



# FCC RF Test Report

APPLICANT : Motorola Mobility LLC  
EQUIPMENT : Mobile Cellular Phone  
BRAND NAME : Motorola  
MODEL NAME : XT2143-1  
FCC ID : IHDT56ZP3  
STANDARD : 47 CFR Part 2, Part 27 Subpart Q  
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)  
TEST DATE(S) : Jun. 16, 2021 ~ Jun. 29, 2021

We, Sporton International (ShenZhen) 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.

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

Reviewed by: Derreck Chen / Supervisor

Approved by: Eric Shih / Manager



**Sporton International (ShenZhen) Inc.**

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## SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
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	Reporting Only	PASS	-
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 33.55 dB at 14000.00 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	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2143-1
FCC ID	IHDT56ZP3
EUT supports Radios application	GSM/WCDMA/LTE/5G NR WLAN 2.4GHz 802.11b/g/n HT20 WLAN 2.4GHz 802.11ac/ax VHT20/HE20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11a/n HT20/HT40 WLAN 6GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 6GHz 802.11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC and GNSS
IMEI Code	Conducted: 353121920026553/353121920026561 Radiation: 353121920024491/353121920024509
HW Version	DVT2
SW Version	RRG31.35
EUT Stage	Identical Prototype

### 1.4 Product Specification of Equipment Under Test

Product Feature	
<b>Tx/Rx Frequency</b>	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>	5G NR n78 : 26.92 dBm
<b>Antenna Gain</b>	5G NR n78 : 2.18 dBi
<b>Type of Modulation</b>	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

**Remark:**

1. 5G NR n78 supports SA mode and NSA mode. For NSA mode of all EN-DC combination, we only show the combination of the maximum power among all NSA combinations in the report.
2. For modulation of CP-OFDM and DFT-s-OFDM, the maximum power of CP-OFDM is lower than DFT-s-OFDM modulation, therefore, we chose higher power (DFT-s-OFDM modulation) to perform all tests and show in the report.
3. The EN-DC mode combination could be referred to the product spec.
4. 5G NR n78 supports HPUE.

### 1.5 Modification of EUT

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

### 1.6 Maximum EIRP Power and Emission Designator

5G NR n78 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)
20	3460.02 ~ 3540.00	0.7464	18M2G7D	0.4943	18M2W7D
30	3465.00 ~ 3534.99	0.7907	27M8G7D	0.5023	27M9W7D
40	3470.01 ~ 3529.98	0.7980	37M8G7D	0.5188	37M8W7D
50	3475.02 ~ 3525.00	0.7413	47M5G7D	0.4710	47M4W7D
60	3480.00 ~ 3519.99	0.7870	57M9G7D	0.5470	57M9W7D
70	3485.01 ~ 3514.98	0.7447	67M4G7D	0.4842	67M5W7D
80	3490.02 ~ 3510.00	0.7464	77M5G7D	0.4943	77M5W7D
90	3495.00 ~ 3504.99	0.7482	87M5G7D	0.4764	87M5W7D
100	3500.01 ~ 3500.01	0.8017	97M4G7D	0.4831	97M4W7D



5G NR n78 (EN DC_38A-n78A)		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	0.8110	18M2G7D	0.5559	18M2W7D
30	3465.00 ~ 3534.99	0.8110	27M8G7D	0.5346	27M8W7D
40	3470.01 ~ 3529.98	0.8110	37M8G7D	0.5433	37M9W7D
50	3475.02 ~ 3525.00	0.7889	47M5G7D	0.4764	47M5W7D
60	3480.00 ~ 3519.99	0.8110	57M9G7D	0.5623	57M8W7D
70	3485.01 ~ 3514.98	0.7925	67M5G7D	0.5035	67M5W7D
80	3490.02 ~ 3510.00	0.7852	77M5G7D	0.4688	77M5W7D
90	3495.00 ~ 3504.99	0.7962	87M5G7D	0.5023	87M4W7D
100	3500.01 ~ 3500.01	0.8128	97M3G7D	0.4864	97M5W7D

Note: All modulations have been tested, only the worst test results of PSK & QAM are shown in the report .

### 1.7 Testing Site

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

<b>Test Firm</b>	Sporton International (Shenzhen) Inc.		
<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 China 518103 TEL: +86-755-33202398		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	03CH04-SZ	CN1256	421272

## 1.8 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH04-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.



## 1.10 Specification of Accessory

Specification of Accessory				
AC Adapter 1(US)	Brand Name	Motorola(Salom)	Model Name	MC-301
AC Adapter 1(EU)	Brand Name	Motorola(Salom)	Model Name	MC-302
AC Adapter 1(UK)	Brand Name	Motorola(Salom)	Model Name	MC-303
AC Adapter 1(Brazil)	Brand Name	Motorola(Salom)	Model Name	MC-307
AC Adapter 1(AU)	Brand Name	Motorola(Salom)	Model Name	MC-305
AC Adapter 2(US)	Brand Name	Motorola(Acbel)	Model Name	MC-301
AC Adapter 2(EU)	Brand Name	Motorola(Acbel)	Model Name	MC-302
AC Adapter 2(UK)	Brand Name	Motorola(Acbel)	Model Name	MC-303
AC Adapter 2(AU)	Brand Name	Motorola(Acbel)	Model Name	MC-305
AC Adapter 2(IN)	Brand Name	Motorola(Acbel)	Model Name	MC-304
AC Adapter 3(Brazil)	Brand Name	Motorola(Flex)	Model Name	MC-307
Battery	Brand Name	Motorola(ATL)	Model Name	MB40
Earphone 1	Brand Name	Motorola(Lyand)	Model Name	MH191(SH38C81577)
Earphone 2	Brand Name	Motorola(LCHSE)	Model Name	MH191(SH38C81576)
Earphone 3 (Brazil only)	Brand Name	Motorola(Lyand)	Model Name	MH181(SH38C37773)
Earphone 4 (Brazil only)	Brand Name	Motorola(Cosonic)	Model Name	MH181(SH38C44959)
USB Cable 1	Brand Name	Motorola(Luxshare)	Model Name	SC18D13217
USB Cable 2	Brand Name	Motorola(Saibao)	Model Name	SC18D13215
USB Cable 3	Brand Name	Motorola(Cabletech)	Model Name	SC18D13216
Type C to audio cable	Brand Name	Motorola(Luxshare)	Model Name	SC18C27844

## 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.

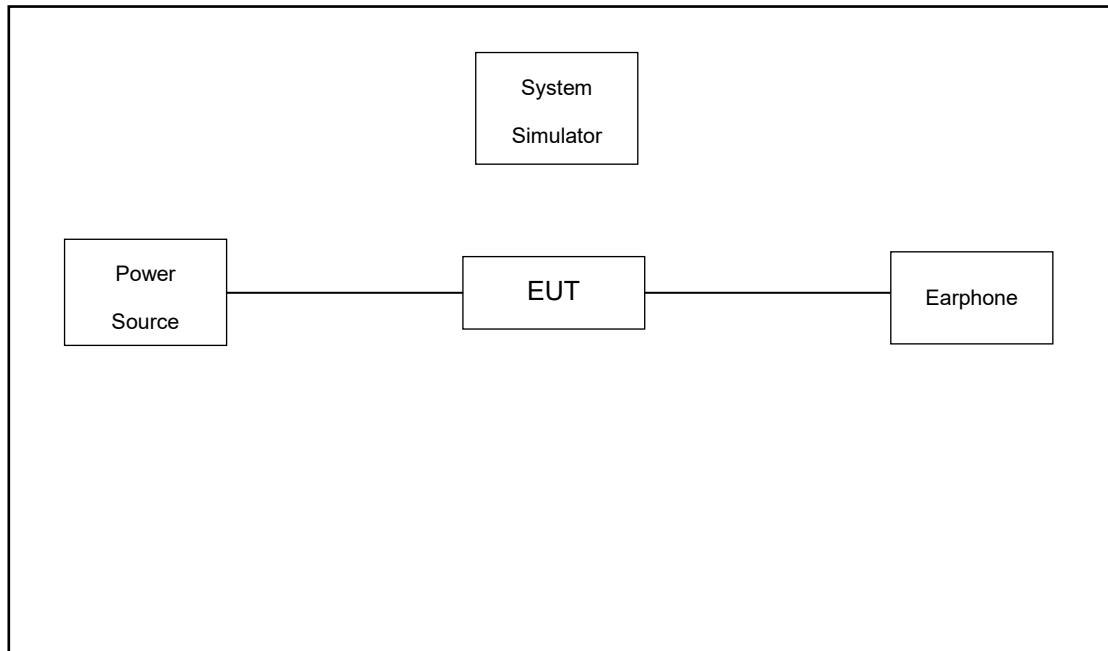
Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

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

## 2.4 Measurement Results Explanation Example

### For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

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

*Offset = RF cable loss + attenuator factor.*

Following shows an offset computation example with cable loss 2.21 dB and 10dB attenuator.

Example :

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

$$= 2.21 + 10 = 12.21 \text{ (dB)}$$



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

5G 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	3495.00	3500.01	3504.99
80	Channel	632668	633334	634000
	Frequency	3490.02	3500.01	3510.00
70	Channel	632334	633334	634332
	Frequency	3485.01	3500.01	3514.98
60	Channel	632000	633334	634666
	Frequency	3480.00	3500.01	3519.99
50	Channel	631668	633334	635000
	Frequency	3475.02	3500.01	3525.00
40	Channel	631334	633334	635332
	Frequency	3470.01	3500.01	3529.98
30	Channel	631000	633334	635666
	Frequency	3465.00	3500.01	3534.99
20	Channel	630668	633334	636000
	Frequency	3460.02	3500.01	3540.00

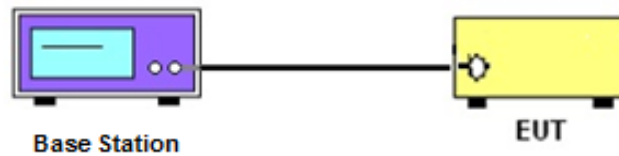
### 3 Conducted Test Items

#### 3.1 Measuring Instruments

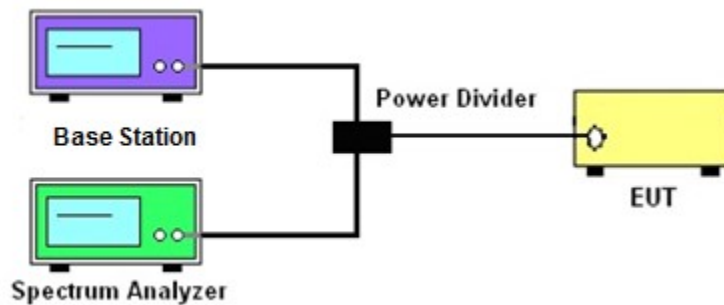
See list of measuring instruments of this test report.

#### 3.2 Test Setup

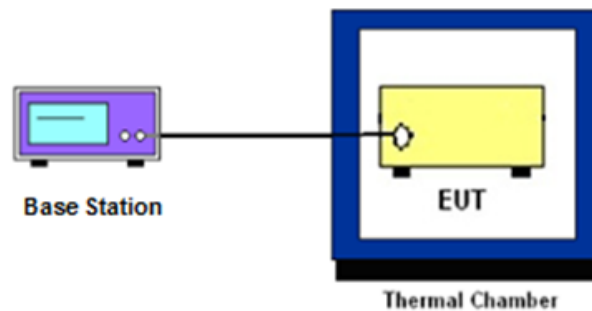
##### 3.2.1 Conducted Output Power



##### 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.

## 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.

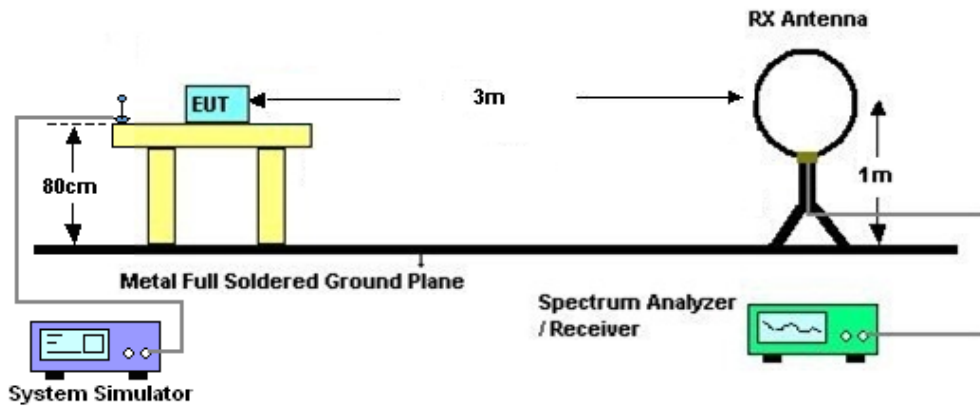
## 4 Radiated Test Items

### 4.1 Measuring Instruments

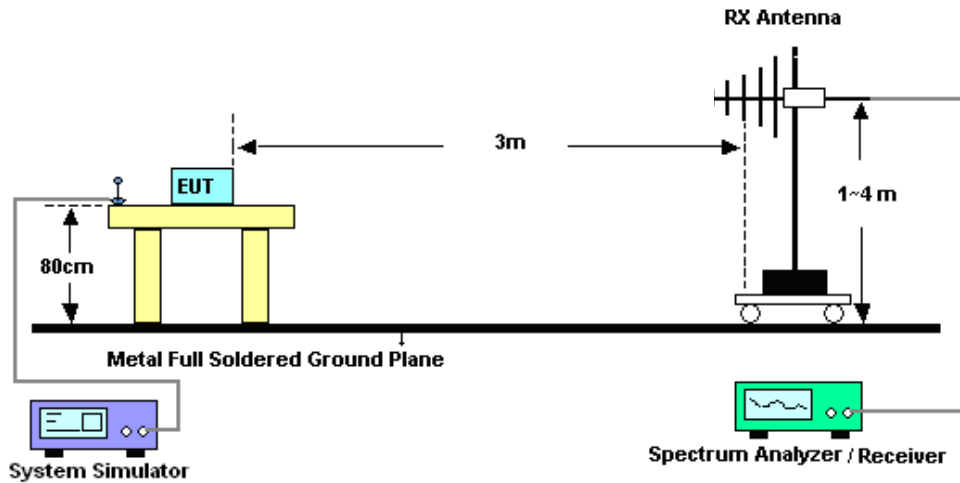
See list of measuring instruments of this test report.

