FCC RF Test Report

APPLICANT	: TCL Communication Ltd.
EQUIPMENT	: USB Connect 5G (NA)
BRAND NAME	: Vodafone
MODEL NAME	: IK512US
FCC ID	: 2ACCJSCD002
STANDARD	: 47 CFR Part 27
CLASSIFICATION	: PCS Licensed Transmitter (PCB)
TEST DATE(S)	: Jul. 12, 2024 ~ Aug. 06, 2024

We, Sporton International Inc. (ShenZhen), 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.

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

Jason Jia

Approved by: Jason Jia

ACCREDITED Cert #5145.01

Sporton International Inc. (ShenZhen)

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People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG450613J	Rev. 01	Initial issue of report	Aug. 16, 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, n38)	EIRP < 2Watt		
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (5G NR n66, n70)	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(h)	Conducted Band Edge Measurement (5G NR n66, n70)	< 43+10log10(P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (5G NR n41, n38)	§27.53(m)(4)		
3.8	§2.1051 §27.53(h)	Conducted Spurious Emission (5G NR n66, n70)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (5G NR n41, n38)	< 55+10log$_{10}$(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(h)	Radiated Spurious Emission (5G NR n66, n70)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 14.91 dB at 9222.00 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (5G NR n41, n38)	< 55+10log$_{10}$(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

TCL Communication Ltd.
5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong

1.2 Manufacturer

Vodafone Procurement Company S.à.r.l.
15 rue Edward Steichen, L-2540 Luxembourg, Grand-Duché de Luxembourg

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	USB Connect 5G (NA)
Brand Name	Vodafone
Model Name	IK512US
FCC ID	2ACCJSCD002
IMEI Code	Conducted : 352912230200263 Radiation : 352912230200271
HW Version	V3.0
SW Version	IK512US_ZZ_01.00_04
EUT Stage	Production Unit

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n70 : 1695 MHz ~ 1710 MHz
Rx Frequency	5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 2110 MHz~ 2200 MHz 5G NR n70 : 1995 MHz ~ 2020 MHz
Bandwidth	n38 : 10MHz / 15MHz / 20MHz / 30MHz / 40MHz n41 : 10MHz / 15MHz / 20MHz / 30MHz / 40MHz / 50MHz / 60MHz / 70MHz / 80MHz / 90MHz / 100MHz n66 : 5MHz / 10MHz / 15MHz / 20MHz / 25MHz / 30MHz / 35MHz / 40MHz n70: 5MHz / 10MHz / 15MHz
SCS	15kHz for FDD Bands, 30kHz for TDD Bands
Antenna Gain	**<Ant. 1>:** n66: 4.00 dBi n70: 3.98 dBi **<Ant. 2>:**

	n38: 1.68 dBi n41: 2.67 dBi n66: 2.96 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 of ANT 1 for n66/n70, and ANT 2 for n38/n41are shown in the report.
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 n38/n70 only support SA mode, and n41/n66 support SA & NSA mode. According to the maximum power between SA and NSA mode, SA covers NSA mode.
4. 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 n38		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)**
10	2575.0 ~ 2615.0	0.2786	8M58G7D	0.2312	8M58W7D
15	2577.5 ~ 2612.5	0.2931	13M6G7D	0.2399	13M6W7D
20	2580.0 ~ 2610.0	0.2891	18M2G7D	0.2360	18M3W7D
30	2585.0 ~ 2605.0	0.2951	27M8G7D	0.2393	27M9W7D
40	2590.0 ~ 2600.0	0.3048	37M9G7D	0.2455	37M9W7D
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)**
10	2501.01 ~ 2685.00	0.6683	8M58G7D	0.5358	8M58W7D
15	2503.50 ~ 2682.48	0.6966	13M6G7D	0.5610	13M6W7D
20	2506.02 ~ 2679.99	0.6918	18M2G7D	0.5702	18M3W7D
30	2511.00 ~ 2674.98	0.6839	27M8G7D	0.5808	27M9W7D
40	2516.01 ~ 2670.00	0.6998	37M9G7D	0.5834	37M9W7D
50	2521.02 ~ 2664.99	0.7015	47M4G7D	0.5821	47M5W7D
60	2526.00 ~ 2659.98	0.6887	57M9G7D	0.5702	58M0W7D
70	2531.01 ~ 2655.00	0.6442	67M6G7D	0.5346	67M8W7D
80	2536.02 ~ 2649.99	0.6442	77M7G7D	0.5309	77M6W7D
90	2541.00 ~ 2644.98	0.6427	87M6G7D	0.5370	87M6W7D
100	2546.01 ~ 2640.00	0.7047	97M7G7D	0.5521	97M8W7D

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	0.4842	4M48G7D	0.3828	4M49W7D
10	1715.0 ~ 1775.0	0.4764	9M29G7D	0.3828	9M29W7D
15	1717.5 ~ 1772.5	0.4898	14M1G7D	0.4009	14M1W7D
20	1720.0 ~ 1770.0	0.4989	18M9G7D	0.3936	18M9W7D
25	1722.5 ~ 1767.5	0.5152	23M8G7D	0.4121	23M8W7D
30	1725.0 ~ 1765.0	0.4846	28M5G7D	0.3899	28M6W7D
35	1727.5 ~ 1762.5	0.4909	33M5G7D	0.4027	33M6W7D
40	1730.0 ~ 1760.0	0.5164	38M5G7D	0.4121	38M5W7D
5G NR n70		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	1697.5 ~ 1707.5	0.4571	4M47G7D	0.3698	4M49W7D
10	1700.0 ~ 1705.0	0.4688	9M28G7D	0.3776	9M30W7D
15	1702.5	0.4753	14M1G7D	0.3802	14M1W7D

Note:

1. 5G NR n41 overlaps the entire frequency range of 5G NR n38. Therefore, the test results provided in this report covers 5G NR n41 as well as 5G NR n38.
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. (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	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-SZ	CN1256	421272

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.**
	03CH02-SZ	CN1256	421272

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH02-SZ	AUDIX	E3	6.2009-8-24a

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 (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			

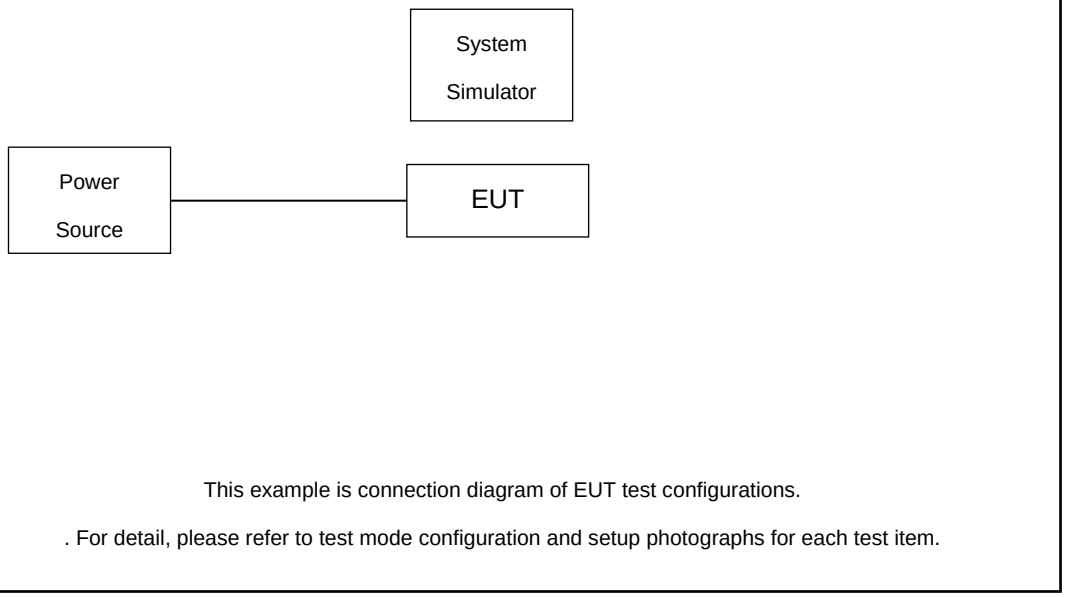
Test Items	5G NR	Bandwidth (MHz)														Modulation					RB #		Test Channel		
		5	10	15	20	25	30	35	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16 QAM	64 QAM	256 QAM	1	Full	L	M	H
Max. Output Power	n38	-	v	v	v	-	v	-	v	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n41	-	v	v	v	-	v	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	n66	v	v	v	v	v	v	v	v	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n70	v	v	v	-	-	-	-		-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	n41	-			v	-		-								v	v					v		v	
	n66				v					-	-	-	-	-	-	v	v					v		v	
	n70		v		-	-	-	-		-	-	-	-	-	-	v	v					v		v	
26dB and 99% Bandwidth	n41	-	v	v	v	-	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	
	n70	v	v	v	-	-	-	-		-	-	-	-	-	-		v	v	v	v		v		v	
Conducted Band Edge	n41		v			-		-		v					v	v	v				v	v	v		v
	n66	v			v				v	-	-	-	-	-	-	v	v				v	v	v		v
	n70	v	v	v	-	-	-	-		-	-	-	-	-	-	v	v				v	v	v		v
Conducted Spurious Emission	n41		v			-		-		v					v	v	v				v		v	v	v
	n66	v			v				v	-	-	-	-	-	-	v	v				v		v	v	v
	n70	v	v	v	-	-	-	-		-	-	-	-	-	-	v	v				v		v	v	v
Frequency	n41				v	-		-									v					v		v	

Test Items	5G NR	Bandwidth (MHz)														Modulation					RB #		Test Channel		
		5	10	15	20	25	30	35	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16 QAM	64 QAM	256 QAM	1	Full	L	M	H
Stability	n66				v					-	-	-	-	-	-		v					v		v	
	n70		v		-	-	-	-		-	-	-	-	-	-		v					v		v	
E.R.P / E.I.R.P	n38	-	v	v	v	-	v	-	v	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n41	-	v	v	v	-	v	-	v	v	v	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	v
	n70	v	v	v	-	-	-	-		-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	n41	Worst Case																						v	
	n66	Worst Case																						v	
	n70	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 = 5.0V ；Low Voltage =4.75V.；High Voltage =5.25V

2.2 Connection Diagram of Test System



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
4.	Notebook	N/A	N/A	N/A	N/A	N/A

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 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.

Offset = RF cable loss.

Following shows an offset computation example with cable loss 8.6 dB.

Example :

Offset(dB) = RF cable loss(dB)

= 8.6 (dB)

2.5 Frequency List of Low/Middle/High Channels

5G NR n38 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
40	Channel	518000	519000	520000
	Frequency	2590	2595	2600
30	Channel	517000	519000	521000
	Frequency	2585	2595	2605
20	Channel	516000	519000	522000
	Frequency	2580	2595	2610
15	Channel	515500	519000	522500
	Frequency	2577.5	2595	2612.5
10	Channel	515000	519000	523000
	Frequency	2575	2595	2615

5G NR n41 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
100	Channel	509202	518598	528000
	Frequency	2546.01	2592.99	2640
90	Channel	508200	518598	528996
	Frequency	2541	2592.99	2644.98
80	Channel	507204	518598	529998
	Frequency	2536.02	2592.99	2649.99
70	Channel	506202	518598	531000
	Frequency	2531.01	2592.99	2655
60	Channel	505200	518598	531996
	Frequency	2526	2592.99	2659.98
50	Channel	504204	518598	532998
	Frequency	2521.02	2592.99	2664.99
40	Channel	503202	518598	534000
	Frequency	2516.01	2592.99	2670
30	Channel	502200	518598	534996
	Frequency	2511	2592.99	2674.98
20	Channel	501204	518598	535998
	Frequency	2506.02	2592.99	2679.99
15	Channel	500700	518598	536496
	Frequency	2503.5	2592.99	2682.48
10	Channel	500202	518598	537000
	Frequency	2501.01	2592.99	2685

5G NR n66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
40	Channel	346000	349000	352000
	Frequency	1730	1745	1760
35	Channel	345500	34900	352500
	Frequency	1727.5	1745	1762.5
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

5G NR n70 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
15	Channel	340500		
	Frequency	1702.5		
10	Channel	340000	340500	341000
	Frequency	1700	1702.5	1705
5	Channel	399500	340500	341500
	Frequency	1697.5	1702.5	1707.5

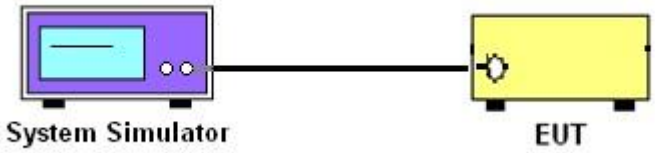
3 Conducted Test Items

3.1 Measuring Instruments

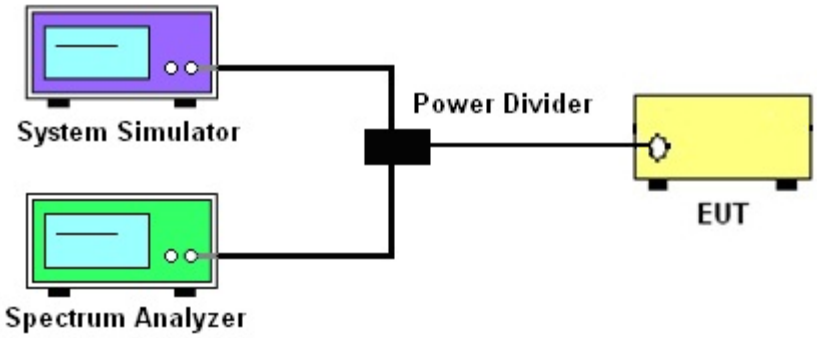
See list of measuring instruments of this test report.

