

# FCC RF Test Report

APPLICANT : TCL Communication Ltd.  
EQUIPMENT : GSM/UMTS/LTE/NR Mobile phone  
BRAND NAME : TCL  
MODEL NAME : T803E  
FCC ID : 2ACCJH183  
STANDARD : 47 CFR Part 2, Part 27 Subpart Q  
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)  
TEST DATE(S) : Mar. 13, 2024 ~ Mar. 29, 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



**Sporton International Inc. (ShenZhen)**

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

**People's Republic of China**



TABLE OF CONTENTS

REVISION HISTORY.....3
SUMMARY OF TEST RESULT .....4
1 GENERAL DESCRIPTION.....5
1.1 Applicant.....5
1.2 Manufacturer.....5
1.3 Product Feature of Equipment Under Test.....5
1.4 Product Specification of Equipment Under Test.....5
1.5 Modification of EUT .....6
1.6 Maximum EIRP Power and Emission Designator .....6
1.7 Testing Site.....7
1.8 Test Software.....7
1.9 Applied Standards .....8
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST.....9
2.1 Test Mode.....9
2.2 Connection Diagram of Test System.....10
2.3 Support Unit used in test configuration and system.....10
2.4 Measurement Results Explanation Example.....10
2.5 Frequency List of Low/Middle/High Channels.....11
3 CONDUCTED TEST ITEMS.....12
3.1 Measuring Instruments .....12
3.2 Test Setup .....12
3.3 Test Result of Conducted Test.....12
3.4 Conducted Output Power Measurement.....13
3.5 Peak-to-Average Ratio .....14
3.6 EIRP .....15
3.7 Occupied Bandwidth.....16
3.8 Conducted Band Edge Measurement.....17
3.9 Conducted Spurious Emission Measurement.....18
3.10 Frequency Stability Measurement.....19
4 RADIATED TEST ITEMS .....20
4.1 Measuring Instruments .....20
4.2 Test Setup .....20
4.3 Test Result of Radiated Test.....21
4.4 Radiated Spurious Emission Measurement.....22
5 LIST OF MEASURING EQUIPMENT .....23
6 MEASUREMENT UNCERTAINTY .....24
APPENDIX A. TEST RESULTS OF CONDUCTED TEST
APPENDIX B. TEST RESULTS OF RADIATED TEST
APPENDIX C. TEST SETUP PHOTOGRAPHS



## REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG422702J	Rev. 01	Initial issue of report	Apr. 07, 2024

## SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	—	Report Only	-
3.5	§27.50 (k)(4)	Peak-to-Average Ratio	<13dB	PASS	
3.6	§27.50 (k)(3)	EIRP	EIRP < 1W (30dBm)	PASS	-
3.7	§2.1049	Occupied Bandwidth	—	Report Only	-
3.8	§2.1051 §27.53 (n)(2)	Conducted Band Edge Measurement	-13dBm/MHz	PASS	-
3.9	§2.1051 §27.53 (n)(2)	Conducted Spurious Emission	-13dBm/MHz	PASS	-
3.10	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within the band	PASS	-
4.4	§2.1053 §27.53 (n)(2)	Radiated Spurious Emission	-13dBm/MHz	PASS	Under limit 29.91 dB at 10122.36 MHz

### Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture 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

TCL Communication Ltd.

5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong

## 1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	GSM/UMTS/LTE/NR Mobile phone
Brand Name	TCL
Model Name	T803E
FCC ID	2ACCJH183
IMEI Code	Conducted : 353318350121991/353318350122007 Radiation : 353318350121876/353318350121884
HW Version	05
SW Version	AGS7
EUT Stage	Identical Prototype

## 1.4 Product Specification of Equipment Under Test

Product Feature	
Tx/Rx Frequency	5G NR n77: 3450 MHz ~ 3550 MHz 5G NR n78: 3450 MHz ~ 3550 MHz
SCS	30kHz
Bandwidth	n77/n78(30kHz): 10 / 15 / 20 / 25 / 30 / 40 / 50 / 60 / 70 / 80 / 90 / 100MHz
Antenna Type	FPC Antenna
Antenna Gain	<Ant. 2> 5G NR n77: -1.0 dBi 5G NR n78: -1.0 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

### Remark:

1. 5G NR n77 support SA mode and n78 support NSA mode only. The whole testing has assessed SA mode for n77 by referring to the higher conducted power for conducted test items, and n77 covers n78.
2. All the supported EN-DC combinations are verified conducted power, only the EN-DC combination with highest power are shown in the report.
3. 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 n77 SA		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	3455.01 ~ 3544.98	0.1629	8M57G7D	0.1300	8M59W7D
15	3457.50 ~ 3542.49	0.1722	13M6G7D	0.1365	13M6W7D
20	3460.02 ~ 3540.00	0.1837	18M2G7D	0.1343	18M2W7D
25	3462.51 ~ 3537.48	0.1706	23M2G7D	0.1343	23M3W7D
30	3465.00 ~ 3534.99	0.1807	27M9G7D	0.1432	27M9W7D
40	3470.01 ~ 3529.98	0.1766	37M8G7D	0.1390	37M8W7D
50	3475.02 ~ 3525.00	0.1738	47M5G7D	0.1377	47M5W7D
60	3480.00 ~ 3519.99	0.1730	57M7G7D	0.1377	57M9W7D
70	3485.01 ~ 3514.98	0.1671	67M6G7D	0.1365	67M7W7D
80	3490.02 ~ 3510.00	0.1824	77M5G7D	0.1466	77M6W7D
90	3495.00 ~ 3504.99	0.1791	87M6G7D	0.1422	87M6W7D
100	3500.01	0.1841	97M6G7D	0.1330	97M7W7D

5G NR n78 NSA		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	3455.01 ~ 3544.98	0.1816	8M57G7D	0.1343	8M59W7D
15	3457.50 ~ 3542.49	0.1746	13M6G7D	0.1371	13M6W7D
20	3460.02 ~ 3540.00	0.1690	18M2G7D	0.1384	18M2W7D
25	3462.51 ~ 3537.48	0.1679	23M2G7D	0.1349	23M3W7D
30	3465.00 ~ 3534.99	0.1762	27M9G7D	0.1426	27M9W7D
40	3470.01 ~ 3529.98	0.1786	37M8G7D	0.1442	37M8W7D
50	3475.02 ~ 3525.00	0.1667	47M5G7D	0.1400	47M5W7D
60	3480.00 ~ 3519.99	0.1641	57M7G7D	0.1346	57M9W7D
70	3485.01 ~ 3514.98	0.1786	67M6G7D	0.1426	67M7W7D
80	3490.02 ~ 3510.00	0.1746	77M5G7D	0.1429	77M6W7D
90	3495.00 ~ 3504.99	0.1758	87M6G7D	0.1432	87M6W7D
100	3500.01	0.1824	97M6G7D	0.1422	97M7W7D



Note:

- 1. 5G NR Band n77 overlaps the entire frequency range of Band n78, and n77 power > n78 power, therefore the conducted test results of n77 provided in this report cover n78.
- 2. All modulations have been tested, and only the worst test results of PSK & QAM are shown in the report.

### 1.7 Testing Site

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

<b>Test Firm</b>	Sporton International Inc. (ShenZhen)		
<b>Test Site Location</b>	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		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	TH01-SZ	CN1256	421272

<b>Test Firm</b>	Sporton International Inc. (ShenZhen)		
<b>Test Site Location</b>	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		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	03CH01-SZ	CN1256	421272

### 1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH01-SZ	AUDIX	E3	6.2009-8-24



## **1.9 Applied Standards**

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

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

### **Remark:**

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



## 2 Test Configuration of Equipment Under Test

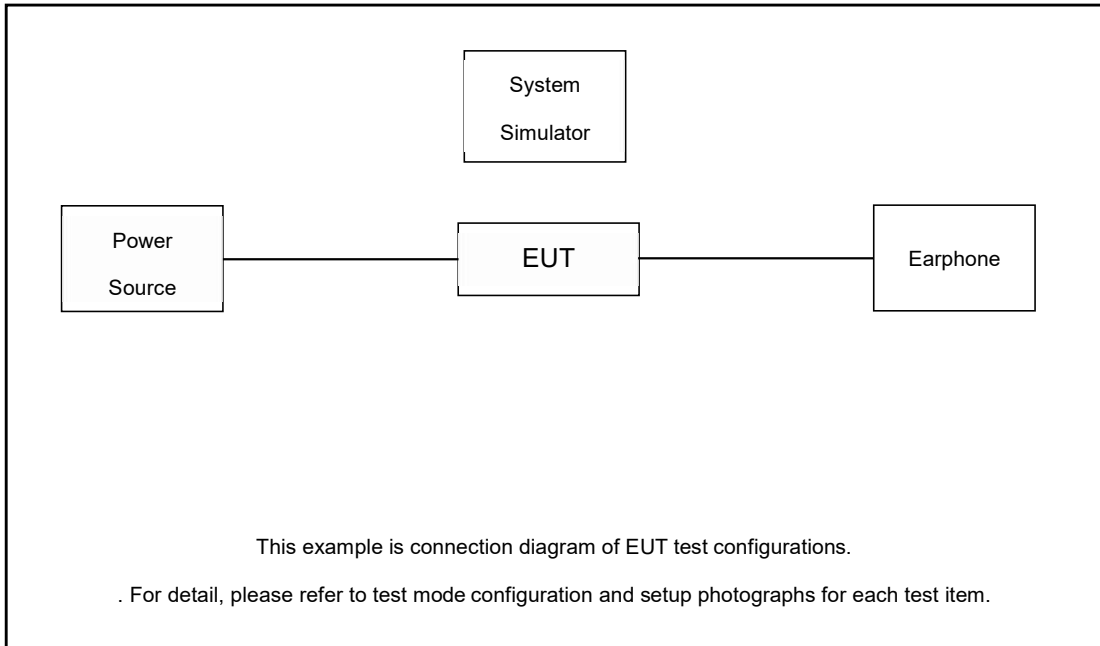
### 2.1 Test Mode

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

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission (X plane).

Test Items	5G NR	Bandwidth (MHz)													Modulation				RB #		Test Channel					
		5	10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16 QAM	64 QAM	256 QAM	1	Full	L	M	H		
Max. Output Power	n77	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	n78	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	n77	-			v										v	v						v			v	
26dB and 99% Bandwidth	n77	-	v	v	v		v	v	v	v	v	v	v			v	v	v	v			v			v	
Conducted Band Edge	n77	-	v						v					v	v	v					v	v	v			v
Conducted Spurious Emission	n77	-	v						v					v	v	v					v			v	v	v
Frequency Stability	n77	-			v											v						v			v	
E.I.R.P	n77	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	n78	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	n77	Worst Case																						v		
	n78	Worst Case																						v		
Note	<ol style="list-style-type: none"> <li>The mark "v" means that this configuration is chosen for testing</li> <li>The mark "-" means that this bandwidth is not supported.</li> <li>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.</li> <li>Frequency Stability : Normal Voltage = 3.85V ; Low Voltage =3.6V. ; High Voltage =4.4V</li> </ol>																									

## 2.2 Connection Diagram of Test System



## 2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	NR Base Station	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
4.	Earphone	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 8.9 dB.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)}. \\ &= 8.9 \text{ (dB)} \end{aligned}$$

## 2.5 Frequency List of Low/Middle/High Channels

5G n77/n78 Channel and Frequency List for SCS 30kHz				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	-	633334	-
	Frequency	-	3500.01	-
90	Channel	633000	633334	633666
	Frequency	3495	3500.01	3504.99
80	Channel	632668	633334	634000
	Frequency	3490.02	3500.01	3510
70	Channel	632334	633334	634332
	Frequency	3485.01	3500.01	3514.98
60	Channel	632000	633334	634666
	Frequency	3480	3500.01	3519.99
50	Channel	631668	633334	635000
	Frequency	3475.02	3500.01	3525
40	Channel	631334	633334	635332
	Frequency	3470.01	3500.01	3529.98
30	Channel	631000	633334	635666
	Frequency	3465	3500.01	3534.99
25	Channel	630834	633334	635832
	Frequency	3462.51	3500.01	3537.48
20	Channel	630668	633334	636000
	Frequency	3460.02	3500.01	3540
15	Channel	630500	633334	636166
	Frequency	3457.5	3500.01	3542.49
10	Channel	630334	633334	636332
	Frequency	3455.01	3500.01	3544.98

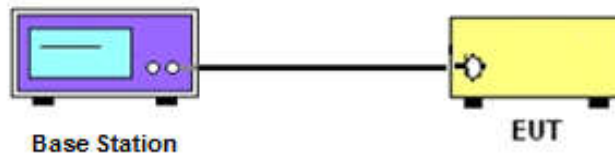
### 3 Conducted Test Items

#### 3.1 Measuring Instruments

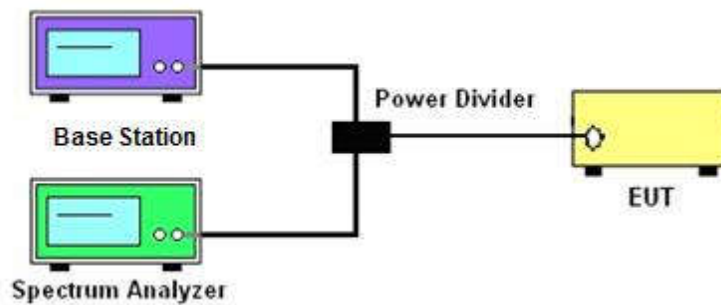
See list of measuring instruments of this test report.

#### 3.2 Test Setup

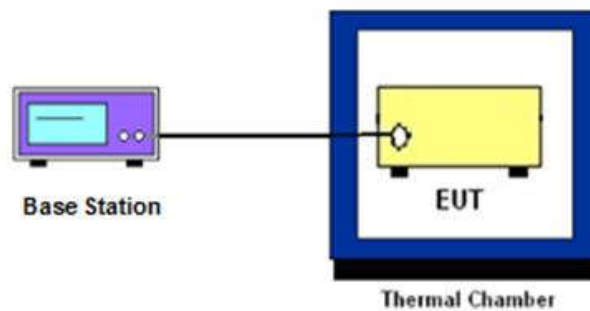
##### 3.2.1 Conducted Output Power



##### 3.2.2 Peak-to-Average Ratio, Occupied / 26dB Bandwidth, 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 Measurement**

### **3.4.1 Description of the Conducted Output Power Measurement**

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

### **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 EIRP

### 3.6.1 Description of EIRP Limit

#### § 27.50 (k)(3)

Mobile devices are limited to 1Watt (30 dBm) EIRP. Mobile devices operating in these bands must employ a means for limiting power to the minimum necessary for successful communications

### 3.6.2 Test Procedures

1. According to KDB 412172 D01 Power Approach,
2.  $EIRP = P_T + G_T - L_C$ ,  $ERP = EIRP - 2.15$ , 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

## 3.7 Occupied Bandwidth

### 3.7.1 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.

### 3.7.2 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.



## 3.8 Conducted Band Edge Measurement

### 3.8.1 Description of Conducted Band Edge Measurement

#### § 27.53 (n)(2)

For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed  $-13$  dBm/MHz.

Compliance with this paragraph is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.

### 3.8.2 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 band edges of low and high channels for the highest RF powers were measured.
4. Set RBW  $\geq 1\%$  EBW but limited to a maximum of 200 kHz in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz and 5 MHz removed from the band edge, set RBW  $\geq 500$ KHz.
6. Beyond the 5 MHz removed from the band edge, set RBW = 1MHz.
7. Set spectrum analyzer with RMS detector.
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
9. Checked that all the results comply with the emission limit line.

## 3.9 Conducted Spurious Emission Measurement

### 3.9.1 Description of Conducted Spurious Emission Measurement

The power of any emission outside of the authorized operating frequency ranges shall not exceed -13 dBm/MHz.

It is measured by means of a calibrated spectrum analyzer and scanned from 9 kHz up to a frequency including its 10<sup>th</sup> harmonic.

### 3.9.2 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. Checked that all the results comply with the emission limit line.

## 3.10 Frequency Stability Measurement

### 3.10.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block.

### 3.10.2 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  $-30^{\circ}\text{C}$  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  $10^{\circ}\text{C}$  step up to  $50^{\circ}\text{C}$ . 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.

### 3.10.3 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  $20\pm 5^{\circ}\text{C}$  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.

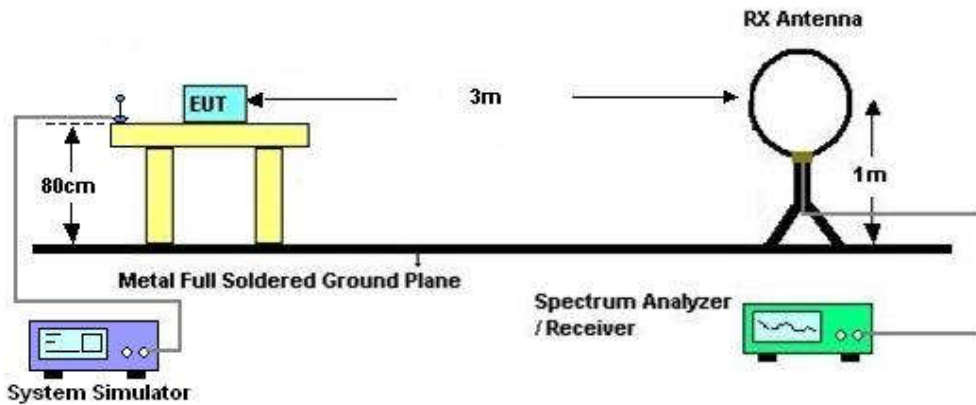
## 4 Radiated Test Items

### 4.1 Measuring Instruments

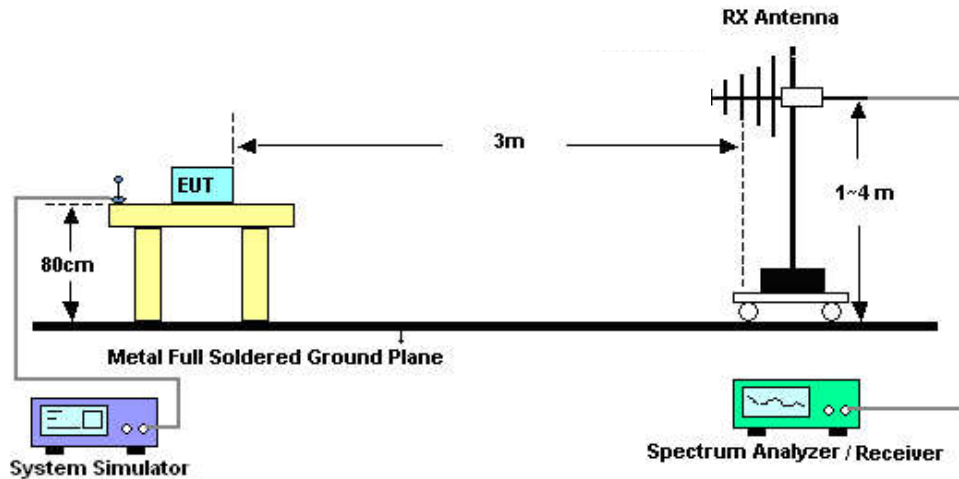
See list of measuring instruments of this test report.

### 4.2 Test Setup

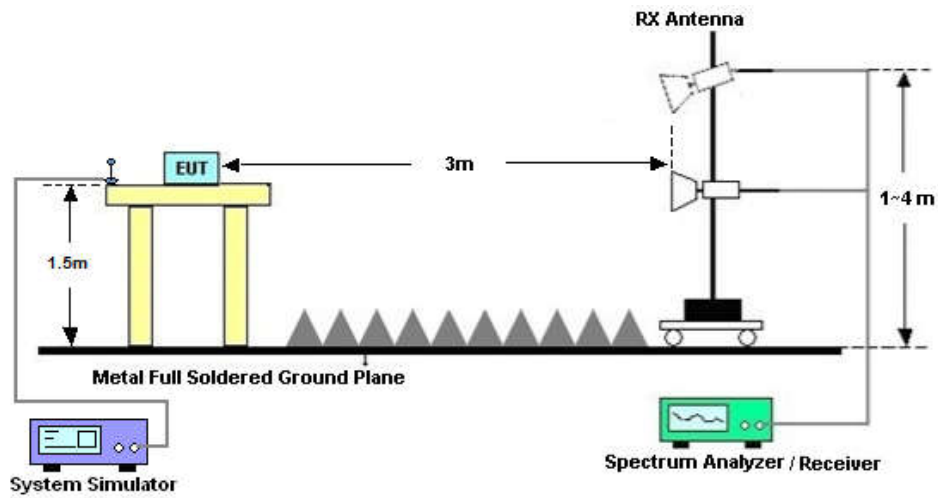
#### 4.2.1 For radiated test below 30MHz



#### 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 Measurement

### 4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI/TIA-603-E. The power of any emission outside of the authorized operating frequency ranges shall not exceed -13 dBm/MHz.

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.  
$$\text{EIRP (dBm)} = \text{S.G. Power} - \text{Tx Cable Loss} + \text{Tx Antenna Gain}$$
$$\text{ERP (dBm)} = \text{EIRP} - 2.15$$
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.



## 5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 27, 2023	Mar. 13, 2024~ Mar. 29, 2024	Dec. 26, 2024	Conducted (TH01-SZ)
DC Power Supply	TTI	PL330P	290070	Max 32V , 3A	Oct. 16, 2023	Mar. 13, 2024~ Mar. 29, 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	Mar. 13, 2024~ Mar. 29, 2024	Dec. 24, 2024	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 05, 2023	Mar. 13, 2024~ Mar. 29, 2024	Jul. 04, 2024	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 27, 2023	Mar. 27, 2024	Dec. 26, 2024	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 28, 2022	Mar. 27, 2024	Jul. 27, 2024	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5GHz	Oct. 18, 2023	Mar. 27, 2024	Oct. 17, 2024	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Mar. 27, 2024	Oct. 23, 2025	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 08, 2023	Mar. 27, 2024	Jul. 07, 2024	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz-40GHz	Apr. 08, 2023	Mar. 27, 2024	Apr. 07, 2024	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 04, 2023	Mar. 27, 2024	Apr. 03, 2024	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P-R	1943528	1GHz~18GHz	Oct. 18, 2023	Mar. 27, 2024	Oct. 17, 2024	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 07, 2023	Mar. 27, 2024	Jul. 06, 2024	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	61601000198 5	N/A	Oct. 18, 2023	Mar. 27, 2024	Oct. 17, 2024	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Mar. 27, 2024	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Mar. 27, 2024	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required

## 6 Measurement Uncertainty

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

### Uncertainty of Conducted Measurement

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 ppm

### Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.8dB
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.48 dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.53dB
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### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.02dB
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----- THE END -----





## Appendix A. Test Results of Conducted Test

Test Engineer :	Khan Zhen	Temperature :	22~23°C
		Relative Humidity :	40~42%

## FR1 N77 (ANT2)

### Transmitter Conducted Output Power And EIRP, ( $G_T - L_C$ )=-1.0dB

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
77	30	10	630334	3455.01	DFT-s-OFDM QPSK	1@1	23.12	22.12	0.1629
77	30	10	630334	3455.01	DFT-s-OFDM 16 QAM	1@1	22.14	21.14	0.1300
77	30	10	633334	3500.01	DFT-s-OFDM QPSK	1@1	22.93	21.93	0.1560
77	30	10	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	21.99	20.99	0.1256
77	30	10	636332	3544.98	DFT-s-OFDM QPSK	1@1	21.2	20.2	0.1047
77	30	10	636332	3544.98	DFT-s-OFDM 16 QAM	1@1	20.32	19.32	0.0855
77	30	15	630500	3457.5	DFT-s-OFDM QPSK	1@1	23.36	22.36	0.1722
77	30	15	630500	3457.5	DFT-s-OFDM 16 QAM	1@1	22.35	21.35	0.1365
77	30	15	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.02	22.02	0.1592
77	30	15	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.05	21.05	0.1274
77	30	15	636166	3542.49	DFT-s-OFDM QPSK	1@1	21.36	20.36	0.1086
77	30	15	636166	3542.49	DFT-s-OFDM 16 QAM	1@1	20.4	19.4	0.0871
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@1	23.29	22.29	0.1694
77	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@1	22.28	21.28	0.1343
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.64	22.64	0.1837
77	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.19	21.19	0.1315
77	30	20	636000	3540	DFT-s-OFDM QPSK	1@1	21.47	20.47	0.1114
77	30	20	636000	3540	DFT-s-OFDM 16 QAM	1@1	20.55	19.55	0.0902
77	30	25	630834	3462.51	DFT-s-OFDM QPSK	1@1	23.32	22.32	0.1706
77	30	25	630834	3462.51	DFT-s-OFDM 16 QAM	1@1	22.28	21.28	0.1343
77	30	25	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.03	22.03	0.1596
77	30	25	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.13	21.13	0.1297
77	30	25	635832	3537.48	DFT-s-OFDM QPSK	1@1	21.62	20.62	0.1153
77	30	25	635832	3537.48	DFT-s-OFDM 16 QAM	1@1	20.63	19.63	0.0918
77	30	30	631000	3465	DFT-s-OFDM QPSK	1@1	23.35	22.35	0.1718
77	30	30	631000	3465	DFT-s-OFDM 16 QAM	1@1	22.34	21.34	0.1361
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.57	22.57	0.1807
77	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.56	21.56	0.1432
77	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@1	21.9	20.9	0.1230
77	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@1	20.88	19.88	0.0973
77	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@1	23.35	22.35	0.1718
77	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@1	22.33	21.33	0.1358
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.47	22.47	0.1766
77	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.43	21.43	0.1390
77	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@1	22.2	21.2	0.1318
77	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@1	21.3	20.3	0.1072

77	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@1	23.4	22.4	0.1738
77	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	1@1	22.39	21.39	0.1377
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@1	22.97	21.97	0.1574
77	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.05	21.05	0.1274
77	30	50	635000	3525	DFT-s-OFDM QPSK	1@1	22.57	21.57	0.1435
77	30	50	635000	3525	DFT-s-OFDM 16 QAM	1@1	21.68	20.68	0.1169
77	30	60	632000	3480	DFT-s-OFDM QPSK	1@1	23.38	22.38	0.1730
77	30	60	632000	3480	DFT-s-OFDM 16 QAM	1@1	22.39	21.39	0.1377
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@1	22.88	21.88	0.1542
77	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	21.94	20.94	0.1242
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@1	22.92	21.92	0.1556
77	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@1	22	21	0.1259
77	30	70	632334	3485.01	DFT-s-OFDM QPSK	1@1	23.23	22.23	0.1671
77	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	1@1	22.16	21.16	0.1306
77	30	70	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.22	22.22	0.1667
77	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.19	21.19	0.1315
77	30	70	634332	3514.98	DFT-s-OFDM QPSK	1@1	23.07	22.07	0.1611
77	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	1@1	22.35	21.35	0.1365
77	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@1	23.57	22.57	0.1807
77	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@1	22.56	21.56	0.1432
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.54	22.54	0.1795
77	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.52	21.52	0.1419
77	30	80	634000	3510	DFT-s-OFDM QPSK	1@1	23.61	22.61	0.1824
77	30	80	634000	3510	DFT-s-OFDM 16 QAM	1@1	22.66	21.66	0.1466
77	30	90	633000	3495	DFT-s-OFDM QPSK	1@1	23.3	22.3	0.1698
77	30	90	633000	3495	DFT-s-OFDM 16 QAM	1@1	22.27	21.27	0.1340
77	30	90	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.44	22.44	0.1754
77	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.43	21.43	0.1390
77	30	90	633666	3504.99	DFT-s-OFDM QPSK	1@1	23.53	22.53	0.1791
77	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	1@1	22.53	21.53	0.1422
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	135@67	22.73	21.73	0.1489
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	23.65	22.65	0.1841
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@271	23.11	22.11	0.1626
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	135@67	22.69	21.69	0.1476
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.03	22.03	0.1596
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@271	23.01	22.01	0.1589
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	135@67	21.97	20.97	0.1250
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.24	21.24	0.1330
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@271	22.12	21.12	0.1294
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	135@67	20.58	19.58	0.0908
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	20.91	19.91	0.0979
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@271	18.39	17.39	0.0548
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	135@67	18.58	17.58	0.0573
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	18.7	17.7	0.0589

77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@271	18.56	17.56	0.0570
77	30	100	633334	3500.01	CP-OFDM QPSK	137@68	21.4	20.4	0.1096
77	30	100	633334	3500.01	CP-OFDM QPSK	1@1	21.54	20.54	0.1132
77	30	100	633334	3500.01	CP-OFDM QPSK	1@271	21.52	20.52	0.1127

## Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	0.0057	PASS	NV
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	0.0064	PASS	LV
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	0.0044	PASS	HV
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	0.0045	PASS	-30°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	0.0051	PASS	-20°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	0.0044	PASS	-10°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	0.0045	PASS	0°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	0.0035	PASS	10°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	0.0057	PASS	20°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	0.0044	PASS	30°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	0.0054	PASS	40°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	0.0023	PASS	50°C

## Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	50@0	3.67	13	PASS
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	4.56	13	PASS

### N77(20M)\_DFT-s-OFDM\_PI\_2- BPSK\_Outer\_Full\_Mid\_CH



### N77(20M)\_DFT-s- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



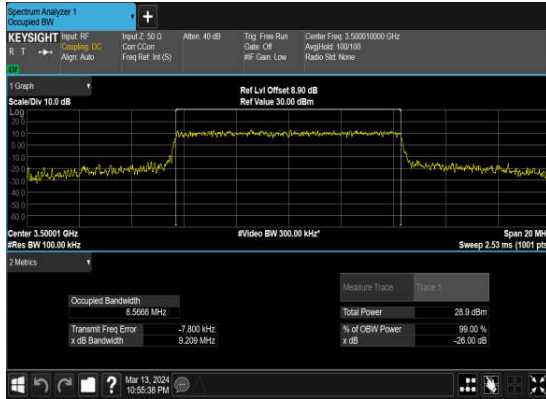
## Occupied Bandwidth

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
77	30	10	633334	3500.01	CP-OFDM QPSK	24@0	8.5666	9.209
77	30	10	633334	3500.01	CP-OFDM 16 QAM	24@0	8.5635	9.316
77	30	10	633334	3500.01	CP-OFDM 64 QAM	24@0	8.5926	9.22
77	30	10	633334	3500.01	CP-OFDM 256 QAM	24@0	8.5309	9.127
77	30	15	633334	3500.01	CP-OFDM QPSK	38@0	13.576	15.1
77	30	15	633334	3500.01	CP-OFDM 16 QAM	38@0	13.607	15.63
77	30	15	633334	3500.01	CP-OFDM 64 QAM	38@0	13.633	15.51
77	30	15	633334	3500.01	CP-OFDM 256 QAM	38@0	13.54	14.24
77	30	20	633334	3500.01	CP-OFDM QPSK	51@0	18.19	18.94
77	30	20	633334	3500.01	CP-OFDM 16 QAM	51@0	18.249	19.05
77	30	20	633334	3500.01	CP-OFDM 64 QAM	51@0	18.216	18.97
77	30	20	633334	3500.01	CP-OFDM 256 QAM	51@0	18.191	19.05
77	30	25	633334	3500.01	CP-OFDM QPSK	65@0	23.174	24.2
77	30	25	633334	3500.01	CP-OFDM 16 QAM	65@0	23.206	24.04
77	30	25	633334	3500.01	CP-OFDM 64 QAM	65@0	23.164	24.06
77	30	25	633334	3500.01	CP-OFDM 256 QAM	65@0	23.277	24.39
77	30	30	633334	3500.01	CP-OFDM QPSK	77@0	27.86	28.77
77	30	30	633334	3500.01	CP-OFDM 16 QAM	77@0	27.826	29.06
77	30	30	633334	3500.01	CP-OFDM 64 QAM	77@0	27.809	28.79
77	30	30	633334	3500.01	CP-OFDM 256 QAM	77@0	27.877	29.04
77	30	40	633334	3500.01	CP-OFDM QPSK	106@0	37.776	39.23
77	30	40	633334	3500.01	CP-OFDM 16 QAM	106@0	37.794	39.2
77	30	40	633334	3500.01	CP-OFDM 64 QAM	106@0	37.842	39.14
77	30	40	633334	3500.01	CP-OFDM 256 QAM	106@0	37.825	39.27
77	30	50	633334	3500.01	CP-OFDM QPSK	133@0	47.461	54.44

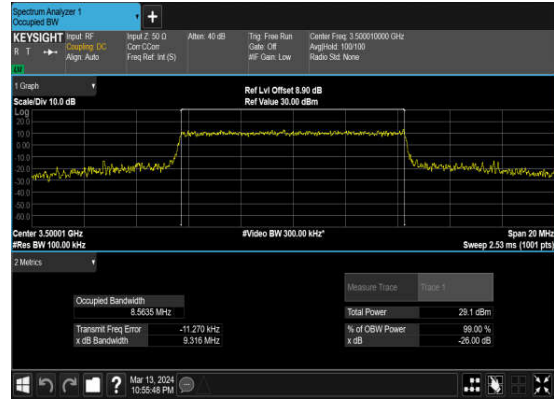


77	30	50	633334	3500.01	CP-OFDM 16 QAM	133@0	47.402	51.65
77	30	50	633334	3500.01	CP-OFDM 64 QAM	133@0	47.462	49.03
77	30	50	633334	3500.01	CP-OFDM 256 QAM	133@0	47.48	48.99
77	30	60	633334	3500.01	CP-OFDM QPSK	162@0	57.732	59.62
77	30	60	633334	3500.01	CP-OFDM 16 QAM	162@0	57.773	59.66
77	30	60	633334	3500.01	CP-OFDM 64 QAM	162@0	57.868	59.72
77	30	60	633334	3500.01	CP-OFDM 256 QAM	162@0	57.722	59.71
77	30	70	633334	3500.01	CP-OFDM QPSK	189@0	67.572	69.71
77	30	70	633334	3500.01	CP-OFDM 16 QAM	189@0	67.697	69.74
77	30	70	633334	3500.01	CP-OFDM 64 QAM	189@0	67.597	69.7
77	30	70	633334	3500.01	CP-OFDM 256 QAM	189@0	67.481	69.73
77	30	80	633334	3500.01	CP-OFDM QPSK	217@0	77.515	80.03
77	30	80	633334	3500.01	CP-OFDM 16 QAM	217@0	77.617	80.04
77	30	80	633334	3500.01	CP-OFDM 64 QAM	217@0	77.339	79.9
77	30	80	633334	3500.01	CP-OFDM 256 QAM	217@0	77.528	79.87
77	30	90	633334	3500.01	CP-OFDM QPSK	245@0	87.611	100.1
77	30	90	633334	3500.01	CP-OFDM 16 QAM	245@0	87.534	91.64
77	30	90	633334	3500.01	CP-OFDM 64 QAM	245@0	87.641	90.2
77	30	90	633334	3500.01	CP-OFDM 256 QAM	245@0	87.317	90.36
77	30	100	633334	3500.01	CP-OFDM QPSK	273@0	97.634	108.9
77	30	100	633334	3500.01	CP-OFDM 16 QAM	273@0	97.508	102.3
77	30	100	633334	3500.01	CP-OFDM 64 QAM	273@0	97.235	100.5
77	30	100	633334	3500.01	CP-OFDM 256 QAM	273@0	97.718	100.5

N77(10M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



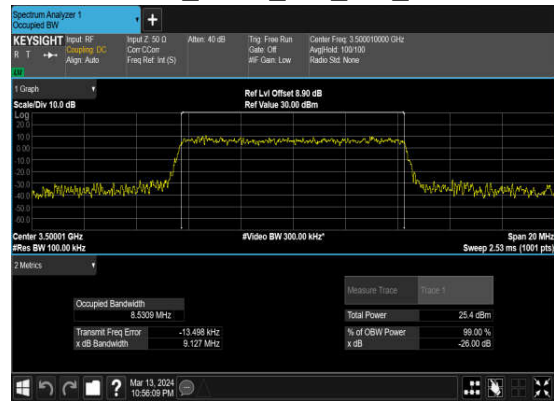
N77(10M)\_CP-OFDM\_16 QAM\_Outer\_Full\_Mid\_CH



N77(10M)\_CP-OFDM\_64 QAM\_Outer\_Full\_Mid\_CH



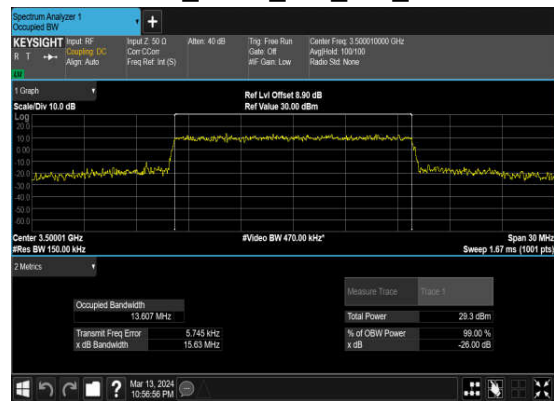
N77(10M)\_CP-OFDM\_256 QAM\_Outer\_Full\_Mid\_CH



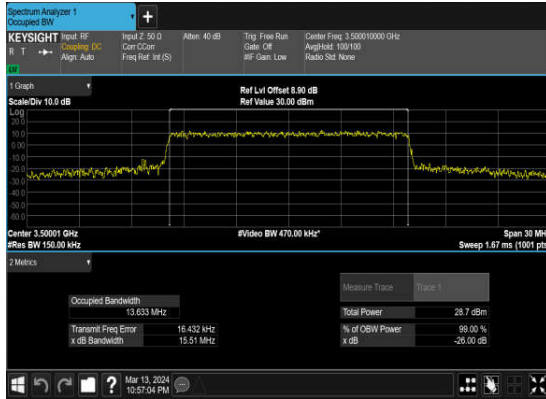
N77(15M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



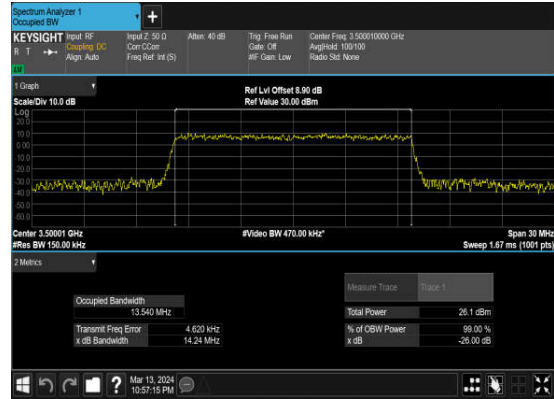
N77(15M)\_CP-OFDM\_16 QAM\_Outer\_Full\_Mid\_CH



N77(15M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



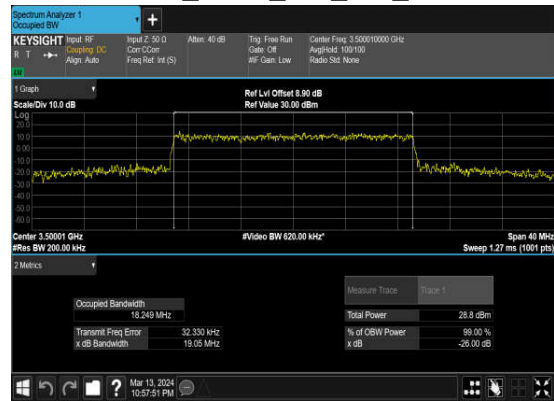
N77(15M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



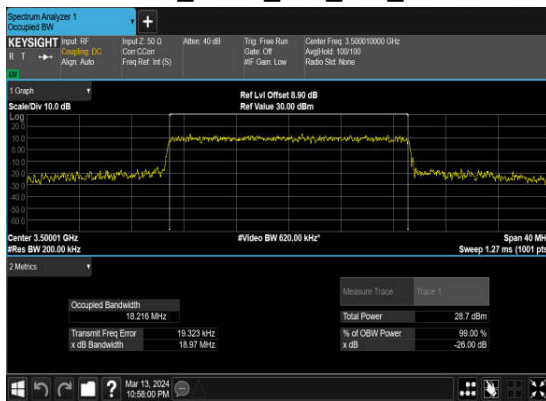
N77(20M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



N77(20M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH



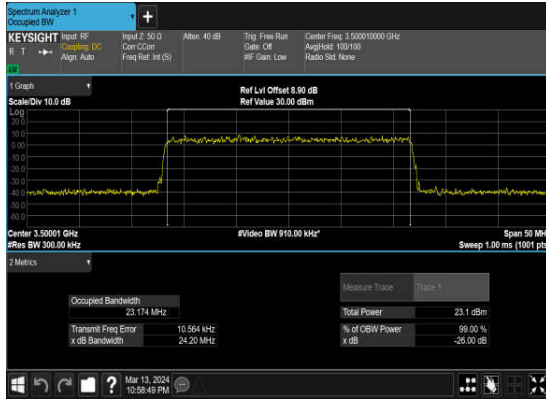
N77(20M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



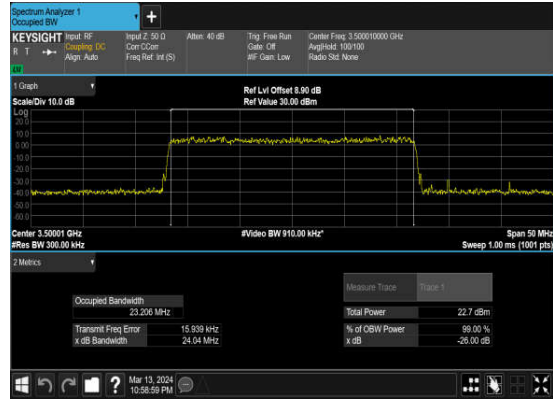
N77(20M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



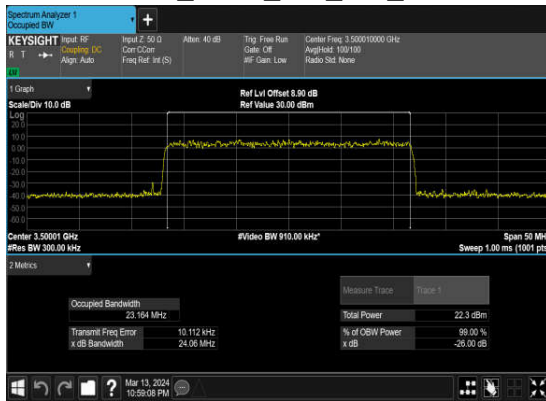
N77(25M)\_CP-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



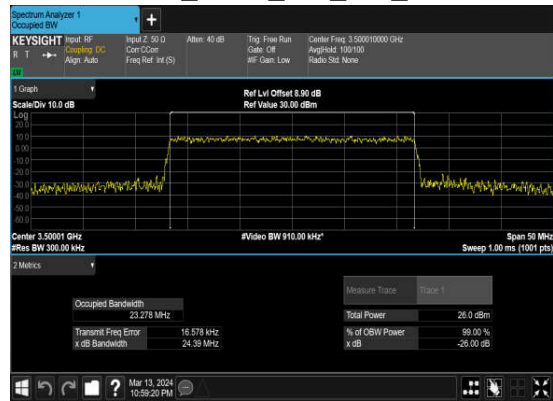
N77(25M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH



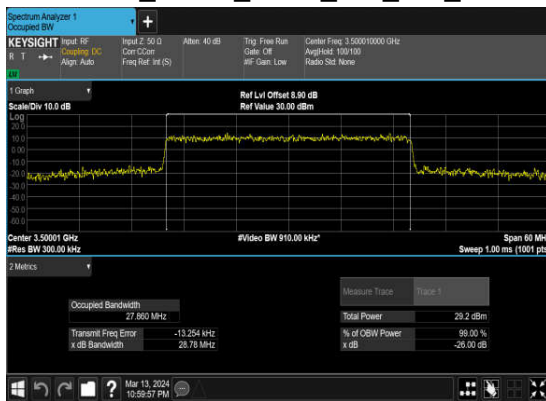
N77(25M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



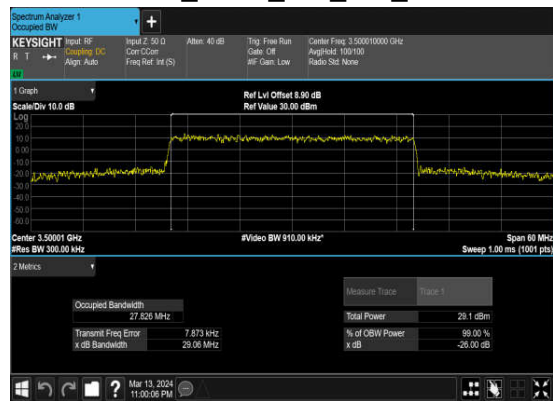
N77(25M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



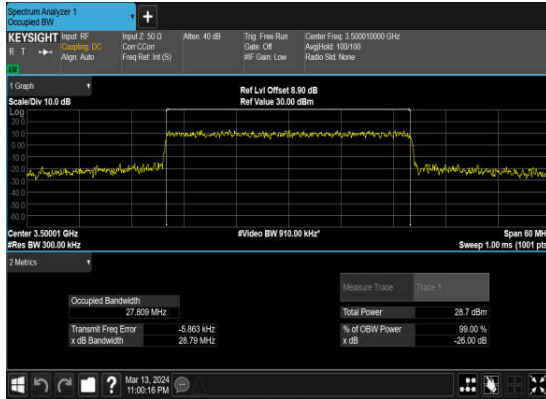
N77(30M)\_CP-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



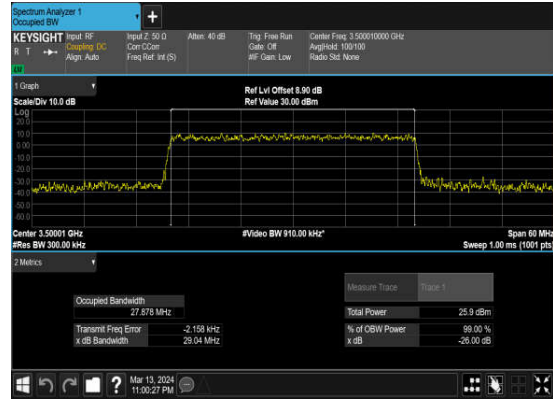
N77(30M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH



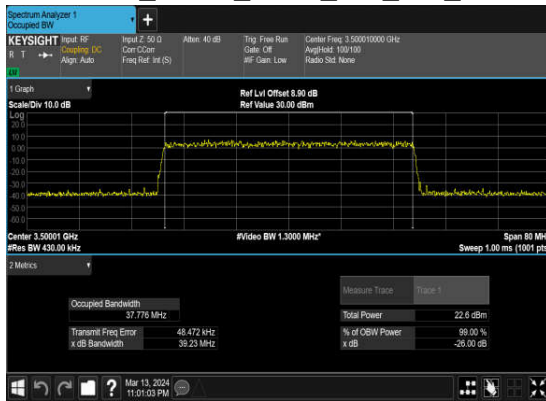
N77(30M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



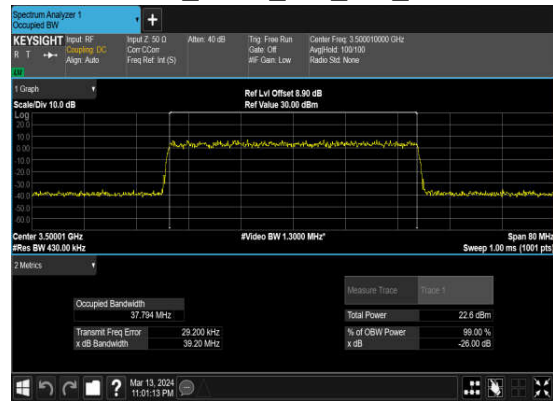
N77(30M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



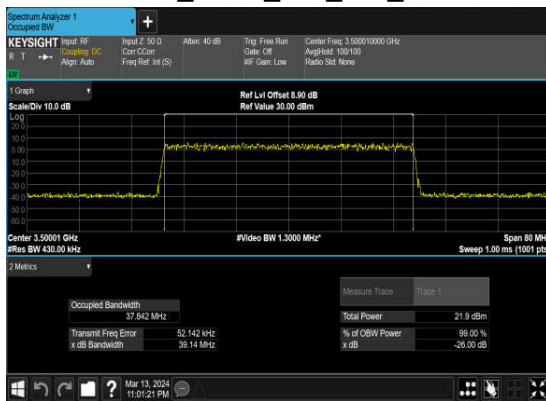
N77(40M)\_CP-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



N77(40M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH



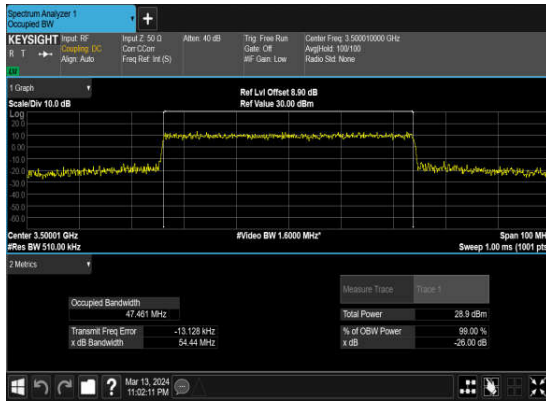
N77(40M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



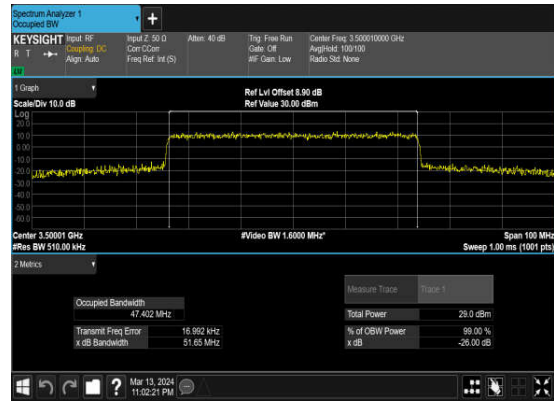
N77(40M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



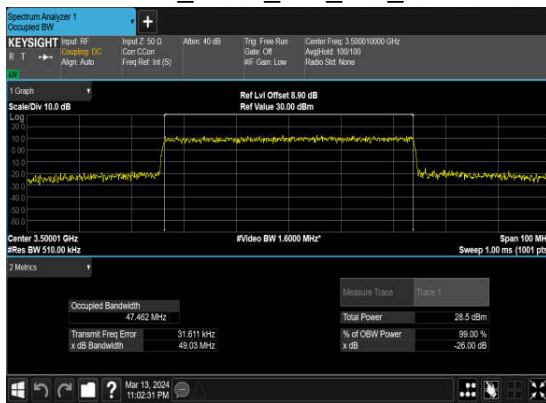
### N77(50M)\_CP- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



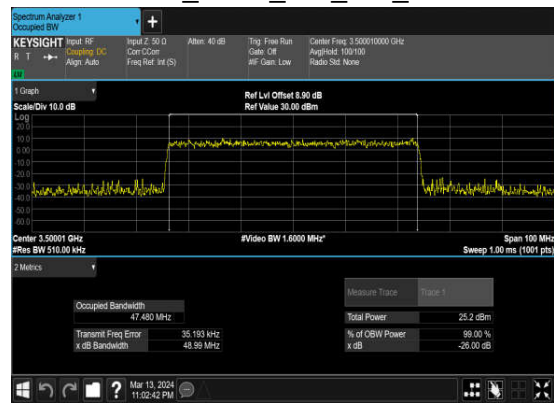
### N77(50M)\_CP-OFDM\_16 QAM\_Outer\_Full\_Mid\_CH



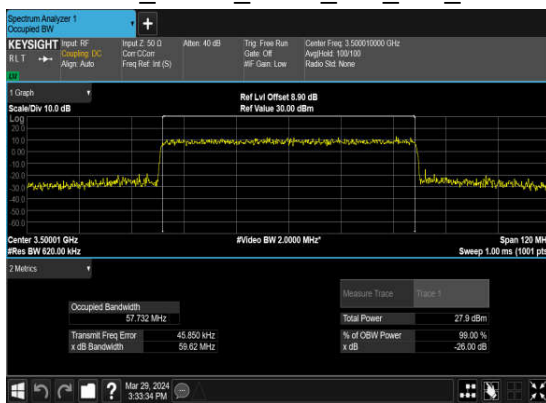
### N77(50M)\_CP-OFDM\_64 QAM\_Outer\_Full\_Mid\_CH



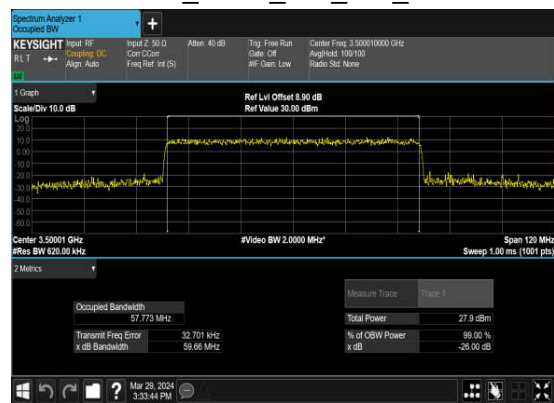
### N77(50M)\_CP-OFDM\_256 QAM\_Outer\_Full\_Mid\_CH



### N77(60M)\_CP- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



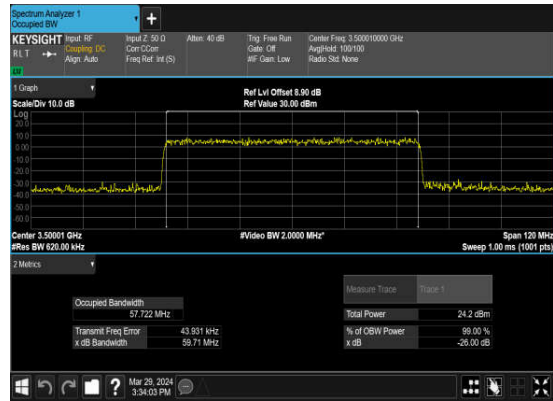
### N77(60M)\_CP-OFDM\_16 QAM\_Outer\_Full\_Mid\_CH



N77(60M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



N77(60M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



N77(70M)\_CP-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



N77(70M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH



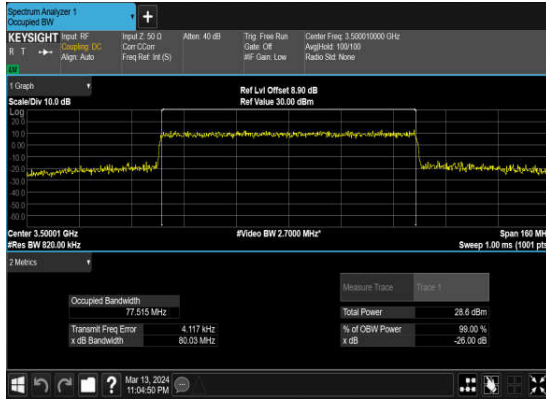
N77(70M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



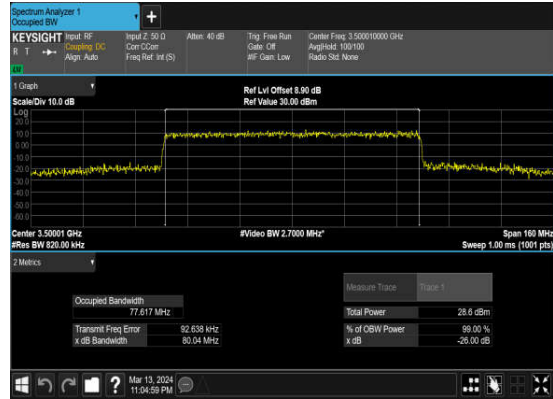
N77(70M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



N77(80M)\_CP-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



N77(80M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH



N77(80M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



N77(80M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



N77(90M)\_CP-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH

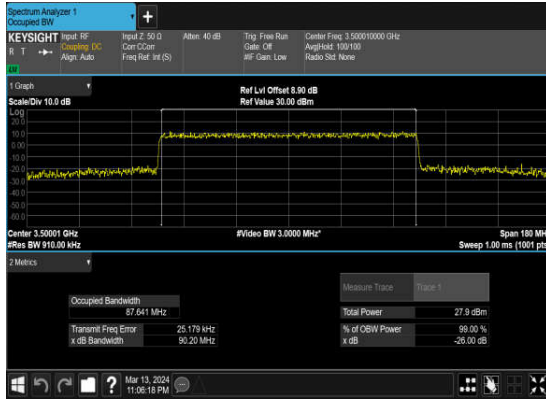


N77(90M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH

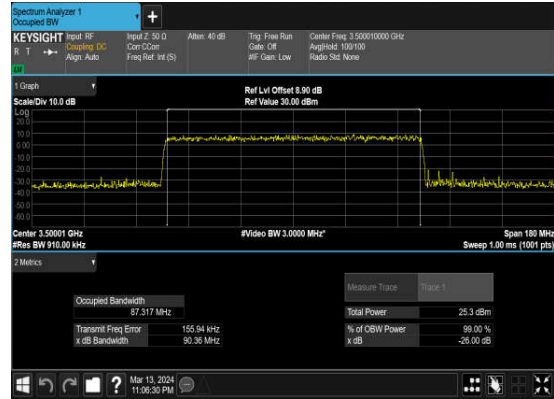




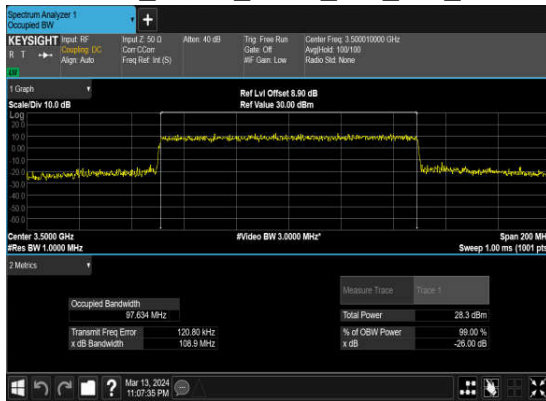
N77(90M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



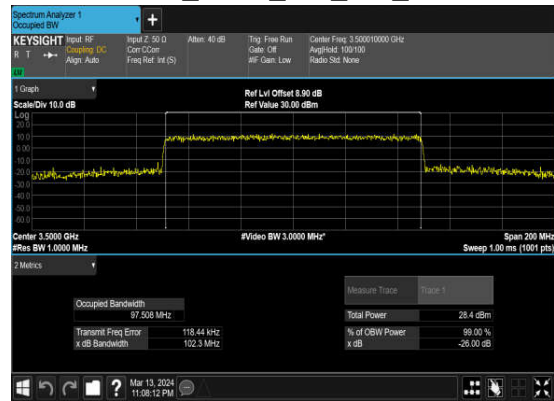
N77(90M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



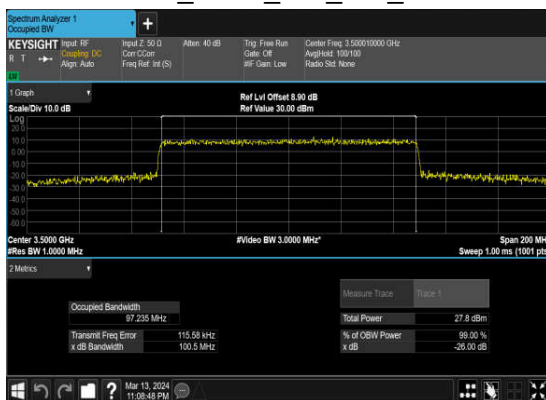
N77(100M)\_CP-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



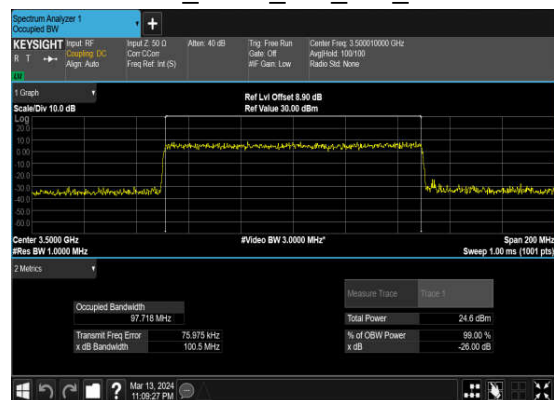
N77(100M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH



N77(100M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



N77(100M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH

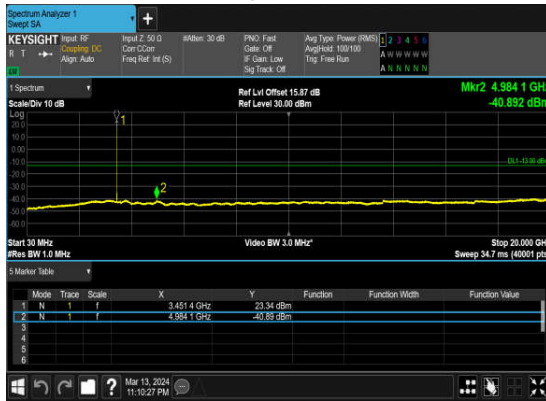


## Conducted Spurious Emissions

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	30	10	630334	3455.01	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	10	630334	3455.01	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	10	630334	3455.01	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	10	630334	3455.01	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	10	630334	3455.01	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	10	630334	3455.01	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	10	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	10	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	10	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	10	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	10	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	10	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	10	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	10	636332	3544.98	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	10	636332	3544.98	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	10	636332	3544.98	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	10	636332	3544.98	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	10	636332	3544.98	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	10	636332	3544.98	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	50	631668	3475.02	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	50	631668	3475.02	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	50	631668	3475.02	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@0	see graph	---

77	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	50	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	50	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	50	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	50	635000	3525.0	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	50	635000	3525.0	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	50	635000	3525.0	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	50	635000	3525.0	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	50	635000	3525.0	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	50	635000	3525.0	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>

### N77(10M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



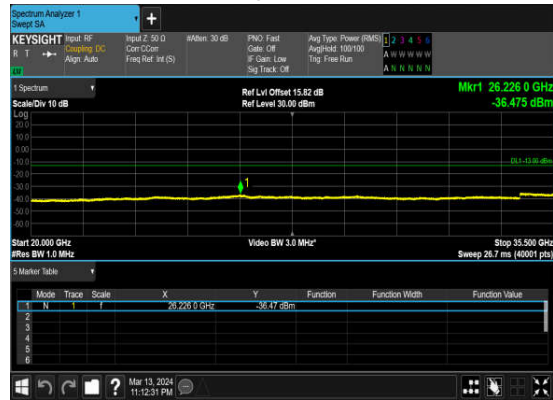
### N77(10M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



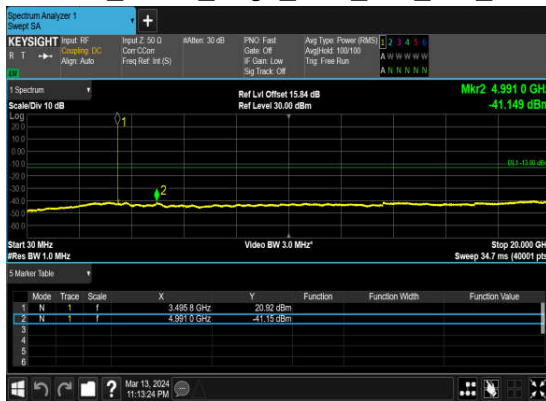
### N77(10M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



### N77(10M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



### N77(10M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



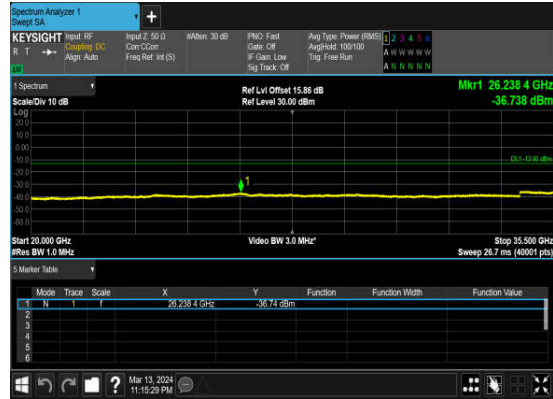
### N77(10M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



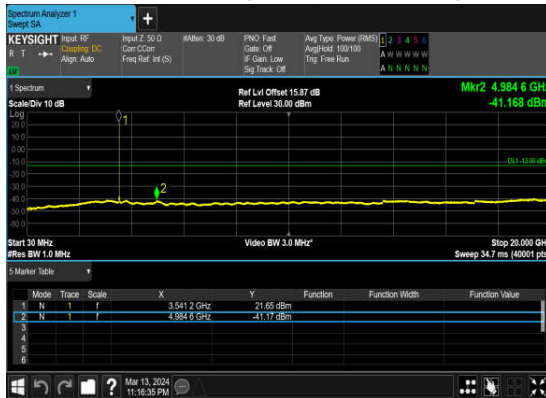
N77(10M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



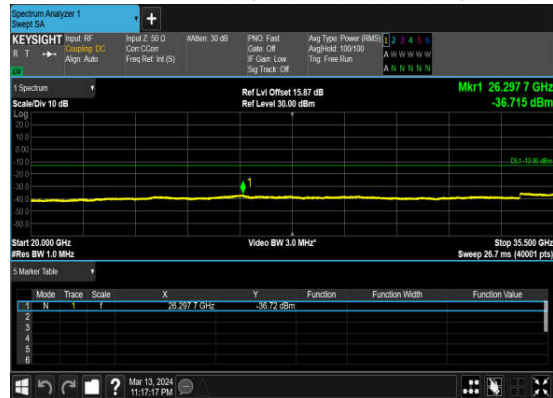
N77(10M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



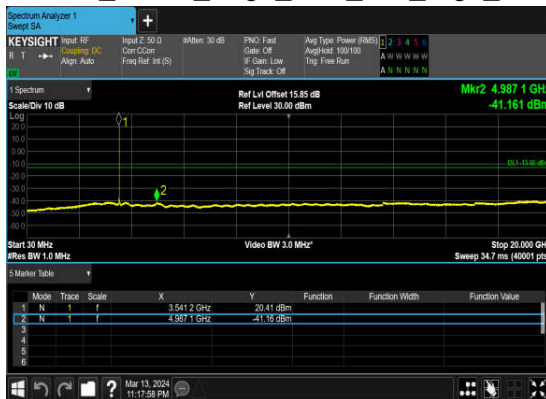
N77(10M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



N77(10M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



N77(10M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH



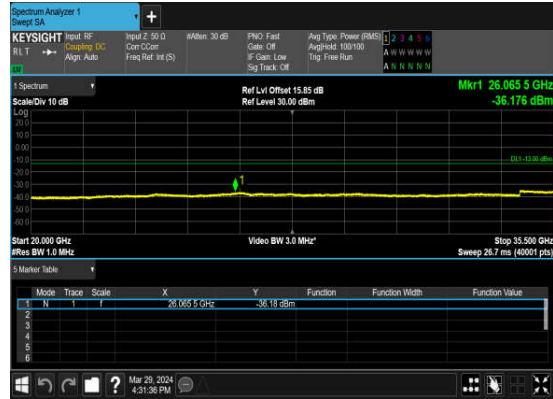
N77(10M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH



N77(50M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



N77(50M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



N77(50M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



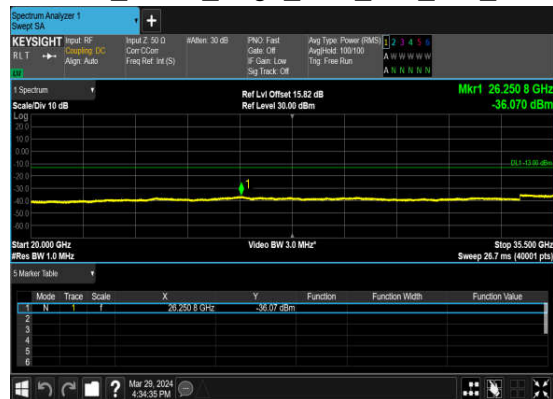
N77(50M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



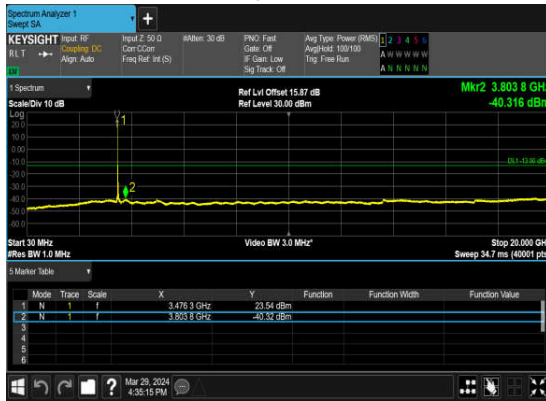
N77(50M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



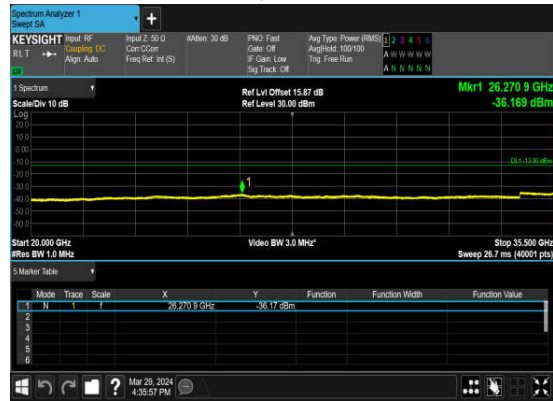
N77(50M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



N77(50M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



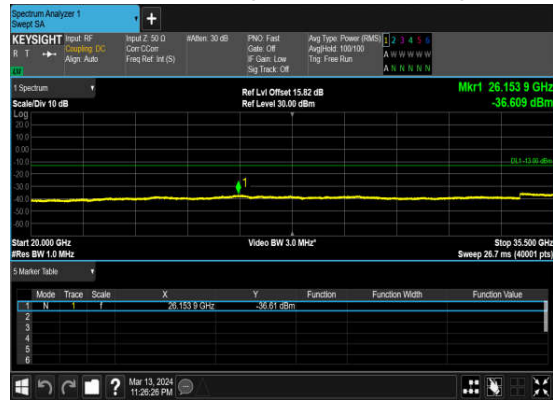
N77(50M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



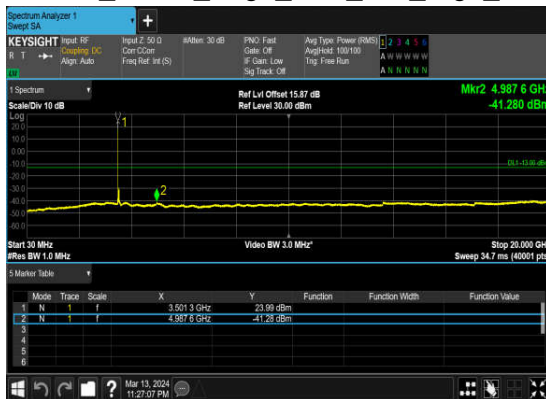
N77(50M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



N77(50M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



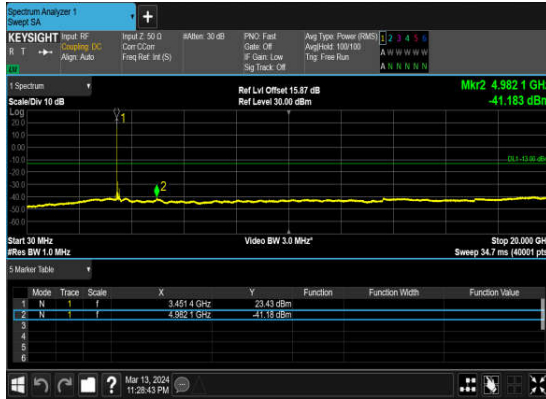
N77(50M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH



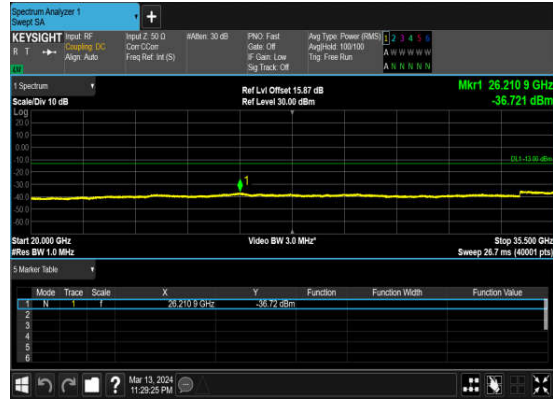
N77(50M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH



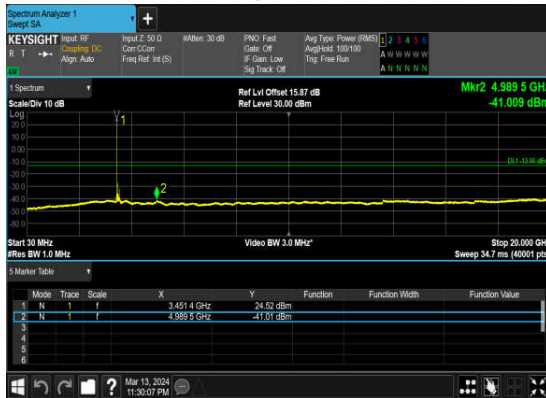
N77(100M)\_DFT-s-  
OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



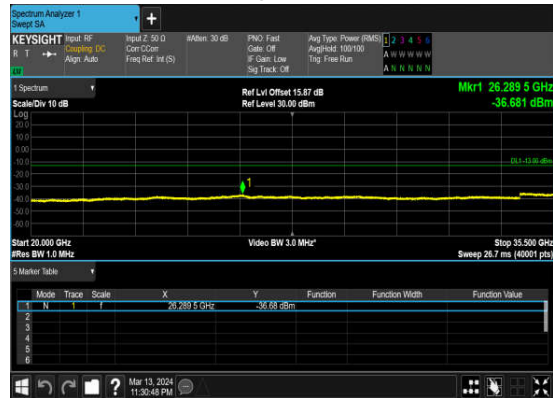
N77(100M)\_DFT-s-  
OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



N77(100M)\_DFT-s-  
OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



N77(100M)\_DFT-s-  
OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH

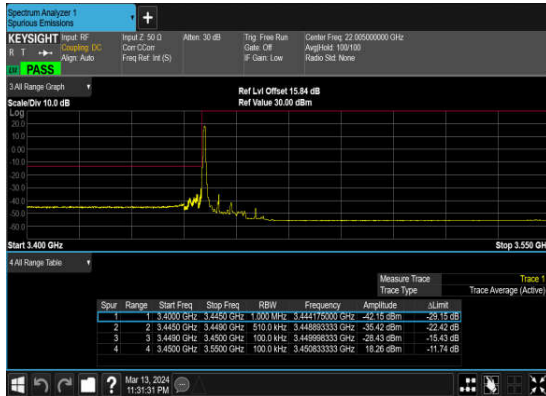




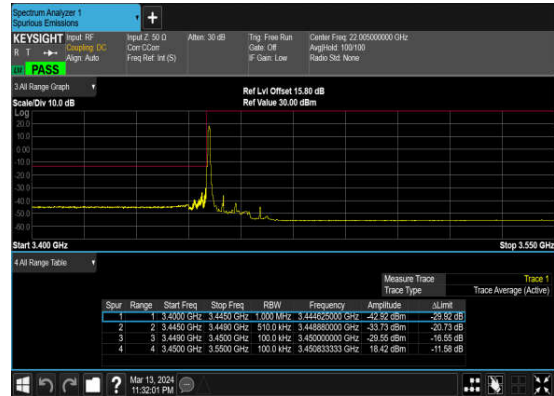
## Conducted Band Edge

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	30	10	630334	3455.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	10	630334	3455.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	10	630334	3455.01	DFT-s-OFDM BPSK	24@0	see graph	PASS
77	30	10	630334	3455.01	DFT-s-OFDM QPSK	24@0	see graph	PASS
77	30	10	636332	3544.98	DFT-s-OFDM BPSK	1@23	see graph	PASS
77	30	10	636332	3544.98	DFT-s-OFDM QPSK	1@23	see graph	PASS
77	30	10	636332	3544.98	DFT-s-OFDM BPSK	24@0	see graph	PASS
77	30	10	636332	3544.98	DFT-s-OFDM QPSK	24@0	see graph	PASS
77	30	50	631668	3475.02	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	50	631668	3475.02	DFT-s-OFDM BPSK	128@0	see graph	PASS
77	30	50	631668	3475.02	DFT-s-OFDM QPSK	128@0	see graph	PASS
77	30	50	635000	3525.0	DFT-s-OFDM BPSK	1@132	see graph	PASS
77	30	50	635000	3525.0	DFT-s-OFDM QPSK	1@132	see graph	PASS
77	30	50	635000	3525.0	DFT-s-OFDM BPSK	128@0	see graph	PASS
77	30	50	635000	3525.0	DFT-s-OFDM QPSK	128@0	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@272	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@272	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	270@0	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	270@0	see graph	PASS

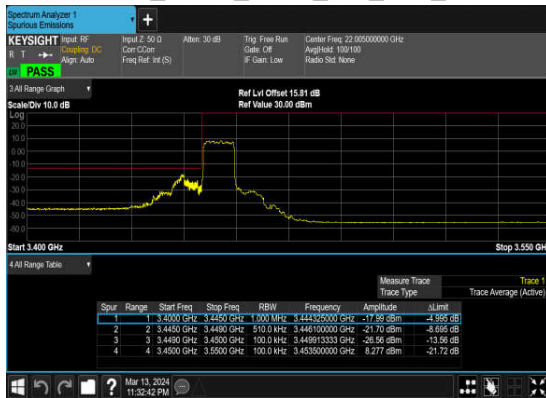
N77(10M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



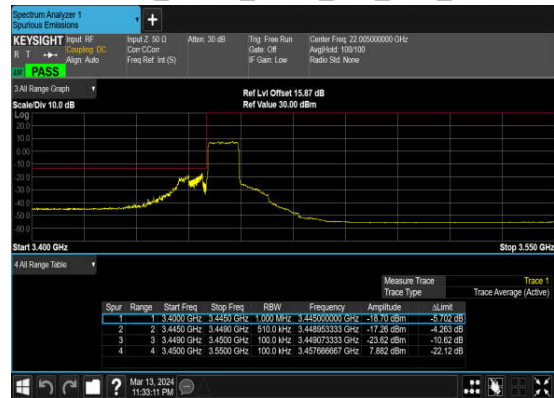
N77(10M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



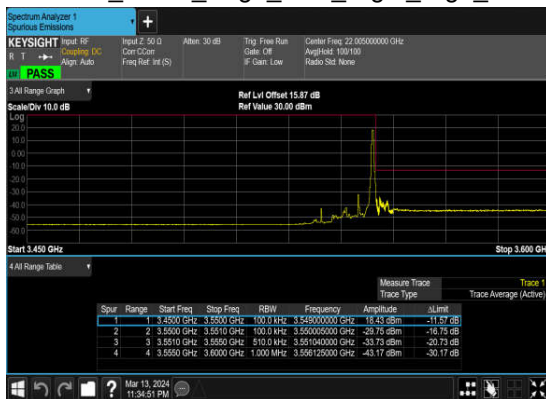
N77(10M)\_DFT-s-OFDM\_BPSK\_Outer\_Full\_Low\_CH



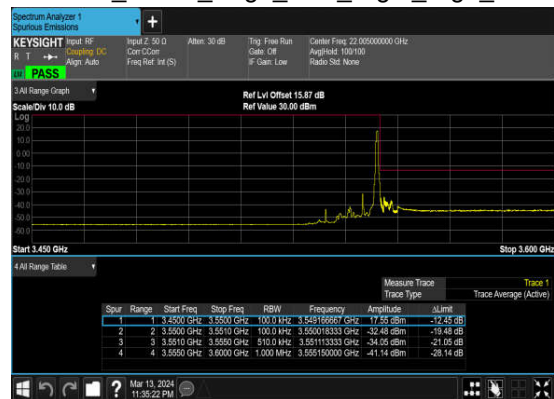
N77(10M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Low\_CH



N77(10M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Right\_High\_CH



N77(10M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Right\_High\_CH



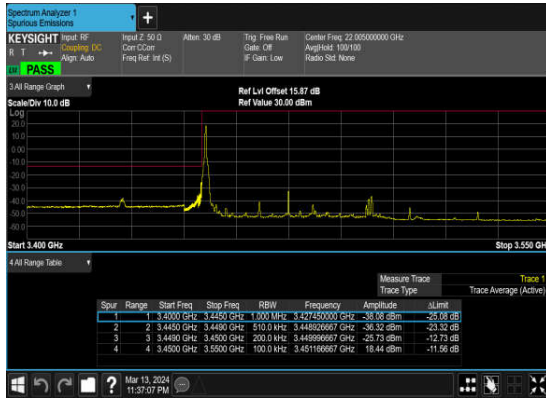
N77(10M)\_DFT-s-OFDM\_BPSK\_Outer\_Full\_High\_CH



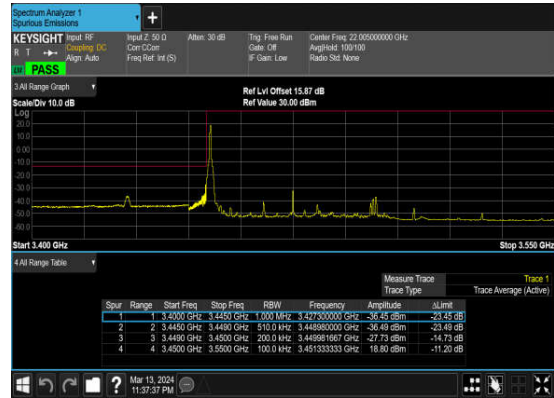
N77(10M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_High\_CH



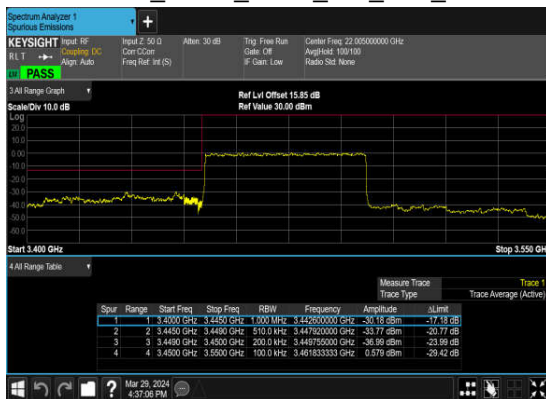
N77(50M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



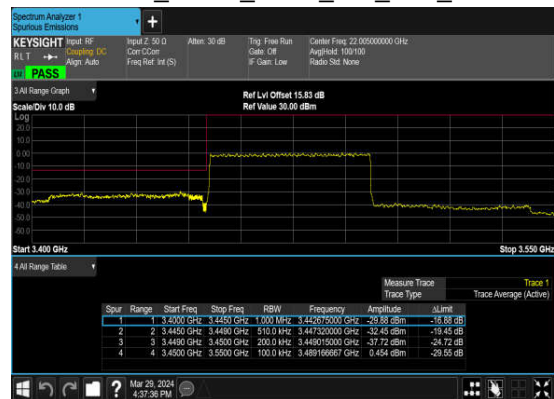
N77(50M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



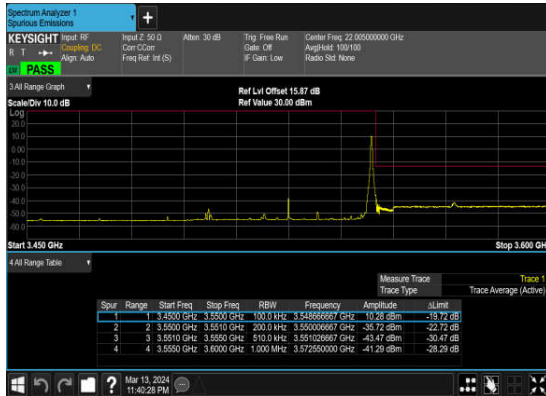
N77(50M)\_DFT-s-OFDM\_BPSK\_Outer\_Full\_Low\_CH



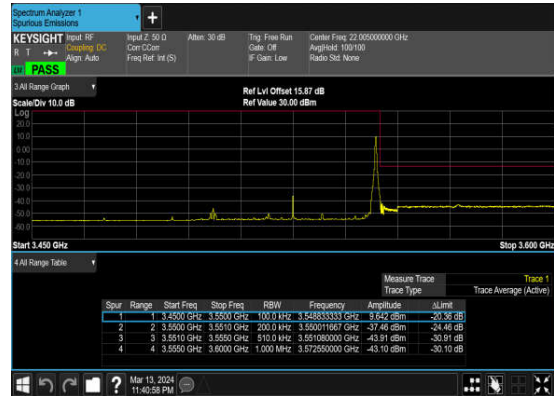
N77(50M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Low\_CH



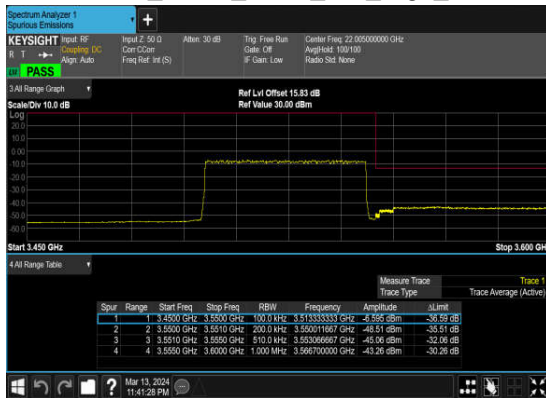
### N77(50M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Right\_High\_CH



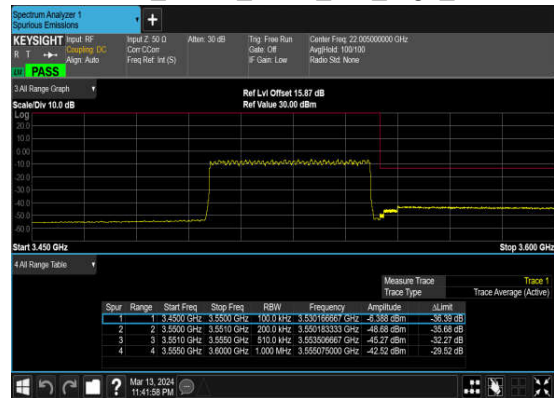
### N77(50M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Right\_High\_CH



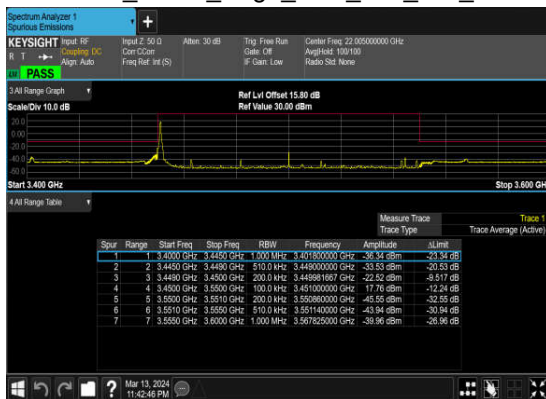
### N77(50M)\_DFT-s-OFDM\_BPSK\_Outer\_Full\_High\_CH



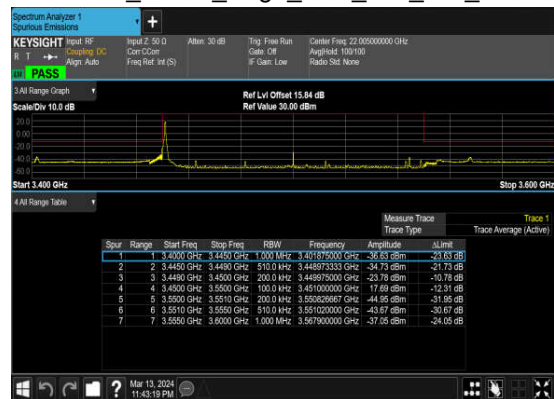
### N77(50M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_High\_CH



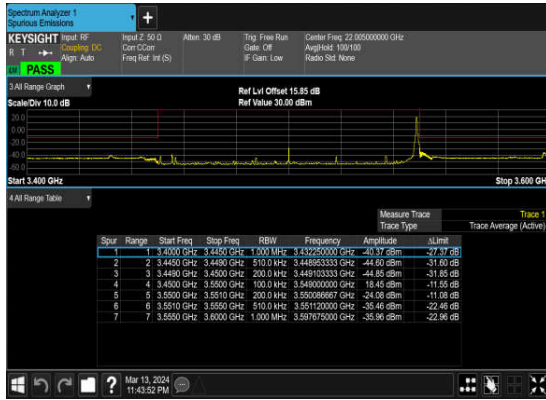
### N77(100M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



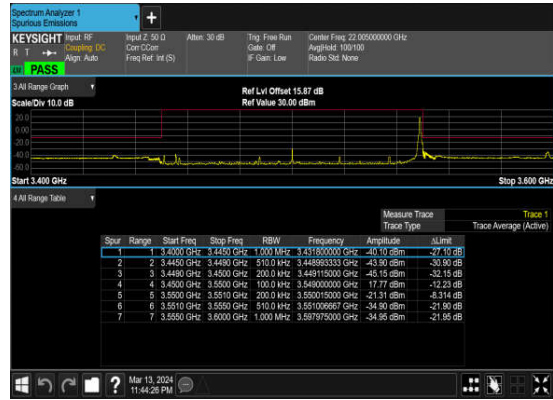
### N77(100M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



### N77(100M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Right\_Mid\_CH



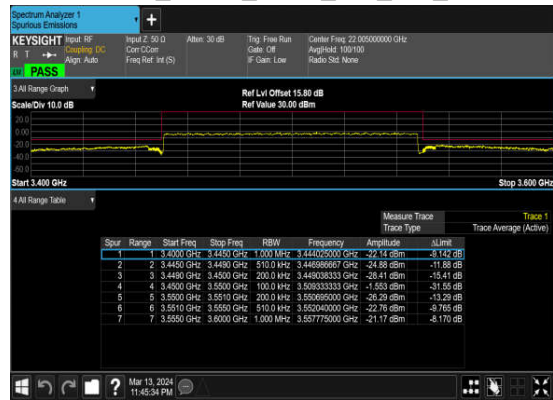
### N77(100M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Right\_Mid\_CH



### N77(100M)\_DFT-s-OFDM\_BPSK\_Outer\_Full\_Mid\_CH



### N77(100M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



## FR1 N78(ANT2)

LTE Band: 38(ANT1), LTE BW: 10M, LTE ARFCN: Mid

### Transmitter Conducted Output Power And EIRP, ( $G_T - L_C$ )=-1.0dB

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
78	30	10	630334	3455.01	DFT-s-OFDM QPSK	1@1	23.59	22.59	0.1816
78	30	10	630334	3455.01	DFT-s-OFDM 16 QAM	1@1	22.17	21.17	0.1309
78	30	10	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.24	22.24	0.1675
78	30	10	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.28	21.28	0.1343
78	30	10	636332	3544.98	DFT-s-OFDM QPSK	1@1	21.37	20.37	0.1089
78	30	10	636332	3544.98	DFT-s-OFDM 16 QAM	1@1	20.56	19.56	0.0904
78	30	15	630500	3457.5	DFT-s-OFDM QPSK	1@1	23.42	22.42	0.1746
78	30	15	630500	3457.5	DFT-s-OFDM 16 QAM	1@1	22.37	21.37	0.1371
78	30	15	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.21	22.21	0.1663
78	30	15	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.32	21.32	0.1355
78	30	15	636166	3542.49	DFT-s-OFDM QPSK	1@1	21.69	20.69	0.1172
78	30	15	636166	3542.49	DFT-s-OFDM 16 QAM	1@1	20.74	19.74	0.0942
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@1	23.28	22.28	0.1690
78	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@1	22.41	21.41	0.1384
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.2	22.2	0.1660
78	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.34	21.34	0.1361
78	30	20	636000	3540	DFT-s-OFDM QPSK	1@1	22	21	0.1259
78	30	20	636000	3540	DFT-s-OFDM 16 QAM	1@1	21.01	20.01	0.1002
78	30	25	630834	3462.51	DFT-s-OFDM QPSK	1@1	23.25	22.25	0.1679
78	30	25	630834	3462.51	DFT-s-OFDM 16 QAM	1@1	22.28	21.28	0.1343
78	30	25	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.21	22.21	0.1663
78	30	25	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.3	21.3	0.1349
78	30	25	635832	3537.48	DFT-s-OFDM QPSK	1@1	22.34	21.34	0.1361
78	30	25	635832	3537.48	DFT-s-OFDM 16 QAM	1@1	21.4	20.4	0.1096
78	30	30	631000	3465	DFT-s-OFDM QPSK	1@1	23.46	22.46	0.1762
78	30	30	631000	3465	DFT-s-OFDM 16 QAM	1@1	22.54	21.54	0.1426
78	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.22	22.22	0.1667
78	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.34	21.34	0.1361
78	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@1	22.78	21.78	0.1507
78	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@1	21.9	20.9	0.1230
78	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@1	23.52	22.52	0.1786
78	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@1	22.59	21.59	0.1442
78	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.17	22.17	0.1648
78	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.33	21.33	0.1358
78	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@1	23.3	22.3	0.1698

78	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@1	22.39	21.39	0.1377
78	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@1	23.22	22.22	0.1667
78	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	1@1	22.46	21.46	0.1400
78	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.17	22.17	0.1648
78	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.27	21.27	0.1340
78	30	50	635000	3525	DFT-s-OFDM QPSK	1@1	23.14	22.14	0.1637
78	30	50	635000	3525	DFT-s-OFDM 16 QAM	1@1	22.29	21.29	0.1346
78	30	60	632000	3480	DFT-s-OFDM QPSK	1@1	23.15	22.15	0.1641
78	30	60	632000	3480	DFT-s-OFDM 16 QAM	1@1	22.26	21.26	0.1337
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.07	22.07	0.1611
78	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.15	21.15	0.1303
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@1	23.11	22.11	0.1626
78	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@1	22.29	21.29	0.1346
78	30	70	632334	3485.01	DFT-s-OFDM QPSK	1@1	23.52	22.52	0.1786
78	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	1@1	22.54	21.54	0.1426
78	30	70	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.3	22.3	0.1698
78	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.38	21.38	0.1374
78	30	70	634332	3514.98	DFT-s-OFDM QPSK	1@1	23.38	22.38	0.1730
78	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	1@1	22.42	21.42	0.1387
78	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@1	23.42	22.42	0.1746
78	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@1	22.55	21.55	0.1429
78	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.34	22.34	0.1714
78	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.44	21.44	0.1393
78	30	80	634000	3510	DFT-s-OFDM QPSK	1@1	23.37	22.37	0.1726
78	30	80	634000	3510	DFT-s-OFDM 16 QAM	1@1	22.42	21.42	0.1387
78	30	90	633000	3495	DFT-s-OFDM QPSK	1@1	23.41	22.41	0.1742
78	30	90	633000	3495	DFT-s-OFDM 16 QAM	1@1	22.56	21.56	0.1432
78	30	90	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.45	22.45	0.1758
78	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.54	21.54	0.1426
78	30	90	633666	3504.99	DFT-s-OFDM QPSK	1@1	23.31	22.31	0.1702
78	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	1@1	22.44	21.44	0.1393
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	135@67	23.41	22.41	0.1742
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	23.61	22.61	0.1824
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@271	23.42	22.42	0.1746
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	135@67	23.32	22.32	0.1706
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.42	22.42	0.1746
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@271	23.41	22.41	0.1742
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	135@67	22.37	21.37	0.1371
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.53	21.53	0.1422
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@271	22.52	21.52	0.1419
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	135@67	21.05	20.05	0.1012
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	21.16	20.16	0.1038
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@271	21.08	20.08	0.1019
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	135@67	19.12	18.12	0.0649

78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	19	18	0.0631
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@271	19.22	18.22	0.0664
78	30	100	633334	3500.01	CP-OFDM QPSK	137@68	21.92	20.92	0.1236
78	30	100	633334	3500.01	CP-OFDM QPSK	1@1	21.81	20.81	0.1205
78	30	100	633334	3500.01	CP-OFDM QPSK	1@271	21.8	20.8	0.1202





# Appendix B. Test Results of Radiated Test

## Radiated Spurious Emission

Test Engineer :	HuaCong Liang	Temperature :	22~25°C
		Relative Humidity :	48~52%

n77 SA / NR 100MHz / QPSK(ANT2)									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	6912.38	-57.61	-13	-44.61	-65.11	-60.91	8.30	11.60	H
	10368.57	-55.72	-13	-42.72	-67.76	-57.24	10.48	12.00	H
	13824.76	-52.84	-13	-39.84	-68.66	-54.54	11.80	13.50	H
	6912.38	-52.20	-13	-39.20	-60.8	-55.50	8.30	11.60	V
	10368.57	-49.71	-13	-36.71	-63.61	-51.23	10.48	12.00	V
	13824.76	-50.10	-13	-37.10	-64.77	-51.80	11.80	13.50	V

EN-DC_7A_n78A / LTE 20MHz + NR 100MHz / QPSK(ANT1+2)									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
NR n78 Middle	6901.50	-58.26	-13	-45.26	-65.72	-61.56	8.30	11.60	H
	10352.25	-56.15	-13	-43.15	-68.17	-57.67	10.48	12.00	H
	13803.00	-54.14	-13	-41.14	-69.99	-55.84	11.80	13.50	H
	6901.50	-57.20	-13	-44.20	-65.94	-60.50	8.30	11.60	V
	10352.25	-54.64	-13	-41.64	-68.46	-56.16	10.48	12.00	V
	13803.00	-55.49	-13	-42.49	-70.15	-57.19	11.80	13.50	V
LTE Band7 Middle	5061.18	-61.65	-25	-36.65	-65.87	-67.21	7.14	12.70	H
	7591.77	-58.93	-25	-33.93	-67.18	-62.23	8.30	11.60	H
	10122.36	-56.58	-25	-31.58	-68.33	-58.10	10.48	12.00	H
	5061.18	-60.60	-25	-35.60	-66.03	-66.16	7.14	12.70	V
	7591.77	-58.74	-25	-33.74	-66.99	-62.04	8.30	11.60	V
	10122.36	-54.91	-25	-29.91	-67.71	-56.43	10.48	12.00	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.