FCC RF Test Report

APPLICANT	:	Xiaomi Communications Co., Ltd.
EQUIPMENT	:	Mobile Phone
BRAND NAME	:	Xiaomi
MODEL NAME	:	XIG07
FCC ID	:	2AFZZPNFAR
STANDARD	:	47 CFR Part 27
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	:	Jul. 30, 2024 ~ Aug. 02, 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

ACCREDITED
Cert #5145.02

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APPENDIX A. TEST RESULTS OF CONDUCTED TEST

APPENDIX B. TEST RESULTS OF RADIATED TEST

APPENDIX C. TEST SETUP PHOTOGRAPHS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG442515-03C	Rev. 01	Initial issue of report	Aug. 27, 2024

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (5G NR n41)	EIRP < 2Watt		
	§27.50(j)(3)	Equivalent Isotropic Radiated Power (5G NR n77, n78)	EIRP < 1Watt		
3.5	§24.232(d) §27.50(j)(4)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §27.53(l)(2)	Conducted Band Edge Measurement (5G NR n77, n78)	< 43+10log10(P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (5G NR n41)	§27.53(m)(4)		
3.8	§2.1051 §27.53(l)(2)	Conducted Spurious Emission (5G NR n77, n78)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (5G NR n41)	< 55+10$\log_{10}$(P[Watts])		
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 §27.53(l)(2)	Radiated Spurious Emission (5G NR n77, n78)	< 43+10$\log_{10}$(P[Watts])	PASS	Under limit 25.80 dB at 10287.12 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (5G NR n41)	< 55+10$\log_{10}$(P[Watts])		

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	XIG07
FCC ID	2AFZZPNFAR
IMEI Code	Conducted : 861065070005062/861065070005000 Radiation : 861065070010963/861065070010971
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 n41 : 2496 MHz ~ 2690 MHz 5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz
Rx Frequency	5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz
Bandwidth	n41 : 20MHz / 30MHz / 50MHz n77/n78: 20MHz / 30MHz / 40MHz / 50MHz / 60MHz / 80MHz / 90MHz / 100MHz
SCS	30kHz
Antenna Gain	**<Ant. 2>:** n41: -2.84 dBi **<Ant. 3>:** n41: -1.40 dBi **<Ant. 4>:** n41: -1.30 dBi **<Ant. 5>:** n41: -0.26 dBi **<Ant. 6>:** n77: -2.70 dBi

	n78: -2.70 dBi **<Ant. 7>:** n77: -3.50 dBi n78: -3.50 dBi **<Ant. 8>:** n77: -0.50 dBi n78: -2.00 dBi **<Ant. 9>:** n77: -1.72 dBi n78: -1.72 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

Remark:

1. The maximum EIRP is calculated from max output power and max antenna gain, only the maximum EIRP are shown in the report, 5G NR n41 for Ant. 4 and n77 for Ant. 6.
2. All the supported ENDC combinations are verified conducted power, only the ENDC combination with highest power are shown in the report.
3. 5G NR support SA (n41/n77/n78) mode and NSA(n77/n78) mode. According to the maximum power between SA and NSA mode, SA covers NSA mode.
4. The device supports n77/n78(1T4R) SRS resources on Antenna 6/8/7/9, only the test data of worst Antenna 6 is showed in the report according to the maximum power.
5. The device supports n41(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.
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 EIRP and Emission Designator

5G NR n41		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)**
20	2506.02 ~ 2679.99	0.2051	18M2G7D	0.1901	18M2W7D
30	2511.00 ~ 2674.98	0.2009	27M8G7D	0.1879	27M8W7D
50	2521.02 ~ 2664.99	0.2080	47M3G7D	0.1919	47M6W7D

5G NR n77		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)
20	3710.01 ~ 3969.99	0.1633	18M1G7D	0.1368	18M3W7D
30	3715.02 ~ 3964.98	0.1637	27M8G7D	0.1352	27M8W7D
40	3720.00 ~ 3960.00	0.1637	37M8G7D	0.1352	37M9W7D
50	3725.01 ~ 3954.99	0.1648	47M4G7D	0.1340	47M5W7D
60	3730.02 ~ 3949.98	0.1641	57M8G7D	0.1346	57M8W7D
80	3740.01 ~ 3939.99	0.1694	77M3G7D	0.1413	77M7W7D
90	3745.02 ~ 3934.98	0.1910	87M4G7D	0.1782	87M4W7D
100	3750.00 ~ 3930.00	0.1928	97M4G7D	0.1517	97M4W7D

5G NR n78		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)
20	3710.01 ~ 3789.99	0.1746	18M1G7D	0.1387	18M3W7D
30	3715.02 ~ 3784.98	0.1778	27M8G7D	0.1416	27M8W7D
40	3720.00 ~ 3780.00	0.1730	37M8G7D	0.1374	37M9W7D
50	3725.01 ~ 3774.99	0.1667	47M4G7D	0.1346	47M5W7D
60	3730.02 ~ 3769.98	0.1722	57M8G7D	0.1352	57M8W7D
80	3740.01 ~ 3759.99	0.1778	77M3G7D	0.1413	77M7W7D
90	3745.02 ~ 3754.98	0.1845	87M4G7D	0.1690	87M4W7D
100	3750.00	0.1866	97M4G7D	0.1531	97M4W7D

Note:

1. 5G NR n77 overlaps the entire frequency range of 5G NR n78. Therefore, the test results provided in this report covers 5G NR n77 as well as 5G NR n78.
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.**
	03CH01-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.	03CH01-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 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 (X/Y plane) were recorded in this report.

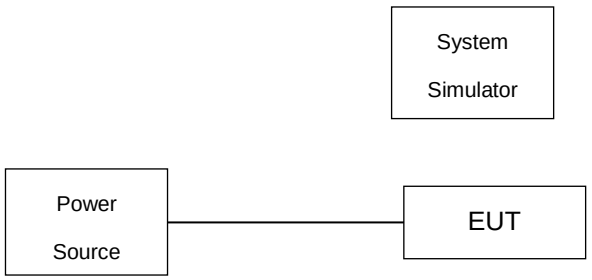
The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.

Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane

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	n41	-	-	-	v	-	v	-	v	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n77	-	-	-	v	-	v	v	v	v	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	n78	-	-	-	v	-	v	v	v	v	-	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	n41	-	-	-	v	-		-		-	-	-	-	-	v	v				v	v		v	
	n77	-	-	-	v	-					-				v	v				v	v		v	
26dB and 99% Bandwidth	n41	-	-	-	v	-	v	-	v	-	-	-	-	-		v	v	v	v		v		v	
	n77	-	-	-	v	-	v	v	v	v	-	v	v	v		v	v	v	v		v		v	
Conducted Band Edge	n41	-	-	-	v	-	v	-	v	-	-	-	-	-	v	v				v	v	v		v
	n77	-	-	-	v	-				v	-			v	v	v				v	v	v		v
Conducted Spurious Emission	n41	-	-	-	v	-	v	-	v	-	-	-	-	-	v	v				v		v	v	v
	n77	-	-	-	v	-				v	-			v	v	v				v		v	v	v
Frequency Stability	n41	-	-	-	v	-		-		-	-	-	-	-		v					v		v	
	n77	-	-	-	v	-	-				-					v					v		v	
E.I.R.P	n41	-	-	-	v	-	v	-	v	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n77	-	-	-	v	-	v	v	v	v	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	n78	-	-	-	v	-	v	v	v	v	-	v	v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	n41	Worst Case																					v	
	n77	Worst Case																					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
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 =3.501V. ；High Voltage =4.279V																							

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 6.0 dB and 20dB attenuator.

Example :

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

= 6.0 + 20 = 26.0 (dB)

2.5 Frequency List of Low/Middle/High Channels

5G NR n41 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
50	Channel	504204	518598	532998
	Frequency	2521.02	2592.99	2664.99
30	Channel	502200	518598	534996
	Frequency	2511	2592.99	2674.98
20	Channel	501204	518598	535998
	Frequency	2506.02	2592.99	2679.99

5G n77 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	650000	656000	662000
	Frequency	3750	3840	3930
90	Channel	649668	656000	662332
	Frequency	3745.02	3840	3934.98
80	Channel	649334	656000	662666
	Frequency	3740.01	3840	3939.99
60	Channel	648668	656000	663332
	Frequency	3730.02	3840	3949.98
50	Channel	648334	656000	663666
	Frequency	3725.01	3840	3954.99
40	Channel	648000	656000	664000
	Frequency	3720	3840	3960
30	Channel	647668	656000	664332
	Frequency	3715.02	3840	3964.98
20	Channel	647334	656000	664666
	Frequency	3710.01	3840	3969.99

5G n78 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	650000		
	Frequency	3750		
90	Channel	649668	650000	650332
	Frequency	3745.02	3750	3754.98
80	Channel	649334	650000	650666
	Frequency	3740.01	3750	3759.99
60	Channel	648668	650000	651332
	Frequency	3730.02	3750	3769.98
50	Channel	648334	650000	651666
	Frequency	3725.01	3750	3774.99
40	Channel	648000	650000	652000
	Frequency	3720	3750	3780
30	Channel	647668	650000	652332
	Frequency	3715.02	3750	3784.98
20	Channel	647334	650000	652666
	Frequency	3710.01	3750	3789.99

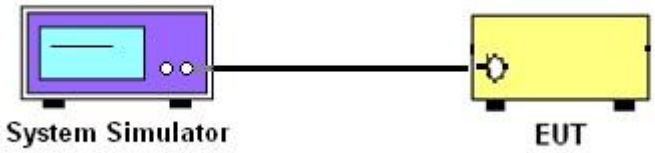
3 Conducted Test Items

3.1 Measuring Instruments

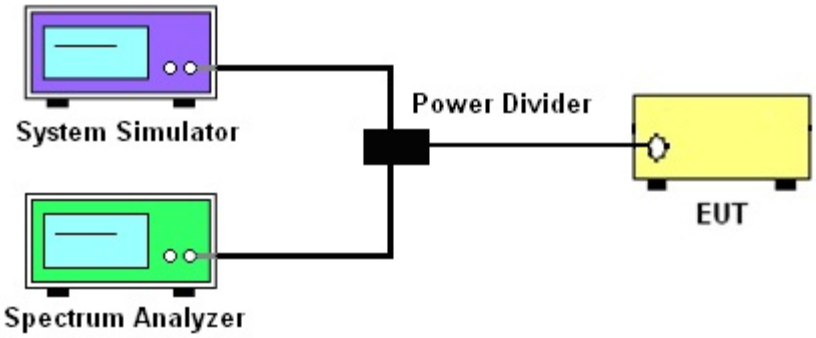
See list of measuring instruments of this test report.

3.2 Test Setup

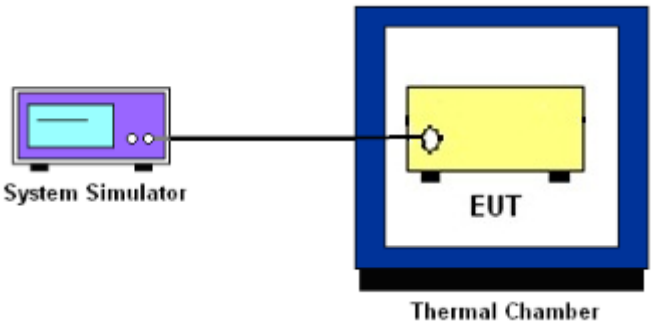
3.2.1 Conducted Output Power



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 EIRP

3.4.1 Description of the Conducted Output Power Measurement and 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 EIRP of mobile transmitters must not exceed 2 Watts for 5G NR n41.

The EIRP of mobile transmitters must not exceed 1 Watts for 5G NR n77, n78.

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

27.53(m)(4)

For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

27.53(l)(2)

For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz. Compliance with this paragraph is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.

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. For 5G NR n41, the other 40 dB, and 55 dB have additionally applied same calculation above.
10. 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.

For 5G NR n41:

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 55 + 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 10th 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.
11. For 5G NR n41
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [55+ 10log(P)] (dB)
    = [30+ 10log(P)] (dBm) - [55+ 10log(P)] (dB)
    = -25dBm.

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.

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.