3.2 Test Setup

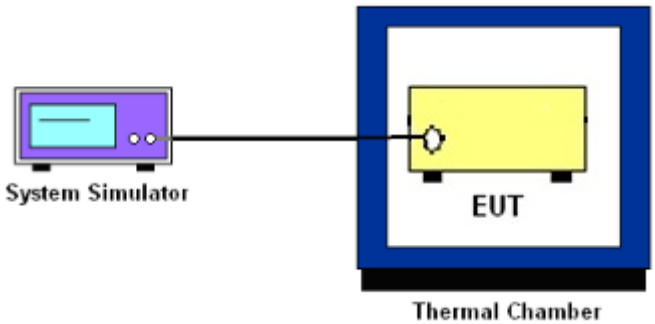
3.2.1 Conducted Output Power



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 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 n38, n41.

The EIRP of mobile transmitters must not exceed 1 Watts for 5G NR n66, n70.

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 (h)

For operations in the 1710 – 1780 MHz band, the FCC limit is 43 + 10log$_{10}$(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.

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.

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.

For 5G NR n38/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 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.
11. For 5G NR n38/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. 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.

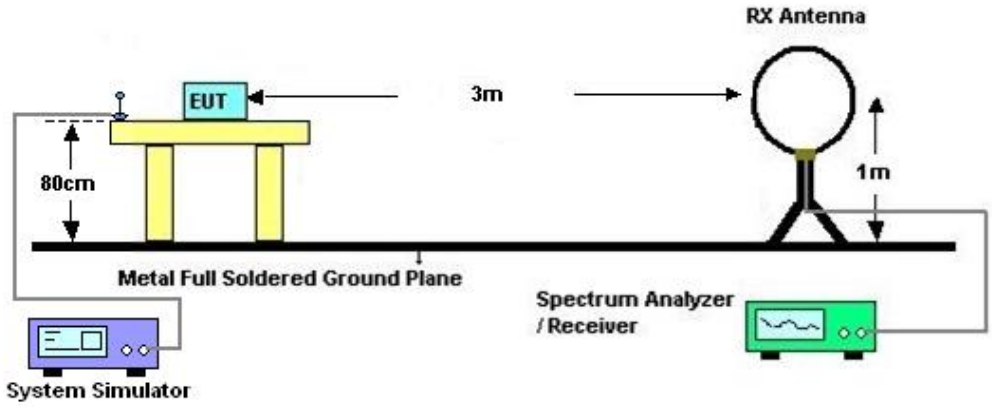
4 Radiated Test Items

4.1 Measuring Instruments

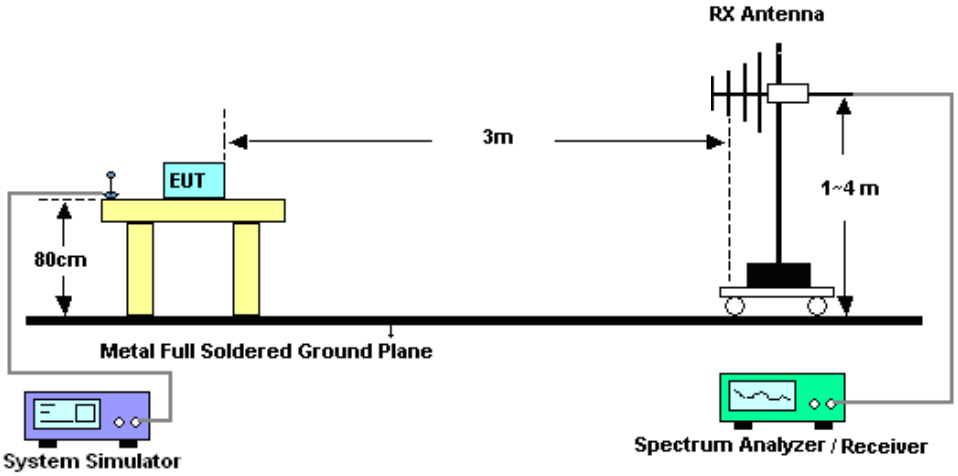
See list of measuring instruments of this test report.

4.2 Test Setup

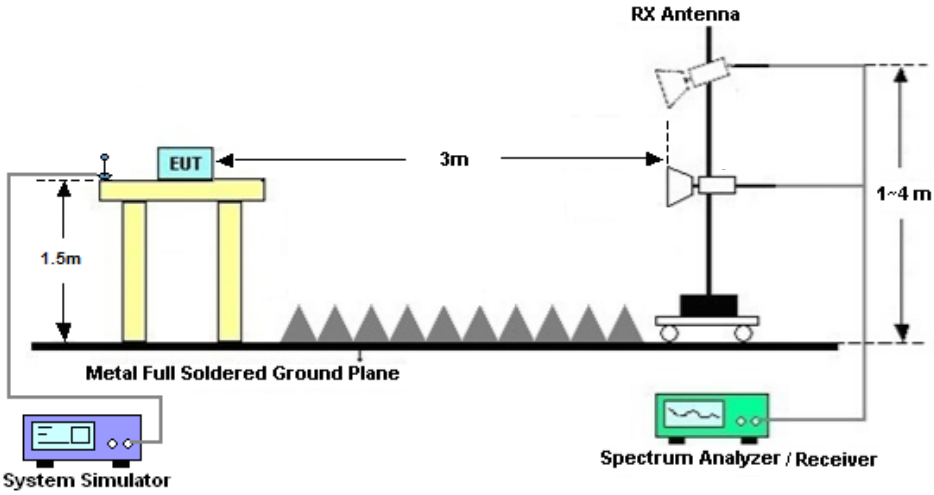
4.2.1 For radiated test below 30MHz



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.

For 5G NR n38/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 n38/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	101078	10Hz~40GHz	Apr. 09, 2024	Jul. 16, 2024~ Aug. 06, 2024	Apr. 08, 2025	Conducted (TH01-SZ)
DC Power Supply	TTI	PL330P	290070	Max 32V，3A	Oct. 16, 2023	Jul. 16, 2024~ Aug. 06, 2024	Oct. 15, 2024	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 25, 2023	Jul. 16, 2024~ Aug. 06, 2024	Dec. 24, 2024	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 03, 2024	Jul. 16, 2024~ Aug. 06, 2024	Jul. 02, 2025	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 03, 2024	Jul. 12, 2024~ Jul. 16, 2024	Jul. 02, 2025	Radiation (03CH02-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 28, 2022	Jul. 12, 2024~ Jul. 16, 2024	Jul. 27, 2024	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Jul. 12, 2024~ Jul. 16, 2024	Oct. 23, 2025	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 04, 2024	Jul. 12, 2024~ Jul. 16, 2024	Jul. 04, 2025	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 09, 2024	Jul. 12, 2024~ Jul. 16, 2024	Apr. 08, 2025	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 18, 2023	Jul. 12, 2024~ Jul. 16, 2024	Oct. 17, 2024	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 18, 2023	Jul. 12, 2024~ Jul. 16, 2024	Oct. 17, 2024	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 03, 2024	Jul. 12, 2024~ Jul. 16, 2024	Jul. 03, 2025	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010003043	N/A	Oct. 18, 2023	Jul. 12, 2024~ Jul. 16, 2024	Oct. 17, 2024	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Jul. 12, 2024~ Jul. 16, 2024	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Jul. 12, 2024~ Jul. 16, 2024	NCR	Radiation (03CH02-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

Test Item	Uncertainty
Conducted Spurious Emission & Bandedge	±1.34 dB
Occupied Channel Bandwidth	±0.012 MHz
Conducted Power	±1.34 dB
Peak to Average Ratio	±1.34 dB
Frequency Stability	±1.3 Hz

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.47 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.31 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.72 dB

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

Appendix A. Test Results of Conducted Test

Test Engineer :	Khan Zhen	**Temperature :**	22~23℃
		Relative Humidity :	40~42%

Software Version: 23.06.1602

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Transmitter Conducted Output Power And EIRP, (G_T - L_C)=1.68dB

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
38	30	10	515000	2575	DFT-s-OFDM QPSK	1@1	22.73	24.41	0.2761
38	30	10	515000	2575	DFT-s-OFDM 16 QAM	1@1	21.78	23.46	0.2218
38	30	10	519000	2595	DFT-s-OFDM QPSK	1@1	22.71	24.39	0.2748
38	30	10	519000	2595	DFT-s-OFDM 16 QAM	1@1	21.83	23.51	0.2244
38	30	10	523000	2615	DFT-s-OFDM QPSK	1@1	22.77	24.45	0.2786
38	30	10	523000	2615	DFT-s-OFDM 16 QAM	1@1	21.96	23.64	0.2312
38	30	15	515500	2577.5	DFT-s-OFDM QPSK	1@1	22.92	24.6	0.2884
38	30	15	515500	2577.5	DFT-s-OFDM 16 QAM	1@1	21.93	23.61	0.2296
38	30	15	519000	2595	DFT-s-OFDM QPSK	1@1	22.92	24.6	0.2884
38	30	15	519000	2595	DFT-s-OFDM 16 QAM	1@1	21.96	23.64	0.2312
38	30	15	522500	2612.5	DFT-s-OFDM QPSK	1@1	22.99	24.67	0.2931
38	30	15	522500	2612.5	DFT-s-OFDM 16 QAM	1@1	22.12	23.8	0.2399
38	30	20	516000	2580	DFT-s-OFDM QPSK	1@1	22.93	24.61	0.2891
38	30	20	516000	2580	DFT-s-OFDM 16 QAM	1@1	21.91	23.59	0.2286
38	30	20	519000	2595	DFT-s-OFDM QPSK	1@1	22.89	24.57	0.2864
38	30	20	519000	2595	DFT-s-OFDM 16 QAM	1@1	21.94	23.62	0.2301
38	30	20	522000	2610	DFT-s-OFDM QPSK	1@1	22.91	24.59	0.2877
38	30	20	522000	2610	DFT-s-OFDM 16 QAM	1@1	22.05	23.73	0.2360
38	30	30	517000	2585	DFT-s-OFDM QPSK	1@1	22.88	24.56	0.2858
38	30	30	517000	2585	DFT-s-OFDM 16 QAM	1@1	21.91	23.59	0.2286
38	30	30	519000	2595	DFT-s-OFDM QPSK	1@1	23.02	24.7	0.2951
38	30	30	519000	2595	DFT-s-OFDM 16 QAM	1@1	22.02	23.7	0.2344
38	30	30	521000	2605	DFT-s-OFDM QPSK	1@1	22.93	24.61	0.2891
38	30	30	521000	2605	DFT-s-OFDM 16 QAM	1@1	22.11	23.79	0.2393
V	30	40	518000	2590	DFT-s-OFDM PI/2 BPSK	50@25	23.03	24.71	0.2958
38	30	40	518000	2590	DFT-s-OFDM PI/2 BPSK	1@1	22.97	24.65	0.2917
38	30	40	518000	2590	DFT-s-OFDM PI/2 BPSK	1@104	23.11	24.79	0.3013
38	30	40	518000	2590	DFT-s-OFDM QPSK	50@25	23.04	24.72	0.2965
38	30	40	518000	2590	DFT-s-OFDM QPSK	1@1	23.01	24.69	0.2944
38	30	40	518000	2590	DFT-s-OFDM QPSK	1@104	23.12	24.8	0.3020
38	30	40	518000	2590	DFT-s-OFDM 16 QAM	50@25	22.06	23.74	0.2366
38	30	40	518000	2590	DFT-s-OFDM 16 QAM	1@1	22.1	23.78	0.2388
38	30	40	518000	2590	DFT-s-OFDM 16 QAM	1@104	22.19	23.87	0.2438
38	30	40	518000	2590	DFT-s-OFDM 64 QAM	50@25	20.56	22.24	0.1675
38	30	40	518000	2590	DFT-s-OFDM 64 QAM	1@1	20.5	22.18	0.1652
38	30	40	518000	2590	DFT-s-OFDM 64 QAM	1@104	20.6	22.28	0.1690
38	30	40	518000	2590	DFT-s-OFDM 256 QAM	50@25	18.51	20.19	0.1045
38	30	40	518000	2590	DFT-s-OFDM 256 QAM	1@1	18.35	20.03	0.1007

