Pass			



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, QPSK Modulation, Mid Channel, 1960 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.49	13	Pass			

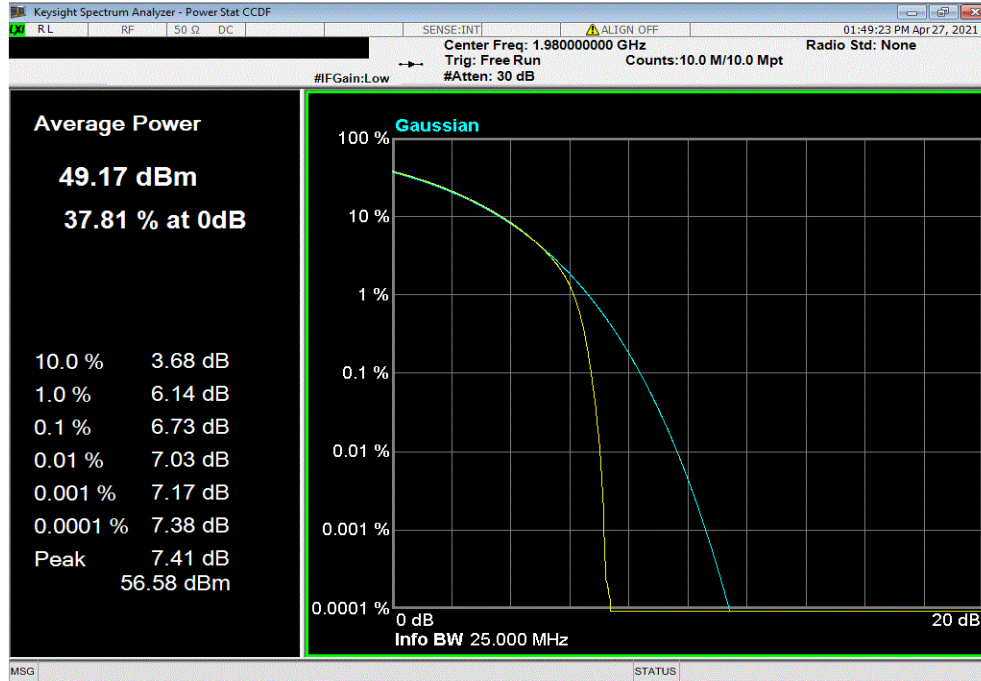


PEAK TO AVERAGE (PAPR) CCDF

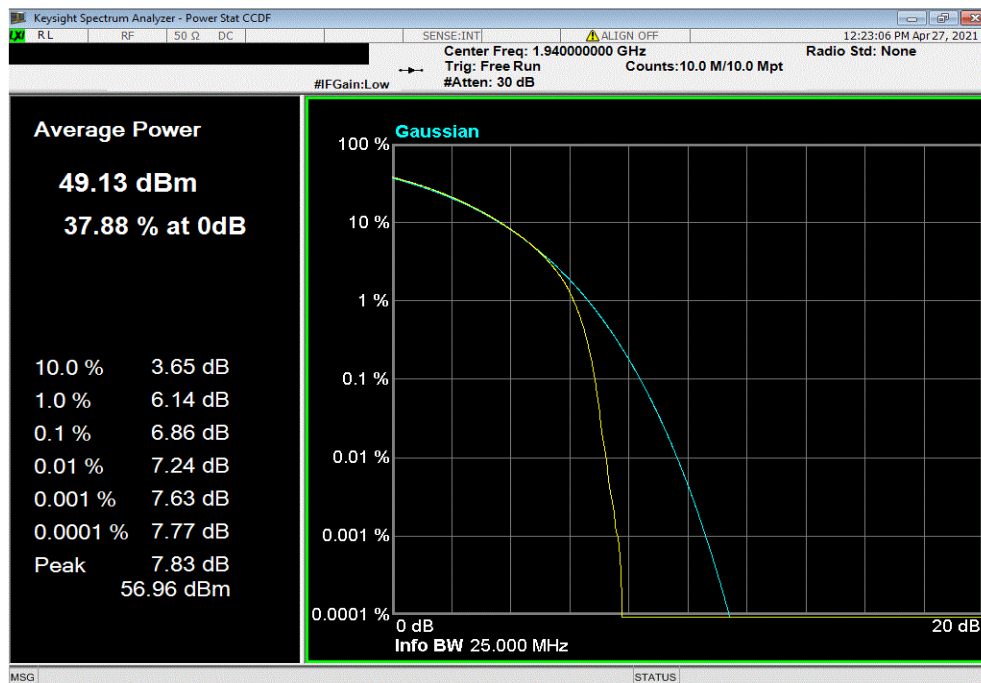


TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, QPSK Modulation, High Channel, 1980 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.73	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 16-QAM Modulation, Low Channel, 1940 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.86	13	Pass

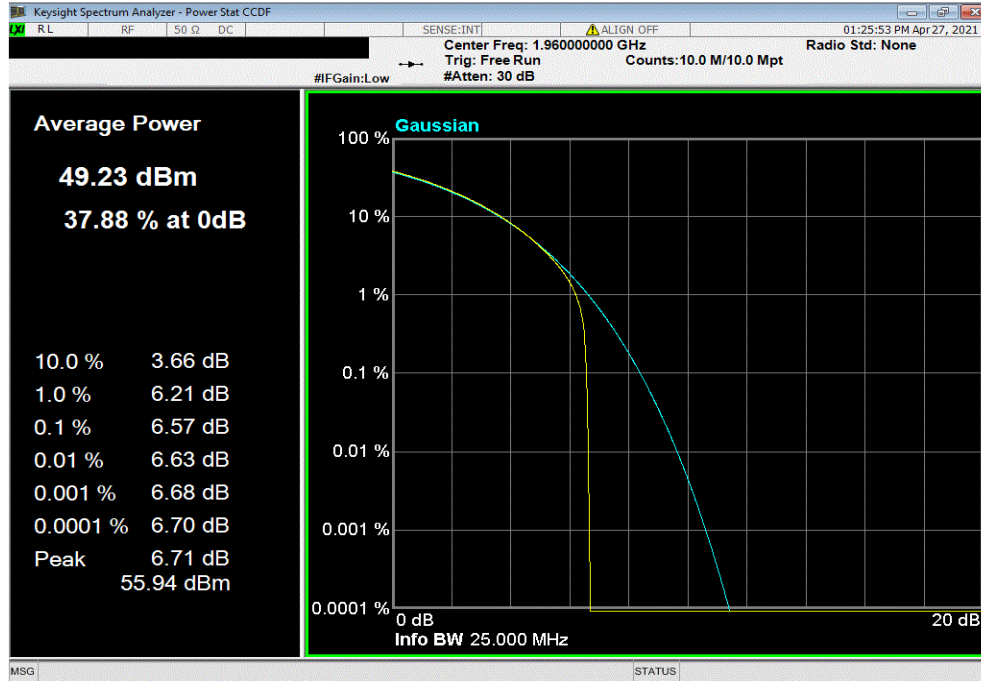


PEAK TO AVERAGE (PAPR) CCDF

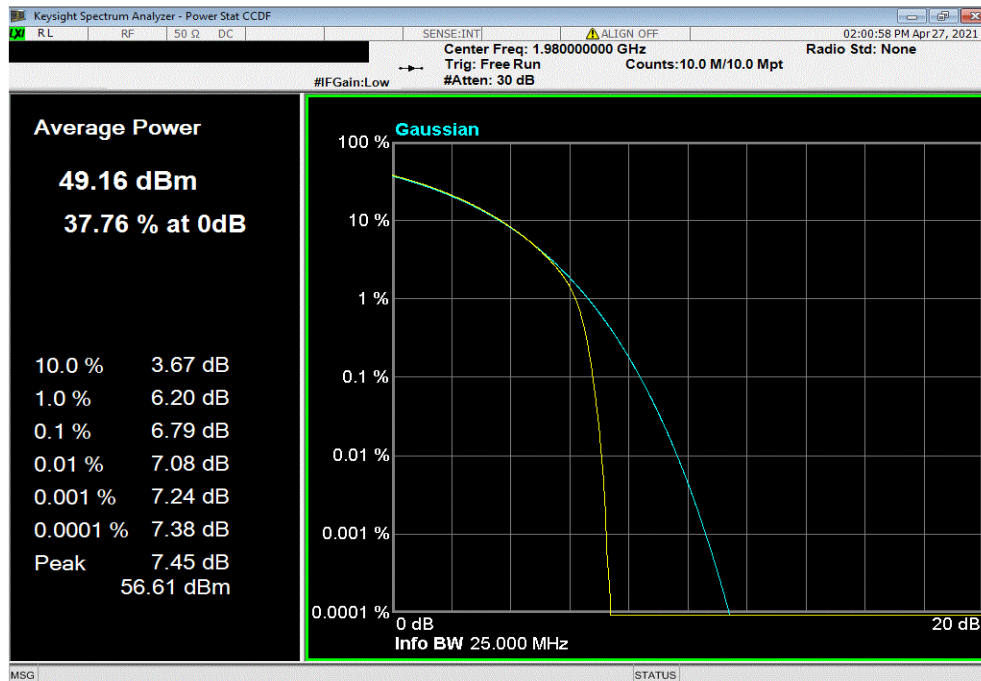


TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1960 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.57	13	Pass			



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 16-QAM Modulation, High Channel, 1980 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.79	13	Pass			

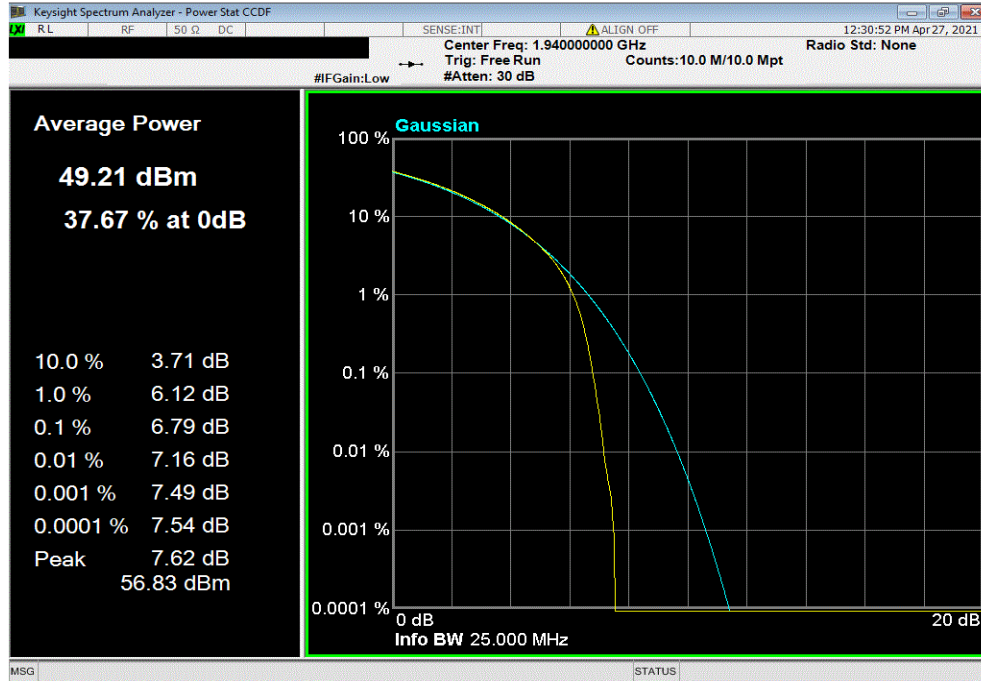


PEAK TO AVERAGE (PAPR) CCDF

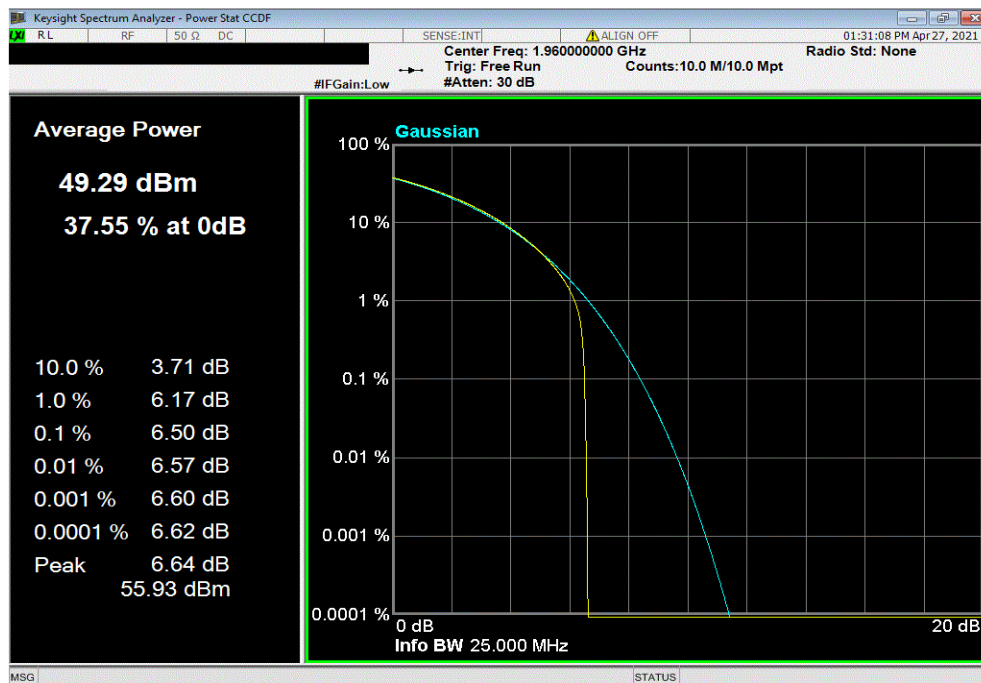


TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 64-QAM Modulation, Low Channel, 1940 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.79	13	Pass			



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1960 MHz						
	PAPR Value (dB)	PAPR Limit (dB)	Results			
	6.5	13	Pass			

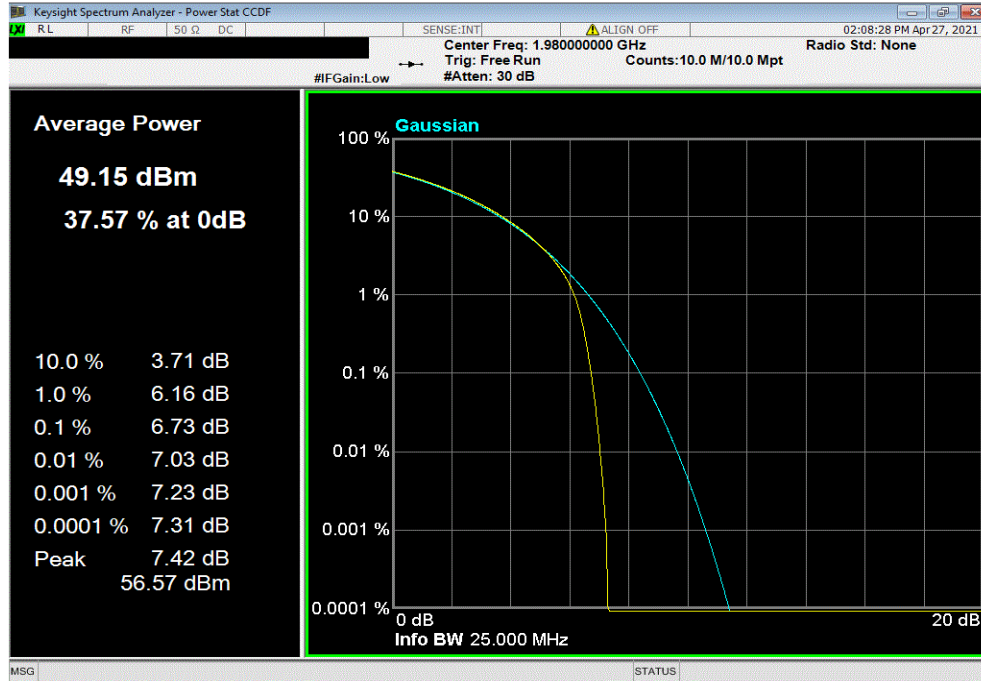


PEAK TO AVERAGE (PAPR) CCDF

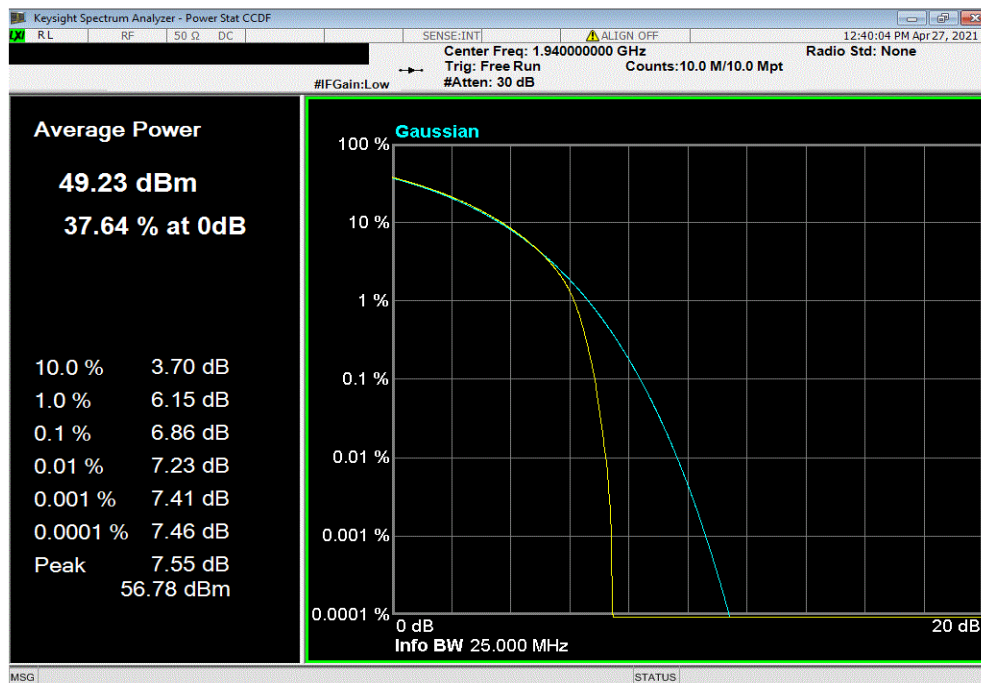


TbTx 2019.08.30.0 XbTx 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 64-QAM Modulation, High Channel, 1980 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.73	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1940 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.86	13	Pass

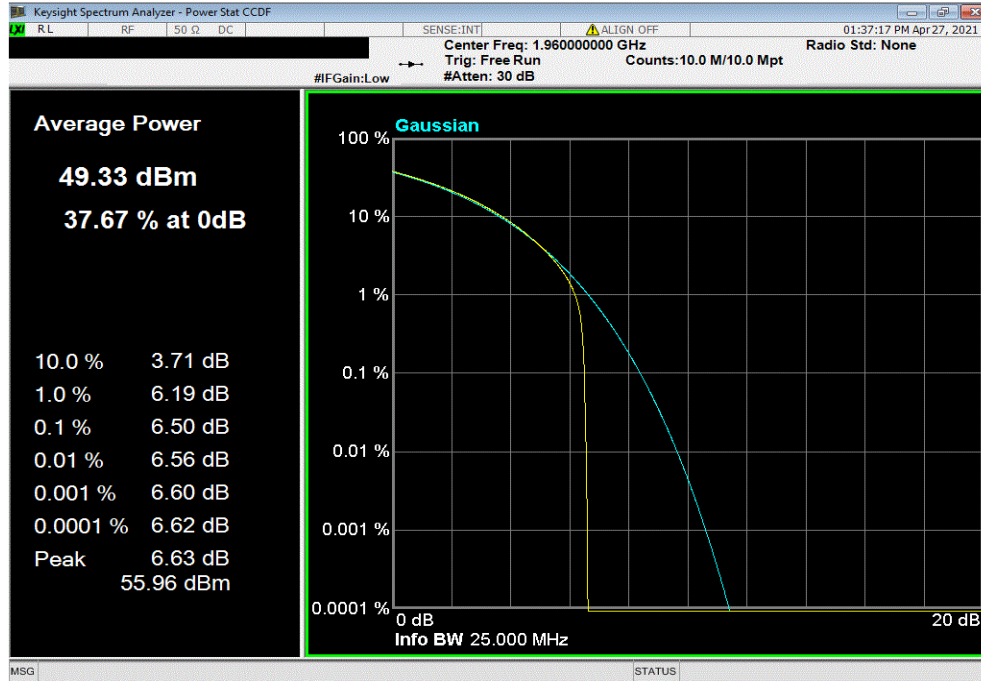


PEAK TO AVERAGE (PAPR) CCDF



TbTx 2019.08.30.0 XMt 2020.12.30.0

Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1960 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.5	13	Pass



Band n2, 1930 MHz - 1990 MHz, 5G NR, Port 3, 20 MHz Bandwidth, 256-QAM Modulation, High Channel, 1980 MHz						
				PAPR Value (dB)	PAPR Limit (dB)	Results
				6.75	13	Pass