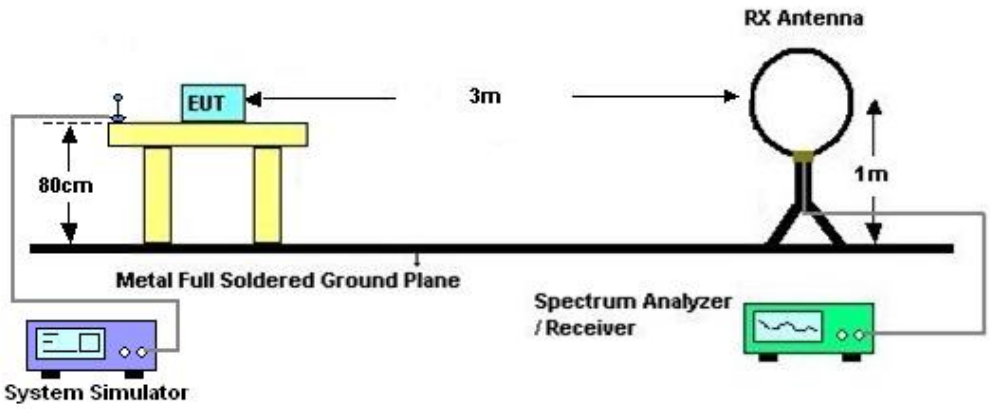
4 Radiated Test Items

4.1 Measuring Instruments

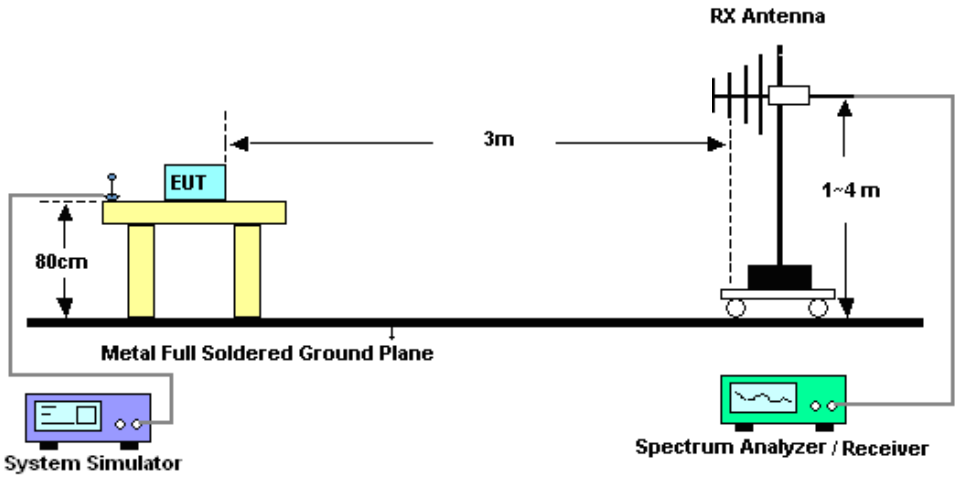
See list of measuring instruments of this test report.

4.2 Test Setup

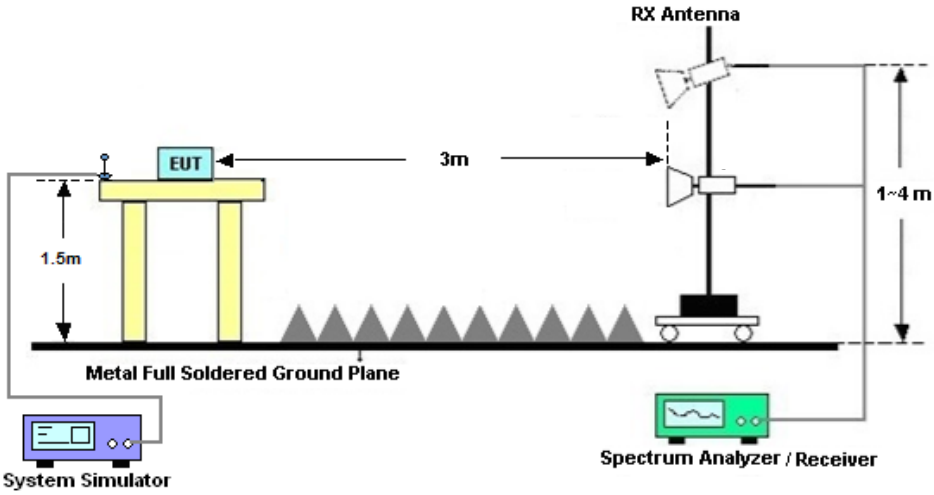
4.2.1 For radiated test below 30MHz



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.

For 5G NR n41

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 55 + 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.
13. For 5G NR n41:
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 11, 2023	Jul. 30, 2024~ Aug. 02, 2024	Oct. 10, 2024	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	NCR	Jul. 30, 2024~ Aug. 02, 2024	NCR	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 04, 2024	Jul. 30, 2024~ Aug. 02, 2024	Jul. 03, 2025	Conducted (TH01-KS)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 27, 2023	Aug. 01, 2024	Dec. 26, 2024	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 27, 2024	Aug. 01, 2024	Jul. 26, 2025	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 18, 2023	Aug. 01, 2024	Oct. 17, 2024	Radiation (03CH01-SZ
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Aug. 01, 2024	Oct. 23, 2025	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 04, 2024	Aug. 01, 2024	Jul. 03, 2025	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 09, 2024	Aug. 01, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 09, 2024	Aug. 01, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P-R	1943528	1GHz~18GHz	Oct. 18, 2023	Aug. 01, 2024	Oct. 17, 2024	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 03, 2024	Aug. 01, 2024	Jul. 02, 2025	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	Oct. 18, 2023	Aug. 01, 2024	Oct. 17, 2024	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Aug. 01, 2024	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Aug. 01, 2024	NCR	Radiation (03CH01-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 ppm**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.48 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.53 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.02 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 N41-SCS 30k

Transmitter Conducted Output Power And EIRP, (G_T - L_C)=-1.3dBi

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
41	30	20	501204	2506.02	DFT-s-OFDM PI/2 BPSK	1@1	24.23	22.93	0.1963
41	30	20	501204	2506.02	DFT-s-OFDM QPSK	1@1	24.33	23.03	0.2009
41	30	20	501204	2506.02	DFT-s-OFDM 16 QAM	1@1	23.96	22.66	0.1845
41	30	20	518598	2592.99	DFT-s-OFDM PI/2 BPSK	1@1	24.35	23.05	0.2018
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	1@1	24.42	23.12	0.2051
41	30	20	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.09	22.79	0.1901
41	30	20	535998	2679.99	DFT-s-OFDM PI/2 BPSK	1@1	24.26	22.96	0.1977
41	30	20	535998	2679.99	DFT-s-OFDM QPSK	1@1	24.31	23.01	0.2000
41	30	20	535998	2679.99	DFT-s-OFDM 16 QAM	1@1	23.97	22.67	0.1849
41	30	30	502200	2511	DFT-s-OFDM PI/2 BPSK	1@1	24.15	22.85	0.1928
41	30	30	502200	2511	DFT-s-OFDM QPSK	1@1	24.23	22.93	0.1963
41	30	30	502200	2511	DFT-s-OFDM 16 QAM	1@1	23.83	22.53	0.1791
41	30	30	518598	2592.99	DFT-s-OFDM PI/2 BPSK	1@1	24.27	22.97	0.1982
41	30	30	518598	2592.99	DFT-s-OFDM QPSK	1@1	24.33	23.03	0.2009
41	30	30	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.04	22.74	0.1879
41	30	30	534996	2674.98	DFT-s-OFDM PI/2 BPSK	1@1	24.09	22.79	0.1901
41	30	30	534996	2674.98	DFT-s-OFDM QPSK	1@1	24.17	22.87	0.1936
41	30	30	534996	2674.98	DFT-s-OFDM 16 QAM	1@1	23.86	22.56	0.1803
41	30	50	504204	2521.02	DFT-s-OFDM PI/2 BPSK	64@32	24.41	23.11	0.2046
41	30	50	504204	2521.02	DFT-s-OFDM PI/2 BPSK	1@1	24.11	22.81	0.1910
41	30	50	504204	2521.02	DFT-s-OFDM PI/2 BPSK	1@131	24.29	22.99	0.1991
41	30	50	504204	2521.02	DFT-s-OFDM QPSK	64@32	24.4	23.1	0.2042
41	30	50	504204	2521.02	DFT-s-OFDM QPSK	1@1	24.23	22.93	0.1963
41	30	50	504204	2521.02	DFT-s-OFDM QPSK	1@131	24.37	23.07	0.2028
41	30	50	504204	2521.02	DFT-s-OFDM 16 QAM	64@32	24.12	22.82	0.1914
41	30	50	504204	2521.02	DFT-s-OFDM 16	1@1	23.86	22.56	0.1803

					QAM				
41	30	50	504204	2521.02	DFT-s-OFDM 16 QAM	1@131	23.8	22.5	0.1778
41	30	50	504204	2521.02	DFT-s-OFDM 64 QAM	64@32	22.64	21.34	0.1361
41	30	50	504204	2521.02	DFT-s-OFDM 64 QAM	1@1	22.49	21.19	0.1315
41	30	50	504204	2521.02	DFT-s-OFDM 64 QAM	1@131	22.43	21.13	0.1297
41	30	50	504204	2521.02	DFT-s-OFDM 256 QAM	64@32	20.58	19.28	0.0847
41	30	50	504204	2521.02	DFT-s-OFDM 256 QAM	1@1	20.27	18.97	0.0789
41	30	50	504204	2521.02	DFT-s-OFDM 256 QAM	1@131	20.29	18.99	0.0793
41	30	50	504204	2521.02	CP-OFDM QPSK	67@33	23.45	22.15	0.1641
41	30	50	504204	2521.02	CP-OFDM QPSK	1@1	23.64	22.34	0.1714
41	30	50	504204	2521.02	CP-OFDM QPSK	1@131	23.03	21.73	0.1489
41	30	50	518598	2592.99	DFT-s-OFDM PI/2 BPSK	64@32	24.44	23.14	0.2061
41	30	50	518598	2592.99	DFT-s-OFDM PI/2 BPSK	1@1	24.19	22.89	0.1945
41	30	50	518598	2592.99	DFT-s-OFDM PI/2 BPSK	1@131	24.36	23.06	0.2023
41	30	50	518598	2592.99	DFT-s-OFDM QPSK	64@32	24.44	23.14	0.2061
41	30	50	518598	2592.99	DFT-s-OFDM QPSK	1@1	24.28	22.98	0.1986
41	30	50	518598	2592.99	DFT-s-OFDM QPSK	1@131	24.48	23.18	0.2080
41	30	50	518598	2592.99	DFT-s-OFDM 16 QAM	64@32	24.13	22.83	0.1919
41	30	50	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	23.94	22.64	0.1837
41	30	50	518598	2592.99	DFT-s-OFDM 16 QAM	1@131	24.03	22.73	0.1875
41	30	50	518598	2592.99	DFT-s-OFDM 64 QAM	64@32	22.66	21.36	0.1368
41	30	50	518598	2592.99	DFT-s-OFDM 64 QAM	1@1	22.5	21.2	0.1318
41	30	50	518598	2592.99	DFT-s-OFDM 64 QAM	1@131	22.63	21.33	0.1358
41	30	50	518598	2592.99	DFT-s-OFDM 256 QAM	64@32	20.65	19.35	0.0861
41	30	50	518598	2592.99	DFT-s-OFDM 256 QAM	1@1	20.29	18.99	0.0793
41	30	50	518598	2592.99	DFT-s-OFDM 256 QAM	1@131	20.42	19.12	0.0817
41	30	50	518598	2592.99	CP-OFDM QPSK	67@33	23.51	22.21	0.1663
41	30	50	518598	2592.99	CP-OFDM QPSK	1@1	23.56	22.26	0.1683
41	30	50	518598	2592.99	CP-OFDM QPSK	1@131	23.34	22.04	0.1600
41	30	50	532998	2664.99	DFT-s-OFDM PI/2 BPSK	64@32	24.33	23.03	0.2009
41	30	50	532998	2664.99	DFT-s-OFDM PI/2 BPSK	1@1	23.94	22.64	0.1837
41	30	50	532998	2664.99	DFT-s-OFDM PI/2 BPSK	1@131	24.24	22.94	0.1968
41	30	50	532998	2664.99	DFT-s-OFDM QPSK	64@32	24.36	23.06	0.2023

41	30	50	532998	2664.99	DFT-s-OFDM QPSK	1@1	24.05	22.75	0.1884
41	30	50	532998	2664.99	DFT-s-OFDM QPSK	1@131	24.34	23.04	0.2014
41	30	50	532998	2664.99	DFT-s-OFDM 16 QAM	64@32	23.98	22.68	0.1854
41	30	50	532998	2664.99	DFT-s-OFDM 16 QAM	1@1	23.71	22.41	0.1742
41	30	50	532998	2664.99	DFT-s-OFDM 16 QAM	1@131	23.97	22.67	0.1849
41	30	50	532998	2664.99	DFT-s-OFDM 64 QAM	64@32	22.59	21.29	0.1346
41	30	50	532998	2664.99	DFT-s-OFDM 64 QAM	1@1	22.28	20.98	0.1253
41	30	50	532998	2664.99	DFT-s-OFDM 64 QAM	1@131	22.59	21.29	0.1346
41	30	50	532998	2664.99	DFT-s-OFDM 256 QAM	64@32	20.69	19.39	0.0869
41	30	50	532998	2664.99	DFT-s-OFDM 256 QAM	1@1	20.07	18.77	0.0753
41	30	50	532998	2664.99	DFT-s-OFDM 256 QAM	1@131	20.33	19.03	0.0800
41	30	50	532998	2664.99	CP-OFDM QPSK	67@33	23.47	22.17	0.1648
41	30	50	532998	2664.99	CP-OFDM QPSK	1@1	23.38	22.08	0.1614
41	30	50	532998	2664.99	CP-OFDM QPSK	1@131	23.59	22.29	0.1694

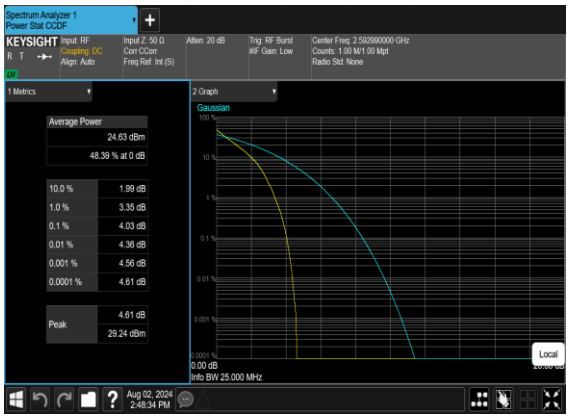
Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	-0.0071	PASS	NV
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	-0.0044	**PASS**	LV
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	-0.0036	**PASS**	HV
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	0.0025	**PASS**	-30℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	-0.0041	**PASS**	-20℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	-0.0039	**PASS**	-10℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	0.0005	**PASS**	0℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	-0.0041	**PASS**	10℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	-0.0036	**PASS**	20℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	-0.0041	**PASS**	30℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	-0.0089	**PASS**	40℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	0.0044	**PASS**	50℃