38	30	40	518000	2590	DFT-s-OFDM 256 QAM	1@104	18.48	20.16	0.1038
38	30	40	518000	2590	CP-OFDM QPSK	53@26	21.56	23.24	0.2109
38	30	40	518000	2590	CP-OFDM QPSK	1@1	21.45	23.13	0.2056
38	30	40	518000	2590	CP-OFDM QPSK	1@104	21.56	23.24	0.2109
38	30	40	519000	2595	DFT-s-OFDM PI/2 BPSK	50@25	22.94	24.62	0.2897
38	30	40	519000	2595	DFT-s-OFDM PI/2 BPSK	1@1	22.97	24.65	0.2917
38	30	40	519000	2595	DFT-s-OFDM PI/2 BPSK	1@104	23.05	24.73	0.2972
38	30	40	519000	2595	DFT-s-OFDM QPSK	50@25	22.95	24.63	0.2904
38	30	40	519000	2595	DFT-s-OFDM QPSK	1@1	22.9	24.58	0.2871
38	30	40	519000	2595	DFT-s-OFDM QPSK	1@104	23.01	24.69	0.2944
38	30	40	519000	2595	DFT-s-OFDM 16 QAM	50@25	21.98	23.66	0.2323
38	30	40	519000	2595	DFT-s-OFDM 16 QAM	1@1	22.01	23.69	0.2339
38	30	40	519000	2595	DFT-s-OFDM 16 QAM	1@104	22.12	23.8	0.2399
38	30	40	519000	2595	DFT-s-OFDM 64 QAM	50@25	20.48	22.16	0.1644
38	30	40	519000	2595	DFT-s-OFDM 64 QAM	1@1	20.41	22.09	0.1618
38	30	40	519000	2595	DFT-s-OFDM 64 QAM	1@104	20.51	22.19	0.1656
38	30	40	519000	2595	DFT-s-OFDM 256 QAM	50@25	18.44	20.12	0.1028
38	30	40	519000	2595	DFT-s-OFDM 256 QAM	1@1	18.32	20	0.1000
38	30	40	519000	2595	DFT-s-OFDM 256 QAM	1@104	18.43	20.11	0.1026
38	30	40	519000	2595	CP-OFDM QPSK	53@26	21.4	23.08	0.2032
38	30	40	519000	2595	CP-OFDM QPSK	1@1	21.43	23.11	0.2046
38	30	40	519000	2595	CP-OFDM QPSK	1@104	21.44	23.12	0.2051
38	30	40	520000	2600	DFT-s-OFDM PI/2 BPSK	50@25	23.02	24.7	0.2951
38	30	40	520000	2600	DFT-s-OFDM PI/2 BPSK	1@1	23.1	24.78	0.3006
38	30	40	520000	2600	DFT-s-OFDM PI/2 BPSK	1@104	23.16	24.84	0.3048
38	30	40	520000	2600	DFT-s-OFDM QPSK	50@25	22.98	24.66	0.2924
38	30	40	520000	2600	DFT-s-OFDM QPSK	1@1	23.11	24.79	0.3013
38	30	40	520000	2600	DFT-s-OFDM QPSK	1@104	23.14	24.82	0.3034
38	30	40	520000	2600	DFT-s-OFDM 16 QAM	50@25	22.07	23.75	0.2371
38	30	40	520000	2600	DFT-s-OFDM 16 QAM	1@1	22.18	23.86	0.2432
38	30	40	520000	2600	DFT-s-OFDM 16 QAM	1@104	22.22	23.9	0.2455
38	30	40	520000	2600	DFT-s-OFDM 64 QAM	50@25	20.56	22.24	0.1675
38	30	40	520000	2600	DFT-s-OFDM 64 QAM	1@1	20.6	22.28	0.1690
38	30	40	520000	2600	DFT-s-OFDM 64 QAM	1@104	20.64	22.32	0.1706
38	30	40	520000	2600	DFT-s-OFDM 256 QAM	50@25	18.5	20.18	0.1042
38	30	40	520000	2600	DFT-s-OFDM 256 QAM	1@1	18.46	20.14	0.1033
38	30	40	520000	2600	DFT-s-OFDM 256 QAM	1@104	18.53	20.21	0.1050
38	30	40	520000	2600	CP-OFDM QPSK	53@26	21.51	23.19	0.2084
38	30	40	520000	2600	CP-OFDM QPSK	1@1	21.58	23.26	0.2118
38	30	40	520000	2600	CP-OFDM QPSK	1@104	21.58	23.26	0.2118

Software Version: 23.06.1602

FR1 N41-SCS 30k-ANT 2

Transmitter Conducted Output Power And EIRP, (G_T - L_C)=2.67dB

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
41	30	10	500202	2501.01	DFT-s-OFDM QPSK	1@1	25.4	28.07	0.6412
41	30	10	500202	2501.01	DFT-s-OFDM 16 QAM	1@1	24.43	27.1	0.5129
41	30	10	518598	2592.99	DFT-s-OFDM QPSK	1@1	25.58	28.25	0.6683
41	30	10	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.56	27.23	0.5284
41	30	10	537000	2685	DFT-s-OFDM QPSK	1@1	25.53	28.2	0.6607
41	30	10	537000	2685	DFT-s-OFDM 16 QAM	1@1	24.62	27.29	0.5358
41	30	15	500700	2503.5	DFT-s-OFDM QPSK	1@1	25.52	28.19	0.6592
41	30	15	500700	2503.5	DFT-s-OFDM 16 QAM	1@1	24.51	27.18	0.5224
41	30	15	518598	2592.99	DFT-s-OFDM QPSK	1@1	25.76	28.43	0.6966
41	30	15	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.72	27.39	0.5483
41	30	15	536496	2682.48	DFT-s-OFDM QPSK	1@1	25.61	28.28	0.6730
41	30	15	536496	2682.48	DFT-s-OFDM 16 QAM	1@1	24.82	27.49	0.5610
41	30	20	501204	2506.02	DFT-s-OFDM QPSK	1@1	25.48	28.15	0.6531
41	30	20	501204	2506.02	DFT-s-OFDM 16 QAM	1@1	24.6	27.27	0.5333
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	1@1	25.73	28.4	0.6918
41	30	20	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.72	27.39	0.5483
41	30	20	535998	2679.99	DFT-s-OFDM QPSK	1@1	25.73	28.4	0.6918
41	30	20	535998	2679.99	DFT-s-OFDM 16 QAM	1@1	24.89	27.56	0.5702
41	30	30	502200	2511	DFT-s-OFDM QPSK	1@1	25.5	28.17	0.6561
41	30	30	502200	2511	DFT-s-OFDM 16 QAM	1@1	24.66	27.33	0.5408
41	30	30	518598	2592.99	DFT-s-OFDM QPSK	1@1	25.68	28.35	0.6839
41	30	30	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.89	27.56	0.5702
41	30	30	534996	2674.98	DFT-s-OFDM QPSK	1@1	25.58	28.25	0.6683
41	30	30	534996	2674.98	DFT-s-OFDM 16 QAM	1@1	24.97	27.64	0.5808
41	30	40	503202	2516.01	DFT-s-OFDM QPSK	1@1	25.46	28.13	0.6501
41	30	40	503202	2516.01	DFT-s-OFDM 16 QAM	1@1	24.7	27.37	0.5458
41	30	40	518598	2592.99	DFT-s-OFDM QPSK	1@1	25.63	28.3	0.6761
41	30	40	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.83	27.5	0.5623
41	30	40	534000	2670	DFT-s-OFDM QPSK	1@1	25.78	28.45	0.6998
41	30	40	534000	2670	DFT-s-OFDM 16 QAM	1@1	24.99	27.66	0.5834
41	30	50	504204	2521.02	DFT-s-OFDM QPSK	1@1	25.43	28.1	0.6457
41	30	50	504204	2521.02	DFT-s-OFDM 16 QAM	1@1	24.61	27.28	0.5346
41	30	50	518598	2592.99	DFT-s-OFDM QPSK	1@1	25.52	28.19	0.6592
41	30	50	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.6	27.27	0.5333
41	30	50	532998	2664.99	DFT-s-OFDM QPSK	1@1	25.79	28.46	0.7015
41	30	50	532998	2664.99	DFT-s-OFDM 16 QAM	1@1	24.98	27.65	0.5821
41	30	60	505200	2526	DFT-s-OFDM QPSK	1@1	25.33	28	0.6310
41	30	60	505200	2526	DFT-s-OFDM 16 QAM	1@1	24.46	27.13	0.5164

41	30	60	518598	2592.99	DFT-s-OFDM QPSK	1@1	25.42	28.09	0.6442
41	30	60	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.61	27.28	0.5346
41	30	60	531996	2659.98	DFT-s-OFDM QPSK	1@1	25.71	28.38	0.6887
41	30	60	531996	2659.98	DFT-s-OFDM 16 QAM	1@1	24.89	27.56	0.5702
41	30	70	505200	2531.01	DFT-s-OFDM QPSK	1@1	25.19	27.86	0.6109
41	30	70	505200	2531.01	DFT-s-OFDM 16 QAM	1@1	24.32	26.99	0.5000
41	30	70	518598	2592.99	DFT-s-OFDM QPSK	1@1	25.28	27.95	0.6237
41	30	70	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.47	27.14	0.5176
41	30	70	531996	2655	DFT-s-OFDM QPSK	1@1	25.42	28.09	0.6442
41	30	70	531996	2655	DFT-s-OFDM 16 QAM	1@1	24.61	27.28	0.5346
41	30	80	507204	2536.02	DFT-s-OFDM QPSK	1@1	25.16	27.83	0.6067
41	30	80	507204	2536.02	DFT-s-OFDM 16 QAM	1@1	24.27	26.94	0.4943
41	30	80	518598	2592.99	DFT-s-OFDM QPSK	1@1	25.14	27.81	0.6039
41	30	80	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.3	26.97	0.4977
41	30	80	529998	2649.99	DFT-s-OFDM QPSK	1@1	25.42	28.09	0.6442
41	30	80	529998	2649.99	DFT-s-OFDM 16 QAM	1@1	24.58	27.25	0.5309
41	30	90	508200	2541	DFT-s-OFDM QPSK	1@1	25.19	27.86	0.6109
41	30	90	508200	2541	DFT-s-OFDM 16 QAM	1@1	24.38	27.05	0.5070
41	30	90	518598	2592.99	DFT-s-OFDM QPSK	1@1	25.19	27.86	0.6109
41	30	90	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.35	27.02	0.5035
41	30	90	528996	2644.98	DFT-s-OFDM QPSK	1@1	25.41	28.08	0.6427
41	30	90	528996	2644.98	DFT-s-OFDM 16 QAM	1@1	24.63	27.3	0.5370
41	30	100	509202	2546.01	DFT-s-OFDM PI/2 BPSK	135@67	25.3	27.97	0.6266
41	30	100	509202	2546.01	DFT-s-OFDM PI/2 BPSK	1@1	25.27	27.94	0.6223
41	30	100	509202	2546.01	DFT-s-OFDM PI/2 BPSK	1@271	25.59	28.26	0.6699
41	30	100	509202	2546.01	DFT-s-OFDM QPSK	135@67	25.33	28	0.6310
41	30	100	509202	2546.01	DFT-s-OFDM QPSK	1@1	25.27	27.94	0.6223
41	30	100	509202	2546.01	DFT-s-OFDM QPSK	1@271	25.81	28.48	0.7047
41	30	100	509202	2546.01	DFT-s-OFDM 16 QAM	135@67	24.36	27.03	0.5047
41	30	100	509202	2546.01	DFT-s-OFDM 16 QAM	1@1	24.38	27.05	0.5070
41	30	100	509202	2546.01	DFT-s-OFDM 16 QAM	1@271	24.57	27.24	0.5297
41	30	100	509202	2546.01	DFT-s-OFDM 64 QAM	135@67	22.85	25.52	0.3565
41	30	100	509202	2546.01	DFT-s-OFDM 64 QAM	1@1	22.72	25.39	0.3459
41	30	100	509202	2546.01	DFT-s-OFDM 64 QAM	1@271	23.01	25.68	0.3698
41	30	100	509202	2546.01	DFT-s-OFDM 256 QAM	135@67	20.88	23.55	0.2265
41	30	100	509202	2546.01	DFT-s-OFDM 256 QAM	1@1	20.7	23.37	0.2173
41	30	100	509202	2546.01	DFT-s-OFDM 256 QAM	1@271	20.9	23.57	0.2275
41	30	100	509202	2546.01	CP-OFDM QPSK	137@68	23.86	26.53	0.4498
41	30	100	509202	2546.01	CP-OFDM QPSK	1@1	23.81	26.48	0.4446
41	30	100	509202	2546.01	CP-OFDM QPSK	1@271	24.05	26.72	0.4699
41	30	100	518598	2592.99	DFT-s-OFDM PI/2 BPSK	135@67	25.55	28.22	0.6637
41	30	100	518598	2592.99	DFT-s-OFDM PI/2 BPSK	1@1	25.34	28.01	0.6324
41	30	100	518598	2592.99	DFT-s-OFDM PI/2 BPSK	1@271	25.6	28.27	0.6714
41	30	100	518598	2592.99	DFT-s-OFDM QPSK	135@67	25.55	28.22	0.6637
41	30	100	518598	2592.99	DFT-s-OFDM QPSK	1@1	25.31	27.98	0.6281

41	30	100	518598	2592.99	DFT-s-OFDM QPSK	1@271	25.61	28.28	0.6730
41	30	100	518598	2592.99	DFT-s-OFDM 16 QAM	135@67	24.57	27.24	0.5297
41	30	100	518598	2592.99	DFT-s-OFDM 16 QAM	1@1	24.44	27.11	0.5140
41	30	100	518598	2592.99	DFT-s-OFDM 16 QAM	1@271	24.71	27.38	0.5470
41	30	100	518598	2592.99	DFT-s-OFDM 64 QAM	135@67	23.07	25.74	0.3750
41	30	100	518598	2592.99	DFT-s-OFDM 64 QAM	1@1	22.75	25.42	0.3483
41	30	100	518598	2592.99	DFT-s-OFDM 64 QAM	1@271	23.17	25.84	0.3837
41	30	100	518598	2592.99	DFT-s-OFDM 256 QAM	135@67	21.14	23.81	0.2404
41	30	100	518598	2592.99	DFT-s-OFDM 256 QAM	1@1	20.66	23.33	0.2153
41	30	100	518598	2592.99	DFT-s-OFDM 256 QAM	1@271	21.07	23.74	0.2366
41	30	100	518598	2592.99	CP-OFDM QPSK	137@68	24.06	26.73	0.4710
41	30	100	518598	2592.99	CP-OFDM QPSK	1@1	23.75	26.42	0.4385
41	30	100	518598	2592.99	CP-OFDM QPSK	1@271	24.16	26.83	0.4819
41	30	100	528000	2640	DFT-s-OFDM PI/2 BPSK	135@67	25.62	28.29	0.6745
41	30	100	528000	2640	DFT-s-OFDM PI/2 BPSK	1@1	25.45	28.12	0.6486
41	30	100	528000	2640	DFT-s-OFDM PI/2 BPSK	1@271	25.68	28.35	0.6839
41	30	100	528000	2640	DFT-s-OFDM QPSK	135@67	25.64	28.31	0.6776
41	30	100	528000	2640	DFT-s-OFDM QPSK	1@1	25.45	28.12	0.6486
41	30	100	528000	2640	DFT-s-OFDM QPSK	1@271	25.72	28.39	0.6902
41	30	100	528000	2640	DFT-s-OFDM 16 QAM	135@67	24.68	27.35	0.5433
41	30	100	528000	2640	DFT-s-OFDM 16 QAM	1@1	24.53	27.2	0.5248
41	30	100	528000	2640	DFT-s-OFDM 16 QAM	1@271	24.75	27.42	0.5521
41	30	100	528000	2640	DFT-s-OFDM 64 QAM	135@67	23.22	25.89	0.3882
41	30	100	528000	2640	DFT-s-OFDM 64 QAM	1@1	23	25.67	0.3690
41	30	100	528000	2640	DFT-s-OFDM 64 QAM	1@271	23.18	25.85	0.3846
41	30	100	528000	2640	DFT-s-OFDM 256 QAM	135@67	21.2	23.87	0.2438
41	30	100	528000	2640	DFT-s-OFDM 256 QAM	1@1	20.89	23.56	0.2270
41	30	100	528000	2640	DFT-s-OFDM 256 QAM	1@271	21.14	23.81	0.2404
41	30	100	528000	2640	CP-OFDM QPSK	137@68	24.18	26.85	0.4842
41	30	100	528000	2640	CP-OFDM QPSK	1@1	24.01	26.68	0.4656
41	30	100	528000	2640	CP-OFDM QPSK	1@271	24.23	26.9	0.4898

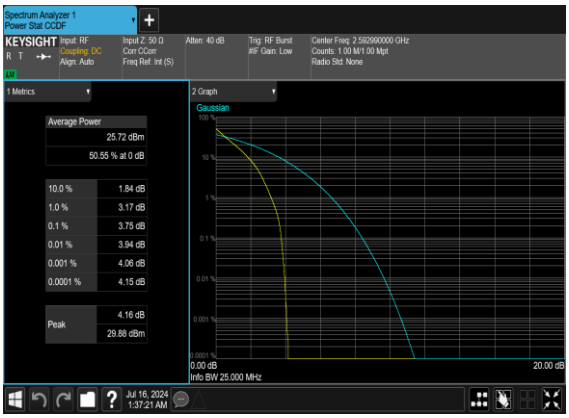
Frequency Stability

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	0.0065	**PASS**	NV
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	0.0036	**PASS**	LV
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	0.0055	**PASS**	HV
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	0.0034	**PASS**	-30℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	0.0039	**PASS**	-20℃
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	0.0033	**PASS**	0℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	0.0033	**PASS**	10℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	0.0065	**PASS**	20℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	0.0068	**PASS**	30℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	0.0046	**PASS**	40℃
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	0.0044	**PASS**	50℃

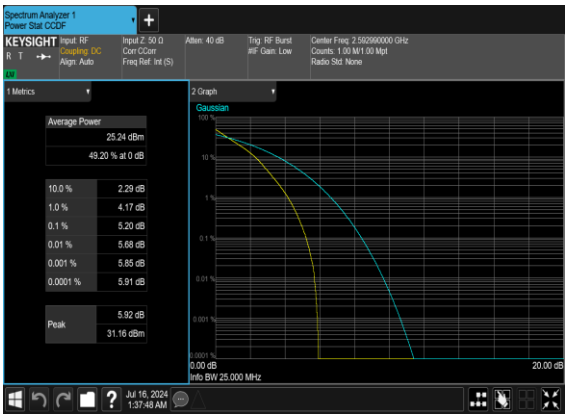
Peak to Average Ratio

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	3.75	13	**PASS**
41	30	20	518598	2592.99	DFT-s-OFDM QPSK	50@0	5.2	13	**PASS**

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



N41(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



Occupied Bandwidth

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
41	30	10	518598	2592.99	CP-OFDM QPSK	24@0	8.5828	9.576
41	30	10	518598	2592.99	CP-OFDM 16 QAM	24@0	8.5816	9.539
41	30	10	518598	2592.99	CP-OFDM 64 QAM	24@0	8.5749	9.606
41	30	10	518598	2592.99	CP-OFDM 256 QAM	24@0	8.5739	9.313
41	30	15	518598	2592.99	CP-OFDM QPSK	38@0	13.573	14.68
41	30	15	518598	2592.99	CP-OFDM 16 QAM	38@0	13.587	14.74
41	30	15	518598	2592.99	CP-OFDM 64 QAM	38@0	13.546	14.88
41	30	15	518598	2592.99	CP-OFDM 256 QAM	38@0	13.557	14.44
41	30	20	518598	2592.99	CP-OFDM QPSK	51@0	18.223	19.56
41	30	20	518598	2592.99	CP-OFDM 16 QAM	51@0	18.256	19.37
41	30	20	518598	2592.99	CP-OFDM 64 QAM	51@0	18.168	19.62
41	30	20	518598	2592.99	CP-OFDM 256 QAM	51@0	18.238	19.36
41	30	30	518598	2592.99	CP-OFDM QPSK	78@0	27.795	29.37
41	30	30	518598	2592.99	CP-OFDM 16 QAM	78@0	27.84	29.7
41	30	30	518598	2592.99	CP-OFDM 64 QAM	78@0	27.859	29.6
41	30	30	518598	2592.99	CP-OFDM 256 QAM	78@0	27.929	29.12
41	30	40	518598	2592.99	CP-OFDM QPSK	106@0	37.87	39.74
41	30	40	518598	2592.99	CP-OFDM 16 QAM	106@0	37.886	39.49
41	30	40	518598	2592.99	CP-OFDM 64 QAM	106@0	37.834	39.43
41	30	40	518598	2592.99	CP-OFDM 256 QAM	106@0	37.878	40.03
41	30	50	518598	2592.99	CP-OFDM QPSK	133@0	47.358	49.16
41	30	50	518598	2592.99	CP-OFDM 16 QAM	133@0	47.465	49.48
41	30	50	518598	2592.99	CP-OFDM 64 QAM	133@0	47.544	48.97
41	30	50	518598	2592.99	CP-OFDM 256 QAM	133@0	47.524	49.52
41	30	60	518598	2592.99	CP-OFDM QPSK	162@0	57.925	59.76
41	30	60	518598	2592.99	CP-OFDM 16 QAM	162@0	58.048	60.2

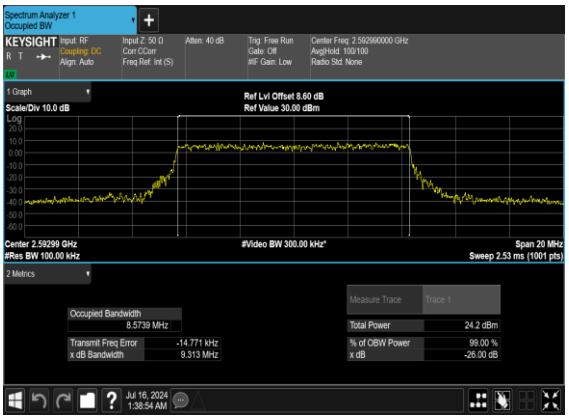
41	30	60	518598	2592.99	CP-OFDM 64 QAM	162@0	57.979	59.6
41	30	60	518598	2592.99	CP-OFDM 256 QAM	162@0	57.823	60.13
41	30	70	518598	2592.99	CP-OFDM QPSK	189@0	67.581	69.74
41	30	70	518598	2592.99	CP-OFDM 16 QAM	189@0	67.567	69.78
41	30	70	518598	2592.99	CP-OFDM 64 QAM	189@0	67.787	69.69
41	30	70	518598	2592.99	CP-OFDM 256 QAM	189@0	67.639	69.83
41	30	80	518598	2592.99	CP-OFDM QPSK	217@0	77.663	80.33
41	30	80	518598	2592.99	CP-OFDM 16 QAM	217@0	77.615	79.94
41	30	80	518598	2592.99	CP-OFDM 64 QAM	217@0	77.488	79.99
41	30	80	518598	2592.99	CP-OFDM 256 QAM	217@0	77.631	80.28
41	30	90	518598	2592.99	CP-OFDM QPSK	245@0	87.632	90.41
41	30	90	518598	2592.99	CP-OFDM 16 QAM	245@0	87.428	90.26
41	30	90	518598	2592.99	CP-OFDM 64 QAM	245@0	87.564	90.55
41	30	90	518598	2592.99	CP-OFDM 256 QAM	245@0	87.534	90.19
41	30	100	518598	2592.99	CP-OFDM QPSK	273@0	97.671	100.6
41	30	100	518598	2592.99	CP-OFDM 16 QAM	273@0	97.674	100.6
41	30	100	518598	2592.99	CP-OFDM 64 QAM	273@0	97.794	100.5
41	30	100	518598	2592.99	CP-OFDM 256 QAM	273@0	97.51	100.5

N41(10M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

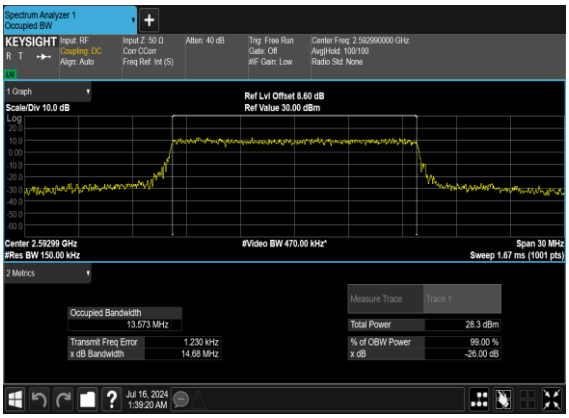
N41(10M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

N41(10M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

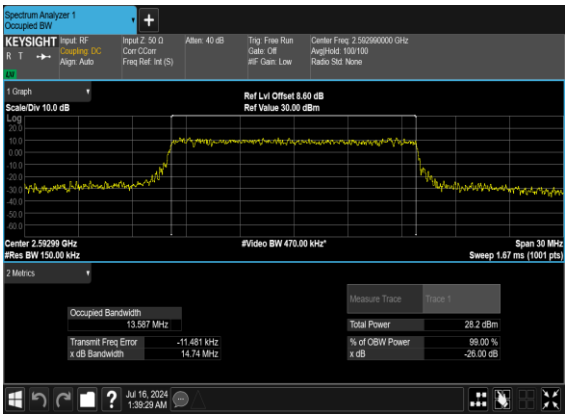
N41(10M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



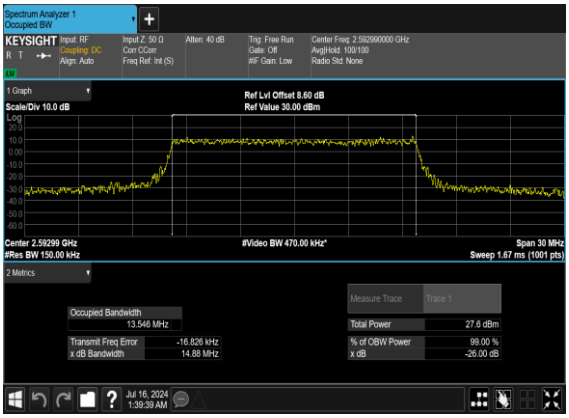
N41(15M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