### 4.2 Test Setup

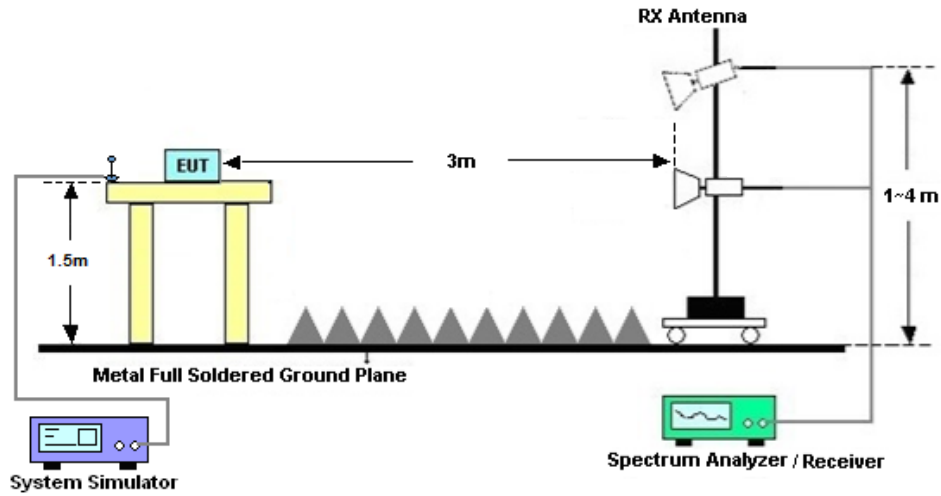
#### 4.2.1 For radiated test below 30MHz



#### 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
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 08, 2021	Jun. 24, 2021~ Jun. 29, 2021	Apr. 07, 2022	Conducted (TH01-SZ)
DC Power Supply	TTI	PL330P	290070	Max 32V , 3A	Oct. 15, 2020	Jun. 24, 2021~ Jun. 29, 2021	Oct. 14, 2021	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 26, 2020	Jun. 24, 2021~ Jun. 29, 2021	Dec. 25, 2021	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 22, 2020	Jun. 24, 2021~ Jun. 29, 2021	Jul. 21, 2021	Conducted (TH01-SZ)
EMI Test Receiver	R&S	ESR7	101404	9kHz~7GHz	Oct. 16, 2020	Jun. 16, 2021	Oct. 15, 2021	Radiation (03CH04-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 21, 2020	Jun. 16, 2021	Jul. 20, 2021	Radiation (03CH04-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 22, 2020	Jun. 16, 2021	Jun. 21, 2022	Radiation (03CH04-SZ)
Bilog Antenna	TeseQ	CBL6111D	41909	30MHz~1GHz	Nov. 07, 2020	Jun. 16, 2021	Nov. 06, 2021	Radiation (03CH04-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1474	1GHz~18GHz	Jul. 16, 2020	Jun. 16, 2021	Jul. 15, 2021	Radiation (03CH04-SZ)
Horn Antenna	SCHWARZBECK	BBHA9170	9170#679	15GHz~40GHz	Jul. 26, 2020	Jun. 16, 2021	Jul. 25, 2021	Radiation (03CH04-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 16, 2020	Jun. 16, 2021	Oct. 15, 2021	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P-R	1943528	1GHz~18GHz	Oct. 17, 2020	Jun. 16, 2021	Oct. 16, 2021	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 21, 2020	Jun. 16, 2021	Jul. 20, 2021	Radiation (03CH04-SZ)
Amplifier	Agilent Technologies	83017A	MY53270156	500MHz~26.5GHz	Oct. 17, 2020	Jun. 16, 2021	Oct. 16, 2021	Radiation (03CH04-SZ)
AC Power Source	Chroma	61601	N/A	N/A	NCR	Jun. 16, 2021	NCR	Radiation (03CH04-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jun. 16, 2021	NCR	Radiation (03CH04-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jun. 16, 2021	NCR	Radiation (03CH04-SZ)

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% ( $U = 2Uc(y)$ )	2.8dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.1dB
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### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.9dB
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## **Appendix A. Test Results of Conducted Test**

# FR1 N78 SA

## Transmitter Conducted Output Power And EIRP, (G<sub>T</sub>-L<sub>C</sub>)=2.18dB

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
78	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	25@12	26.31	28.49	0.7063
78	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@1	26.55	28.73	0.7464
78	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@49	26.19	28.37	0.6871
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	25@12	26.01	28.19	0.6592
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@1	26.31	28.49	0.7063
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@49	26.29	28.47	0.7031
78	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	25@12	24.61	26.79	0.4775
78	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@1	24.72	26.9	0.4898
78	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@49	24.76	26.94	0.4943
78	30	20	630668	3460.02	DFT-s-OFDM 64 QAM	25@12	23.3	25.48	0.3532
78	30	20	630668	3460.02	DFT-s-OFDM 64 QAM	1@1	23.05	25.23	0.3334
78	30	20	630668	3460.02	DFT-s-OFDM 64 QAM	1@49	23.04	25.22	0.3327
78	30	20	630668	3460.02	DFT-s-OFDM 256 QAM	25@12	20.79	22.97	0.1982
78	30	20	630668	3460.02	DFT-s-OFDM 256 QAM	1@1	21.15	23.33	0.2153
78	30	20	630668	3460.02	DFT-s-OFDM 256 QAM	1@49	20.94	23.12	0.2051
78	30	20	630668	3460.02	CP-OFDM QPSK	25@121	22.68	24.86	0.3062
78	30	20	630668	3460.02	CP-OFDM QPSK	1@1	23.98	26.16	0.4130
78	30	20	630668	3460.02	CP-OFDM QPSK	1@49	24.31	26.49	0.4457
78	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	25@12	26.09	28.27	0.6714
78	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.11	28.29	0.6745

78	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@49	26.38	28.56	0.7178
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	25@12	26.12	28.3	0.6761
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.55	28.73	0.7464
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@49	25.93	28.11	0.6471
78	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	25@12	24.01	26.19	0.4159
78	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.71	26.89	0.4887
78	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@49	24.14	26.32	0.4285
78	30	20	633334	3500.01	DFT-s-OFDM 64 QAM	25@12	22.95	25.13	0.3258
78	30	20	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.23	25.41	0.3475
78	30	20	633334	3500.01	DFT-s-OFDM 64 QAM	1@49	23.15	25.33	0.3412
78	30	20	633334	3500.01	DFT-s-OFDM 256 QAM	25@12	20.88	23.06	0.2023
78	30	20	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.07	23.25	0.2113
78	30	20	633334	3500.01	DFT-s-OFDM 256 QAM	1@49	20.91	23.09	0.2037
78	30	20	633334	3500.01	CP-OFDM QPSK	25@121	22.55	24.73	0.2972
78	30	20	633334	3500.01	CP-OFDM QPSK	1@1	23.74	25.92	0.3908
78	30	20	633334	3500.01	CP-OFDM QPSK	1@49	23.98	26.16	0.4130
78	30	20	636000	3540.0	DFT-s-OFDM PI/2 BPSK	25@12	25.95	28.13	0.6501
78	30	20	636000	3540.0	DFT-s-OFDM PI/2 BPSK	1@1	26.29	28.47	0.7031
78	30	20	636000	3540.0	DFT-s-OFDM PI/2 BPSK	1@49	26.33	28.51	0.7096
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	25@12	26.31	28.49	0.7063
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@1	26.3	28.48	0.7047
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@49	26.28	28.46	0.7015
78	30	20	636000	3540.0	DFT-s-OFDM 16 QAM	25@12	23.99	26.17	0.4140
78	30	20	636000	3540.0	DFT-s-OFDM 16 QAM	1@1	24.36	26.54	0.4508

78	30	20	636000	3540.0	DFT-s-OFDM 16 QAM	1@49	24.47	26.65	0.4624
78	30	20	636000	3540.0	DFT-s-OFDM 64 QAM	25@12	22.8	24.98	0.3148
78	30	20	636000	3540.0	DFT-s-OFDM 64 QAM	1@1	22.35	24.53	0.2838
78	30	20	636000	3540.0	DFT-s-OFDM 64 QAM	1@49	22.84	25.02	0.3177
78	30	20	636000	3540.0	DFT-s-OFDM 256 QAM	25@12	20.4	22.58	0.1811
78	30	20	636000	3540.0	DFT-s-OFDM 256 QAM	1@1	20.36	22.54	0.1795
78	30	20	636000	3540.0	DFT-s-OFDM 256 QAM	1@49	20.47	22.65	0.1841
78	30	20	636000	3540.0	CP-OFDM QPSK	25@121	22.28	24.46	0.2793
78	30	20	636000	3540.0	CP-OFDM QPSK	1@1	23.98	26.16	0.4130
78	30	20	636000	3540.0	CP-OFDM QPSK	1@49	24.01	26.19	0.4159
78	30	30	631000	3465.0	DFT-s-OFDM PI/2 BPSK	36@18	26.6	28.78	0.7551
78	30	30	631000	3465.0	DFT-s-OFDM PI/2 BPSK	1@1	26.34	28.52	0.7112
78	30	30	631000	3465.0	DFT-s-OFDM PI/2 BPSK	1@76	26.47	28.65	0.7328
78	30	30	631000	3465.0	DFT-s-OFDM QPSK	36@18	26.27	28.45	0.6998
78	30	30	631000	3465.0	DFT-s-OFDM QPSK	1@1	26.8	28.98	0.7907
78	30	30	631000	3465.0	DFT-s-OFDM QPSK	1@76	26.18	28.36	0.6855
78	30	30	631000	3465.0	DFT-s-OFDM 16 QAM	36@18	24.63	26.81	0.4797
78	30	30	631000	3465.0	DFT-s-OFDM 16 QAM	1@1	24.67	26.85	0.4842
78	30	30	631000	3465.0	DFT-s-OFDM 16 QAM	1@76	24.66	26.84	0.4831
78	30	30	631000	3465.0	DFT-s-OFDM 64 QAM	36@18	23.13	25.31	0.3396
78	30	30	631000	3465.0	DFT-s-OFDM 64 QAM	1@1	22.99	25.17	0.3289
78	30	30	631000	3465.0	DFT-s-OFDM 64 QAM	1@76	22.84	25.02	0.3177
78	30	30	631000	3465.0	DFT-s-OFDM 256 QAM	36@18	21.09	23.27	0.2123
78	30	30	631000	3465.0	DFT-s-OFDM 256 QAM	1@1	20.77	22.95	0.1972

78	30	30	631000	3465.0	DFT-s-OFDM 256 QAM	1@76	20.76	22.94	0.1968
78	30	30	631000	3465.0	CP-OFDM QPSK	39@19	23.8	25.98	0.3963
78	30	30	631000	3465.0	CP-OFDM QPSK	1@1	24.37	26.55	0.4519
78	30	30	631000	3465.0	CP-OFDM QPSK	1@76	23.9	26.08	0.4055
78	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	36@18	26.11	28.29	0.6745
78	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.61	28.79	0.7568
78	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@76	25.98	28.16	0.6546
78	30	30	633334	3500.01	DFT-s-OFDM QPSK	36@18	26.57	28.75	0.7499
78	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.72	28.9	0.7762
78	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@76	26.41	28.59	0.7228
78	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	36@18	24.11	26.29	0.4256
78	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.83	27.01	0.5023
78	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@76	24.63	26.81	0.4797
78	30	30	633334	3500.01	DFT-s-OFDM 64 QAM	36@18	23.1	25.28	0.3373
78	30	30	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.13	25.31	0.3396
78	30	30	633334	3500.01	DFT-s-OFDM 64 QAM	1@76	22.47	24.65	0.2917
78	30	30	633334	3500.01	DFT-s-OFDM 256 QAM	36@18	20.76	22.94	0.1968
78	30	30	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.04	23.22	0.2099
78	30	30	633334	3500.01	DFT-s-OFDM 256 QAM	1@76	20.95	23.13	0.2056
78	30	30	633334	3500.01	CP-OFDM QPSK	39@19	23.85	26.03	0.4009
78	30	30	633334	3500.01	CP-OFDM QPSK	1@1	23.96	26.14	0.4111
78	30	30	633334	3500.01	CP-OFDM QPSK	1@76	24.09	26.27	0.4236
78	30	30	635666	3500.01	DFT-s-OFDM PI/2 BPSK	36@18	26.6	28.78	0.7551
78	30	30	635666	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.44	28.62	0.7278

78	30	30	635666	3500.01	DFT-s-OFDM PI/2 BPSK	1@76	26.05	28.23	0.6653
78	30	30	635666	3534.99	DFT-s-OFDM QPSK	36@18	26.5	28.68	0.7379
78	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@1	26.62	28.8	0.7586
78	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@76	25.99	28.17	0.6561
78	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	36@18	23.93	26.11	0.4083
78	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@1	24.45	26.63	0.4603
78	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@76	24.3	26.48	0.4446
78	30	30	635666	3534.99	DFT-s-OFDM 64 QAM	36@18	22.95	25.13	0.3258
78	30	30	635666	3534.99	DFT-s-OFDM 64 QAM	1@1	22.79	24.97	0.3141
78	30	30	635666	3534.99	DFT-s-OFDM 64 QAM	1@76	22.88	25.06	0.3206
78	30	30	635666	3534.99	DFT-s-OFDM 256 QAM	36@18	20.85	23.03	0.2009
78	30	30	635666	3534.99	DFT-s-OFDM 256 QAM	1@1	20.56	22.74	0.1879
78	30	30	635666	3534.99	DFT-s-OFDM 256 QAM	1@76	20.84	23.02	0.2004
78	30	30	635666	3534.99	CP-OFDM QPSK	39@19	23.93	26.11	0.4083
78	30	30	635666	3534.99	CP-OFDM QPSK	1@1	24.15	26.33	0.4295
78	30	30	635666	3534.99	CP-OFDM QPSK	1@76	23.56	25.74	0.3750
78	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	50@25	26.34	28.52	0.7112
78	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	1@1	26.41	28.59	0.7228
78	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	1@104	26.14	28.32	0.6792
78	30	40	631334	3470.01	DFT-s-OFDM QPSK	50@25	26.24	28.42	0.6950
78	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@1	26.49	28.67	0.7362
78	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@104	26.19	28.37	0.6871
78	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	50@25	24.41	26.59	0.4560
78	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@1	24.97	27.15	0.5188