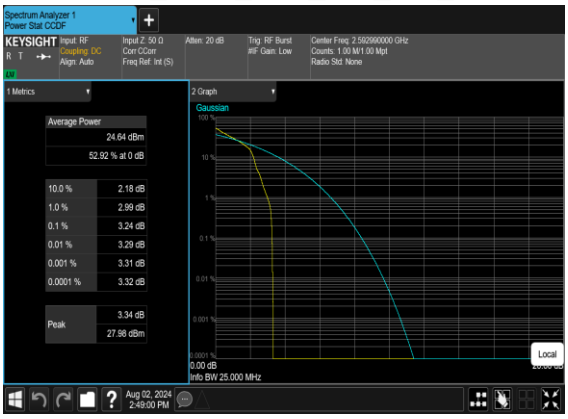
Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
41	30	20	518598	2592.99	DFT-s-OFDM PI/2 BPSK	50@0	4.03	13	**PASS**
41	30	20	518598	2592.99	DFT-s-OFDM PI/2 BPSK	1@0	3.24	13	**PASS**
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	5.12	13	**PASS**
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	1@0	4.83	13	**PASS**

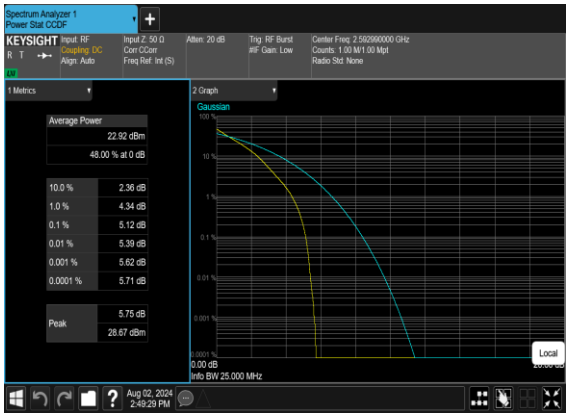
N41(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



N41(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Mid_CH



N41(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



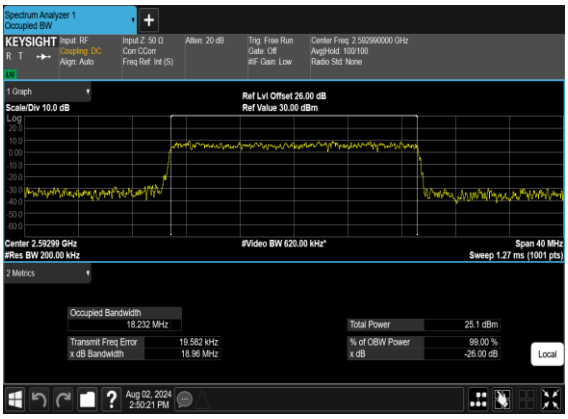
N41(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH

Occupied Bandwidth

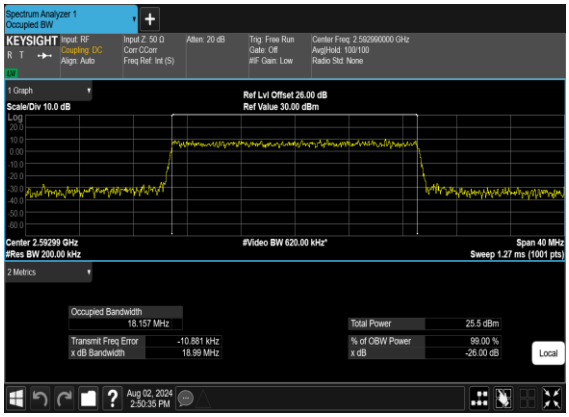
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
41	30	20	518598	2592.99	CP-OFDM QPSK	51@0	18.237	19.13
41	30	20	518598	2592.99	CP-OFDM 16 QAM	51@0	18.232	18.96
41	30	20	518598	2592.99	CP-OFDM 64 QAM	51@0	18.157	18.99
41	30	20	518598	2592.99	CP-OFDM 256 QAM	51@0	18.166	19.02
41	30	30	518598	2592.99	CP-OFDM QPSK	78@0	27.823	28.96
41	30	30	518598	2592.99	CP-OFDM 16 QAM	78@0	27.848	28.95
41	30	30	518598	2592.99	CP-OFDM 64 QAM	78@0	27.801	28.95
41	30	30	518598	2592.99	CP-OFDM 256 QAM	78@0	27.788	29.34
41	30	50	518598	2592.99	CP-OFDM QPSK	133@0	47.272	49.11
41	30	50	518598	2592.99	CP-OFDM 16 QAM	133@0	47.523	49.01
41	30	50	518598	2592.99	CP-OFDM 64 QAM	133@0	47.592	49.11
41	30	50	518598	2592.99	CP-OFDM 256 QAM	133@0	47.365	49.04

N41(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

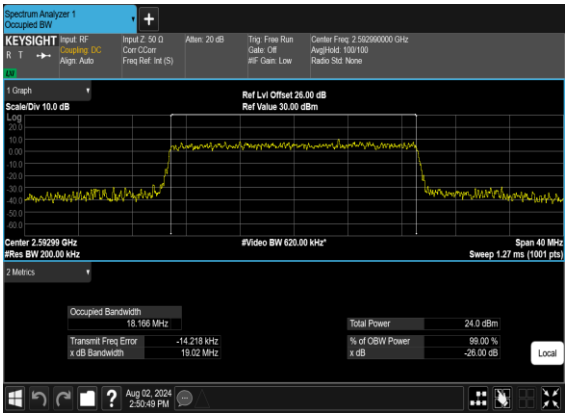
N41(20M)_CP-OFDM_16QAM_Outer_Full_Mid_CH



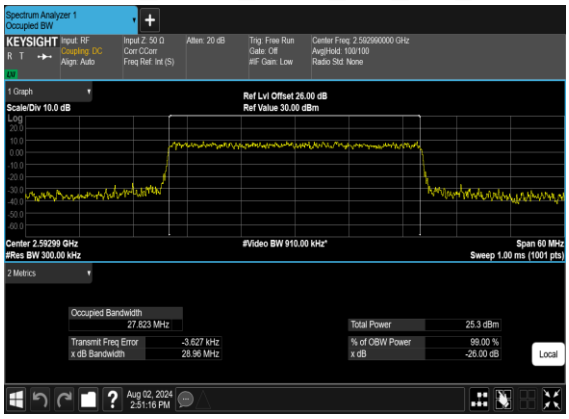
N41(20M)_CP-OFDM_64QAM_Outer_Full_Mid_CH



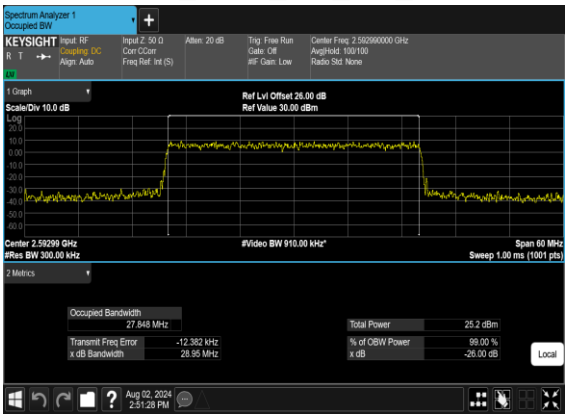
N41(20M)_CP-OFDM_256QAM_Outer_Full_Mid_CH



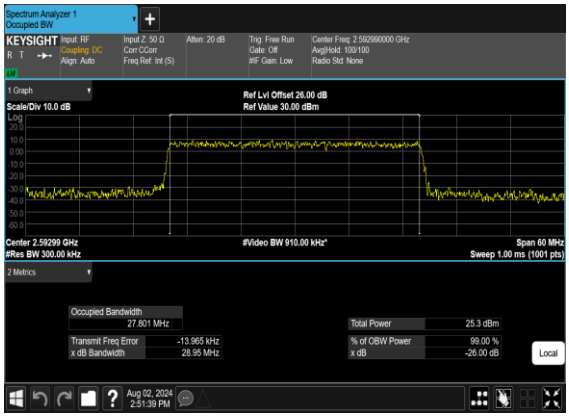
N41(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



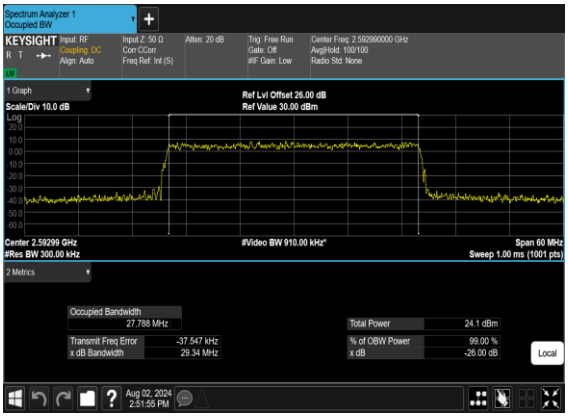
N41(30M)_CP-OFDM_16QAM_Outer_Full_Mid_CH



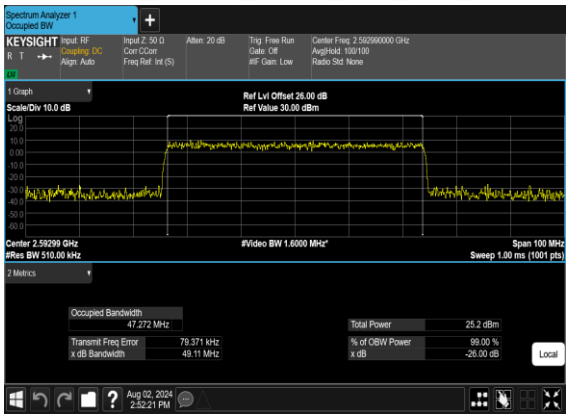
N41(30M)_CP-OFDM_64QAM_Outer_Full_Mid_CH



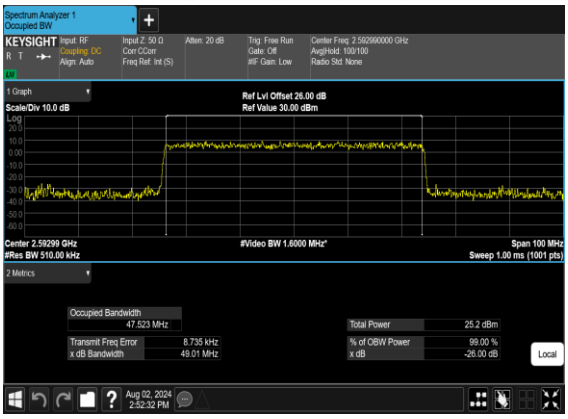
N41(30M)_CP-OFDM_256QAM_Outer_Full_Mid_CH



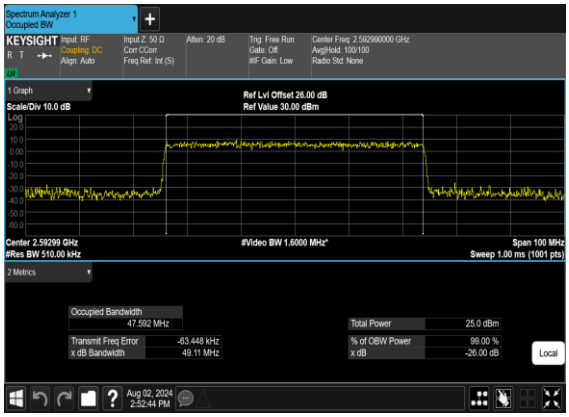
N41(50M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



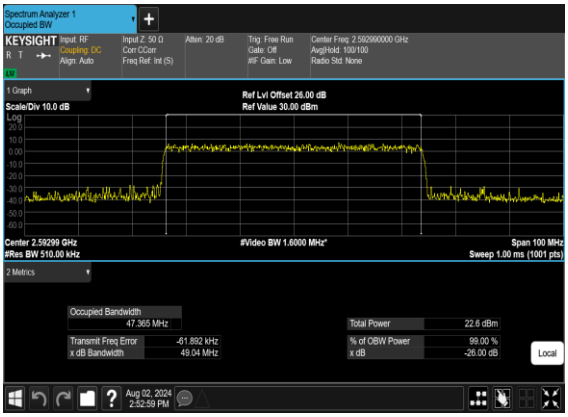
N41(50M)_CP-OFDM_16QAM_Outer_Full_Mid_CH