N41(15M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

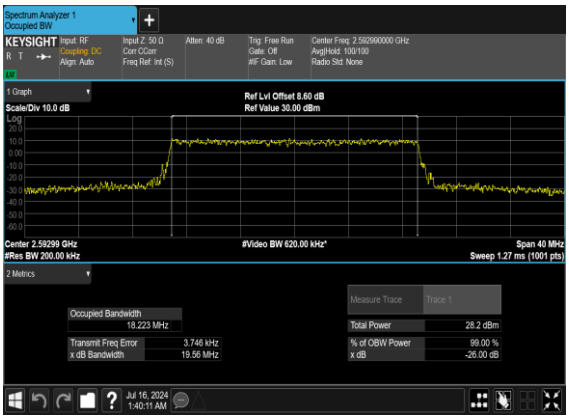


N41(15M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

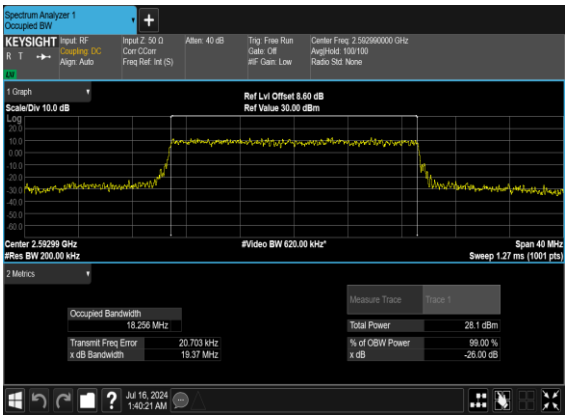


N41(15M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

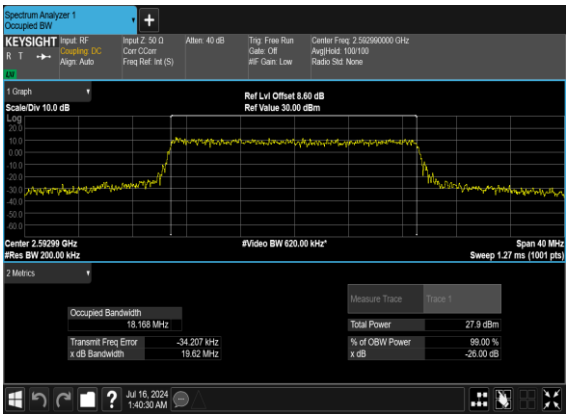
N41(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



N41(20M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

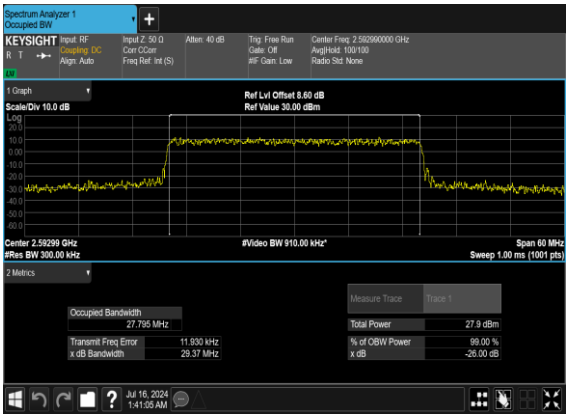


N41(20M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

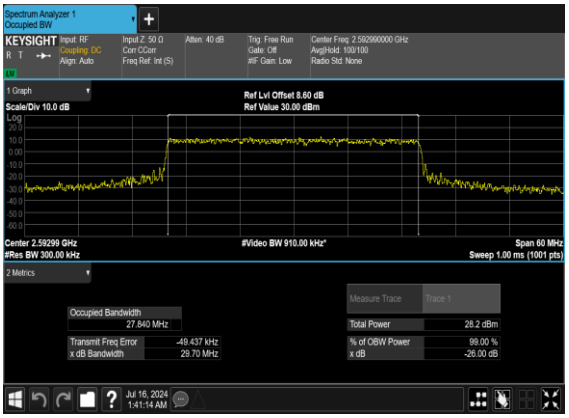


N41(20M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

N41(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

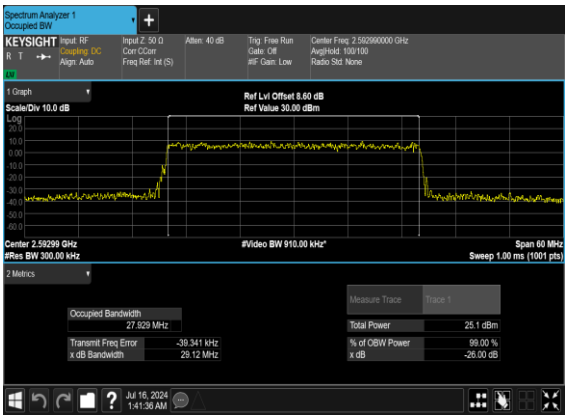


N41(30M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

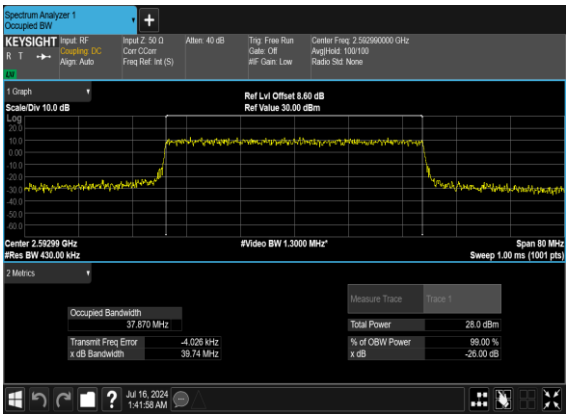


N41(30M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

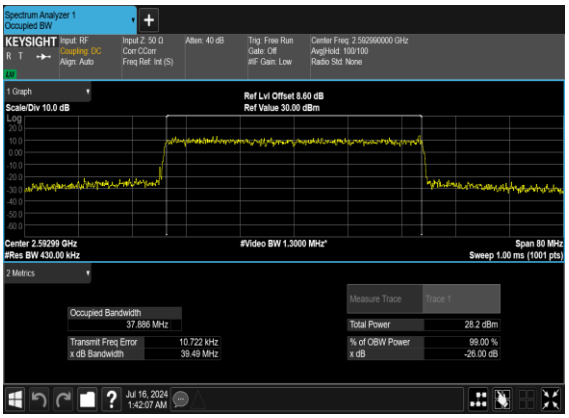
N41(30M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



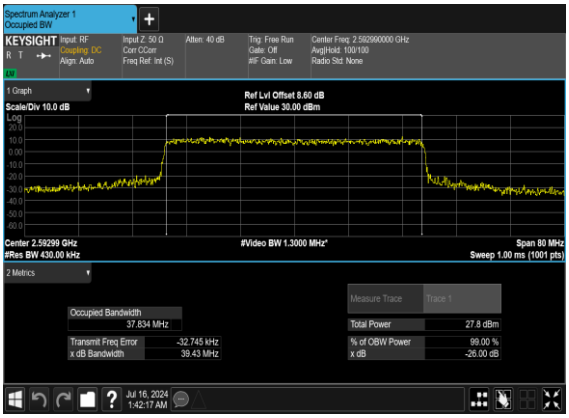
N41(40M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



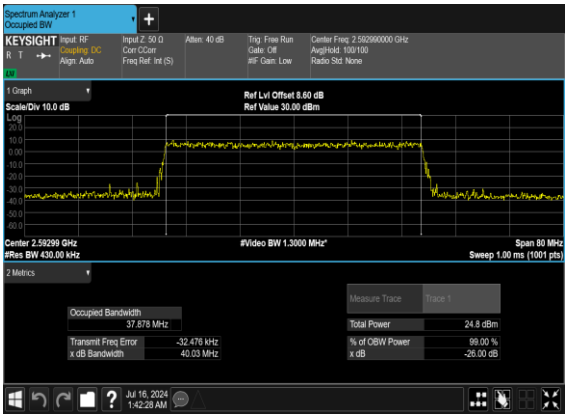
N41(40M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



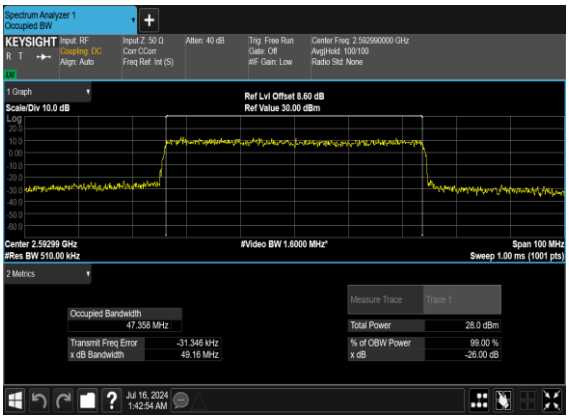
N41(40M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



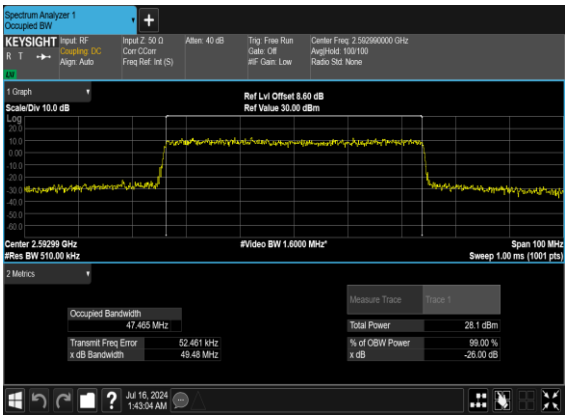
N41(40M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



N41(50M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

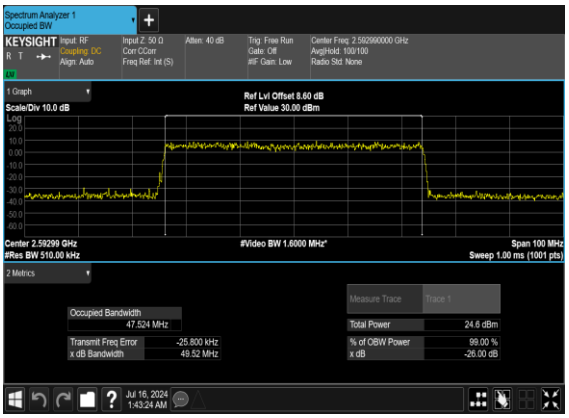


N41(50M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

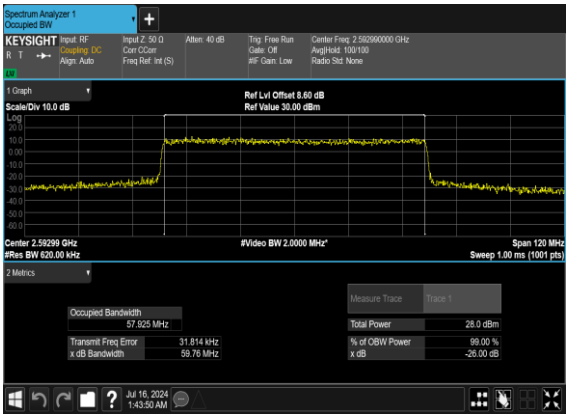


N41(50M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N41(50M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

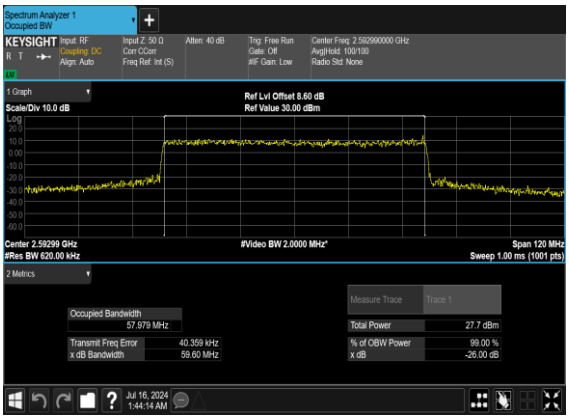


N41(60M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



N41(60M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

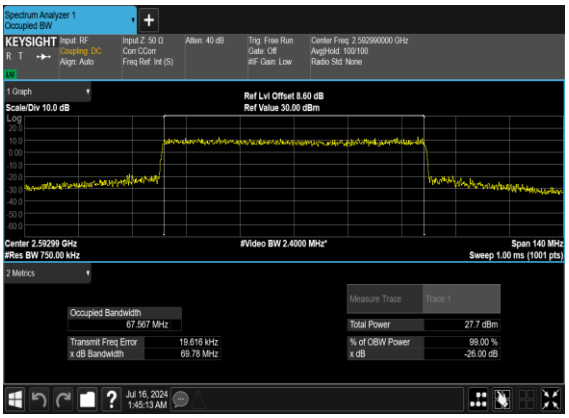
N41(60M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



N41(60M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

N41(70M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

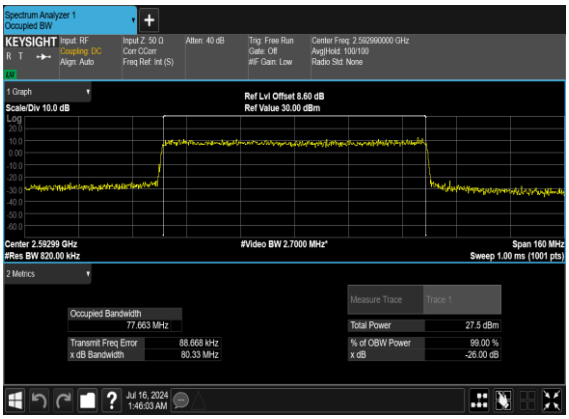
N41(70M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



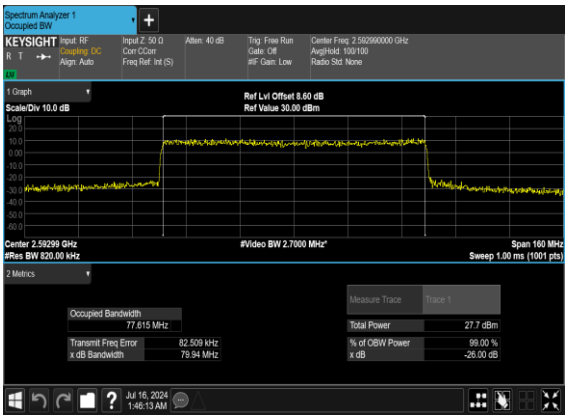
N41(70M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N41(70M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

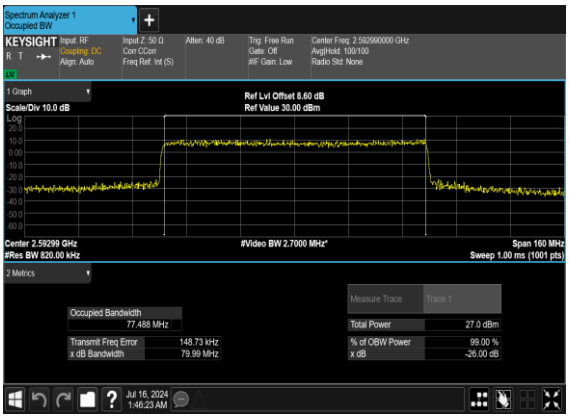
N41(80M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



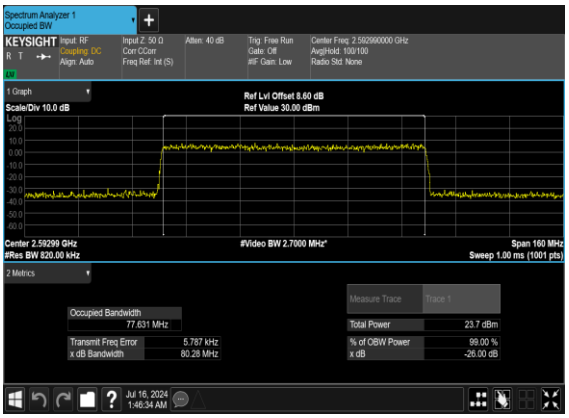
N41(80M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



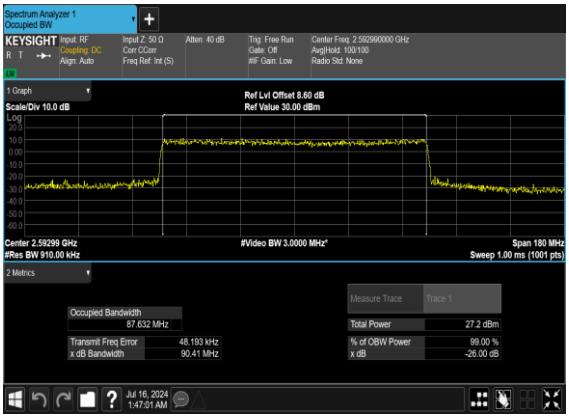
N41(80M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



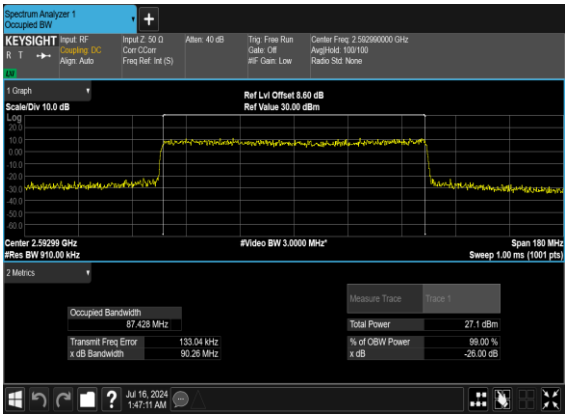
N41(80M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



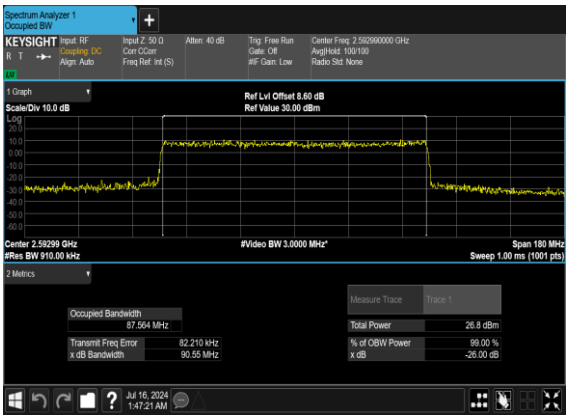
N41(90M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



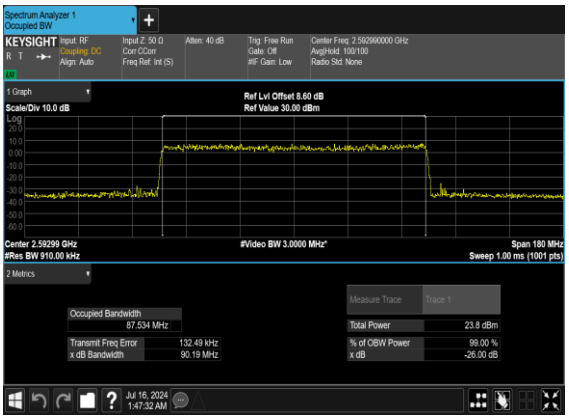
N41(90M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N41(90M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

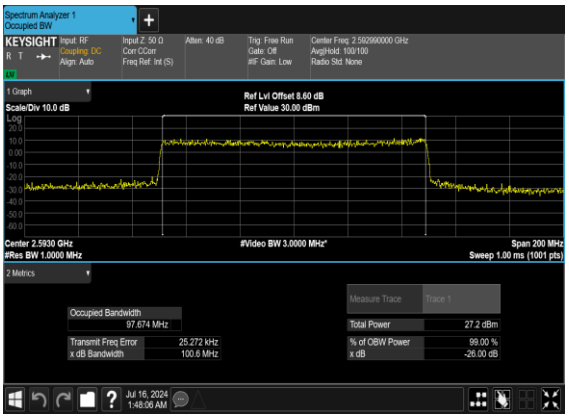


N41(90M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

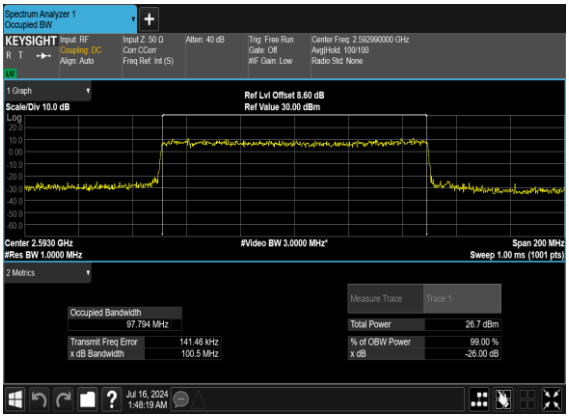


N41(100M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

N41(100M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N41(100M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



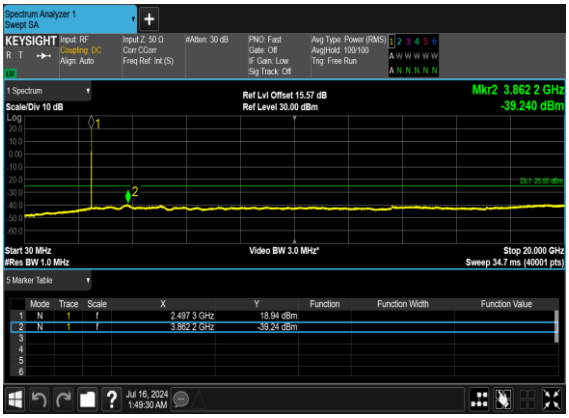
N41(100M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

Conducted Spurious Emissions

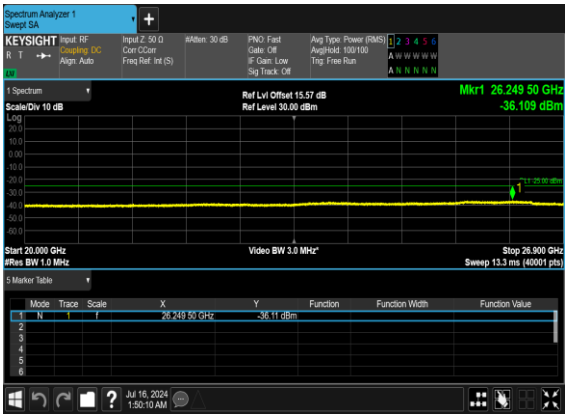
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
41	30	10	500202	2501.01	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	10	500202	2501.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	10	500202	2501.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	10	500202	2501.01	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	10	500202	2501.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	10	500202	2501.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	10	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	10	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	10	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	10	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	10	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	10	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	10	537000	2685.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	10	537000	2685.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	10	537000	2685.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	10	537000	2685.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	10	537000	2685.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	10	537000	2685.0	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**
41	30	100	509202	2546.01	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	100	509202	2546.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	100	509202	2546.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	100	509202	2546.01	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	100	509202	2546.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	100	509202	2546.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	100	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	100	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	100	518598	2592.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	100	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	100	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	100	518598	2592.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	100	528000	2640.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
41	30	100	528000	2640.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	100	528000	2640.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	100	528000	2640.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
41	30	100	528000	2640.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	100	528000	2640.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**

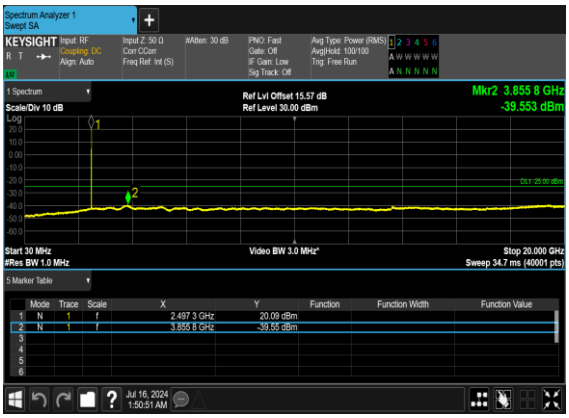
N41(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



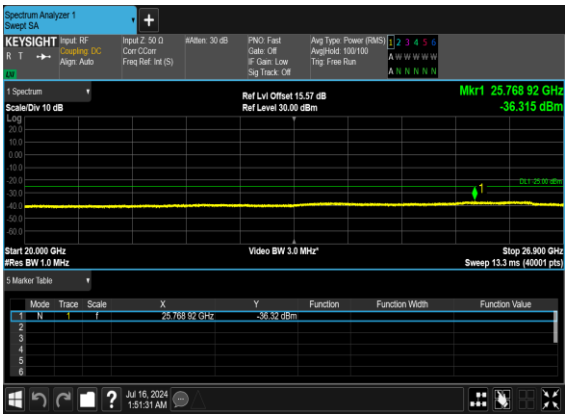
N41(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



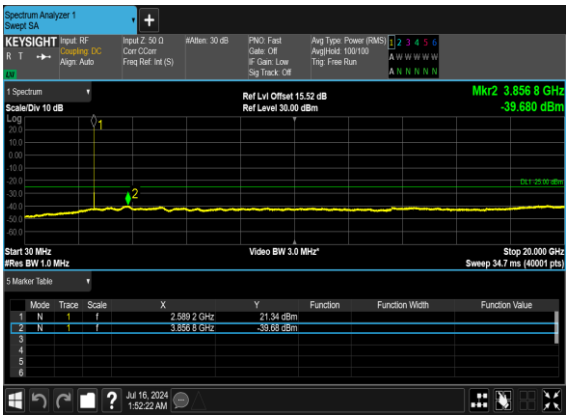
N41(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



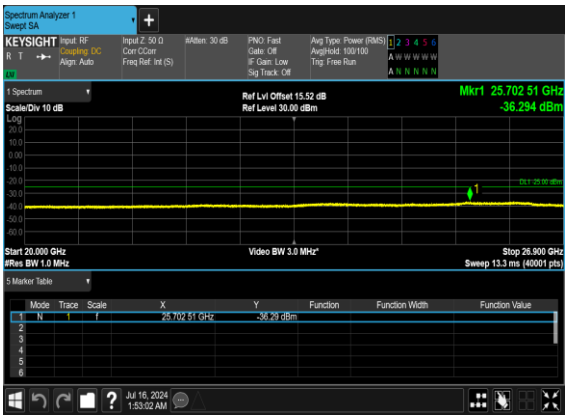
N41(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



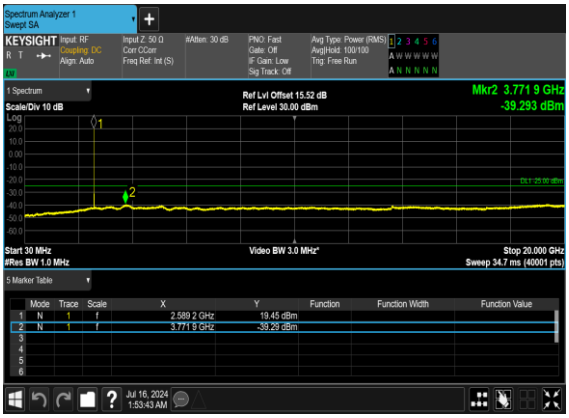
N41(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



