FCC RF Test Report

APPLICANT	: ASUSTeK COMPUTER INC.
EQUIPMENT	: ASUS Phone(Mobile Phone)
BRAND NAME	: ASUS
MODEL NAME	: ASUS_AI2401_E
FCC ID	: MSQAI2401
STANDARD	: 47 CFR Part 2, 22, 24, 27
CLASSIFICATION	: PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	: Nov. 01, 2023 ~ Dec. 18, 2023

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)

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055

People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG391308H	Rev. 01	Initial issue of report	Jan. 18, 2024

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(5)	Effective Radiated Power (5G NR n5, n26)	ERP < 7 Watt		
	§24.232(c)	Equivalent Isotropic Radiated Power (5G NR n2, n25)	EIRP < 2Watt		
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (5G NR n66,)	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 §22.917(a) §24.238(a) §27.53(h)	Conducted Band Edge Measurement (5G NR n5, n26) (5G NR n2, n25) (5G NR n6)	< 43+10log10(P[Watts])	PASS	-
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Spurious Emission (5G NR n5, n26) (5G NR n2, n25) (5G NR n66)	< 43+10log10(P[Watts])	PASS	-
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§24.235 §27.54		Within Authorized Band		
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(h)	Radiated Spurious Emission (5G NR n5, n26) (5G NR n2, n25) (5G NR n66)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 2.38 dB at 6916.50 MHz

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Applicant

ASUSTeK COMPUTER INC.
1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan

1.2 Manufacturer

ASUSTeK COMPUTER INC.
1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	ASUS Phone(Mobile Phone)
Brand Name	ASUS
Model Name	ASUS_AI2401_E
FCC ID	MSQAI2401
IMEI Code	Conducted : 356313810100690/356313810100708 Radiation : 356313810100674/356313810100682
HW Version	R2.0
SW Version	Android 14
EUT Stage	Identical Prototype

Remark: There are four SKUs of EUT for this project. The differences between them are summary below, According to the difference, we evaluate SKU1 to perform full test.

Sample list				
	SKU1	**SKU2**	**SKU3**	**SKU4**
Model	**ASUS_AI2401_E**	**ASUS_AI2401_E**	**ASUS_AI2401_E**	**ASUS_AI2401_E**
Config.	US(Pro)	US(Enrty)	US(Pro)	US(Enrty)
RF module board	US(Pro)	US(Enrty)	US(Pro)	US(Enrty)
LCD+Touch front frame module	AI2401 FRONT CASE ASSY	AI2401 FRONT CASE ASSY	AI2401 FRONT CASE ASSY	AI2401 FRONT CASE ASSY
DDR	16G(HYNIX) HYNIX / H58G76BK8HX095	16G(Micron) Micron / MT62F2G64D8ZA-023 WT:C	16G(HYNIX) HYNIX / H58G76BK8HX095	16G(Micron) Micron / MT62F2G64D8ZA-023 WT:C
UFS	1TB(Samsung) Samsung / KLUGGARHHD-B0G1	512G(HYNIX) (UFS4.0) HYNIX / HN8T274EJKX130	1TB(Samsung) Samsung / KLUGGARHHD-B0G1	512G(HYNIX) (UFS4.0) HYNIX / HN8T274EJKX130
MB	AI2401_MB	AI2401_MB	AI2401_MB	AI2401_MB
Back cover SKU	WW Pro(Mini LED)	WW Entry(LGF)	WW Pro(Mini LED)	WW Entry(LGF)
Battery	SCUD / C21P2301	SCUD / C21P2301	SCUD / C21P2301	SCUD / C21P2301
Main 50+13M	SHINETECH / DDN03B	RAYPRUS / CASDJ-000A	RAYPRUS / CASDJ-000A	SHINETECH / DDN03B
Tele 32M	Kunshan Q-TECH / C3HS01	SHINETECH / DHG01B	SHINETECH / DHG01B	Kunshan Q-TECH / C3HS01
Front 32M	TSPRECISION / TVHF3046	RAYPRUS / CASG-000A	RAYPRUS / CASG-000A	TSPRECISION / TVHF3046

PCB	COMPEQ	COMPEQ	COMPEQ	COMPEQ
CPU	QUALCOMM SM-8650 MPSP1629	QUALCOMM SM-8650 MPSP1629	QUALCOMM SM-8650 MPSP1629	QUALCOMM SM-8650 MPSP1629
WPC antenna	ASAP	INPAQ	INPAQ	ASAP
NFC antenna	ASAP	INPAQ	INPAQ	ASAP
WWAN/WLAN /BT/GPS antenna	INPAQ	ASAP	ASAP	INPAQ

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz
Rx Frequency	5G NR n2 : 1930 MHz ~ 1990 MHz 5G NR n5 : 869 MHz ~ 894 MHz 5G NR n25 : 1930 MHz ~ 1995 MHz 5G NR n26 : 859 MHz ~ 894 MHz 5G NR n66 : 2110 MHz~ 2200 MHz
Bandwidth	n2, n5, n26: 5MHz / 10MHz / 15MHz / 20MHz n25, n66: 5 MHz/ 10 MHz/ 15 MHz/ 20 MHz/ 25 MHz/ 30 MHz /40 MHz
SCS	15kHz
Antenna Gain	**<Ant. 0>:** n5/n26: -1.60 dBi **<Ant. 1>:** n2/n25: -1.10 dBi n66: -1.80 dBi **<Ant. 2>:** n2/n25: -2.20 dBi n5/n26: -3.70 dBi n66: -1.70 dBi **<Ant. 7>:** n2/n25: -4.60 dBi n66: -5.80 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

Remark:

1. The maximum ERP/EIRP is calculated from max output power and max antenna gain, only the maximum ERP/EIRP are shown in the report, 5G NR n2/n25/n66 for Ant. 1, and n5/n26 for Ant. 0.
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 n26 support SA mode, n2/n5/n25/n66 support SA & NSA mode. According to the maximum power between SA and NSA mode.
4. 5G NR n2/n25/n66 support two PAs, both the PA are full tested, only the worst results are show in the report.
5. The EN-DC mode combination could be referred to the product spec.

1.5 Modification of EUT

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

1.6 Maximum ERP/EIRP and Emission Designator

5G NR n2		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	1852.5 ~ 1907.5	0.2014	4M47G7D	0.1656	4M48W7D
10	1855.0 ~ 1905.0	0.2051	9M29G7D	0.1656	9M29W7D
15	1857.5 ~ 1902.5	0.2009	14M1G7D	0.1633	14M1W7D
20	1860.0 ~ 1900.0	0.2163	18M9G7D	0.1656	19M0W7D
5G NR n25		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	1852.5 ~ 1912.5	0.2153	4M47G7D	0.1758	4M48W7D
10	1855.0 ~ 1910.0	0.2080	9M29G7D	0.1694	9M29W7D
15	1857.5 ~ 1907.5	0.2113	14M1G7D	0.1702	14M1W7D
20	1860.0 ~ 1905.0	0.2089	18M9G7D	0.1694	19M0W7D
25	1862.5 ~ 1902.5	0.2094	23M8G7D	0.1718	23M7W7D
30	1865.0 ~ 1900.0	0.2148	28M5G7D	0.1734	28M6W7D
40	1870.0 ~ 1895.0	0.2228	38M5G7D	0.1706	38M6W7D
5G NR n5		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	826.5 ~ 846.5	0.1291	4M46G7D	0.1040	4M50W7D
10	829.0 ~ 844.0	0.1259	9M27G7D	0.1023	9M28W7D
15	831.5 ~ 841.5	0.1282	14M1G7D	0.1023	14M1W7D
20	834.0 ~ 839.0	0.1309	18M9G7D	0.1079	18M9W7D
5G NR n26		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	826.5 ~ 846.5	0.1384	4M46G7D	0.1081	4M50W7D
10	829.0 ~ 844.0	0.1315	9M27G7D	0.1072	9M28W7D
15	831.5 ~ 841.5	0.1330	14M1G7D	0.1057	14M1W7D
20	834.0 ~ 839.0	0.1387	18M9G7D	0.1079	18M9W7D

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	0.1807	4M47G7D	0.1449	4M48W7D
10	1715.0 ~ 1775.0	0.1778	9M27G7D	0.1439	9M29W7D
15	1717.5 ~ 1772.5	0.1782	14M1G7D	0.1449	14M1W7D
20	1720.0 ~ 1770.0	0.1730	18M9G7D	0.1413	18M9W7D
25	1722.5 ~ 1767.5	0.1824	23M7G7D	0.1476	23M7W7D
30	1725.0 ~ 1765.0	0.1811	28M6G7D	0.1469	28M6W7D
40	1730.0 ~ 1760.0	0.1892	38M6G7D	0.1466	38M6W7D

Note:

1. 5G NR n26 overlaps the entire frequency range of 5G NR n5. Therefore, the test results provided in this report covers 5G NR n5 and the portion of 5G NR n26 subject to Part 22.
2. 5G NR n25 overlaps the entire frequency range of 5G NR n2. Therefore, the test results provided in this report covers 5G NR n25 as well as 5G NR n2.
3. 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.**
	03CH03-SZ	CN1256	421272

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH03-SZ	AUDIX	E3	6.2009-8-24

1.9 Applicable Standards

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

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

Remark:

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

2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

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

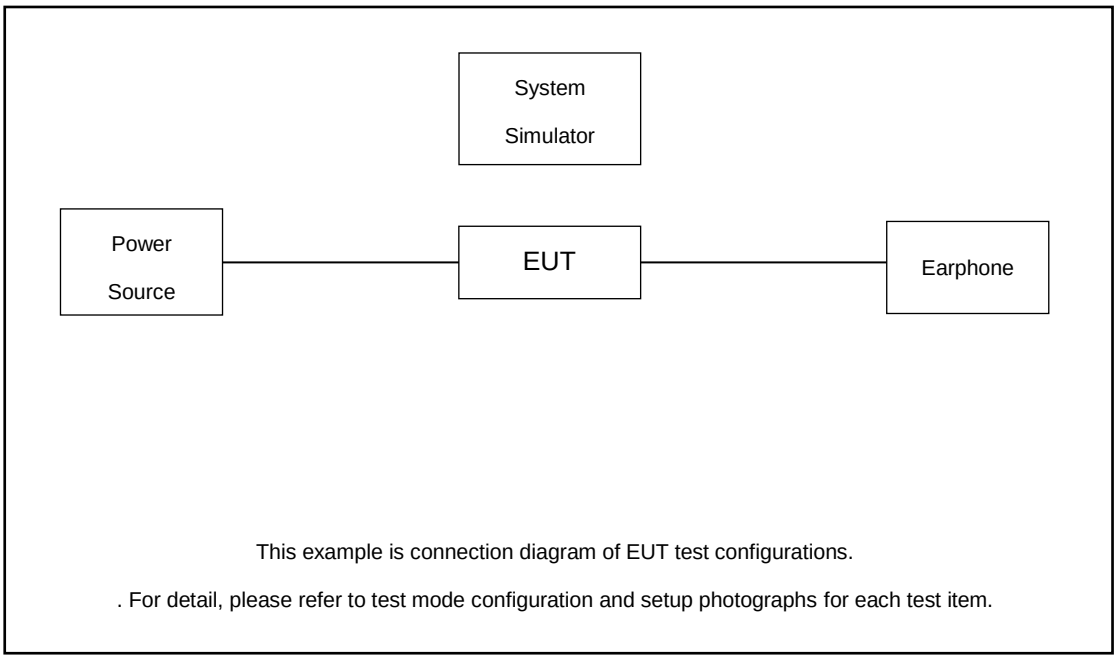
The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.

	X Plane	Y Plane	Z Plane
Orthogonal Planes of EUT			

Test Items	5G NR	Bandwidth (MHz)								Modulation					RB #		Test Channel		
		5	10	15	20	25	30	40	50	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Full	L	M	H
Max. Output Power	n2	v	v	v	v	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n5	v	v	v	v	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n25	v	v	v	v	v	v	v	-	v	v	v	v	v	v	v	v	v	v
	n26	v	v	v	v	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n66	v	v	v	v	v	v	v	-	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	n25				v				-	v	v				v	v		v	
	n26				v	-	-	-	-	v	v				v	v		v	
	n66				v				-	v	v				v	v		v	
26dB and 99% Bandwidth	n25	v	v	v	v	v	v	v	-		v	v	v	v		v		v	
	n26	v	v	v	v	-	-	-	-		v	v	v	v		v		v	
	n66	v	v	v	v	v	v	v	-		v	v	v	v		v		v	
Conducted Band Edge	n25	v			v			v	-	v	v				v	v	v		v
	n26	v	v		v			-	-	v	v				v	v	v		v
	n66	v			v			v	-	v	v				v	v	v		v
Conducted Spurious Emission	n25	v			v			v	-	v	v				v		v	v	v
	n26	v	v		v	-	-	-	-	v	v				v		v	v	v
	n66	v			v			v	-	v	v				v		v	v	v

Frequency Stability	n25				v				-		v					v		v	
	n26				v	-	-	-	-		v					v		v	
	n66				v				-		v					v		v	
E.R.P / E.I.R.P	n25	v	v	v	v	v	v	v	-	v	v	v	v	v	v	v	v	v	v
	n26	v	v	v	v	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n66	v	v	v	v	v	v	v	-	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	n25	Worst Case																v	
	n26	Worst Case																v	
	n66	Worst Case																v	
Note	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. Frequency Stability：Normal Voltage = 7.78V ；Low Voltage =7.3V.；High Voltage =8.7V																		

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 or 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 8.0 dB.

Example :

Offset(dB) = RF cable loss(dB).

= 8.0 (dB)

2.5 Frequency List of Low/Middle/High Channels

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

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

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

5G NR n25 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
40	Channel	390000	392500	395000
	Frequency	1870	1882.5	1895
30	Channel	389000	392500	396000
	Frequency	1865	1882.5	1900
25	Channel	388500	392500	396500
	Frequency	1862.5	1882.5	1902.5
20	Channel	372000	376500	381000
	Frequency	1860	1882.5	1905
15	Channel	371500	376500	381500
	Frequency	1857.5	1882.5	1907.5
10	Channel	371000	376500	382000
	Frequency	1855	1882.5	1910
5	Channel	370500	376500	382500
	Frequency	1852.5	1882.5	1912.5

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

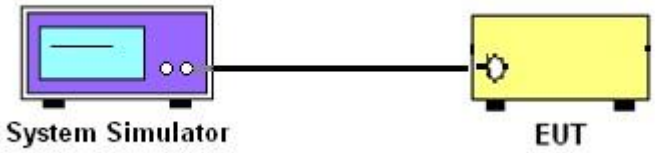
3 Conducted Test Items

3.1 Measuring Instruments

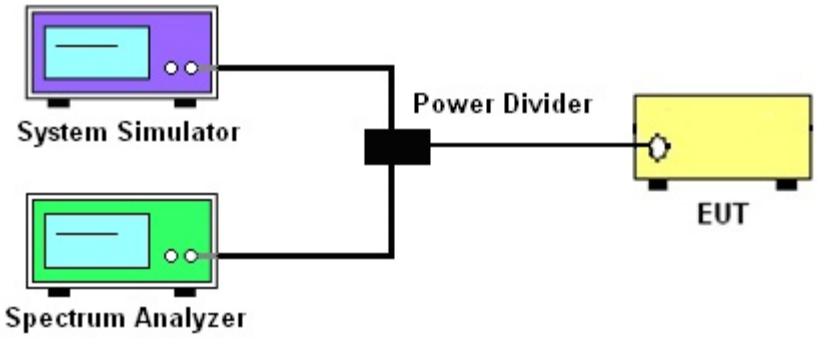
See list of measuring instruments of this test report.

3.2 Test Setup

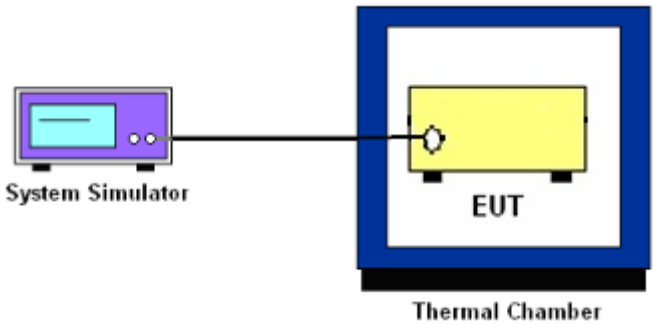
3.2.1 Conducted Output Power



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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

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

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

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

The EIRP of mobile transmitters must not exceed 2 Watts for 5G NR n2, n25.

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

According to KDB 412172 D01 Power Approach,

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

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

3.4.2 Test Procedures

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

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

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

3.5.2 Test Procedures

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

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

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

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

3.6.2 Test Procedures

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

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

22.917(a)

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

24.238 (a)

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

27.53 (h)

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

3.7.2 Test Procedures

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

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

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

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

3.8.2 Test Procedures

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

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

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

3.9.2 Test Procedures for Temperature Variation

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

3.9.3 Test Procedures for Voltage Variation

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

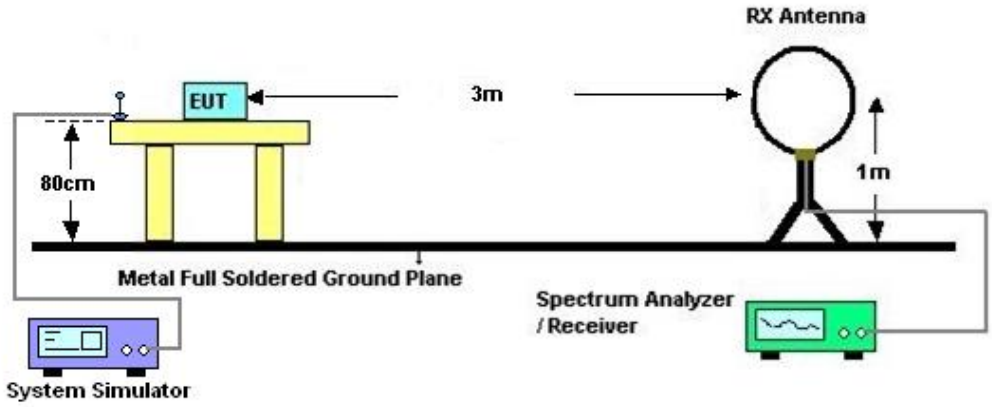
4 Radiated Test Items

4.1 Measuring Instruments

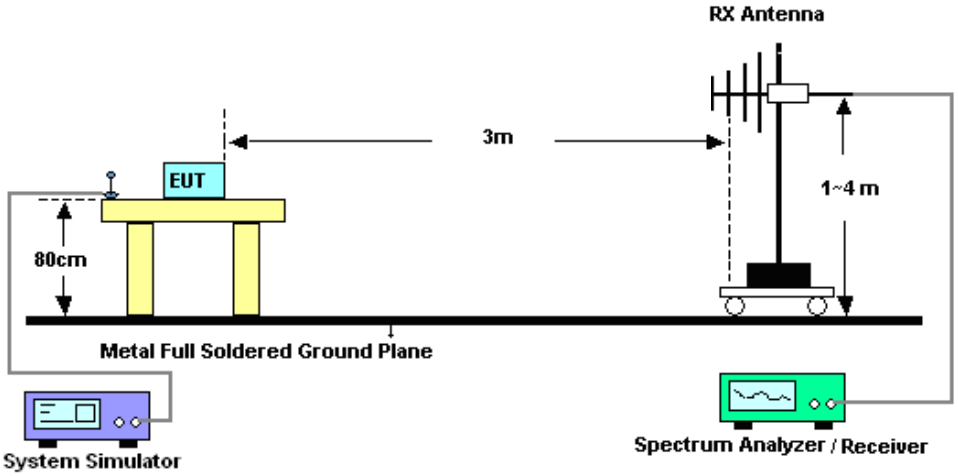
See list of measuring instruments of this test report.

4.2 Test Setup

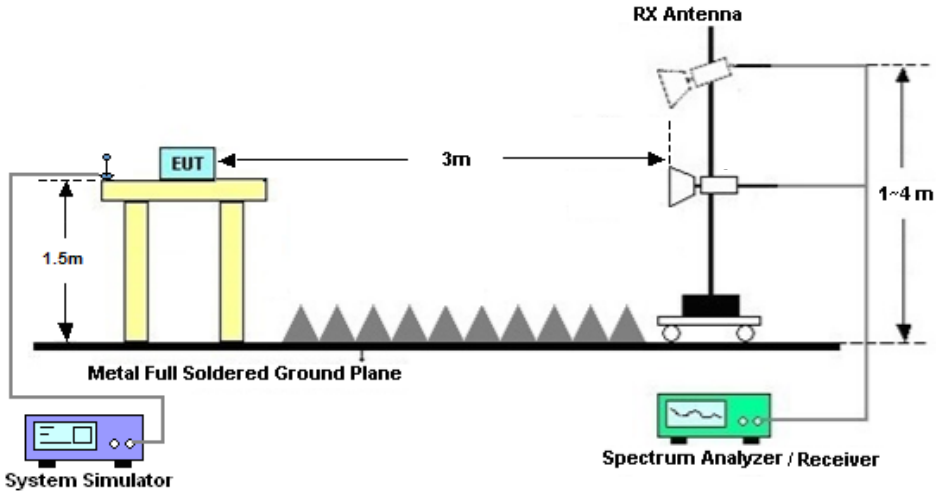
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

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

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

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

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

4.4.2 Test Procedures

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

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 06, 2023	Nov. 01, 2023~ Nov. 02, 2023	Apr. 05, 2024	Conducted (TH01-SZ)
DC Power Supply	TTI	PL330P	290070	Max 32V，3A	Oct. 16, 2023	Nov. 01, 2023~ Nov. 02, 2023	Oct. 15, 2024	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 25, 2022	Nov. 01, 2023~ Nov. 02, 2023	Dec. 24, 2023	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 05, 2023	Nov. 01, 2023~ Nov. 02, 2023	Jul. 04, 2024	Conducted (TH01-SZ)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	Apr. 04, 2023	Dec. 18, 2023	Apr. 03, 2024	Radiation (03CH03-SZ)
EXA Spectrum Anaiyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	Apr. 04, 2023	Dec. 18, 2023	Apr. 03, 2024	Radiation (03CH03-SZ
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 28, 2022	Dec. 18, 2023	Jun. 27, 2024	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz-2GHz	Aug. 20, 2023	Dec. 18, 2023	Aug. 19, 2025	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	Apr. 08, 2023	Dec. 18, 2023	Apr. 07, 2024	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 08, 2023	Dec. 18, 2023	Apr. 07, 2024	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 18, 2023	Dec. 18, 2023	Oct. 17, 2024	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 07, 2023	Dec. 18, 2023	Jul.06, 2024	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 26, 2022	Dec. 18, 2023	Dec. 25, 2023	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010002729	N/A	Oct. 18, 2023	Dec. 18, 2023	Oct. 17, 2024	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Dec. 18, 2023	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Dec. 18, 2023	NCR	Radiation (03CH03-SZ)

NCR: No Calibration Required

6 Measurement Uncertainty

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

Uncertainty of Conducted Measurement

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 (9 KHz ~ 30 MHz)

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

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

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

Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

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

---------- 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

FR1 N2(ANT1_Main PA)

Transmitter Conducted Output Power And EIRP, (G_T - L_C)=-1.1dB

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
2	15	5	370500	1852.5	DFT-s-OFDM QPSK	1@1	24.14	23.04	0.2014
2	15	5	370500	1852.5	DFT-s-OFDM 16 QAM	1@1	23.29	22.19	0.1656
2	15	5	376000	1880.0	DFT-s-OFDM QPSK	1@1	24.11	23.01	0.2000
2	15	5	376000	1880.0	DFT-s-OFDM 16 QAM	1@1	23.18	22.08	0.1614
2	15	5	381500	1907.5	DFT-s-OFDM QPSK	1@1	24.08	22.98	0.1986
2	15	5	381500	1907.5	DFT-s-OFDM 16 QAM	1@1	23.22	22.12	0.1629
2	15	10	371000	1855.0	DFT-s-OFDM QPSK	1@1	24.22	23.12	0.2051
2	15	10	371000	1855.0	DFT-s-OFDM 16 QAM	1@1	23.21	22.11	0.1626
2	15	10	376000	1880.0	DFT-s-OFDM QPSK	1@1	24.09	22.99	0.1991
2	15	10	376000	1880.0	DFT-s-OFDM 16 QAM	1@1	23.2	22.1	0.1622
2	15	10	381000	1905.0	DFT-s-OFDM QPSK	1@1	24.09	22.99	0.1991
2	15	10	381000	1905.0	DFT-s-OFDM 16 QAM	1@1	23.29	22.19	0.1656
2	15	15	371500	1857.5	DFT-s-OFDM QPSK	1@1	24.07	22.97	0.1982
2	15	15	371500	1857.5	DFT-s-OFDM 16 QAM	1@1	23.2	22.1	0.1622
2	15	15	376000	1880.0	DFT-s-OFDM QPSK	1@1	24.13	23.03	0.2009
2	15	15	376000	1880.0	DFT-s-OFDM 16 QAM	1@1	23.23	22.13	0.1633
2	15	15	380500	1902.5	DFT-s-OFDM QPSK	1@1	24.04	22.94	0.1968
2	15	15	380500	1902.5	DFT-s-OFDM 16 QAM	1@1	23.18	22.08	0.1614
2	15	20	372000	1860.0	DFT-s-OFDM PI/2 BPSK	50@25	24.45	23.35	0.2163
2	15	20	372000	1860.0	DFT-s-OFDM PI/2 BPSK	1@1	24.11	23.01	0.2000
2	15	20	372000	1860.0	DFT-s-OFDM PI/2 BPSK	1@104	24.16	23.06	0.2023
2	15	20	372000	1860.0	DFT-s-OFDM QPSK	50@25	24.4	23.3	0.2138

2	15	20	372000	1860.0	DFT-s-OFDM QPSK	1@1	24.19	23.09	0.2037
2	15	20	372000	1860.0	DFT-s-OFDM QPSK	1@104	24.13	23.03	0.2009
2	15	20	372000	1860.0	DFT-s-OFDM 16 QAM	50@25	23.27	22.17	0.1648
2	15	20	372000	1860.0	DFT-s-OFDM 16 QAM	1@1	23.16	22.06	0.1607
2	15	20	372000	1860.0	DFT-s-OFDM 16 QAM	1@104	23.2	22.1	0.1622
2	15	20	372000	1860.0	DFT-s-OFDM 64 QAM	50@25	21.68	20.58	0.1143
2	15	20	372000	1860.0	DFT-s-OFDM 64 QAM	1@1	21.71	20.61	0.1151
2	15	20	372000	1860.0	DFT-s-OFDM 64 QAM	1@104	21.78	20.68	0.1169
2	15	20	372000	1860.0	DFT-s-OFDM 256 QAM	50@25	19.64	18.54	0.0714
2	15	20	372000	1860.0	DFT-s-OFDM 256 QAM	1@1	19.28	18.18	0.0658
2	15	20	372000	1860.0	DFT-s-OFDM 256 QAM	1@104	19.28	18.18	0.0658
2	15	20	372000	1860.0	CP-OFDM QPSK	53@26	22.8	21.7	0.1479
2	15	20	372000	1860.0	CP-OFDM QPSK	1@1	22.42	21.32	0.1355
2	15	20	372000	1860.0	CP-OFDM QPSK	1@104	22.51	21.41	0.1384
2	15	20	376000	1880.0	DFT-s-OFDM PI/2 BPSK	50@25	24.28	23.18	0.2080
2	15	20	376000	1880.0	DFT-s-OFDM PI/2 BPSK	1@1	24.31	23.21	0.2094
2	15	20	376000	1880.0	DFT-s-OFDM PI/2 BPSK	1@104	24.15	23.05	0.2018
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	50@25	24.29	23.19	0.2084
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	1@1	24.26	23.16	0.2070
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	1@104	24.15	23.05	0.2018
2	15	20	376000	1880.0	DFT-s-OFDM 16 QAM	50@25	23.06	21.96	0.1570
2	15	20	376000	1880.0	DFT-s-OFDM 16 QAM	1@1	23.29	22.19	0.1656
2	15	20	376000	1880.0	DFT-s-OFDM 16 QAM	1@104	23.21	22.11	0.1626
2	15	20	376000	1880.0	DFT-s-OFDM 64 QAM	50@25	21.59	20.49	0.1119
2	15	20	376000	1880.0	DFT-s-OFDM 64 QAM	1@1	21.87	20.77	0.1194
2	15	20	376000	1880.0	DFT-s-OFDM 64 QAM	1@104	21.82	20.72	0.1180
2	15	20	376000	1880.0	DFT-s-OFDM 256 QAM	50@25	19.54	18.44	0.0698

2	15	20	376000	1880.0	DFT-s-OFDM 256 QAM	1@1	19.39	18.29	0.0675
2	15	20	376000	1880.0	DFT-s-OFDM 256 QAM	1@104	19.35	18.25	0.0668
2	15	20	376000	1880.0	CP-OFDM QPSK	53@26	22.55	21.45	0.1396
2	15	20	376000	1880.0	CP-OFDM QPSK	1@1	23	21.9	0.1549
2	15	20	376000	1880.0	CP-OFDM QPSK	1@104	22.88	21.78	0.1507
2	15	20	380000	1900.0	DFT-s-OFDM PI/2 BPSK	50@25	23.88	22.78	0.1897
2	15	20	380000	1900.0	DFT-s-OFDM PI/2 BPSK	1@1	24.3	23.2	0.2089
2	15	20	380000	1900.0	DFT-s-OFDM PI/2 BPSK	1@104	23.96	22.86	0.1932
2	15	20	380000	1900.0	DFT-s-OFDM QPSK	50@25	24.18	23.08	0.2032
2	15	20	380000	1900.0	DFT-s-OFDM QPSK	1@1	24.24	23.14	0.2061
2	15	20	380000	1900.0	DFT-s-OFDM QPSK	1@104	24.18	23.08	0.2032
2	15	20	380000	1900.0	DFT-s-OFDM 16 QAM	50@25	23.11	22.01	0.1589
2	15	20	380000	1900.0	DFT-s-OFDM 16 QAM	1@1	23.18	22.08	0.1614
2	15	20	380000	1900.0	DFT-s-OFDM 16 QAM	1@104	23.24	22.14	0.1637
2	15	20	380000	1900.0	DFT-s-OFDM 64 QAM	50@25	21.65	20.55	0.1135
2	15	20	380000	1900.0	DFT-s-OFDM 64 QAM	1@1	21.73	20.63	0.1156
2	15	20	380000	1900.0	DFT-s-OFDM 64 QAM	1@104	21.82	20.72	0.1180
2	15	20	380000	1900.0	DFT-s-OFDM 256 QAM	50@25	19.58	18.48	0.0705
2	15	20	380000	1900.0	DFT-s-OFDM 256 QAM	1@1	19.28	18.18	0.0658
2	15	20	380000	1900.0	DFT-s-OFDM 256 QAM	1@104	19.31	18.21	0.0662
2	15	20	380000	1900.0	CP-OFDM QPSK	53@26	22.63	21.53	0.1422
2	15	20	380000	1900.0	CP-OFDM QPSK	1@1	22.43	21.33	0.1358
2	15	20	380000	1900.0	CP-OFDM QPSK	1@104	22.46	21.36	0.1368

Software Version: 23.06.1602

FR1 N2 (ANT7_Other PA)

Transmitter Conducted Output Power And EIRP, (G_T - L_C)=-4.6dB

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
2	15	5	370500	1852.5	DFT-s-OFDM QPSK	1@1	22.96	18.36	0.0685
2	15	5	370500	1852.5	DFT-s-OFDM 16 QAM	1@1	22.14	17.54	0.0568
2	15	5	376000	1880.0	DFT-s-OFDM QPSK	1@1	23.08	18.48	0.0705
2	15	5	376000	1880.0	DFT-s-OFDM 16 QAM	1@1	22.25	17.65	0.0582
2	15	5	381500	1907.5	DFT-s-OFDM QPSK	1@1	23.06	18.46	0.0701
2	15	5	381500	1907.5	DFT-s-OFDM 16 QAM	1@1	22.06	17.46	0.0557
2	15	10	371000	1855.0	DFT-s-OFDM QPSK	1@1	23.1	18.5	0.0708
2	15	10	371000	1855.0	DFT-s-OFDM 16 QAM	1@1	22.02	17.42	0.0552
2	15	10	376000	1880.0	DFT-s-OFDM QPSK	1@1	23.13	18.53	0.0713
2	15	10	376000	1880.0	DFT-s-OFDM 16 QAM	1@1	22.13	17.53	0.0566
2	15	10	381000	1905.0	DFT-s-OFDM QPSK	1@1	22.97	18.37	0.0687
2	15	10	381000	1905.0	DFT-s-OFDM 16 QAM	1@1	21.92	17.32	0.0540
2	15	15	371500	1857.5	DFT-s-OFDM QPSK	1@1	23.02	18.42	0.0695
2	15	15	371500	1857.5	DFT-s-OFDM 16 QAM	1@1	22.14	17.54	0.0568
2	15	15	376000	1880.0	DFT-s-OFDM QPSK	1@1	23.15	18.55	0.0716
2	15	15	376000	1880.0	DFT-s-OFDM 16 QAM	1@1	22.23	17.63	0.0579
2	15	15	380500	1902.5	DFT-s-OFDM QPSK	1@1	22.79	18.19	0.0659
2	15	15	380500	1902.5	DFT-s-OFDM 16 QAM	1@1	21.89	17.29	0.0536
2	15	20	372000	1860.0	DFT-s-OFDM PI/2 BPSK	50@25	23.35	18.75	0.0750
2	15	20	372000	1860.0	DFT-s-OFDM PI/2 BPSK	1@1	22.99	18.39	0.0690
2	15	20	372000	1860.0	DFT-s-OFDM PI/2 BPSK	1@104	23.33	18.73	0.0746
2	15	20	372000	1860.0	DFT-s-OFDM QPSK	50@25	23.31	18.71	0.0743

2	15	20	372000	1860.0	DFT-s-OFDM QPSK	1@1	22.96	18.36	0.0685
2	15	20	372000	1860.0	DFT-s-OFDM QPSK	1@104	23.29	18.69	0.0740
2	15	20	372000	1860.0	DFT-s-OFDM 16 QAM	50@25	22.3	17.7	0.0589
2	15	20	372000	1860.0	DFT-s-OFDM 16 QAM	1@1	22	17.4	0.0550
2	15	20	372000	1860.0	DFT-s-OFDM 16 QAM	1@104	22.27	17.67	0.0585
2	15	20	372000	1860.0	DFT-s-OFDM 64 QAM	50@25	20.86	16.26	0.0423
2	15	20	372000	1860.0	DFT-s-OFDM 64 QAM	1@1	20.51	15.91	0.0390
2	15	20	372000	1860.0	DFT-s-OFDM 64 QAM	1@104	20.85	16.25	0.0422
2	15	20	372000	1860.0	DFT-s-OFDM 256 QAM	50@25	18.79	14.19	0.0262
2	15	20	372000	1860.0	DFT-s-OFDM 256 QAM	1@1	18.13	13.53	0.0225
2	15	20	372000	1860.0	DFT-s-OFDM 256 QAM	1@104	18.43	13.83	0.0242
2	15	20	372000	1860.0	CP-OFDM QPSK	53@26	21.85	17.25	0.0531
2	15	20	372000	1860.0	CP-OFDM QPSK	1@1	21.35	16.75	0.0473
2	15	20	372000	1860.0	CP-OFDM QPSK	1@104	21.69	17.09	0.0512
2	15	20	376000	1880.0	DFT-s-OFDM PI/2 BPSK	50@25	23.01	18.41	0.0693
2	15	20	376000	1880.0	DFT-s-OFDM PI/2 BPSK	1@1	23.17	18.57	0.0719
2	15	20	376000	1880.0	DFT-s-OFDM PI/2 BPSK	1@104	22.86	18.26	0.0670
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	50@25	22.96	18.36	0.0685
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	1@1	23.13	18.53	0.0713
2	15	20	376000	1880.0	DFT-s-OFDM QPSK	1@104	22.69	18.09	0.0644
2	15	20	376000	1880.0	DFT-s-OFDM 16 QAM	50@25	21.89	17.29	0.0536
2	15	20	376000	1880.0	DFT-s-OFDM 16 QAM	1@1	22.21	17.61	0.0577
2	15	20	376000	1880.0	DFT-s-OFDM 16 QAM	1@104	21.81	17.21	0.0526
2	15	20	376000	1880.0	DFT-s-OFDM 64 QAM	50@25	20.41	15.81	0.0381
2	15	20	376000	1880.0	DFT-s-OFDM 64 QAM	1@1	20.78	16.18	0.0415
2	15	20	376000	1880.0	DFT-s-OFDM 64 QAM	1@104	20.31	15.71	0.0372
2	15	20	376000	1880.0	DFT-s-OFDM 256 QAM	50@25	18.67	14.07	0.0255

2	15	20	376000	1880.0	DFT-s-OFDM 256 QAM	1@1	18.37	13.77	0.0238
2	15	20	376000	1880.0	DFT-s-OFDM 256 QAM	1@104	17.99	13.39	0.0218
2	15	20	376000	1880.0	CP-OFDM QPSK	53@26	21.51	16.91	0.0491
2	15	20	376000	1880.0	CP-OFDM QPSK	1@1	21.94	17.34	0.0542
2	15	20	376000	1880.0	CP-OFDM QPSK	1@104	21.34	16.74	0.0472
2	15	20	380000	1900.0	DFT-s-OFDM PI/2 BPSK	50@25	22.99	18.39	0.0690
2	15	20	380000	1900.0	DFT-s-OFDM PI/2 BPSK	1@1	22.8	18.2	0.0661
2	15	20	380000	1900.0	DFT-s-OFDM PI/2 BPSK	1@104	22.99	18.39	0.0690
2	15	20	380000	1900.0	DFT-s-OFDM QPSK	50@25	22.97	18.37	0.0687
2	15	20	380000	1900.0	DFT-s-OFDM QPSK	1@1	22.72	18.12	0.0649
2	15	20	380000	1900.0	DFT-s-OFDM QPSK	1@104	23.02	18.42	0.0695
2	15	20	380000	1900.0	DFT-s-OFDM 16 QAM	50@25	21.89	17.29	0.0536
2	15	20	380000	1900.0	DFT-s-OFDM 16 QAM	1@1	21.79	17.19	0.0524
2	15	20	380000	1900.0	DFT-s-OFDM 16 QAM	1@104	22.09	17.49	0.0561
2	15	20	380000	1900.0	DFT-s-OFDM 64 QAM	50@25	20.43	15.83	0.0383
2	15	20	380000	1900.0	DFT-s-OFDM 64 QAM	1@1	20.35	15.75	0.0376
2	15	20	380000	1900.0	DFT-s-OFDM 64 QAM	1@104	20.69	16.09	0.0406
2	15	20	380000	1900.0	DFT-s-OFDM 256 QAM	50@25	18.39	13.79	0.0239
2	15	20	380000	1900.0	DFT-s-OFDM 256 QAM	1@1	18	13.4	0.0219
2	15	20	380000	1900.0	DFT-s-OFDM 256 QAM	1@104	18.21	13.61	0.0230
2	15	20	380000	1900.0	CP-OFDM QPSK	53@26	21.49	16.89	0.0489
2	15	20	380000	1900.0	CP-OFDM QPSK	1@1	21.46	16.86	0.0485
2	15	20	380000	1900.0	CP-OFDM QPSK	1@104	21.47	16.87	0.0486

Software Version: 23.06.1602

FR1 N5(ANT0)

Transmitter Conducted Output Power And ERP, (G_T - L_C)=-1.6dB

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	ERP(dBm)	ERP(W)
5	15	5	165300	826.5	DFT-s-OFDM QPSK	1@1	24.77	21.02	0.1265
5	15	5	165300	826.5	DFT-s-OFDM 16 QAM	1@1	23.92	20.17	0.1040
5	15	5	167300	836.5	DFT-s-OFDM QPSK	1@1	24.73	20.98	0.1253
5	15	5	167300	836.5	DFT-s-OFDM 16 QAM	1@1	23.72	19.97	0.0993
5	15	5	169300	846.5	DFT-s-OFDM QPSK	1@1	24.86	21.11	0.1291
5	15	5	169300	846.5	DFT-s-OFDM 16 QAM	1@1	23.62	19.87	0.0971
5	15	10	165800	829.0	DFT-s-OFDM QPSK	1@1	24.74	20.99	0.1256
5	15	10	165800	829.0	DFT-s-OFDM 16 QAM	1@1	23.85	20.1	0.1023
5	15	10	167300	836.5	DFT-s-OFDM QPSK	1@1	24.61	20.86	0.1219
5	15	10	167300	836.5	DFT-s-OFDM 16 QAM	1@1	23.6	19.85	0.0966
5	15	10	168800	844.0	DFT-s-OFDM QPSK	1@1	24.75	21	0.1259
5	15	10	168800	844.0	DFT-s-OFDM 16 QAM	1@1	23.67	19.92	0.0982
5	15	15	166300	831.5	DFT-s-OFDM QPSK	1@1	24.83	21.08	0.1282
5	15	15	166300	831.5	DFT-s-OFDM 16 QAM	1@1	23.85	20.1	0.1023
5	15	15	167300	836.5	DFT-s-OFDM QPSK	1@1	24.61	20.86	0.1219
5	15	15	167300	836.5	DFT-s-OFDM 16 QAM	1@1	23.65	19.9	0.0977
5	15	15	168300	841.5	DFT-s-OFDM QPSK	1@1	24.63	20.88	0.1225
5	15	15	168300	841.5	DFT-s-OFDM 16 QAM	1@1	23.64	19.89	0.0975
5	15	20	166800	834.0	DFT-s-OFDM PI/2 BPSK	50@25	24.66	20.91	0.1233
5	15	20	166800	834.0	DFT-s-OFDM PI/2 BPSK	1@1	24.86	21.11	0.1291
5	15	20	166800	834.0	DFT-s-OFDM PI/2 BPSK	1@104	24.73	20.98	0.1253
5	15	20	166800	834.0	DFT-s-OFDM QPSK	50@25	24.63	20.88	0.1225

5	15	20	166800	834.0	DFT-s-OFDM QPSK	1@1	24.76	21.01	0.1262
5	15	20	166800	834.0	DFT-s-OFDM QPSK	1@104	24.64	20.89	0.1227
5	15	20	166800	834.0	DFT-s-OFDM 16 QAM	50@25	23.48	19.73	0.0940
5	15	20	166800	834.0	DFT-s-OFDM 16 QAM	1@1	23.83	20.08	0.1019
5	15	20	166800	834.0	DFT-s-OFDM 16 QAM	1@104	23.74	19.99	0.0998
5	15	20	166800	834.0	DFT-s-OFDM 64 QAM	50@25	22.16	18.41	0.0693
5	15	20	166800	834.0	DFT-s-OFDM 64 QAM	1@1	22.4	18.65	0.0733
5	15	20	166800	834.0	DFT-s-OFDM 64 QAM	1@104	22.31	18.56	0.0718
5	15	20	166800	834.0	DFT-s-OFDM 256 QAM	50@25	20.04	16.29	0.0426
5	15	20	166800	834.0	DFT-s-OFDM 256 QAM	1@1	19.98	16.23	0.0420
5	15	20	166800	834.0	DFT-s-OFDM 256 QAM	1@104	19.9	16.15	0.0412
5	15	20	166800	834.0	CP-OFDM QPSK	53@26	23.07	19.32	0.0855
5	15	20	166800	834.0	CP-OFDM QPSK	1@1	23.48	19.73	0.0940
5	15	20	166800	834.0	CP-OFDM QPSK	1@104	22.94	19.19	0.0830
5	15	20	167300	836.5	DFT-s-OFDM PI/2 BPSK	50@25	24.76	21.01	0.1262
5	15	20	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@1	24.71	20.96	0.1247
5	15	20	167300	836.5	DFT-s-OFDM PI/2 BPSK	1@104	24.76	21.01	0.1262
5	15	20	167300	836.5	DFT-s-OFDM QPSK	50@25	24.72	20.97	0.1250
5	15	20	167300	836.5	DFT-s-OFDM QPSK	1@1	24.87	21.12	0.1294
5	15	20	167300	836.5	DFT-s-OFDM QPSK	1@104	24.79	21.04	0.1271
5	15	20	167300	836.5	DFT-s-OFDM 16 QAM	50@25	23.51	19.76	0.0946
5	15	20	167300	836.5	DFT-s-OFDM 16 QAM	1@1	23.78	20.03	0.1007
5	15	20	167300	836.5	DFT-s-OFDM 16 QAM	1@104	23.84	20.09	0.1021
5	15	20	167300	836.5	DFT-s-OFDM 64 QAM	50@25	22.12	18.37	0.0687
5	15	20	167300	836.5	DFT-s-OFDM 64 QAM	1@1	22.38	18.63	0.0729
5	15	20	167300	836.5	DFT-s-OFDM 64 QAM	1@104	22.33	18.58	0.0721
5	15	20	167300	836.5	DFT-s-OFDM 256 QAM	50@25	20.11	16.36	0.0433

5	15	20	167300	836.5	DFT-s-OFDM 256 QAM	1@1	19.88	16.13	0.0410
5	15	20	167300	836.5	DFT-s-OFDM 256 QAM	1@104	19.88	16.13	0.0410
5	15	20	167300	836.5	CP-OFDM QPSK	53@26	23.07	19.32	0.0855
5	15	20	167300	836.5	CP-OFDM QPSK	1@1	23.01	19.26	0.0843
5	15	20	167300	836.5	CP-OFDM QPSK	1@104	23.11	19.36	0.0863
5	15	20	167800	839.0	DFT-s-OFDM PI/2 BPSK	50@25	24.8	21.05	0.1274
5	15	20	167800	839.0	DFT-s-OFDM PI/2 BPSK	1@1	24.56	20.81	0.1205
5	15	20	167800	839.0	DFT-s-OFDM PI/2 BPSK	1@104	24.91	21.16	0.1306
5	15	20	167800	839.0	DFT-s-OFDM QPSK	50@25	24.66	20.91	0.1233
5	15	20	167800	839.0	DFT-s-OFDM QPSK	1@1	24.57	20.82	0.1208
5	15	20	167800	839.0	DFT-s-OFDM QPSK	1@104	24.92	21.17	0.1309
5	15	20	167800	839.0	DFT-s-OFDM 16 QAM	50@25	23.54	19.79	0.0953
5	15	20	167800	839.0	DFT-s-OFDM 16 QAM	1@1	23.64	19.89	0.0975
5	15	20	167800	839.0	DFT-s-OFDM 16 QAM	1@104	24.08	20.33	0.1079
5	15	20	167800	839.0	DFT-s-OFDM 64 QAM	50@25	22.1	18.35	0.0684
5	15	20	167800	839.0	DFT-s-OFDM 64 QAM	1@1	22.15	18.4	0.0692
5	15	20	167800	839.0	DFT-s-OFDM 64 QAM	1@104	22.54	18.79	0.0757
5	15	20	167800	839.0	DFT-s-OFDM 256 QAM	50@25	20.08	16.33	0.0430
5	15	20	167800	839.0	DFT-s-OFDM 256 QAM	1@1	19.76	16.01	0.0399
5	15	20	167800	839.0	DFT-s-OFDM 256 QAM	1@104	20.11	16.36	0.0433
5	15	20	167800	839.0	CP-OFDM QPSK	53@26	23.06	19.31	0.0853
5	15	20	167800	839.0	CP-OFDM QPSK	1@1	23.27	19.52	0.0895
5	15	20	167800	839.0	CP-OFDM QPSK	1@104	23.11	19.36	0.0863

Software Version: 23.06.1602

FR1 N25(ANT1_Main PA)

Transmitter Conducted Output Power And EIRP, (G_T - L_C)=-1.1dB

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
25	15	5	370500	1852.5	DFT-s-OFDM QPSK	1@1	24.23	23.13	0.2056
25	15	5	370500	1852.5	DFT-s-OFDM 16 QAM	1@1	23.48	22.38	0.1730
25	15	5	376500	1882.5	DFT-s-OFDM QPSK	1@1	24.43	23.33	0.2153
25	15	5	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	23.55	22.45	0.1758
25	15	5	382500	1912.5	DFT-s-OFDM QPSK	1@1	24.24	23.14	0.2061
25	15	5	382500	1912.5	DFT-s-OFDM 16 QAM	1@1	23.36	22.26	0.1683
25	15	10	371000	1855.0	DFT-s-OFDM QPSK	1@1	24.26	23.16	0.2070
25	15	10	371000	1855.0	DFT-s-OFDM 16 QAM	1@1	23.39	22.29	0.1694
25	15	10	376500	1882.5	DFT-s-OFDM QPSK	1@1	24.23	23.13	0.2056
25	15	10	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	23.3	22.2	0.1660
25	15	10	382000	1910.0	DFT-s-OFDM QPSK	1@1	24.28	23.18	0.2080
25	15	10	382000	1910.0	DFT-s-OFDM 16 QAM	1@1	23.32	22.22	0.1667
25	15	15	371500	1857.5	DFT-s-OFDM QPSK	1@1	24.35	23.25	0.2113
25	15	15	371500	1857.5	DFT-s-OFDM 16 QAM	1@1	23.41	22.31	0.1702
25	15	15	376500	1882.5	DFT-s-OFDM QPSK	1@1	24.3	23.2	0.2089
25	15	15	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	23.31	22.21	0.1663
25	15	15	381500	1907.5	DFT-s-OFDM QPSK	1@1	24.14	23.04	0.2014
25	15	15	381500	1907.5	DFT-s-OFDM 16 QAM	1@1	23.25	22.15	0.1641
25	15	20	372000	1860.0	DFT-s-OFDM QPSK	1@1	24.3	23.2	0.2089
25	15	20	372000	1860.0	DFT-s-OFDM 16 QAM	1@1	23.36	22.26	0.1683
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	1@1	24.28	23.18	0.2080
25	15	20	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	23.39	22.29	0.1694

25	15	20	381000	1905.0	DFT-s-OFDM QPSK	1@1	24.23	23.13	0.2056
25	15	20	381000	1905.0	DFT-s-OFDM 16 QAM	1@1	23.3	22.2	0.1660
25	15	25	372500	1862.5	DFT-s-OFDM QPSK	1@1	24.31	23.21	0.2094
25	15	25	372500	1862.5	DFT-s-OFDM 16 QAM	1@1	23.45	22.35	0.1718
25	15	25	376500	1882.5	DFT-s-OFDM QPSK	1@1	24.3	23.2	0.2089
25	15	25	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	23.39	22.29	0.1694
25	15	25	380500	1902.5	DFT-s-OFDM QPSK	1@1	24.19	23.09	0.2037
25	15	25	380500	1902.5	DFT-s-OFDM 16 QAM	1@1	23.37	22.27	0.1687
25	15	30	373000	1865.0	DFT-s-OFDM QPSK	1@1	24.36	23.26	0.2118
25	15	30	373000	1865.0	DFT-s-OFDM 16 QAM	1@1	23.49	22.39	0.1734
25	15	30	376500	1882.5	DFT-s-OFDM QPSK	1@1	24.42	23.32	0.2148
25	15	30	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	23.49	22.39	0.1734
25	15	30	380000	1900.0	DFT-s-OFDM QPSK	1@1	24.36	23.26	0.2118
25	15	30	380000	1900.0	DFT-s-OFDM 16 QAM	1@1	23.43	22.33	0.1710
25	15	40	374000	1870.0	DFT-s-OFDM PI/2 BPSK	108@54	24.58	23.48	0.2228
25	15	40	374000	1870.0	DFT-s-OFDM PI/2 BPSK	1@1	24.32	23.22	0.2099
25	15	40	374000	1870.0	DFT-s-OFDM PI/2 BPSK	1@214	24.28	23.18	0.2080
25	15	40	374000	1870.0	DFT-s-OFDM QPSK	108@54	24.48	23.38	0.2178
25	15	40	374000	1870.0	DFT-s-OFDM QPSK	1@1	24.41	23.31	0.2143
25	15	40	374000	1870.0	DFT-s-OFDM QPSK	1@214	24.25	23.15	0.2065
25	15	40	374000	1870.0	DFT-s-OFDM 16 QAM	108@54	23.37	22.27	0.1687
25	15	40	374000	1870.0	DFT-s-OFDM 16 QAM	1@1	23.35	22.25	0.1679
25	15	40	374000	1870.0	DFT-s-OFDM 16 QAM	1@214	23.31	22.21	0.1663
25	15	40	374000	1870.0	DFT-s-OFDM 64 QAM	108@54	21.98	20.88	0.1225
25	15	40	374000	1870.0	DFT-s-OFDM 64 QAM	1@1	21.3	20.2	0.1047
25	15	40	374000	1870.0	DFT-s-OFDM 64 QAM	1@214	21.87	20.77	0.1194
25	15	40	374000	1870.0	DFT-s-OFDM 256 QAM	108@54	19.89	18.79	0.0757

25	15	40	374000	1870.0	DFT-s-OFDM 256 QAM	1@1	19.49	18.39	0.0690
25	15	40	374000	1870.0	DFT-s-OFDM 256 QAM	1@214	19.46	18.36	0.0685
25	15	40	374000	1870.0	CP-OFDM QPSK	108@54	22.94	21.84	0.1528
25	15	40	374000	1870.0	CP-OFDM QPSK	1@1	22.69	21.59	0.1442
25	15	40	374000	1870.0	CP-OFDM QPSK	1@214	22.96	21.86	0.1535
25	15	40	376500	1882.5	DFT-s-OFDM PI/2 BPSK	108@54	24.39	23.29	0.2133
25	15	40	376500	1882.5	DFT-s-OFDM PI/2 BPSK	1@1	23.81	22.71	0.1866
25	15	40	376500	1882.5	DFT-s-OFDM PI/2 BPSK	1@214	24.2	23.1	0.2042
25	15	40	376500	1882.5	DFT-s-OFDM QPSK	108@54	24.29	23.19	0.2084
25	15	40	376500	1882.5	DFT-s-OFDM QPSK	1@1	23.62	22.52	0.1786
25	15	40	376500	1882.5	DFT-s-OFDM QPSK	1@214	24.03	22.93	0.1963
25	15	40	376500	1882.5	DFT-s-OFDM 16 QAM	108@54	23.27	22.17	0.1648
25	15	40	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	22.96	21.86	0.1535
25	15	40	376500	1882.5	DFT-s-OFDM 16 QAM	1@214	23.42	22.32	0.1706
25	15	40	376500	1882.5	DFT-s-OFDM 64 QAM	108@54	21.77	20.67	0.1167
25	15	40	376500	1882.5	DFT-s-OFDM 64 QAM	1@1	21.82	20.72	0.1180
25	15	40	376500	1882.5	DFT-s-OFDM 64 QAM	1@214	21.89	20.79	0.1199
25	15	40	376500	1882.5	DFT-s-OFDM 256 QAM	108@54	19.7	18.6	0.0724
25	15	40	376500	1882.5	DFT-s-OFDM 256 QAM	1@1	19.51	18.41	0.0693
25	15	40	376500	1882.5	DFT-s-OFDM 256 QAM	1@214	19.47	18.37	0.0687
25	15	40	376500	1882.5	CP-OFDM QPSK	108@54	22.77	21.67	0.1469
25	15	40	376500	1882.5	CP-OFDM QPSK	1@1	22.75	21.65	0.1462
25	15	40	376500	1882.5	CP-OFDM QPSK	1@214	23.02	21.92	0.1556
25	15	40	379000	1895.0	DFT-s-OFDM PI/2 BPSK	108@54	24.45	23.35	0.2163
25	15	40	379000	1895.0	DFT-s-OFDM PI/2 BPSK	1@1	24.33	23.23	0.2104
25	15	40	379000	1895.0	DFT-s-OFDM PI/2 BPSK	1@214	24.41	23.31	0.2143
25	15	40	379000	1895.0	DFT-s-OFDM QPSK	108@54	24.36	23.26	0.2118

25	15	40	379000	1895.0	DFT-s-OFDM QPSK	1@1	24.37	23.27	0.2123
25	15	40	379000	1895.0	DFT-s-OFDM QPSK	1@214	24.37	23.27	0.2123
25	15	40	379000	1895.0	DFT-s-OFDM 16 QAM	108@54	23.29	22.19	0.1656
25	15	40	379000	1895.0	DFT-s-OFDM 16 QAM	1@1	23.35	22.25	0.1679
25	15	40	379000	1895.0	DFT-s-OFDM 16 QAM	1@214	23.37	22.27	0.1687
25	15	40	379000	1895.0	DFT-s-OFDM 64 QAM	108@54	21.71	20.61	0.1151
25	15	40	379000	1895.0	DFT-s-OFDM 64 QAM	1@1	21.98	20.88	0.1225
25	15	40	379000	1895.0	DFT-s-OFDM 64 QAM	1@214	21.37	20.27	0.1064
25	15	40	379000	1895.0	DFT-s-OFDM 256 QAM	108@54	19.79	18.69	0.0740
25	15	40	379000	1895.0	DFT-s-OFDM 256 QAM	1@1	19.45	18.35	0.0684
25	15	40	379000	1895.0	DFT-s-OFDM 256 QAM	1@214	19.55	18.45	0.0700
25	15	40	379000	1895.0	CP-OFDM QPSK	108@54	22.8	21.7	0.1479
25	15	40	379000	1895.0	CP-OFDM QPSK	1@1	22.97	21.87	0.1538
25	15	40	379000	1895.0	CP-OFDM QPSK	1@214	22.16	21.06	0.1276

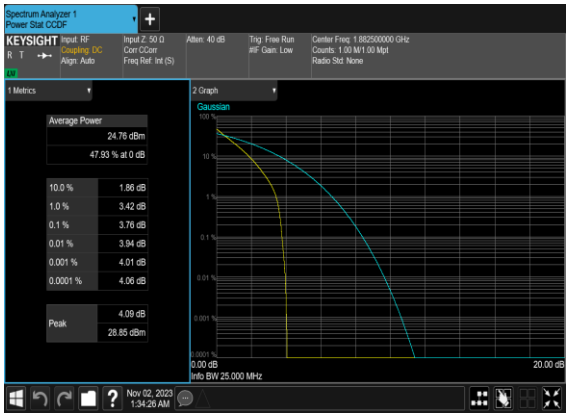
Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0037	**PASS**	NV
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0060	**PASS**	LV
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0041	**PASS**	HV
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0037	**PASS**	-10℃
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0036	**PASS**	0℃
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0026	**PASS**	10℃
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0037	**PASS**	20℃
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0030	**PASS**	30℃
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0036	**PASS**	40℃
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0043	**PASS**	50℃

Peak to Average Ratio

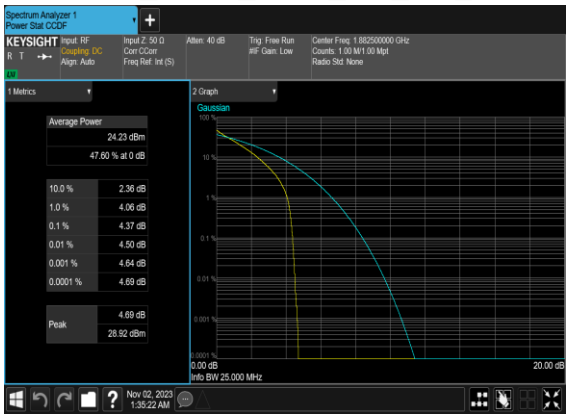
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
25	15	20	376500	1882.5	DFT-s-OFDM PI/2 BPSK	100@0	3.76	13	**PASS**
25	15	20	376500	1882.5	DFT-s-OFDM PI/2 BPSK	1@0	4.02	13	**PASS**
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	4.37	13	**PASS**
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	1@0	4.6	13	**PASS**

N25(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

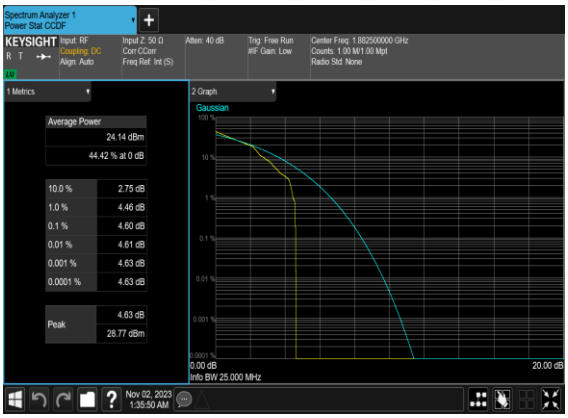


N25(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Mid_CH

N25(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



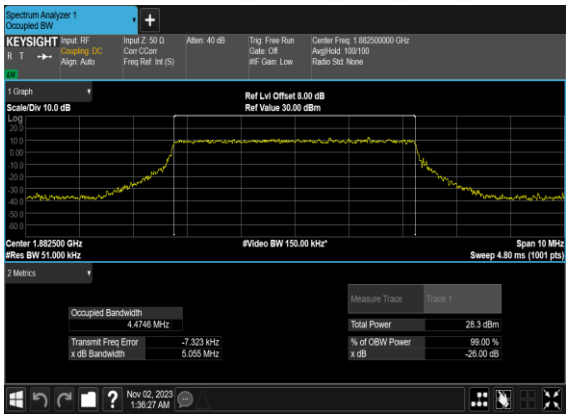
N25(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



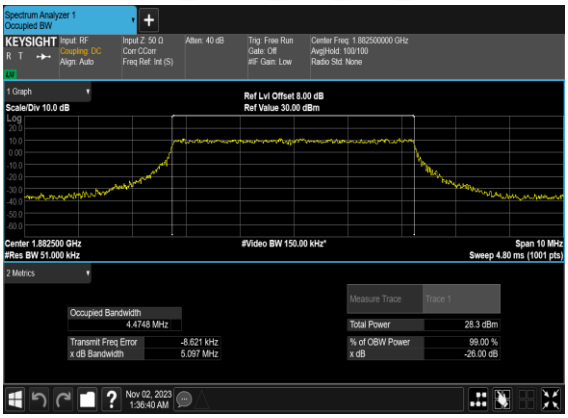
Occupied Bandwidth

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
25	15	5	376500	1882.5	CP-OFDM QPSK	25@0	4.4746	5.055
25	15	5	376500	1882.5	CP-OFDM 16 QAM	25@0	4.4748	5.097
25	15	5	376500	1882.5	CP-OFDM 64 QAM	25@0	4.4677	5.061
25	15	5	376500	1882.5	CP-OFDM 256 QAM	25@0	4.4778	5.005
25	15	10	376500	1882.5	CP-OFDM QPSK	52@0	9.2873	10.12
25	15	10	376500	1882.5	CP-OFDM 16 QAM	52@0	9.2904	9.903
25	15	10	376500	1882.5	CP-OFDM 64 QAM	52@0	9.2619	9.902
25	15	10	376500	1882.5	CP-OFDM 256 QAM	52@0	9.2817	9.96
25	15	15	376500	1882.5	CP-OFDM QPSK	79@0	14.11	14.89
25	15	15	376500	1882.5	CP-OFDM 16 QAM	79@0	14.098	14.97
25	15	15	376500	1882.5	CP-OFDM 64 QAM	79@0	14.127	14.9
25	15	15	376500	1882.5	CP-OFDM 256 QAM	79@0	14.093	14.98
25	15	20	376500	1882.5	CP-OFDM QPSK	106@0	18.879	19.8
25	15	20	376500	1882.5	CP-OFDM 16 QAM	106@0	18.924	19.93
25	15	20	376500	1882.5	CP-OFDM 64 QAM	106@0	18.865	19.84
25	15	20	376500	1882.5	CP-OFDM 256 QAM	106@0	18.966	19.83
25	15	25	376500	1882.5	CP-OFDM QPSK	133@0	23.753	24.72
25	15	25	376500	1882.5	CP-OFDM 16 QAM	133@0	23.688	24.68
25	15	25	376500	1882.5	CP-OFDM 64 QAM	133@0	23.749	24.81
25	15	25	376500	1882.5	CP-OFDM 256 QAM	133@0	23.699	24.78
25	15	30	376500	1882.5	CP-OFDM QPSK	160@0	28.539	29.76
25	15	30	376500	1882.5	CP-OFDM 16 QAM	160@0	28.547	29.7
25	15	30	376500	1882.5	CP-OFDM 64 QAM	160@0	28.536	29.64
25	15	30	376500	1882.5	CP-OFDM 256 QAM	160@0	28.593	29.61
25	15	40	376500	1882.5	CP-OFDM QPSK	216@0	38.483	39.97
25	15	40	376500	1882.5	CP-OFDM 16 QAM	216@0	38.541	39.89
25	15	40	376500	1882.5	CP-OFDM 64 QAM	216@0	38.615	39.87
25	15	40	376500	1882.5	CP-OFDM 256 QAM	216@0	38.595	39.86

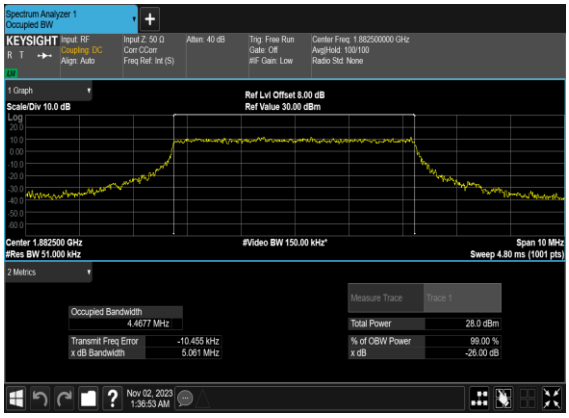
N25(5M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



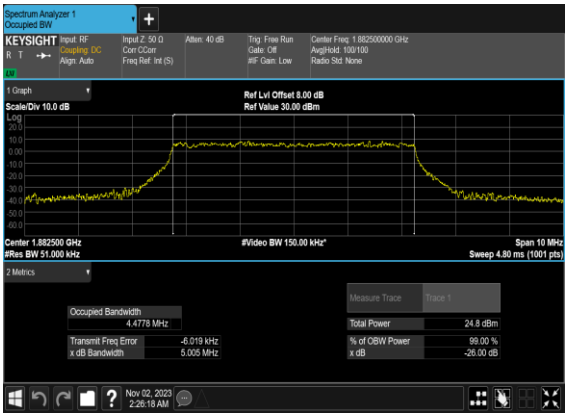
N25(5M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



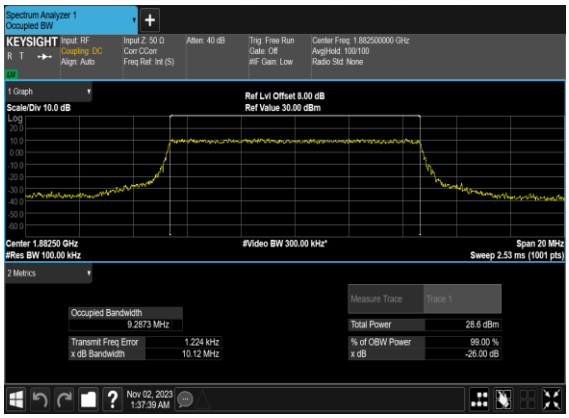
N25(5M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



N25(5M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



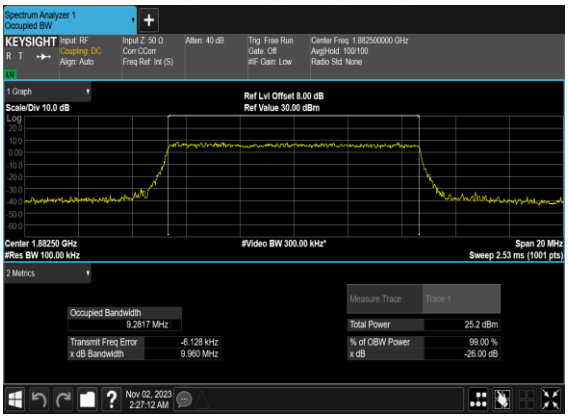
N25(10M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



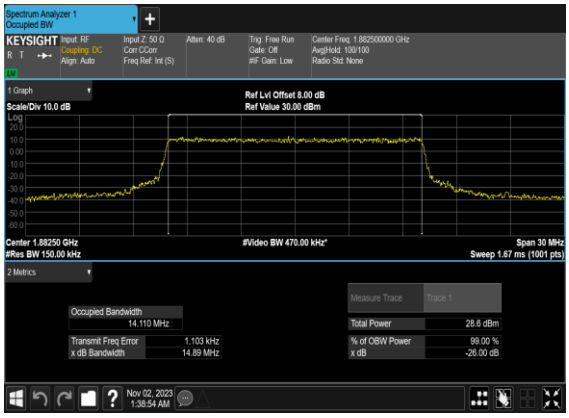
N25(10M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

N25(10M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

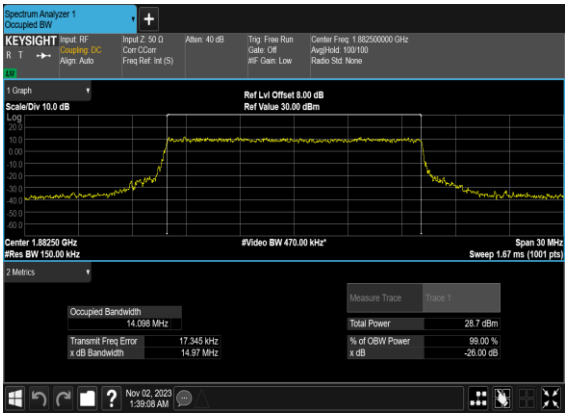
N25(10M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



N25(15M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



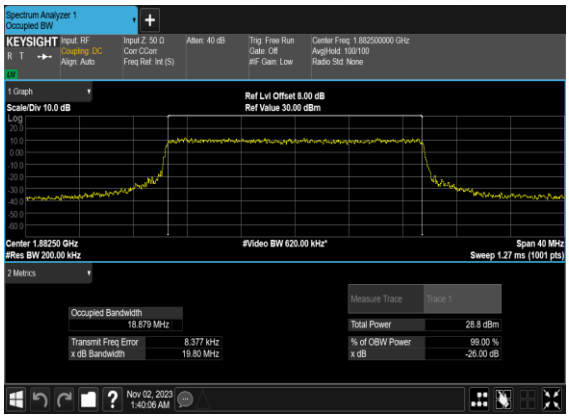
N25(15M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



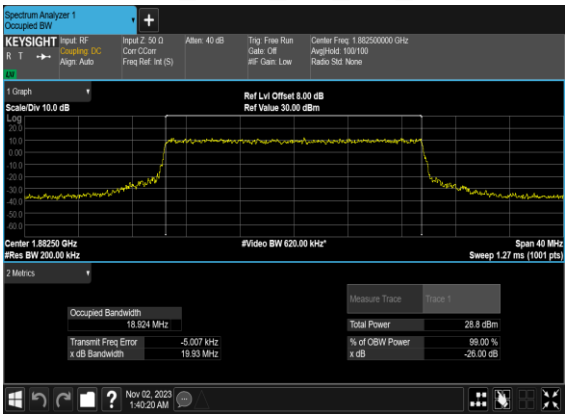
N25(15M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N25(15M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

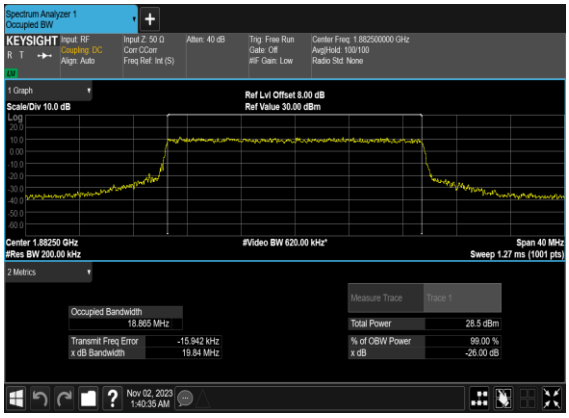
N25(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



N25(20M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

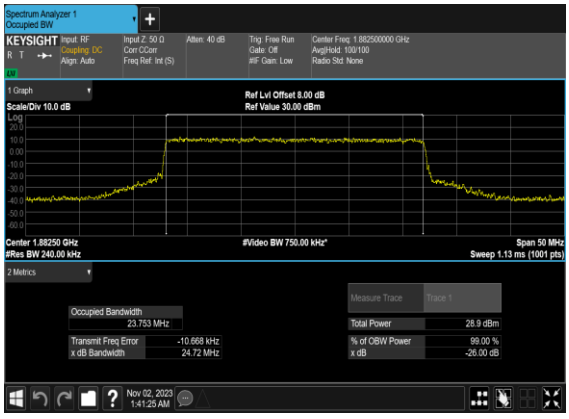


N25(20M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

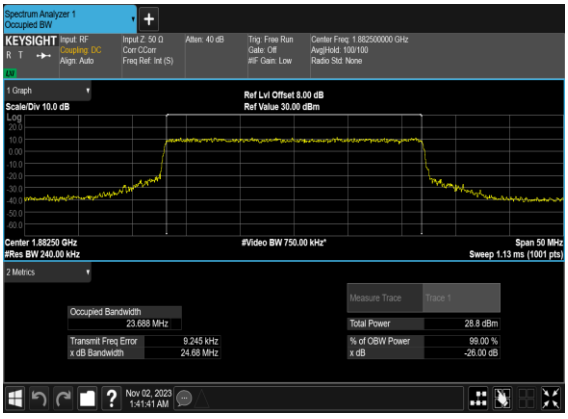


N25(20M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

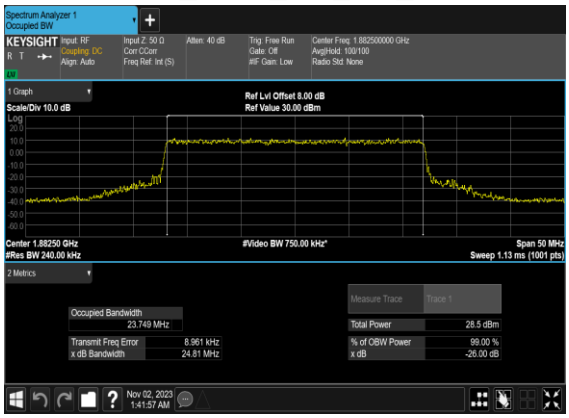
N25(25M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



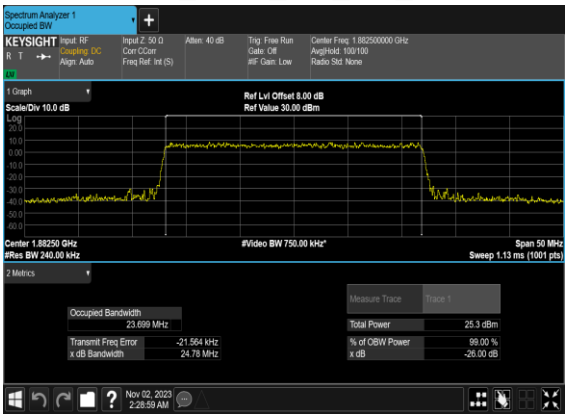
N25(25M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



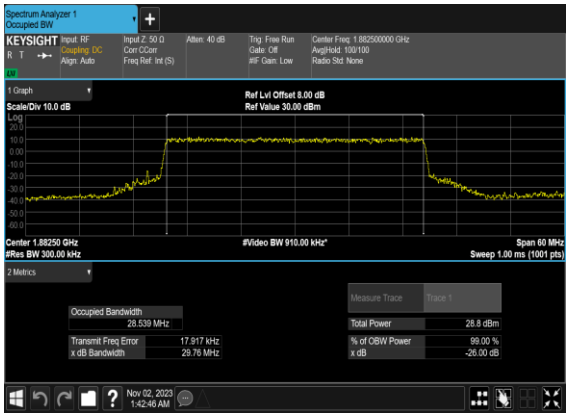
N25(25M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



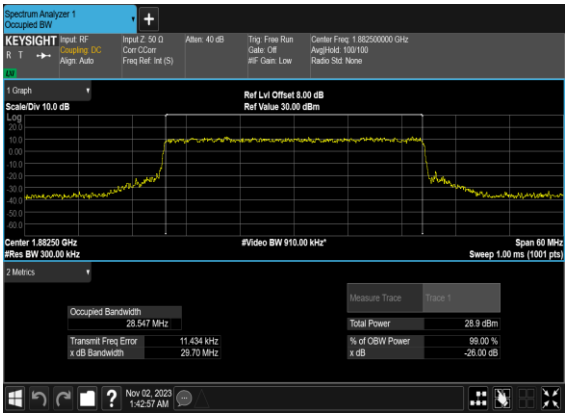
N25(25M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



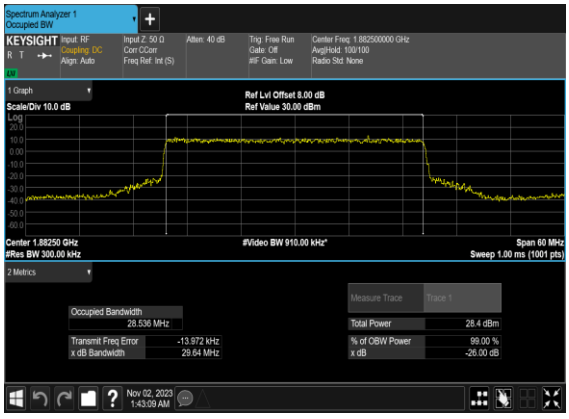
N25(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



N25(30M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

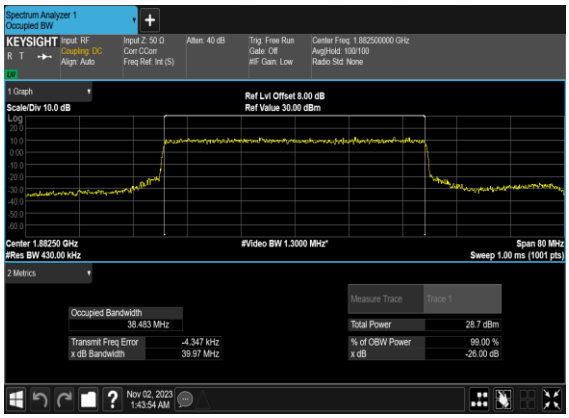


N25(30M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

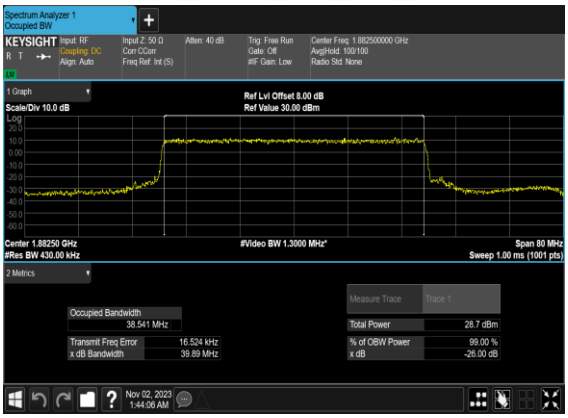


N25(30M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

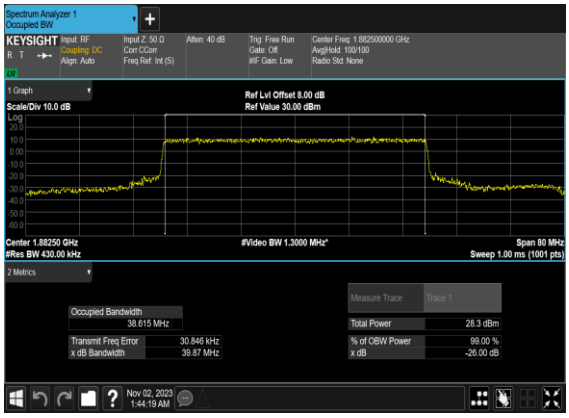
N25(40M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



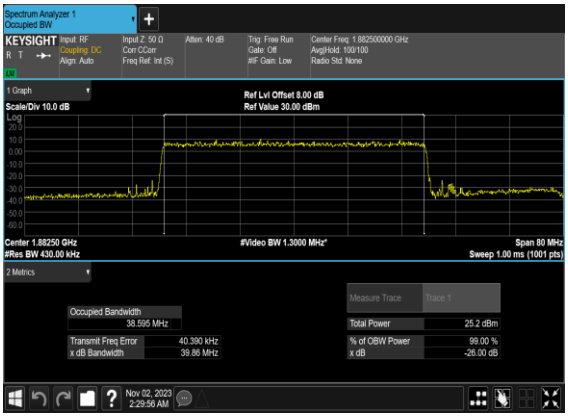
N25(40M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N25(40M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



N25(40M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

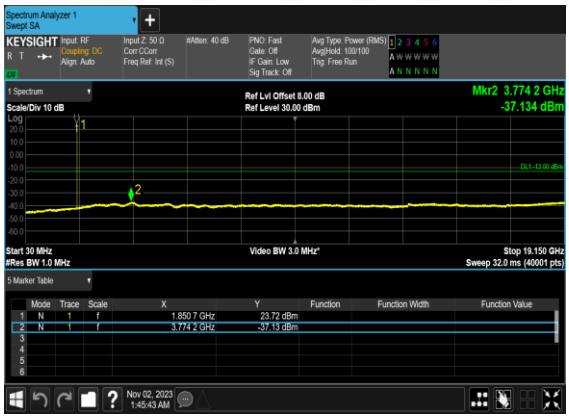


Conducted Spurious Emissions

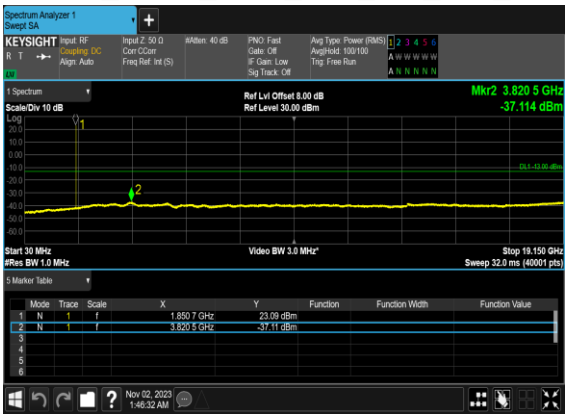
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
25	15	5	370500	1852.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
25	15	5	370500	1852.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
25	15	5	370500	1852.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
25	15	5	370500	1852.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
25	15	5	376500	1882.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
25	15	5	376500	1882.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
25	15	5	376500	1882.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
25	15	5	376500	1882.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
25	15	5	382500	1912.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
25	15	5	382500	1912.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
25	15	5	382500	1912.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
25	15	5	382500	1912.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
25	15	20	372000	1860.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
25	15	20	372000	1860.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
25	15	20	372000	1860.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
25	15	20	372000	1860.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
25	15	20	376500	1882.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
25	15	20	376500	1882.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
25	15	20	381000	1905.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
25	15	20	381000	1905.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
25	15	20	381000	1905.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
25	15	20	381000	1905.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
25	15	40	374000	1870.0	DFT-s-OFDM BPSK	1@0	see graph	**---**

25	15	40	374000	1870.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
25	15	40	374000	1870.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
25	15	40	374000	1870.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
25	15	40	376500	1882.5	DFT-s-OFDM BPSK	1@0	see graph	**---**
25	15	40	376500	1882.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
25	15	40	376500	1882.5	DFT-s-OFDM QPSK	1@0	see graph	**---**
25	15	40	376500	1882.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
25	15	40	379000	1895.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
25	15	40	379000	1895.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
25	15	40	379000	1895.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
25	15	40	379000	1895.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**

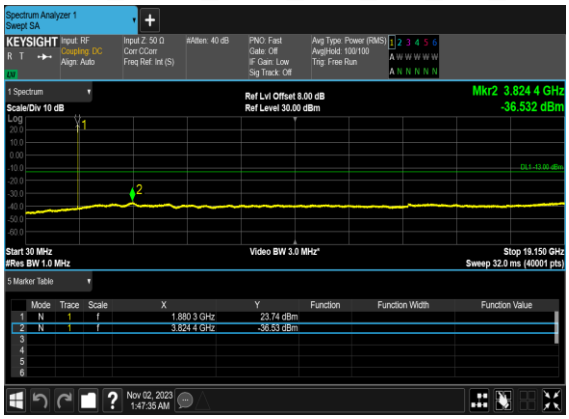
N25(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



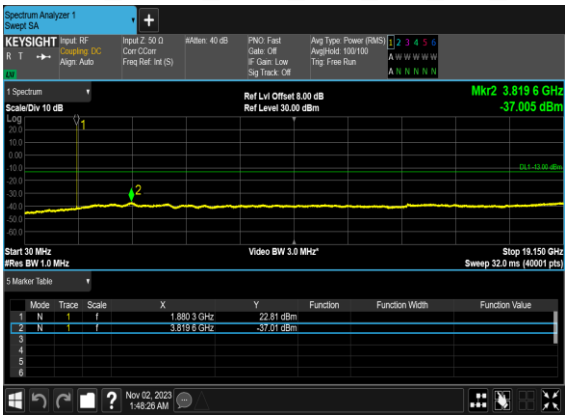
N25(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



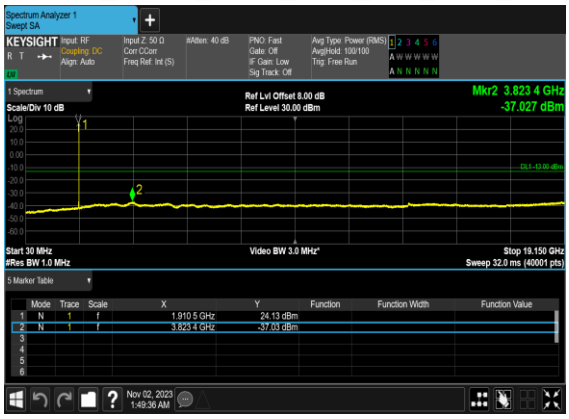
N25(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



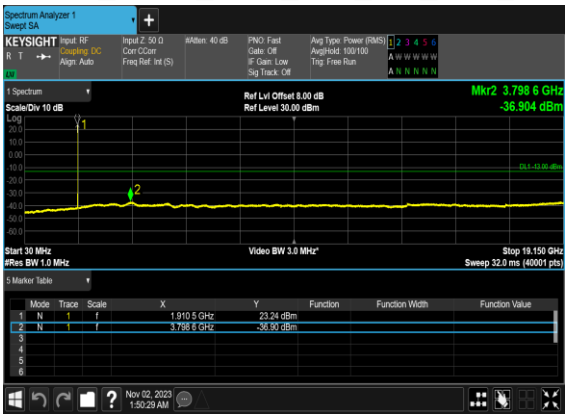
N25(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



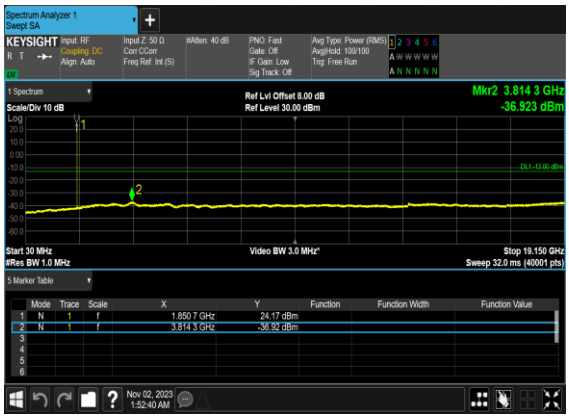
N25(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



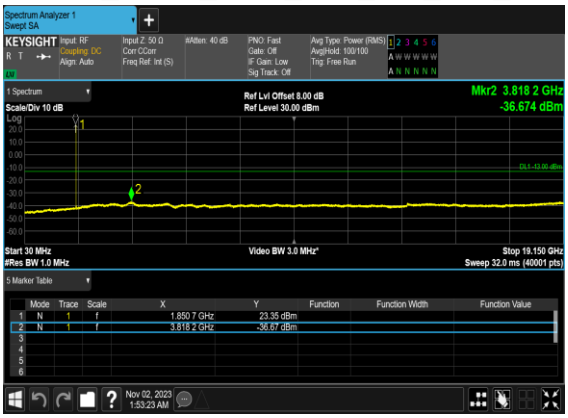
N25(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



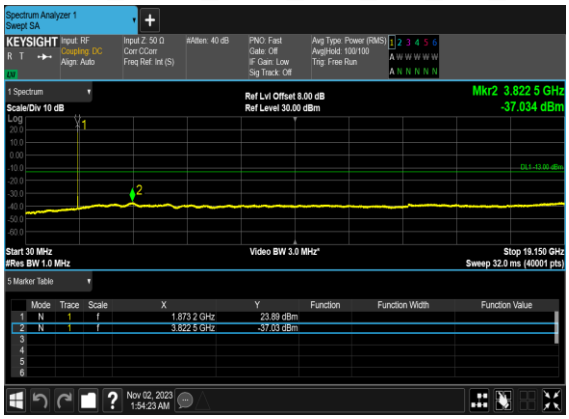
N25(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



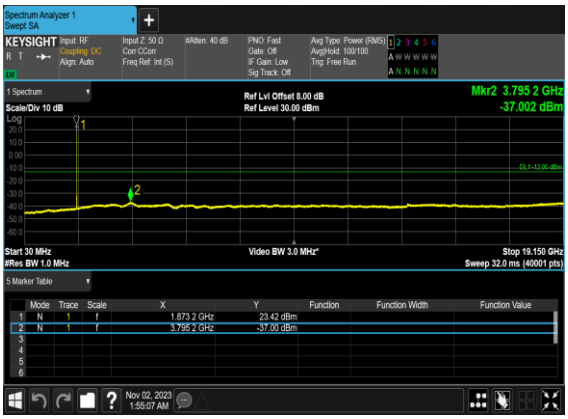
N25(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



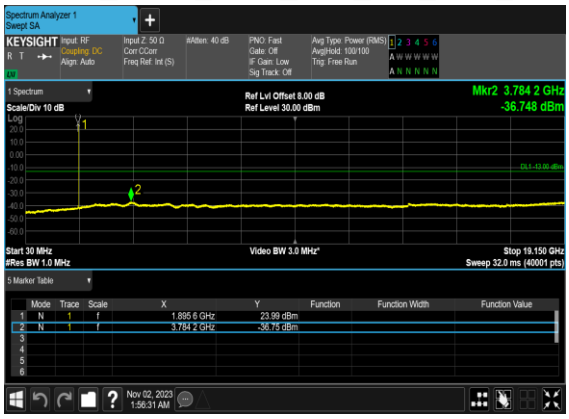
N25(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



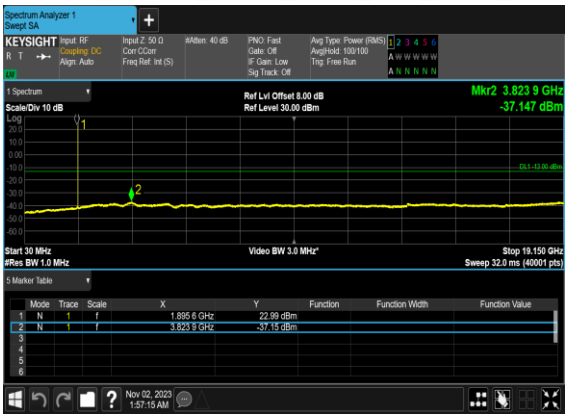
N25(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



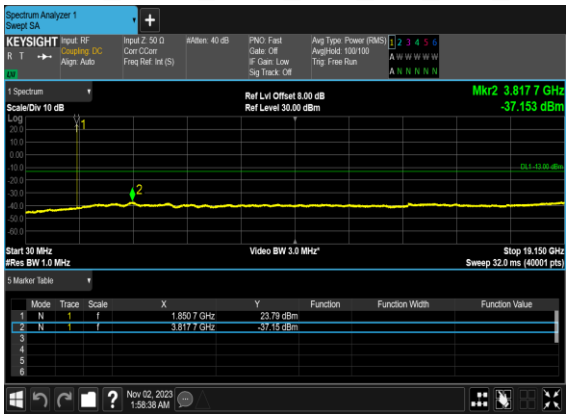
N25(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



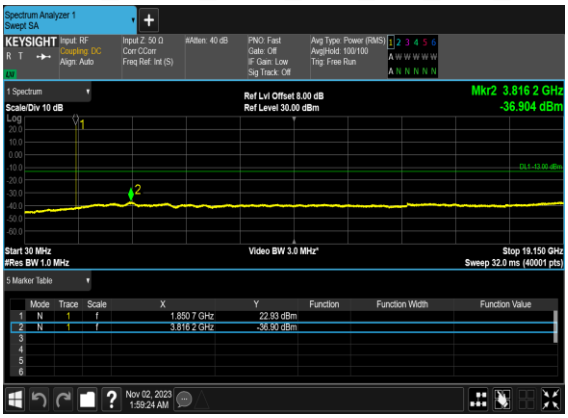
N25(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



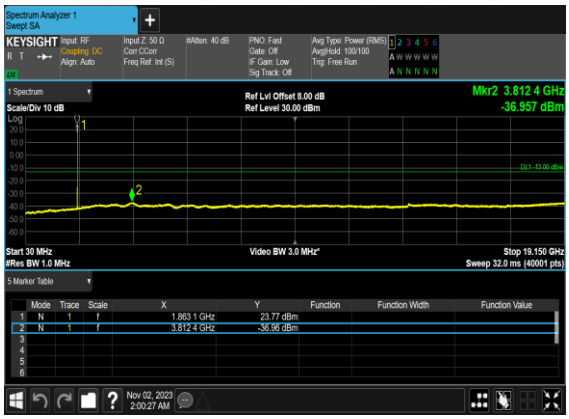
N25(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



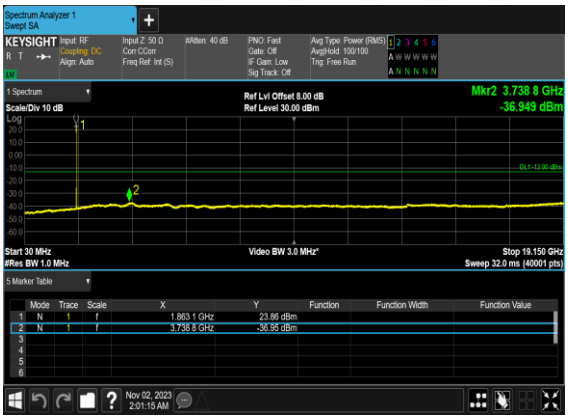
N25(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



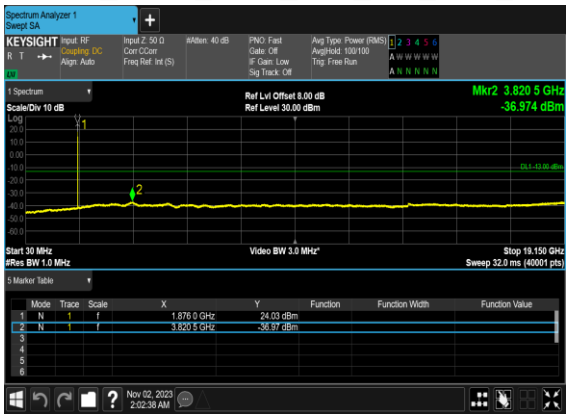
N25(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



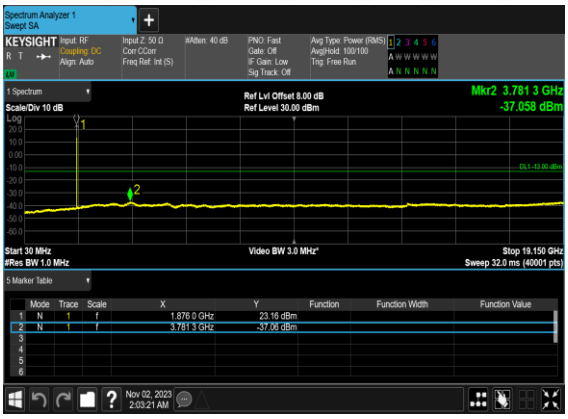
N25(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



N25(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



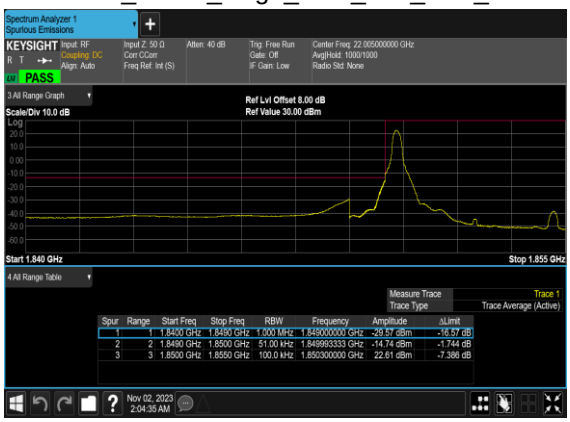
N25(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



Conducted Band Edge

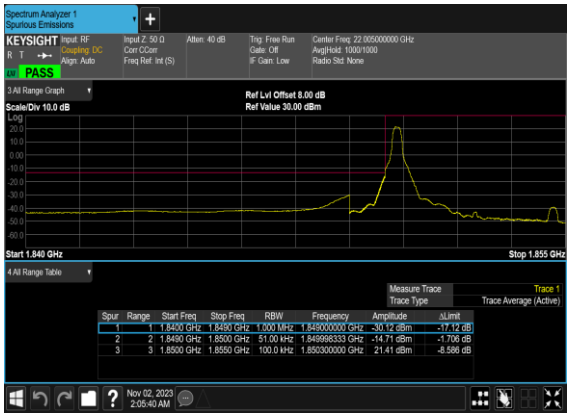
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
25	15	5	370500	1852.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
25	15	5	370500	1852.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
25	15	5	370500	1852.5	DFT-s-OFDM BPSK	25@0	see graph	**PASS**
25	15	5	370500	1852.5	DFT-s-OFDM QPSK	25@0	see graph	**PASS**
25	15	5	382500	1912.5	DFT-s-OFDM BPSK	1@24	see graph	**PASS**
25	15	5	382500	1912.5	DFT-s-OFDM QPSK	1@24	see graph	**PASS**
25	15	5	382500	1912.5	DFT-s-OFDM BPSK	25@0	see graph	**PASS**
25	15	5	382500	1912.5	DFT-s-OFDM QPSK	25@0	see graph	**PASS**
25	15	20	372000	1860.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
25	15	20	372000	1860.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
25	15	20	372000	1860.0	DFT-s-OFDM BPSK	100@0	see graph	**PASS**
25	15	20	372000	1860.0	DFT-s-OFDM QPSK	100@0	see graph	**PASS**
25	15	20	381000	1905.0	DFT-s-OFDM BPSK	1@105	see graph	**PASS**
25	15	20	381000	1905.0	DFT-s-OFDM QPSK	1@105	see graph	**PASS**
25	15	20	381000	1905.0	DFT-s-OFDM BPSK	100@0	see graph	**PASS**
25	15	20	381000	1905.0	DFT-s-OFDM QPSK	100@0	see graph	**PASS**
25	15	40	374000	1870.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
25	15	40	374000	1870.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
25	15	40	374000	1870.0	DFT-s-OFDM BPSK	216@0	see graph	**PASS**
25	15	40	374000	1870.0	DFT-s-OFDM QPSK	216@0	see graph	**PASS**
25	15	40	379000	1895.0	DFT-s-OFDM BPSK	1@215	see graph	**PASS**
25	15	40	379000	1895.0	DFT-s-OFDM QPSK	1@215	see graph	**PASS**
25	15	40	379000	1895.0	DFT-s-OFDM BPSK	216@0	see graph	**PASS**
25	15	40	379000	1895.0	DFT-s-OFDM QPSK	216@0	see graph	**PASS**

N25(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



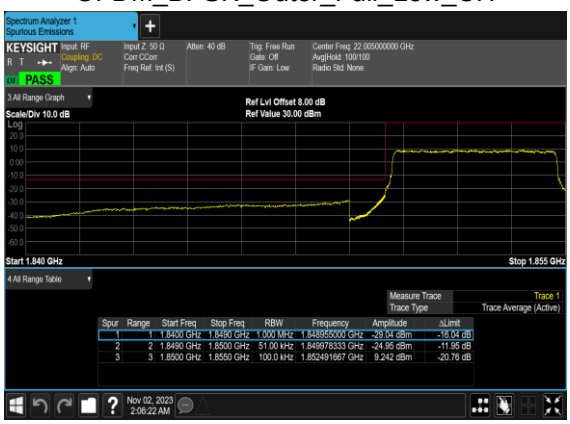
N25(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH_**CHP**_**PASS**

N25(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

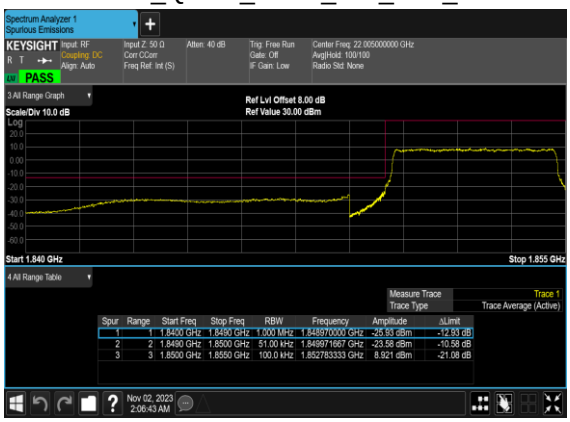


N25(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH_**CHP**_**PASS**

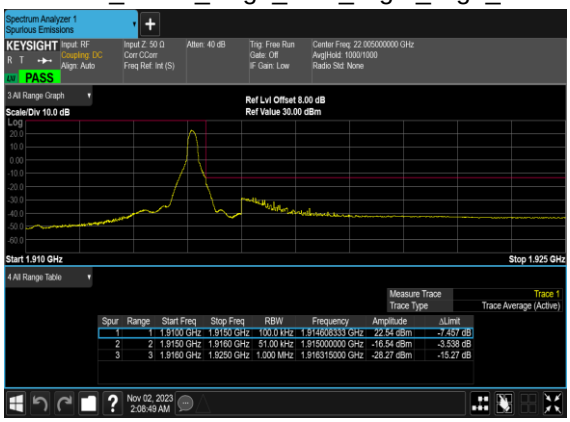
N25(5M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



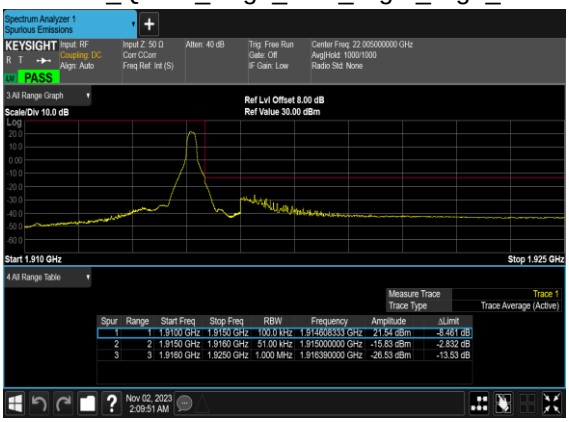
N25(5M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



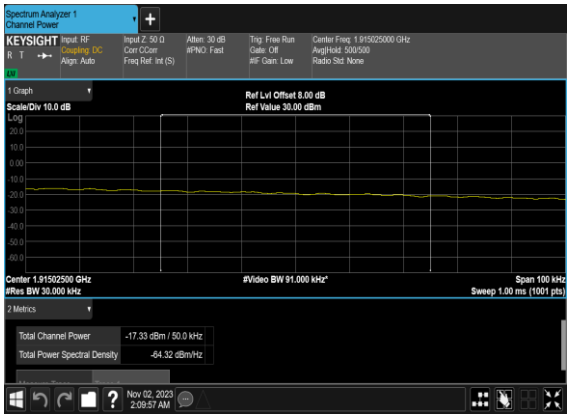
N25(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



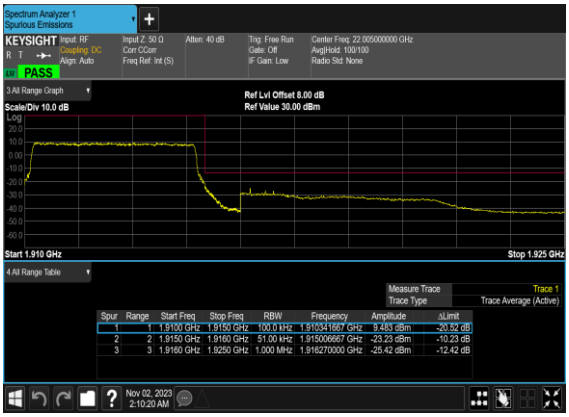
N25(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



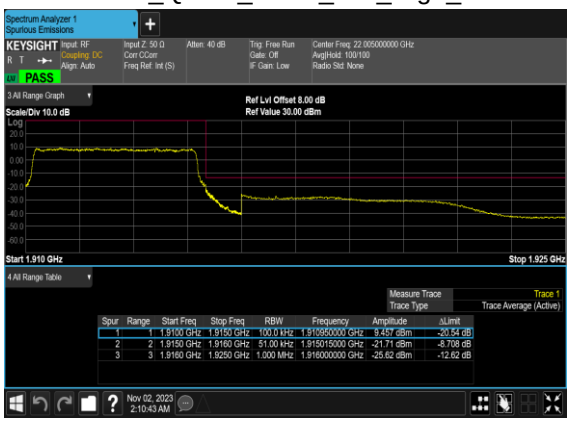
N25(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH_CHP_PASS



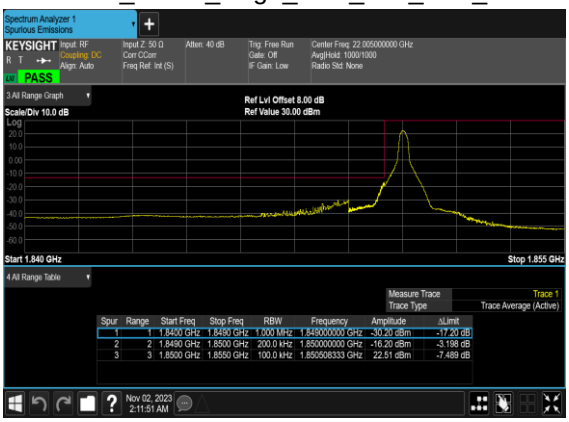
N25(5M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



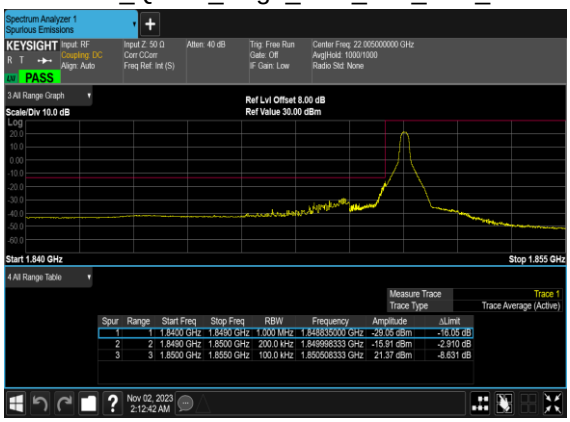
N25(5M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



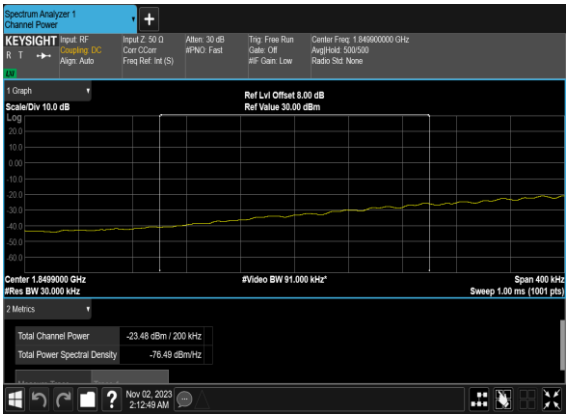
N25(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



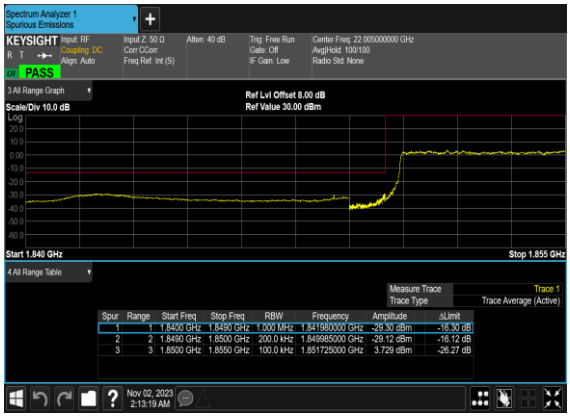
N25(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



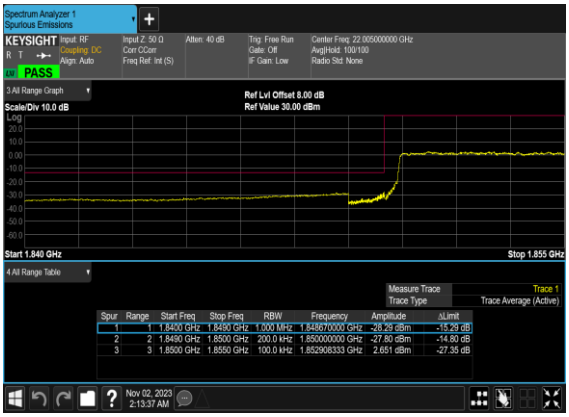
N25(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH_**CHP_PASS**



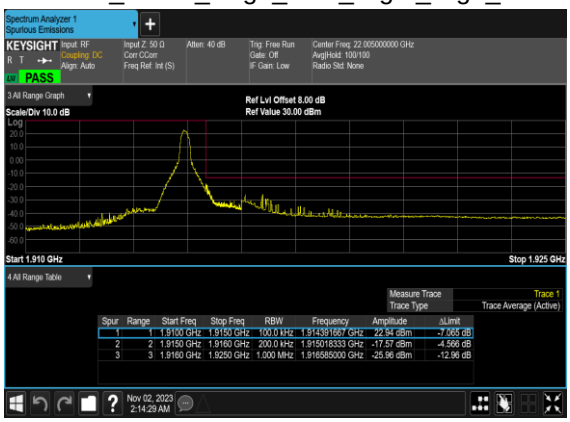
N25(20M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



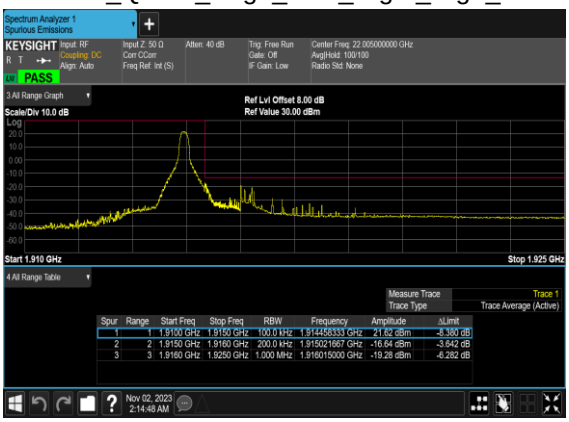
N25(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



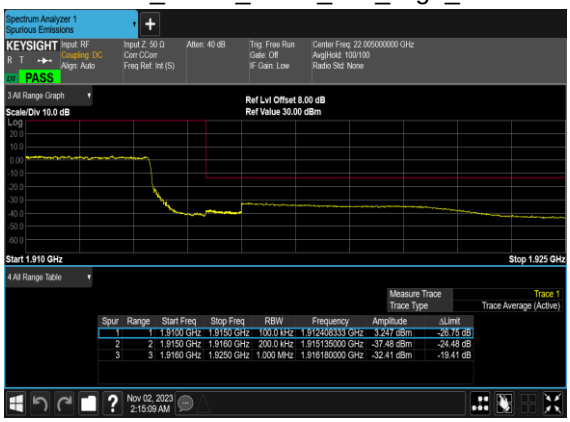
N25(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



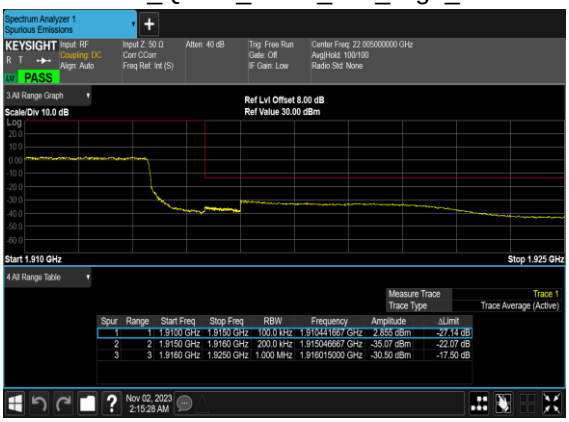
N25(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



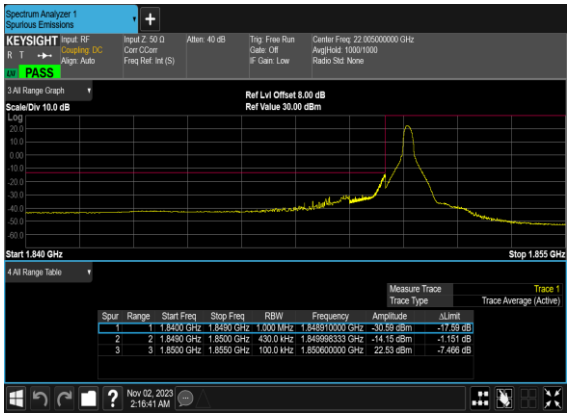
N25(20M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



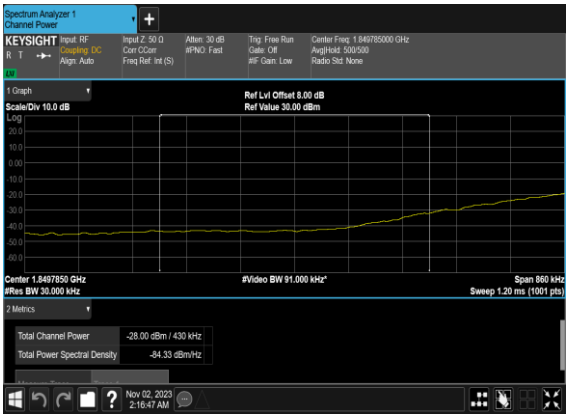
N25(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



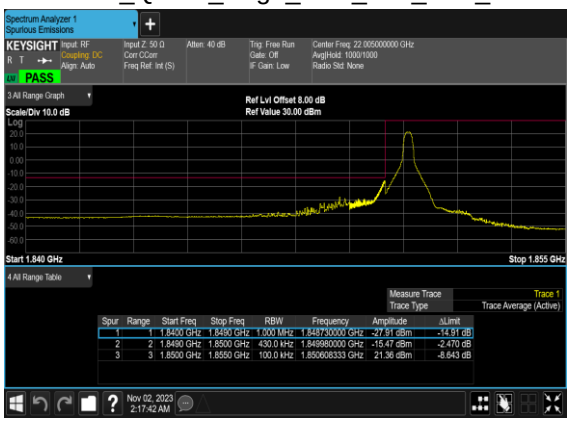
N25(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



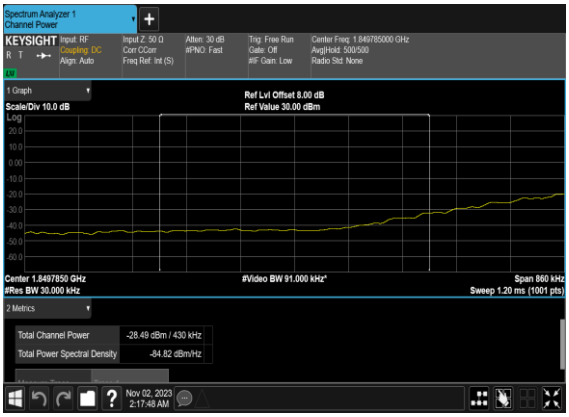
N25(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH_**CHP**_**PASS**



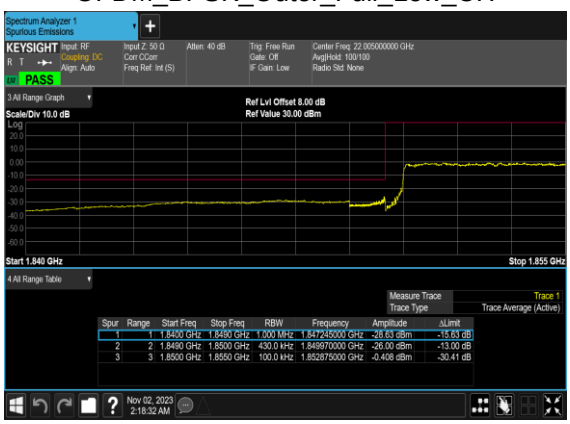
N25(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



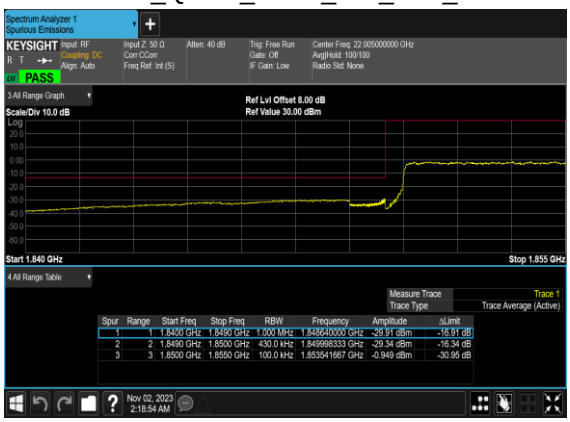
N25(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH_**CHP**_**PASS**



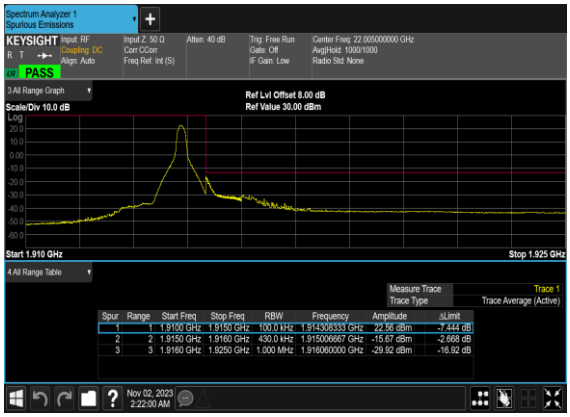
N25(40M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



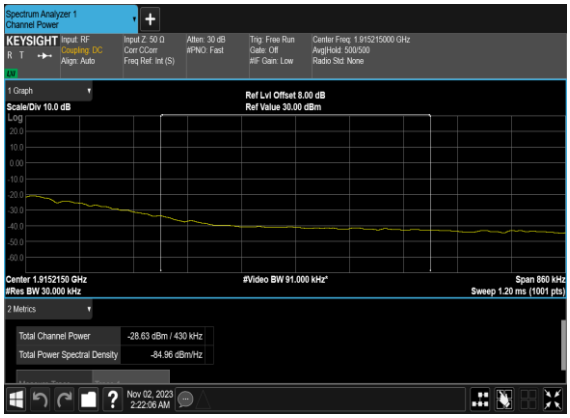
N25(40M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



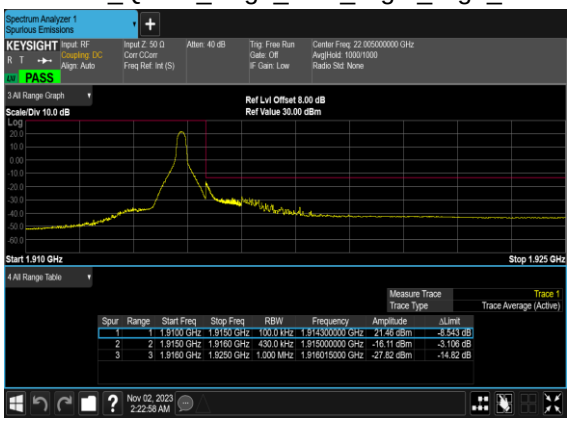
N25(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



N25(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH_**CH P_PASS**



N25(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



N25(40M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH

N25(40M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

Note:”CHP” means channel power integration method.

Software Version: 23.06.1602

FR1 N25(ANT7_Other PA)

Transmitter Conducted Output Power And EIRP, (G_T - L_C)=-4.6dB

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
25	15	5	370500	1852.5	DFT-s-OFDM QPSK	1@1	22.93	18.33	0.0681
25	15	5	370500	1852.5	DFT-s-OFDM 16 QAM	1@1	22.13	17.53	0.0566
25	15	5	376500	1882.5	DFT-s-OFDM QPSK	1@1	23.04	18.44	0.0698
25	15	5	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	22.07	17.47	0.0558
25	15	5	382500	1912.5	DFT-s-OFDM QPSK	1@1	22.99	18.39	0.0690
25	15	5	382500	1912.5	DFT-s-OFDM 16 QAM	1@1	22.04	17.44	0.0555
25	15	10	371000	1855	DFT-s-OFDM QPSK	1@1	23.05	18.45	0.0700
25	15	10	371000	1855	DFT-s-OFDM 16 QAM	1@1	22.02	17.42	0.0552
25	15	10	376500	1882.5	DFT-s-OFDM QPSK	1@1	23.07	18.47	0.0703
25	15	10	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	22.1	17.5	0.0562
25	15	10	382000	1910	DFT-s-OFDM QPSK	1@1	22.97	18.37	0.0687
25	15	10	382000	1910	DFT-s-OFDM 16 QAM	1@1	22.08	17.48	0.0560
25	15	15	371500	1857.5	DFT-s-OFDM QPSK	1@1	23.04	18.44	0.0698
25	15	15	371500	1857.5	DFT-s-OFDM 16 QAM	1@1	22.15	17.55	0.0569
25	15	15	376500	1882.5	DFT-s-OFDM QPSK	1@1	23.16	18.56	0.0718
25	15	15	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	22.24	17.64	0.0581
25	15	15	381500	1907.5	DFT-s-OFDM QPSK	1@1	22.96	18.36	0.0685
25	15	15	381500	1907.5	DFT-s-OFDM 16 QAM	1@1	21.98	17.38	0.0547
25	15	20	372000	1860	DFT-s-OFDM QPSK	1@1	23.07	18.47	0.0703
25	15	20	372000	1860	DFT-s-OFDM 16 QAM	1@1	22.07	17.47	0.0558
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	1@1	23.13	18.53	0.0713
25	15	20	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	22.23	17.63	0.0579
25	15	20	381000	1905	DFT-s-OFDM QPSK	1@1	22.84	18.24	0.0667
25	15	20	381000	1905	DFT-s-OFDM 16 QAM	1@1	21.91	17.31	0.0538
25	15	25	372500	1862.5	DFT-s-OFDM QPSK	1@1	22.92	18.32	0.0679
25	15	25	372500	1862.5	DFT-s-OFDM 16 QAM	1@1	22.02	17.42	0.0552
25	15	25	376500	1882.5	DFT-s-OFDM QPSK	1@1	23.19	18.59	0.0723
25	15	25	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	22.15	17.55	0.0569
25	15	25	380500	1902.5	DFT-s-OFDM QPSK	1@1	22.71	18.11	0.0647

25	15	25	380500	1902.5	DFT-s-OFDM 16 QAM	1@1	21.81	17.21	0.0526
25	15	30	373000	1865	DFT-s-OFDM QPSK	1@1	22.99	18.39	0.0690
25	15	30	373000	1865	DFT-s-OFDM 16 QAM	1@1	21.99	17.39	0.0548
25	15	30	376500	1882.5	DFT-s-OFDM QPSK	1@1	23.2	18.6	0.0724
25	15	30	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	22.31	17.71	0.0590
25	15	30	380000	1900	DFT-s-OFDM QPSK	1@1	22.88	18.28	0.0673
25	15	30	380000	1900	DFT-s-OFDM 16 QAM	1@1	21.86	17.26	0.0532
25	15	40	374000	1870	DFT-s-OFDM PI/2 BPSK	108@54	23.21	18.61	0.0726
25	15	40	374000	1870	DFT-s-OFDM PI/2 BPSK	1@1	22.89	18.29	0.0675
25	15	40	374000	1870	DFT-s-OFDM PI/2 BPSK	1@214	22.73	18.13	0.0650
25	15	40	374000	1870	DFT-s-OFDM QPSK	108@54	23.19	18.59	0.0723
25	15	40	374000	1870	DFT-s-OFDM QPSK	1@1	22.86	18.26	0.0670
25	15	40	374000	1870	DFT-s-OFDM QPSK	1@214	22.78	18.18	0.0658
25	15	40	374000	1870	DFT-s-OFDM 16 QAM	108@54	22.18	17.58	0.0573
25	15	40	374000	1870	DFT-s-OFDM 16 QAM	1@1	21.9	17.3	0.0537
25	15	40	374000	1870	DFT-s-OFDM 16 QAM	1@214	21.81	17.21	0.0526
25	15	40	374000	1870	DFT-s-OFDM 64 QAM	108@54	20.6	16	0.0398
25	15	40	374000	1870	DFT-s-OFDM 64 QAM	1@1	20.39	15.79	0.0379
25	15	40	374000	1870	DFT-s-OFDM 64 QAM	1@214	20.41	15.81	0.0381
25	15	40	374000	1870	DFT-s-OFDM 256 QAM	108@54	18.59	13.99	0.0251
25	15	40	374000	1870	DFT-s-OFDM 256 QAM	1@1	18.01	13.41	0.0219
25	15	40	374000	1870	DFT-s-OFDM 256 QAM	1@214	17.92	13.32	0.0215
25	15	40	374000	1870	CP-OFDM QPSK	108@54	21.63	17.03	0.0505
25	15	40	374000	1870	CP-OFDM QPSK	1@1	21.63	17.03	0.0505
25	15	40	374000	1870	CP-OFDM QPSK	1@214	21.55	16.95	0.0495
25	15	40	376500	1882.5	DFT-s-OFDM PI/2 BPSK	108@54	22.89	18.29	0.0675
25	15	40	376500	1882.5	DFT-s-OFDM PI/2 BPSK	1@1	23.01	18.41	0.0693
25	15	40	376500	1882.5	DFT-s-OFDM PI/2 BPSK	1@214	22.93	18.33	0.0681
25	15	40	376500	1882.5	DFT-s-OFDM QPSK	108@54	22.92	18.32	0.0679
25	15	40	376500	1882.5	DFT-s-OFDM QPSK	1@1	23.09	18.49	0.0706
25	15	40	376500	1882.5	DFT-s-OFDM QPSK	1@214	23	18.4	0.0692
25	15	40	376500	1882.5	DFT-s-OFDM 16 QAM	108@54	21.8	17.2	0.0525
25	15	40	376500	1882.5	DFT-s-OFDM 16 QAM	1@1	22.17	17.57	0.0571
25	15	40	376500	1882.5	DFT-s-OFDM 16 QAM	1@214	21.81	17.21	0.0526
25	15	40	376500	1882.5	DFT-s-OFDM 64 QAM	108@54	20.31	15.71	0.0372

25	15	40	376500	1882.5	DFT-s-OFDM 64 QAM	1@1	20.78	16.18	0.0415
25	15	40	376500	1882.5	DFT-s-OFDM 64 QAM	1@214	20.33	15.73	0.0374
25	15	40	376500	1882.5	DFT-s-OFDM 256 QAM	108@54	18.03	13.43	0.0220
25	15	40	376500	1882.5	DFT-s-OFDM 256 QAM	1@1	18.35	13.75	0.0237
25	15	40	376500	1882.5	DFT-s-OFDM 256 QAM	1@214	18.08	13.48	0.0223
25	15	40	376500	1882.5	CP-OFDM QPSK	108@54	21.42	16.82	0.0481
25	15	40	376500	1882.5	CP-OFDM QPSK	1@1	21.95	17.35	0.0543
25	15	40	376500	1882.5	CP-OFDM QPSK	1@214	21.34	16.74	0.0472
25	15	40	379000	1895	DFT-s-OFDM PI/2 BPSK	108@54	22.9	18.3	0.0676
25	15	40	379000	1895	DFT-s-OFDM PI/2 BPSK	1@1	23.09	18.49	0.0706
25	15	40	379000	1895	DFT-s-OFDM PI/2 BPSK	1@214	23.11	18.51	0.0710
25	15	40	379000	1895	DFT-s-OFDM QPSK	108@54	22.87	18.27	0.0671
25	15	40	379000	1895	DFT-s-OFDM QPSK	1@1	23.01	18.41	0.0693
25	15	40	379000	1895	DFT-s-OFDM QPSK	1@214	23.31	18.71	0.0743
25	15	40	379000	1895	DFT-s-OFDM 16 QAM	108@54	21.79	17.19	0.0524
25	15	40	379000	1895	DFT-s-OFDM 16 QAM	1@1	21.99	17.39	0.0548
25	15	40	379000	1895	DFT-s-OFDM 16 QAM	1@214	22.22	17.62	0.0578
25	15	40	379000	1895	DFT-s-OFDM 64 QAM	108@54	20.23	15.63	0.0366
25	15	40	379000	1895	DFT-s-OFDM 64 QAM	1@1	20.59	15.99	0.0397
25	15	40	379000	1895	DFT-s-OFDM 64 QAM	1@214	20.72	16.12	0.0409
25	15	40	379000	1895	DFT-s-OFDM 256 QAM	108@54	18.11	13.51	0.0224
25	15	40	379000	1895	DFT-s-OFDM 256 QAM	1@1	18.07	13.47	0.0222
25	15	40	379000	1895	DFT-s-OFDM 256 QAM	1@214	18.24	13.64	0.0231
25	15	40	379000	1895	CP-OFDM QPSK	108@54	21.33	16.73	0.0471
25	15	40	379000	1895	CP-OFDM QPSK	1@1	21.77	17.17	0.0521
25	15	40	379000	1895	CP-OFDM QPSK	1@214	21.54	16.94	0.0494

Frequency Stability

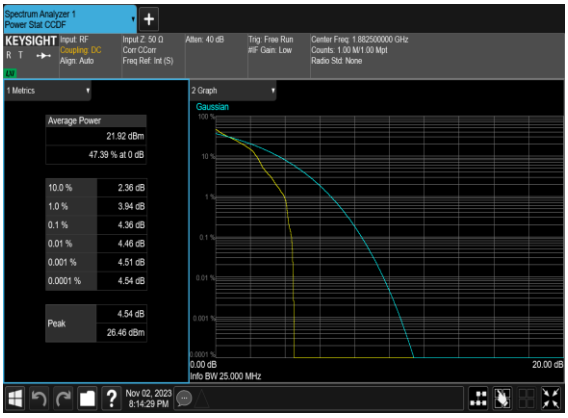
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0044	**PASS**	NV
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0042	**PASS**	LV
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0036	**PASS**	HV
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0042	**PASS**	-10℃
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0027	**PASS**	0℃
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0042	**PASS**	10℃
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0044	**PASS**	20℃
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0062	**PASS**	30℃
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0025	**PASS**	40℃
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	0.0050	**PASS**	50℃

Peak to Average Ratio

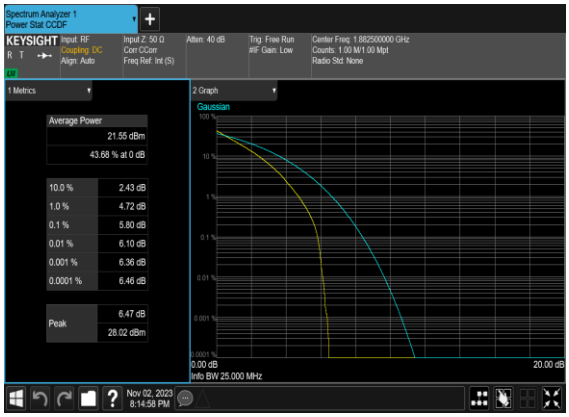
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
25	15	20	376500	1882.5	DFT-s-OFDM PI/2 BPSK	100@0	4.6	13	**PASS**
25	15	20	376500	1882.5	DFT-s-OFDM PI/2 BPSK	1@0	4.36	13	**PASS**
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	100@0	5.8	13	**PASS**
25	15	20	376500	1882.5	DFT-s-OFDM QPSK	1@0	6.2	13	**PASS**

N25(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

N25(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Mid_CH



N25(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



N25(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)
25	15	5	376500	1882.5	CP-OFDM QPSK	25@0	4.4675	5.058
25	15	5	376500	1882.5	CP-OFDM 16 QAM	25@0	4.4736	5.196
25	15	5	376500	1882.5	CP-OFDM 64 QAM	25@0	4.465	5.047
25	15	5	376500	1882.5	CP-OFDM 256 QAM	25@0	4.4822	5.029
25	15	10	376500	1882.5	CP-OFDM QPSK	52@0	9.2898	10.07
25	15	10	376500	1882.5	CP-OFDM 16 QAM	52@0	9.3038	9.9
25	15	10	376500	1882.5	CP-OFDM 64 QAM	52@0	9.2756	9.897
25	15	10	376500	1882.5	CP-OFDM 256 QAM	52@0	9.2901	10.01
25	15	15	376500	1882.5	CP-OFDM QPSK	79@0	14.108	14.91
25	15	15	376500	1882.5	CP-OFDM 16 QAM	79@0	14.102	14.94
25	15	15	376500	1882.5	CP-OFDM 64 QAM	79@0	14.128	14.91
25	15	15	376500	1882.5	CP-OFDM 256 QAM	79@0	14.088	15.04
25	15	20	376500	1882.5	CP-OFDM QPSK	106@0	18.871	19.82
25	15	20	376500	1882.5	CP-OFDM 16 QAM	106@0	18.921	19.88
25	15	20	376500	1882.5	CP-OFDM 64 QAM	106@0	18.924	19.64
25	15	20	376500	1882.5	CP-OFDM 256 QAM	106@0	18.928	19.88
25	15	25	376500	1882.5	CP-OFDM QPSK	133@0	23.784	24.71
25	15	25	376500	1882.5	CP-OFDM 16 QAM	133@0	23.745	24.79
25	15	25	376500	1882.5	CP-OFDM 64 QAM	133@0	23.815	24.62
25	15	25	376500	1882.5	CP-OFDM 256 QAM	133@0	23.744	24.82
25	15	30	376500	1882.5	CP-OFDM QPSK	160@0	28.532	29.63
25	15	30	376500	1882.5	CP-OFDM 16 QAM	160@0	28.588	29.62
25	15	30	376500	1882.5	CP-OFDM 64 QAM	160@0	28.633	29.64
25	15	30	376500	1882.5	CP-OFDM 256 QAM	160@0	28.604	29.62
25	15	40	376500	1882.5	CP-OFDM QPSK	216@0	38.622	39.96
25	15	40	376500	1882.5	CP-OFDM 16 QAM	216@0	38.569	39.95
25	15	40	376500	1882.5	CP-OFDM 64 QAM	216@0	38.561	39.92
25	15	40	376500	1882.5	CP-OFDM 256 QAM	216@0	38.619	39.85