N41(50M)_CP-OFDM_64QAM_Outer_Full_Mid_CH



N41(50M)_CP-OFDM_256QAM_Outer_Full_Mid_CH



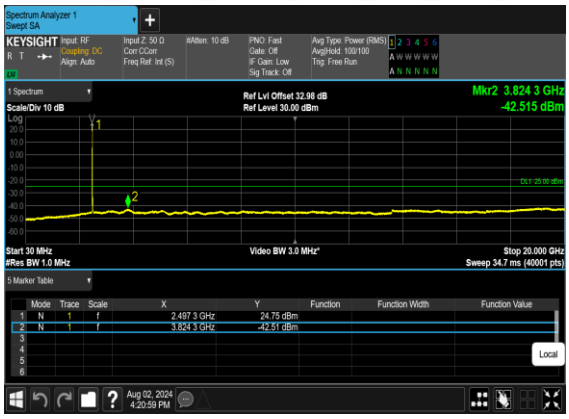
Conducted Spurious Emissions

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
41	30	20	501204	2506.02	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	20	501204	2506.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	20	501204	2506.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	20	501204	2506.02	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	20	501204	2506.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	20	501204	2506.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	20	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	20	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	20	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	20	535998	2679.99	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	20	535998	2679.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	20	535998	2679.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	20	535998	2679.99	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	20	535998	2679.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	20	535998	2679.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	30	502200	2511.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	30	502200	2511.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**

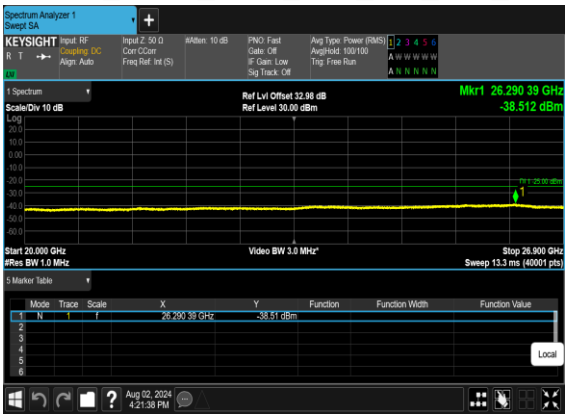
41	30	30	502200	2511.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	30	502200	2511.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	30	502200	2511.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	30	502200	2511.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	30	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	30	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	30	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	30	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	30	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	30	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	30	534996	2674.98	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	30	534996	2674.98	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	30	534996	2674.98	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	30	534996	2674.98	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	30	534996	2674.98	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	30	534996	2674.98	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	50	504204	2521.02	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	50	504204	2521.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	50	504204	2521.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	50	504204	2521.02	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	50	504204	2521.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	50	504204	2521.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	50	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**---**

41	30	50	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	50	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	50	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	50	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	50	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	50	532998	2664.99	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	50	532998	2664.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	50	532998	2664.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	50	532998	2664.99	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	50	532998	2664.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	50	532998	2664.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**

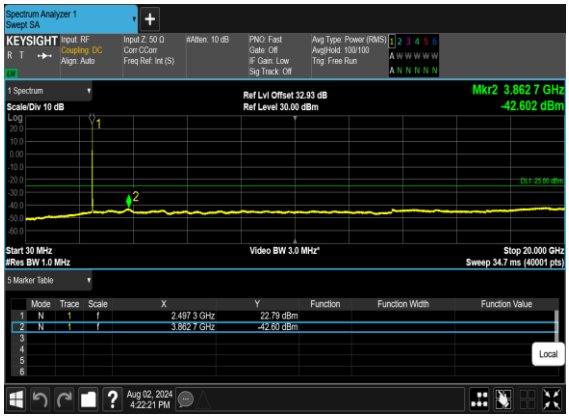
N41(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



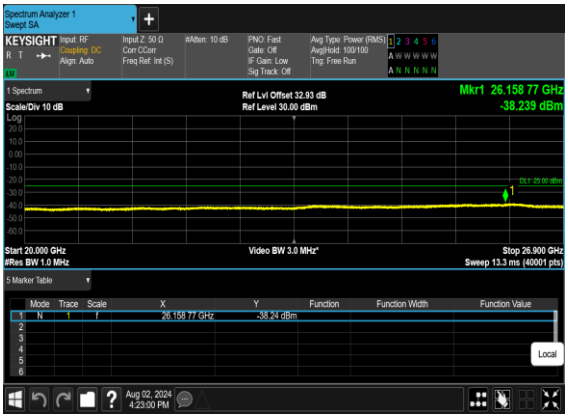
N41(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



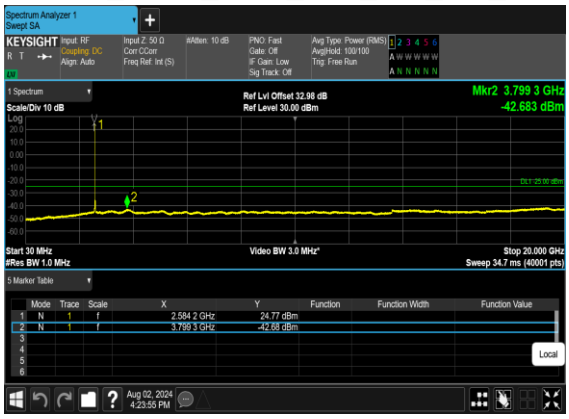
N41(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



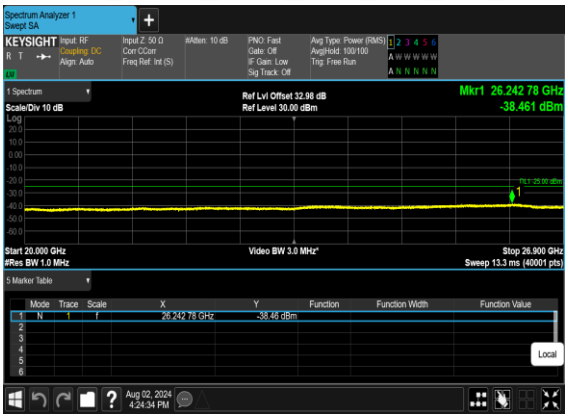
N41(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



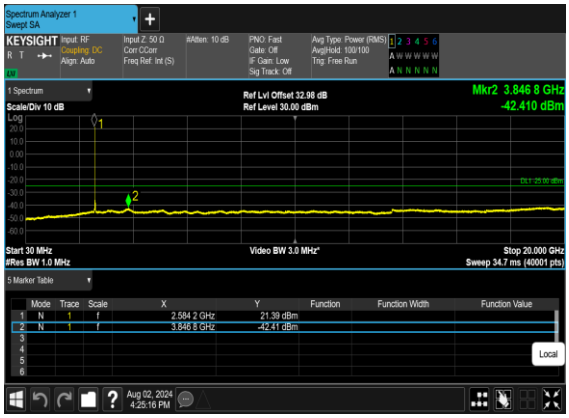
N41(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



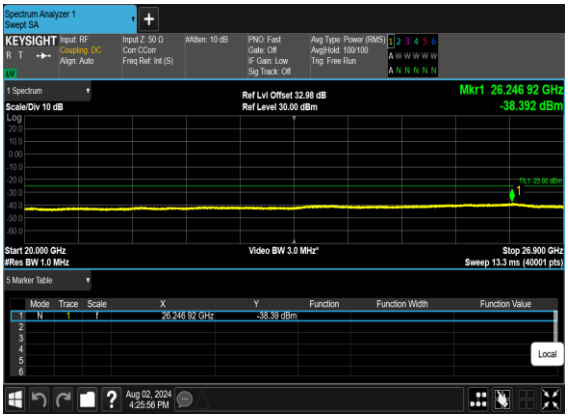
N41(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



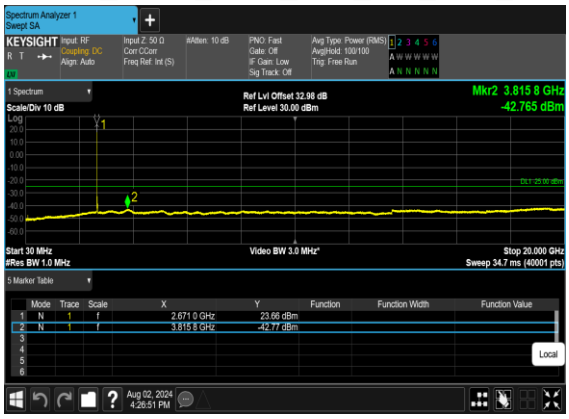
N41(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



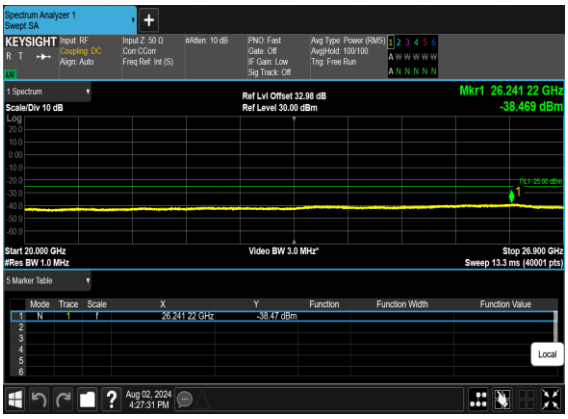
N41(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



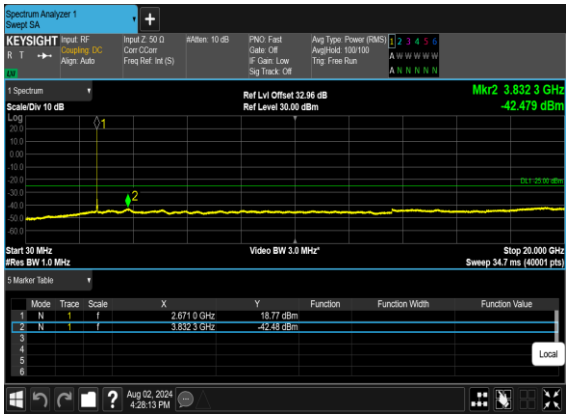
N41(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



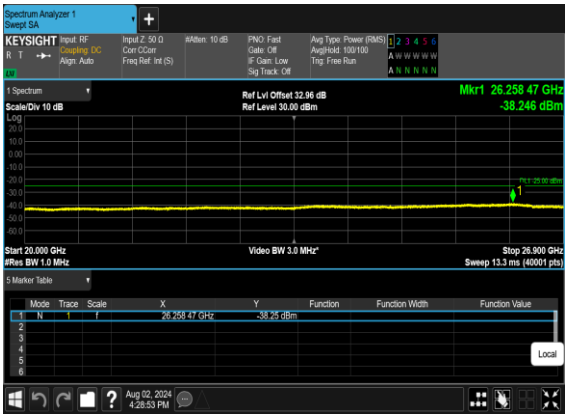
N41(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



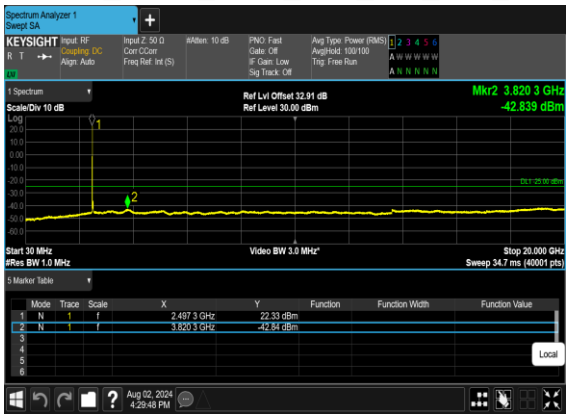
N41(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



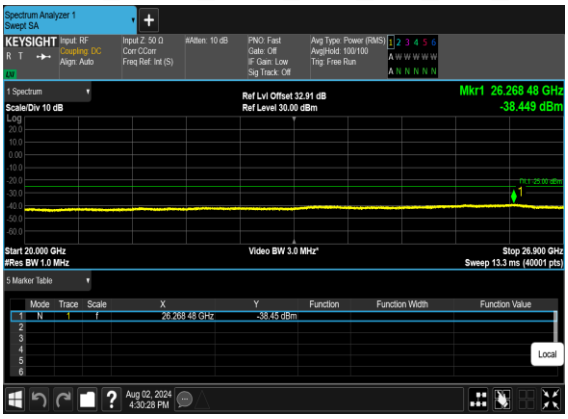
N41(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



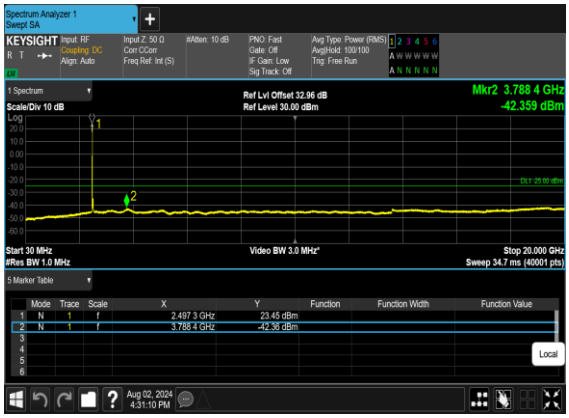
N41(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



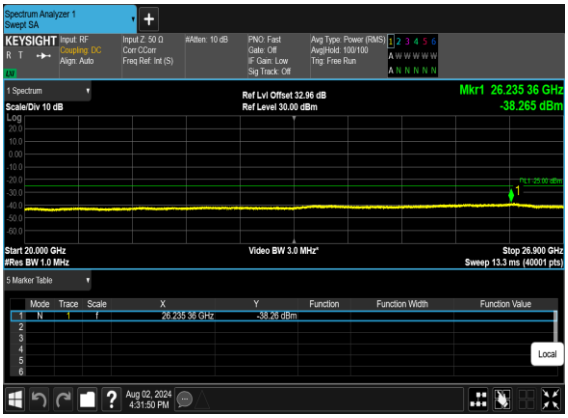
N41(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



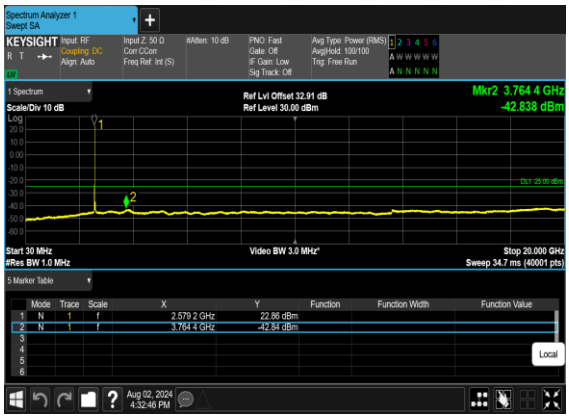
N41(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



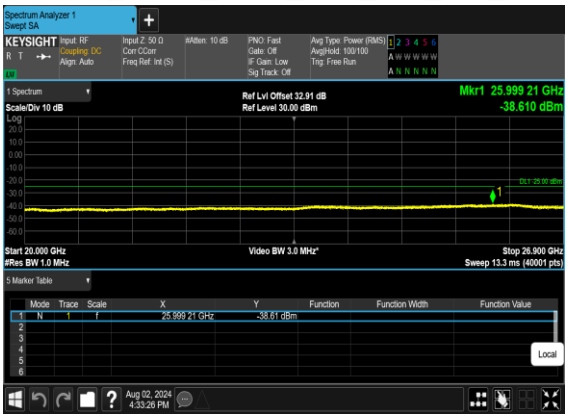
N41(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



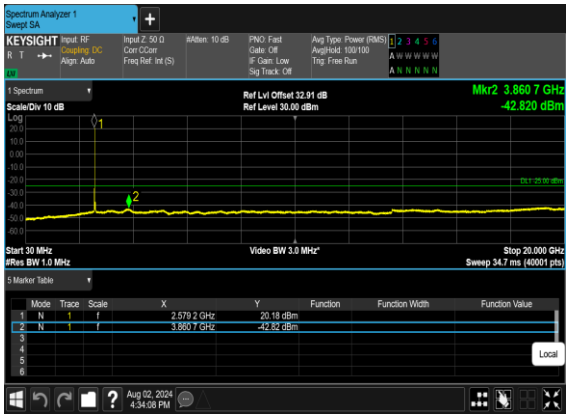
N41(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



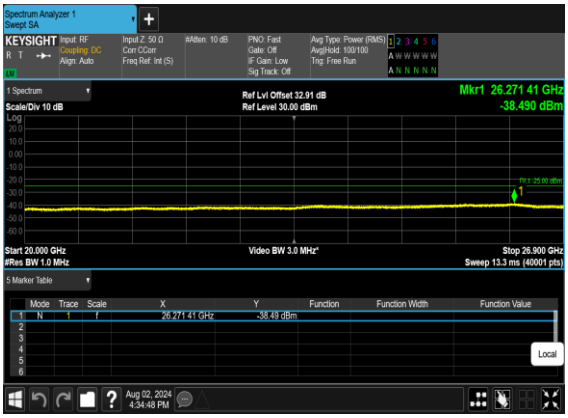
N41(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



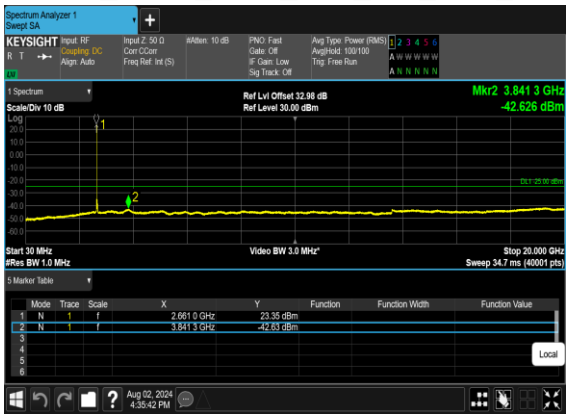
N41(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



N41(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



N41(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



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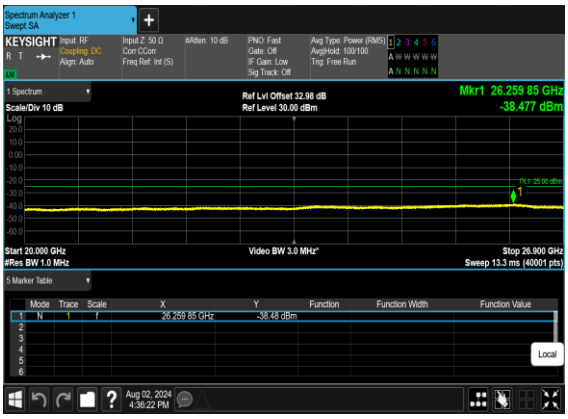

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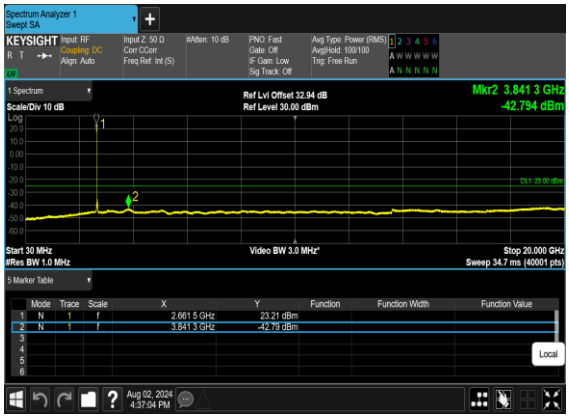

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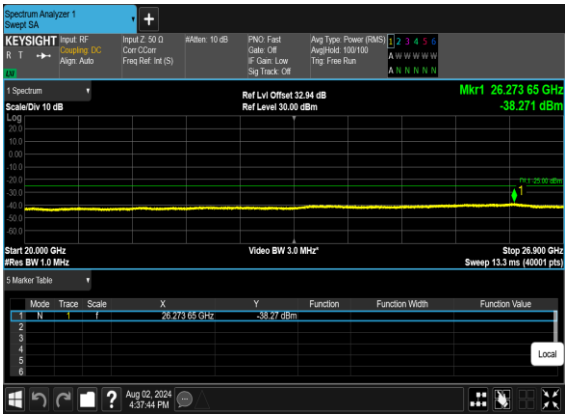
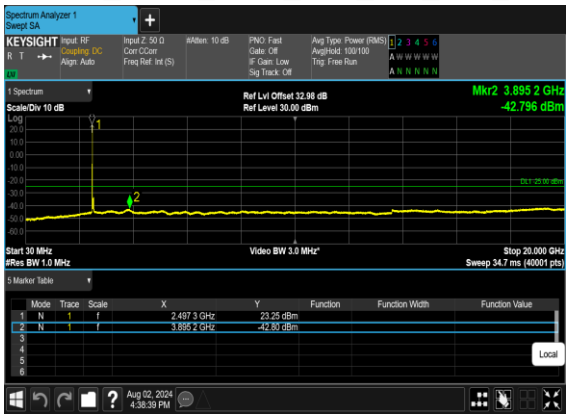
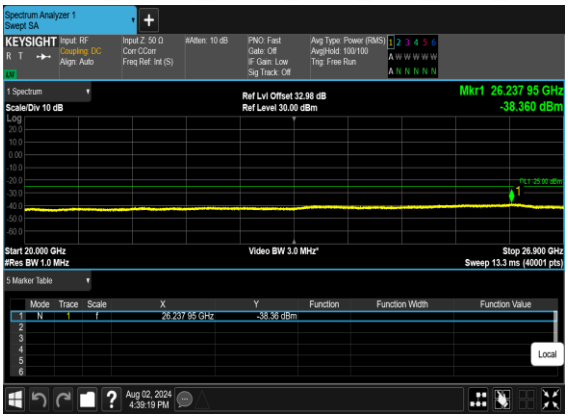


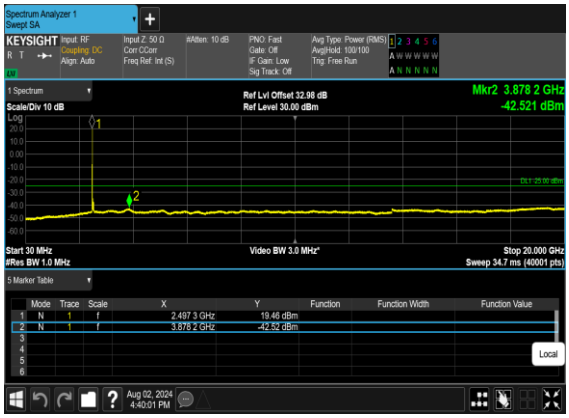
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



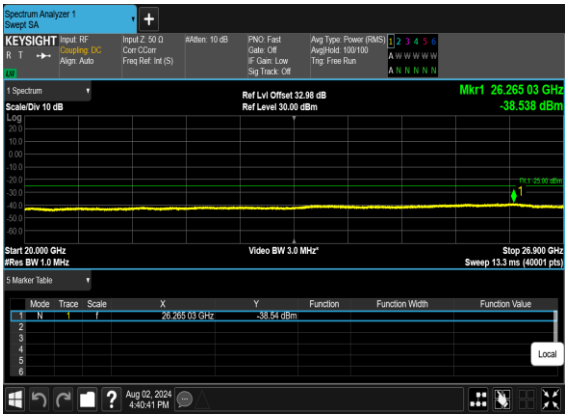
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



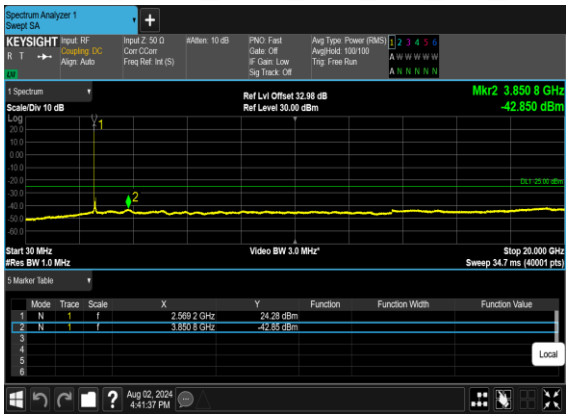
N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



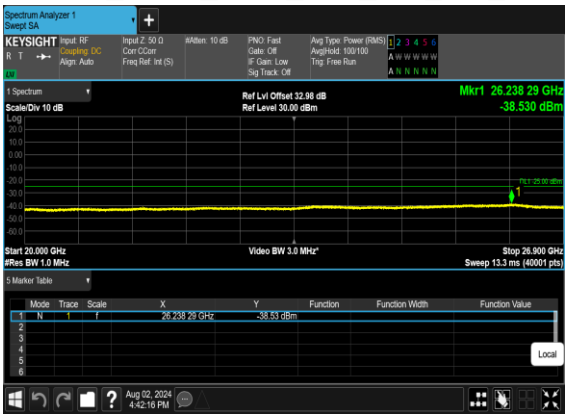
N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



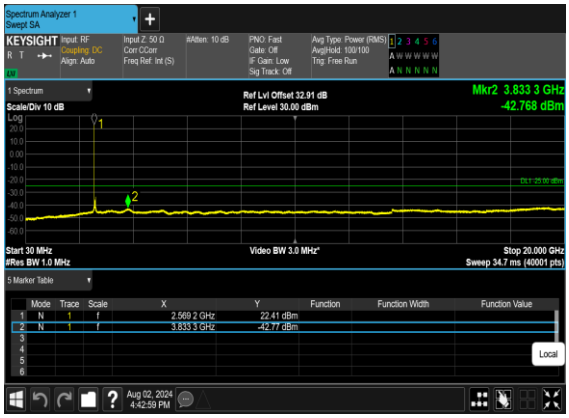
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



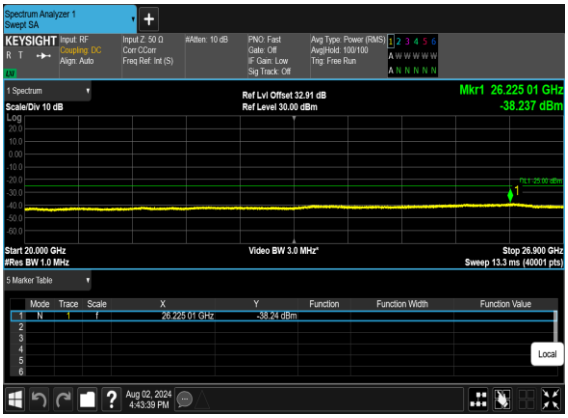
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



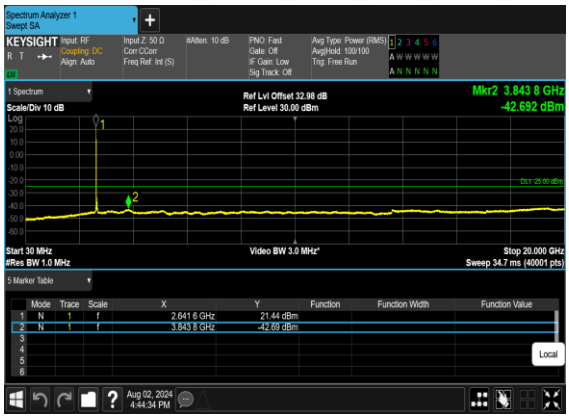
N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