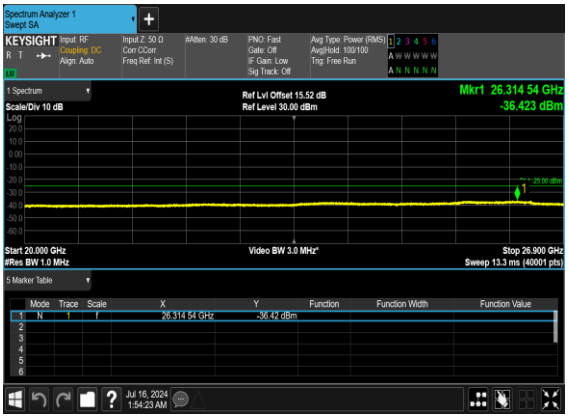
N41(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



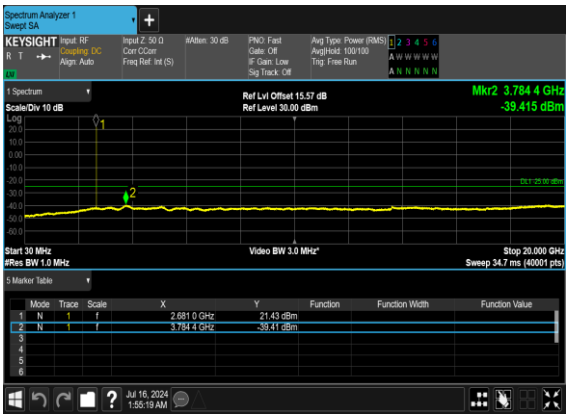
N41(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



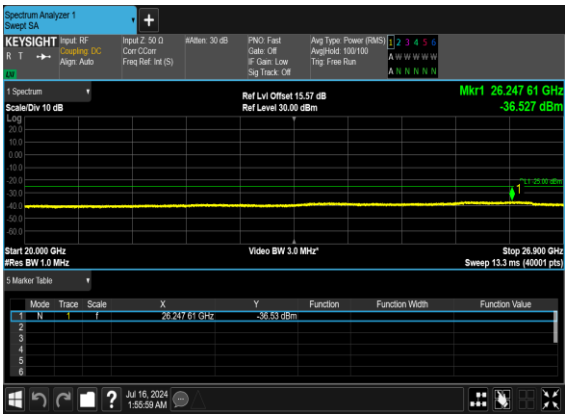
N41(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



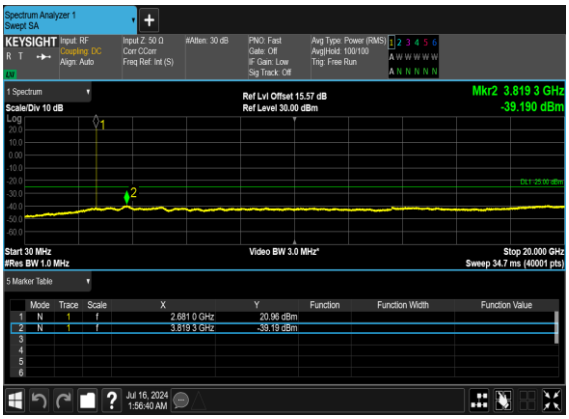
N41(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



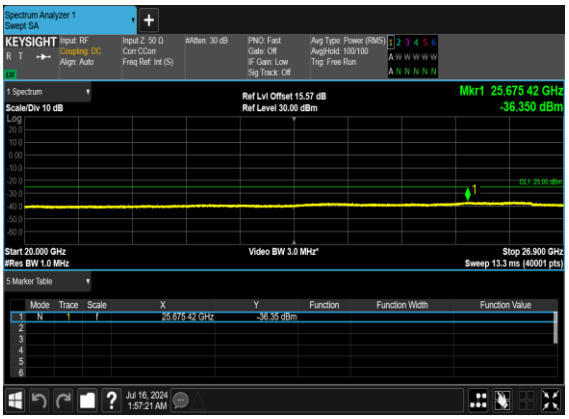
N41(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



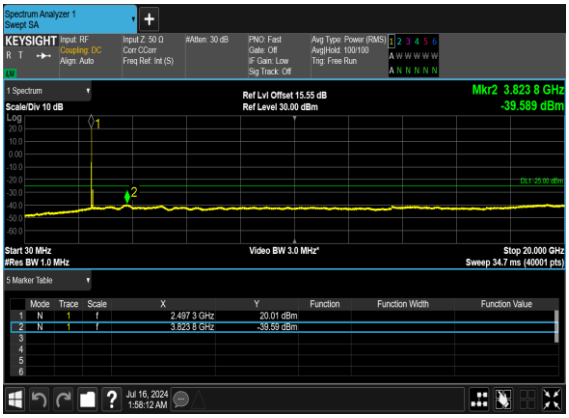
N41(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



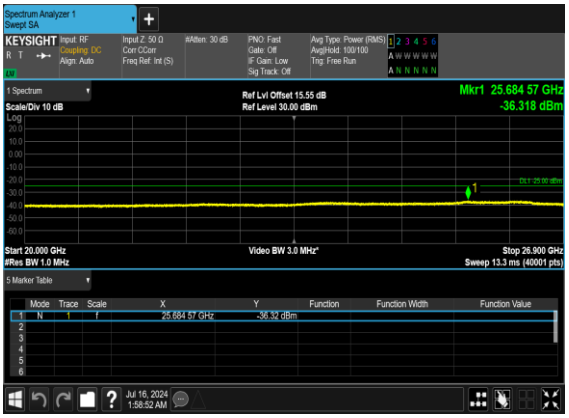
N41(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



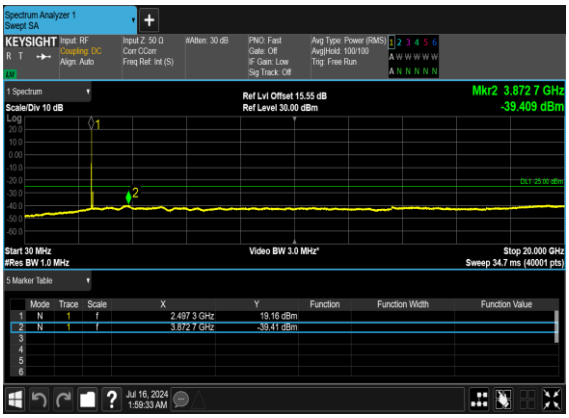
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



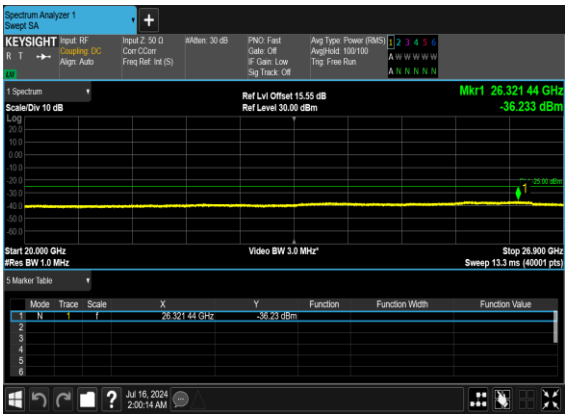
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



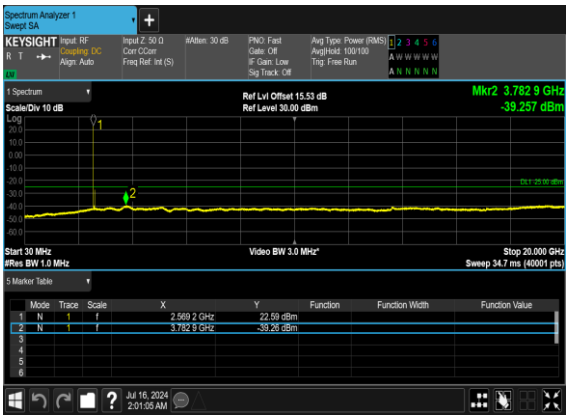
N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



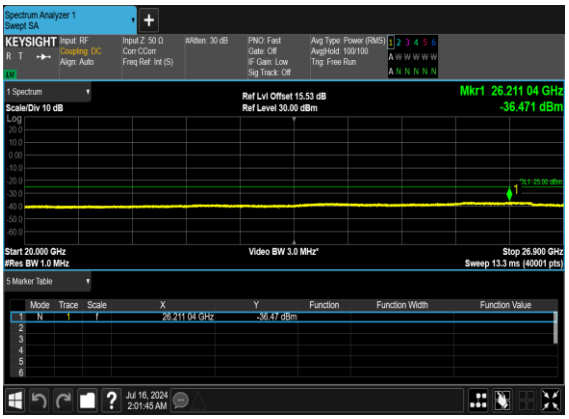
N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



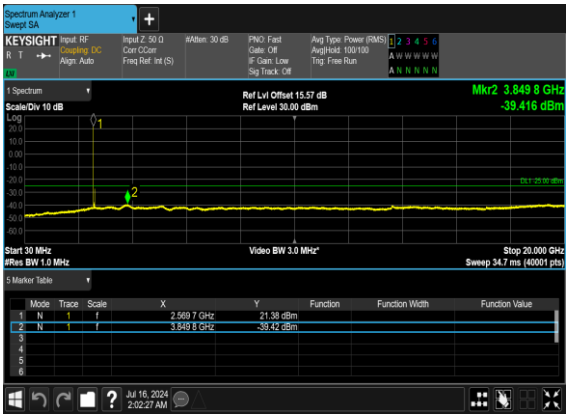
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



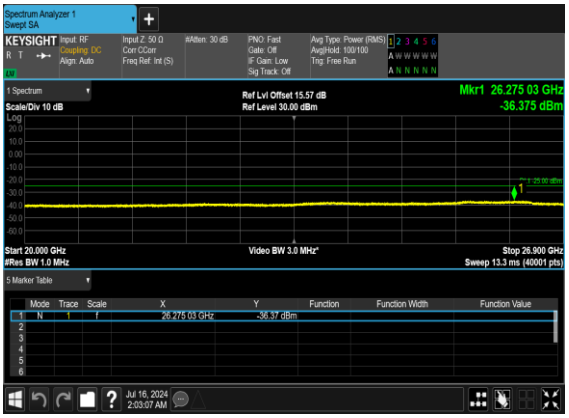
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



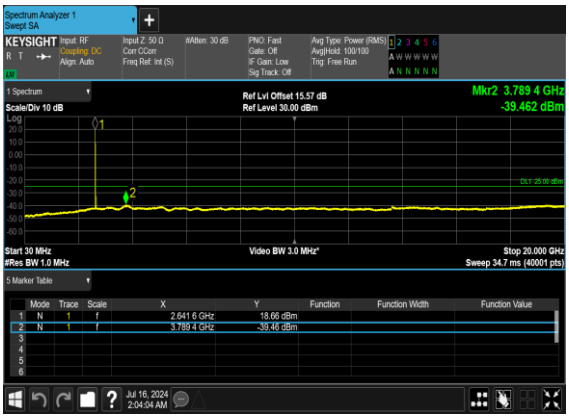
N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



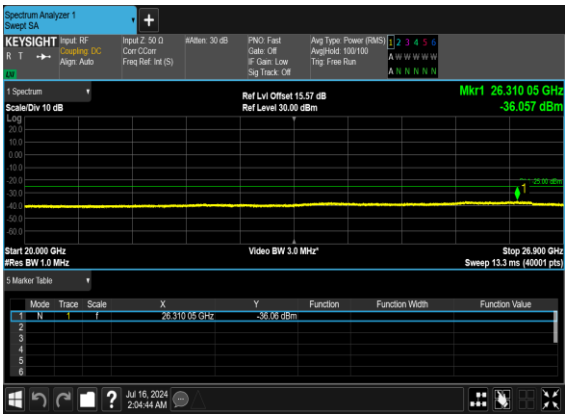
N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



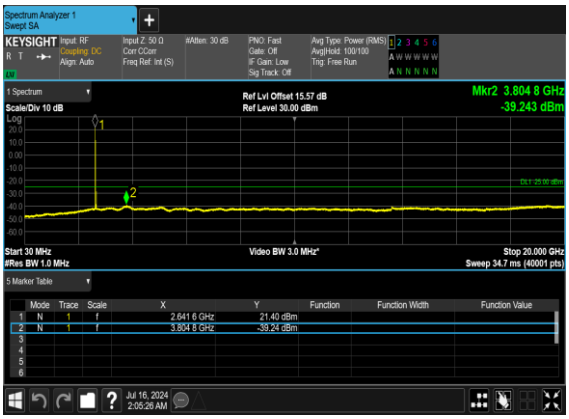
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



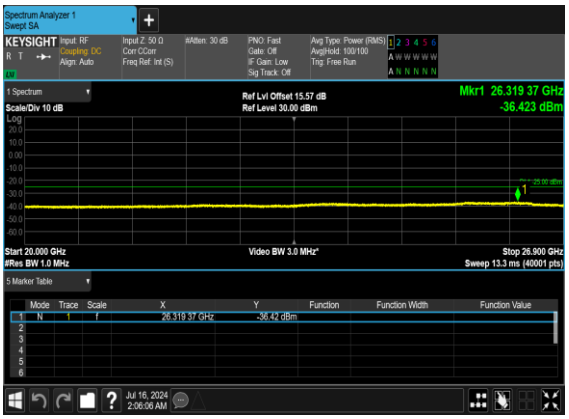
N41(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