78	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@104	24.8	26.98	0.4989
78	30	40	631334	3470.01	DFT-s-OFDM 64 QAM	50@25	23.42	25.6	0.3631
78	30	40	631334	3470.01	DFT-s-OFDM 64 QAM	1@1	23.21	25.39	0.3459
78	30	40	631334	3470.01	DFT-s-OFDM 64 QAM	1@104	23.28	25.46	0.3516
78	30	40	631334	3470.01	DFT-s-OFDM 256 QAM	50@25	21.15	23.33	0.2153
78	30	40	631334	3470.01	DFT-s-OFDM 256 QAM	1@1	21.33	23.51	0.2244
78	30	40	631334	3470.01	DFT-s-OFDM 256 QAM	1@104	20.98	23.16	0.2070
78	30	40	631334	3470.01	CP-OFDM QPSK	53@26	23.9	26.08	0.4055
78	30	40	631334	3470.01	CP-OFDM QPSK	1@1	24.31	26.49	0.4457
78	30	40	631334	3470.01	CP-OFDM QPSK	1@104	24.2	26.38	0.4345
78	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	50@25	26.05	28.23	0.6653
78	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.33	28.51	0.7096
78	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@104	26.55	28.73	0.7464
78	30	40	633334	3500.01	DFT-s-OFDM QPSK	50@25	26.51	28.69	0.7396
78	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.84	29.02	0.7980
78	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@104	26.17	28.35	0.6839
78	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	50@25	24.6	26.78	0.4764
78	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.53	26.71	0.4688
78	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@104	24.7	26.88	0.4875
78	30	40	633334	3500.01	DFT-s-OFDM 64 QAM	50@25	23.08	25.26	0.3357
78	30	40	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.12	25.3	0.3388
78	30	40	633334	3500.01	DFT-s-OFDM 64 QAM	1@104	22.65	24.83	0.3041
78	30	40	633334	3500.01	DFT-s-OFDM 256 QAM	50@25	21.02	23.2	0.2089
78	30	40	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.3	23.48	0.2228



78	30	40	633334	3500.01	DFT-s-OFDM 256 QAM	1@104	20.99	23.17	0.2075
78	30	40	633334	3500.01	CP-OFDM QPSK	53@26	23.78	25.96	0.3945
78	30	40	633334	3500.01	CP-OFDM QPSK	1@1	24.27	26.45	0.4416
78	30	40	633334	3500.01	CP-OFDM QPSK	1@104	24.17	26.35	0.4315
78	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	50@25	26.17	28.35	0.6839
78	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	1@1	26.61	28.79	0.7568
78	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	1@104	25.98	28.16	0.6546
78	30	40	635332	3529.98	DFT-s-OFDM QPSK	50@25	26.45	28.63	0.7295
78	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@1	26.71	28.89	0.7745
78	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@104	26.44	28.62	0.7278
78	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	50@25	24.44	26.62	0.4592
78	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@1	24.63	26.81	0.4797
78	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@104	24.09	26.27	0.4236
78	30	40	635332	3529.98	DFT-s-OFDM 64 QAM	50@25	22.93	25.11	0.3243
78	30	40	635332	3529.98	DFT-s-OFDM 64 QAM	1@1	23.27	25.45	0.3508
78	30	40	635332	3529.98	DFT-s-OFDM 64 QAM	1@104	22.69	24.87	0.3069
78	30	40	635332	3529.98	DFT-s-OFDM 256 QAM	50@25	20.86	23.04	0.2014
78	30	40	635332	3529.98	DFT-s-OFDM 256 QAM	1@1	20.72	22.9	0.1950
78	30	40	635332	3529.98	DFT-s-OFDM 256 QAM	1@104	20.49	22.67	0.1849
78	30	40	635332	3529.98	CP-OFDM QPSK	53@26	24	26.18	0.4150
78	30	40	635332	3529.98	CP-OFDM QPSK	1@1	24.2	26.38	0.4345
78	30	40	635332	3529.98	CP-OFDM QPSK	1@104	23.99	26.17	0.4140
78	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	64@32	26.21	28.39	0.6902
78	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	1@1	26.52	28.7	0.7413

78	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	1@131	26.15	28.33	0.6808
78	30	50	631668	3475.02	DFT-s-OFDM QPSK	64@32	26.06	28.24	0.6668
78	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@1	26	28.18	0.6577
78	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@131	26.26	28.44	0.6982
78	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	64@32	24.45	26.63	0.4603
78	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	1@1	24.55	26.73	0.4710
78	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	1@131	24.02	26.2	0.4169
78	30	50	631668	3475.02	DFT-s-OFDM 64 QAM	64@32	22.94	25.12	0.3251
78	30	50	631668	3475.02	DFT-s-OFDM 64 QAM	1@1	23.03	25.21	0.3319
78	30	50	631668	3475.02	DFT-s-OFDM 64 QAM	1@131	22.64	24.82	0.3034
78	30	50	631668	3475.02	DFT-s-OFDM 256 QAM	64@32	21	23.18	0.2080
78	30	50	631668	3475.02	DFT-s-OFDM 256 QAM	1@1	20.72	22.9	0.1950
78	30	50	631668	3475.02	DFT-s-OFDM 256 QAM	1@131	20.76	22.94	0.1968
78	30	50	631668	3475.02	CP-OFDM QPSK	67@33	24	26.18	0.4150
78	30	50	631668	3475.02	CP-OFDM QPSK	1@1	24.12	26.3	0.4266
78	30	50	631668	3475.02	CP-OFDM QPSK	1@131	23.81	25.99	0.3972
78	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	64@32	25.93	28.11	0.6471
78	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.93	28.11	0.6471
78	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@131	25.85	28.03	0.6353
78	30	50	633334	3500.01	DFT-s-OFDM QPSK	64@32	25.96	28.14	0.6516
78	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.47	28.65	0.7328
78	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@131	26.2	28.38	0.6887
78	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	64@32	24.38	26.56	0.4529
78	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.5	26.68	0.4656

78	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@131	24.34	26.52	0.4487
78	30	50	633334	3500.01	DFT-s-OFDM 64 QAM	64@32	23.12	25.3	0.3388
78	30	50	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.22	25.4	0.3467
78	30	50	633334	3500.01	DFT-s-OFDM 64 QAM	1@131	23.22	25.4	0.3467
78	30	50	633334	3500.01	DFT-s-OFDM 256 QAM	64@32	20.8	22.98	0.1986
78	30	50	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	20.95	23.13	0.2056
78	30	50	633334	3500.01	DFT-s-OFDM 256 QAM	1@131	20.72	22.9	0.1950
78	30	50	633334	3500.01	CP-OFDM QPSK	67@33	23.91	26.09	0.4064
78	30	50	633334	3500.01	CP-OFDM QPSK	1@1	23.63	25.81	0.3811
78	30	50	633334	3500.01	CP-OFDM QPSK	1@131	23.87	26.05	0.4027
78	30	50	635000	3525.0	DFT-s-OFDM PI/2 BPSK	64@32	26.3	28.48	0.7047
78	30	50	635000	3525.0	DFT-s-OFDM PI/2 BPSK	1@1	25.89	28.07	0.6412
78	30	50	635000	3525.0	DFT-s-OFDM PI/2 BPSK	1@131	25.72	27.9	0.6166
78	30	50	635000	3525.0	DFT-s-OFDM QPSK	64@32	25.83	28.01	0.6324
78	30	50	635000	3525.0	DFT-s-OFDM QPSK	1@1	25.81	27.99	0.6295
78	30	50	635000	3525.0	DFT-s-OFDM QPSK	1@131	26.09	28.27	0.6714
78	30	50	635000	3525.0	DFT-s-OFDM 16 QAM	64@32	23.99	26.17	0.4140
78	30	50	635000	3525.0	DFT-s-OFDM 16 QAM	1@1	24.42	26.6	0.4571
78	30	50	635000	3525.0	DFT-s-OFDM 16 QAM	1@131	23.86	26.04	0.4018
78	30	50	635000	3525.0	DFT-s-OFDM 64 QAM	64@32	22.22	24.4	0.2754
78	30	50	635000	3525.0	DFT-s-OFDM 64 QAM	1@1	22.76	24.94	0.3119
78	30	50	635000	3525.0	DFT-s-OFDM 64 QAM	1@131	22.88	25.06	0.3206
78	30	50	635000	3525.0	DFT-s-OFDM 256 QAM	64@32	20.81	22.99	0.1991
78	30	50	635000	3525.0	DFT-s-OFDM 256 QAM	1@1	20.81	22.99	0.1991

78	30	50	635000	3525.0	DFT-s-OFDM 256 QAM	1@131	20.78	22.96	0.1977
78	30	50	635000	3525.0	CP-OFDM QPSK	67@33	23.8	25.98	0.3963
78	30	50	635000	3525.0	CP-OFDM QPSK	1@1	23.42	25.6	0.3631
78	30	50	635000	3525.0	CP-OFDM QPSK	1@131	23.69	25.87	0.3864
78	30	60	632000	3480.0	DFT-s-OFDM PI/2 BPSK	81@40	26.15	28.33	0.6808
78	30	60	632000	3480.0	DFT-s-OFDM PI/2 BPSK	1@1	24.91	27.09	0.5117
78	30	60	632000	3480.0	DFT-s-OFDM PI/2 BPSK	1@160	26.78	28.96	0.7870
78	30	60	632000	3480.0	DFT-s-OFDM QPSK	81@40	26.46	28.64	0.7311
78	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@1	25.25	27.43	0.5534
78	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@160	26.69	28.87	0.7709
78	30	60	632000	3480.0	DFT-s-OFDM 16 QAM	81@40	23.36	25.54	0.3581
78	30	60	632000	3480.0	DFT-s-OFDM 16 QAM	1@1	23.08	25.26	0.3357
78	30	60	632000	3480.0	DFT-s-OFDM 16 QAM	1@160	25.2	27.38	0.5470
78	30	60	632000	3480.0	DFT-s-OFDM 64 QAM	81@40	23.05	25.23	0.3334
78	30	60	632000	3480.0	DFT-s-OFDM 64 QAM	1@1	22.04	24.22	0.2642
78	30	60	632000	3480.0	DFT-s-OFDM 64 QAM	1@160	23.89	26.07	0.4046
78	30	60	632000	3480.0	DFT-s-OFDM 256 QAM	81@40	21.05	23.23	0.2104
78	30	60	632000	3480.0	DFT-s-OFDM 256 QAM	1@1	20.36	22.54	0.1795
78	30	60	632000	3480.0	DFT-s-OFDM 256 QAM	1@160	21.63	23.81	0.2404
78	30	60	632000	3480.0	CP-OFDM QPSK	81@40	23.99	26.17	0.4140
78	30	60	632000	3480.0	CP-OFDM QPSK	1@1	22.94	25.12	0.3251
78	30	60	632000	3480.0	CP-OFDM QPSK	1@160	24.82	27	0.5012
78	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	81@40	26.31	28.49	0.7063
78	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.39	27.57	0.5715

78	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@160	25.36	27.54	0.5675
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	81@40	26.37	28.55	0.7161
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.39	27.57	0.5715
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@160	26.66	28.84	0.7656
78	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	81@40	24	26.18	0.4150
78	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	23.02	25.2	0.3311
78	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@160	25.14	27.32	0.5395
78	30	60	633334	3500.01	DFT-s-OFDM 64 QAM	81@40	22.72	24.9	0.3090
78	30	60	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	21.75	23.93	0.2472
78	30	60	633334	3500.01	DFT-s-OFDM 64 QAM	1@160	23.76	25.94	0.3926
78	30	60	633334	3500.01	DFT-s-OFDM 256 QAM	81@40	20.89	23.07	0.2028
78	30	60	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.3	23.48	0.2228
78	30	60	633334	3500.01	DFT-s-OFDM 256 QAM	1@160	21.69	23.87	0.2438
78	30	60	633334	3500.01	CP-OFDM QPSK	81@40	22.36	24.54	0.2844
78	30	60	633334	3500.01	CP-OFDM QPSK	1@1	22.56	24.74	0.2979
78	30	60	633334	3500.01	CP-OFDM QPSK	1@160	24.41	26.59	0.4560
78	30	60	634666	3519.99	DFT-s-OFDM PI/2 BPSK	81@40	25.73	27.91	0.6180
78	30	60	634666	3519.99	DFT-s-OFDM PI/2 BPSK	1@1	24.83	27.01	0.5023
78	30	60	634666	3519.99	DFT-s-OFDM PI/2 BPSK	1@160	26.66	28.84	0.7656
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	81@40	26.18	28.36	0.6855
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@1	24.84	27.02	0.5035
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@160	26.66	28.84	0.7656
78	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	81@40	24.17	26.35	0.4315
78	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@1	23.27	25.45	0.3508

78	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@160	24.79	26.97	0.4977
78	30	60	634666	3519.99	DFT-s-OFDM 64 QAM	81@40	22.39	24.57	0.2864
78	30	60	634666	3519.99	DFT-s-OFDM 64 QAM	1@1	21.24	23.42	0.2198
78	30	60	634666	3519.99	DFT-s-OFDM 64 QAM	1@160	23.44	25.62	0.3648
78	30	60	634666	3519.99	DFT-s-OFDM 256 QAM	81@40	20.49	22.67	0.1849
78	30	60	634666	3519.99	DFT-s-OFDM 256 QAM	1@1	20.36	22.54	0.1795
78	30	60	634666	3519.99	DFT-s-OFDM 256 QAM	1@160	21.56	23.74	0.2366
78	30	60	634666	3519.99	CP-OFDM QPSK	81@40	23.66	25.84	0.3837
78	30	60	634666	3519.99	CP-OFDM QPSK	1@1	22.74	24.92	0.3105
78	30	60	634666	3519.99	CP-OFDM QPSK	1@160	24.23	26.41	0.4375
78	30	70	632334	3485.01	DFT-s-OFDM PI/2 BPSK	90@45	26.33	28.51	0.7096
78	30	70	632334	3485.01	DFT-s-OFDM PI/2 BPSK	1@1	26.48	28.66	0.7345
78	30	70	632334	3485.01	DFT-s-OFDM PI/2 BPSK	1@187	25.59	27.77	0.5984
78	30	70	632334	3485.01	DFT-s-OFDM QPSK	90@45	26.05	28.23	0.6653
78	30	70	632334	3485.01	DFT-s-OFDM QPSK	1@1	25.98	28.16	0.6546
78	30	70	632334	3485.01	DFT-s-OFDM QPSK	1@187	25.6	27.78	0.5998
78	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	90@45	24.4	26.58	0.4550
78	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	1@1	24.67	26.85	0.4842
78	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	1@187	24.15	26.33	0.4295
78	30	70	632334	3485.01	DFT-s-OFDM 64 QAM	90@45	22.94	25.12	0.3251
78	30	70	632334	3485.01	DFT-s-OFDM 64 QAM	1@1	23.01	25.19	0.3304
78	30	70	632334	3485.01	DFT-s-OFDM 64 QAM	1@187	22.62	24.8	0.3020
78	30	70	632334	3485.01	DFT-s-OFDM 256 QAM	90@45	20.87	23.05	0.2018
78	30	70	632334	3485.01	DFT-s-OFDM 256 QAM	1@1	20.63	22.81	0.1910