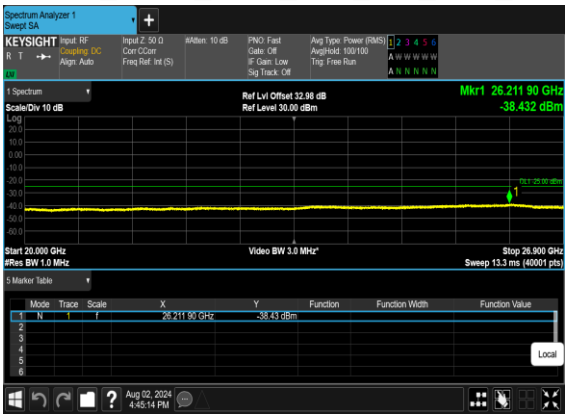
N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



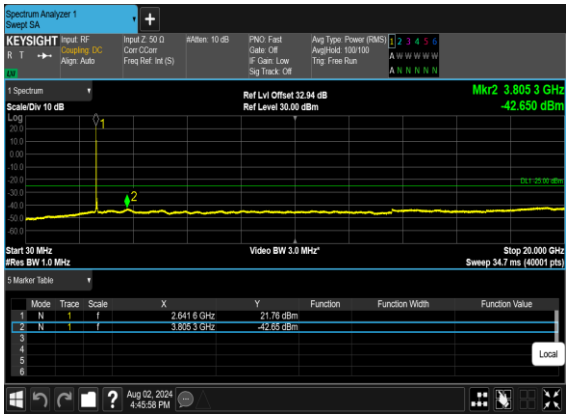
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



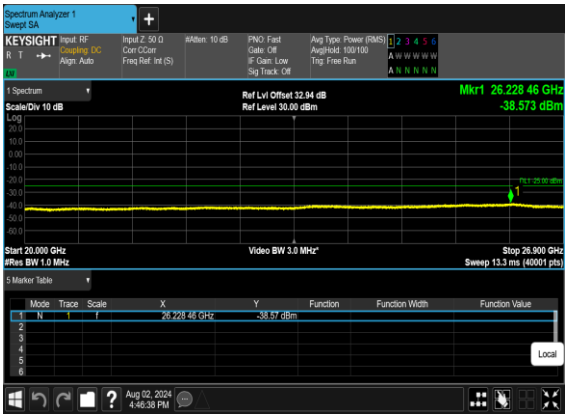
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH

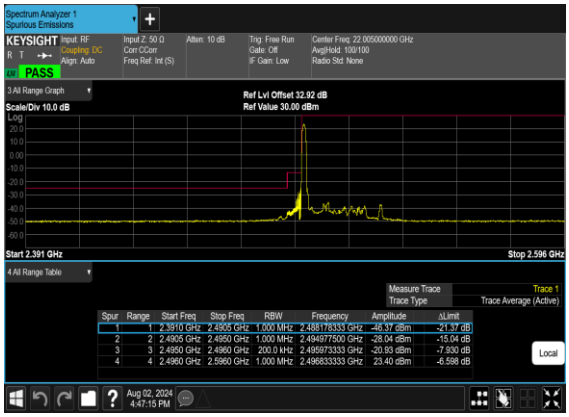


Conducted Band Edge

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
41	30	20	501204	2506.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	20	501204	2506.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	20	501204	2506.02	DFT-s-OFDM BPSK	50@0	see graph	**PASS**
41	30	20	501204	2506.02	DFT-s-OFDM QPSK	50@0	see graph	**PASS**
41	30	20	535998	2679.99	DFT-s-OFDM BPSK	1@50	see graph	**PASS**
41	30	20	535998	2679.99	DFT-s-OFDM QPSK	1@50	see graph	**PASS**
41	30	20	535998	2679.99	DFT-s-OFDM BPSK	50@0	see graph	**PASS**
41	30	20	535998	2679.99	DFT-s-OFDM QPSK	50@0	see graph	**PASS**
41	30	30	502200	2511.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	30	502200	2511.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	30	502200	2511.0	DFT-s-OFDM BPSK	75@0	see graph	**PASS**
41	30	30	502200	2511.0	DFT-s-OFDM QPSK	75@0	see graph	**PASS**
41	30	30	534996	2674.98	DFT-s-OFDM BPSK	1@77	see graph	**PASS**
41	30	30	534996	2674.98	DFT-s-OFDM QPSK	1@77	see graph	**PASS**
41	30	30	534996	2674.98	DFT-s-OFDM BPSK	75@0	see graph	**PASS**
41	30	30	534996	2674.98	DFT-s-OFDM QPSK	75@0	see graph	**PASS**
41	30	50	504204	2521.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	50	504204	2521.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	50	504204	2521.02	DFT-s-OFDM BPSK	128@0	see graph	**PASS**
41	30	50	504204	2521.02	DFT-s-OFDM QPSK	128@0	see graph	**PASS**

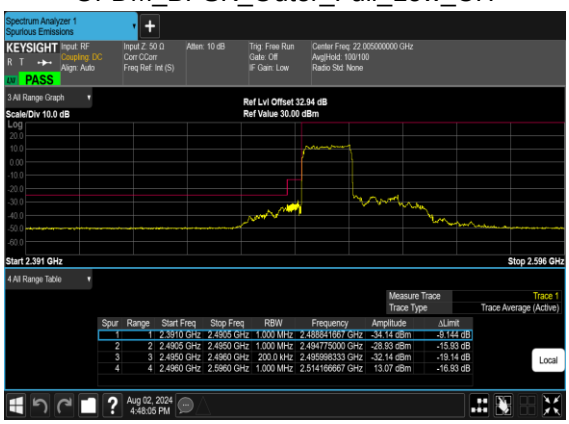
41	30	50	532998	2664.99	DFT-s-OFDM BPSK	1@132	see graph	**PASS**
41	30	50	532998	2664.99	DFT-s-OFDM QPSK	1@132	see graph	**PASS**
41	30	50	532998	2664.99	DFT-s-OFDM BPSK	128@0	see graph	**PASS**
41	30	50	532998	2664.99	DFT-s-OFDM QPSK	128@0	see graph	**PASS**

N41(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

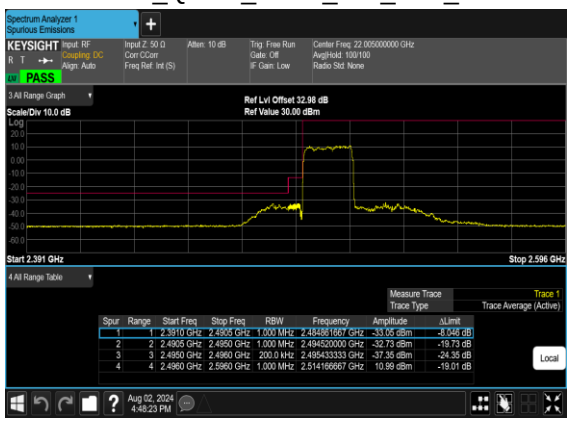


N41(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

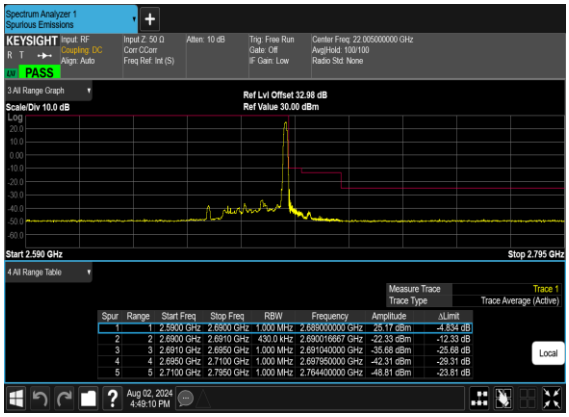
N41(20M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



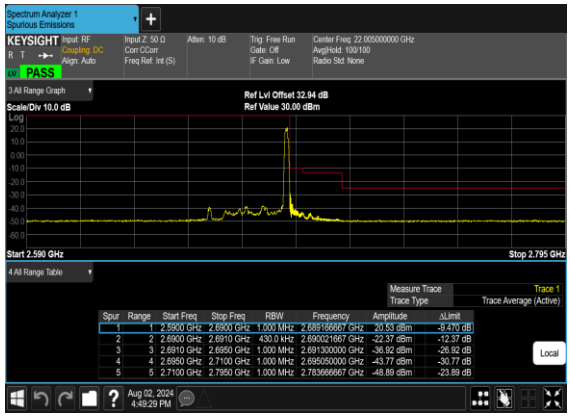
N41(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



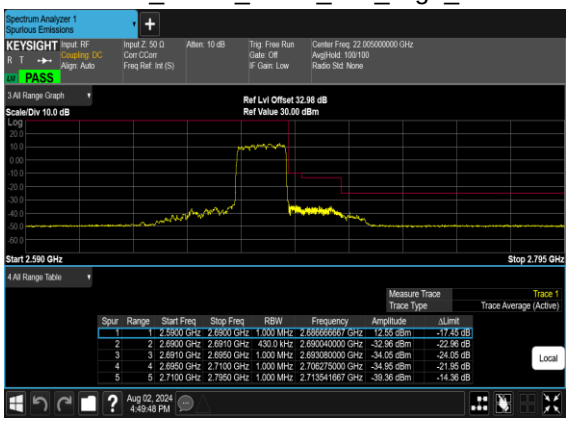
N41(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



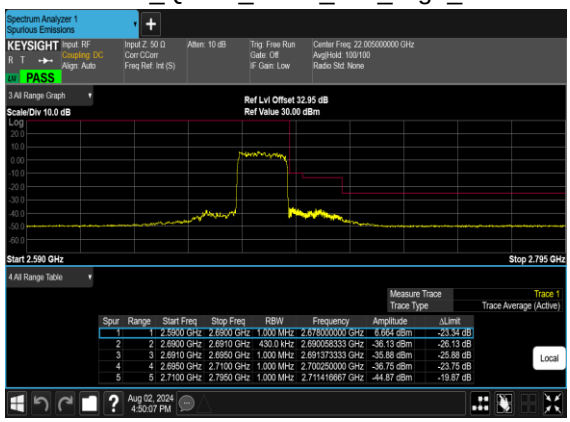
N41(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



N41(20M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH

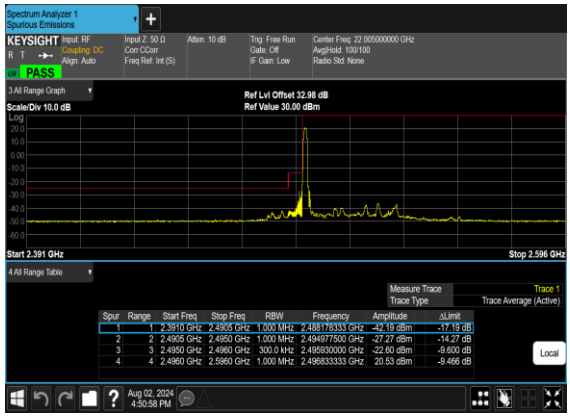


N41(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

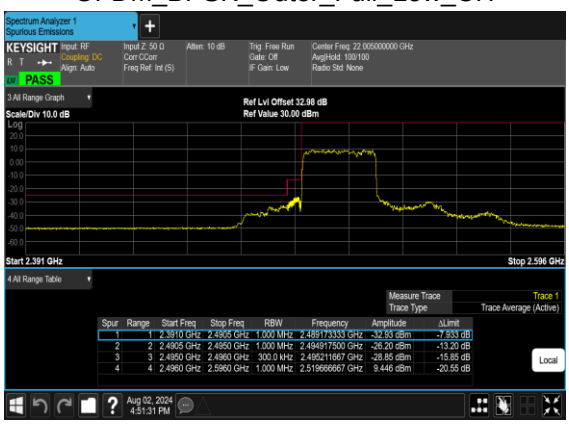


N41(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

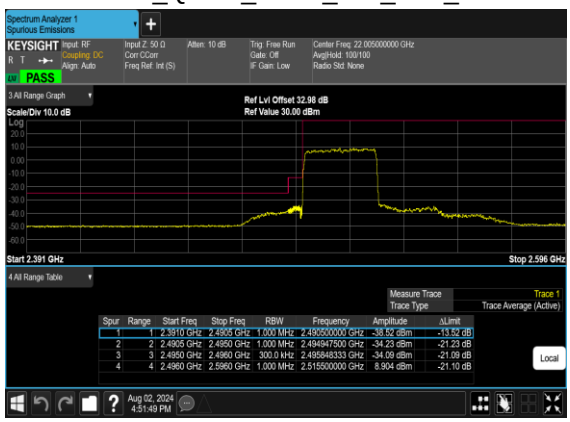
N41(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



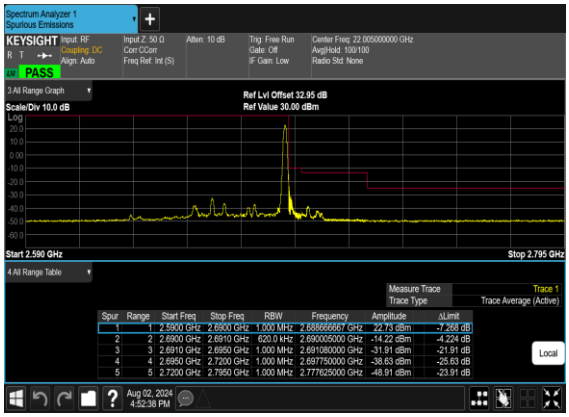
N41(30M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



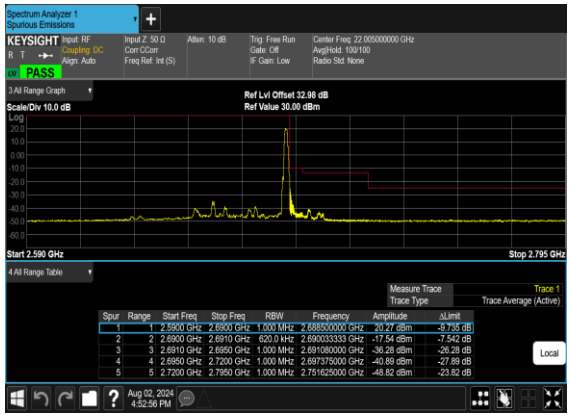
N41(30M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



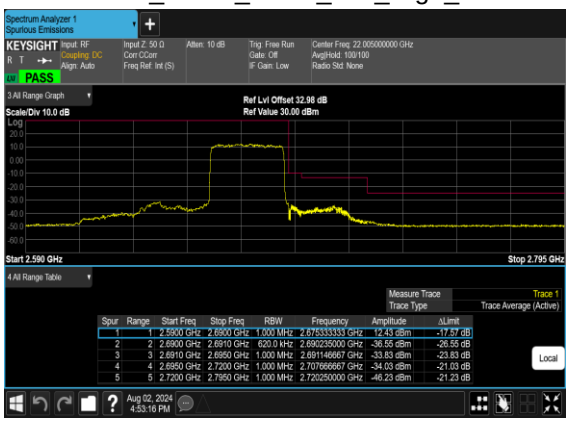
N41(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



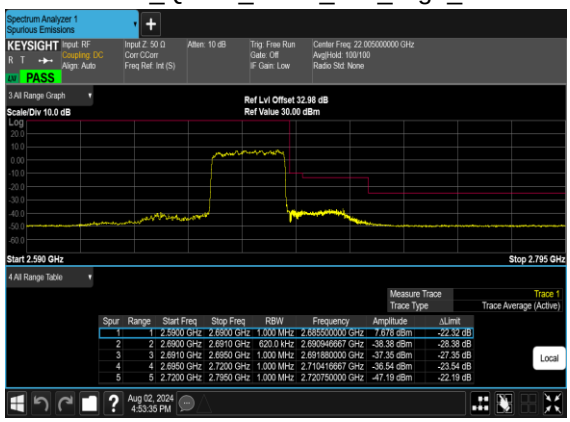
N41(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



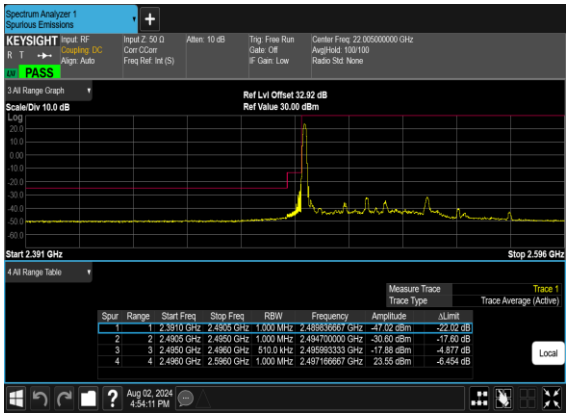
N41(30M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



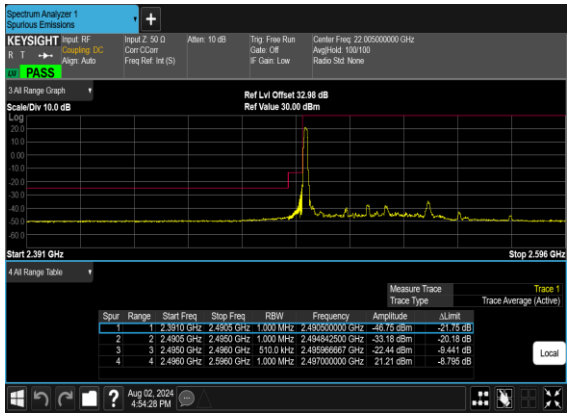
N41(30M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



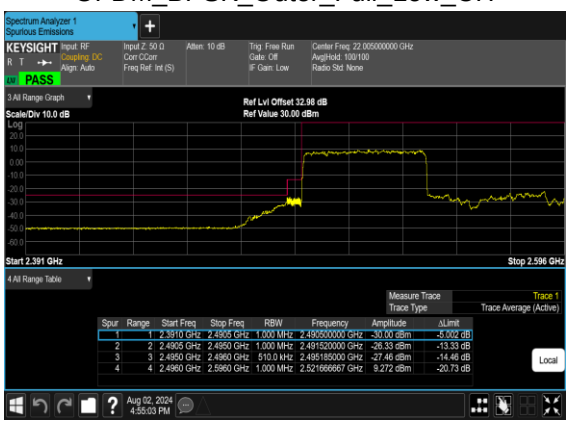
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



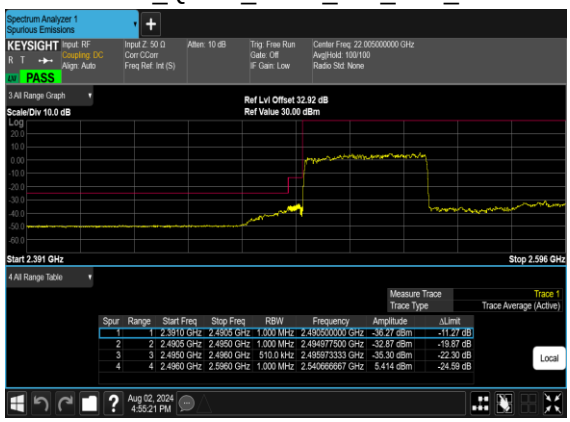
N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



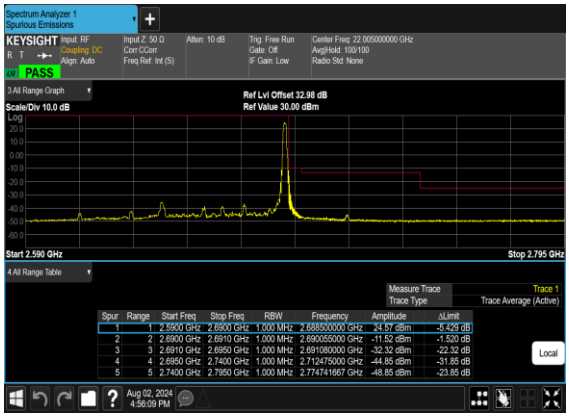
N41(50M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



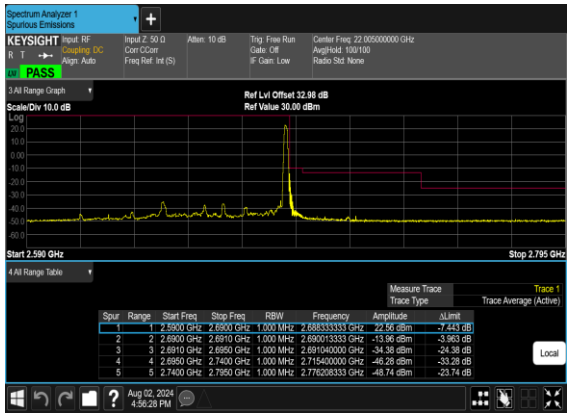
N41(50M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



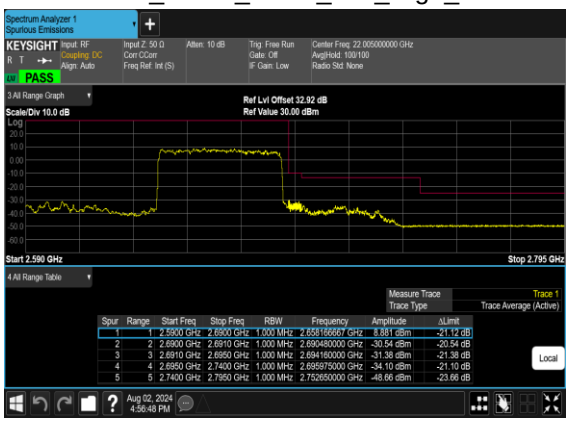
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



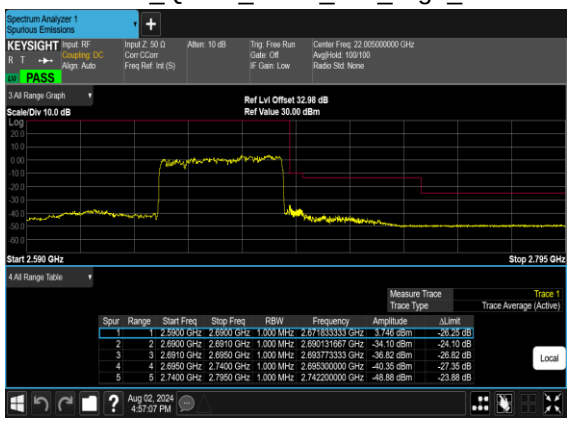
N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



N41(50M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



N41(50M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



Software Version: 23.06.1602

FR1 N77-SCS 30k

Transmitter Conducted Output Power And EIRP, (G_T - L_C)=-2.7dBi

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
77	30	20	647334	3710.01	DFT-s-OFDM PI/2 BPSK	1@1	24.64	21.94	0.1563
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@1	24.62	21.92	0.1556
77	30	20	647334	3710.01	DFT-s-OFDM 16 QAM	1@1	23.89	21.19	0.1315
77	30	20	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	24.74	22.04	0.1600
77	30	20	656000	3840	DFT-s-OFDM QPSK	1@1	24.83	22.13	0.1633
77	30	20	656000	3840	DFT-s-OFDM 16 QAM	1@1	24.06	21.36	0.1368
77	30	20	664666	3969.99	DFT-s-OFDM PI/2 BPSK	1@1	24.46	21.76	0.1500
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@1	24.59	21.89	0.1545
77	30	20	664666	3969.99	DFT-s-OFDM 16 QAM	1@1	23.77	21.07	0.1279
77	30	30	647668	3715.02	DFT-s-OFDM PI/2 BPSK	1@1	24.57	21.87	0.1538
77	30	30	647668	3715.02	DFT-s-OFDM QPSK	1@1	24.61	21.91	0.1552
77	30	30	647668	3715.02	DFT-s-OFDM 16 QAM	1@1	23.8	21.1	0.1288
77	30	30	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	24.76	22.06	0.1607
77	30	30	656000	3840	DFT-s-OFDM QPSK	1@1	24.84	22.14	0.1637
77	30	30	656000	3840	DFT-s-OFDM 16 QAM	1@1	24.01	21.31	0.1352
77	30	30	664332	3964.98	DFT-s-OFDM PI/2 BPSK	1@1	24.34	21.64	0.1459
77	30	30	664332	3964.98	DFT-s-OFDM QPSK	1@1	24.35	21.65	0.1462
77	30	30	664332	3964.98	DFT-s-OFDM 16 QAM	1@1	23.7	21	0.1259
77	30	40	648000	3720	DFT-s-OFDM PI/2 BPSK	1@1	24.52	21.82	0.1521
77	30	40	648000	3720	DFT-s-OFDM QPSK	1@1	24.59	21.89	0.1545
77	30	40	648000	3720	DFT-s-OFDM 16 QAM	1@1	23.77	21.07	0.1279
77	30	40	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	24.79	22.09	0.1618
77	30	40	656000	3840	DFT-s-OFDM QPSK	1@1	24.84	22.14	0.1637
77	30	40	656000	3840	DFT-s-OFDM 16 QAM	1@1	24.01	21.31	0.1352
77	30	40	664000	3960	DFT-s-OFDM PI/2 BPSK	1@1	24.43	21.73	0.1489
77	30	40	664000	3960	DFT-s-OFDM QPSK	1@1	24.55	21.85	0.1531
77	30	40	664000	3960	DFT-s-OFDM 16 QAM	1@1	23.64	20.94	0.1242
77	30	50	648334	3725.01	DFT-s-OFDM PI/2 BPSK	1@1	24.59	21.89	0.1545

77	30	50	648334	3725.01	DFT-s-OFDM QPSK	1@1	24.56	21.86	0.1535
77	30	50	648334	3725.01	DFT-s-OFDM 16 QAM	1@1	23.81	21.11	0.1291
77	30	50	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	24.74	22.04	0.1600
77	30	50	656000	3840	DFT-s-OFDM QPSK	1@1	24.87	22.17	0.1648
77	30	50	656000	3840	DFT-s-OFDM 16 QAM	1@1	23.97	21.27	0.1340
77	30	50	663666	3954.99	DFT-s-OFDM PI/2 BPSK	1@1	24.35	21.65	0.1462
77	30	50	663666	3954.99	DFT-s-OFDM QPSK	1@1	24.43	21.73	0.1489
77	30	50	663666	3954.99	DFT-s-OFDM 16 QAM	1@1	23.58	20.88	0.1225
77	30	60	648668	3730.02	DFT-s-OFDM PI/2 BPSK	1@1	24.5	21.8	0.1514
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@1	24.57	21.87	0.1538
77	30	60	648668	3730.02	DFT-s-OFDM 16 QAM	1@1	23.73	21.03	0.1268
77	30	60	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	24.74	22.04	0.1600
77	30	60	656000	3840	DFT-s-OFDM QPSK	1@1	24.85	22.15	0.1641
77	30	60	656000	3840	DFT-s-OFDM 16 QAM	1@1	23.99	21.29	0.1346
77	30	60	663332	3949.98	DFT-s-OFDM PI/2 BPSK	1@1	24.41	21.71	0.1483
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@1	24.47	21.77	0.1503
77	30	60	663332	3949.98	DFT-s-OFDM 16 QAM	1@1	23.6	20.9	0.1230
77	30	80	649334	3740.01	DFT-s-OFDM PI/2 BPSK	1@1	24.74	22.04	0.1600
77	30	80	649334	3740.01	DFT-s-OFDM QPSK	1@1	24.8	22.1	0.1622
77	30	80	649334	3740.01	DFT-s-OFDM 16 QAM	1@1	23.92	21.22	0.1324
77	30	80	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	24.99	22.29	0.1694
77	30	80	656000	3840	DFT-s-OFDM QPSK	1@1	24.97	22.27	0.1687
77	30	80	656000	3840	DFT-s-OFDM 16 QAM	1@1	24.2	21.5	0.1413
77	30	80	662666	3939.99	DFT-s-OFDM PI/2 BPSK	1@1	24.47	21.77	0.1503
77	30	80	662666	3939.99	DFT-s-OFDM QPSK	1@1	24.5	21.8	0.1514
77	30	80	662666	3939.99	DFT-s-OFDM 16 QAM	1@1	23.74	21.04	0.1271
77	30	90	649668	3745.02	DFT-s-OFDM PI/2 BPSK	1@1	25.33	22.63	0.1832
77	30	90	649668	3745.02	DFT-s-OFDM QPSK	1@1	25.51	22.81	0.1910
77	30	90	649668	3745.02	DFT-s-OFDM 16 QAM	1@1	25.21	22.51	0.1782
77	30	90	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	24.97	22.27	0.1687
77	30	90	656000	3840	DFT-s-OFDM QPSK	1@1	24.96	22.26	0.1683
77	30	90	656000	3840	DFT-s-OFDM 16 QAM	1@1	24.28	21.58	0.1439
77	30	90	662332	3934.98	DFT-s-OFDM PI/2 BPSK	1@1	24.55	21.85	0.1531
77	30	90	662332	3934.98	DFT-s-OFDM QPSK	1@1	24.63	21.93	0.1560

77	30	90	662332	3934.98	DFT-s-OFDM 16 QAM	1@1	23.74	21.04	0.1271
77	30	100	650000	3750	DFT-s-OFDM PI/2 BPSK	135@67	24.8	22.1	0.1622
77	30	100	650000	3750	DFT-s-OFDM PI/2 BPSK	1@1	25.16	22.46	0.1762
77	30	100	650000	3750	DFT-s-OFDM PI/2 BPSK	1@271	25.19	22.49	0.1774
77	30	100	650000	3750	DFT-s-OFDM QPSK	135@67	24.85	22.15	0.1641
77	30	100	650000	3750	DFT-s-OFDM QPSK	1@1	25.16	22.46	0.1762
77	30	100	650000	3750	DFT-s-OFDM QPSK	1@271	25.55	22.85	0.1928
77	30	100	650000	3750	DFT-s-OFDM 16 QAM	135@67	23.85	21.15	0.1303
77	30	100	650000	3750	DFT-s-OFDM 16 QAM	1@1	24.41	21.71	0.1483
77	30	100	650000	3750	DFT-s-OFDM 16 QAM	1@271	24.51	21.81	0.1517
77	30	100	650000	3750	DFT-s-OFDM 64 QAM	135@67	22.39	19.69	0.0931
77	30	100	650000	3750	DFT-s-OFDM 64 QAM	1@1	22.41	19.71	0.0935
77	30	100	650000	3750	DFT-s-OFDM 64 QAM	1@271	22.49	19.79	0.0953
77	30	100	650000	3750	DFT-s-OFDM 256 QAM	135@67	20.36	17.66	0.0583
77	30	100	650000	3750	DFT-s-OFDM 256 QAM	1@1	20.41	17.71	0.0590
77	30	100	650000	3750	DFT-s-OFDM 256 QAM	1@271	20.55	17.85	0.0610
77	30	100	650000	3750	CP-OFDM QPSK	137@68	23.36	20.66	0.1164
77	30	100	650000	3750	CP-OFDM QPSK	1@1	23.7	21	0.1259
77	30	100	650000	3750	CP-OFDM QPSK	1@271	23.79	21.09	0.1285
77	30	100	656000	3840	DFT-s-OFDM PI/2 BPSK	135@67	24.85	22.15	0.1641
77	30	100	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	24.97	22.27	0.1687
77	30	100	656000	3840	DFT-s-OFDM PI/2 BPSK	1@271	24.64	21.94	0.1563
77	30	100	656000	3840	DFT-s-OFDM QPSK	135@67	24.83	22.13	0.1633
77	30	100	656000	3840	DFT-s-OFDM QPSK	1@1	24.96	22.26	0.1683
77	30	100	656000	3840	DFT-s-OFDM QPSK	1@271	24.61	21.91	0.1552
77	30	100	656000	3840	DFT-s-OFDM 16 QAM	135@67	23.86	21.16	0.1306
77	30	100	656000	3840	DFT-s-OFDM 16 QAM	1@1	24.24	21.54	0.1426
77	30	100	656000	3840	DFT-s-OFDM 16 QAM	1@271	23.88	21.18	0.1312
77	30	100	656000	3840	DFT-s-OFDM 64 QAM	135@67	22.42	19.72	0.0938
77	30	100	656000	3840	DFT-s-OFDM 64 QAM	1@1	22.26	19.56	0.0904
77	30	100	656000	3840	DFT-s-OFDM 64 QAM	1@271	21.96	19.26	0.0843
77	30	100	656000	3840	DFT-s-OFDM 256 QAM	135@67	20.4	17.7	0.0589
77	30	100	656000	3840	DFT-s-OFDM 256 QAM	1@1	20.26	17.56	0.0570
77	30	100	656000	3840	DFT-s-OFDM 256	1@271	20.02	17.32	0.0540

					QAM				
77	30	100	656000	3840	CP-OFDM QPSK	137@68	23.29	20.59	0.1146
77	30	100	656000	3840	CP-OFDM QPSK	1@1	23.48	20.78	0.1197
77	30	100	656000	3840	CP-OFDM QPSK	1@271	23.67	20.97	0.1250
77	30	100	662000	3930	DFT-s-OFDM PI/2 BPSK	135@67	24.7	22	0.1585
77	30	100	662000	3930	DFT-s-OFDM PI/2 BPSK	1@1	24.64	21.94	0.1563
77	30	100	662000	3930	DFT-s-OFDM PI/2 BPSK	1@271	24.87	22.17	0.1648
77	30	100	662000	3930	DFT-s-OFDM QPSK	135@67	24.71	22.01	0.1589
77	30	100	662000	3930	DFT-s-OFDM QPSK	1@1	24.71	22.01	0.1589
77	30	100	662000	3930	DFT-s-OFDM QPSK	1@271	24.95	22.25	0.1679
77	30	100	662000	3930	DFT-s-OFDM 16 QAM	135@67	23.71	21.01	0.1262
77	30	100	662000	3930	DFT-s-OFDM 16 QAM	1@1	23.89	21.19	0.1315
77	30	100	662000	3930	DFT-s-OFDM 16 QAM	1@271	24.12	21.42	0.1387
77	30	100	662000	3930	DFT-s-OFDM 64 QAM	135@67	22.2	19.5	0.0891
77	30	100	662000	3930	DFT-s-OFDM 64 QAM	1@1	21.96	19.26	0.0843
77	30	100	662000	3930	DFT-s-OFDM 64 QAM	1@271	22.09	19.39	0.0869
77	30	100	662000	3930	DFT-s-OFDM 256 QAM	135@67	20.18	17.48	0.0560
77	30	100	662000	3930	DFT-s-OFDM 256 QAM	1@1	19.97	17.27	0.0533
77	30	100	662000	3930	DFT-s-OFDM 256 QAM	1@271	20.13	17.43	0.0553
77	30	100	662000	3930	CP-OFDM QPSK	137@68	23.16	20.46	0.1112
77	30	100	662000	3930	CP-OFDM QPSK	1@1	23.2	20.5	0.1122
77	30	100	662000	3930	CP-OFDM QPSK	1@271	23.92	21.22	0.1324

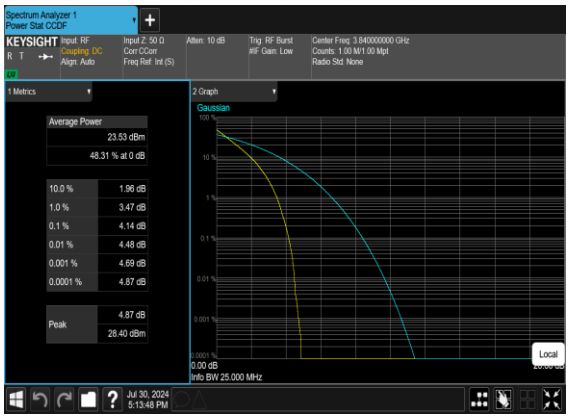
Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	-0.0025	**PASS**	NV
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	-0.0049	**PASS**	LV
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.0033	**PASS**	HV
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.0052	**PASS**	-30℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	-0.0067	**PASS**	-20℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.0034	**PASS**	-10℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.0028	**PASS**	0℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	-0.0039	**PASS**	10℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	-0.0022	**PASS**	20℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	-0.0041	**PASS**	30℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	-0.0058	**PASS**	40℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.0032	**PASS**	50℃

Peak to Average Ratio

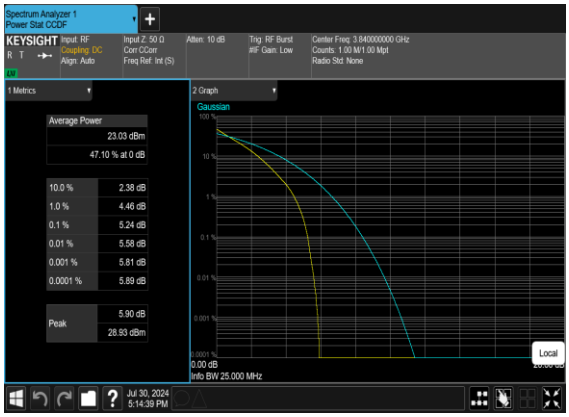
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
77	30	20	656000	3840.0	DFT-s-OFDM PI/2 BPSK	50@0	4.14	13	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM PI/2 BPSK	1@0	3.55	13	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	5.24	13	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	1@0	4.42	13	**PASS**

N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



N77(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Mid_CH

N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



N77(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)
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	18.137	19.02
77	30	20	656000	3840.0	CP-OFDM 16 QAM	51@0	18.256	19.05
77	30	20	656000	3840.0	CP-OFDM 64 QAM	51@0	18.173	19.0
77	30	20	656000	3840.0	CP-OFDM 256 QAM	51@0	18.197	19.31
77	30	30	656000	3840.0	CP-OFDM QPSK	78@0	27.844	28.79
77	30	30	656000	3840.0	CP-OFDM 16 QAM	78@0	27.727	29.04
77	30	30	656000	3840.0	CP-OFDM 64 QAM	78@0	27.729	28.92
77	30	30	656000	3840.0	CP-OFDM 256 QAM	78@0	27.841	29.02
77	30	40	656000	3840.0	CP-OFDM QPSK	106@0	37.841	39.69
77	30	40	656000	3840.0	CP-OFDM 16 QAM	106@0	37.852	40.15
77	30	40	656000	3840.0	CP-OFDM 64 QAM	106@0	37.84	39.21
77	30	40	656000	3840.0	CP-OFDM 256 QAM	106@0	37.828	40.95
77	30	50	656000	3840.0	CP-OFDM QPSK	133@0	47.402	48.98
77	30	50	656000	3840.0	CP-OFDM 16 QAM	133@0	47.448	49.01
77	30	50	656000	3840.0	CP-OFDM 64 QAM	133@0	47.474	50.58
77	30	50	656000	3840.0	CP-OFDM 256 QAM	133@0	47.427	49.05
77	30	60	656000	3840.0	CP-OFDM QPSK	162@0	57.814	59.73
77	30	60	656000	3840.0	CP-OFDM 16 QAM	162@0	57.7	59.71
77	30	60	656000	3840.0	CP-OFDM 64 QAM	162@0	57.753	59.63
77	30	60	656000	3840.0	CP-OFDM 256 QAM	162@0	57.719	59.67
77	30	80	656000	3840.0	CP-OFDM QPSK	217@0	77.329	79.92
77	30	80	656000	3840.0	CP-OFDM 16 QAM	217@0	77.468	79.85
77	30	80	656000	3840.0	CP-OFDM 64 QAM	217@0	77.548	79.88

77	30	80	656000	3840.0	CP-OFDM 256 QAM	217@0	77.654	80.16
77	30	90	656000	3840.0	CP-OFDM QPSK	245@0	87.39	90.26
77	30	90	656000	3840.0	CP-OFDM 16 QAM	245@0	87.404	90.17
77	30	90	656000	3840.0	CP-OFDM 64 QAM	245@0	87.41	90.23
77	30	90	656000	3840.0	CP-OFDM 256 QAM	245@0	87.226	90.14
77	30	100	656000	3840.0	CP-OFDM QPSK	273@0	97.424	100.4
77	30	100	656000	3840.0	CP-OFDM 16 QAM	273@0	97.408	101.6
77	30	100	656000	3840.0	CP-OFDM 64 QAM	273@0	97.421	100.5
77	30	100	656000	3840.0	CP-OFDM 256 QAM	273@0	97.229	100.4