



# FCC RF Test Report

**APPLICANT** : Motorola Mobility LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : XT2201-3,XT2201-5  
**FCC ID** : IHDT56AB2  
**STANDARD** : 47 CFR Part 2, Part 27 Subpart Q  
**CLASSIFICATION** : PCS Licensed Transmitter Held to Ear (PCE)  
**TEST DATE(S)** : Nov. 30, 2021 ~ Jan. 01, 2022

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

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

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

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### 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 33.99 dB at 10500.000 MHz

**Declaration of Conformity:**  
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**  
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



# 1 General Description

## 1.1 Applicant

**Motorola Mobility LLC**  
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.2 Manufacturer

**Motorola Mobility LLC**  
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.3 Product Feature of Equipment Under Test

Product Feature	
<b>Equipment</b>	Mobile Cellular Phone
<b>Brand Name</b>	Motorola
<b>Model Name</b>	XT2201-3,XT2201-5
<b>FCC ID</b>	IHDT56AB2
<b>IMEI Code</b>	Conducted: 355386390008336 Radiation: 355386390007494
<b>HW Version</b>	DVT2
<b>SW Version</b>	SSH32.76
<b>EUT Stage</b>	Identical Prototype

Note: The different model name is for different market purpose.

## 1.4 Product Specification of Equipment Under Test

Product Feature	
<b>Tx/Rx Frequency</b>	5G NR n77: 3450 MHz ~ 3550 MHz 5G NR n78: 3450 MHz ~ 3550 MHz
<b>Bandwidth</b>	20MHz / 30MHz / 40MHz / 50MHz / 60MHz / 70MHz / 80MHz / 90MHz / 100MHz
<b>SCS</b>	30kHz
<b>Maximum Output Power to Antenna</b>	<Ant. 2> 5G NR n77 : 25.69 dBm 5G NR n78 : 25.66 dBm <Ant. 2+7> 5G NR n78 UL_MIMO : 26.21 dBm
<b>Antenna Gain</b>	<Ant. 2> 5G NR n77 : -0.3 dBi 5G NR n78 : -0.3 dBi <Ant. 7> 5G NR n78 : -0.2 dBi
<b>Type of Modulation</b>	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK/QPSK / 16QAM / 64QAM / 256QAM

Remark:

1. The maximum EIRP is calculated from max output power and antenna gain, only the maximum EIRP is shown in the report: Ant. 2 for n77/n78 SISO mode and Ant. 2+7 for n78 MIMO mode.
2. 5G NR n78 support UL MIMO mode.
3. 5G NR n77/n78 supports SA mode. According to the maximum power, 5G NR n77 covers n78.
4. 5G NR n77/n78 supports HPUE.

## 1.5 Modification of EUT

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

## 1.6 Specification of Accessory

Specification of Accessory			
AC Adapter 1	Brand Name	Motorola(Salom)	Model Name MC-301
AC Adapter 2	Brand Name	Motorola(Acbel)	Model Name MC-301
Battery	Brand Name	Motorola(ATL)	Model Name NA50
Earphone	Brand Name	Motorola (Lyand)	Model Name MD211(SH38D20195)
USB Cable 1	Brand Name	Motorola(Saibao)	Model Name SC18D13215
USB Cable 2	Brand Name	Motorola(Cabletech)	Model Name SC18D13216
USB Cable 3	Brand Name	Motorola(Luxshare)	Model Name SC18D13217
Type C to HDMI Cable /USBC Cable	Brand Name	Motorola(Linxee)	Model Name SC18D02146
Stylus	Brand Name	Motorola smart stylus	Model Name XT2201-S
Smart Folio	Brand Name	Motorola(Techson)	Model Name SS68D36907,SS68D36906
Wireless Dongle	Brand Name	Motorola	Model Name MD-02
HDMI Cable	Brand Name	Motorola	Model Name HC-01
USB Cable(Type A/C)	Brand Name	Motorola	Model Name SC18C24367

### 1.7 Maximum EIRP Power and Emission Designator

5G NR n77/n78		PI/2 BPSK / QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20	3460.02 ~ 3540.00	0.3381	18M2G7D	0.3062	18M3W7D
30	3465.00 ~ 3534.99	0.3342	27M8G7D	0.3148	27M9W7D
40	3470.01 ~ 3529.98	0.3319	37M8G7D	0.3034	37M9W7D
50	3475.02 ~ 3525.00	0.3177	47M5G7D	0.2911	47M5W7D
60	3480.00 ~ 3519.99	0.3133	58M0G7D	0.2864	57M9W7D
70	3485.01 ~ 3514.98	0.3273	67M4G7D	0.2844	67M6W7D
80	3490.02 ~ 3510.00	0.3404	77M6G7D	0.2877	77M6W7D
90	3495.00 ~ 3504.99	0.3459	87M5G7D	0.2786	87M6W7D
100	3500.01	0.3133	97M4G7D	0.2877	97M7W7D

5G NR n78 UL MIMO		PI/2 BPSK / QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20	3460.02 ~ 3540.00	0.7783	18M2G7D	0.6145	18M2W7D
30	3465.00 ~ 3534.99	0.7891	27M8G7D	0.6269	27M9W7D
40	3470.01 ~ 3529.98	0.7134	37M9G7D	0.6334	37M9W7D
50	3475.02 ~ 3525.00	0.7662	47M5G7D	0.5988	47M6W7D
60	3480.00 ~ 3519.99	0.6755	58M0G7D	0.6005	57M9W7D
70	3485.01 ~ 3514.98	0.6638	67M5G7D	0.5956	67M6W7D
80	3490.02 ~ 3510.00	0.6593	77M5G7D	0.5835	77M6W7D
90	3495.00 ~ 3504.99	0.6872	87M5G7D	0.6062	87M5W7D
100	3500.01	0.6835	97M5G7D	0.5974	97M6W7D

**Note:**

- 5G NR Band n77 overlaps the entire frequency range of Band n78. Therefore, the test results of conducted test items provided in this report covers Band n77 as well as Band n78.
- All modulations have been evaluation, only the worst test results of PSK & QAM are shown in the report

### 1.8 Testing Site

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

<b>Test Firm</b>	Sporton International (Kunshan) Inc.		
<b>Test Site Location</b>	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	03CH04-KS	CN1257	314309

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

<b>Test Firm</b>	Sporton International (Shenzhen) Inc.		
<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

Test data subcontracted: conducted test items in section 3.4 ~ 3.10 of this report.

### 1.9 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH04-KS	AUDIX	E3	6.2009-8-24a





## 1.10 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.

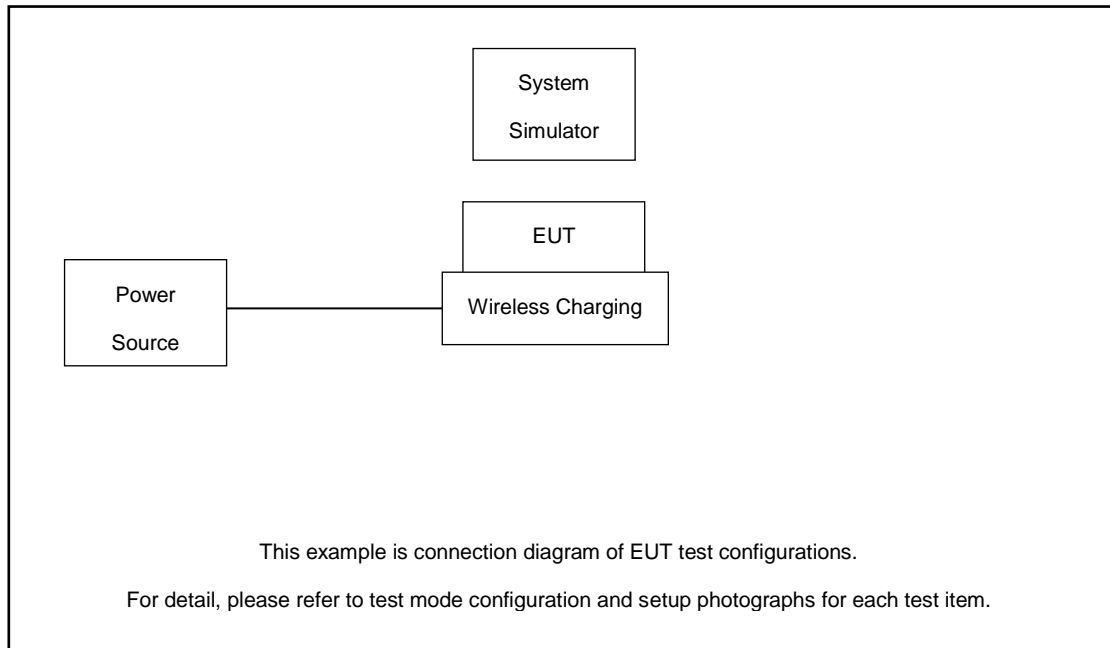
Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Test Cases	Band	Bandwidth (MHz)	Modulation	RB #	Test Channel
		eg. 5M, 10M, 15M, 20M	eg. QPSK, 16QAM, 64QAM	1RB, Partial RB, Full RB	L/M/H
Max. Output Power	5G n77/n78	20M, 30M, 40M, 50M, 60M, 70M, 80M, 90M, 100M	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	1RB, Partial RB, Full RB	L, M, H
	n78 UL MIMO	20M, 30M, 40M, 50M, 60M, 70M, 80M, 90M, 100M	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	1RB, Partial RB, Full RB	L, M, H
Peak-to-Average Ratio	5G n77	20M	PI/2 BPSK, QPSK	1RB, Full RB	L, M, H
	n78 UL MIMO	20M	PI/2 BPSK, QPSK	1RB, Full RB	L, M, H
E.I.R.P	5G n77/n78	20M, 30M, 40M, 50M, 60M, 70M, 80M, 90M, 100M	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	1RB, Partial RB, Full RB	L, M, H
	n78 UL MIMO	20M, 30M, 40M, 50M, 60M, 70M, 80M, 90M, 100M	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	1RB, Partial RB, Full RB	L, M, H
26dB and 99% Bandwidth	5G n77	20M, 30M, 40M, 50M, 60M, 70M, 80M, 90M, 100M	QPSK, 16QAM, 64QAM, 256QAM	Full RB	M
	n78 UL MIMO	20M, 30M, 40M, 50M, 60M, 70M, 80M, 90M, 100M	QPSK, 16QAM, 64QAM, 256QAM	Full RB	M
Conducted Band Edge	5G n77	20M, 60M, 100M	PI/2 BPSK, QPSK	1RB, Full RB	L, H
	n78 UL MIMO	20M, 60M, 100M	PI/2 BPSK, QPSK	1RB, Full RB	L, H
Conducted Spurious Emission	5G n77	20M, 60M, 100M	PI/2 BPSK, QPSK	1RB	L, M, H
	n78 UL MIMO	20M, 60M, 100M	PI/2 BPSK, QPSK	1RB	L, M, H
Frequency Stability	5G n77	20M	QPSK	Full RB	L, H
	n78 UL MIMO	20M	QPSK	Full RB	L, H
Radiated Spurious Emission	5G n77/n78	Worst case			M
	n78 UL MIMO	Worst case			M

**Note:**

1. 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.
2. 5G NR n77 overlaps the entire frequency range of n78, Therefore, the test results provided in this report covers n77 as well as n78.
3. Based on engineering evaluation, only the worst modulations test results are shown in the report.

## 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	MT8821C	N/A	N/A	Unshielded, 1.8 m
3.	NR Base Station	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
4.	Wireless charger	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 and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

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

*Offset = RF cable loss.*

Following shows an offset computation example with cable loss 5.1 dB.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)}. \\ &= 5.1 \text{ (dB)} \end{aligned}$$

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

5G n77/n78 Channel and Frequency List				
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
20	Channel	630668	633334	636000
	Frequency	3460.02	3500.01	3540

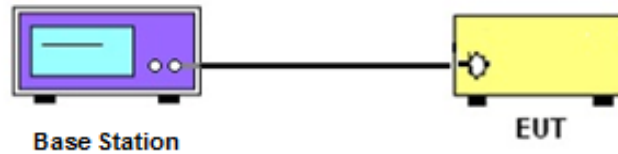
### 3 Conducted Test Items

#### 3.1 Measuring Instruments

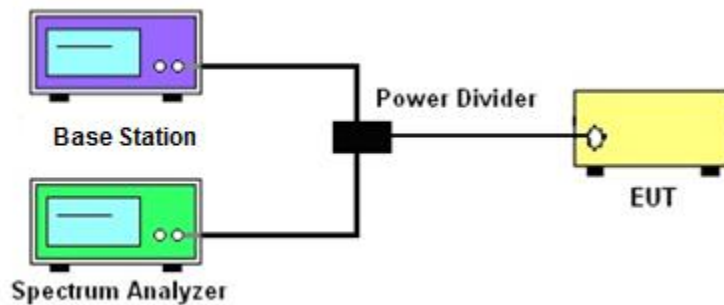
See list of measuring instruments of this test report.

#### 3.2 Test Setup

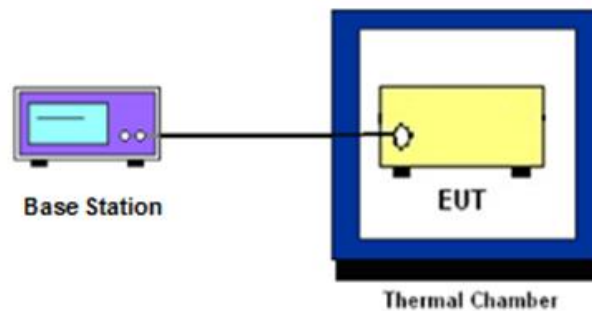
##### 3.2.1 Conducted Output Power



##### 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  $\geq$  500KHz.
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.
10. When using the integration method, the starting frequency of the integration shall be centered at one-half of the RBW away from the band edge.

## 3.9 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.

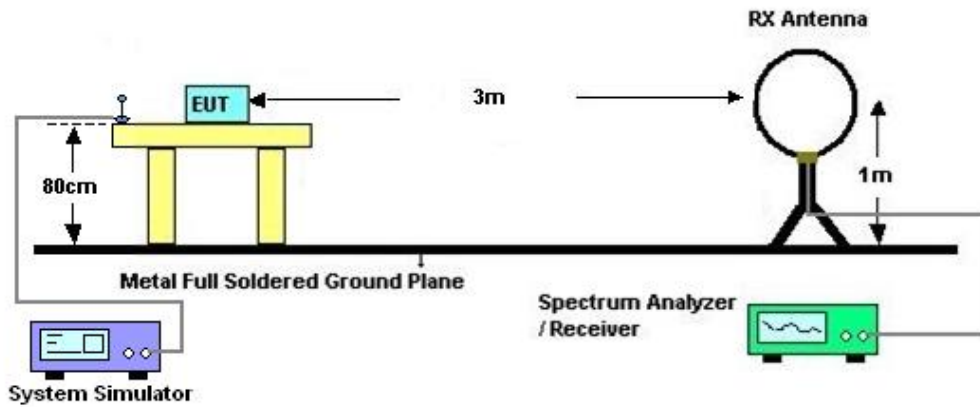
## 4 Radiated Test Items

### 4.1 Measuring Instruments

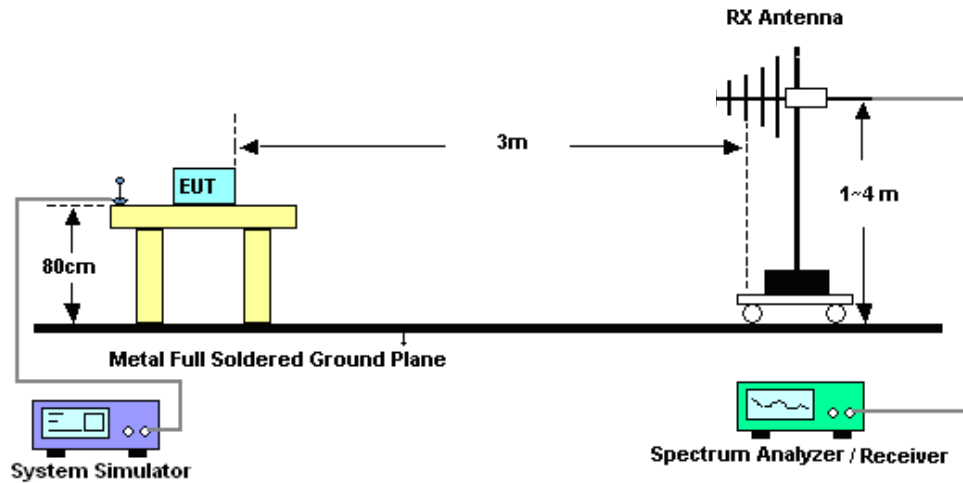
See list of measuring instruments of this test report.

### 4.2 Test Setup

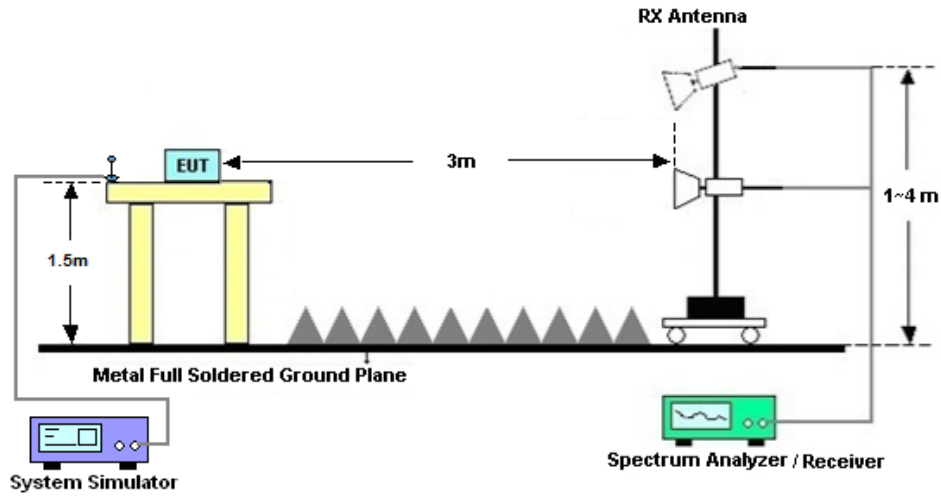
#### 4.2.1 For radiated test below 30MHz



#### 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. 03, 2020	Nov. 30, 2021~ Dec. 29, 2021	Dec. 02, 2021	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 02, 2021		Dec. 01, 2022	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 26, 2020	Nov. 30, 2021~ Dec. 29, 2021	Dec. 25, 2021	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 25, 2021		Dec. 24, 2022	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 14, 2021	Nov. 30, 2021~ Dec. 29, 2021	Jul. 13, 2022	Conducted (TH01-SZ)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz-44G,MAX 30dB	Apr. 13, 2021	Jan. 01, 2022	Apr. 12, 2022	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 30, 2021	Jan. 01, 2022	Oct. 29, 2022	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	May 30, 2021	Jan. 01, 2022	May 29, 2022	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1356	1GHz~18GHz	Apr. 18, 2021	Jan. 01, 2022	Apr. 17, 2022	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 06, 2021	Jan. 01, 2022	Jan. 05, 2022	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Jan. 06, 2021	Jan. 01, 2022	Jan. 05, 2022	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 07, 2021	Jan. 01, 2022	Jan. 06, 2022	Radiation (03CH04-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P	2025788	1Ghz-18Ghz	Jan. 06, 2021	Jan. 01, 2022	Jan. 05, 2022	Radiation (03CH04-KS)
Amplifier	Keysight	83017A	MY57280106	500MHz~26.5GHz	Oct. 13, 2021	Jan. 01, 2022	Oct. 12, 2022	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Jan. 01, 2022	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Jan. 01, 2022	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Jan. 01, 2022	NCR	Radiation (03CH04-KS)

NCR: No Calibration Required





## 6 Uncertainty of Evaluation

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 Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.3dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.8dB
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----- THE END -----



## Appendix A. Test Results of Conducted Test

Test Engineer :	Jung Kuo	Temperature :	21~23°C
		Relative Humidity :	45~51%

## FR1 N77

## Conducted Power and EIRP

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
77	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	25@12	25.46	25.16	0.3281
77	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@1	25.44	25.14	0.3266
77	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@49	25.31	25.01	0.3170
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	25@12	25.43	25.13	0.3258
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@1	25.49	25.19	0.3304
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@49	25.4	25.1	0.3236
77	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	25@12	25.06	24.76	0.2992
77	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@1	25.16	24.86	0.3062
77	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@49	24.93	24.63	0.2904
77	30	20	630668	3460.02	DFT-s-OFDM 64 QAM	25@12	23.52	23.22	0.2099
77	30	20	630668	3460.02	DFT-s-OFDM 64 QAM	1@1	23.6	23.3	0.2138
77	30	20	630668	3460.02	DFT-s-OFDM 64 QAM	1@49	23.37	23.07	0.2028
77	30	20	630668	3460.02	DFT-s-OFDM 256 QAM	25@12	21.47	21.17	0.1309
77	30	20	630668	3460.02	DFT-s-OFDM 256 QAM	1@1	21.49	21.19	0.1315
77	30	20	630668	3460.02	DFT-s-OFDM 256 QAM	1@49	21.23	20.93	0.1239
77	30	20	630668	3460.02	CP-OFDM QPSK	25@12	24.53	24.23	0.2649
77	30	20	630668	3460.02	CP-OFDM QPSK	1@1	24.6	24.3	0.2692
77	30	20	630668	3460.02	CP-OFDM QPSK	1@49	24.53	24.23	0.2649
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	25@12	25.18	24.88	0.3076
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.2	24.9	0.3090
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@49	25.28	24.98	0.3148
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	25@12	25.24	24.94	0.3119
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.24	24.94	0.3119
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@49	25.33	25.03	0.3184
77	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	25@12	24.86	24.56	0.2858
77	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.96	24.66	0.2924
77	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@49	24.99	24.69	0.2944
77	30	20	633334	3500.01	DFT-s-OFDM 64 QAM	25@12	23.43	23.13	0.2056
77	30	20	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.61	23.31	0.2143

77	30	20	633334	3500.01	DFT-s-OFDM 64 QAM	1@49	23.76	23.46	0.2218
77	30	20	633334	3500.01	DFT-s-OFDM 256 QAM	25@12	21.31	21.01	0.1262
77	30	20	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.17	20.87	0.1222
77	30	20	633334	3500.01	DFT-s-OFDM 256 QAM	1@49	21.24	20.94	0.1242
77	30	20	633334	3500.01	CP-OFDM QPSK	25@12	24.41	24.11	0.2576
77	30	20	633334	3500.01	CP-OFDM QPSK	1@1	24.23	23.93	0.2472
77	30	20	633334	3500.01	CP-OFDM QPSK	1@49	24.35	24.05	0.2541
77	30	20	636000	3540	DFT-s-OFDM PI/2 BPSK	25@12	25.46	25.16	0.3281
77	30	20	636000	3540	DFT-s-OFDM PI/2 BPSK	1@1	25.45	25.15	0.3273
77	30	20	636000	3540	DFT-s-OFDM PI/2 BPSK	1@49	25.44	25.14	0.3266
77	30	20	636000	3540	DFT-s-OFDM QPSK	25@12	25.45	25.15	0.3273
77	30	20	636000	3540	DFT-s-OFDM QPSK	1@1	25.59	25.29	0.3381
77	30	20	636000	3540	DFT-s-OFDM QPSK	1@49	25.45	25.15	0.3273
77	30	20	636000	3540	DFT-s-OFDM 16 QAM	25@12	25.07	24.77	0.2999
77	30	20	636000	3540	DFT-s-OFDM 16 QAM	1@1	25.12	24.82	0.3034
77	30	20	636000	3540	DFT-s-OFDM 16 QAM	1@49	25.01	24.71	0.2958
77	30	20	636000	3540	DFT-s-OFDM 64 QAM	25@12	23.57	23.27	0.2123
77	30	20	636000	3540	DFT-s-OFDM 64 QAM	1@1	23.65	23.35	0.2163
77	30	20	636000	3540	DFT-s-OFDM 64 QAM	1@49	23.59	23.29	0.2133
77	30	20	636000	3540	DFT-s-OFDM 256 QAM	25@12	21.44	21.14	0.1300
77	30	20	636000	3540	DFT-s-OFDM 256 QAM	1@1	21.42	21.12	0.1294
77	30	20	636000	3540	DFT-s-OFDM 256 QAM	1@49	21.35	21.05	0.1274
77	30	20	636000	3540	CP-OFDM QPSK	25@12	24.55	24.25	0.2661
77	30	20	636000	3540	CP-OFDM QPSK	1@1	24.66	24.36	0.2729
77	30	20	636000	3540	CP-OFDM QPSK	1@49	24.54	24.24	0.2655
77	30	30	631000	3465	DFT-s-OFDM PI/2 BPSK	36@18	25.26	24.96	0.3133
77	30	30	631000	3465	DFT-s-OFDM PI/2 BPSK	1@1	25.45	25.15	0.3273
77	30	30	631000	3465	DFT-s-OFDM PI/2 BPSK	1@76	25.36	25.06	0.3206
77	30	30	631000	3465	DFT-s-OFDM QPSK	36@18	25.26	24.96	0.3133
77	30	30	631000	3465	DFT-s-OFDM QPSK	1@1	25.41	25.11	0.3243
77	30	30	631000	3465	DFT-s-OFDM QPSK	1@76	25.18	24.88	0.3076
77	30	30	631000	3465	DFT-s-OFDM 16 QAM	36@18	24.94	24.64	0.2911
77	30	30	631000	3465	DFT-s-OFDM 16 QAM	1@1	25.14	24.84	0.3048
77	30	30	631000	3465	DFT-s-OFDM 16 QAM	1@76	24.82	24.52	0.2831
77	30	30	631000	3465	DFT-s-OFDM 64 QAM	36@18	23.33	23.03	0.2009
77	30	30	631000	3465	DFT-s-OFDM 64 QAM	1@1	23.8	23.5	0.2239

77	30	30	631000	3465	DFT-s-OFDM 64 QAM	1@76	23.53	23.23	0.2104
77	30	30	631000	3465	DFT-s-OFDM 256 QAM	36@18	21.33	21.03	0.1268
77	30	30	631000	3465	DFT-s-OFDM 256 QAM	1@1	21.34	21.04	0.1271
77	30	30	631000	3465	DFT-s-OFDM 256 QAM	1@76	21.04	20.74	0.1186
77	30	30	631000	3465	CP-OFDM QPSK	39@19	24.34	24.04	0.2535
77	30	30	631000	3465	CP-OFDM QPSK	1@1	24.61	24.31	0.2698
77	30	30	631000	3465	CP-OFDM QPSK	1@76	24.19	23.89	0.2449
77	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	36@18	25.11	24.81	0.3027
77	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.13	24.83	0.3041
77	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@76	25.24	24.94	0.3119
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	36@18	25.1	24.8	0.3020
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.22	24.92	0.3105
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@76	25.29	24.99	0.3155
77	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	36@18	24.71	24.41	0.2761
77	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.9	24.6	0.2884
77	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@76	25.01	24.71	0.2958
77	30	30	633334	3500.01	DFT-s-OFDM 64 QAM	36@18	23.29	22.99	0.1991
77	30	30	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.35	23.05	0.2018
77	30	30	633334	3500.01	DFT-s-OFDM 64 QAM	1@76	23.22	22.92	0.1959
77	30	30	633334	3500.01	DFT-s-OFDM 256 QAM	36@18	21.2	20.9	0.1230
77	30	30	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.15	20.85	0.1216
77	30	30	633334	3500.01	DFT-s-OFDM 256 QAM	1@76	21.25	20.95	0.1245
77	30	30	633334	3500.01	CP-OFDM QPSK	39@19	24.23	23.93	0.2472
77	30	30	633334	3500.01	CP-OFDM QPSK	1@1	24.31	24.01	0.2518
77	30	30	633334	3500.01	CP-OFDM QPSK	1@76	24.29	23.99	0.2506
77	30	30	635666	3534.99	DFT-s-OFDM PI/2 BPSK	36@18	25.27	24.97	0.3141
77	30	30	635666	3534.99	DFT-s-OFDM PI/2 BPSK	1@1	25.48	25.18	0.3296
77	30	30	635666	3534.99	DFT-s-OFDM PI/2 BPSK	1@76	25.36	25.06	0.3206
77	30	30	635666	3534.99	DFT-s-OFDM QPSK	36@18	25.43	25.13	0.3258
77	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@1	25.54	25.24	0.3342
77	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@76	25.37	25.07	0.3214
77	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	36@18	25.02	24.72	0.2965
77	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@1	25.28	24.98	0.3148
77	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@76	25.11	24.81	0.3027
77	30	30	635666	3534.99	DFT-s-OFDM 64 QAM	36@18	23.54	23.24	0.2109
77	30	30	635666	3534.99	DFT-s-OFDM 64 QAM	1@1	23.48	23.18	0.2080

77	30	30	635666	3534.99	DFT-s-OFDM 64 QAM	1@76	23.49	23.19	0.2084
77	30	30	635666	3534.99	DFT-s-OFDM 256 QAM	36@18	21.47	21.17	0.1309
77	30	30	635666	3534.99	DFT-s-OFDM 256 QAM	1@1	21.58	21.28	0.1343
77	30	30	635666	3534.99	DFT-s-OFDM 256 QAM	1@76	21.3	21	0.1259
77	30	30	635666	3534.99	CP-OFDM QPSK	39@19	24.53	24.23	0.2649
77	30	30	635666	3534.99	CP-OFDM QPSK	1@1	24.53	24.23	0.2649
77	30	30	635666	3534.99	CP-OFDM QPSK	1@76	24.42	24.12	0.2582
77	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	50@25	25.12	24.82	0.3034
77	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	1@1	25.51	25.21	0.3319
77	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	1@104	25.07	24.77	0.2999
77	30	40	631334	3470.01	DFT-s-OFDM QPSK	50@25	25.26	24.96	0.3133
77	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@1	25.47	25.17	0.3289
77	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@104	25.13	24.83	0.3041
77	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	50@25	24.81	24.51	0.2825
77	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@1	25.07	24.77	0.2999
77	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@104	24.68	24.38	0.2742
77	30	40	631334	3470.01	DFT-s-OFDM 64 QAM	50@25	23.29	22.99	0.1991
77	30	40	631334	3470.01	DFT-s-OFDM 64 QAM	1@1	23.63	23.33	0.2153
77	30	40	631334	3470.01	DFT-s-OFDM 64 QAM	1@104	23.23	22.93	0.1963
77	30	40	631334	3470.01	DFT-s-OFDM 256 QAM	50@25	21.23	20.93	0.1239
77	30	40	631334	3470.01	DFT-s-OFDM 256 QAM	1@1	21.41	21.11	0.1291
77	30	40	631334	3470.01	DFT-s-OFDM 256 QAM	1@104	20.96	20.66	0.1164
77	30	40	631334	3470.01	CP-OFDM QPSK	53@26	24.35	24.05	0.2541
77	30	40	631334	3470.01	CP-OFDM QPSK	1@1	24.65	24.35	0.2723
77	30	40	631334	3470.01	CP-OFDM QPSK	1@104	24.26	23.96	0.2489
77	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	50@25	25.12	24.82	0.3034
77	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.25	24.95	0.3126
77	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@104	25.09	24.79	0.3013
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	50@25	25.12	24.82	0.3034
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.2	24.9	0.3090
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@104	25.4	25.1	0.3236
77	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	50@25	24.74	24.44	0.2780
77	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.99	24.69	0.2944
77	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@104	25.09	24.79	0.3013
77	30	40	633334	3500.01	DFT-s-OFDM 64 QAM	50@25	23.3	23	0.1995
77	30	40	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.15	22.85	0.1928

77	30	40	633334	3500.01	DFT-s-OFDM 64 QAM	1@104	23.53	23.23	0.2104
77	30	40	633334	3500.01	DFT-s-OFDM 256 QAM	50@25	21.25	20.95	0.1245
77	30	40	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.16	20.86	0.1219
77	30	40	633334	3500.01	DFT-s-OFDM 256 QAM	1@104	21.31	21.01	0.1262
77	30	40	633334	3500.01	CP-OFDM QPSK	53@26	24.25	23.95	0.2483
77	30	40	633334	3500.01	CP-OFDM QPSK	1@1	24.39	24.09	0.2564
77	30	40	633334	3500.01	CP-OFDM QPSK	1@104	24.49	24.19	0.2624
77	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	50@25	25.48	25.18	0.3296
77	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	1@1	25.46	25.16	0.3281
77	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	1@104	25.47	25.17	0.3289
77	30	40	635332	3529.98	DFT-s-OFDM QPSK	50@25	25.46	25.16	0.3281
77	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@1	25.48	25.18	0.3296
77	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@104	25.46	25.16	0.3281
77	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	50@25	25.06	24.76	0.2992
77	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@1	25.09	24.79	0.3013
77	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@104	25.12	24.82	0.3034
77	30	40	635332	3529.98	DFT-s-OFDM 64 QAM	50@25	23.52	23.22	0.2099
77	30	40	635332	3529.98	DFT-s-OFDM 64 QAM	1@1	23.58	23.28	0.2128
77	30	40	635332	3529.98	DFT-s-OFDM 64 QAM	1@104	23.61	23.31	0.2143
77	30	40	635332	3529.98	DFT-s-OFDM 256 QAM	50@25	21.5	21.2	0.1318
77	30	40	635332	3529.98	DFT-s-OFDM 256 QAM	1@1	21.26	20.96	0.1247
77	30	40	635332	3529.98	DFT-s-OFDM 256 QAM	1@104	21.26	20.96	0.1247
77	30	40	635332	3529.98	CP-OFDM QPSK	53@26	24.55	24.25	0.2661
77	30	40	635332	3529.98	CP-OFDM QPSK	1@1	24.4	24.1	0.2570
77	30	40	635332	3529.98	CP-OFDM QPSK	1@104	24.5	24.2	0.2630
77	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	64@32	25.12	24.82	0.3034
77	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	1@1	25.32	25.02	0.3177
77	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	1@131	24.77	24.47	0.2799
77	30	50	631668	3475.02	DFT-s-OFDM QPSK	64@32	25.01	24.71	0.2958
77	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@1	25.3	25	0.3162
77	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@131	24.82	24.52	0.2831
77	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	64@32	24.65	24.35	0.2723
77	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	1@1	24.94	24.64	0.2911
77	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	1@131	24.5	24.2	0.2630
77	30	50	631668	3475.02	DFT-s-OFDM 64 QAM	64@32	23.1	22.8	0.1905
77	30	50	631668	3475.02	DFT-s-OFDM 64 QAM	1@1	23.51	23.21	0.2094

77	30	50	631668	3475.02	DFT-s-OFDM 64 QAM	1@131	22.95	22.65	0.1841
77	30	50	631668	3475.02	DFT-s-OFDM 256 QAM	64@32	21.09	20.79	0.1199
77	30	50	631668	3475.02	DFT-s-OFDM 256 QAM	1@1	21.22	20.92	0.1236
77	30	50	631668	3475.02	DFT-s-OFDM 256 QAM	1@131	20.81	20.51	0.1125
77	30	50	631668	3475.02	CP-OFDM QPSK	67@33	24.09	23.79	0.2393
77	30	50	631668	3475.02	CP-OFDM QPSK	1@1	24.47	24.17	0.2612
77	30	50	631668	3475.02	CP-OFDM QPSK	1@131	23.93	23.63	0.2307
77	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	64@32	25.04	24.74	0.2979
77	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.12	24.82	0.3034
77	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@131	25.09	24.79	0.3013
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	64@32	25.01	24.71	0.2958
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.1	24.8	0.3020
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@131	25.17	24.87	0.3069
77	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	64@32	24.61	24.31	0.2698
77	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.81	24.51	0.2825
77	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@131	24.84	24.54	0.2844
77	30	50	633334	3500.01	DFT-s-OFDM 64 QAM	64@32	23.13	22.83	0.1919
77	30	50	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.11	22.81	0.1910
77	30	50	633334	3500.01	DFT-s-OFDM 64 QAM	1@131	23.07	22.77	0.1892
77	30	50	633334	3500.01	DFT-s-OFDM 256 QAM	64@32	21.07	20.77	0.1194
77	30	50	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.03	20.73	0.1183
77	30	50	633334	3500.01	DFT-s-OFDM 256 QAM	1@131	21.07	20.77	0.1194
77	30	50	633334	3500.01	CP-OFDM QPSK	67@33	24.1	23.8	0.2399
77	30	50	633334	3500.01	CP-OFDM QPSK	1@1	24.14	23.84	0.2421
77	30	50	633334	3500.01	CP-OFDM QPSK	1@131	24.23	23.93	0.2472
77	30	50	635000	3525	DFT-s-OFDM PI/2 BPSK	64@32	25.31	25.01	0.3170
77	30	50	635000	3525	DFT-s-OFDM PI/2 BPSK	1@1	25.07	24.77	0.2999
77	30	50	635000	3525	DFT-s-OFDM PI/2 BPSK	1@131	25.12	24.82	0.3034
77	30	50	635000	3525	DFT-s-OFDM QPSK	64@32	25.24	24.94	0.3119
77	30	50	635000	3525	DFT-s-OFDM QPSK	1@1	25.18	24.88	0.3076
77	30	50	635000	3525	DFT-s-OFDM QPSK	1@131	25.11	24.81	0.3027
77	30	50	635000	3525	DFT-s-OFDM 16 QAM	64@32	24.89	24.59	0.2877
77	30	50	635000	3525	DFT-s-OFDM 16 QAM	1@1	24.84	24.54	0.2844
77	30	50	635000	3525	DFT-s-OFDM 16 QAM	1@131	24.82	24.52	0.2831
77	30	50	635000	3525	DFT-s-OFDM 64 QAM	64@32	23.34	23.04	0.2014
77	30	50	635000	3525	DFT-s-OFDM 64 QAM	1@1	23.2	22.9	0.1950



77	30	50	635000	3525	DFT-s-OFDM 64 QAM	1@131	23.46	23.16	0.2070
77	30	50	635000	3525	DFT-s-OFDM 256 QAM	64@32	21.34	21.04	0.1271
77	30	50	635000	3525	DFT-s-OFDM 256 QAM	1@1	21.06	20.76	0.1191
77	30	50	635000	3525	DFT-s-OFDM 256 QAM	1@131	21.09	20.79	0.1199
77	30	50	635000	3525	CP-OFDM QPSK	67@33	24.31	24.01	0.2518
77	30	50	635000	3525	CP-OFDM QPSK	1@1	24.1	23.8	0.2399
77	30	50	635000	3525	CP-OFDM QPSK	1@131	24.04	23.74	0.2366
77	30	60	632000	3480	DFT-s-OFDM PI/2 BPSK	81@40	25.16	24.86	0.3062
77	30	60	632000	3480	DFT-s-OFDM PI/2 BPSK	1@1	25.24	24.94	0.3119
77	30	60	632000	3480	DFT-s-OFDM PI/2 BPSK	1@160	24.95	24.65	0.2917
77	30	60	632000	3480	DFT-s-OFDM QPSK	81@40	25.04	24.74	0.2979
77	30	60	632000	3480	DFT-s-OFDM QPSK	1@1	25.25	24.95	0.3126
77	30	60	632000	3480	DFT-s-OFDM QPSK	1@160	24.97	24.67	0.2931
77	30	60	632000	3480	DFT-s-OFDM 16 QAM	81@40	24.62	24.32	0.2704
77	30	60	632000	3480	DFT-s-OFDM 16 QAM	1@1	24.84	24.54	0.2844
77	30	60	632000	3480	DFT-s-OFDM 16 QAM	1@160	24.56	24.26	0.2667
77	30	60	632000	3480	DFT-s-OFDM 64 QAM	81@40	23.1	22.8	0.1905
77	30	60	632000	3480	DFT-s-OFDM 64 QAM	1@1	23.38	23.08	0.2032
77	30	60	632000	3480	DFT-s-OFDM 64 QAM	1@160	23.1	22.8	0.1905
77	30	60	632000	3480	DFT-s-OFDM 256 QAM	81@40	21.1	20.8	0.1202
77	30	60	632000	3480	DFT-s-OFDM 256 QAM	1@1	21.22	20.92	0.1236
77	30	60	632000	3480	DFT-s-OFDM 256 QAM	1@160	20.84	20.54	0.1132
77	30	60	632000	3480	CP-OFDM QPSK	81@40	24.15	23.85	0.2427
77	30	60	632000	3480	CP-OFDM QPSK	1@1	24.33	24.03	0.2529
77	30	60	632000	3480	CP-OFDM QPSK	1@160	24.04	23.74	0.2366
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	81@40	25.07	24.77	0.2999
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.1	24.8	0.3020
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@160	25.14	24.84	0.3048
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	81@40	25	24.7	0.2951
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.17	24.87	0.3069
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@160	25.15	24.85	0.3055
77	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	81@40	24.64	24.34	0.2716
77	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.87	24.57	0.2864
77	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@160	24.86	24.56	0.2858
77	30	60	633334	3500.01	DFT-s-OFDM 64 QAM	81@40	23.11	22.81	0.1910
77	30	60	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.11	22.81	0.1910

77	30	60	633334	3500.01	DFT-s-OFDM 64 QAM	1@160	23.14	22.84	0.1923
77	30	60	633334	3500.01	DFT-s-OFDM 256 QAM	81@40	21.15	20.85	0.1216
77	30	60	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.08	20.78	0.1197
77	30	60	633334	3500.01	DFT-s-OFDM 256 QAM	1@160	21.09	20.79	0.1199
77	30	60	633334	3500.01	CP-OFDM QPSK	81@40	24.15	23.85	0.2427
77	30	60	633334	3500.01	CP-OFDM QPSK	1@1	24.28	23.98	0.2500
77	30	60	633334	3500.01	CP-OFDM QPSK	1@160	24.27	23.97	0.2495
77	30	60	634666	3519.99	DFT-s-OFDM PI/2 BPSK	81@40	25.25	24.95	0.3126
77	30	60	634666	3519.99	DFT-s-OFDM PI/2 BPSK	1@1	24.98	24.68	0.2938
77	30	60	634666	3519.99	DFT-s-OFDM PI/2 BPSK	1@160	25.12	24.82	0.3034
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	81@40	25.26	24.96	0.3133
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@1	25.03	24.73	0.2972
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@160	25.13	24.83	0.3041
77	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	81@40	24.87	24.57	0.2864
77	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@1	24.71	24.41	0.2761
77	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@160	24.7	24.4	0.2754
77	30	60	634666	3519.99	DFT-s-OFDM 64 QAM	81@40	23.33	23.03	0.2009
77	30	60	634666	3519.99	DFT-s-OFDM 64 QAM	1@1	23.13	22.83	0.1919
77	30	60	634666	3519.99	DFT-s-OFDM 64 QAM	1@160	23.21	22.91	0.1954
77	30	60	634666	3519.99	DFT-s-OFDM 256 QAM	81@40	21.34	21.04	0.1271
77	30	60	634666	3519.99	DFT-s-OFDM 256 QAM	1@1	21.01	20.71	0.1178
77	30	60	634666	3519.99	DFT-s-OFDM 256 QAM	1@160	21.13	20.83	0.1211
77	30	60	634666	3519.99	CP-OFDM QPSK	81@40	24.38	24.08	0.2559
77	30	60	634666	3519.99	CP-OFDM QPSK	1@1	24.21	23.91	0.2460
77	30	60	634666	3519.99	CP-OFDM QPSK	1@160	24.24	23.94	0.2477
77	30	70	632334	3485.01	DFT-s-OFDM PI/2 BPSK	90@45	25.02	24.72	0.2965
77	30	70	632334	3485.01	DFT-s-OFDM PI/2 BPSK	1@1	25.08	24.78	0.3006
77	30	70	632334	3485.01	DFT-s-OFDM PI/2 BPSK	1@187	24.85	24.55	0.2851
77	30	70	632334	3485.01	DFT-s-OFDM QPSK	90@45	24.82	24.52	0.2831
77	30	70	632334	3485.01	DFT-s-OFDM QPSK	1@1	25.18	24.88	0.3076
77	30	70	632334	3485.01	DFT-s-OFDM QPSK	1@187	24.81	24.51	0.2825
77	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	90@45	24.45	24.15	0.2600
77	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	1@1	24.84	24.54	0.2844
77	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	1@187	24.57	24.27	0.2673
77	30	70	632334	3485.01	DFT-s-OFDM 64 QAM	90@45	22.98	22.68	0.1854
77	30	70	632334	3485.01	DFT-s-OFDM 64 QAM	1@1	23.33	23.03	0.2009

77	30	70	632334	3485.01	DFT-s-OFDM 64 QAM	1@187	23.04	22.74	0.1879
77	30	70	632334	3485.01	DFT-s-OFDM 256 QAM	90@45	20.89	20.59	0.1146
77	30	70	632334	3485.01	DFT-s-OFDM 256 QAM	1@1	21.12	20.82	0.1208
77	30	70	632334	3485.01	DFT-s-OFDM 256 QAM	1@187	20.74	20.44	0.1107
77	30	70	632334	3485.01	CP-OFDM QPSK	95@47	23.95	23.65	0.2317
77	30	70	632334	3485.01	CP-OFDM QPSK	1@1	24.09	23.79	0.2393
77	30	70	632334	3485.01	CP-OFDM QPSK	1@187	24.13	23.83	0.2415
77	30	70	633334	3500.01	DFT-s-OFDM PI/2 BPSK	90@45	24.85	24.55	0.2851
77	30	70	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.45	25.15	0.3273
77	30	70	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@187	25.33	25.03	0.3184
77	30	70	633334	3500.01	DFT-s-OFDM QPSK	90@45	24.81	24.51	0.2825
77	30	70	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.13	24.83	0.3041
77	30	70	633334	3500.01	DFT-s-OFDM QPSK	1@187	24.92	24.62	0.2897
77	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	90@45	24.51	24.21	0.2636
77	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.82	24.52	0.2831
77	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	1@187	24.64	24.34	0.2716
77	30	70	633334	3500.01	DFT-s-OFDM 64 QAM	90@45	23	22.7	0.1862
77	30	70	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.26	22.96	0.1977
77	30	70	633334	3500.01	DFT-s-OFDM 64 QAM	1@187	22.93	22.63	0.1832
77	30	70	633334	3500.01	DFT-s-OFDM 256 QAM	90@45	21	20.7	0.1175
77	30	70	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	20.97	20.67	0.1167
77	30	70	633334	3500.01	DFT-s-OFDM 256 QAM	1@187	20.93	20.63	0.1156
77	30	70	633334	3500.01	CP-OFDM QPSK	95@47	23.96	23.66	0.2323
77	30	70	633334	3500.01	CP-OFDM QPSK	1@1	24.22	23.92	0.2466
77	30	70	633334	3500.01	CP-OFDM QPSK	1@187	24.11	23.81	0.2404
77	30	70	634332	3514.98	DFT-s-OFDM PI/2 BPSK	90@45	25.02	24.72	0.2965
77	30	70	634332	3514.98	DFT-s-OFDM PI/2 BPSK	1@1	24.92	24.62	0.2897
77	30	70	634332	3514.98	DFT-s-OFDM PI/2 BPSK	1@187	24.93	24.63	0.2904
77	30	70	634332	3514.98	DFT-s-OFDM QPSK	90@45	25.03	24.73	0.2972
77	30	70	634332	3514.98	DFT-s-OFDM QPSK	1@1	24.94	24.64	0.2911
77	30	70	634332	3514.98	DFT-s-OFDM QPSK	1@187	24.82	24.52	0.2831
77	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	90@45	24.68	24.38	0.2742
77	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	1@1	24.7	24.4	0.2754
77	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	1@187	24.62	24.32	0.2704
77	30	70	634332	3514.98	DFT-s-OFDM 64 QAM	90@45	23.15	22.85	0.1928
77	30	70	634332	3514.98	DFT-s-OFDM 64 QAM	1@1	23.22	22.92	0.1959

77	30	70	634332	3514.98	DFT-s-OFDM 64 QAM	1@187	23.12	22.82	0.1914
77	30	70	634332	3514.98	DFT-s-OFDM 256 QAM	90@45	21.08	20.78	0.1197
77	30	70	634332	3514.98	DFT-s-OFDM 256 QAM	1@1	20.91	20.61	0.1151
77	30	70	634332	3514.98	DFT-s-OFDM 256 QAM	1@187	20.92	20.62	0.1153
77	30	70	634332	3514.98	CP-OFDM QPSK	95@47	24.14	23.84	0.2421
77	30	70	634332	3514.98	CP-OFDM QPSK	1@1	24.05	23.75	0.2371
77	30	70	634332	3514.98	CP-OFDM QPSK	1@187	24.09	23.79	0.2393
77	30	80	632668	3490.02	DFT-s-OFDM PI/2 BPSK	108@54	24.87	24.57	0.2864
77	30	80	632668	3490.02	DFT-s-OFDM PI/2 BPSK	1@1	25.31	25.01	0.3170
77	30	80	632668	3490.02	DFT-s-OFDM PI/2 BPSK	1@215	25.14	24.84	0.3048
77	30	80	632668	3490.02	DFT-s-OFDM QPSK	108@54	24.91	24.61	0.2891
77	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@1	25.16	24.86	0.3062
77	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@215	24.97	24.67	0.2931
77	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	108@54	24.53	24.23	0.2649
77	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@1	24.89	24.59	0.2877
77	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@215	24.7	24.4	0.2754
77	30	80	632668	3490.02	DFT-s-OFDM 64 QAM	108@54	23.05	22.75	0.1884
77	30	80	632668	3490.02	DFT-s-OFDM 64 QAM	1@1	23.52	23.22	0.2099
77	30	80	632668	3490.02	DFT-s-OFDM 64 QAM	1@215	23.33	23.03	0.2009
77	30	80	632668	3490.02	DFT-s-OFDM 256 QAM	108@54	20.96	20.66	0.1164
77	30	80	632668	3490.02	DFT-s-OFDM 256 QAM	1@1	20.97	20.67	0.1167
77	30	80	632668	3490.02	DFT-s-OFDM 256 QAM	1@215	20.76	20.46	0.1112
77	30	80	632668	3490.02	CP-OFDM QPSK	109@54	24.02	23.72	0.2355
77	30	80	632668	3490.02	CP-OFDM QPSK	1@1	24.24	23.94	0.2477
77	30	80	632668	3490.02	CP-OFDM QPSK	1@215	24.13	23.83	0.2415
77	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	108@54	24.83	24.53	0.2838
77	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.62	25.32	0.3404
77	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@215	25.26	24.96	0.3133
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	108@54	24.87	24.57	0.2864
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.11	24.81	0.3027
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@215	24.89	24.59	0.2877
77	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	108@54	24.54	24.24	0.2655
77	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.75	24.45	0.2786
77	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@215	24.6	24.3	0.2692
77	30	80	633334	3500.01	DFT-s-OFDM 64 QAM	108@54	22.97	22.67	0.1849
77	30	80	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.37	23.07	0.2028

77	30	80	633334	3500.01	DFT-s-OFDM 64 QAM	1@215	23.29	22.99	0.1991
77	30	80	633334	3500.01	DFT-s-OFDM 256 QAM	108@54	20.97	20.67	0.1167
77	30	80	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	20.95	20.65	0.1161
77	30	80	633334	3500.01	DFT-s-OFDM 256 QAM	1@215	20.82	20.52	0.1127
77	30	80	633334	3500.01	CP-OFDM QPSK	109@54	23.99	23.69	0.2339
77	30	80	633334	3500.01	CP-OFDM QPSK	1@1	24.25	23.95	0.2483
77	30	80	633334	3500.01	CP-OFDM QPSK	1@215	24.04	23.74	0.2366
77	30	80	634000	3510	DFT-s-OFDM PI/2 BPSK	108@54	24.82	24.52	0.2831
77	30	80	634000	3510	DFT-s-OFDM PI/2 BPSK	1@1	24.91	24.61	0.2891
77	30	80	634000	3510	DFT-s-OFDM PI/2 BPSK	1@215	24.91	24.61	0.2891
77	30	80	634000	3510	DFT-s-OFDM QPSK	108@54	24.96	24.66	0.2924
77	30	80	634000	3510	DFT-s-OFDM QPSK	1@1	24.99	24.69	0.2944
77	30	80	634000	3510	DFT-s-OFDM QPSK	1@215	24.89	24.59	0.2877
77	30	80	634000	3510	DFT-s-OFDM 16 QAM	108@54	24.59	24.29	0.2685
77	30	80	634000	3510	DFT-s-OFDM 16 QAM	1@1	24.75	24.45	0.2786
77	30	80	634000	3510	DFT-s-OFDM 16 QAM	1@215	24.68	24.38	0.2742
77	30	80	634000	3510	DFT-s-OFDM 64 QAM	108@54	23.04	22.74	0.1879
77	30	80	634000	3510	DFT-s-OFDM 64 QAM	1@1	22.92	22.62	0.1828
77	30	80	634000	3510	DFT-s-OFDM 64 QAM	1@215	22.81	22.51	0.1782
77	30	80	634000	3510	DFT-s-OFDM 256 QAM	108@54	21.01	20.71	0.1178
77	30	80	634000	3510	DFT-s-OFDM 256 QAM	1@1	20.88	20.58	0.1143
77	30	80	634000	3510	DFT-s-OFDM 256 QAM	1@215	20.72	20.42	0.1102
77	30	80	634000	3510	CP-OFDM QPSK	109@54	24.06	23.76	0.2377
77	30	80	634000	3510	CP-OFDM QPSK	1@1	24.16	23.86	0.2432
77	30	80	634000	3510	CP-OFDM QPSK	1@215	24.03	23.73	0.2360
77	30	90	633000	3495	DFT-s-OFDM PI/2 BPSK	120@60	24.99	24.69	0.2944
77	30	90	633000	3495	DFT-s-OFDM PI/2 BPSK	1@1	25.06	24.76	0.2992
77	30	90	633000	3495	DFT-s-OFDM PI/2 BPSK	1@243	24.93	24.63	0.2904
77	30	90	633000	3495	DFT-s-OFDM QPSK	120@60	24.88	24.58	0.2871
77	30	90	633000	3495	DFT-s-OFDM QPSK	1@1	25.16	24.86	0.3062
77	30	90	633000	3495	DFT-s-OFDM QPSK	1@243	25.02	24.72	0.2965
77	30	90	633000	3495	DFT-s-OFDM 16 QAM	120@60	24.45	24.15	0.2600
77	30	90	633000	3495	DFT-s-OFDM 16 QAM	1@1	24.72	24.42	0.2767
77	30	90	633000	3495	DFT-s-OFDM 16 QAM	1@243	24.55	24.25	0.2661
77	30	90	633000	3495	DFT-s-OFDM 64 QAM	120@60	22.99	22.69	0.1858
77	30	90	633000	3495	DFT-s-OFDM 64 QAM	1@1	23.3	23	0.1995

77	30	90	633000	3495	DFT-s-OFDM 64 QAM	1@243	23.11	22.81	0.1910
77	30	90	633000	3495	DFT-s-OFDM 256 QAM	120@60	20.98	20.68	0.1169
77	30	90	633000	3495	DFT-s-OFDM 256 QAM	1@1	21.17	20.87	0.1222
77	30	90	633000	3495	DFT-s-OFDM 256 QAM	1@243	21.03	20.73	0.1183
77	30	90	633000	3495	CP-OFDM QPSK	123@61	24.01	23.71	0.2350
77	30	90	633000	3495	CP-OFDM QPSK	1@1	24.27	23.97	0.2495
77	30	90	633000	3495	CP-OFDM QPSK	1@243	24.07	23.77	0.2382
77	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	120@60	24.82	24.52	0.2831
77	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.69	25.39	0.3459
77	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@243	24.9	24.6	0.2884
77	30	90	633334	3500.01	DFT-s-OFDM QPSK	120@60	24.92	24.62	0.2897
77	30	90	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.25	24.95	0.3126
77	30	90	633334	3500.01	DFT-s-OFDM QPSK	1@243	24.99	24.69	0.2944
77	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	120@60	24.55	24.25	0.2661
77	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.75	24.45	0.2786
77	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	1@243	24.65	24.35	0.2723
77	30	90	633334	3500.01	DFT-s-OFDM 64 QAM	120@60	22.98	22.68	0.1854
77	30	90	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.26	22.96	0.1977
77	30	90	633334	3500.01	DFT-s-OFDM 64 QAM	1@243	23.14	22.84	0.1923
77	30	90	633334	3500.01	DFT-s-OFDM 256 QAM	120@60	20.99	20.69	0.1172
77	30	90	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.11	20.81	0.1205
77	30	90	633334	3500.01	DFT-s-OFDM 256 QAM	1@243	20.82	20.52	0.1127
77	30	90	633334	3500.01	CP-OFDM QPSK	123@61	24.06	23.76	0.2377
77	30	90	633334	3500.01	CP-OFDM QPSK	1@1	24.29	23.99	0.2506
77	30	90	633334	3500.01	CP-OFDM QPSK	1@243	23.95	23.65	0.2317
77	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	120@60	24.91	24.61	0.2891
77	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	1@1	25.07	24.77	0.2999
77	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	1@243	24.96	24.66	0.2924
77	30	90	633666	3504.99	DFT-s-OFDM QPSK	120@60	24.94	24.64	0.2911
77	30	90	633666	3504.99	DFT-s-OFDM QPSK	1@1	25.23	24.93	0.3112
77	30	90	633666	3504.99	DFT-s-OFDM QPSK	1@243	24.94	24.64	0.2911
77	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	120@60	24.55	24.25	0.2661
77	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	1@1	24.75	24.45	0.2786
77	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	1@243	24.58	24.28	0.2679
77	30	90	633666	3504.99	DFT-s-OFDM 64 QAM	120@60	23.01	22.71	0.1866
77	30	90	633666	3504.99	DFT-s-OFDM 64 QAM	1@1	23.39	23.09	0.2037

77	30	90	633666	3504.99	DFT-s-OFDM 64 QAM	1@243	23.22	22.92	0.1959
77	30	90	633666	3504.99	DFT-s-OFDM 256 QAM	120@60	21.04	20.74	0.1186
77	30	90	633666	3504.99	DFT-s-OFDM 256 QAM	1@1	21.16	20.86	0.1219
77	30	90	633666	3504.99	DFT-s-OFDM 256 QAM	1@243	20.79	20.49	0.1119
77	30	90	633666	3504.99	CP-OFDM QPSK	123@61	24.08	23.78	0.2388
77	30	90	633666	3504.99	CP-OFDM QPSK	1@1	24.15	23.85	0.2427
77	30	90	633666	3504.99	CP-OFDM QPSK	1@243	24.07	23.77	0.2382
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	135@67	24.92	24.62	0.2897
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.07	24.77	0.2999
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@271	24.98	24.68	0.2938
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	135@67	24.95	24.65	0.2917
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.26	24.96	0.3133
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@271	24.97	24.67	0.2931
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	135@67	24.59	24.29	0.2685
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.89	24.59	0.2877
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@271	24.66	24.36	0.2729
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	135@67	23.03	22.73	0.1875
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.36	23.06	0.2023
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@271	23.08	22.78	0.1897
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	135@67	21.06	20.76	0.1191
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.11	20.81	0.1205
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@271	20.96	20.66	0.1164
77	30	100	633334	3500.01	CP-OFDM QPSK	137@68	24.07	23.77	0.2382
77	30	100	633334	3500.01	CP-OFDM QPSK	1@1	24.37	24.07	0.2553
77	30	100	633334	3500.01	CP-OFDM QPSK	1@271	24.1	23.8	0.2399

## Frequency Stability

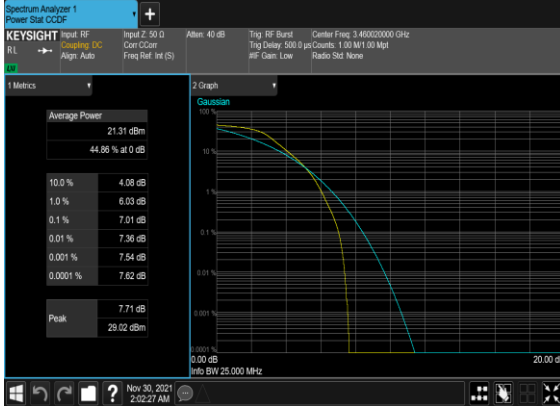
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00597	PASS	NV
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00673	PASS	LV
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00615	PASS	HV
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.0057	PASS	-30°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00338	PASS	-20°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00466	PASS	-10°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00345	PASS	0°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00439	PASS	10°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00307	PASS	20°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00456	PASS	30°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00546	PASS	40°C
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00363	PASS	50°C



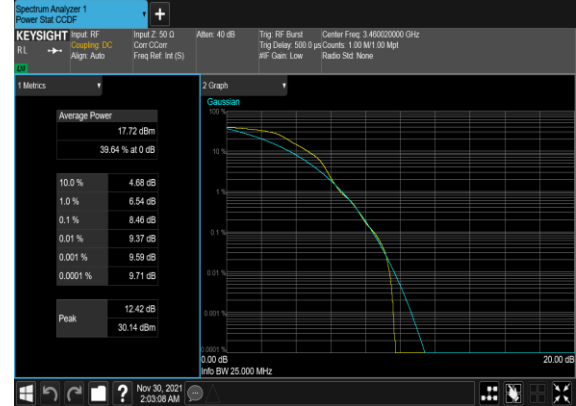
## Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
77	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	50@0	7.01	13	PASS
77	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@0	8.46	13	PASS
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	50@0	7.81	13	PASS
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	7.52	13	PASS
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	50@0	7.29	13	PASS
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@0	7.47	13	PASS
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	8.21	13	PASS
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	8.11	13	PASS
77	30	20	636000	3540.0	DFT-s-OFDM PI/2 BPSK	50@0	7.13	13	PASS
77	30	20	636000	3540.0	DFT-s-OFDM PI/2 BPSK	1@0	7.39	13	PASS
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	50@0	7.88	13	PASS
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	8.3	13	PASS

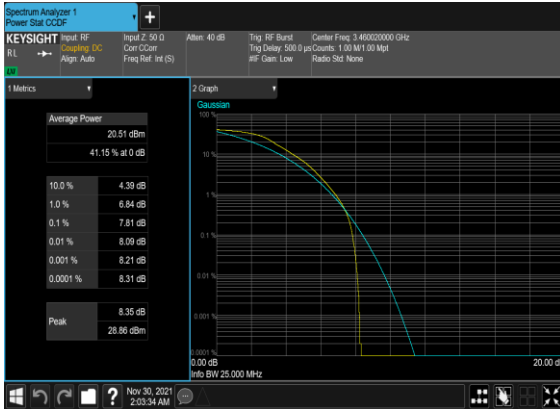
N77(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Outer\_Full\_Low\_CH



N77(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Edge\_1RB\_Left\_Low\_CH



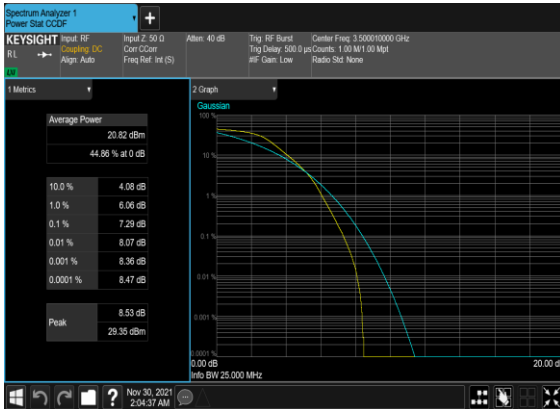
N77(20M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Low\_CH



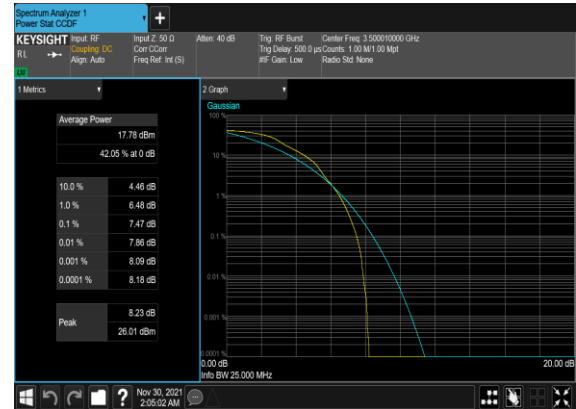
N77(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



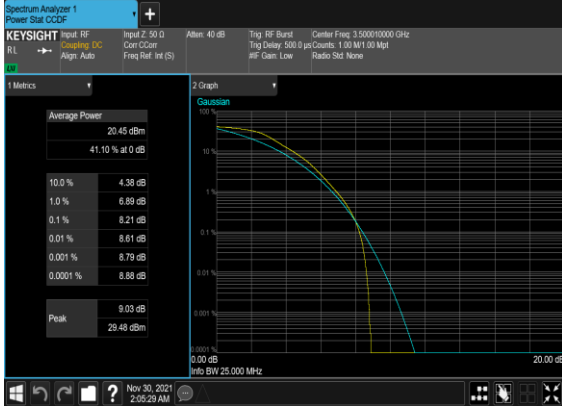
N77(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Outer\_Full\_Mid\_CH



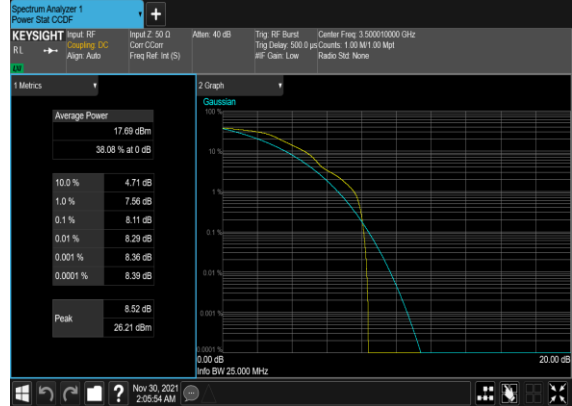
N77(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Edge\_1RB\_Left\_Mid\_CH



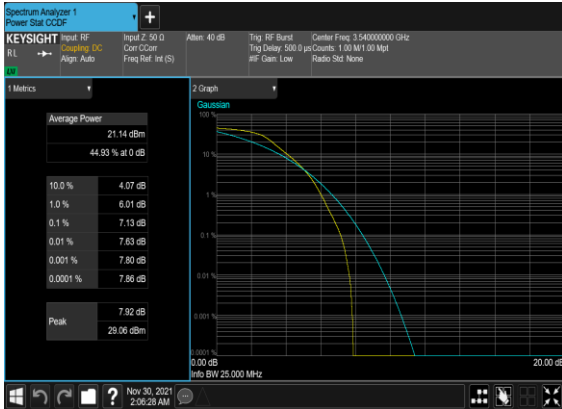
N77(20M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



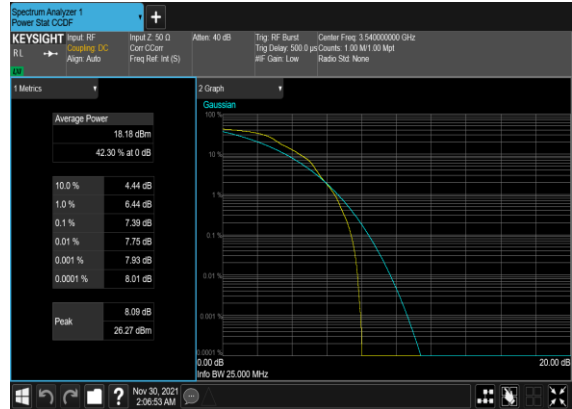
N77(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



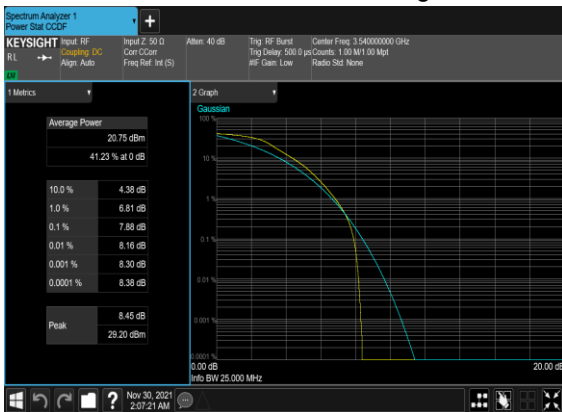
N77(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Outer\_Full\_High\_CH



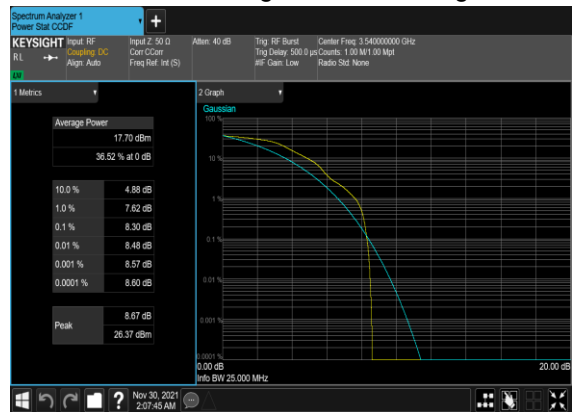
N77(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Edge\_1RB\_Left\_High\_CH



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



N77(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH



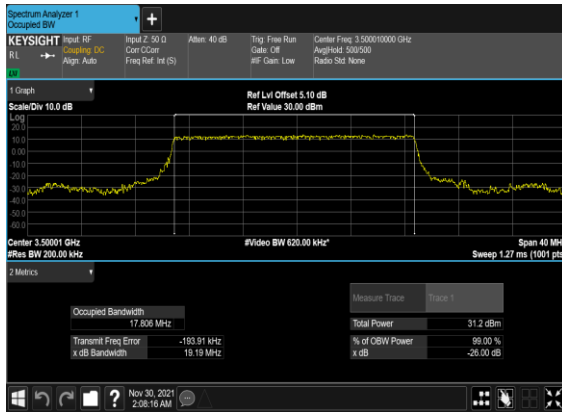
## Occupied Bandwidth

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB OBW (MHz)
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	50@0	17.806	19.19
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	17.794	19.02
77	30	20	633334	3500.01	CP-OFDM QPSK	51@0	18.187	19.65
77	30	20	633334	3500.01	CP-OFDM 16 QAM	51@0	18.255	19.45
77	30	20	633334	3500.01	CP-OFDM 64 QAM	51@0	18.207	19.62
77	30	20	633334	3500.01	CP-OFDM 256 QAM	51@0	18.204	19.62
77	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	75@0	26.814	28.4
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	75@0	26.739	28.39
77	30	30	633334	3500.01	CP-OFDM QPSK	78@0	27.847	29.42
77	30	30	633334	3500.01	CP-OFDM 16 QAM	78@0	27.86	29.67
77	30	30	633334	3500.01	CP-OFDM 64 QAM	78@0	27.89	29.4
77	30	30	633334	3500.01	CP-OFDM 256 QAM	78@0	27.811	29.56
77	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	35.726	37.52
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	100@0	35.746	37.4
77	30	40	633334	3500.01	CP-OFDM QPSK	106@0	37.758	39.64
77	30	40	633334	3500.01	CP-OFDM 16 QAM	106@0	37.855	39.51
77	30	40	633334	3500.01	CP-OFDM 64 QAM	106@0	37.806	39.48
77	30	40	633334	3500.01	CP-OFDM 256 QAM	106@0	37.887	39.52
77	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	128@0	45.707	47.64
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	128@0	45.738	47.63
77	30	50	633334	3500.01	CP-OFDM QPSK	133@0	47.45	49.55
77	30	50	633334	3500.01	CP-OFDM 16 QAM	133@0	47.383	49.23
77	30	50	633334	3500.01	CP-OFDM 64 QAM	133@0	47.479	49.45
77	30	50	633334	3500.01	CP-OFDM 256 QAM	133@0	47.486	49.49
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	58.001	59.96

77	30	60	633334	3500.01	DFT-s-OFDM QPSK	162@0	57.868	60.23
77	30	60	633334	3500.01	CP-OFDM QPSK	162@0	57.742	60.18
77	30	60	633334	3500.01	CP-OFDM 16 QAM	162@0	57.843	59.9
77	30	60	633334	3500.01	CP-OFDM 64 QAM	162@0	57.817	59.87
77	30	60	633334	3500.01	CP-OFDM 256 QAM	162@0	57.87	59.88
77	30	70	633334	3500.01	DFT-s-OFDM PI/2 BPSK	180@0	64.516	66.49
77	30	70	633334	3500.01	DFT-s-OFDM QPSK	180@0	64.325	66.44
77	30	70	633334	3500.01	CP-OFDM QPSK	189@0	67.395	69.66
77	30	70	633334	3500.01	CP-OFDM 16 QAM	189@0	67.499	70.0
77	30	70	633334	3500.01	CP-OFDM 64 QAM	189@0	67.613	69.86
77	30	70	633334	3500.01	CP-OFDM 256 QAM	189@0	67.467	69.74
77	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	216@0	77.226	80.02
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	216@0	77.166	79.87
77	30	80	633334	3500.01	CP-OFDM QPSK	217@0	77.551	80.14
77	30	80	633334	3500.01	CP-OFDM 16 QAM	217@0	77.521	80.03
77	30	80	633334	3500.01	CP-OFDM 64 QAM	217@0	77.567	80.14
77	30	80	633334	3500.01	CP-OFDM 256 QAM	217@0	77.488	80.05
77	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	240@0	85.666	88.83
77	30	90	633334	3500.01	DFT-s-OFDM QPSK	240@0	85.803	88.63
77	30	90	633334	3500.01	CP-OFDM QPSK	245@0	87.486	90.35
77	30	90	633334	3500.01	CP-OFDM 16 QAM	245@0	87.472	90.52
77	30	90	633334	3500.01	CP-OFDM 64 QAM	245@0	87.381	90.43
77	30	90	633334	3500.01	CP-OFDM 256 QAM	245@0	87.57	90.28
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	270@0	96.431	99.66
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	270@0	96.338	99.52
77	30	100	633334	3500.01	CP-OFDM QPSK	273@0	97.439	100.7
77	30	100	633334	3500.01	CP-OFDM 16 QAM	273@0	97.42	100.8

77	30	100	633334	3500.01	CP-OFDM 64 QAM	273@0	97.361	100.5
77	30	100	633334	3500.01	CP-OFDM 256 QAM	273@0	97.656	100.6

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



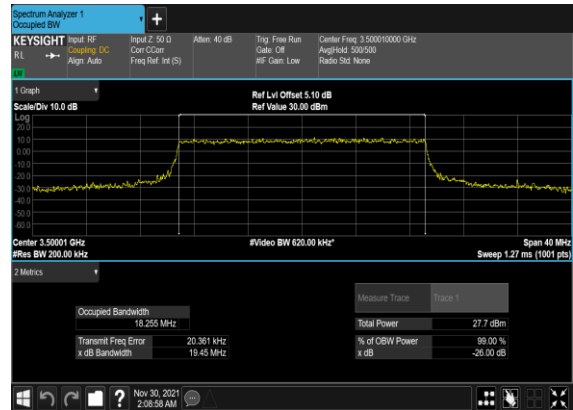
N77(20M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



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



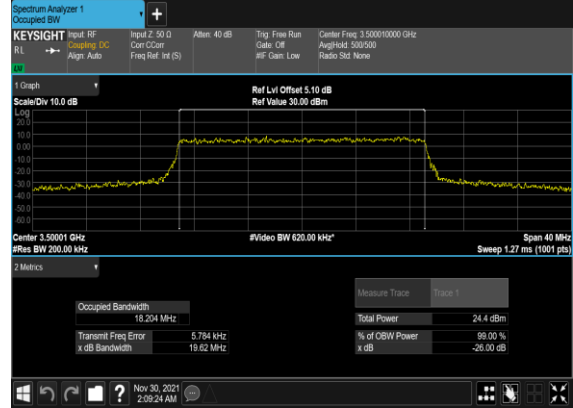
N77(20M)\_CP-OFDM\_16QAM\_Outer\_Full\_Mid\_CH



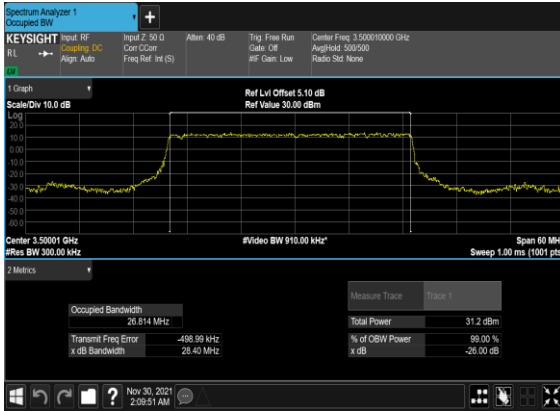
### N77(20M)\_CP-OFDM\_64 QAM\_Outer\_Full\_Mid\_CH



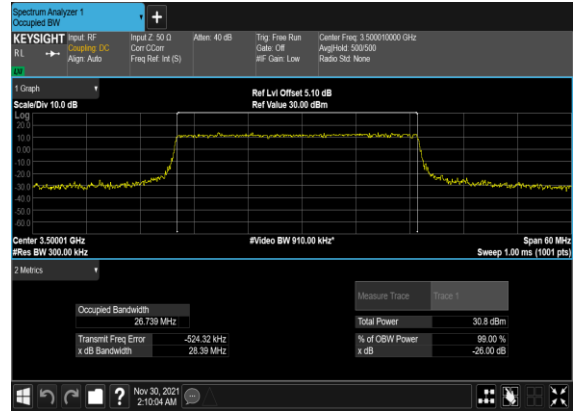
### N77(20M)\_CP-OFDM\_256 QAM\_Outer\_Full\_Mid\_CH



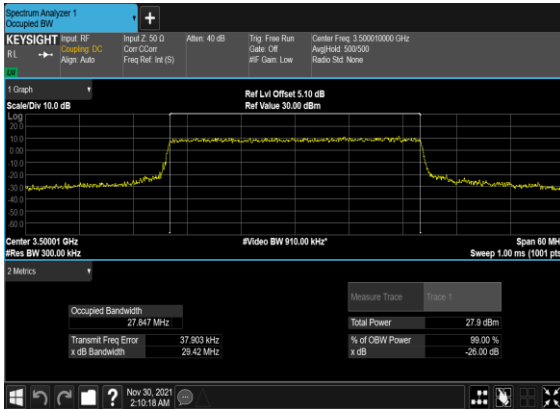
### N77(30M)\_DFT-s-OFDM\_PI\_2- BPSK\_Outer\_Full\_Mid\_CH



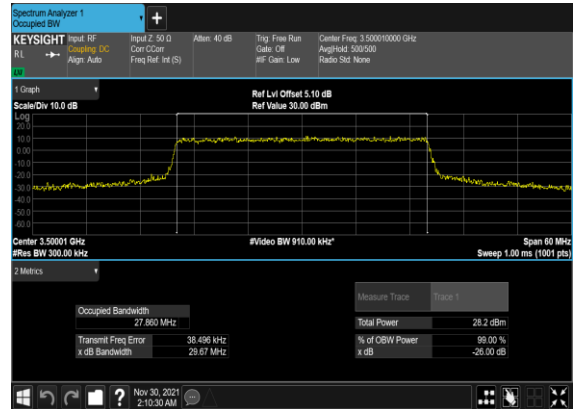
### N77(30M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



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



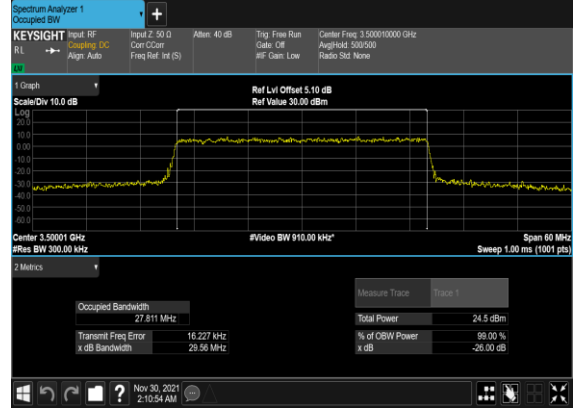
### N77(30M)\_CP-OFDM\_16 QAM\_Outer\_Full\_Mid\_CH



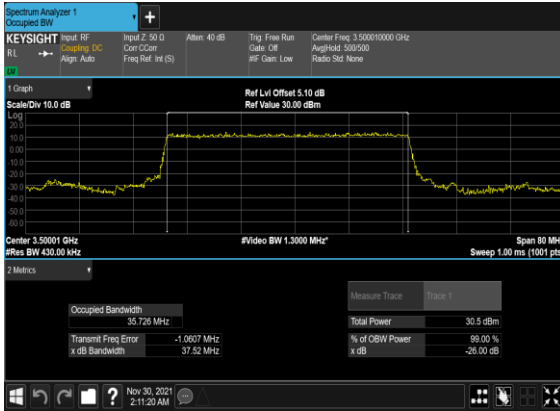
N77(30M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



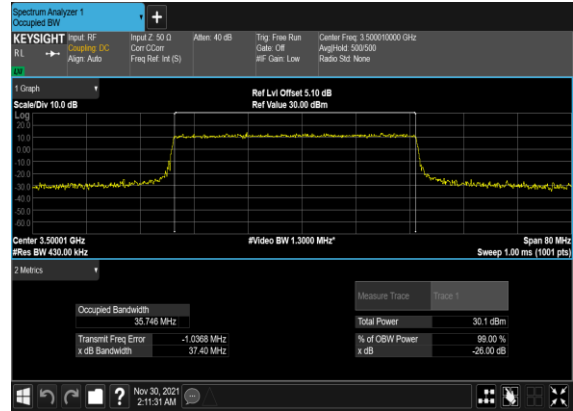
N77(30M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



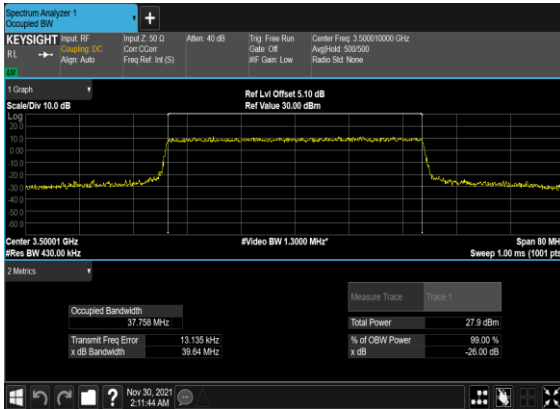
N77(40M)\_DFT-s-OFDM\_PI\_2-  
BPSK\_Outer\_Full\_Mid\_CH



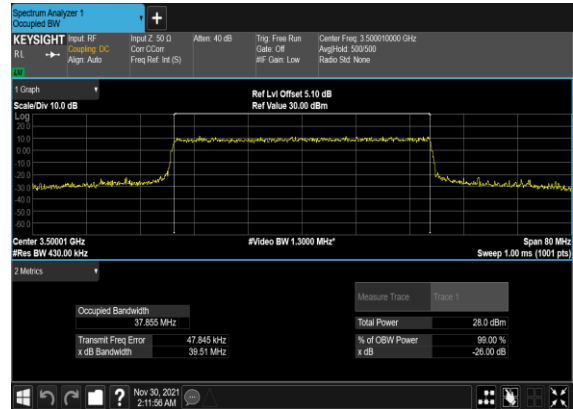
N77(40M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



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



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





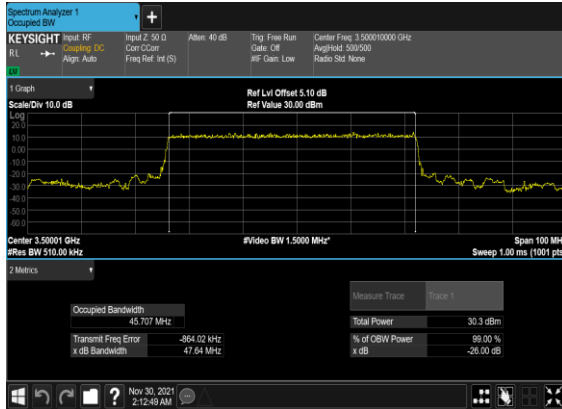
### N77(40M)\_CP-OFDM\_64 QAM\_Outer\_Full\_Mid\_CH



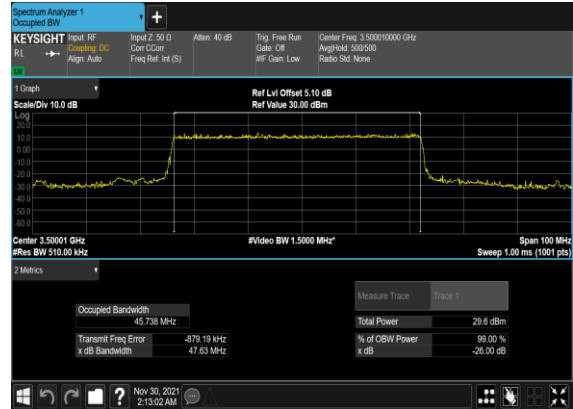
### N77(40M)\_CP-OFDM\_256 QAM\_Outer\_Full\_Mid\_CH



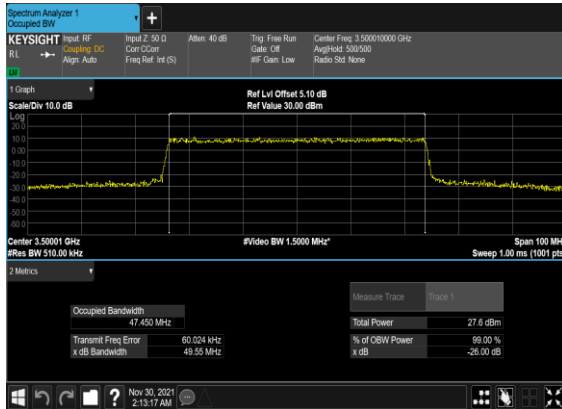
### N77(50M)\_DFT-s-OFDM\_PI\_2- BPSK\_Outer\_Full\_Mid\_CH



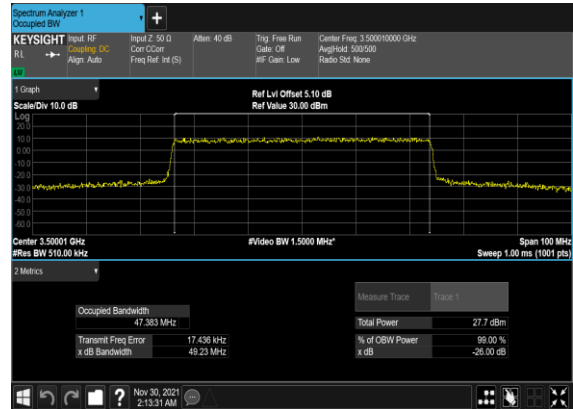
### N77(50M)\_DFT-s- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



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



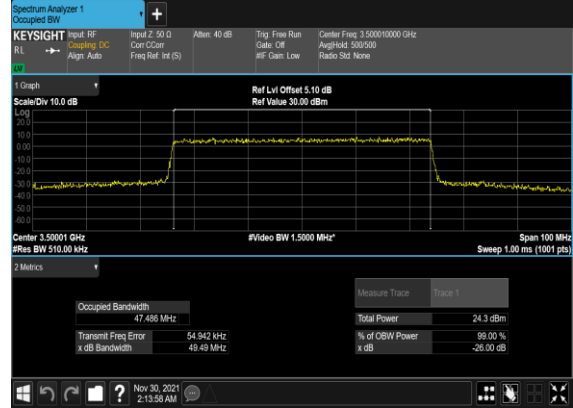
### N77(50M)\_CP-OFDM\_16 QAM\_Outer\_Full\_Mid\_CH



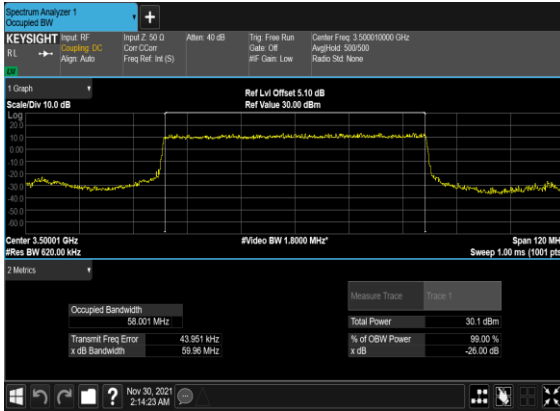
### N77(50M)\_CP-OFDM\_64 QAM\_Outer\_Full\_Mid\_CH



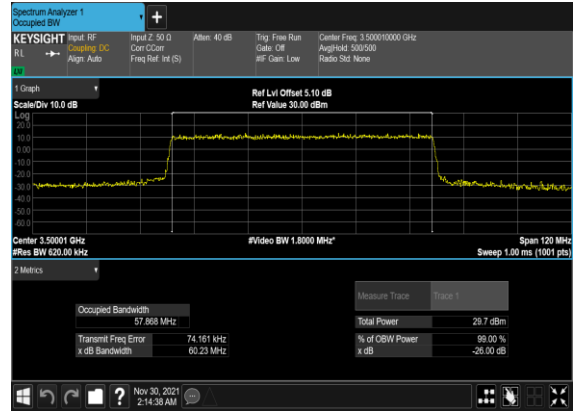
### N77(50M)\_CP-OFDM\_256 QAM\_Outer\_Full\_Mid\_CH



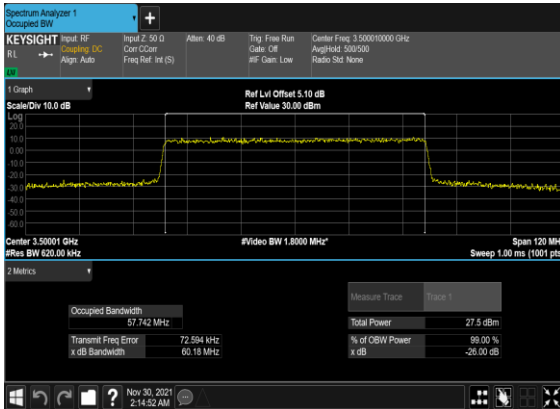
### N77(60M)\_DFT-s-OFDM\_PI\_2- BPSK\_Outer\_Full\_Mid\_CH



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



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



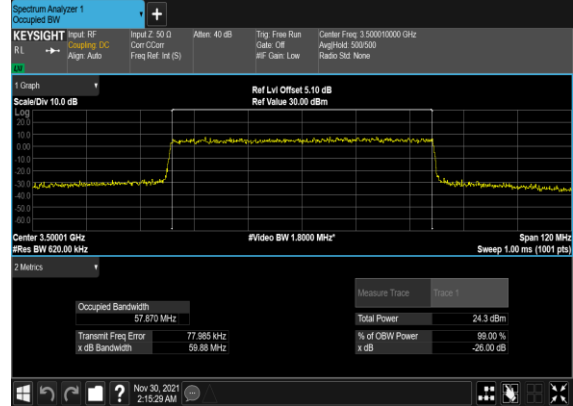
### N77(60M)\_CP-OFDM\_16 QAM\_Outer\_Full\_Mid\_CH



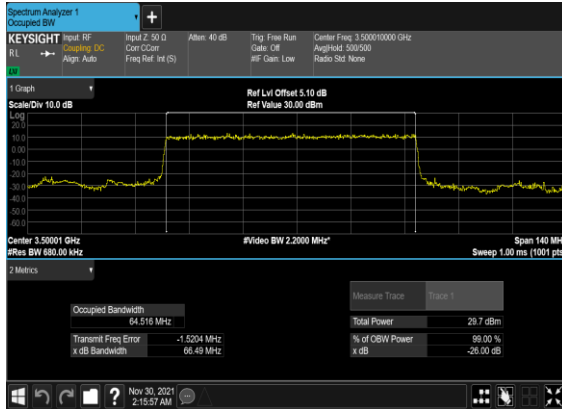
N77(60M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



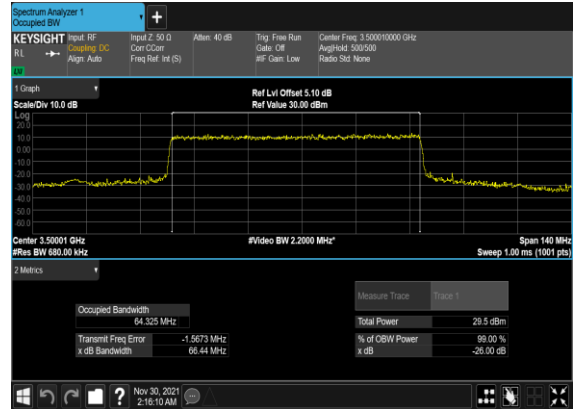
N77(60M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



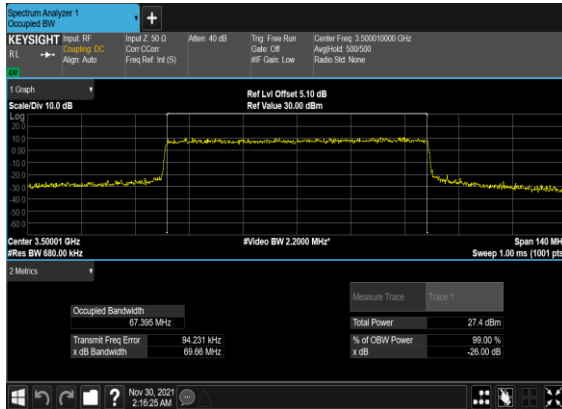
N77(70M)\_DFT-s-OFDM\_PI\_2-  
BPSK\_Outer\_Full\_Mid\_CH



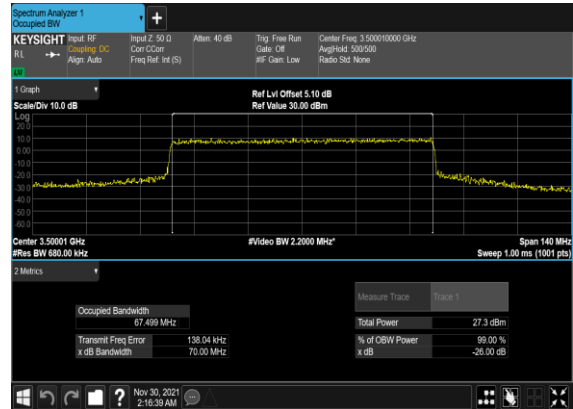
N77(70M)\_DFT-s-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



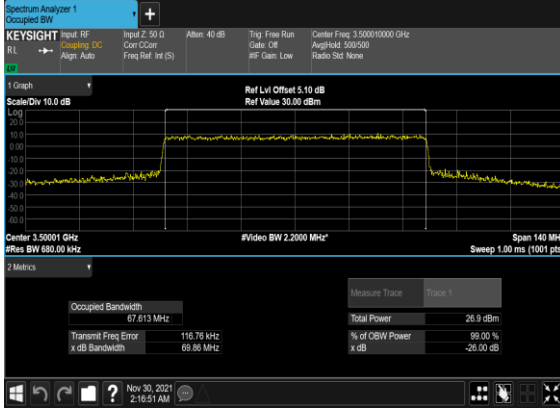
N77(70M)\_CP-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



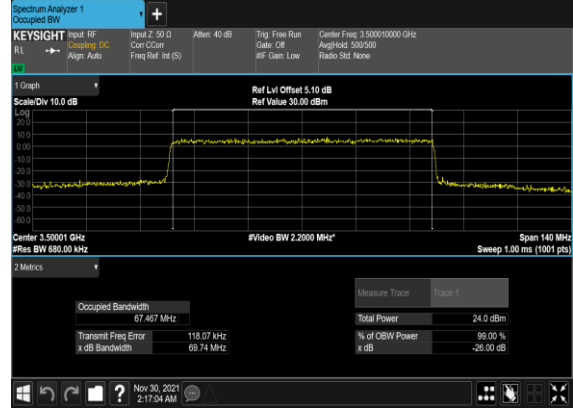
N77(70M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH



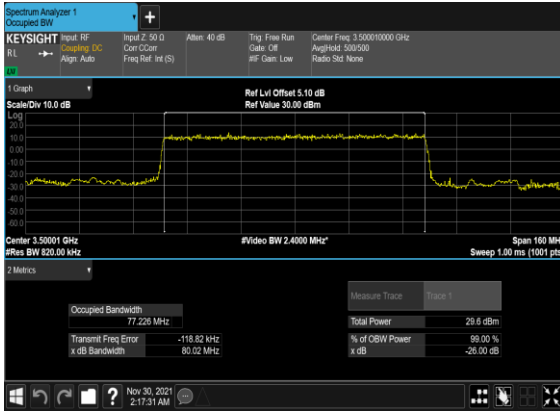
N77(70M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



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



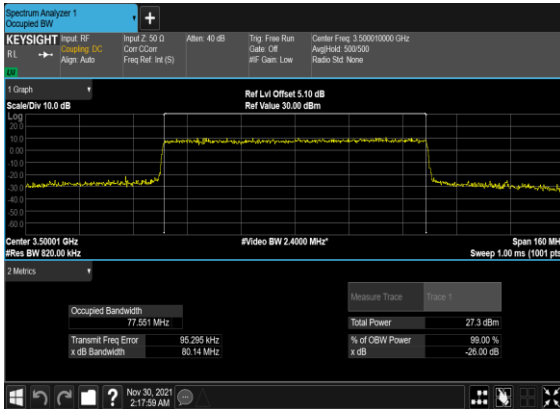
N77(80M)\_DFT-s-OFDM\_PI\_2-  
BPSK\_Outer\_Full\_Mid\_CH



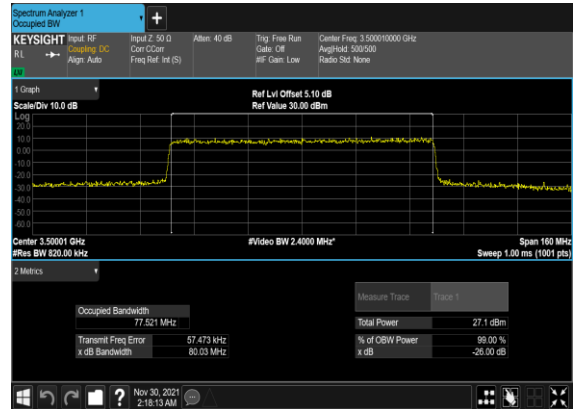
N77(80M)\_DFT-s-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



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



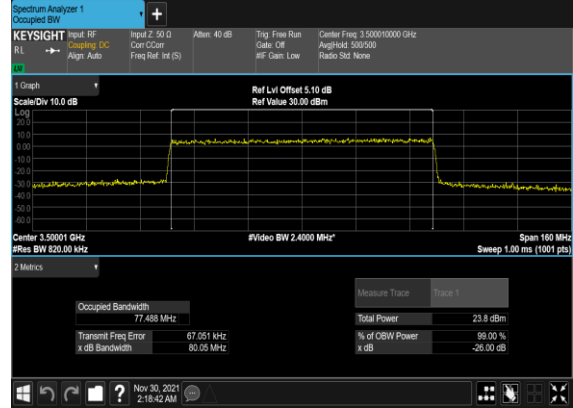
N77(80M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH



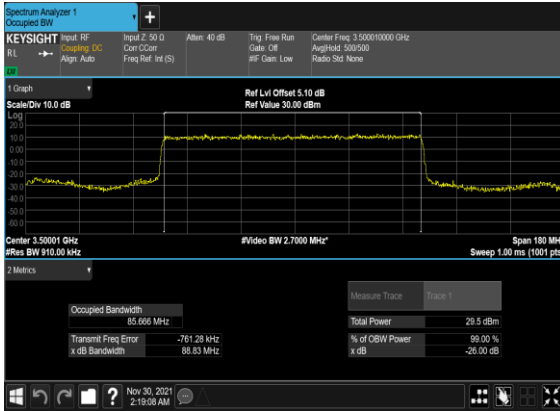
N77(80M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



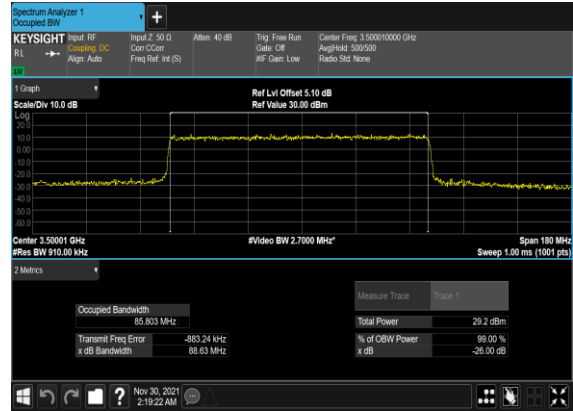
N77(80M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



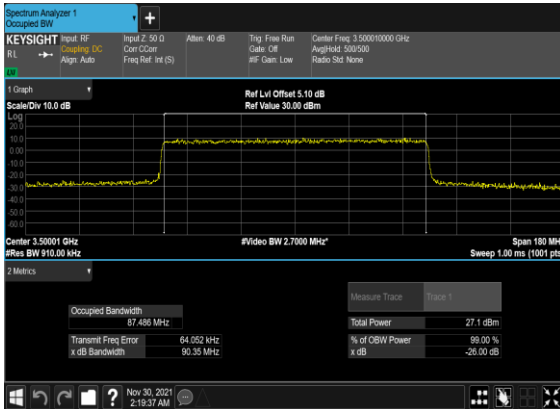
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BPSK\_Outer\_Full\_Mid\_CH



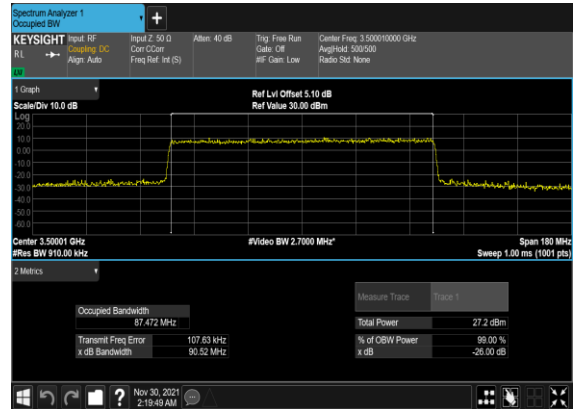
N77(90M)\_DFT-s-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



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



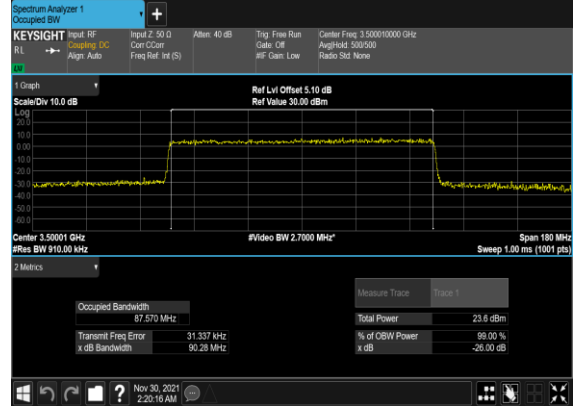
N77(90M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH



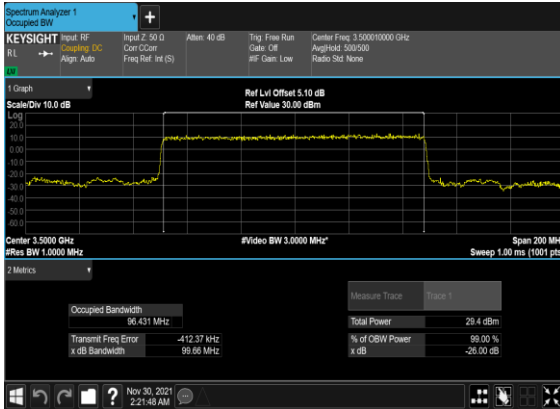
N77(90M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



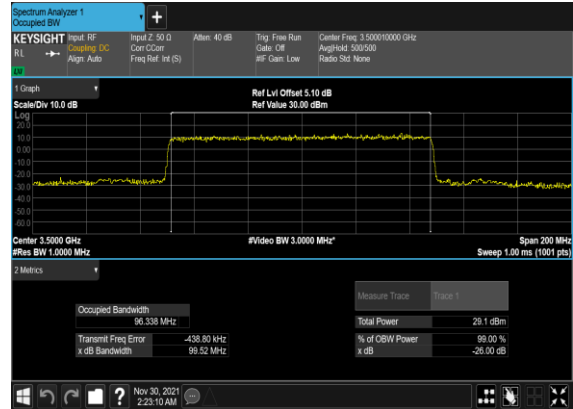
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QAM\_Outer\_Full\_Mid\_CH



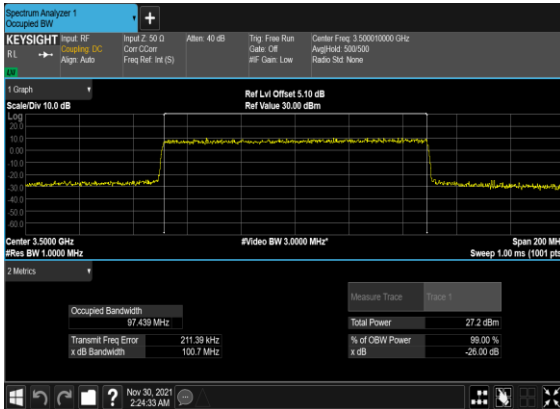
N77(100M)\_DFT-s-OFDM\_PI\_2-  
BPSK\_Outer\_Full\_Mid\_CH



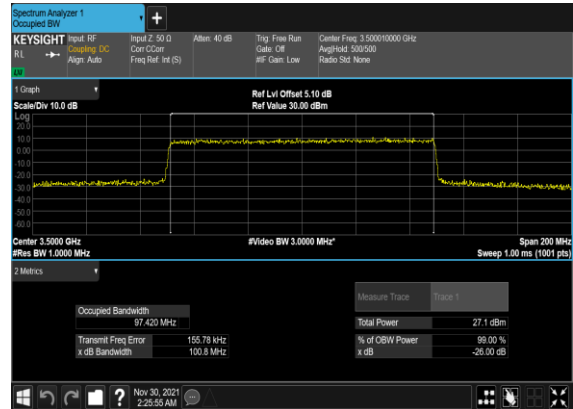
N77(100M)\_DFT-s-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



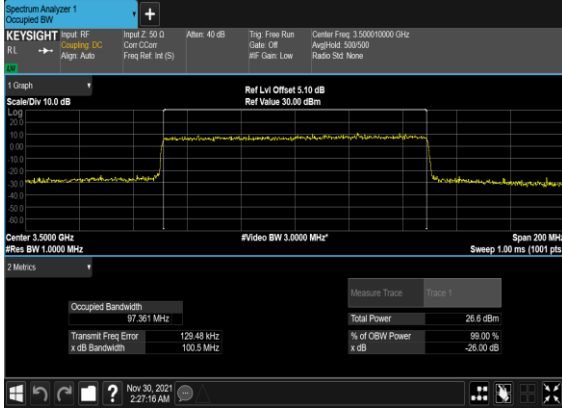
N77(100M)\_CP-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



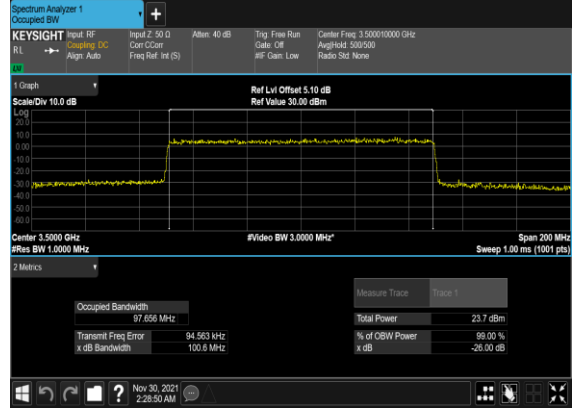
N77(100M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH



### 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	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	20	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	20	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	---



77	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	60	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	60	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	60	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@0	see graph	<b>PASS</b>
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@0	see graph	<b>PASS</b>
77	30	60	634666	3519.99	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(20M)\_DFT-s-  
OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



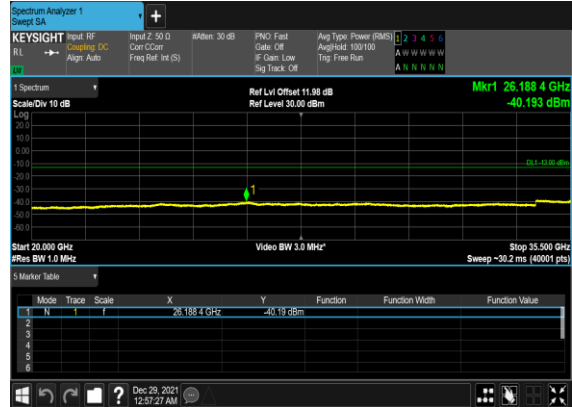
N77(20M)\_DFT-s-  
OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



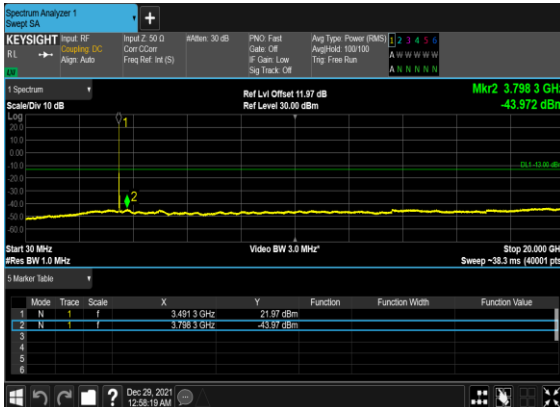
N77(20M)\_DFT-s-  
OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



N77(20M)\_DFT-s-  
OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



N77(20M)\_DFT-s-  
OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



N77(20M)\_DFT-s-  
OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



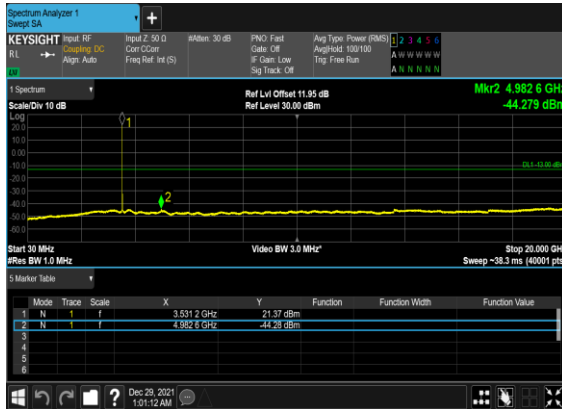
N77(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



N77(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



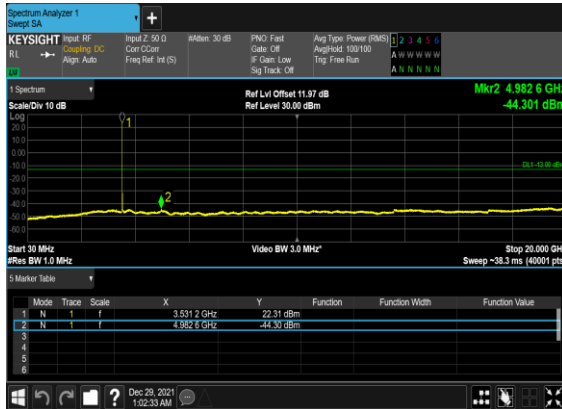
N77(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



N77(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



N77(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH



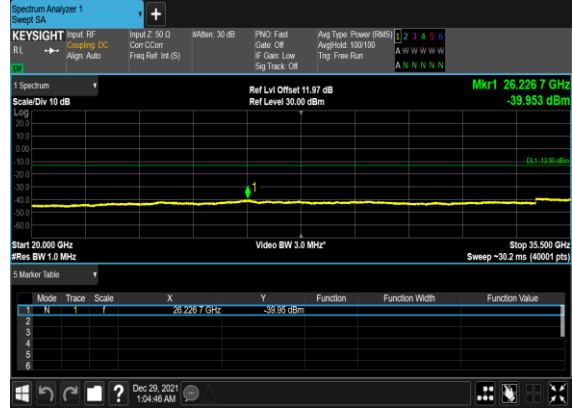
N77(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH



N77(60M)\_DFT-s-  
OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



N77(60M)\_DFT-s-  
OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



N77(60M)\_DFT-s-  
OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



N77(60M)\_DFT-s-  
OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



N77(60M)\_DFT-s-  
OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



N77(60M)\_DFT-s-  
OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



N77(60M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



N77(60M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



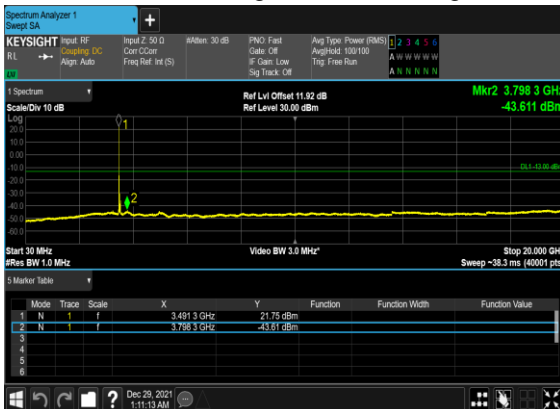
N77(60M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



N77(60M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



N77(60M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH



N77(60M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH



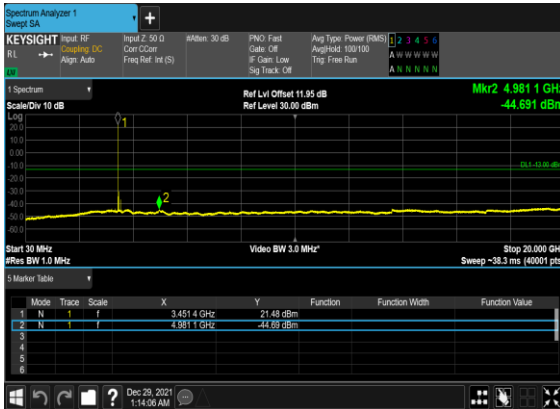
N77(100M)\_DFT-s-  
OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



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	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	50@0	see graph	PASS
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	50@0	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@50	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@50	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM BPSK	50@0	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	50@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM BPSK	162@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	162@0	see graph	PASS
77	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@161	see graph	PASS
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@161	see graph	PASS
77	30	60	634666	3519.99	DFT-s-OFDM BPSK	162@0	see graph	PASS
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	162@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