78	30	70	632334	3485.01	DFT-s-OFDM 256 QAM	1@187	20.42	22.6	0.1820
78	30	70	632334	3485.01	CP-OFDM QPSK	95@47	23.57	25.75	0.3758
78	30	70	632334	3485.01	CP-OFDM QPSK	1@1	23.75	25.93	0.3917
78	30	70	632334	3485.01	CP-OFDM QPSK	1@187	23.27	25.45	0.3508
78	30	70	633334	3485.01	DFT-s-OFDM PI/2 BPSK	90@45	26.4	28.58	0.7211
78	30	70	633334	3485.01	DFT-s-OFDM PI/2 BPSK	1@1	26.54	28.72	0.7447
78	30	70	633334	3485.01	DFT-s-OFDM PI/2 BPSK	1@187	26.03	28.21	0.6622
78	30	70	633334	3500.01	DFT-s-OFDM QPSK	90@45	25.93	28.11	0.6471
78	30	70	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.17	28.35	0.6839
78	30	70	633334	3500.01	DFT-s-OFDM QPSK	1@187	25.91	28.09	0.6442
78	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	90@45	24.28	26.46	0.4426
78	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.29	26.47	0.4436
78	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	1@187	23.79	25.97	0.3954
78	30	70	633334	3500.01	DFT-s-OFDM 64 QAM	90@45	22.77	24.95	0.3126
78	30	70	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	22.62	24.8	0.3020
78	30	70	633334	3500.01	DFT-s-OFDM 64 QAM	1@187	21.92	24.1	0.2570
78	30	70	633334	3500.01	DFT-s-OFDM 256 QAM	90@45	20.76	22.94	0.1968
78	30	70	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	20.71	22.89	0.1945
78	30	70	633334	3500.01	DFT-s-OFDM 256 QAM	1@187	20.49	22.67	0.1849
78	30	70	633334	3500.01	CP-OFDM QPSK	95@47	23.36	25.54	0.3581
78	30	70	633334	3500.01	CP-OFDM QPSK	1@1	23.31	25.49	0.3540
78	30	70	633334	3500.01	CP-OFDM QPSK	1@187	23.51	25.69	0.3707
78	30	70	634332	3514.98	DFT-s-OFDM PI/2 BPSK	90@45	25.96	28.14	0.6516
78	30	70	634332	3514.98	DFT-s-OFDM PI/2 BPSK	1@1	25.98	28.16	0.6546

78	30	70	634332	3514.98	DFT-s-OFDM PI/2 BPSK	1@187	25.45	27.63	0.5794
78	30	70	634332	3514.98	DFT-s-OFDM QPSK	90@45	25.45	27.63	0.5794
78	30	70	634332	3514.98	DFT-s-OFDM QPSK	1@1	26.44	28.62	0.7278
78	30	70	634332	3514.98	DFT-s-OFDM QPSK	1@187	25.56	27.74	0.5943
78	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	90@45	24.6	26.78	0.4764
78	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	1@1	24.5	26.68	0.4656
78	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	1@187	24.09	26.27	0.4236
78	30	70	634332	3514.98	DFT-s-OFDM 64 QAM	90@45	22.5	24.68	0.2938
78	30	70	634332	3514.98	DFT-s-OFDM 64 QAM	1@1	22.69	24.87	0.3069
78	30	70	634332	3514.98	DFT-s-OFDM 64 QAM	1@187	22.18	24.36	0.2729
78	30	70	634332	3514.98	DFT-s-OFDM 256 QAM	90@45	20.74	22.92	0.1959
78	30	70	634332	3514.98	DFT-s-OFDM 256 QAM	1@1	20.71	22.89	0.1945
78	30	70	634332	3514.98	DFT-s-OFDM 256 QAM	1@187	20.21	22.39	0.1734
78	30	70	634332	3514.98	CP-OFDM QPSK	95@47	23.76	25.94	0.3926
78	30	70	634332	3514.98	CP-OFDM QPSK	1@1	23.63	25.81	0.3811
78	30	70	634332	3514.98	CP-OFDM QPSK	1@187	23.34	25.52	0.3565
78	30	80	632668	3514.98	DFT-s-OFDM PI/2 BPSK	108@54	25.85	28.03	0.6353
78	30	80	632668	3514.98	DFT-s-OFDM PI/2 BPSK	1@1	25.93	28.11	0.6471
78	30	80	632668	3514.98	DFT-s-OFDM PI/2 BPSK	1@215	26.01	28.19	0.6592
78	30	80	632668	3490.02	DFT-s-OFDM QPSK	108@54	26.48	28.66	0.7345
78	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@1	26.4	28.58	0.7211
78	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@215	25.6	27.78	0.5998
78	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	108@54	24.11	26.29	0.4256
78	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@1	24.52	26.7	0.4677



78	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@215	24.14	26.32	0.4285
78	30	80	632668	3490.02	DFT-s-OFDM 64 QAM	108@54	22.52	24.7	0.2951
78	30	80	632668	3490.02	DFT-s-OFDM 64 QAM	1@1	22.57	24.75	0.2985
78	30	80	632668	3490.02	DFT-s-OFDM 64 QAM	1@215	22.08	24.26	0.2667
78	30	80	632668	3490.02	DFT-s-OFDM 256 QAM	108@54	21.08	23.26	0.2118
78	30	80	632668	3490.02	DFT-s-OFDM 256 QAM	1@1	20.98	23.16	0.2070
78	30	80	632668	3490.02	DFT-s-OFDM 256 QAM	1@215	20.6	22.78	0.1897
78	30	80	632668	3490.02	CP-OFDM QPSK	109@54	23.91	26.09	0.4064
78	30	80	632668	3490.02	CP-OFDM QPSK	1@1	24.08	26.26	0.4227
78	30	80	632668	3490.02	CP-OFDM QPSK	1@215	23.59	25.77	0.3776
78	30	80	633334	3490.02	DFT-s-OFDM PI/2 BPSK	108@54	26.42	28.6	0.7244
78	30	80	633334	3490.02	DFT-s-OFDM PI/2 BPSK	1@1	26.48	28.66	0.7345
78	30	80	633334	3490.02	DFT-s-OFDM PI/2 BPSK	1@215	26.35	28.53	0.7129
78	30	80	633334	3490.02	DFT-s-OFDM QPSK	108@54	26.15	28.33	0.6808
78	30	80	633334	3490.02	DFT-s-OFDM QPSK	1@1	26.53	28.71	0.7430
78	30	80	633334	3490.02	DFT-s-OFDM QPSK	1@215	26.15	28.33	0.6808
78	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	108@54	24.32	26.5	0.4467
78	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.62	26.8	0.4786
78	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@215	23.82	26	0.3981
78	30	80	633334	3500.01	DFT-s-OFDM 64 QAM	108@54	22.85	25.03	0.3184
78	30	80	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	22.66	24.84	0.3048
78	30	80	633334	3500.01	DFT-s-OFDM 64 QAM	1@215	22.47	24.65	0.2917
78	30	80	633334	3500.01	DFT-s-OFDM 256 QAM	108@54	20.76	22.94	0.1968
78	30	80	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.05	23.23	0.2104

78	30	80	633334	3500.01	DFT-s-OFDM 256 QAM	1@215	20.54	22.72	0.1871
78	30	80	633334	3500.01	CP-OFDM QPSK	109@54	23.36	25.54	0.3581
78	30	80	633334	3500.01	CP-OFDM QPSK	1@1	24.12	26.3	0.4266
78	30	80	633334	3500.01	CP-OFDM QPSK	1@215	23.58	25.76	0.3767
78	30	80	634000	3510.0	DFT-s-OFDM PI/2 BPSK	108@54	26.38	28.56	0.7178
78	30	80	634000	3510.0	DFT-s-OFDM PI/2 BPSK	1@1	25.97	28.15	0.6531
78	30	80	634000	3510.0	DFT-s-OFDM PI/2 BPSK	1@215	26.07	28.25	0.6683
78	30	80	634000	3510.0	DFT-s-OFDM QPSK	108@54	26.39	28.57	0.7194
78	30	80	634000	3510.0	DFT-s-OFDM QPSK	1@1	26.55	28.73	0.7464
78	30	80	634000	3510.0	DFT-s-OFDM QPSK	1@215	26.14	28.32	0.6792
78	30	80	634000	3510.0	DFT-s-OFDM 16 QAM	108@54	24.32	26.5	0.4467
78	30	80	634000	3510.0	DFT-s-OFDM 16 QAM	1@1	24.76	26.94	0.4943
78	30	80	634000	3510.0	DFT-s-OFDM 16 QAM	1@215	24.22	26.4	0.4365
78	30	80	634000	3510.0	DFT-s-OFDM 64 QAM	108@54	22.52	24.7	0.2951
78	30	80	634000	3510.0	DFT-s-OFDM 64 QAM	1@1	23.12	25.3	0.3388
78	30	80	634000	3510.0	DFT-s-OFDM 64 QAM	1@215	22.46	24.64	0.2911
78	30	80	634000	3510.0	DFT-s-OFDM 256 QAM	108@54	20.8	22.98	0.1986
78	30	80	634000	3510.0	DFT-s-OFDM 256 QAM	1@1	20.7	22.88	0.1941
78	30	80	634000	3510.0	DFT-s-OFDM 256 QAM	1@215	20.23	22.41	0.1742
78	30	80	634000	3510.0	CP-OFDM QPSK	109@54	23.46	25.64	0.3664
78	30	80	634000	3510.0	CP-OFDM QPSK	1@1	24.19	26.37	0.4335
78	30	80	634000	3510.0	CP-OFDM QPSK	1@215	23.17	25.35	0.3428
78	30	90	633000	3495.0	DFT-s-OFDM PI/2 BPSK	120@60	26.07	28.25	0.6683
78	30	90	633000	3495.0	DFT-s-OFDM PI/2 BPSK	1@1	26.56	28.74	0.7482

78	30	90	633000	3495.0	DFT-s-OFDM PI/2 BPSK	1@243	25.98	28.16	0.6546
78	30	90	633000	3495.0	DFT-s-OFDM QPSK	120@60	25.85	28.03	0.6353
78	30	90	633000	3495.0	DFT-s-OFDM QPSK	1@1	26.08	28.26	0.6699
78	30	90	633000	3495.0	DFT-s-OFDM QPSK	1@243	26.08	28.26	0.6699
78	30	90	633000	3495.0	DFT-s-OFDM 16 QAM	120@60	23.93	26.11	0.4083
78	30	90	633000	3495.0	DFT-s-OFDM 16 QAM	1@1	24.12	26.3	0.4266
78	30	90	633000	3495.0	DFT-s-OFDM 16 QAM	1@243	24.13	26.31	0.4276
78	30	90	633000	3495.0	DFT-s-OFDM 64 QAM	120@60	22.79	24.97	0.3141
78	30	90	633000	3495.0	DFT-s-OFDM 64 QAM	1@1	22.94	25.12	0.3251
78	30	90	633000	3495.0	DFT-s-OFDM 64 QAM	1@243	22.48	24.66	0.2924
78	30	90	633000	3495.0	DFT-s-OFDM 256 QAM	120@60	20.8	22.98	0.1986
78	30	90	633000	3495.0	DFT-s-OFDM 256 QAM	1@1	20.62	22.8	0.1905
78	30	90	633000	3495.0	DFT-s-OFDM 256 QAM	1@243	20.16	22.34	0.1714
78	30	90	633000	3495.0	CP-OFDM QPSK	123@61	23.49	25.67	0.3690
78	30	90	633000	3495.0	CP-OFDM QPSK	1@1	24.1	26.28	0.4246
78	30	90	633000	3495.0	CP-OFDM QPSK	1@243	23.71	25.89	0.3882
78	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	120@60	26.35	28.53	0.7129
78	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.37	28.55	0.7161
78	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@243	26.36	28.54	0.7145
78	30	90	633334	3500.01	DFT-s-OFDM QPSK	120@60	25.91	28.09	0.6442
78	30	90	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.12	28.3	0.6761
78	30	90	633334	3500.01	DFT-s-OFDM QPSK	1@243	26.11	28.29	0.6745
78	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	120@60	24.37	26.55	0.4519
78	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.6	26.78	0.4764

78	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	1@243	23.7	25.88	0.3873
78	30	90	633334	3500.01	DFT-s-OFDM 64 QAM	120@60	22.83	25.01	0.3170
78	30	90	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	22.85	25.03	0.3184
78	30	90	633334	3500.01	DFT-s-OFDM 64 QAM	1@243	22.36	24.54	0.2844
78	30	90	633334	3500.01	DFT-s-OFDM 256 QAM	120@60	20.65	22.83	0.1919
78	30	90	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	20.96	23.14	0.2061
78	30	90	633334	3500.01	DFT-s-OFDM 256 QAM	1@243	20.28	22.46	0.1762
78	30	90	633334	3500.01	CP-OFDM QPSK	123@61	23.52	25.7	0.3715
78	30	90	633334	3500.01	CP-OFDM QPSK	1@1	23.61	25.79	0.3793
78	30	90	633334	3500.01	CP-OFDM QPSK	1@243	23.63	25.81	0.3811
78	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	120@60	26.43	28.61	0.7261
78	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	1@1	26.16	28.34	0.6823
78	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	1@243	25.69	27.87	0.6124
78	30	90	633666	3504.99	DFT-s-OFDM QPSK	120@60	26.04	28.22	0.6637
78	30	90	633666	3504.99	DFT-s-OFDM QPSK	1@1	26.15	28.33	0.6808
78	30	90	633666	3504.99	DFT-s-OFDM QPSK	1@243	26.02	28.2	0.6607
78	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	120@60	23.9	26.08	0.4055
78	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	1@1	24.27	26.45	0.4416
78	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	1@243	23.92	26.1	0.4074
78	30	90	633666	3504.99	DFT-s-OFDM 64 QAM	120@60	22.77	24.95	0.3126
78	30	90	633666	3504.99	DFT-s-OFDM 64 QAM	1@1	22.85	25.03	0.3184
78	30	90	633666	3504.99	DFT-s-OFDM 64 QAM	1@243	22.33	24.51	0.2825
78	30	90	633666	3504.99	DFT-s-OFDM 256 QAM	120@60	20.4	22.58	0.1811
78	30	90	633666	3504.99	DFT-s-OFDM 256 QAM	1@1	20.88	23.06	0.2023

78	30	90	633666	3504.99	DFT-s-OFDM 256 QAM	1@243	20.47	22.65	0.1841
78	30	90	633666	3504.99	CP-OFDM QPSK	123@61	23.36	25.54	0.3581
78	30	90	633666	3504.99	CP-OFDM QPSK	1@1	23.36	25.54	0.3581
78	30	90	633666	3504.99	CP-OFDM QPSK	1@243	23.48	25.66	0.3681
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	135@67	26.06	28.24	0.6668
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.01	28.19	0.6592
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@271	26.11	28.29	0.6745
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	135@67	26.4	28.58	0.7211
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.86	29.04	0.8017
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@271	26.15	28.33	0.6808
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	135@67	24.07	26.25	0.4217
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.66	26.84	0.4831
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@271	24.26	26.44	0.4406
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	135@67	23	25.18	0.3296
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	22.92	25.1	0.3236
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@271	22.33	24.51	0.2825
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	135@67	20.85	23.03	0.2009
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	20.81	22.99	0.1991
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@271	20.52	22.7	0.1862
78	30	100	633334	3500.01	CP-OFDM QPSK	137@68	23.53	25.71	0.3724
78	30	100	633334	3500.01	CP-OFDM QPSK	1@1	23.96	26.14	0.4111
78	30	100	633334	3500.01	CP-OFDM QPSK	1@271	23.68	25.86	0.3855

## Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.28248	PASS	NV
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.32048	PASS	LV
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.29623	PASS	HV
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.25538	PASS	-30°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.26977	PASS	-20°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.26771	PASS	-10°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.27547	PASS	0°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.32815	PASS	10°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.29625	PASS	20°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.31295	PASS	30°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.28605	PASS	40°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.32048	PASS	50°C

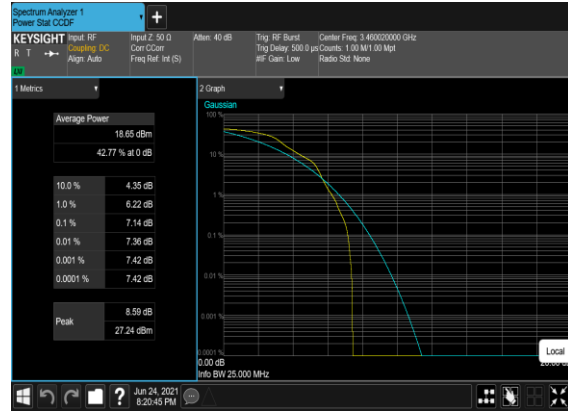
## Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
78	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	50@0	6.98	13	PASS
78	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@0	7.14	13	PASS
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	50@0	8.11	13	PASS
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	8.96	13	PASS
78	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	50@0	6.72	13	PASS
78	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@0	7.14	13	PASS
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	8.19	13	PASS
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	9.15	13	PASS
78	30	20	636000	3540.0	DFT-s-OFDM PI/2 BPSK	50@0	7.04	13	PASS
78	30	20	636000	3540.0	DFT-s-OFDM PI/2 BPSK	1@0	9.24	13	PASS
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	50@0	8.19	13	PASS
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	9.22	13	PASS

N78(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Outer\_Full\_Low\_CH



N78(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Edge\_1RB\_Left\_Low\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Low\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



N78(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Outer\_Full\_Mid\_CH



N78(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Edge\_1RB\_Left\_Mid\_CH





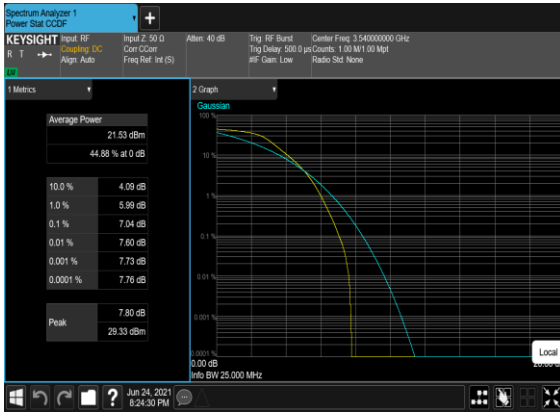
N78(20M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



N78(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Outer\_Full\_High\_CH



N78(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Edge\_1RB\_Left\_High\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_High\_CH



N78(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)
78	30	20	633334	3540.0	DFT-s-OFDM PI/2 BPSK	50@0	17.803	18.9
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	17.819	19.09
78	30	20	633334	3500.01	CP-OFDM QPSK	51@0	18.186	19.39
78	30	20	633334	3500.01	CP-OFDM 16 QAM	51@0	18.245	19.25
78	30	20	633334	3500.01	CP-OFDM 64 QAM	51@0	18.223	19.37
78	30	20	633334	3500.01	CP-OFDM 256 QAM	51@0	18.207	19.44
78	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	75@0	26.766	28.17
78	30	30	633334	3500.01	DFT-s-OFDM QPSK	75@0	26.768	27.98
78	30	30	633334	3500.01	CP-OFDM QPSK	78@0	27.848	29.12
78	30	30	633334	3500.01	CP-OFDM 16 QAM	78@0	27.844	29.16
78	30	30	633334	3500.01	CP-OFDM 64 QAM	78@0	27.86	28.95
78	30	30	633334	3500.01	CP-OFDM 256 QAM	78@0	27.823	29.26
78	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	35.7	37.24
78	30	40	633334	3500.01	DFT-s-OFDM QPSK	100@0	35.692	37.34
78	30	40	633334	3500.01	CP-OFDM QPSK	106@0	37.761	39.39
78	30	40	633334	3500.01	CP-OFDM 16 QAM	106@0	37.799	39.56
78	30	40	633334	3500.01	CP-OFDM 64 QAM	106@0	37.799	39.35
78	30	40	633334	3500.01	CP-OFDM 256 QAM	106@0	37.744	39.18
78	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	128@0	45.751	47.59
78	30	50	633334	3500.01	DFT-s-OFDM QPSK	128@0	45.685	47.22
78	30	50	633334	3500.01	CP-OFDM QPSK	133@0	47.48	48.98
78	30	50	633334	3500.01	CP-OFDM 16 QAM	133@0	47.449	49.01
78	30	50	633334	3500.01	CP-OFDM 64 QAM	133@0	47.43	49.22
78	30	50	633334	3500.01	CP-OFDM 256 QAM	133@0	47.4	49.09

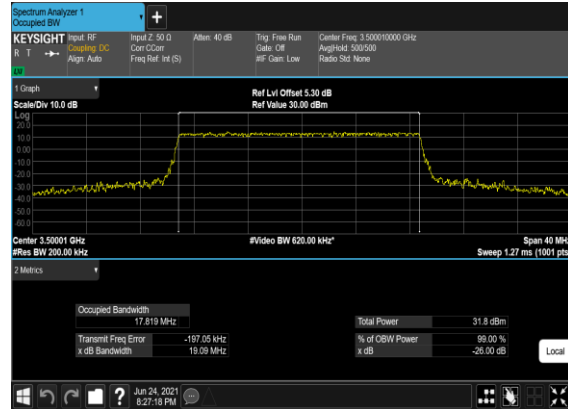
78	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	57.851	59.92
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	162@0	57.835	59.97
78	30	60	633334	3500.01	CP-OFDM QPSK	162@0	57.889	59.84
78	30	60	633334	3500.01	CP-OFDM 16 QAM	162@0	57.829	59.79
78	30	60	633334	3500.01	CP-OFDM 64 QAM	162@0	57.884	59.99
78	30	60	633334	3500.01	CP-OFDM 256 QAM	162@0	57.846	59.79
78	30	70	633334	3500.01	DFT-s-OFDM PI/2 BPSK	180@0	64.226	66.5
78	30	70	633334	3500.01	DFT-s-OFDM QPSK	180@0	64.265	66.38
78	30	70	633334	3500.01	CP-OFDM QPSK	189@0	67.443	69.54
78	30	70	633334	3500.01	CP-OFDM 16 QAM	189@0	67.448	69.82
78	30	70	633334	3500.01	CP-OFDM 64 QAM	189@0	67.505	69.64
78	30	70	633334	3500.01	CP-OFDM 256 QAM	189@0	67.276	69.56
78	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	216@0	77.156	79.59
78	30	80	633334	3500.01	DFT-s-OFDM QPSK	216@0	77.101	79.61
78	30	80	633334	3500.01	CP-OFDM QPSK	217@0	77.468	80.13
78	30	80	633334	3500.01	CP-OFDM 16 QAM	217@0	77.535	80.04
78	30	80	633334	3500.01	CP-OFDM 64 QAM	217@0	77.401	80.14
78	30	80	633334	3500.01	CP-OFDM 256 QAM	217@0	77.425	80.05
78	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	240@0	85.628	88.6
78	30	90	633334	3500.01	DFT-s-OFDM QPSK	240@0	85.635	88.59
78	30	90	633334	3500.01	CP-OFDM QPSK	245@0	87.458	90.41
78	30	90	633334	3500.01	CP-OFDM 16 QAM	245@0	87.515	90.38
78	30	90	633334	3500.01	CP-OFDM 64 QAM	245@0	87.238	90.28
78	30	90	633334	3500.01	CP-OFDM 256 QAM	245@0	87.516	90.41
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	270@0	96.61	99.04
78	30	100	633334	3500.01	DFT-s-OFDM	270@0	96.448	99.55

QPSK								
78	30	100	633334	3500.01	CP-OFDM QPSK	273@0	97.389	100.5
78	30	100	633334	3500.01	CP-OFDM 16 QAM	273@0	97.347	100.6
78	30	100	633334	3500.01	CP-OFDM 64 QAM	273@0	97.2	100.5
78	30	100	633334	3500.01	CP-OFDM 256 QAM	273@0	97.366	100.5

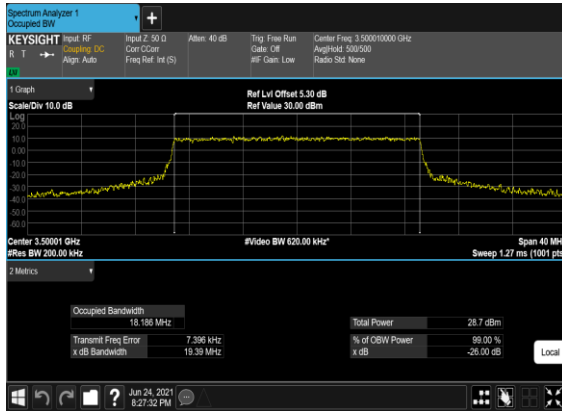
### N78(20M)\_DFT-s-OFDM\_PI\_2- BPSK\_Outer\_Full\_Mid\_CH



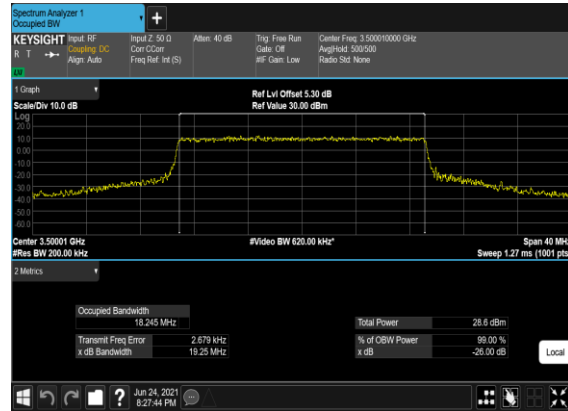
### N78(20M)\_DFT-s- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



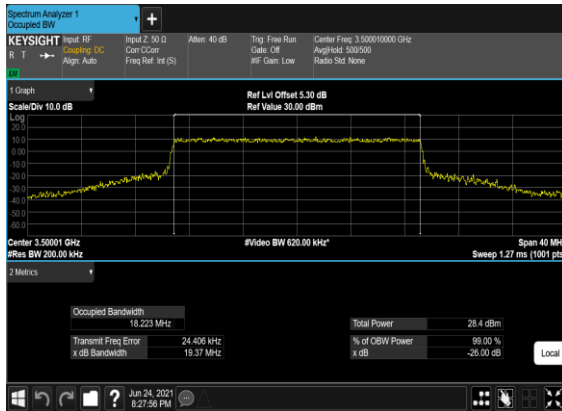
### N78(20M)\_CP- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



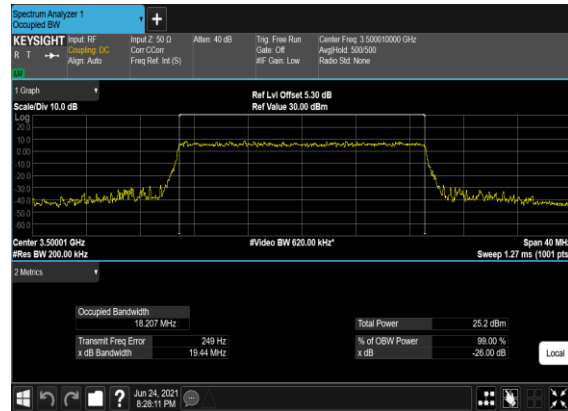
### N78(20M)\_CP-OFDM\_16 QAM\_Outer\_Full\_Mid\_CH



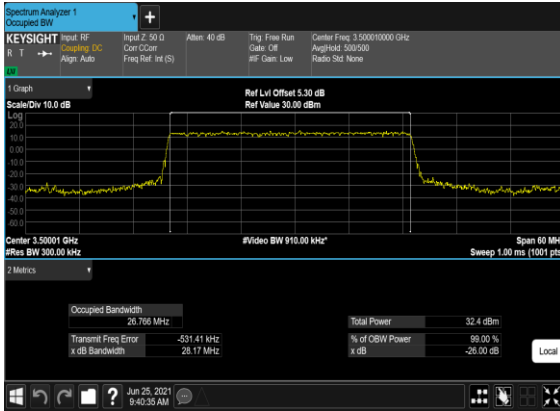
### N78(20M)\_CP-OFDM\_64 QAM\_Outer\_Full\_Mid\_CH



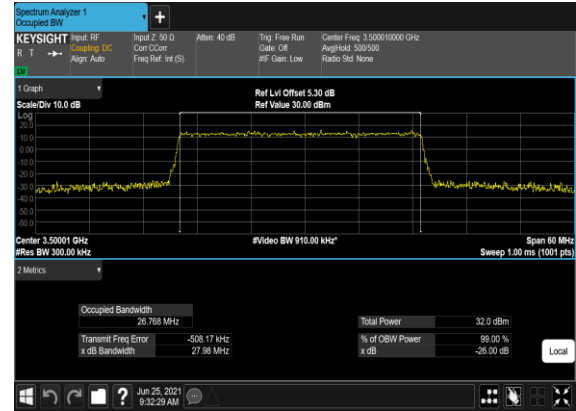
### N78(20M)\_CP-OFDM\_256 QAM\_Outer\_Full\_Mid\_CH



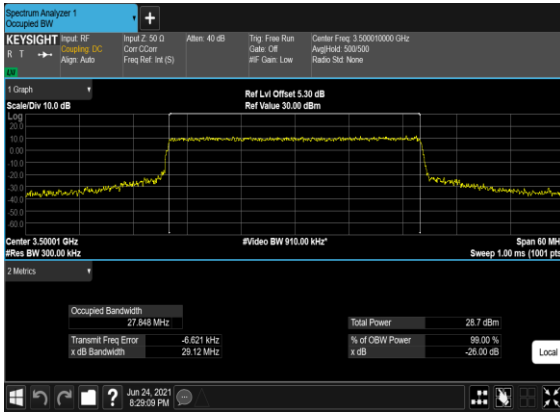
### N78(30M)\_DFT-s-OFDM\_PI\_2-BPSK\_Outer\_Full\_Mid\_CH



### N78(30M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



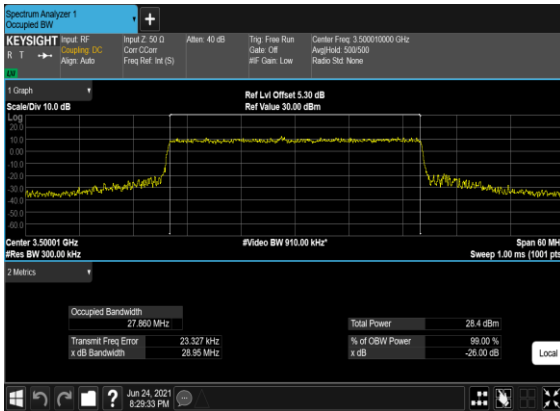
### N78(30M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



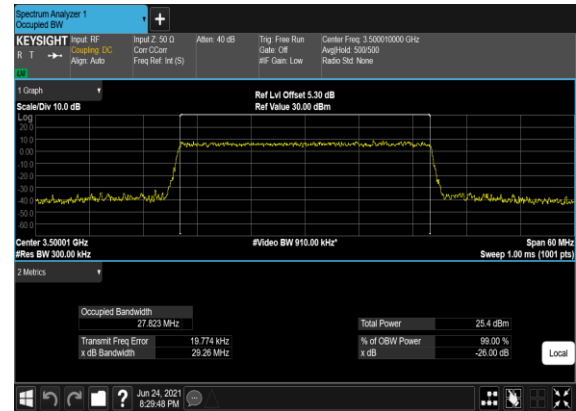
### N78(30M)\_CP-OFDM\_16QAM\_Outer\_Full\_Mid\_CH



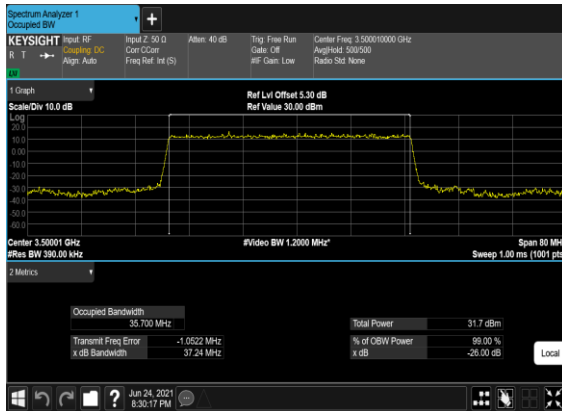
### N78(30M)\_CP-OFDM\_64QAM\_Outer\_Full\_Mid\_CH



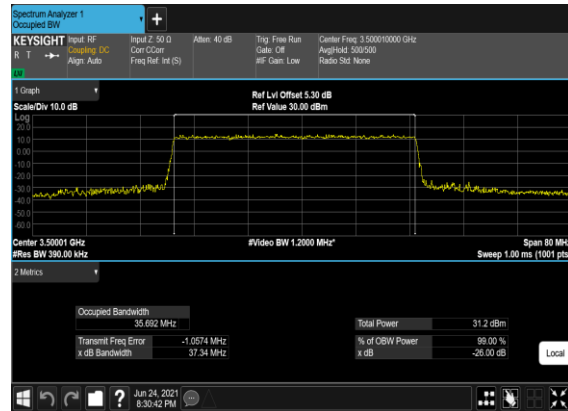
### N78(30M)\_CP-OFDM\_256QAM\_Outer\_Full\_Mid\_CH



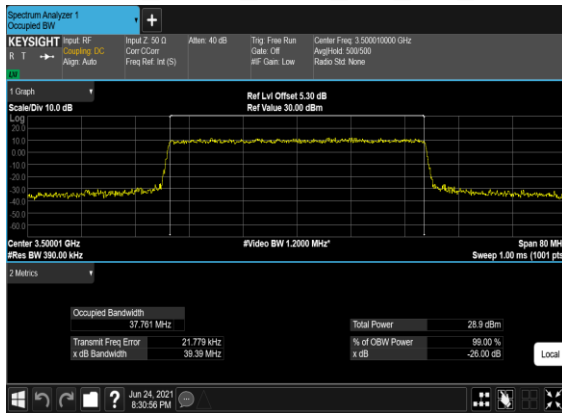
### N78(40M)\_DFT-s-OFDM\_PI\_2-BPSK\_Outer\_Full\_Mid\_CH



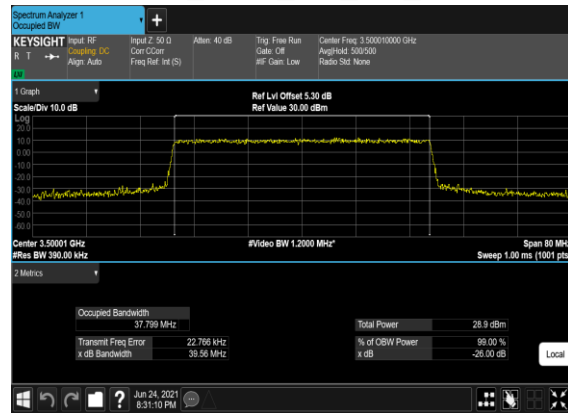
### N78(40M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



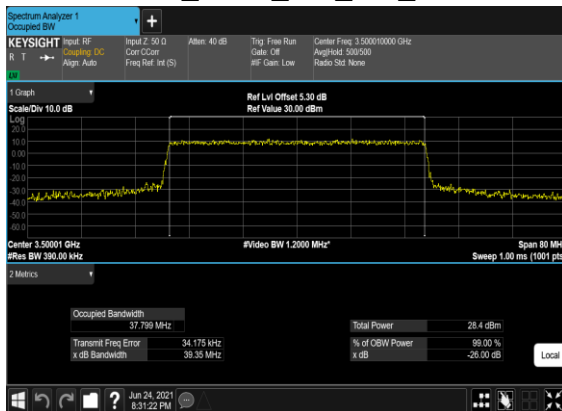
### N78(40M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



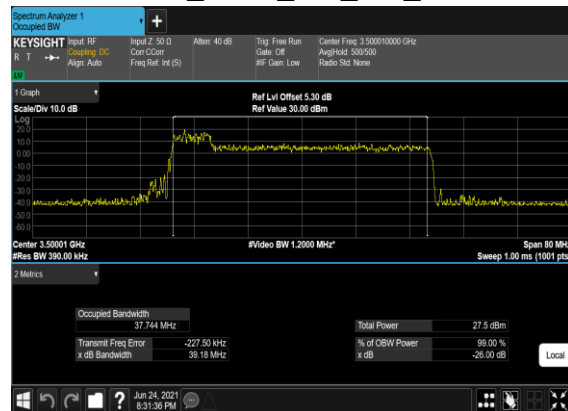
### N78(40M)\_CP-OFDM\_16QAM\_Outer\_Full\_Mid\_CH



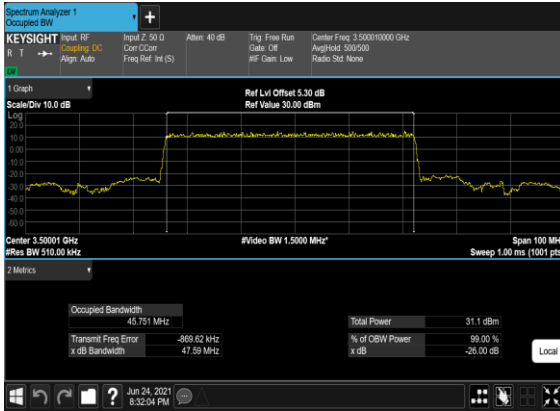
### N78(40M)\_CP-OFDM\_64QAM\_Outer\_Full\_Mid\_CH



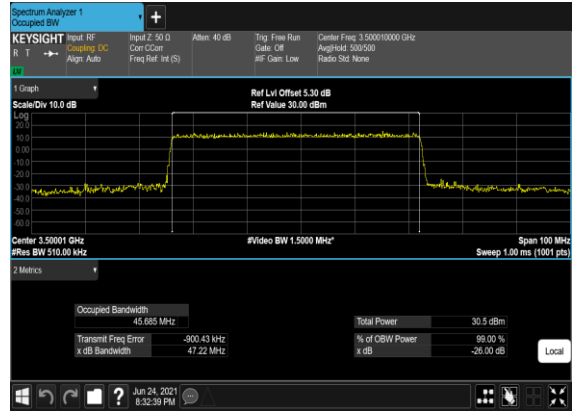
### N78(40M)\_CP-OFDM\_256QAM\_Outer\_Full\_Mid\_CH



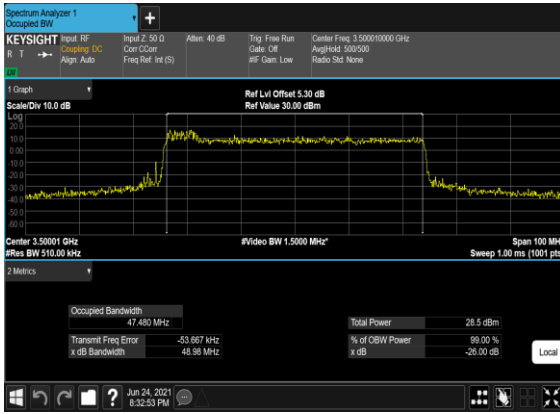
### N78(50M)\_DFT-s-OFDM\_PI\_2- BPSK\_Outer\_Full\_Mid\_CH



### N78(50M)\_DFT-s- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



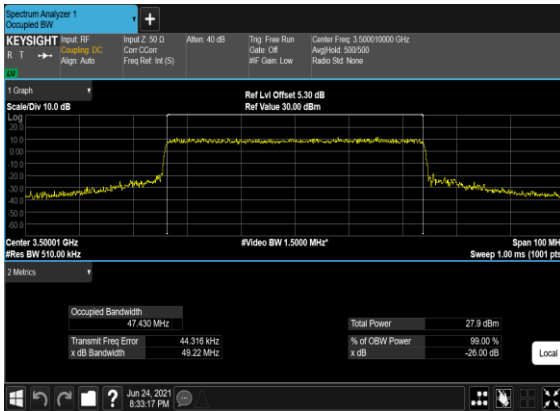
### N78(50M)\_CP- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



### N78(50M)\_CP-OFDM\_16 QAM\_Outer\_Full\_Mid\_CH



### N78(50M)\_CP-OFDM\_64 QAM\_Outer\_Full\_Mid\_CH

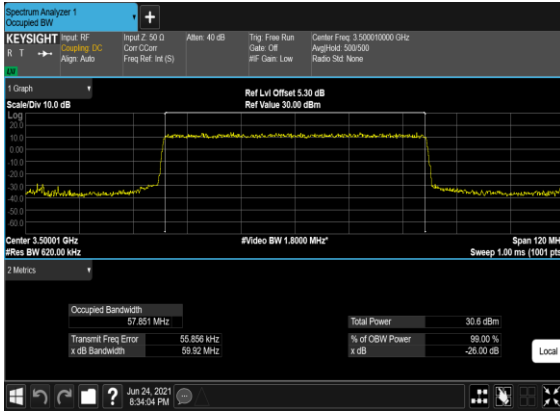


### N78(50M)\_CP-OFDM\_256 QAM\_Outer\_Full\_Mid\_CH

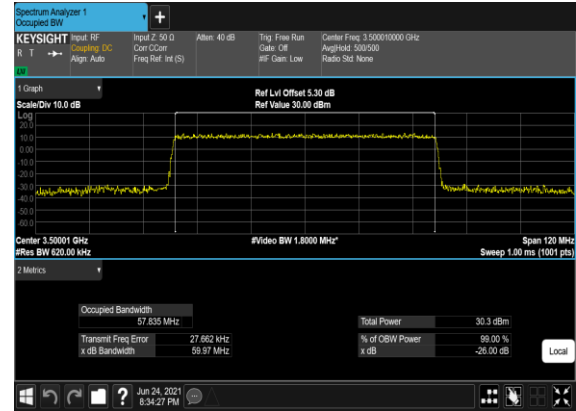




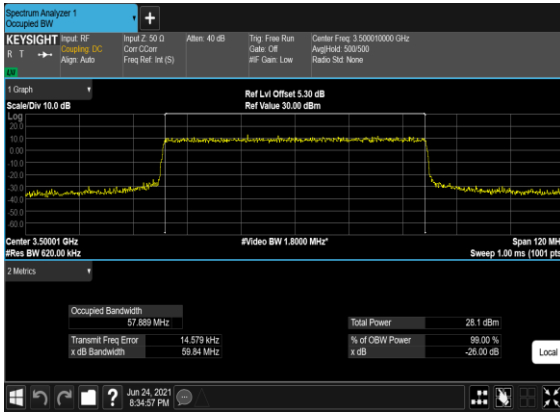
### N78(60M)\_DFT-s-OFDM\_PI\_2- BPSK\_Outer\_Full\_Mid\_CH



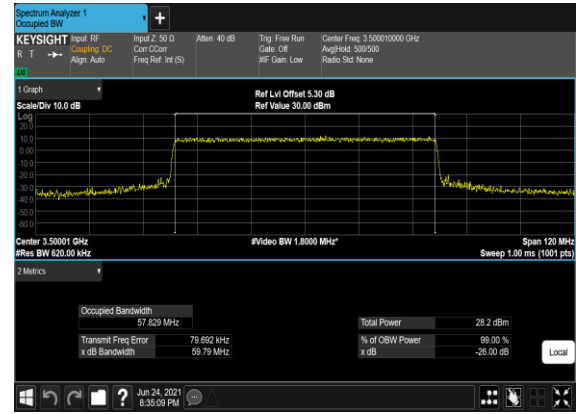
### N78(60M)\_DFT-s- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



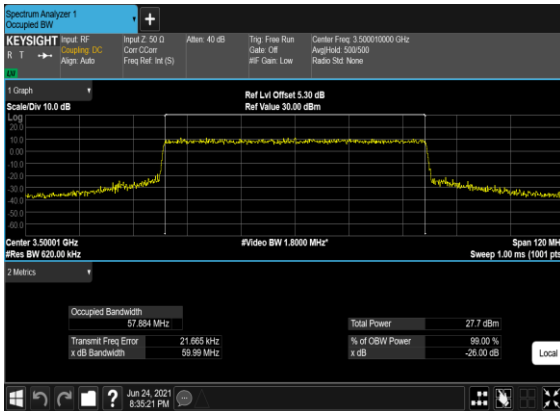
### N78(60M)\_CP- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



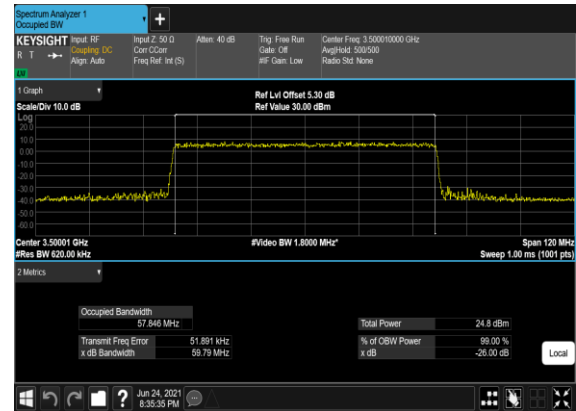
### N78(60M)\_CP-OFDM\_16 QAM\_Outer\_Full\_Mid\_CH



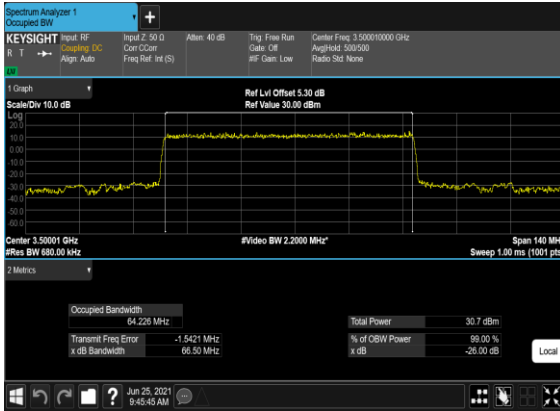
### N78(60M)\_CP-OFDM\_64 QAM\_Outer\_Full\_Mid\_CH



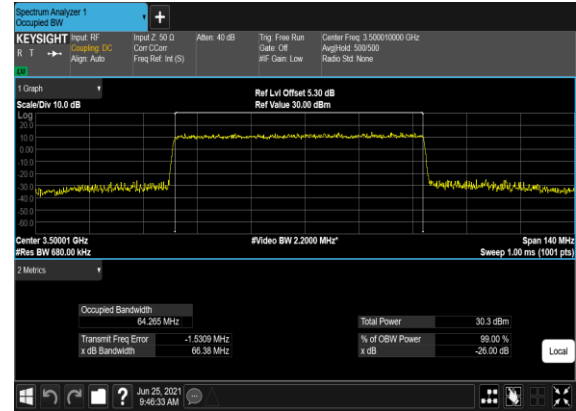
### N78(60M)\_CP-OFDM\_256 QAM\_Outer\_Full\_Mid\_CH



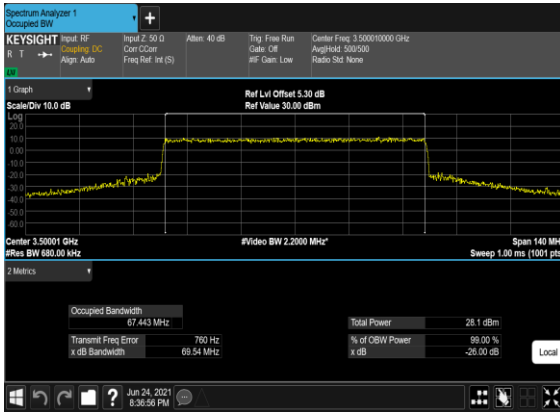
N78(70M)\_DFT-s-OFDM\_PI\_2-  
BPSK\_Outer\_Full\_Mid\_CH



N78(70M)\_DFT-s-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



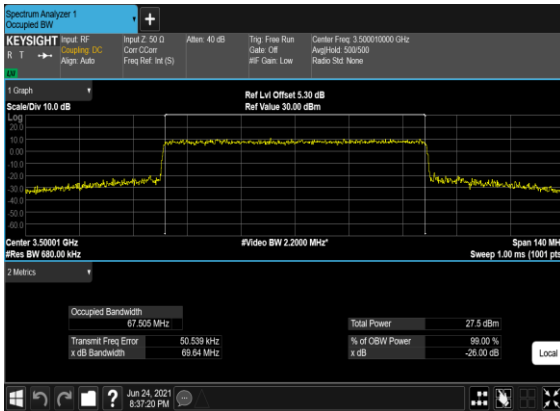
N78(70M)\_CP-  
OFDM\_QPSK\_Outer\_Full\_Mid\_CH



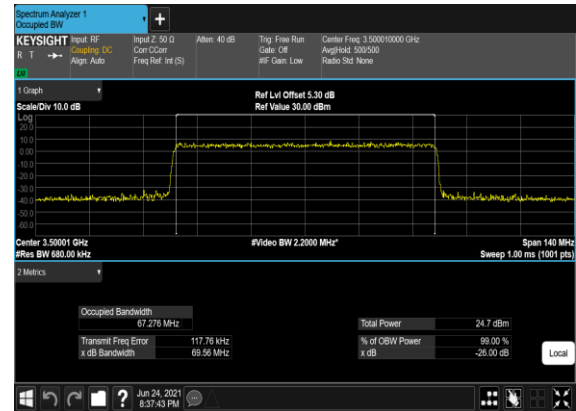
N78(70M)\_CP-OFDM\_16  
QAM\_Outer\_Full\_Mid\_CH



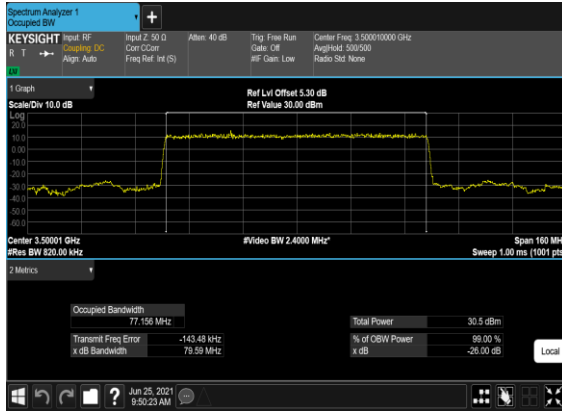
N78(70M)\_CP-OFDM\_64  
QAM\_Outer\_Full\_Mid\_CH



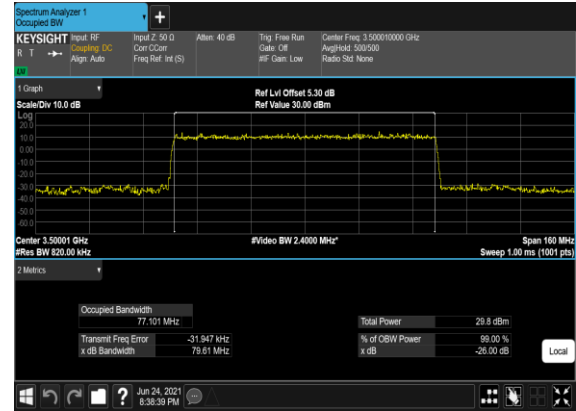
N78(70M)\_CP-OFDM\_256  
QAM\_Outer\_Full\_Mid\_CH



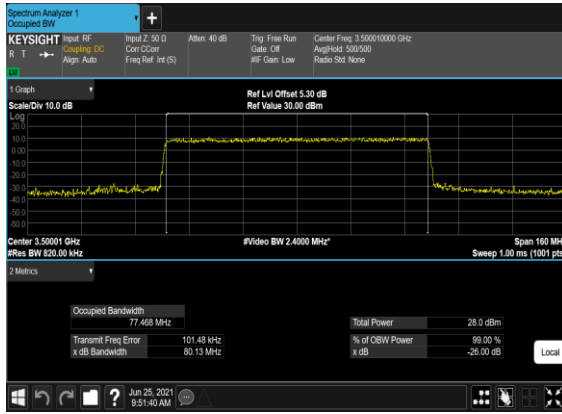
### N78(80M)\_DFT-s-OFDM\_PI\_2-BPSK\_Outer\_Full\_Mid\_CH



### N78(80M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



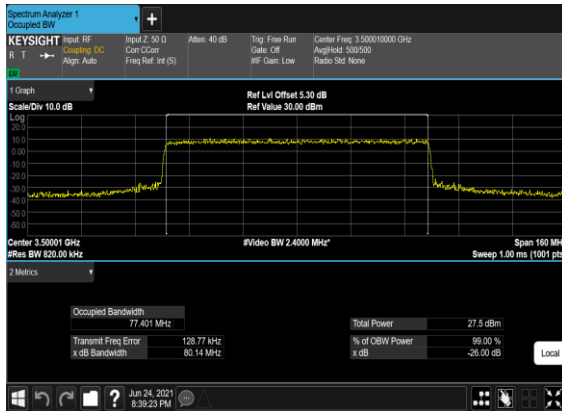
### N78(80M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



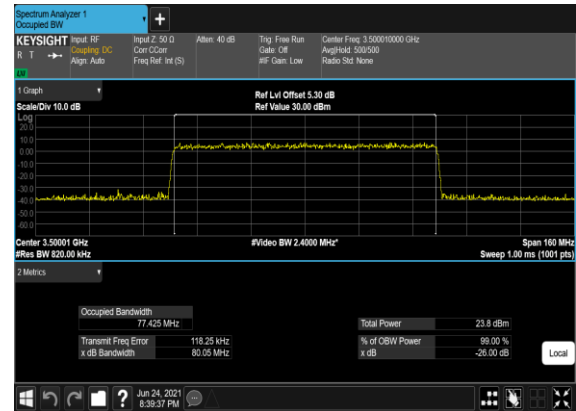
### N78(80M)\_CP-OFDM\_16QAM\_Outer\_Full\_Mid\_CH



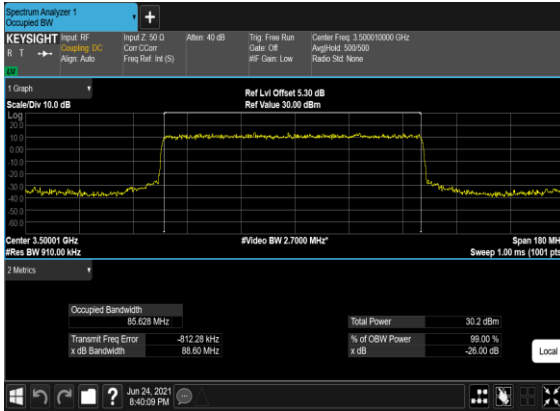
### N78(80M)\_CP-OFDM\_64QAM\_Outer\_Full\_Mid\_CH



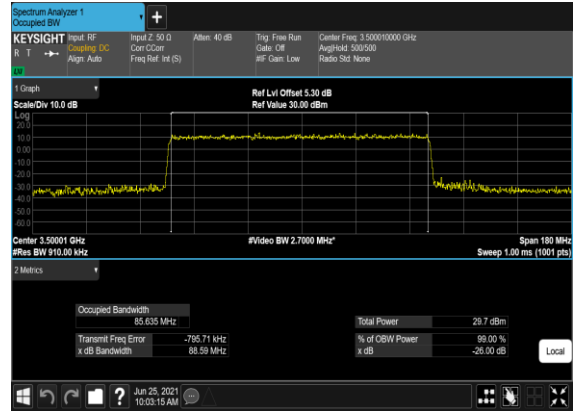
### N78(80M)\_CP-OFDM\_256QAM\_Outer\_Full\_Mid\_CH



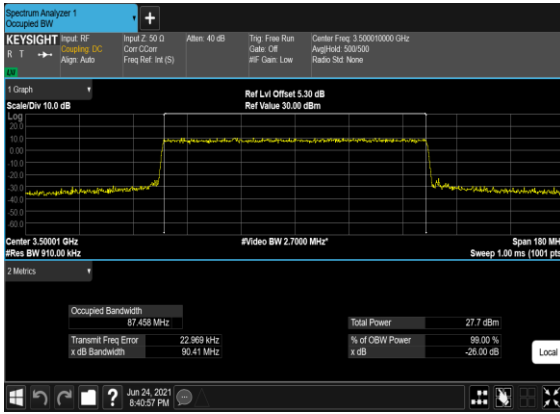
### N78(90M)\_DFT-s-OFDM\_PI\_2- BPSK\_Outer\_Full\_Mid\_CH



### N78(90M)\_DFT-s- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



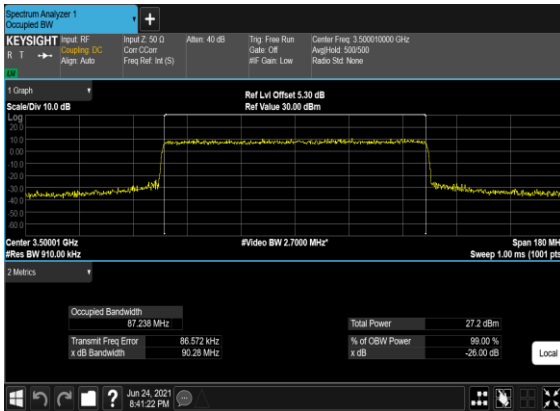
### N78(90M)\_CP- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



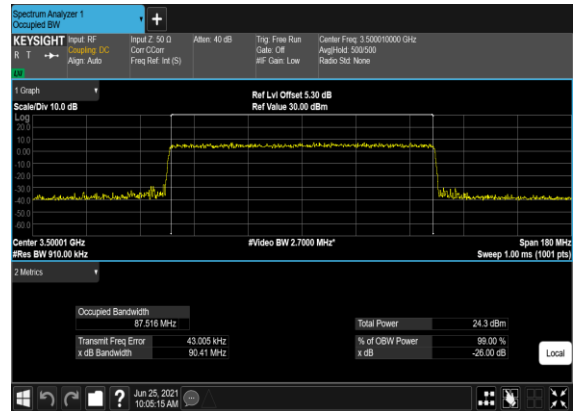
### N78(90M)\_CP-OFDM\_16 QAM\_Outer\_Full\_Mid\_CH



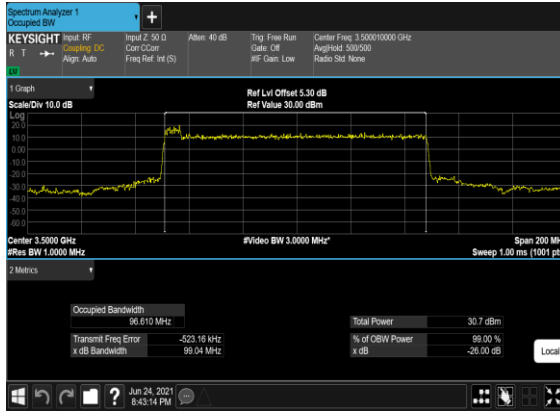
### N78(90M)\_CP-OFDM\_64 QAM\_Outer\_Full\_Mid\_CH



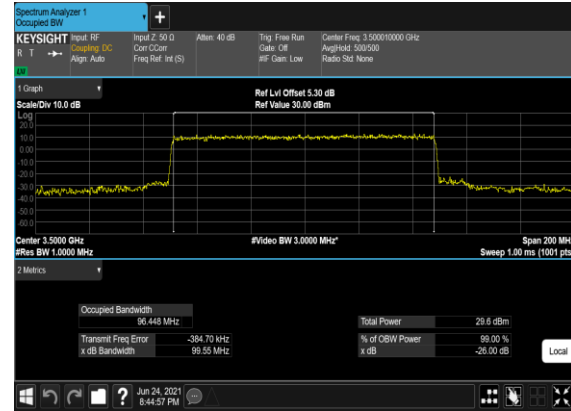
### N78(90M)\_CP-OFDM\_256 QAM\_Outer\_Full\_Mid\_CH



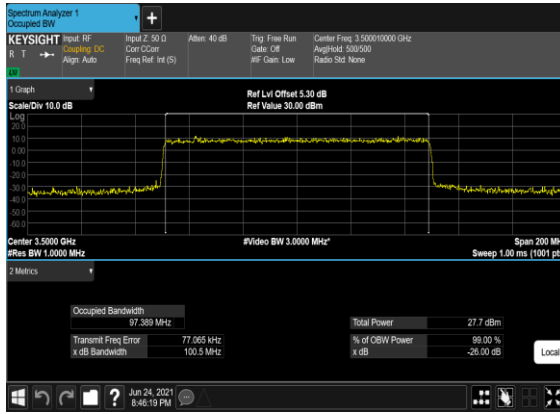
### N78(100M)\_DFT-s-OFDM\_PI\_2- BPSK\_Outer\_Full\_Mid\_CH



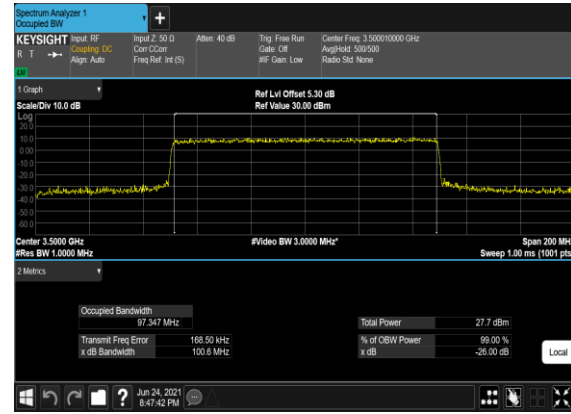
### N78(100M)\_DFT-s- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



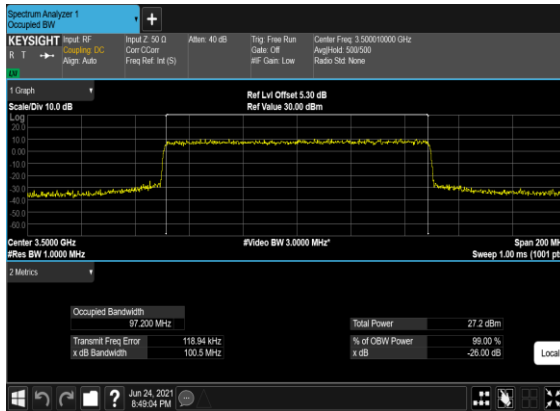
### N78(100M)\_CP- OFDM\_QPSK\_Outer\_Full\_Mid\_CH



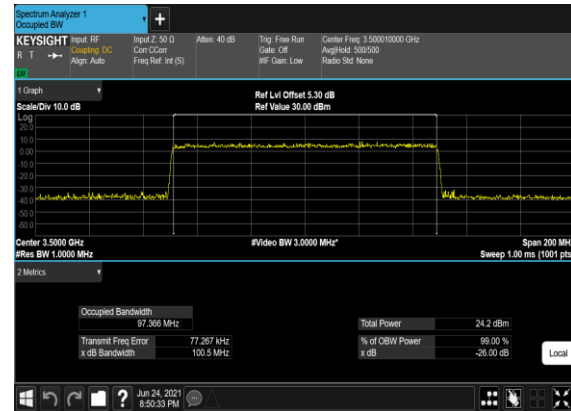
### N78(100M)\_CP-OFDM\_16 QAM\_Outer\_Full\_Mid\_CH



### N78(100M)\_CP-OFDM\_64 QAM\_Outer\_Full\_Mid\_CH



### N78(100M)\_CP-OFDM\_256 QAM\_Outer\_Full\_Mid\_CH



## Conducted Spurious Emissions

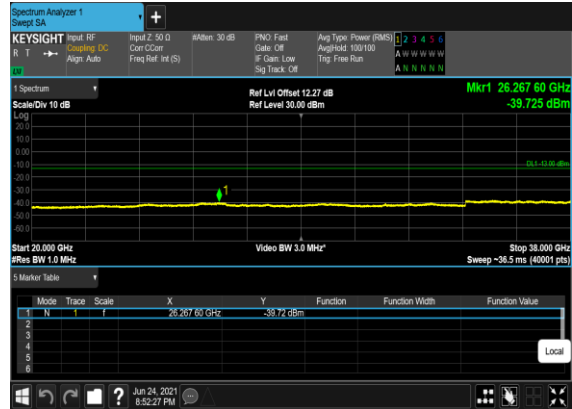
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
78	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	20	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	20	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	---

78	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	60	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	60	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS

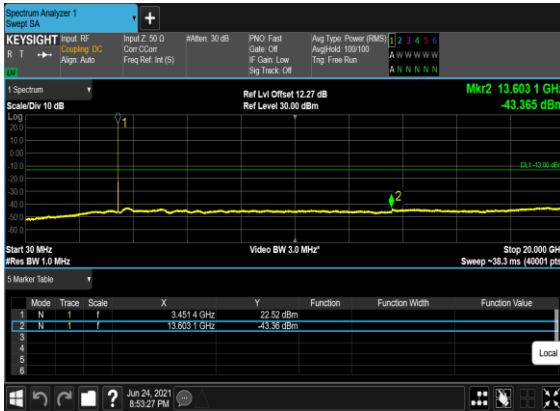
### N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



### N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



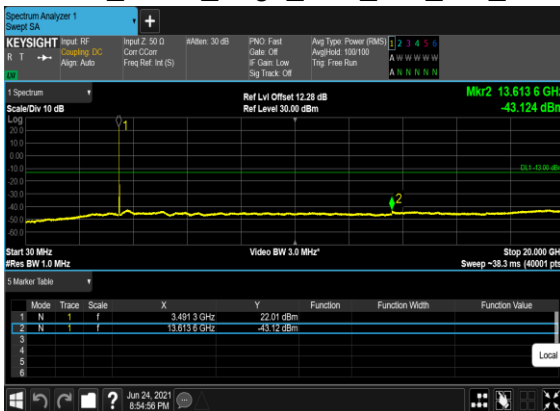
### N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



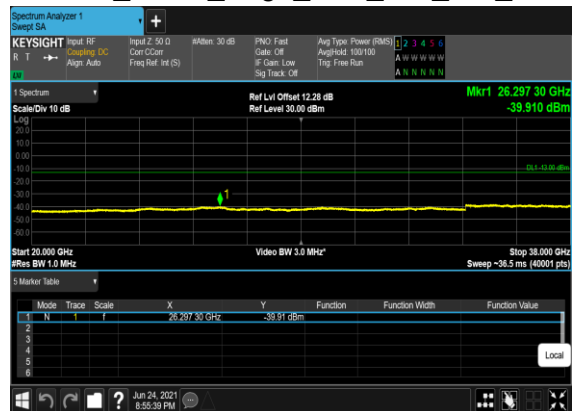
### N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



### N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH

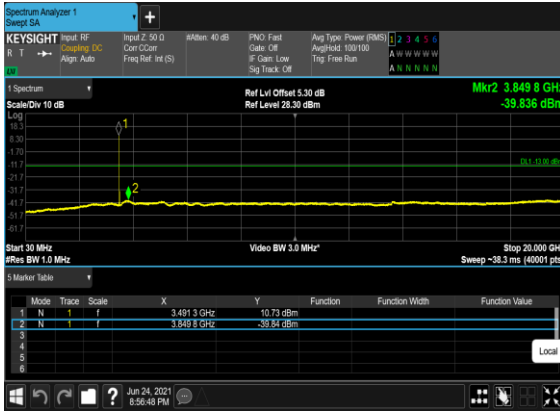


### N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH

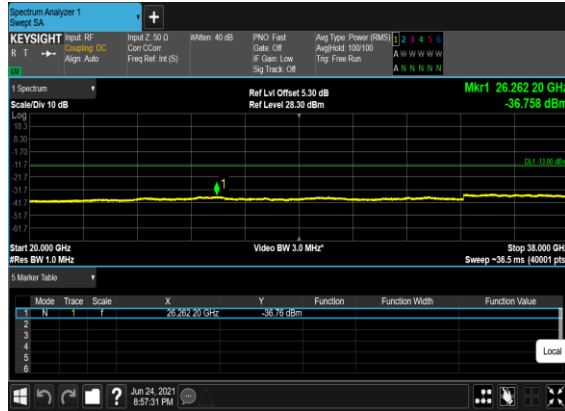




### N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



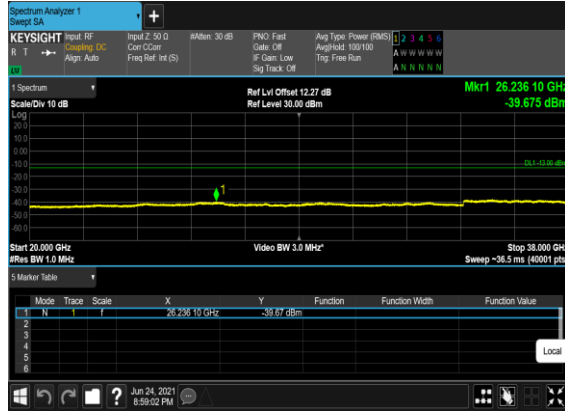
### N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



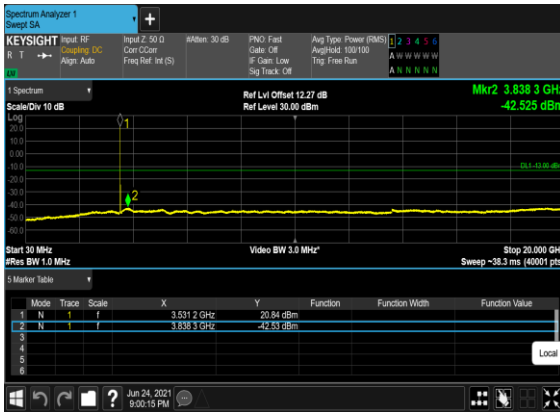
### N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



### N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



### N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH



### N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH