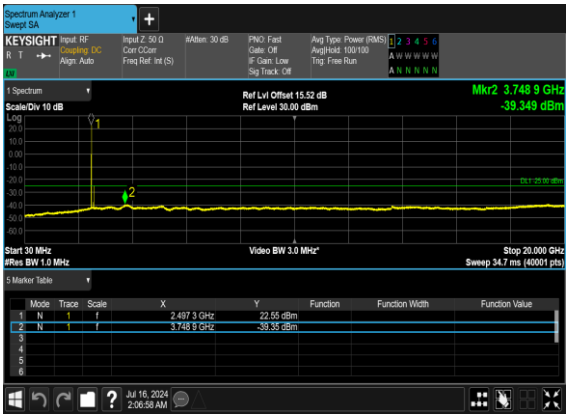
N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



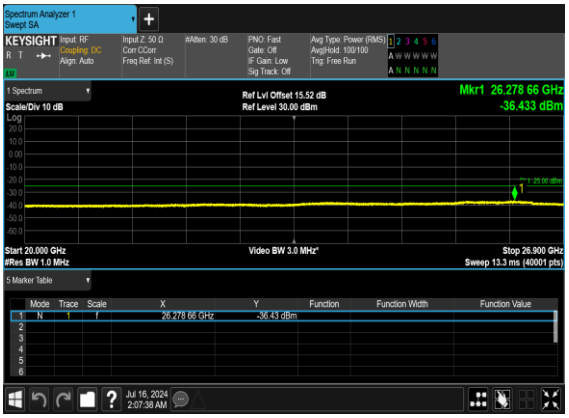
N41(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



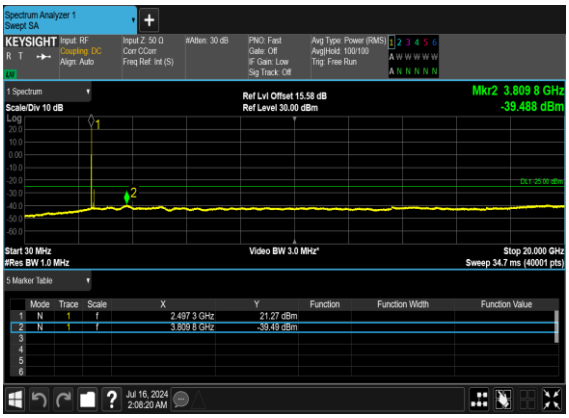
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



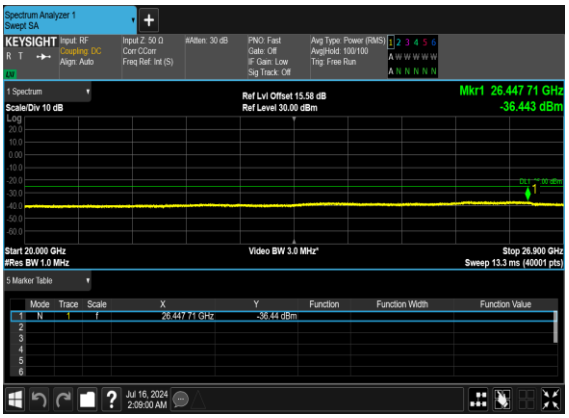
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



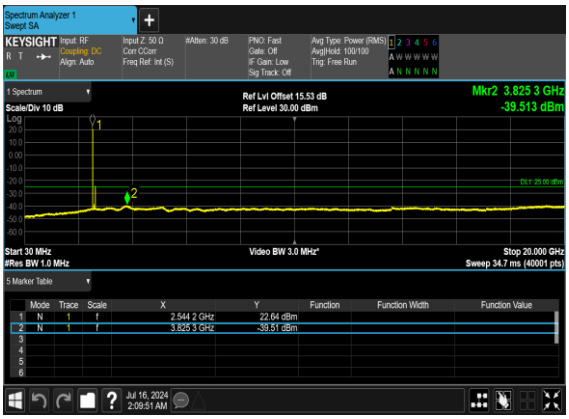
N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



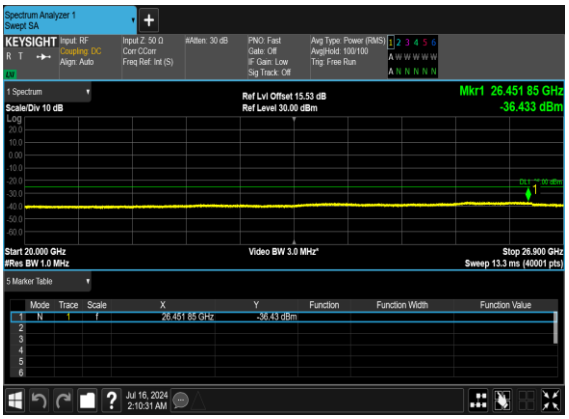
N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



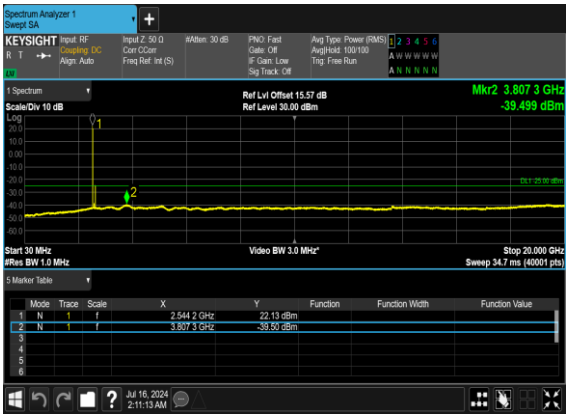
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



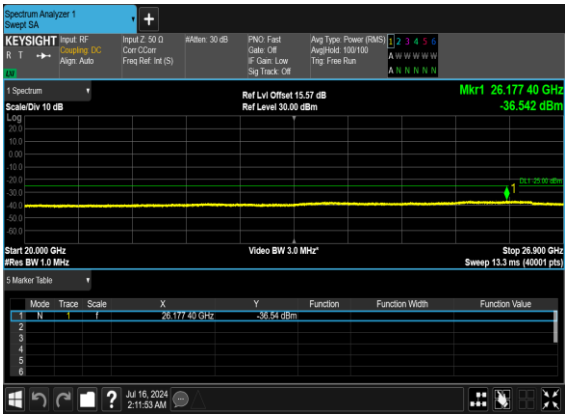
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



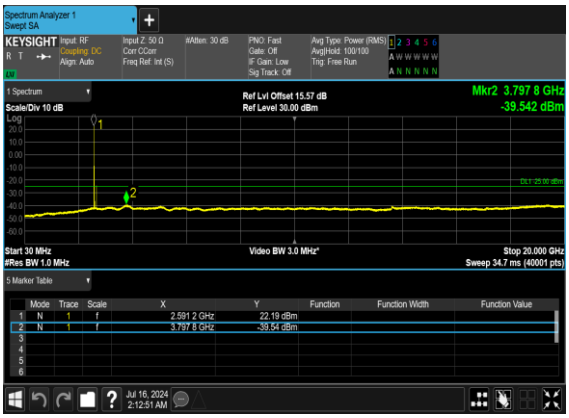
N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



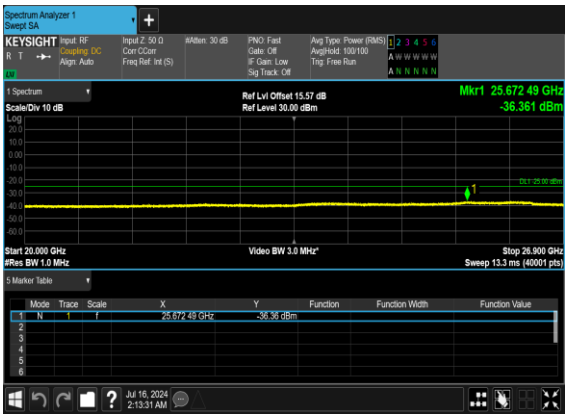
N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



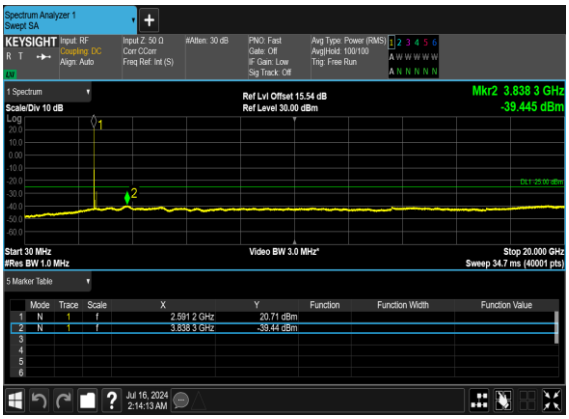
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



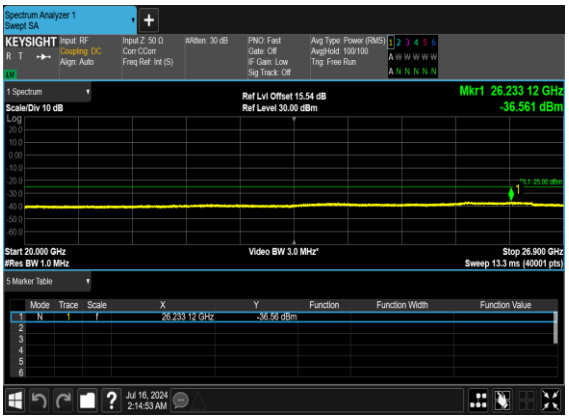
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



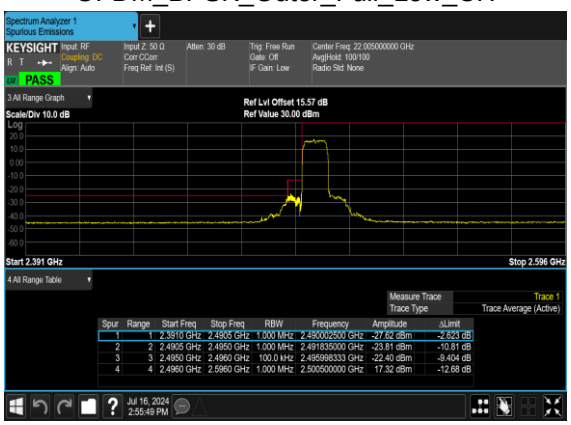
Conducted Band Edge

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
41	30	10	500202	2501.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	10	500202	2501.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	10	500202	2501.01	DFT-s-OFDM BPSK	24@0	see graph	**PASS**
41	30	10	500202	2501.01	DFT-s-OFDM QPSK	24@0	see graph	**PASS**
41	30	10	537000	2685.0	DFT-s-OFDM BPSK	1@23	see graph	**PASS**
41	30	10	537000	2685.0	DFT-s-OFDM QPSK	1@23	see graph	**PASS**
41	30	10	537000	2685.0	DFT-s-OFDM BPSK	24@0	see graph	**PASS**
41	30	10	537000	2685.0	DFT-s-OFDM QPSK	24@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**
41	30	100	509202	2546.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
41	30	100	509202	2546.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
41	30	100	509202	2546.01	DFT-s-OFDM BPSK	270@0	see graph	**PASS**
41	30	100	509202	2546.01	DFT-s-OFDM QPSK	270@0	see graph	**PASS**
41	30	100	528000	2640.0	DFT-s-OFDM BPSK	1@272	see graph	**PASS**
41	30	100	528000	2640.0	DFT-s-OFDM QPSK	1@272	see graph	**PASS**
41	30	100	528000	2640.0	DFT-s-OFDM BPSK	270@0	see graph	**PASS**
41	30	100	528000	2640.0	DFT-s-OFDM QPSK	270@0	see graph	**PASS**

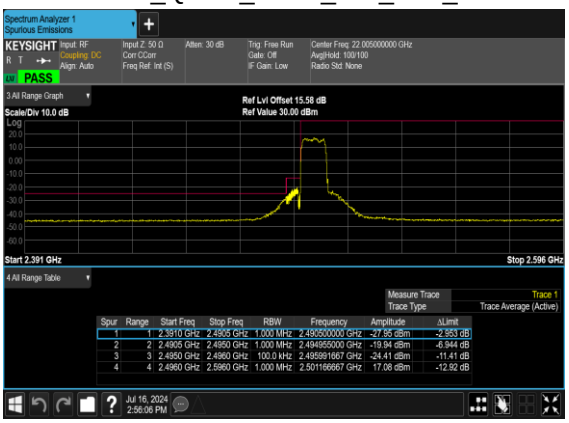
N41(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

N41(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

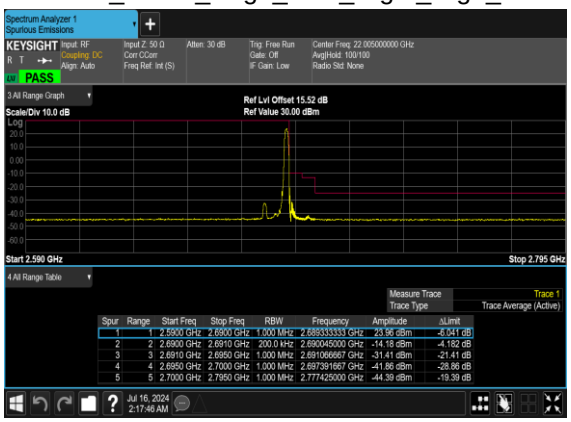
N41(10M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



N41(10M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



N41(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



N41(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH