FCC RF Test Report

APPLICANT	:	Xiaomi Communications Co., Ltd.
EQUIPMENT	:	Mobile Phone
BRAND NAME	:	Xiaomi
MODEL NAME	:	2406APNFAG
FCC ID	:	2AFZZPNFAG
STANDARD	:	47 CFR Part 2, 22, 24, 27
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	:	May 13, 2024 ~ May 30, 2024

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

This report contains data that were produced under subcontract by Sporton International Inc. (Shenzhen)

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

Sporton International Inc. (Kunshan)
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG442515I	Rev. 01	Initial issue of report	Jun. 11, 2024

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(5)	Effective Radiated Power (5G NR n5, n26)	ERP < 7 Watt		
	§24.232(c)	Equivalent Isotropic Radiated Power (5G NR n2)	EIRP < 2Watt		
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (5G NR n66)	EIRP < 1Watt		
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Band Edge Measurement (5G NR n5, n26) (5G NR n2) (5G NR n66)	< 43+10log10(P[Watts])	PASS	-
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Spurious Emission (5G NR n5, n26) (5G NR n2) (5G NR n66)	< 43+10log10(P[Watts])	PASS	-
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§24.235 §27.54		Within Authorized Band		
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(h)	Radiated Spurious Emission (5G NR n5, n26) (5G NR n2) (5G NR n66)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 26.65 dB at 10122.36 MHz

Conformity Assessment Condition:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”
Disclaimer:
The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Applicant

Xiaomi Communications Co., Ltd.
#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

1.2 Manufacturer

Xiaomi Communications Co., Ltd.
#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	Xiaomi
Model Name	2406APNFAG
FCC ID	2AFZZPNFAG
IMEI Code	Conducted : 868329070074947/868329070074954 Radiation : 868329070126986/868329070126994
HW Version	1351N12A
SW Version	Xiaomi HyperOS 1.0
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n26 : 824 MHz ~ 849 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz
Rx Frequency	5G NR n2 : 1930 MHz ~ 1990 MHz 5G NR n5 : 869 MHz ~ 894 MHz 5G NR n26 : 869 MHz ~ 894 MHz 5G NR n66 : 2110 MHz~ 2200 MHz
SCS	15kHz, 30kHz
Bandwidth	**SCS 15kHz:** n2, n5, n26: 5MHz / 10MHz / 15MHz / 20MHz n66: 5MHz / 10MHz / 15MHz / 20MHz / 25MHz /30MHz / 40MHz **SCS 30kHz:** n2, n5, n26: 10MHz / 15MHz / 20MHz n66: 10MHz / 15MHz / 20MHz / 25MHz / 30MHz / 40MHz
Antenna Gain	**<Ant. 0>:** n5: -4.51 dBi n26: -4.51 dBi **<Ant. 1>:**

	n5: -4.1 dBi n26: -4.1 dBi **<Ant. 2>:** n2: -3.54 dBi n66: -2.95 dBi **<Ant. 3>:** n2: -2.3 dBi n66: -4.1 dBi **<Ant. 4>:** n2: -1.0 dBi n66: -0.5 dBi **<Ant. 5>:** n2: -2.86 dBi n66: -2.86 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

Remark:

1. The maximum ERP/EIRP is calculated from max output power and max antenna gain, only the maximum ERP/EIRP are shown in the report, 5G NR n5/n26 for Ant. 1 and n2/n66 for Ant. 4.
2. The device supports two PAs for 5G NR n66 (main PA and other PA), both the PAs are full tested, only the worst EIRP of main PA is shown in the report.
1. 5G NR n2/n26 only support SA mode, n5/n66 support SA mode and NSA mode. According to the maximum power between SA and NSA mode, SA covers NSA mode.
2. 5G NR n2/n5/n26/n66 support SCS 15kHz and 30kHz. According to the maximum power, full test 15kHz to cover 30kHz.
3. The device supports n2/n66(1T4R) SRS resources on Ant.2/3/4/5, only the test data of worst Ant.4 is showed in the report according to the maximum conducted power for conducted test items.
4. For 5G NR n26, only the test data of worst Ant.0 is showed in the report according to the maximum conducted power for conducted test items.
5. All the supported ENDC combinations are verified conducted power, only the ENDC combination with highest power are shown in the report.
6. The EN-DC mode combination could be referred to the product spec.

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Maximum ERP/EIRP and Emission Designator

5G NR n2		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	1852.5 ~ 1907.5	0.2193	4M46G7D	0.1738	4M48W7D
10	1855.0 ~ 1905.0	0.2203	9M27G7D	0.1746	9M29W7D
15	1857.5 ~ 1902.5	0.2234	14M1G7D	0.1742	14M1W7D
20	1860.0 ~ 1900.0	0.2495	18M9G7D	0.1758	18M9W7D

5G NR n5		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	826.5 ~ 846.5	0.0787	4M46G7D	0.0600	4M47W7D
10	829.0 ~ 844.0	0.0776	9M27G7D	0.0597	9M28W7D
15	831.5 ~ 841.5	0.0774	14M1G7D	0.0600	14M1W7D
20	834.0 ~ 839.0	0.0776	18M9G7D	0.0598	19M0W7D

5G NR n26		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	826.5 ~ 846.5	0.0724	4M46G7D	0.0551	4M47W7D
10	829.0 ~ 844.0	0.0728	9M27G7D	0.0555	9M28W7D
15	831.5 ~ 841.5	0.0724	14M1G7D	0.0560	14M1W7D
20	834.0 ~ 839.0	0.0794	18M9G7D	0.0558	19M0W7D

5G NR n66		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	1712.5 ~ 1777.5	0.2564	4M50G7D	0.1923	4M51W7D
10	1715.0 ~ 1775.0	0.2582	9M37G7D	0.1954	9M36W7D
15	1717.5 ~ 1772.5	0.2576	14M2G7D	0.1919	14M3W7D
20	1720.0 ~ 1770.0	0.2523	19M1G7D	0.1923	19M1W7D
25	1722.5 ~ 1767.5	0.2449	23M9G7D	0.1858	24M1W7D
30	1725.0 ~ 1765.0	0.2495	28M9G7D	0.1892	28M8W7D
40	1730.0 ~ 1760.0	0.2438	38M9G7D	0.1871	38M9W7D

Note:

1. 5G NR n26 overlaps the entire frequency range of 5G NR n5. Therefore, the test results provided in this report covers 5G NR n5 and the portion of 5G NR n26 subject to Part 22.

2. All modulations have been tested, only the worst test results of PSK & QAM are shown in the report.

1.7 Testing Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-KS	CN1257	314309

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH03-SZ	CN1256	421272

Test data subcontracted: Radiated test case in section 4 of this report.

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	TH01-KS	Tonscend	JS1120-3 test system China_210602	3.3.10
2.	03CH03-SZ	AUDIX	E3	6.2009-8-24

1.9 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 2, 22, 24, 27
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

All test items were verified and recorded according to the standards and without any deviation during the test.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 with maximum output power.

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

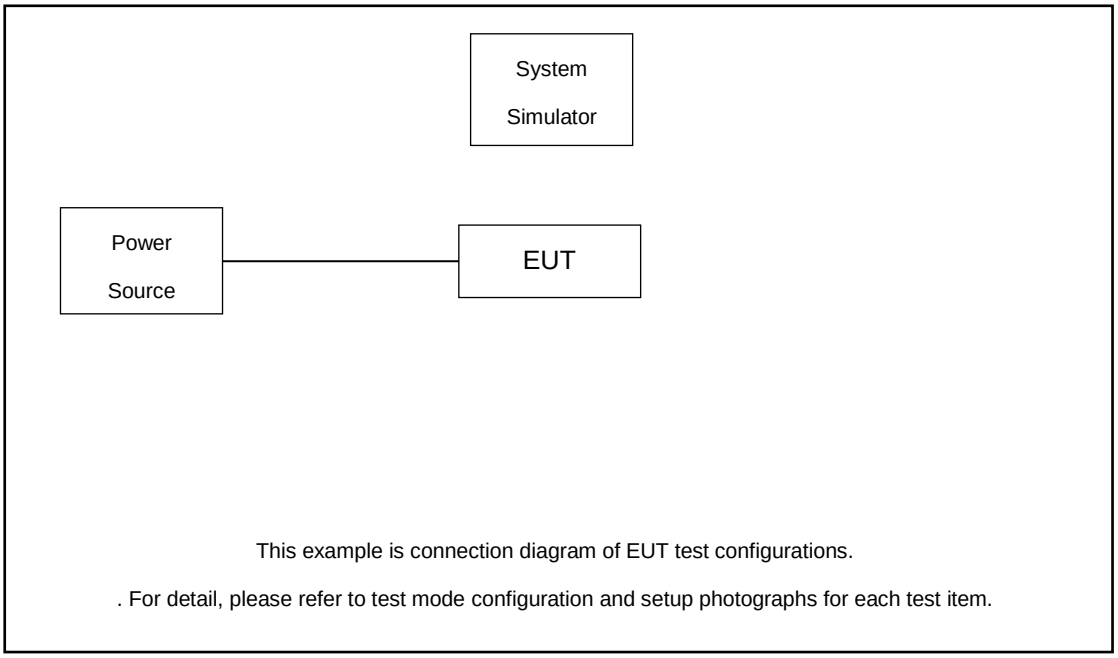
The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.

	X Plane	Y Plane	Z Plane
Orthogonal Planes of EUT			

Test Items	5G NR	Bandwidth (MHz)													Modulation					RB #		Test Channel		
		5	10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Full	L	M	H
Max. Output Power	n2	v	v	v	v	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n5	v	v	v	v	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n26	v	v	v	v	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n66	v	v	v	v	v	v	v		-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	n2				v	-	-	-	-	-	-	-	-	-	v	v				v	v		v	
	n26				v	-	-	-	-	-	-	-	-	-	v	v				v	v		v	
	n66				v	-	-		-	-	-	-	-	-	v	v				v	v		v	
26dB and 99% Bandwidth	n2	v	v	v	v	-	-	-	-	-	-	-	-	-		v	v	v	v		v		v	
	n26	v	v	v	v	-	-	-	-	-	-	-	-	-		v	v	v	v		v		v	
	n66	v	v	v	v	v	v	v	-	-	-	-	-	-		v	v	v	v		v		v	
Conducted Band Edge	n2	v		v	v	-	-	-	-	-	-	-	-	-	v	v				v	v	v		v
	n26	v		v	v	-	-	-	-	-	-	-	-	-	v	v				v	v	v		v
	n66	v			v			v	-	-	-	-	-	-	v	v				v	v	v		v
Conducted Spurious Emission	n2	v		v	v	-	-	-	-	-	-	-	-	-	v	v				v		v	v	v
	n26	v		v	v	-	-	-	-	-	-	-	-	-	v	v				v		v	v	v
	n66	v			v			v	-	-	-	-	-	-	v	v				v		v	v	v
Frequency Stability	n2				v	-	-	-	-	-	-	-	-	-		v					v		v	
	n26				v	-	-	-	-	-	-	-	-	-		v					v		v	

Test Items	5G NR	Bandwidth (MHz)													Modulation					RB #		Test Channel		
		5	10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Full	L	M	H
	n66				v				-	-	-	-	-	-		v					v		v	
E.R.P / E.I.R.P	n2	v	v	v	v	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n5	v	v	v	v	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n26	v	v	v	v	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n66	v	v	v	v	v	v	v		-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	n2	Worst Case																					v	
	n26	Worst Case																					v	
	n66	Worst Case																					v	
Note	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. Frequency Stability：Normal Voltage = 3.89V ；Low Voltage =3.60V.；High Voltage =4.30V																							

2.2 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

The EUT has been configuration operated in a manner tended to maximize its emission characteristics in a typical application.

2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	DC Power Supply	GW	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
3.	NR Base Station	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 5.8 dB and 20dB attenuator.

Example :

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 5.8 + 20 = 25.8 (dB)

2.5 Frequency List of Low/Middle/High Channels

5G NR n2 Channel and Frequency List for SCS 15kHz/30kHz				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	372000	376000	380000
	Frequency	1860	1880	1900
15	Channel	371500	376000	380500
	Frequency	1857.5	1880	1902.5
10	Channel	371000	376000	381000
	Frequency	1855	1880	1905
5	Channel	370500	376000	381500
	Frequency	1852.5	1880	1907.5

5G NR n5 Channel and Frequency List for SCS 15kHz/30kHz				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	166800	167300	167800
	Frequency	834	836.5	839
15	Channel	166300	167300	168300
	Frequency	831.5	836.5	841.5
10	Channel	165800	167300	168800
	Frequency	829	836.5	844
5	Channel	165300	167300	169300
	Frequency	826.5	836.5	846.5

5G NR n26 Channel and Frequency List for SCS 15kHz/30kHz				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	166800	167300	167800
	Frequency	834	836.5	839
15	Channel	166300	167300	168300
	Frequency	831.5	836.5	841.5
10	Channel	165800	167300	168800
	Frequency	829	836.5	844
5	Channel	165300	167300	169300
	Frequency	826.5	836.5	846.5

5G NR n66 Channel and Frequency List for SCS 15kHz/30kHz				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
40	Channel	346000	349000	352000
	Frequency	1730	1745	1760
30	Channel	345000	349000	353000
	Frequency	1725	1745	1765
25	Channel	344500	349000	353500
	Frequency	1722.5	1745	1767.5
20	Channel	344000	349000	354000
	Frequency	1720	1745	1770
15	Channel	343500	349000	354500
	Frequency	1717.5	1745	1772.5
10	Channel	343000	349000	355000
	Frequency	1715	1745	1775
5	Channel	342500	349000	355500
	Frequency	1712.5	1745	1777.5

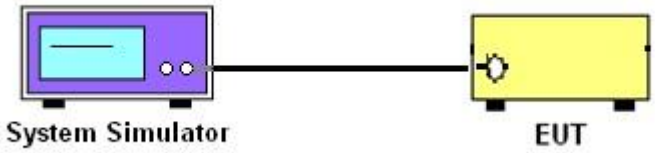
3 Conducted Test Items

3.1 Measuring Instruments

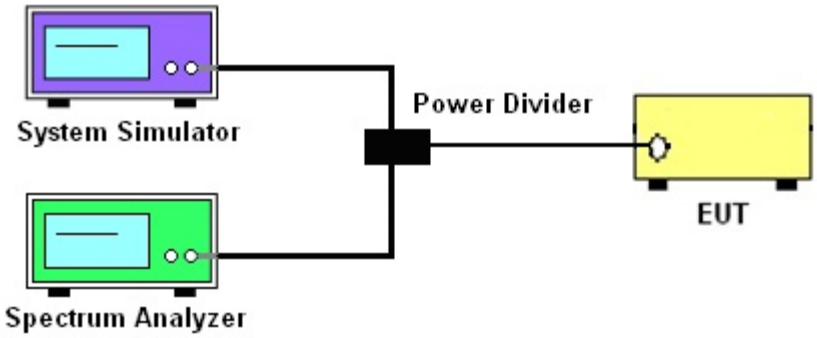
See list of measuring instruments of this test report.

3.2 Test Setup

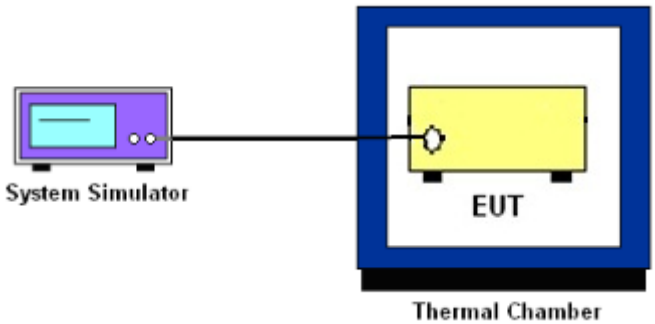
3.2.1 Conducted Output Power



3.2.2 Peak-to-Average Ratio, Occupied Bandwidth, Conducted Band-Edge and Conducted Spurious Emission



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

3.4.1 Description of the Conducted Output Power Measurement and ERP/EIRP Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

The ERP of mobile transmitters must not exceed 7 Watts for 5G NR n5, n26.

The EIRP of mobile transmitters must not exceed 2 Watts for 5G NR n2.

The EIRP of mobile transmitters must not exceed 1 Watts for 5G NR n66.

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T – L_C$, $ERP = EIRP - 2.15$, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.5.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2.3.4 (CCDF).
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

3.6.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.4
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
4. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace. (this is the reference value)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “–X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

22.917(a)

For operations in the 824 – 849 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

24.238 (a)

For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53 (h)

For operations in the 1710 – 1755 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

3.7.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used or a narrower RBW was used (generally limited to no less than 1% of the OBW) and the measured power was integrated over the full required measurement bandwidth.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.

   Example:

   The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)

   = P(W)- [43 + 10log(P)] (dB)

   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.
9. When using the integration method, the starting frequency of the integration shall be centered at one-half of the RBW away from the band edge.

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10^{th} harmonic.

3.8.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Set spectrum analyzer with RMS detector.
8. Taking the record of maximum spurious emission.
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
10. The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

3.9.2 Test Procedures for Temperature Variation

1. The testing follows ANSI C63.26 section 5.6.4
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.9.3 Test Procedures for Voltage Variation

1. The testing follows ANSI C63.26 section 5.6.5
2. The EUT was placed in a temperature chamber at 20±5°C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value for other than hand carried battery equipment.
4. For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
5. The variation in frequency was measured for the worst case.

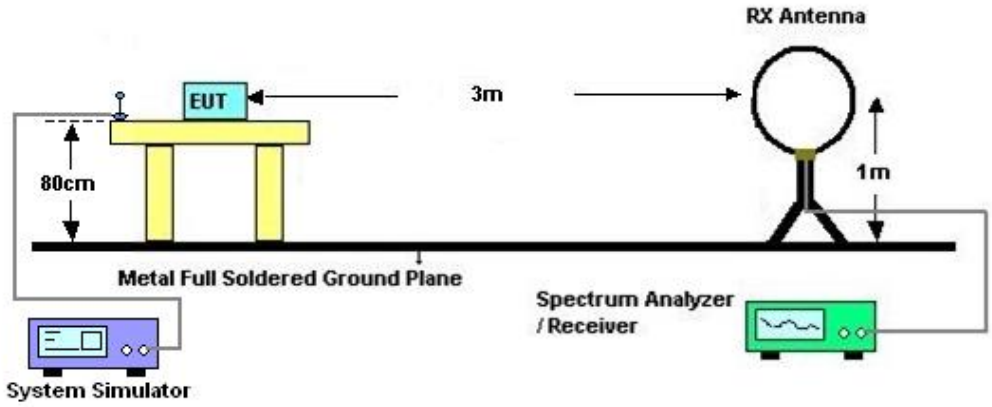
4 Radiated Test Items

4.1 Measuring Instruments

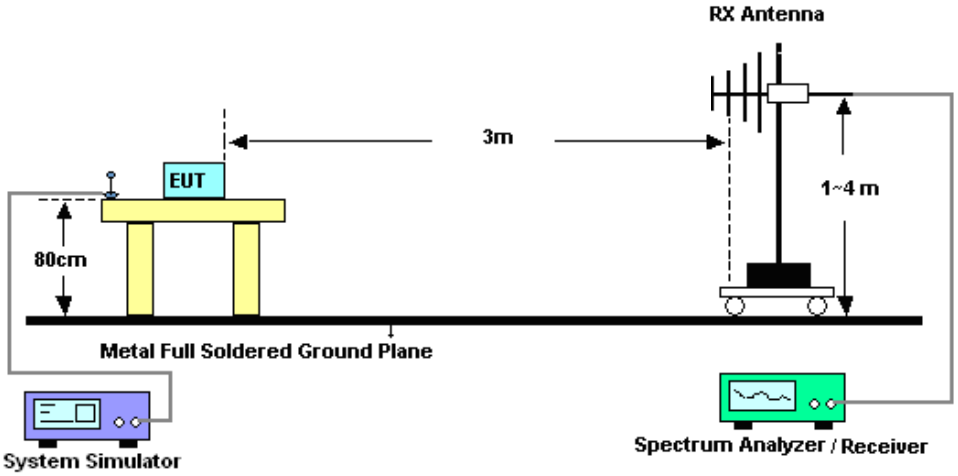
See list of measuring instruments of this test report.

4.2 Test Setup

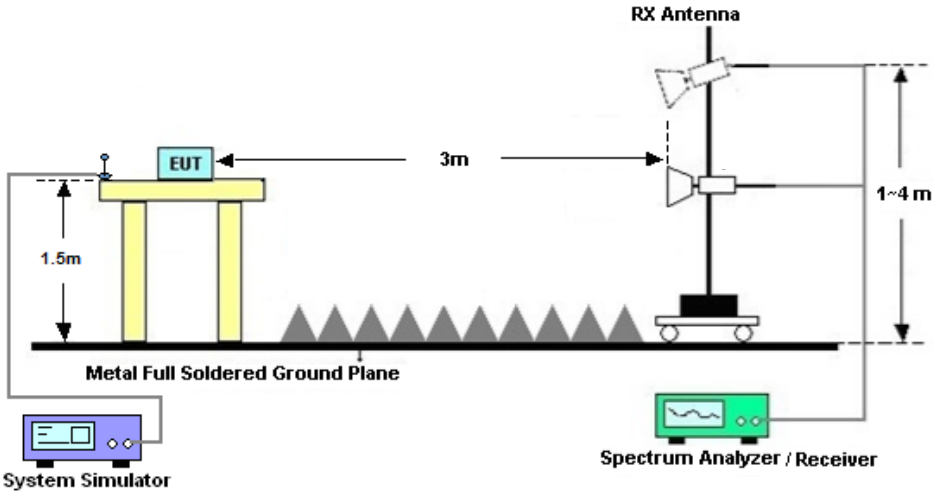
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
11. ERP (dBm) = EIRP - 2.15
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
    The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EXA Spectrum Analyzer	Keysight	N9010A	MY55370528	10Hz-44GHz	Oct. 11, 2023	May 13, 2024~ May 24, 2024	Oct. 10, 2024	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	NCR	May 13, 2024~ May 24, 2024	NCR	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 06, 2023	May 13, 2024~ May 24, 2024	Jul. 05, 2024	Conducted (TH01-KS)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	Apr. 09, 2024	May 30, 2024	Apr. 08, 2025	Radiation (03CH03-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 28, 2022	May 30, 2024	Jun. 27, 2024	Radiation (03CH03-SZ)
EXA Spectrum Anaiyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	Apr. 09, 2024	May 30, 2024	Apr. 08, 2025	Radiation (03CH03-SZ
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz-2GHz	Aug. 20, 2023	May 30, 2024	Aug. 19, 2025	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	Apr. 09, 2024	May 30, 2024	Apr. 08, 2025	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 18, 2023	May 30, 2024	Oct. 17, 2024	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 07, 2023	May 30, 2024	Jul.06, 2024	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 09, 2024	May 30, 2024	Apr. 08, 2025	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 27, 2023	May 30, 2024	Dec. 26, 2024	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010002729	N/A	Oct. 18, 2023	May 30, 2024	Oct. 17, 2024	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	May 30, 2024	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	May 30, 2024	NCR	Radiation (03CH03-SZ)

NCR: No Calibration Required

6 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Measurement

Conducted Spurious Emission & Bandedge	**±2.26 dB**
Occupied Channel Bandwidth	**±0.1%**
Conducted Power	**±0.46 dB**
Peak to Average Ratio	**±0.46 dB**
Frequency Stability	**±0.4 Hz**

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.0 dB**

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.6 dB**

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.8 dB**

---------- THE END ----------

Appendix A. Test Results of Conducted Test

Test Engineer :	Smile Wang	**Temperature :**	22~23℃
		Relative Humidity :	40~42%

Software Version: 23.06.1602

FR1 N2(ANT4)-SCS 15K

Transmitter Conducted Output Power And EIRP, (G_T - L_C)=-1dB

NR Band	SCS	Band Width	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power (dBm)	EIRP (dBm)	EIRP (W)
2	15	20	372000	1860	DFT-s-OFDM PI/2 BPSK	50@25	24.2	23.2	0.2089
2	15	20	372000	1860	DFT-s-OFDM PI/2 BPSK	1@1	24.08	23.08	0.2032
2	15	20	372000	1860	DFT-s-OFDM PI/2 BPSK	1@104	24.22	23.22	0.2099
2	15	20	372000	1860	DFT-s-OFDM QPSK	50@25	24.21	23.21	0.2094
2	15	20	372000	1860	DFT-s-OFDM QPSK	1@1	24.97	23.97	0.2495
2	15	20	372000	1860	DFT-s-OFDM QPSK	1@104	24.06	23.06	0.2023
2	15	20	372000	1860	DFT-s-OFDM 16 QAM	50@25	23.38	22.38	0.1730
2	15	20	372000	1860	DFT-s-OFDM 16 QAM	1@1	23.39	22.39	0.1734
2	15	20	372000	1860	DFT-s-OFDM 16 QAM	1@104	23.45	22.45	0.1758
2	15	20	372000	1860	DFT-s-OFDM 64 QAM	50@25	21.85	20.85	0.1216
2	15	20	372000	1860	DFT-s-OFDM 64 QAM	1@1	21.55	20.55	0.1135
2	15	20	372000	1860	DFT-s-OFDM 64 QAM	1@104	21.58	20.58	0.1143
2	15	20	372000	1860	DFT-s-OFDM 256 QAM	50@25	19.8	18.8	0.0759
2	15	20	372000	1860	DFT-s-OFDM 256 QAM	1@1	19.77	18.77	0.0753
2	15	20	372000	1860	DFT-s-OFDM 256 QAM	1@104	19.75	18.75	0.0750
2	15	20	372000	1860	CP-OFDM QPSK	53@26	22.79	21.79	0.1510
2	15	20	372000	1860	CP-OFDM QPSK	1@1	23.06	22.06	0.1607
2	15	20	372000	1860	CP-OFDM QPSK	1@104	23.22	22.22	0.1667
2	15	20	376000	1880	DFT-s-OFDM PI/2 BPSK	50@25	24.11	23.11	0.2046
2	15	20	376000	1880	DFT-s-OFDM PI/2 BPSK	1@1	24.11	23.11	0.2046
2	15	20	376000	1880	DFT-s-OFDM PI/2 BPSK	1@104	24.12	23.12	0.2051
2	15	20	376000	1880	DFT-s-OFDM QPSK	50@25	24.13	23.13	0.2056
2	15	20	376000	1880	DFT-s-OFDM QPSK	1@1	24.47	23.47	0.2223
2	15	20	376000	1880	DFT-s-OFDM QPSK	1@104	23.88	22.88	0.1941
2	15	20	376000	1880	DFT-s-OFDM 16 QAM	50@25	23.32	22.32	0.1706
2	15	20	376000	1880	DFT-s-OFDM 16 QAM	1@1	23.42	22.42	0.1746
2	15	20	376000	1880	DFT-s-OFDM 16 QAM	1@104	23.32	22.32	0.1706
2	15	20	376000	1880	DFT-s-OFDM 64 QAM	50@25	21.75	20.75	0.1189
2	15	20	376000	1880	DFT-s-OFDM 64 QAM	1@1	21.54	20.54	0.1132
2	15	20	376000	1880	DFT-s-OFDM 64 QAM	1@104	21.47	20.47	0.1114
2	15	20	376000	1880	DFT-s-OFDM 256 QAM	50@25	19.74	18.74	0.0748
2	15	20	376000	1880	DFT-s-OFDM 256 QAM	1@1	19.72	18.72	0.0745
2	15	20	376000	1880	DFT-s-OFDM 256 QAM	1@104	19.66	18.66	0.0735
2	15	20	376000	1880	CP-OFDM QPSK	53@26	22.71	21.71	0.1483
2	15	20	376000	1880	CP-OFDM QPSK	1@1	23.02	22.02	0.1592
2	15	20	376000	1880	CP-OFDM QPSK	1@104	23.08	22.08	0.1614
2	15	20	380000	1900	DFT-s-OFDM PI/2 BPSK	50@25	24.04	23.04	0.2014
2	15	20	380000	1900	DFT-s-OFDM PI/2 BPSK	1@1	24.02	23.02	0.2004

2	15	20	380000	1900	DFT-s-OFDM PI/2 BPSK	1@104	24.15	23.15	0.2065
2	15	20	380000	1900	DFT-s-OFDM QPSK	50@25	24.07	23.07	0.2028
2	15	20	380000	1900	DFT-s-OFDM QPSK	1@1	24.42	23.42	0.2198
2	15	20	380000	1900	DFT-s-OFDM QPSK	1@104	24.02	23.02	0.2004
2	15	20	380000	1900	DFT-s-OFDM 16 QAM	50@25	23.26	22.26	0.1683
2	15	20	380000	1900	DFT-s-OFDM 16 QAM	1@1	23.4	22.4	0.1738
2	15	20	380000	1900	DFT-s-OFDM 16 QAM	1@104	23.33	22.33	0.1710
2	15	20	380000	1900	DFT-s-OFDM 64 QAM	50@25	21.74	20.74	0.1186
2	15	20	380000	1900	DFT-s-OFDM 64 QAM	1@1	21.46	20.46	0.1112
2	15	20	380000	1900	DFT-s-OFDM 64 QAM	1@104	21.57	20.57	0.1140
2	15	20	380000	1900	DFT-s-OFDM 256 QAM	50@25	19.71	18.71	0.0743
2	15	20	380000	1900	DFT-s-OFDM 256 QAM	1@1	19.62	18.62	0.0728
2	15	20	380000	1900	DFT-s-OFDM 256 QAM	1@104	19.73	18.73	0.0746
2	15	20	380000	1900	CP-OFDM QPSK	53@26	22.69	21.69	0.1476
2	15	20	380000	1900	CP-OFDM QPSK	1@1	23.09	22.09	0.1618
2	15	20	380000	1900	CP-OFDM QPSK	1@104	23.24	22.24	0.1675
2	15	5	370500	1852.5	DFT-s-OFDM PI/2 BPSK	1@1	24	23	0.1995
2	15	5	370500	1852.5	DFT-s-OFDM QPSK	1@1	24.41	23.41	0.2193
2	15	5	370500	1852.5	DFT-s-OFDM 16 QAM	1@1	23.4	22.4	0.1738
2	15	5	376000	1880	DFT-s-OFDM PI/2 BPSK	1@1	23.96	22.96	0.1977
2	15	5	376000	1880	DFT-s-OFDM QPSK	1@1	24.34	23.34	0.2158
2	15	5	376000	1880	DFT-s-OFDM 16 QAM	1@1	23.36	22.36	0.1722
2	15	5	381500	1907.5	DFT-s-OFDM PI/2 BPSK	1@1	23.9	22.9	0.1950
2	15	5	381500	1907.5	DFT-s-OFDM QPSK	1@1	24.29	23.29	0.2133
2	15	5	381500	1907.5	DFT-s-OFDM 16 QAM	1@1	23.31	22.31	0.1702
2	15	10	371000	1855	DFT-s-OFDM PI/2 BPSK	1@1	24.03	23.03	0.2009
2	15	10	371000	1855	DFT-s-OFDM QPSK	1@1	24.43	23.43	0.2203
2	15	10	371000	1855	DFT-s-OFDM 16 QAM	1@1	23.42	22.42	0.1746
2	15	10	376000	1880	DFT-s-OFDM PI/2 BPSK	1@1	24.02	23.02	0.2004
2	15	10	376000	1880	DFT-s-OFDM QPSK	1@1	24.4	23.4	0.2188
2	15	10	376000	1880	DFT-s-OFDM 16 QAM	1@1	23.38	22.38	0.1730
2	15	10	381000	1905	DFT-s-OFDM PI/2 BPSK	1@1	23.93	22.93	0.1963
2	15	10	381000	1905	DFT-s-OFDM QPSK	1@1	24.29	23.29	0.2133
2	15	10	381000	1905	DFT-s-OFDM 16 QAM	1@1	23.33	22.33	0.1710
2	15	15	371500	1857.5	DFT-s-OFDM PI/2 BPSK	1@1	24.08	23.08	0.2032
2	15	15	371500	1857.5	DFT-s-OFDM QPSK	1@1	24.48	23.48	0.2228
2	15	15	371500	1857.5	DFT-s-OFDM 16 QAM	1@1	23.33	22.33	0.1710
2	15	15	376000	1880	DFT-s-OFDM PI/2 BPSK	1@1	24.04	23.04	0.2014
2	15	15	376000	1880	DFT-s-OFDM QPSK	1@1	24.49	23.49	0.2234
2	15	15	376000	1880	DFT-s-OFDM 16 QAM	1@1	23.41	22.41	0.1742
2	15	15	380500	1902.5	DFT-s-OFDM PI/2 BPSK	1@1	23.96	22.96	0.1977
2	15	15	380500	1902.5	DFT-s-OFDM QPSK	1@1	24.34	23.34	0.2158
2	15	15	380500	1902.5	DFT-s-OFDM 16 QAM	1@1	23.33	22.33	0.1710

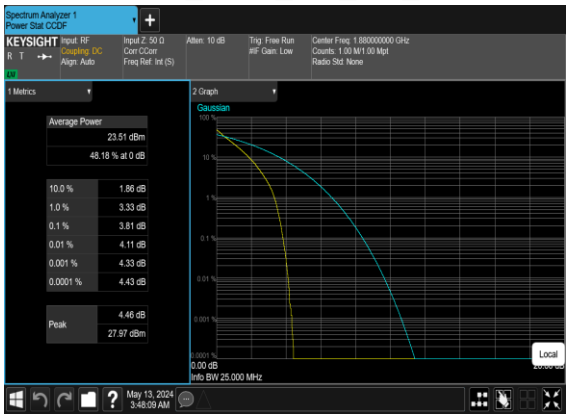
Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	-0.0017	**PASS**	NV
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	-0.0041	**PASS**	LV
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	0.0036	**PASS**	HV
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	0.0026	**PASS**	-30℃
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	-0.0012	**PASS**	-20℃
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	0.0002	**PASS**	-10℃
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	0.0021	**PASS**	0℃
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	-0.0058	**PASS**	10℃
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	-0.0078	**PASS**	20℃
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	-0.0066	**PASS**	30℃
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	-0.0051	**PASS**	40℃
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	0.0013	**PASS**	50℃

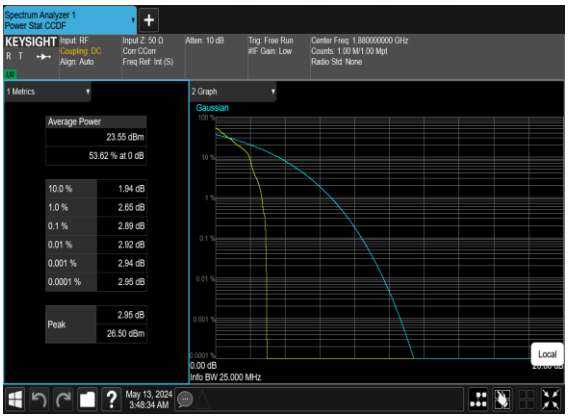
Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
2	15	20	376000	1880.0	DFT-s-OFDM PI/2 BPSK	100@0	3.81	13	**PASS**
2	15	20	376000	1880.0	DFT-s-OFDM PI/2 BPSK	1@0	2.89	13	**PASS**
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	100@0	4.52	13	**PASS**
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	1@0	3.59	13	**PASS**

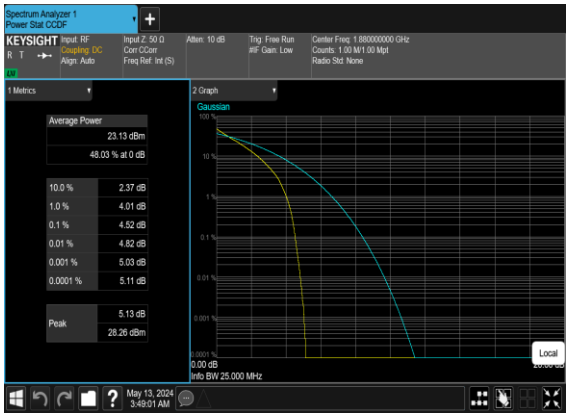
N2(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



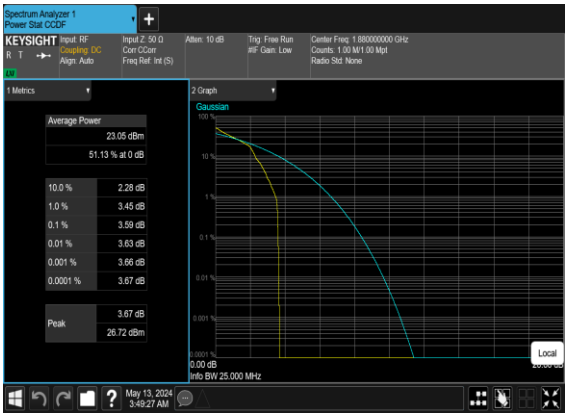
N2(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Mid_CH



N2(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



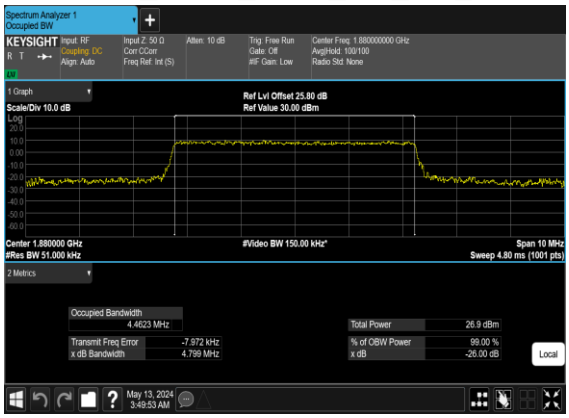
N2(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



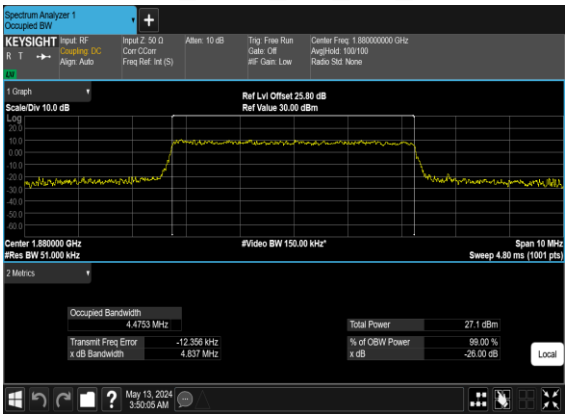
Occupied Bandwidth

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
2	15	5	376000	1880.0	CP-OFDM QPSK	25@0	4.4623	4.799
2	15	5	376000	1880.0	CP-OFDM 16 QAM	25@0	4.4753	4.837
2	15	5	376000	1880.0	CP-OFDM 64 QAM	25@0	4.4844	4.864
2	15	5	376000	1880.0	CP-OFDM 256 QAM	25@0	4.4716	4.795
2	15	10	376000	1880.0	CP-OFDM QPSK	52@0	9.2719	9.693
2	15	10	376000	1880.0	CP-OFDM 16 QAM	52@0	9.27	9.756
2	15	10	376000	1880.0	CP-OFDM 64 QAM	52@0	9.2941	9.693
2	15	10	376000	1880.0	CP-OFDM 256 QAM	52@0	9.2656	9.722
2	15	15	376000	1880.0	CP-OFDM QPSK	79@0	14.115	14.72
2	15	15	376000	1880.0	CP-OFDM 16 QAM	79@0	14.102	14.72
2	15	15	376000	1880.0	CP-OFDM 64 QAM	79@0	14.113	14.68
2	15	15	376000	1880.0	CP-OFDM 256 QAM	79@0	14.093	14.68
2	15	20	376000	1880.0	CP-OFDM QPSK	106@0	18.924	19.67
2	15	20	376000	1880.0	CP-OFDM 16 QAM	106@0	18.896	19.66
2	15	20	376000	1880.0	CP-OFDM 64 QAM	106@0	18.918	19.6
2	15	20	376000	1880.0	CP-OFDM 256 QAM	106@0	18.88	19.69

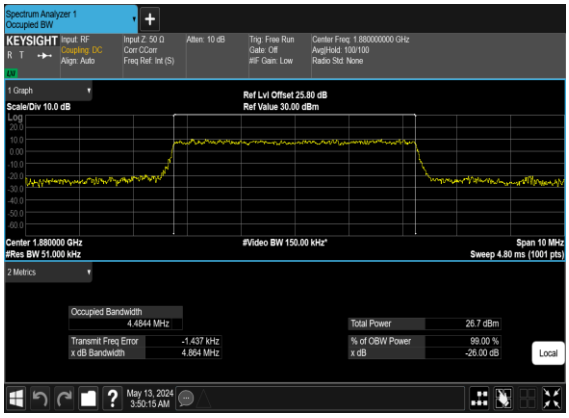
N2(5M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



N2(5M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

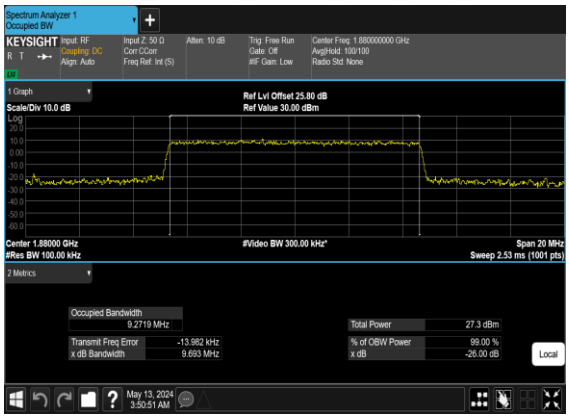


N2(5M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

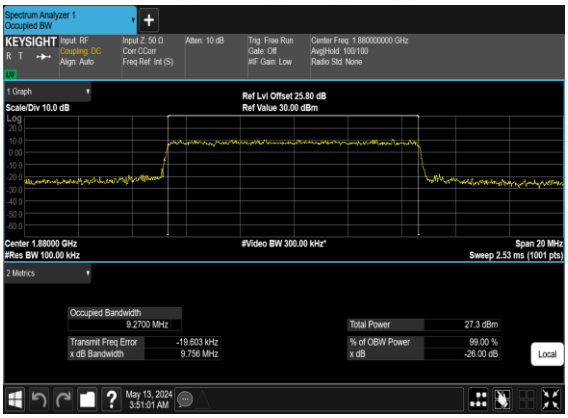


N2(5M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

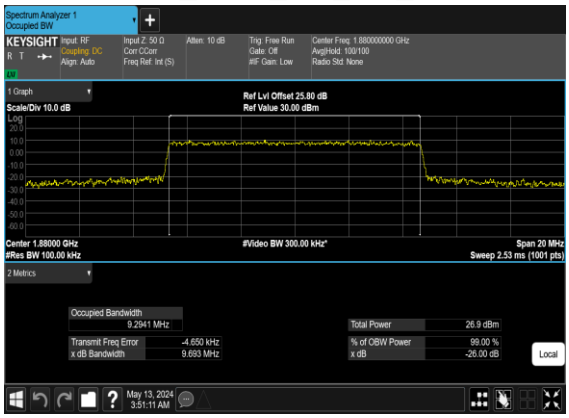
N2(10M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



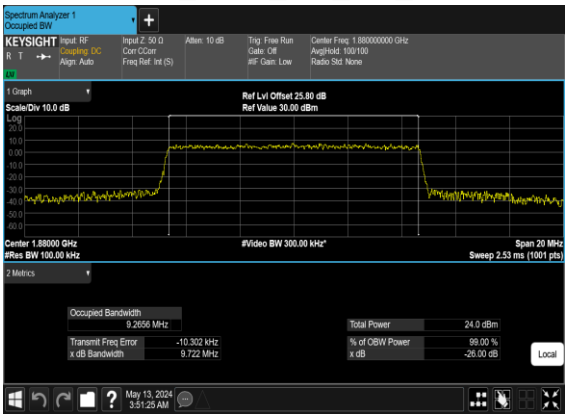
N2(10M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



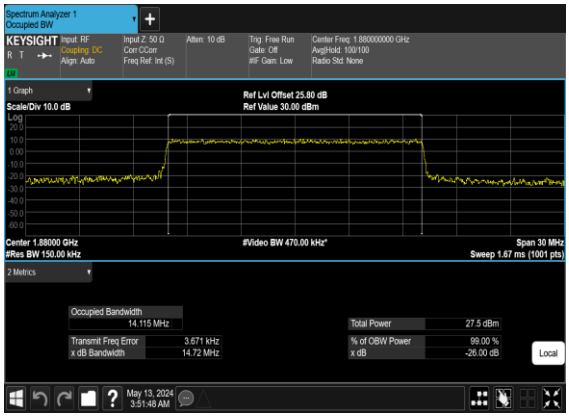
N2(10M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



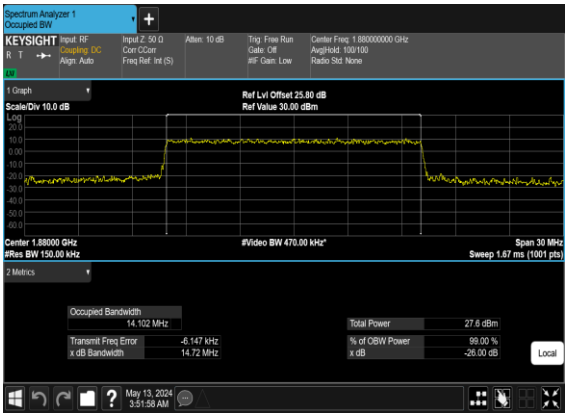
N2(10M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



N2(15M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



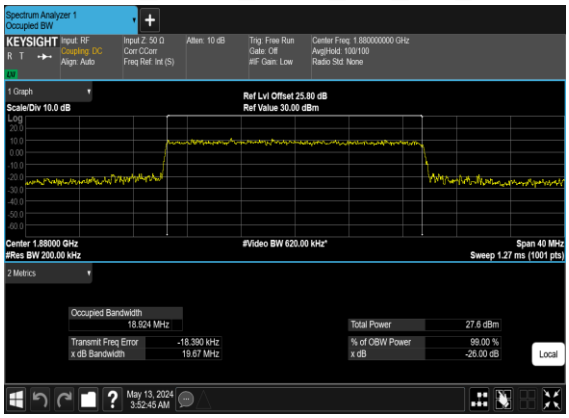
N2(15M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



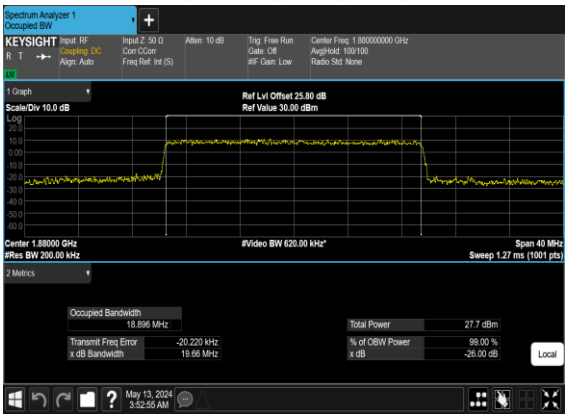
N2(15M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N2(15M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

N2(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

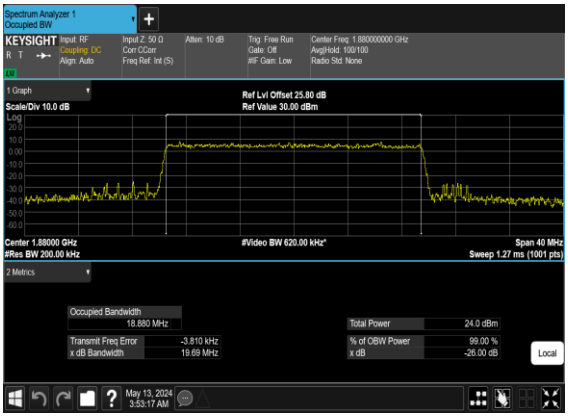


N2(20M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N2(20M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N2(20M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

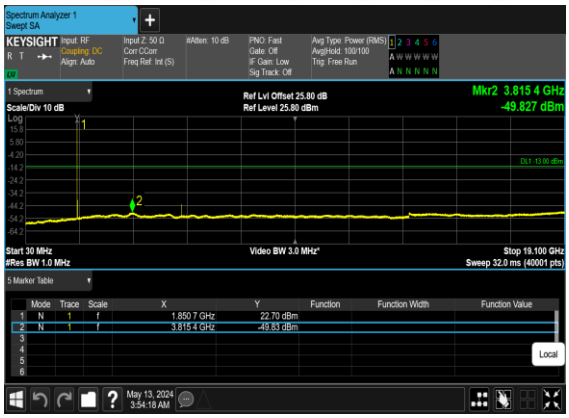


Conducted Spurious Emissions

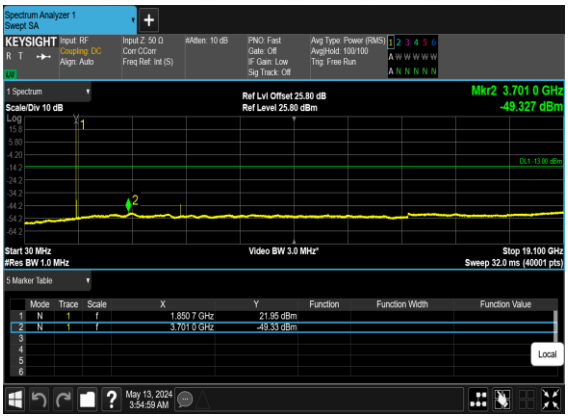
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
2	15	5	370500	1852.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
2	15	5	370500	1852.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
2	15	5	370500	1852.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
2	15	5	370500	1852.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
2	15	5	376000	1880.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
2	15	5	376000	1880.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
2	15	5	376000	1880.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
2	15	5	376000	1880.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
2	15	5	381500	1907.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
2	15	5	381500	1907.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
2	15	5	381500	1907.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
2	15	5	381500	1907.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
2	15	15	371500	1857.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
2	15	15	371500	1857.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
2	15	15	371500	1857.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
2	15	15	371500	1857.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
2	15	15	376000	1880.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
2	15	15	376000	1880.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
2	15	15	376000	1880.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
2	15	15	376000	1880.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
2	15	15	380500	1902.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
2	15	15	380500	1902.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
2	15	15	380500	1902.5	DFT-s-OFDM QPSK	1@0	see graph	**---**

2	15	15	380500	1902.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
2	15	20	372000	1860.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
2	15	20	372000	1860.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
2	15	20	372000	1860.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
2	15	20	372000	1860.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
2	15	20	376000	1880.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
2	15	20	376000	1880.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
2	15	20	380000	1900.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
2	15	20	380000	1900.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
2	15	20	380000	1900.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
2	15	20	380000	1900.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**

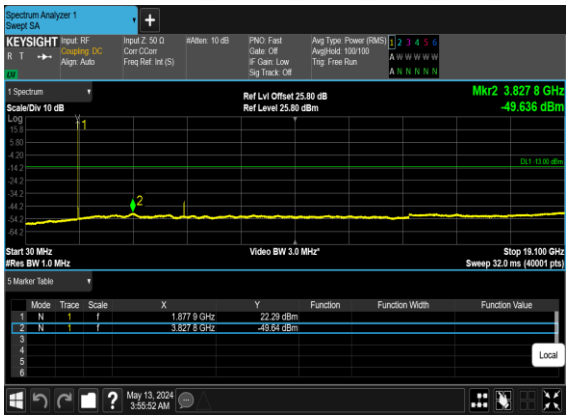
N2(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



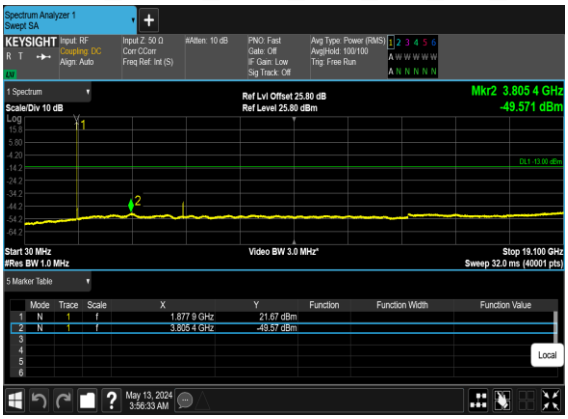
N2(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



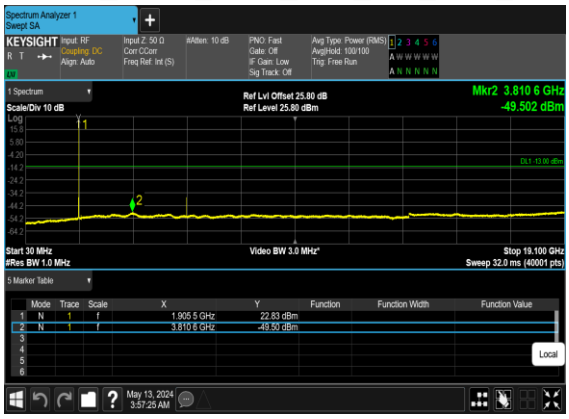
N2(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



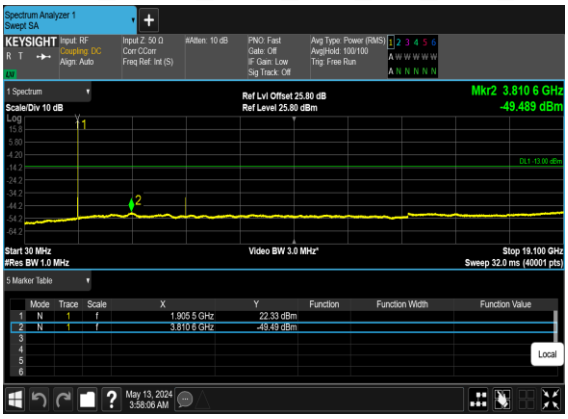
N2(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



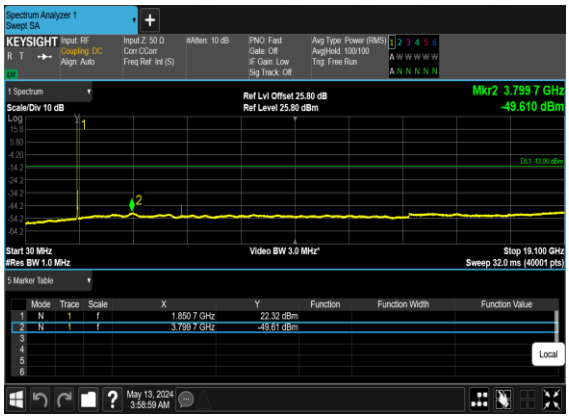
N2(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



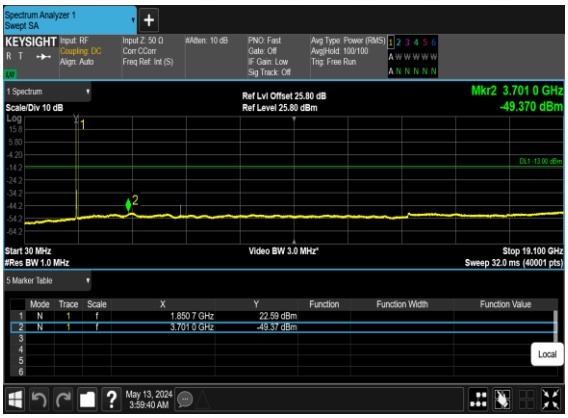
N2(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



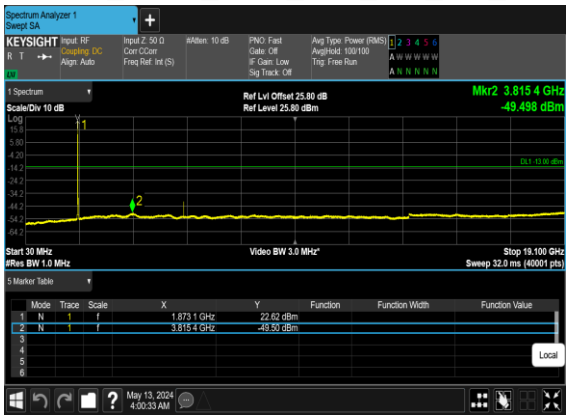
N2(15M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



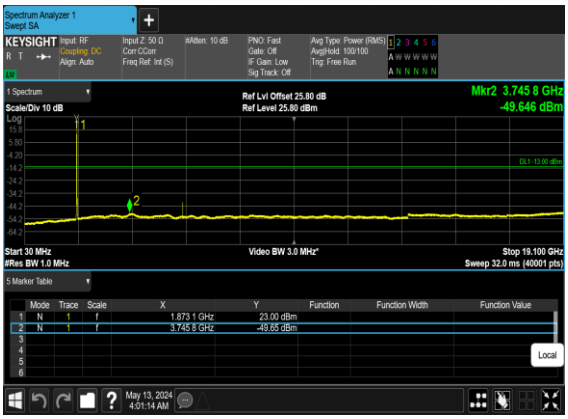
N2(15M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



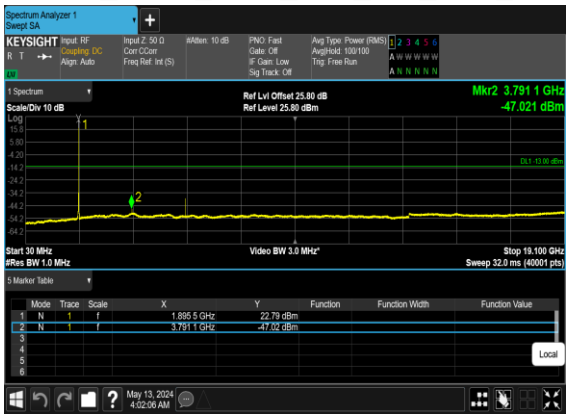
N2(15M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



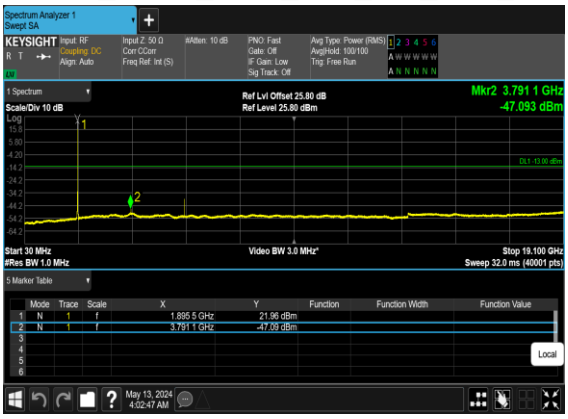
N2(15M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



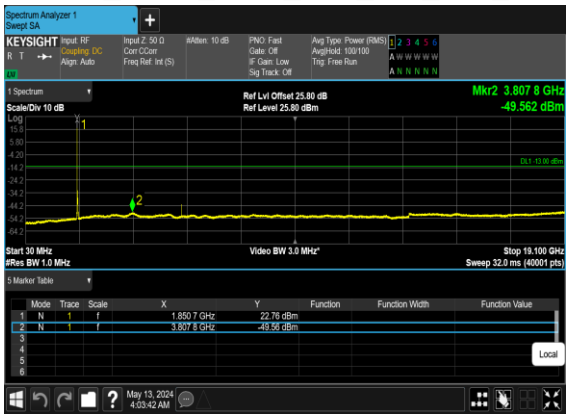
N2(15M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



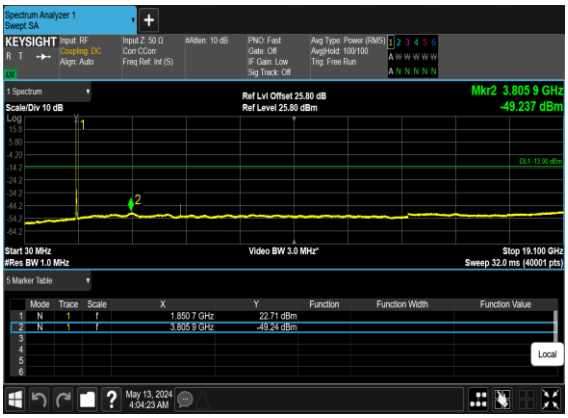
N2(15M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



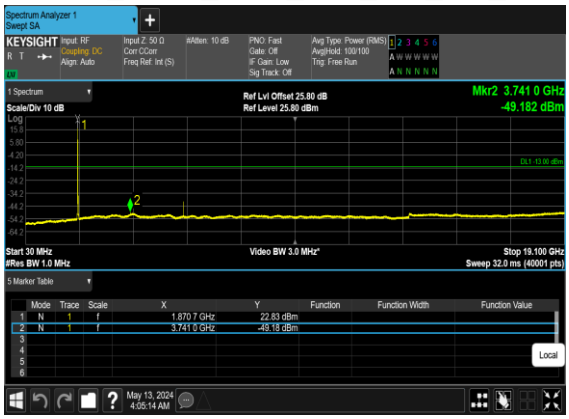
N2(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



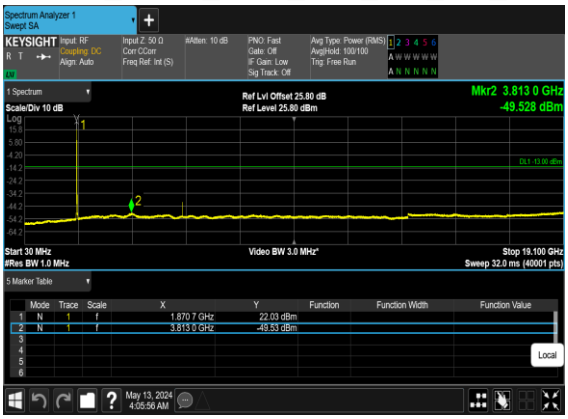
N2(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



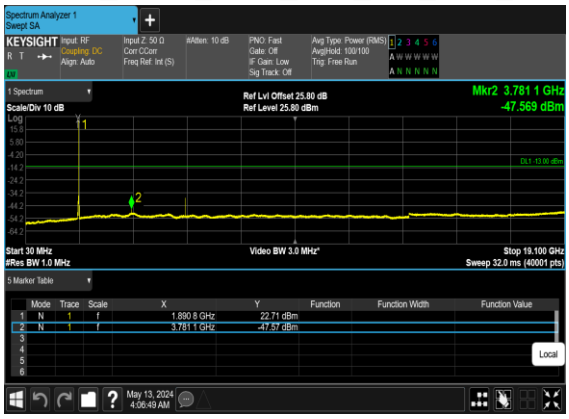
N2(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



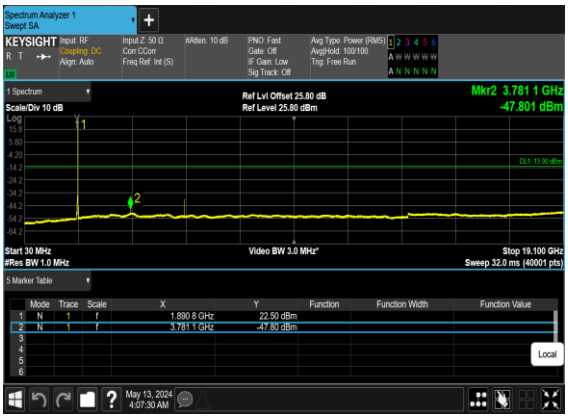
N2(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



N2(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



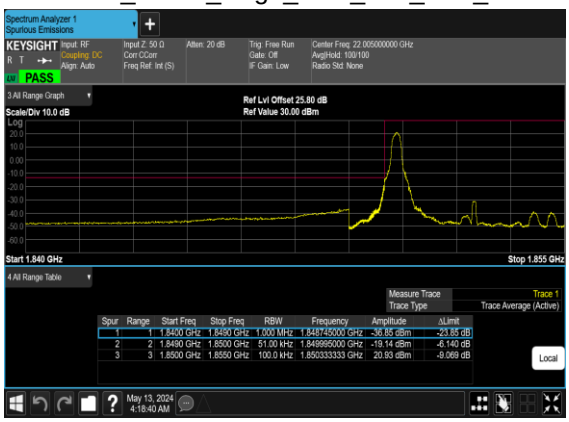
N2(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



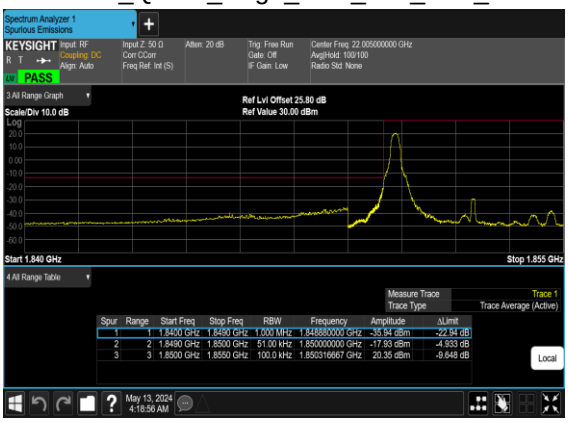
Conducted Band Edge

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
2	15	5	370500	1852.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
2	15	5	370500	1852.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
2	15	5	370500	1852.5	DFT-s-OFDM BPSK	25@0	see graph	**PASS**
2	15	5	370500	1852.5	DFT-s-OFDM QPSK	25@0	see graph	**PASS**
2	15	5	381500	1907.5	DFT-s-OFDM BPSK	1@24	see graph	**PASS**
2	15	5	381500	1907.5	DFT-s-OFDM QPSK	1@24	see graph	**PASS**
2	15	5	381500	1907.5	DFT-s-OFDM BPSK	25@0	see graph	**PASS**
2	15	5	381500	1907.5	DFT-s-OFDM QPSK	25@0	see graph	**PASS**
2	15	15	371500	1857.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
2	15	15	371500	1857.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
2	15	15	371500	1857.5	DFT-s-OFDM BPSK	75@0	see graph	**PASS**
2	15	15	371500	1857.5	DFT-s-OFDM QPSK	75@0	see graph	**PASS**
2	15	15	380500	1902.5	DFT-s-OFDM BPSK	1@78	see graph	**PASS**
2	15	15	380500	1902.5	DFT-s-OFDM QPSK	1@78	see graph	**PASS**
2	15	15	380500	1902.5	DFT-s-OFDM BPSK	75@0	see graph	**PASS**
2	15	15	380500	1902.5	DFT-s-OFDM QPSK	75@0	see graph	**PASS**
2	15	20	372000	1860.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
2	15	20	372000	1860.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
2	15	20	372000	1860.0	DFT-s-OFDM BPSK	100@0	see graph	**PASS**
2	15	20	372000	1860.0	DFT-s-OFDM QPSK	100@0	see graph	**PASS**
2	15	20	380000	1900.0	DFT-s-OFDM BPSK	1@105	see graph	**PASS**
2	15	20	380000	1900.0	DFT-s-OFDM QPSK	1@105	see graph	**PASS**
2	15	20	380000	1900.0	DFT-s-OFDM BPSK	100@0	see graph	**PASS**
2	15	20	380000	1900.0	DFT-s-OFDM QPSK	100@0	see graph	**PASS**

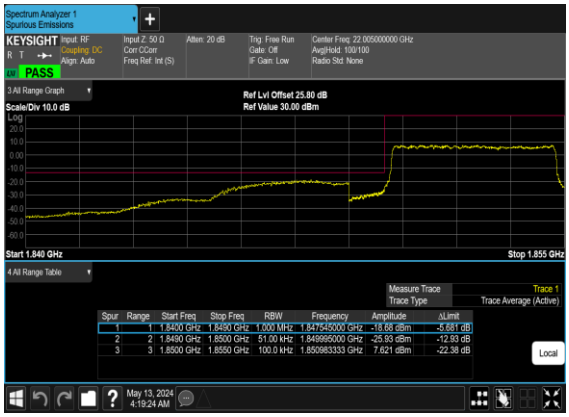
N2(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



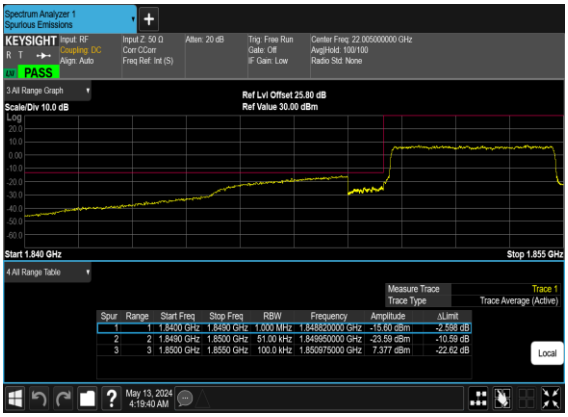
N2(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



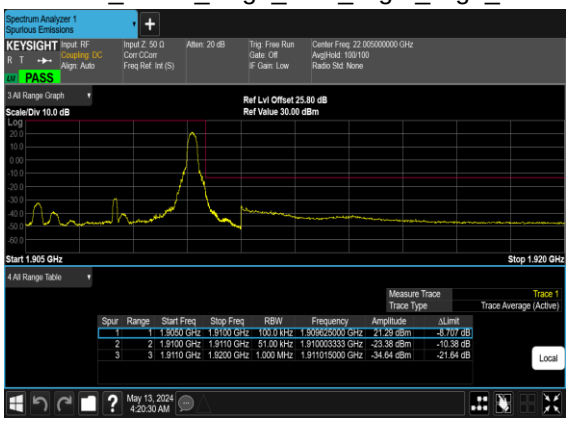
N2(5M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



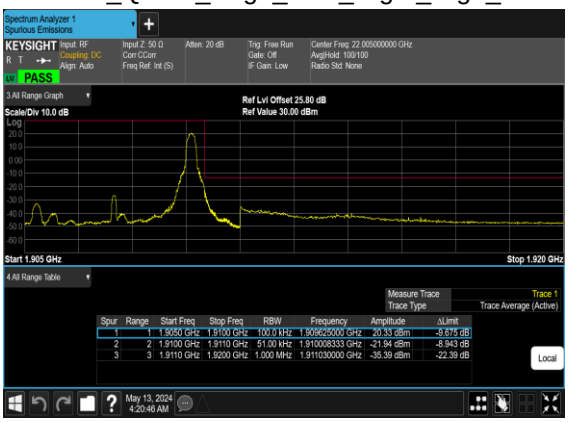
N2(5M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



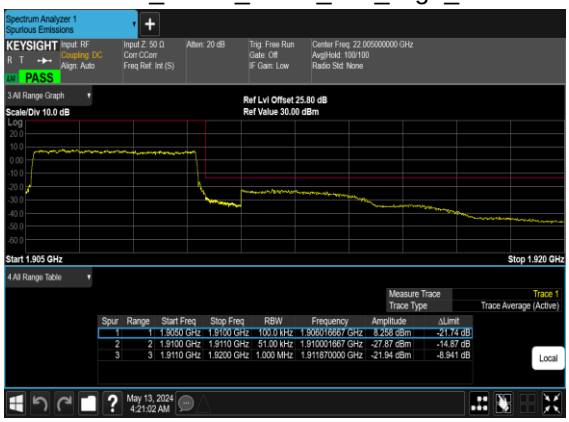
N2(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



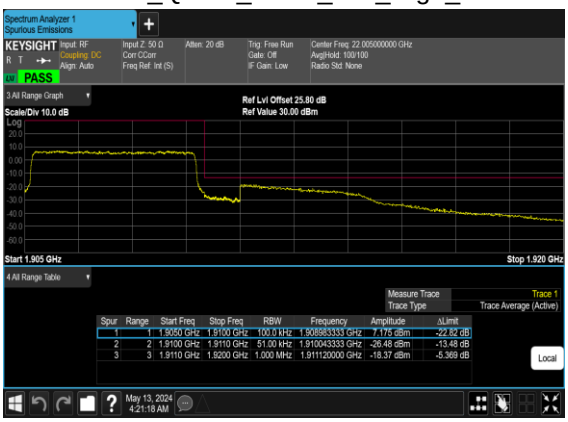
N2(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



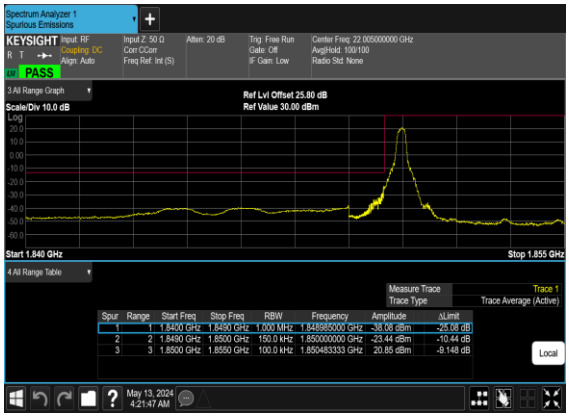
N2(5M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



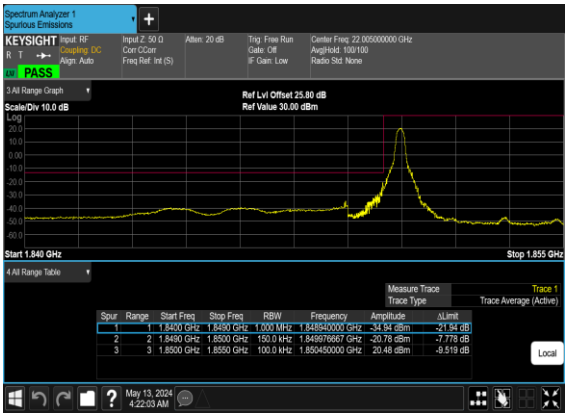
N2(5M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



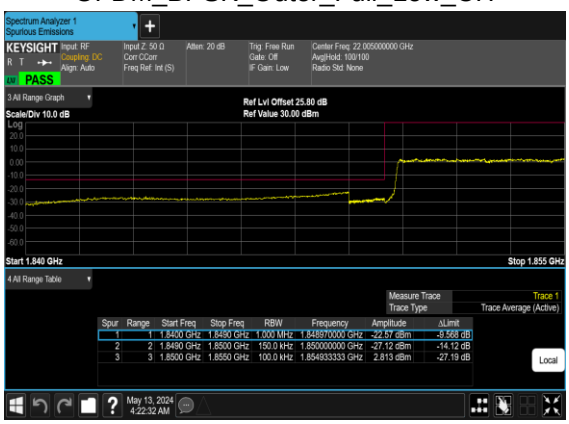
N2(15M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



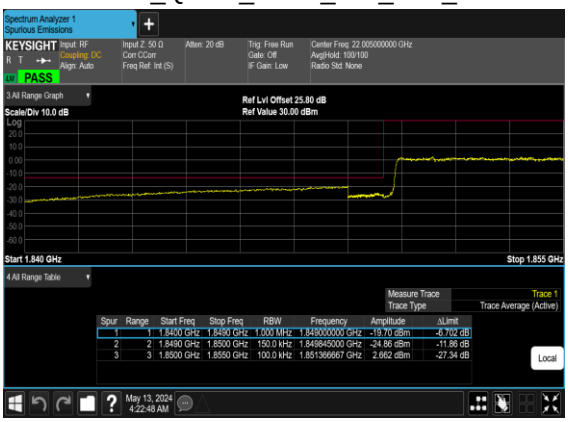
N2(15M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



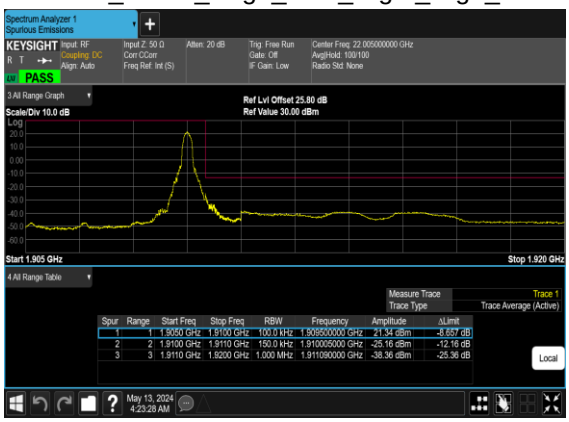
N2(15M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



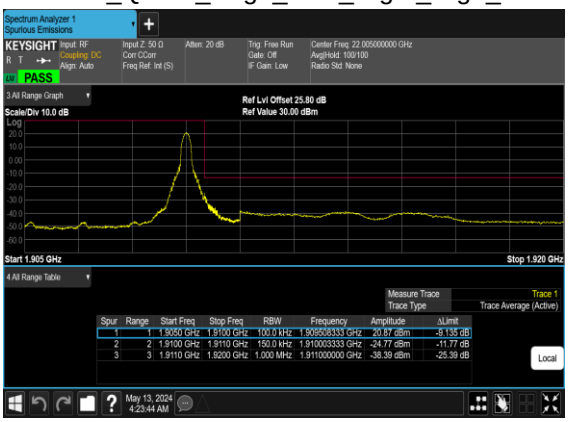
N2(15M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



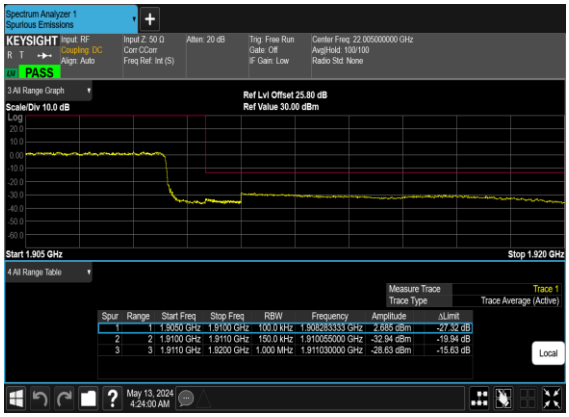
N2(15M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



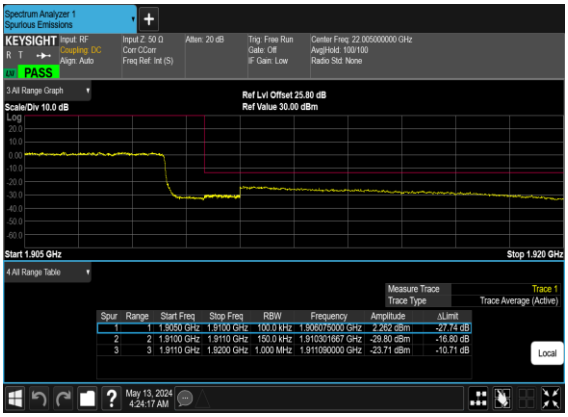
N2(15M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



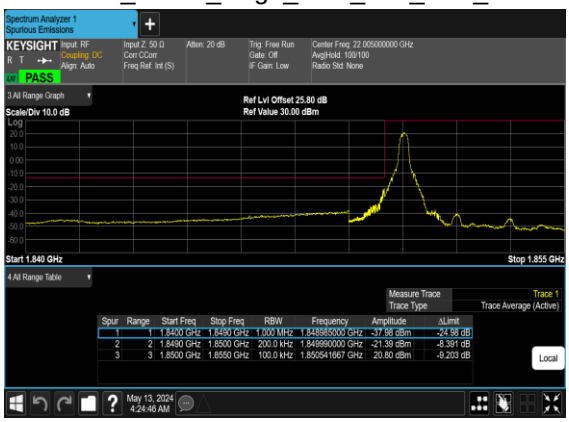
N2(15M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



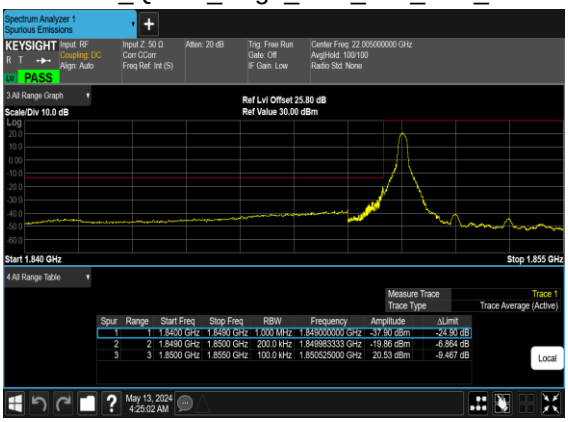
N2(15M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



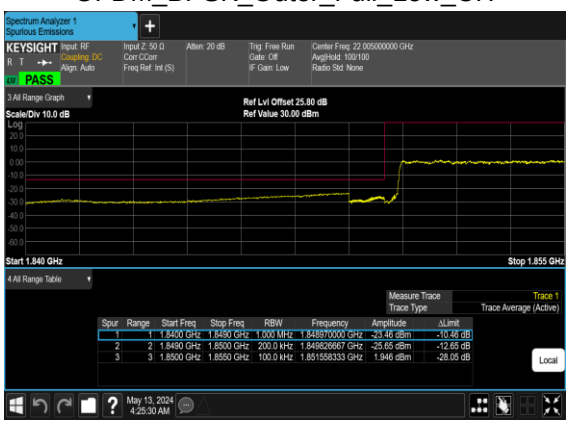
N2(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



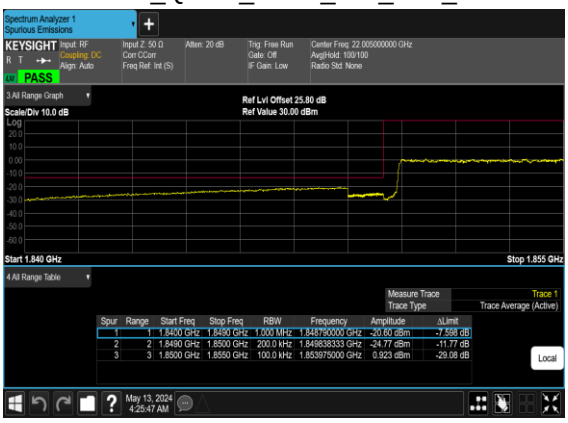
N2(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



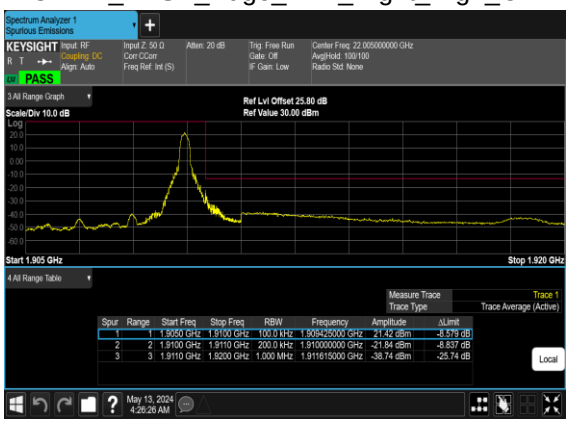
N2(20M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



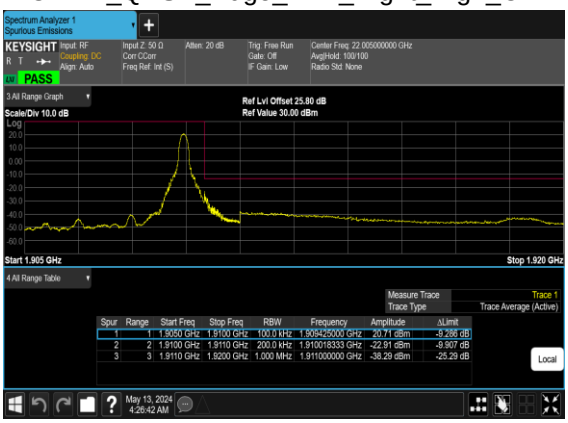
N2(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



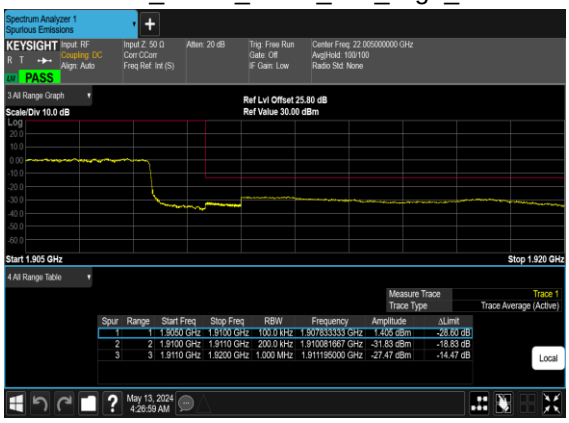
N2(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



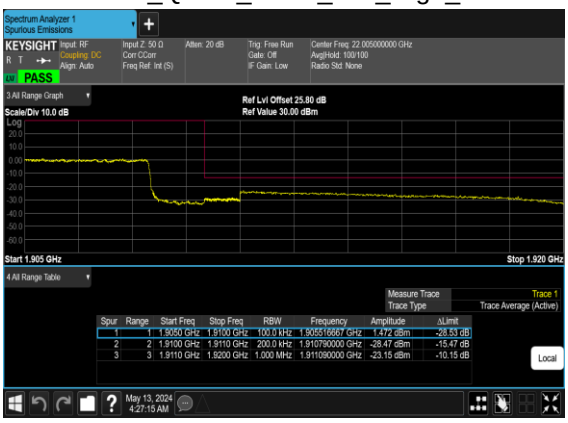
N2(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



N2(20M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



N2(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



FR1 N5(ANT1)-SCS 15K

Transmitter Conducted Output Power And ERP, (G_T - L_C)=-4.1dB

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Conducted Power(dBm)	ERP(dBm)	ERP(W)
5	15	20	166800	834	DFT-s-OFDM PI/2 BPSK	50@25	24.79	18.54	0.0714
5	15	20	166800	834	DFT-s-OFDM PI/2 BPSK	1@1	24.66	18.41	0.0693
5	15	20	166800	834	DFT-s-OFDM PI/2 BPSK	1@104	24.83	18.58	0.0721
5	15	20	166800	834	DFT-s-OFDM QPSK	50@25	24.86	18.61	0.0726
5	15	20	166800	834	DFT-s-OFDM QPSK	1@1	25.15	18.9	0.0776
5	15	20	166800	834	DFT-s-OFDM QPSK	1@104	24.69	18.44	0.0698
5	15	20	166800	834	DFT-s-OFDM 16 QAM	50@25	23.9	17.65	0.0582
5	15	20	166800	834	DFT-s-OFDM 16 QAM	1@1	23.85	17.6	0.0575
5	15	20	166800	834	DFT-s-OFDM 16 QAM	1@104	23.99	17.74	0.0594
5	15	20	166800	834	DFT-s-OFDM 64 QAM	50@25	22.37	16.12	0.0409
5	15	20	166800	834	DFT-s-OFDM 64 QAM	1@1	21.99	15.74	0.0375
5	15	20	166800	834	DFT-s-OFDM 64 QAM	1@104	22.11	15.86	0.0385
5	15	20	166800	834	DFT-s-OFDM 256 QAM	50@25	20.32	14.07	0.0255
5	15	20	166800	834	DFT-s-OFDM 256 QAM	1@1	20.31	14.06	0.0255
5	15	20	166800	834	DFT-s-OFDM 256 QAM	1@104	20.35	14.1	0.0257
5	15	20	166800	834	CP-OFDM QPSK	53@26	23.31	17.06	0.0508
5	15	20	166800	834	CP-OFDM QPSK	1@1	23.55	17.3	0.0537
5	15	20	166800	834	CP-OFDM QPSK	1@104	23.71	17.46	0.0557
5	15	20	167300	836.5	DFT-s-OFDM PI/2 BPSK	50@25	24.83	18.58	0.0721
5	15	20	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@1	24.63	18.38	0.0689
5	15	20	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@104	24.86	18.61	0.0726
5	15	20	167300	836.5	DFT-s-OFDM QPSK	50@25	24.9	18.65	0.0733
5	15	20	167300	836.5	DFT-s-OFDM QPSK	1@1	25.04	18.79	0.0757
5	15	20	167300	836.5	DFT-s-OFDM QPSK	1@104	24.67	18.42	0.0695
5	15	20	167300	836.5	DFT-s-OFDM 16 QAM	50@25	23.86	17.61	0.0577
5	15	20	167300	836.5	DFT-s-OFDM 16 QAM	1@1	23.89	17.64	0.0581
5	15	20	167300	836.5	DFT-s-OFDM 16 QAM	1@104	24.02	17.77	0.0598
5	15	20	167300	836.5	DFT-s-OFDM 64 QAM	50@25	22.36	16.11	0.0408
5	15	20	167300	836.5	DFT-s-OFDM 64 QAM	1@1	22.04	15.79	0.0379
5	15	20	167300	836.5	DFT-s-OFDM 64 QAM	1@104	22.16	15.91	0.0390
5	15	20	167300	836.5	DFT-s-OFDM 256 QAM	50@25	20.36	14.11	0.0258
5	15	20	167300	836.5	DFT-s-OFDM 256 QAM	1@1	20.25	14	0.0251
5	15	20	167300	836.5	DFT-s-OFDM 256 QAM	1@104	20.37	14.12	0.0258
5	15	20	167300	836.5	CP-OFDM QPSK	53@26	23.38	17.13	0.0516

5	15	20	167300	836.5	CP-OFDM QPSK	1@1	23.45	17.2	0.0525
5	15	20	167300	836.5	CP-OFDM QPSK	1@104	23.71	17.46	0.0557
5	15	20	167800	839	DFT-s-OFDM PI/2 BPSK	50@25	24.89	18.64	0.0731
5	15	20	167800	839	DFT-s-OFDM PI/2 BPSK	1@1	24.7	18.45	0.0700
5	15	20	167800	839	DFT-s-OFDM PI/2 BPSK	1@104	24.83	18.58	0.0721
5	15	20	167800	839	DFT-s-OFDM QPSK	50@25	24.93	18.68	0.0738
5	15	20	167800	839	DFT-s-OFDM QPSK	1@1	25.12	18.87	0.0771
5	15	20	167800	839	DFT-s-OFDM QPSK	1@104	24.63	18.38	0.0689
5	15	20	167800	839	DFT-s-OFDM 16 QAM	50@25	23.96	17.71	0.0590
5	15	20	167800	839	DFT-s-OFDM 16 QAM	1@1	23.93	17.68	0.0586
5	15	20	167800	839	DFT-s-OFDM 16 QAM	1@104	24.02	17.77	0.0598
5	15	20	167800	839	DFT-s-OFDM 64 QAM	50@25	22.42	16.17	0.0414
5	15	20	167800	839	DFT-s-OFDM 64 QAM	1@1	22.04	15.79	0.0379
5	15	20	167800	839	DFT-s-OFDM 64 QAM	1@104	22.13	15.88	0.0387
5	15	20	167800	839	DFT-s-OFDM 256 QAM	50@25	20.36	14.11	0.0258
5	15	20	167800	839	DFT-s-OFDM 256 QAM	1@1	20.28	14.03	0.0253
5	15	20	167800	839	DFT-s-OFDM 256 QAM	1@104	20.3	14.05	0.0254
5	15	20	167800	839	CP-OFDM QPSK	53@26	23.39	17.14	0.0518
5	15	20	167800	839	CP-OFDM QPSK	1@1	23.6	17.35	0.0543
5	15	20	167800	839	CP-OFDM QPSK	1@104	23.68	17.43	0.0553
5	15	5	165300	826.5	DFT-s-OFDM PI/2 BPSK	1@1	24.61	18.36	0.0685
5	15	5	165300	826.5	DFT-s-OFDM QPSK	1@1	25.12	18.87	0.0771
5	15	5	165300	826.5	DFT-s-OFDM 16 QAM	1@1	23.9	17.65	0.0582
5	15	5	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@1	24.71	18.46	0.0701
5	15	5	167300	836.5	DFT-s-OFDM QPSK	1@1	25.21	18.96	0.0787
5	15	5	167300	836.5	DFT-s-OFDM 16 QAM	1@1	24.01	17.76	0.0597
5	15	5	169300	846.5	DFT-s-OFDM PI/2 BPSK	1@1	24.75	18.5	0.0708
5	15	5	169300	846.5	DFT-s-OFDM QPSK	1@1	25.13	18.88	0.0773
5	15	5	169300	846.5	DFT-s-OFDM 16 QAM	1@1	24.03	17.78	0.0600
5	15	10	165800	829	DFT-s-OFDM PI/2 BPSK	1@1	24.63	18.38	0.0689
5	15	10	165800	829	DFT-s-OFDM QPSK	1@1	25.15	18.9	0.0776
5	15	10	165800	829	DFT-s-OFDM 16 QAM	1@1	23.86	17.61	0.0577
5	15	10	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@1	24.68	18.43	0.0697
5	15	10	167300	836.5	DFT-s-OFDM QPSK	1@1	25.14	18.89	0.0774
5	15	10	167300	836.5	DFT-s-OFDM 16 QAM	1@1	23.93	17.68	0.0586
5	15	10	168800	844	DFT-s-OFDM PI/2 BPSK	1@1	24.73	18.48	0.0705
5	15	10	168800	844	DFT-s-OFDM QPSK	1@1	25.08	18.83	0.0764
5	15	10	168800	844	DFT-s-OFDM 16 QAM	1@1	24.01	17.76	0.0597
5	15	15	166300	831.5	DFT-s-OFDM PI/2 BPSK	1@1	24.69	18.44	0.0698
5	15	15	166300	831.5	DFT-s-OFDM QPSK	1@1	25.14	18.89	0.0774

5	15	15	166300	831.5	DFT-s-OFDM 16 QAM	1@1	23.9	17.65	0.0582
5	15	15	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@1	24.7	18.45	0.0700
5	15	15	167300	836.5	DFT-s-OFDM QPSK	1@1	24.53	18.28	0.0673
5	15	15	167300	836.5	DFT-s-OFDM 16 QAM	1@1	23.93	17.68	0.0586
5	15	15	168300	841.5	DFT-s-OFDM PI/2 BPSK	1@1	24.8	18.55	0.0716
5	15	15	168300	841.5	DFT-s-OFDM QPSK	1@1	25.11	18.86	0.0769
5	15	15	168300	841.5	DFT-s-OFDM 16 QAM	1@1	24.03	17.78	0.0600

Software Version: 23.06.1602

FR1 N26(ANT1)-SCS 15K

Transmitter Conducted Output Power And ERP, (G_T - L_C)=-4.1dB

NR Band	SCS	Band Width	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power (dBm)	ERP (dBm)	ERP (W)
26	15	20	166800	834	DFT-s-OFDM PI/2 BPSK	50@25	24.55	18.3	0.0676
26	15	20	166800	834	DFT-s-OFDM PI/2 BPSK	1@1	24.41	18.16	0.0655
26	15	20	166800	834	DFT-s-OFDM PI/2 BPSK	1@104	24.48	18.23	0.0665
26	15	20	166800	834	DFT-s-OFDM QPSK	50@25	24.6	18.35	0.0684
26	15	20	166800	834	DFT-s-OFDM QPSK	1@1	24.97	18.72	0.0745
26	15	20	166800	834	DFT-s-OFDM QPSK	1@104	24.37	18.12	0.0649
26	15	20	166800	834	DFT-s-OFDM 16 QAM	50@25	23.61	17.36	0.0545
26	15	20	166800	834	DFT-s-OFDM 16 QAM	1@1	23.67	17.42	0.0552
26	15	20	166800	834	DFT-s-OFDM 16 QAM	1@104	23.65	17.4	0.0550
26	15	20	166800	834	DFT-s-OFDM 64 QAM	50@25	22.06	15.81	0.0381
26	15	20	166800	834	DFT-s-OFDM 64 QAM	1@1	21.73	15.48	0.0353
26	15	20	166800	834	DFT-s-OFDM 64 QAM	1@104	21.77	15.52	0.0356
26	15	20	166800	834	DFT-s-OFDM 256 QAM	50@25	20.03	13.78	0.0239
26	15	20	166800	834	DFT-s-OFDM 256 QAM	1@1	20.02	13.77	0.0238
26	15	20	166800	834	DFT-s-OFDM 256 QAM	1@104	19.93	13.68	0.0233
26	15	20	166800	834	CP-OFDM QPSK	53@26	23.05	16.8	0.0479
26	15	20	166800	834	CP-OFDM QPSK	1@1	23.21	16.96	0.0497
26	15	20	166800	834	CP-OFDM QPSK	1@104	23.3	17.05	0.0507
26	15	20	167300	836.5	DFT-s-OFDM PI/2 BPSK	50@25	24.55	18.3	0.0676
26	15	20	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@1	24.4	18.15	0.0653
26	15	20	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@104	24.5	18.25	0.0668
26	15	20	167300	836.5	DFT-s-OFDM QPSK	50@25	24.62	18.37	0.0687
26	15	20	167300	836.5	DFT-s-OFDM QPSK	1@1	25.25	19	0.0794
26	15	20	167300	836.5	DFT-s-OFDM QPSK	1@104	24.36	18.11	0.0647
26	15	20	167300	836.5	DFT-s-OFDM 16 QAM	50@25	23.58	17.33	0.0541
26	15	20	167300	836.5	DFT-s-OFDM 16 QAM	1@1	23.6	17.35	0.0543
26	15	20	167300	836.5	DFT-s-OFDM 16 QAM	1@104	23.67	17.42	0.0552
26	15	20	167300	836.5	DFT-s-OFDM 64 QAM	50@25	22.07	15.82	0.0382
26	15	20	167300	836.5	DFT-s-OFDM 64 QAM	1@1	21.76	15.51	0.0356
26	15	20	167300	836.5	DFT-s-OFDM 64 QAM	1@104	21.81	15.56	0.0360
26	15	20	167300	836.5	DFT-s-OFDM 256 QAM	50@25	20.06	13.81	0.0240
26	15	20	167300	836.5	DFT-s-OFDM 256 QAM	1@1	19.95	13.7	0.0234
26	15	20	167300	836.5	DFT-s-OFDM 256 QAM	1@104	19.94	13.69	0.0234
26	15	20	167300	836.5	CP-OFDM QPSK	53@26	23.06	16.81	0.0480
26	15	20	167300	836.5	CP-OFDM QPSK	1@1	23.29	17.04	0.0506
26	15	20	167300	836.5	CP-OFDM QPSK	1@104	23.29	17.04	0.0506
26	15	20	167800	839	DFT-s-OFDM PI/2 BPSK	50@25	24.56	18.31	0.0678
26	15	20	167800	839	DFT-s-OFDM PI/2 BPSK	1@1	25.04	18.79	0.0757

26	15	20	167800	839	DFT-s-OFDM PI/2 BPSK	1@104	24.54	18.29	0.0675
26	15	20	167800	839	DFT-s-OFDM QPSK	50@25	24.58	18.33	0.0681
26	15	20	167800	839	DFT-s-OFDM QPSK	1@1	24.74	18.49	0.0706
26	15	20	167800	839	DFT-s-OFDM QPSK	1@104	24.38	18.13	0.0650
26	15	20	167800	839	DFT-s-OFDM 16 QAM	50@25	23.6	17.35	0.0543
26	15	20	167800	839	DFT-s-OFDM 16 QAM	1@1	23.69	17.44	0.0555
26	15	20	167800	839	DFT-s-OFDM 16 QAM	1@104	23.72	17.47	0.0558
26	15	20	167800	839	DFT-s-OFDM 64 QAM	50@25	22.08	15.83	0.0383
26	15	20	167800	839	DFT-s-OFDM 64 QAM	1@1	21.8	15.55	0.0359
26	15	20	167800	839	DFT-s-OFDM 64 QAM	1@104	21.82	15.57	0.0361
26	15	20	167800	839	DFT-s-OFDM 256 QAM	50@25	20.03	13.78	0.0239
26	15	20	167800	839	DFT-s-OFDM 256 QAM	1@1	20	13.75	0.0237
26	15	20	167800	839	DFT-s-OFDM 256 QAM	1@104	20.02	13.77	0.0238
26	15	20	167800	839	CP-OFDM QPSK	53@26	23.06	16.81	0.0480
26	15	20	167800	839	CP-OFDM QPSK	1@1	23.38	17.13	0.0516
26	15	20	167800	839	CP-OFDM QPSK	1@104	23.4	17.15	0.0519
26	15	5	165300	826.5	DFT-s-OFDM PI/2 BPSK	1@1	24.35	18.1	0.0646
26	15	5	165300	826.5	DFT-s-OFDM QPSK	1@1	24.85	18.6	0.0724
26	15	5	165300	826.5	DFT-s-OFDM 16 QAM	1@1	23.63	17.38	0.0547
26	15	5	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@1	24.38	18.13	0.0650
26	15	5	167300	836.5	DFT-s-OFDM QPSK	1@1	24.83	18.58	0.0721
26	15	5	167300	836.5	DFT-s-OFDM 16 QAM	1@1	23.66	17.41	0.0551
26	15	5	169300	846.5	DFT-s-OFDM PI/2 BPSK	1@1	24.32	18.07	0.0641
26	15	5	169300	846.5	DFT-s-OFDM QPSK	1@1	24.72	18.47	0.0703
26	15	5	169300	846.5	DFT-s-OFDM 16 QAM	1@1	23.6	17.35	0.0543
26	15	10	165800	829	DFT-s-OFDM PI/2 BPSK	1@1	24.33	18.08	0.0643
26	15	10	165800	829	DFT-s-OFDM QPSK	1@1	24.87	18.62	0.0728
26	15	10	165800	829	DFT-s-OFDM 16 QAM	1@1	23.63	17.38	0.0547
26	15	10	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@1	24.42	18.17	0.0656
26	15	10	167300	836.5	DFT-s-OFDM QPSK	1@1	24.87	18.62	0.0728
26	15	10	167300	836.5	DFT-s-OFDM 16 QAM	1@1	23.69	17.44	0.0555
26	15	10	168800	844	DFT-s-OFDM PI/2 BPSK	1@1	24.39	18.14	0.0652
26	15	10	168800	844	DFT-s-OFDM QPSK	1@1	24.7	18.45	0.0700
26	15	10	168800	844	DFT-s-OFDM 16 QAM	1@1	23.65	17.4	0.0550
26	15	15	166300	831.5	DFT-s-OFDM PI/2 BPSK	1@1	24.42	18.17	0.0656
26	15	15	166300	831.5	DFT-s-OFDM QPSK	1@1	24.73	18.48	0.0705
26	15	15	166300	831.5	DFT-s-OFDM 16 QAM	1@1	23.65	17.4	0.0550
26	15	15	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@1	24.43	18.18	0.0658
26	15	15	167300	836.5	DFT-s-OFDM QPSK	1@1	24.81	18.56	0.0718
26	15	15	167300	836.5	DFT-s-OFDM 16 QAM	1@1	23.68	17.43	0.0553
26	15	15	168300	841.5	DFT-s-OFDM PI/2 BPSK	1@1	24.42	18.17	0.0656
26	15	15	168300	841.5	DFT-s-OFDM QPSK	1@1	24.85	18.6	0.0724
26	15	15	168300	841.5	DFT-s-OFDM 16 QAM	1@1	23.73	17.48	0.0560

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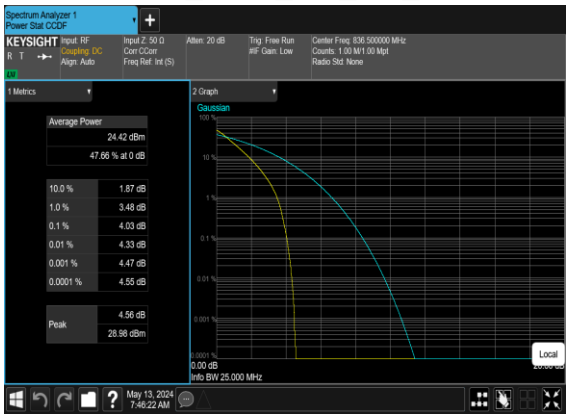
Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	-0.0004	**PASS**	NV
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	0.0037	**PASS**	LV
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	0.0051	**PASS**	HV
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	-0.0057	**PASS**	-30℃
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	-0.0072	**PASS**	-20℃
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	0.0045	**PASS**	-10℃
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	0.0034	**PASS**	0℃
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	0.0073	**PASS**	10℃
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	-0.0057	**PASS**	20℃
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	-0.0059	**PASS**	30℃
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	0.0024	**PASS**	40℃
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	0.0031	**PASS**	50℃

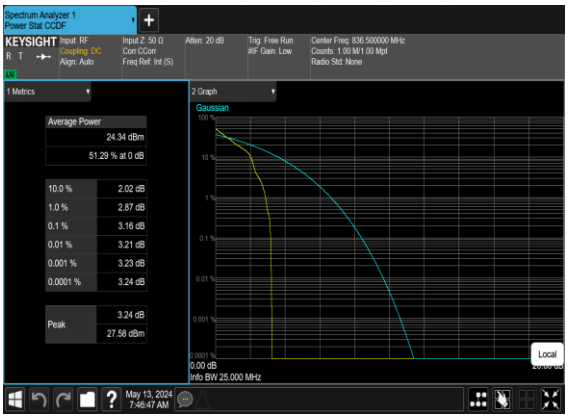
Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
26	15	20	167300	836.5	DFT-s-OFDM PI/2 BPSK	100@0	4.03	13	**PASS**
26	15	20	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@0	3.16	13	**PASS**
26	15	20	167300	836.5	DFT-s-OFDM QPSK	100@0	4.94	13	**PASS**
26	15	20	167300	836.5	DFT-s-OFDM QPSK	1@0	3.93	13	**PASS**

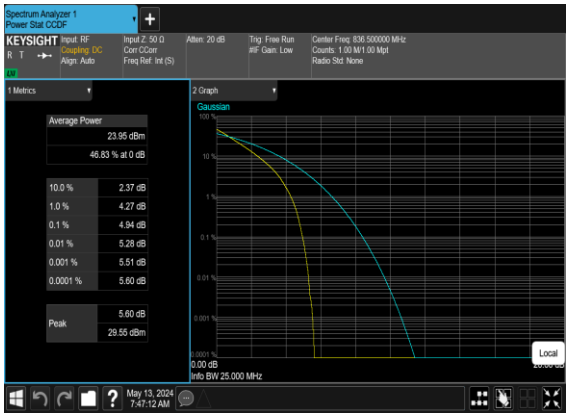
N26(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



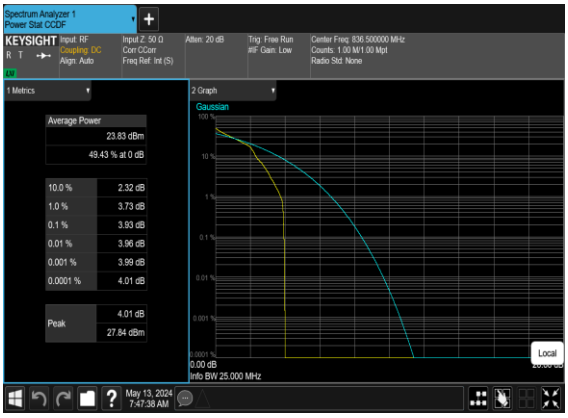
N26(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Mid_CH



N26(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



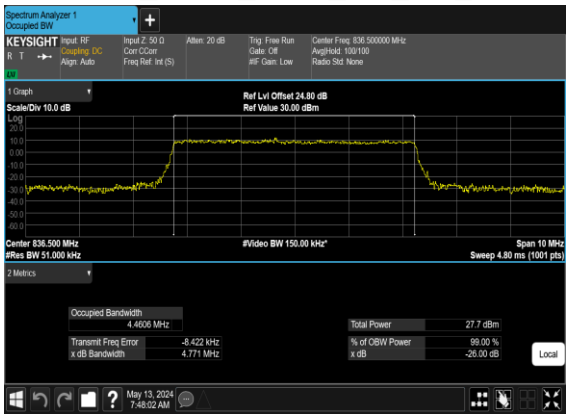
N26(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



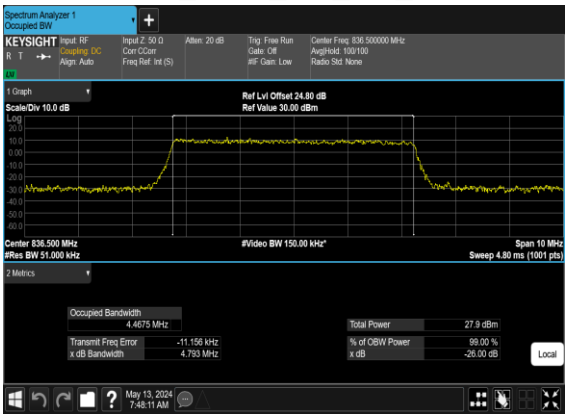
Occupied Bandwidth

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
26	15	5	167300	836.5	CP-OFDM QPSK	25@0	4.4606	4.771
26	15	5	167300	836.5	CP-OFDM 16 QAM	25@0	4.4675	4.793
26	15	5	167300	836.5	CP-OFDM 64 QAM	25@0	4.4694	4.808
26	15	5	167300	836.5	CP-OFDM 256 QAM	25@0	4.4687	4.804
26	15	10	167300	836.5	CP-OFDM QPSK	52@0	9.2737	9.722
26	15	10	167300	836.5	CP-OFDM 16 QAM	52@0	9.2634	9.677
26	15	10	167300	836.5	CP-OFDM 64 QAM	52@0	9.2771	9.739
26	15	10	167300	836.5	CP-OFDM 256 QAM	52@0	9.2605	9.719
26	15	15	167300	836.5	CP-OFDM QPSK	79@0	14.091	14.66
26	15	15	167300	836.5	CP-OFDM 16 QAM	79@0	14.072	14.68
26	15	15	167300	836.5	CP-OFDM 64 QAM	79@0	14.103	14.72
26	15	15	167300	836.5	CP-OFDM 256 QAM	79@0	14.109	14.74
26	15	20	167300	836.5	CP-OFDM QPSK	106@0	18.889	19.63
26	15	20	167300	836.5	CP-OFDM 16 QAM	106@0	18.912	19.63
26	15	20	167300	836.5	CP-OFDM 64 QAM	106@0	18.966	19.65
26	15	20	167300	836.5	CP-OFDM 256 QAM	106@0	18.884	19.64

N26(5M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

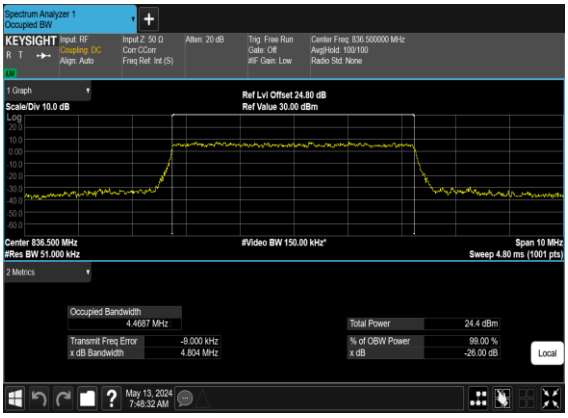


N26(5M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

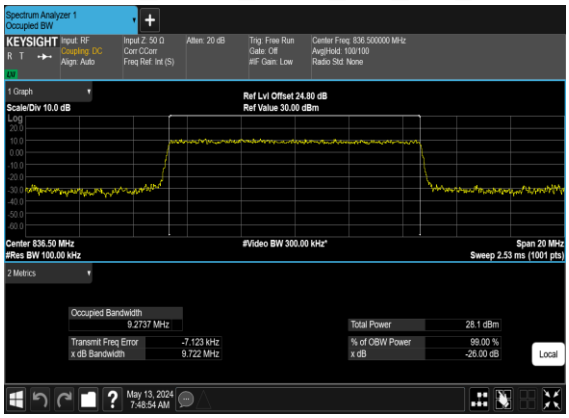


N26(5M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

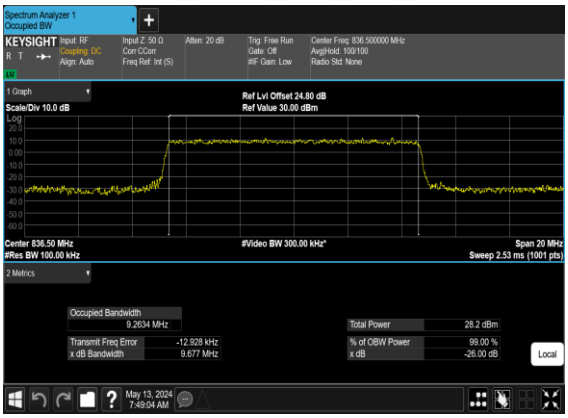
N26(5M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



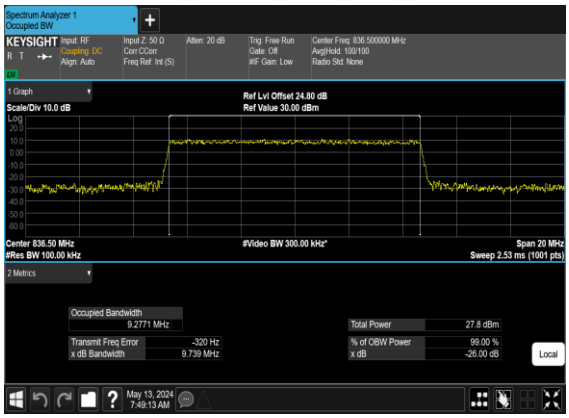
N26(10M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



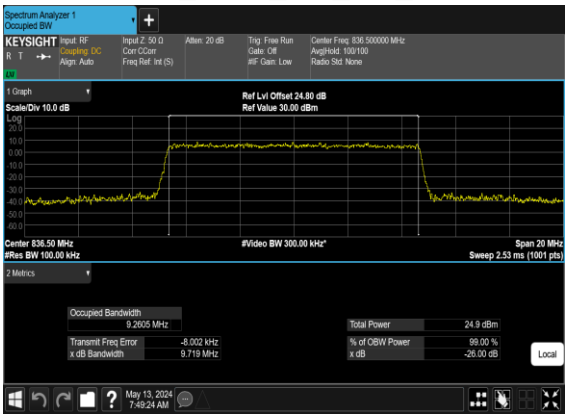
N26(10M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N26(10M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

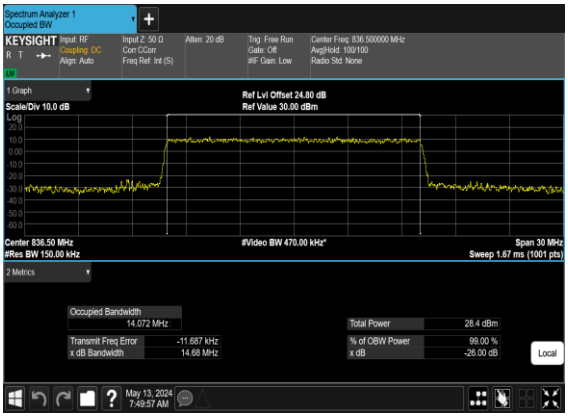


N26(10M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



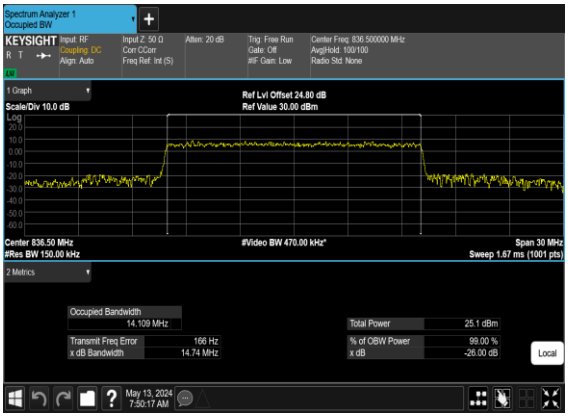
N26(15M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

N26(15M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

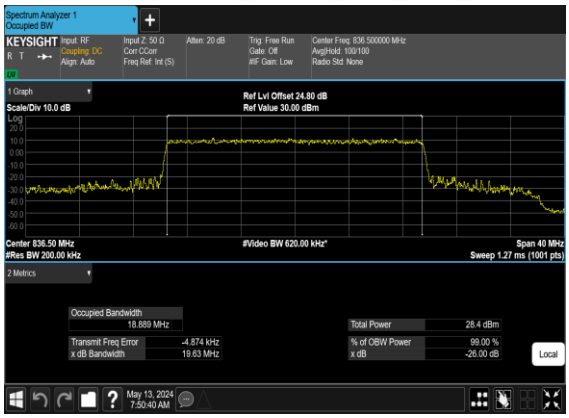


N26(15M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

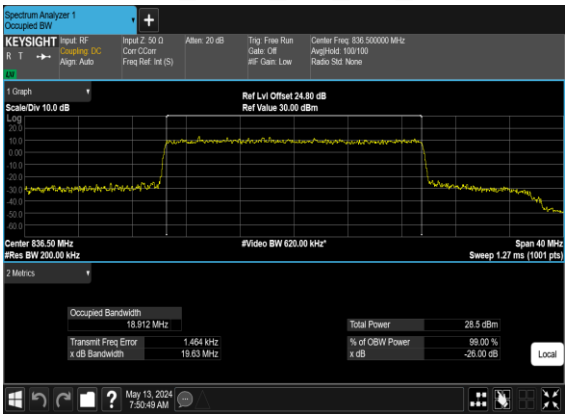
N26(15M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



N26(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

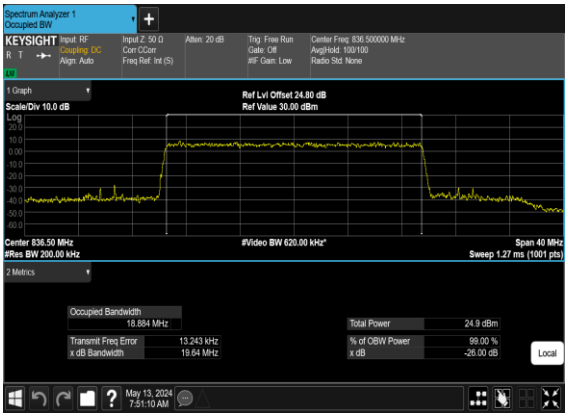


N26(20M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N26(20M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N26(20M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

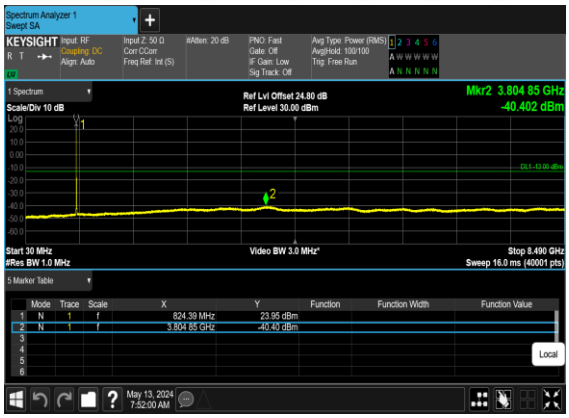


Conducted Spurious Emissions

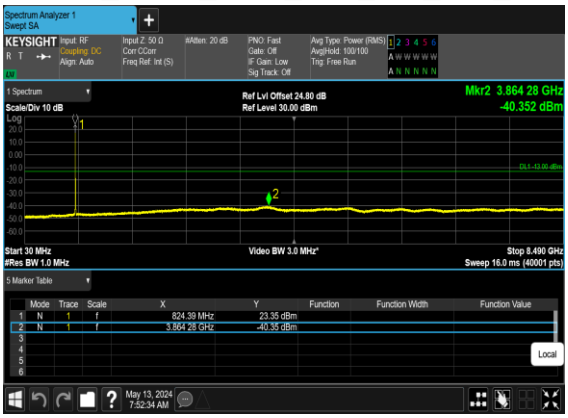
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
26	15	5	165300	826.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
26	15	5	165300	826.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
26	15	5	165300	826.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
26	15	5	165300	826.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
26	15	5	167300	836.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
26	15	5	167300	836.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
26	15	5	167300	836.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
26	15	5	167300	836.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
26	15	5	169300	846.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
26	15	5	169300	846.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
26	15	5	169300	846.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
26	15	5	169300	846.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
26	15	15	166300	831.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
26	15	15	166300	831.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
26	15	15	166300	831.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
26	15	15	166300	831.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
26	15	15	167300	836.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
26	15	15	167300	836.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
26	15	15	167300	836.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
26	15	15	167300	836.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
26	15	15	168300	841.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
26	15	15	168300	841.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
26	15	15	168300	841.5	DFT-s-OFDM QPSK	1@0	see graph	**---**

26	15	15	168300	841.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
26	15	20	166800	834.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
26	15	20	166800	834.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
26	15	20	166800	834.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
26	15	20	166800	834.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
26	15	20	167300	836.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
26	15	20	167300	836.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
26	15	20	167300	836.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
26	15	20	167300	836.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
26	15	20	167800	839.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
26	15	20	167800	839.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
26	15	20	167800	839.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
26	15	20	167800	839.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**

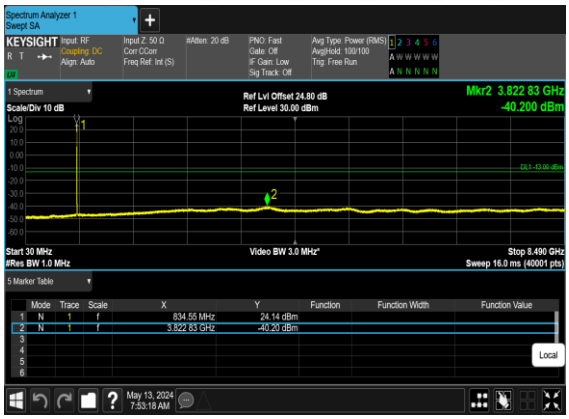
N26(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



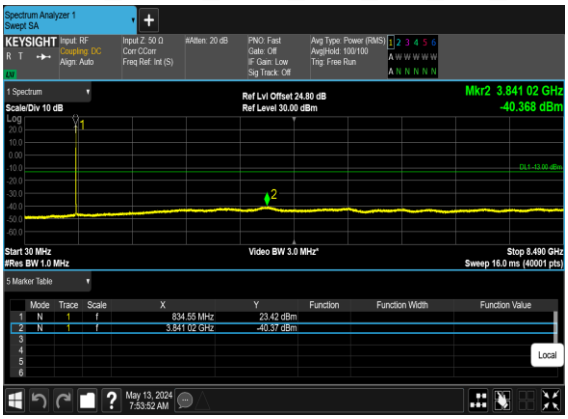
N26(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



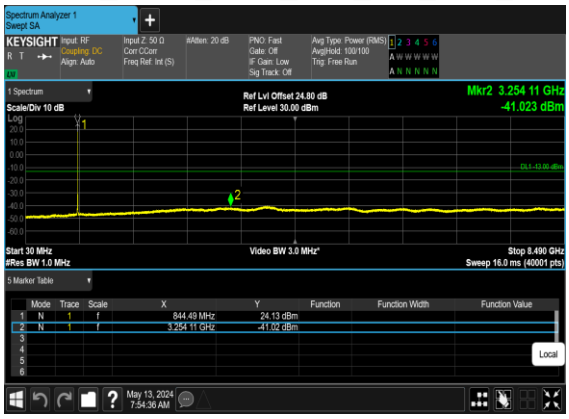
N26(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



N26(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



N26(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



N26(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH