FCC RF Test Report

APPLICANT	:	**Motorola Mobility LLC**
EQUIPMENT	:	**Mobile Cellular Phone**
BRAND NAME	:	**Motorola**
MODEL NAME	:	**XT2225-1**
FCC ID	:	**IHDT56AE5**
STANDARD	:	**47 CFR Part 2, 27O**
CLASSIFICATION	:	**PCS Licensed Transmitter Held to Ear (PCE)**
TEST DATE(S)	:	**Feb. 03, 2022 ~ Mar. 05, 2022**

We, Sporton International Inc. (Kunshan), 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 Inc. (Shenzhen).

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

Jason Jia

Reviewed by: Jason Jia / Supervisor

Alex Wang

Approved by: Alex Wang / Manager

Sporton International Inc. (Kunshan)

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG212701H	Rev. 01	Initial issue of report	Mar. 21, 2022

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§27.50(j)(3)	Equivalent Isotropic Radiated Power (5G NR n77, n78)	EIRP < 1Watt		
3.5	§27.50(j)(4)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §27.53(l)(2)	Conducted Band Edge Measurement (5G NR n77, n78)	< 43+10log10(P[Watts])	PASS	-
3.8	§2.1051 §27.53(l)(2)	Conducted Spurious Emission (5G NR n77, n78)	< 43+10log10(P[Watts])	PASS	-
3.9	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	-
4.4	§2.1053 §27.53(l)(2)	Radiated Spurious Emission (5G NR n77, n78)	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 30.21 dB at 11100.000 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	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2225-1
FCC ID	IHDT56AE5
IMEI Code	Radiation: 357895300018167 Conducted: 350714860021197
HW Version	DVT2
SW Version	S1SU32.41
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz
Rx Frequency	5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz
SCS	30kHz
Bandwidth	20MHz / 30MHz / 40MHz / 50MHz / 60MHz / 70MHz / 80MHz / 90MHz / 100MHz
Maximum Output Power to Antenna	**<Ant. 2>** 5G NR n77 : 23.80 dBm 5G NR n78 : 26.99 dBm
Antenna Gain	**<Ant. 2>** 5G NR n77: -0.5 dBi 5G NR n78: -0.5 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

Remark:

1. The maximum ERP is calculated from max Output power and antenna gain, only the maximum ERP are shown in the report.
2. 5G NR n77 support NSA, n78 support SA & NSA.

3. The device supports HPUE mode for 5G NR SA n78.
4. The EN-DC mode combination: DC_41A_n77A, DC_2A_n78A, DC_4A_n78A, DC_5A_n78A, DC_7A_n78A, DC_38A_n78A, DC_41A_n78A, DC_66A_n78A.
5. The device supports n78(1T4R) SRS resources on ant.2/3/6/7, only the test data of worst ant.2 is showed in the report according to the maximum power.

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 n77 NSA (EN DC_41A-n77A)		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	3710.01 ~ 3969.99	0.2089	18M2G7D	0.1683	18M2W7D
30	3715.02 ~ 3964.98	0.2089	27M8G7D	0.1690	27M9W7D
40	3720.00 ~ 3960.00	0.2138	37M7G7D	0.1730	37M9W7D
50	3725.01 ~ 3954.99	0.2014	47M5G7D	0.1629	47M5W7D
60	3730.02 ~ 3949.98	0.2032	58M0G7D	0.1667	57M9W7D
70	3735.00 ~ 3945.00	0.1936	67M5G7D	0.1596	67M6W7D
80	3740.01 ~ 3939.99	0.1923	77M5G7D	0.1567	77M6W7D
90	3745.02 ~ 3934.98	0.1923	87M5G7D	0.1570	87M7W7D
100	3750.00 ~ 3930.00	0.1982	97M5G7D	0.1618	97M6W7D

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	3710.01 ~ 3789.99	0.4365	18M2G7D	0.3548	18M3W7D
30	3715.02 ~ 3984.98	0.4365	27M9G7D	0.3573	27M9W7D
40	3720.00 ~ 3780.00	0.4457	37M8G7D	0.3733	37M9W7D
50	3725.01 ~ 3774.99	0.4276	47M4G7D	0.3443	47M5W7D
60	3730.02 ~ 3769.98	0.4198	57M9G7D	0.3350	57M9W7D
70	3735.00 ~ 3765.00	0.4207	67M4G7D	0.3396	67M7W7D
80	3740.01 ~ 3759.99	0.4130	77M5G7D	0.3396	77M7W7D
90	3745.02 ~ 3754.98	0.4121	87M5G7D	0.3334	87M5W7D
100	3750.00	0.4150	97M4G7D	0.3289	97M7W7D

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

1.7 Testing Location

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

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	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		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH02-KS	CN1257	314309

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

Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-SZ	CN1256	421272

Test data subcontracted: conducted test items in section 3.4~3.9 of this report.

1.8 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH02-KS	AUDIX	E3	6.2009-8-24a

1.9 Applicable Standards

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

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

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

1.10 Specification of Accessory

Specification of Accessory				
AC Adapter 1(US)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-331
AC Adapter 1(EU)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-332
AC Adapter 1(UK)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-333
AC Adapter 1(IN)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-334
AC Adapter 1(AU)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-335
AC Adapter 1(AR)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-336
AC Adapter 1(BR)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-337
AC Adapter 1(CHILE)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-339
AC Adapter 2(US)	**Brand Name**	Motorola (Acbel)	**Model Name**	MC-331
AC Adapter 2(EU)	**Brand Name**	Motorola (Acbel)	**Model Name**	MC-332
AC Adapter 2(UK)	**Brand Name**	Motorola (Acbel)	**Model Name**	MC-333
AC Adapter 3(US)	**Brand Name**	Motorola (Aohai)	**Model Name**	MC-331
AC Adapter 3(EU)	**Brand Name**	Motorola (Aohai)	**Model Name**	MC-332
AC Adapter 3(UK)	**Brand Name**	Motorola (Aohai)	**Model Name**	MC-333
Battery 1	**Brand Name**	Motorola (Sunwoda)	**Model Name**	NE50
Battery 2	**Brand Name**	Motorola (ATL)	**Model Name**	NE50
Earphone 1	**Brand Name**	Motorola (NEW LEADER)	**Model Name**	NLD-EM313A-09SF
Earphone 2	**Brand Name**	Motorola (LYAND ACOUSTIC)	**Model Name**	LYM239-76C-006
Earphone 3	**Brand Name**	Motorola(LYAND ACOUSTIC)	**Model Name**	LYM528-76C-001
Earphone 4	**Brand Name**	Motorola(NEW LEADER)	**Model Name**	NLD-EM313A-19SF
Earphone 5	**Brand Name**	Motorola(LCHSE)	**Model Name**	MH191
Earphone 6	**Brand Name**	Motorola(LYAND)	**Model Name**	MH191
USB Cable 1	**Brand Name**	Motorola(Salbao)	**Model Name**	SHQ-A110A
USB Cable 2	**Brand Name**	Motorola(KINGPOWER)	**Model Name**	K235-07760-H0

2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

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

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

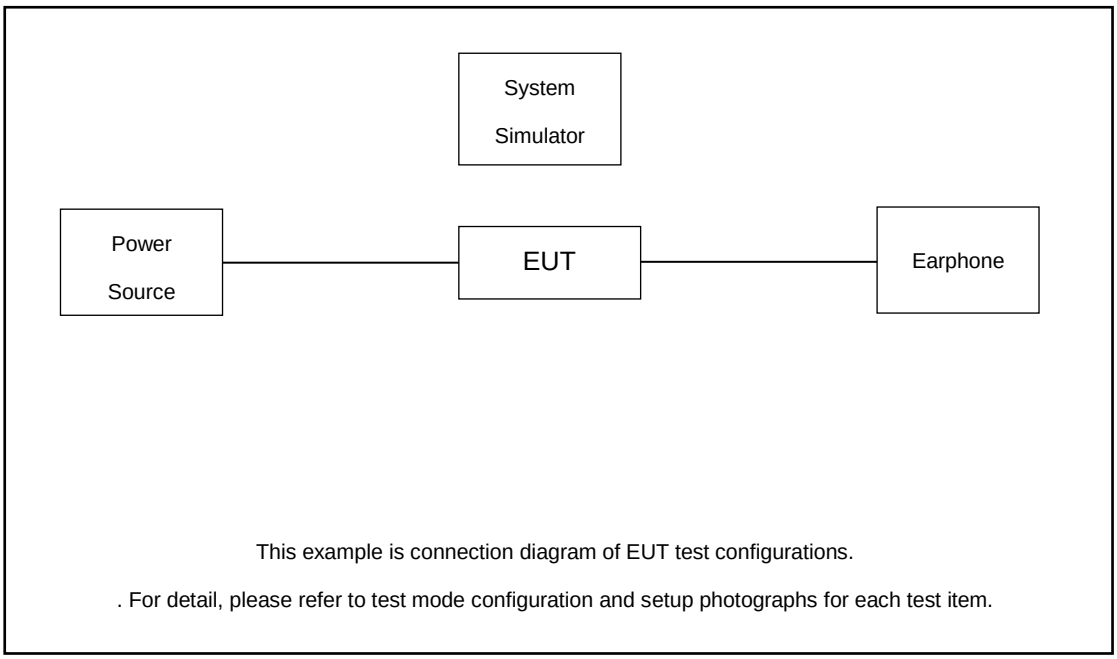
	X Plane	Y Plane	Z Plane
Orthogonal Planes of EUT			

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

Note

1. The mark "**v** " means that this configuration is chosen for testing
2. The mark "-" means that this bandwidth is not supported.
3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.
4. Based on engineering evaluation, only the worst modulations test results are shown in the report.
5. Frequency Stability : Normal Voltage = 3.87V ; Low Voltage =3.5V. ; High Voltage =4.45V

2.2 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	DC Power Supply	GW	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820/8821	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 between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss.

Offset = RF cable loss.

Following shows an offset computation example with cable loss 9.10 dB.

Example :

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

= 9.10 (dB)

2.5 Frequency List of Low/Middle/High Channels

5G n77 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	650000	656000	662000
	Frequency	3750	3840	3930
90	Channel	649668	656000	662332
	Frequency	3745.02	3840	3934.98
80	Channel	649334	656000	662666
	Frequency	3740.01	3840	3939.99
70	Channel	649000	656000	663000
	Frequency	3735	3840	3945
60	Channel	648668	656000	663332
	Frequency	3730.02	3840	3949.98
50	Channel	648334	656000	663666
	Frequency	3725.01	3840	3954.99
40	Channel	648000	656000	664000
	Frequency	3720	3840	3960
30	Channel	647668	656000	664332
	Frequency	3715.02	3840	3964.98
20	Channel	647334	656000	664666
	Frequency	3710.01	3840	3969.99

5G n78 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel		650000	
	Frequency		3750	
90	Channel	649668	650000	650332
	Frequency	3745.02	3750	3754.98
80	Channel	649334	650000	650666
	Frequency	3740.01	3750	3759.99
70	Channel	649000	650000	651000
	Frequency	3735	3750	3765
60	Channel	648668	650000	651332
	Frequency	3730.02	3750	3769.98
50	Channel	648334	650000	651666
	Frequency	3725.01	3750	3774.99
40	Channel	648000	650000	652000
	Frequency	3720	3750	3780
30	Channel	647668	650000	652332
	Frequency	3715.02	3750	3784.98
20	Channel	647334	650000	652666
	Frequency	3710.01	3750	3789.99

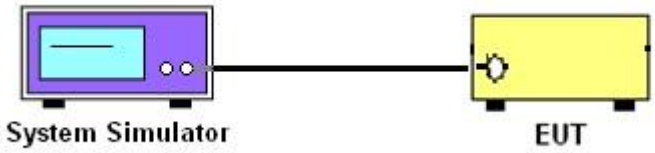
3 Conducted Test Items

3.1 Measuring Instruments

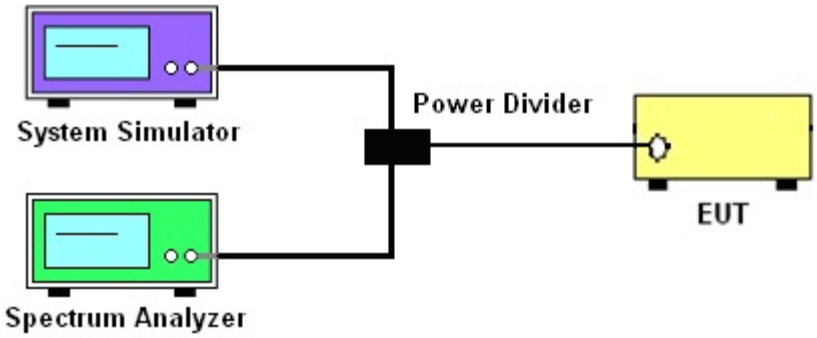
See list of measuring instruments of this test report.

3.2 Test Setup

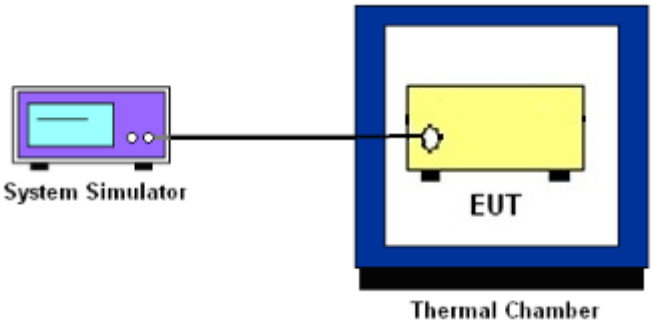
3.2.1 Conducted Output Power



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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and EIRP

3.4.1 Description of the Conducted Output Power Measurement and EIRP Measurement

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

The EIRP of mobile transmitters must not exceed 1 Watts for 5G NR n77, n78.

According to KDB 412172 D01 Power Approach,

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

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

3.4.2 Test Procedures

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

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

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

3.5.2 Test Procedures

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

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

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

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

3.6.2 Test Procedures

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

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

27.53(l)(2)

For mobile operations in the 3700-3980 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, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 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.

3.7.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.
   Example:
   The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
   = P(W)- [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.
9. When using the integration method, the starting frequency of the integration shall be centered at one-half of the RBW away from the band edge.

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

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

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

3.8.2 Test Procedures

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

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

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

3.9.2 Test Procedures for Temperature Variation

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

3.9.3 Test Procedures for Voltage Variation

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

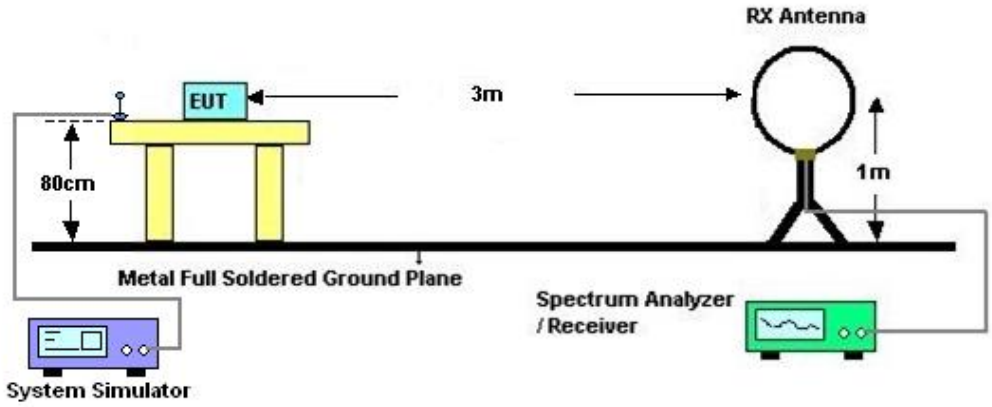
4 Radiated Test Items

4.1 Measuring Instruments

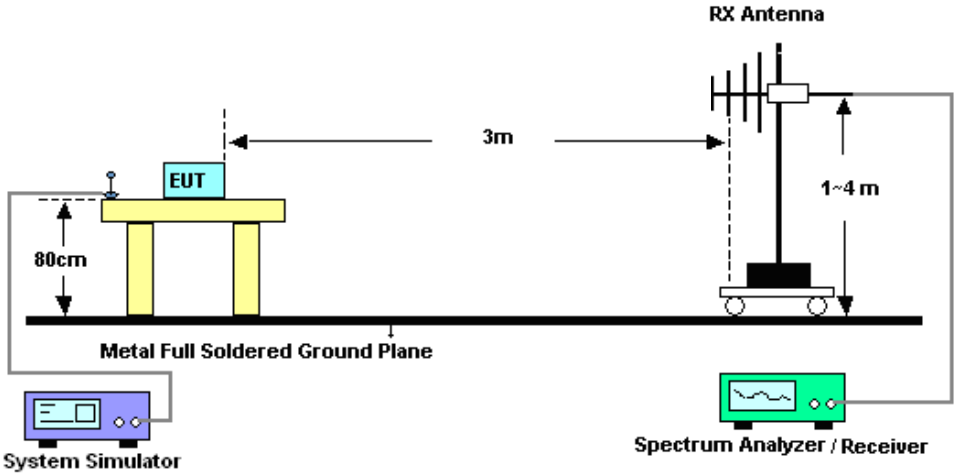
See list of measuring instruments of this test report.

4.2 Test Setup

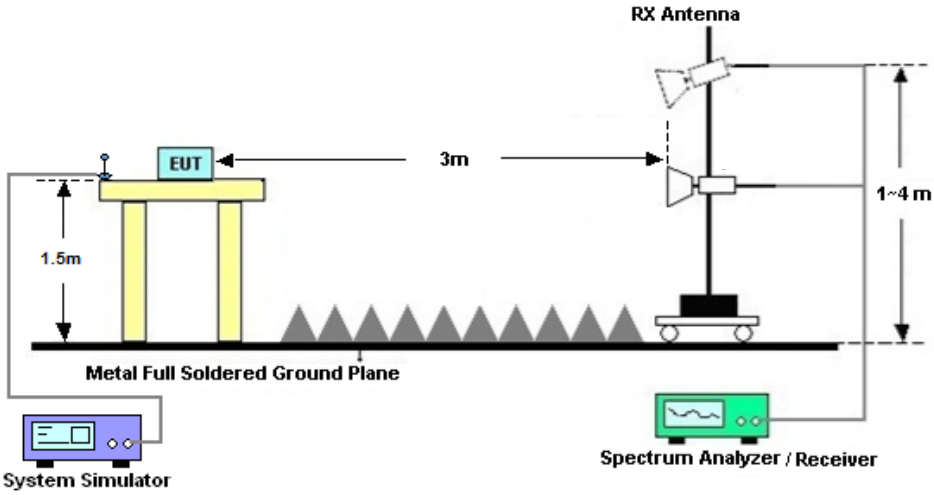
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

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

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

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

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

4.4.2 Test Procedures

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

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EXA Signal Analyzer	KEYSIGHT	N9010B	MY60240803	10Hz~44GHz	Apr. 03, 2021	Feb. 03, 2022~ Feb. 06, 2022	Apr. 02, 2022	Conducted (TH01-SZ)
Power divider	STI	STI08-0055	-	0.5~40GHz	Aug. 26, 2021	Feb. 04, 2022~ Feb. 21, 2022	Aug. 25, 2022	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 14, 2021	Feb. 03, 2022~ Feb. 06, 2022	Jul. 13, 2022	Conducted (TH01-SZ)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Oct, 16, 2021	Mar. 05, 2022	Oct, 15,2022	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55370528	10Hz-44G,MAX 30dB	Oct, 16, 2021	Mar. 05, 2022	Oct, 15,2022	Radiation (03CH02-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 30, 2021	Mar. 05, 2022	Oct. 29, 2022	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz-1GHz	Dec. 22, 2021	Mar. 05, 2022	Dec. 21, 2022	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 30, 2021	Mar. 05, 2022	Oct. 29, 2022	Radiation (03CH02-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P	2025788	1Ghz-18Ghz	Jul. 30, 2021	Mar. 05, 2022	Jul. 29, 2023	Radiation (03CH02-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2022	Mar. 05, 2022	Jan. 04, 2023	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Apr. 13, 2021	Mar. 05, 2022	Apr. 12, 2022	Radiation (03CH02-KS)
Amplifier	Keysight	83017A	MY53270316	500MHz~26.5GHz	Oct, 16, 2021	Mar. 05, 2022	Oct, 15,2022	Radiation (03CH02-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 05, 2022	Mar. 05, 2022	Jan. 04, 2023	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Mar. 05, 2022	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Mar. 05, 2022	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Mar. 05, 2022	NCR	Radiation (03CH02-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))	**2.5dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.1dB**

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

Appendix A. Test Results of Conducted Test

Test Engineer :	Jung Guo	**Temperature :**	21~23℃
		Relative Humidity :	45~51%

Software Version: 22.02.012503

FR1 N77

LTE Band: 41, LTE BW: 10M, LTE ARFCN: Mid

Transmitter Conducted Output Power And EIRP, (GT-LC)=-0.5dB

NR	SCS	Bandwidth	Arfcn	Freq	Modulation	RB	Conducted Power(dBm)	EIRP	EIRP
Band	(kHz)	(MHz)		(MHz)				(dBm)	(W)
77	30	20	647334	3710.01	DFT-s-OFDM PI/2 BPSK	25@12	23.5	23	0.1995
77	30	20	647334	3710.01	DFT-s-OFDM PI/2 BPSK	1@1	23.51	23.01	0.2000
77	30	20	647334	3710.01	DFT-s-OFDM PI/2 BPSK	1@49	23.49	22.99	0.1991
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	25@12	23.51	23.01	0.2000
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@1	23.49	22.99	0.1991
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@49	23.47	22.97	0.1982
77	30	20	647334	3710.01	DFT-s-OFDM 16 QAM	25@12	22.47	21.97	0.1574
77	30	20	647334	3710.01	DFT-s-OFDM 16 QAM	1@1	22.62	22.12	0.1629
77	30	20	647334	3710.01	DFT-s-OFDM 16 QAM	1@49	22.57	22.07	0.1611
77	30	20	647334	3710.01	DFT-s-OFDM 64 QAM	25@12	20.95	20.45	0.1109
77	30	20	647334	3710.01	DFT-s-OFDM 64 QAM	1@1	21.15	20.65	0.1161
77	30	20	647334	3710.01	DFT-s-OFDM 64 QAM	1@49	21.17	20.67	0.1167
77	30	20	647334	3710.01	DFT-s-OFDM 256 QAM	25@12	18.94	18.44	0.0698
77	30	20	647334	3710.01	DFT-s-OFDM 256 QAM	1@1	18.73	18.23	0.0665
77	30	20	647334	3710.01	DFT-s-OFDM 256 QAM	1@49	18.69	18.19	0.0659
77	30	20	647334	3710.01	CP-OFDM QPSK	25@12	22	21.5	0.1413
77	30	20	647334	3710.01	CP-OFDM QPSK	1@1	21.99	21.49	0.1409
77	30	20	647334	3710.01	CP-OFDM QPSK	1@49	21.95	21.45	0.1396
77	30	20	656000	3840	DFT-s-OFDM PI/2	25@12	23.7	23.2	0.2089

					BPSK				
77	30	20	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.65	23.15	0.2065
77	30	20	656000	3840	DFT-s-OFDM PI/2 BPSK	1@49	23.63	23.13	0.2056
77	30	20	656000	3840	DFT-s-OFDM QPSK	25@12	23.67	23.17	0.2075
77	30	20	656000	3840	DFT-s-OFDM QPSK	1@1	23.62	23.12	0.2051
77	30	20	656000	3840	DFT-s-OFDM QPSK	1@49	23.59	23.09	0.2037
77	30	20	656000	3840	DFT-s-OFDM 16 QAM	25@12	22.68	22.18	0.1652
77	30	20	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.71	22.21	0.1663
77	30	20	656000	3840	DFT-s-OFDM 16 QAM	1@49	22.73	22.23	0.1671
77	30	20	656000	3840	DFT-s-OFDM 64 QAM	25@12	21.18	20.68	0.1169
77	30	20	656000	3840	DFT-s-OFDM 64 QAM	1@1	21.27	20.77	0.1194
77	30	20	656000	3840	DFT-s-OFDM 64 QAM	1@49	21.31	20.81	0.1205
77	30	20	656000	3840	DFT-s-OFDM 256 QAM	25@12	19.11	18.61	0.0726
77	30	20	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.84	18.34	0.0682
77	30	20	656000	3840	DFT-s-OFDM 256 QAM	1@49	18.85	18.35	0.0684
77	30	20	656000	3840	CP-OFDM QPSK	25@12	22.17	21.67	0.1469
77	30	20	656000	3840	CP-OFDM QPSK	1@1	22.06	21.56	0.1432
77	30	20	656000	3840	CP-OFDM QPSK	1@49	22.15	21.65	0.1462
77	30	20	664666	3969.99	DFT-s-OFDM PI/2 BPSK	25@12	23.57	23.07	0.2028
77	30	20	664666	3969.99	DFT-s-OFDM PI/2 BPSK	1@1	23.6	23.1	0.2042
77	30	20	664666	3969.99	DFT-s-OFDM PI/2 BPSK	1@49	23.64	23.14	0.2061
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	25@12	23.56	23.06	0.2023
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@1	23.67	23.17	0.2075
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@49	23.66	23.16	0.2070

77	30	20	664666	3969.99	DFT-s-OFDM 16 QAM	25@12	22.56	22.06	0.1607
77	30	20	664666	3969.99	DFT-s-OFDM 16 QAM	1@1	22.7	22.2	0.1660
77	30	20	664666	3969.99	DFT-s-OFDM 16 QAM	1@49	22.76	22.26	0.1683
77	30	20	664666	3969.99	DFT-s-OFDM 64 QAM	25@12	21.05	20.55	0.1135
77	30	20	664666	3969.99	DFT-s-OFDM 64 QAM	1@1	21.3	20.8	0.1202
77	30	20	664666	3969.99	DFT-s-OFDM 64 QAM	1@49	21.32	20.82	0.1208
77	30	20	664666	3969.99	DFT-s-OFDM 256 QAM	25@12	18.99	18.49	0.0706
77	30	20	664666	3969.99	DFT-s-OFDM 256 QAM	1@1	18.81	18.31	0.0678
77	30	20	664666	3969.99	DFT-s-OFDM 256 QAM	1@49	18.86	18.36	0.0685
77	30	20	664666	3969.99	CP-OFDM QPSK	25@12	22.08	21.58	0.1439
77	30	20	664666	3969.99	CP-OFDM QPSK	1@1	22.09	21.59	0.1442
77	30	20	664666	3969.99	CP-OFDM QPSK	1@49	22.22	21.72	0.1486
77	30	30	647668	3715.02	DFT-s-OFDM PI/2 BPSK	36@18	23.54	23.04	0.2014
77	30	30	647668	3715.02	DFT-s-OFDM PI/2 BPSK	1@1	23.56	23.06	0.2023
77	30	30	647668	3715.02	DFT-s-OFDM PI/2 BPSK	1@76	23.6	23.1	0.2042
77	30	30	647668	3715.02	DFT-s-OFDM QPSK	36@18	23.55	23.05	0.2018
77	30	30	647668	3715.02	DFT-s-OFDM QPSK	1@1	23.57	23.07	0.2028
77	30	30	647668	3715.02	DFT-s-OFDM QPSK	1@76	23.54	23.04	0.2014
77	30	30	647668	3715.02	DFT-s-OFDM 16 QAM	36@18	22.52	22.02	0.1592
77	30	30	647668	3715.02	DFT-s-OFDM 16 QAM	1@1	22.77	22.27	0.1687
77	30	30	647668	3715.02	DFT-s-OFDM 16 QAM	1@76	22.78	22.28	0.1690
77	30	30	647668	3715.02	DFT-s-OFDM 64 QAM	36@18	21.08	20.58	0.1143
77	30	30	647668	3715.02	DFT-s-OFDM 64 QAM	1@1	21.05	20.55	0.1135
77	30	30	647668	3715.02	DFT-s-OFDM 64	1@76	21.1	20.6	0.1148

					QAM				
77	30	30	647668	3715.02	DFT-s-OFDM 256 QAM	36@18	18.99	18.49	0.0706
77	30	30	647668	3715.02	DFT-s-OFDM 256 QAM	1@1	18.83	18.33	0.0681
77	30	30	647668	3715.02	DFT-s-OFDM 256 QAM	1@76	18.85	18.35	0.0684
77	30	30	647668	3715.02	CP-OFDM QPSK	39@19	22.04	21.54	0.1426
77	30	30	647668	3715.02	CP-OFDM QPSK	1@1	22.04	21.54	0.1426
77	30	30	647668	3715.02	CP-OFDM QPSK	1@76	21.99	21.49	0.1409
77	30	30	656000	3840	DFT-s-OFDM PI/2 BPSK	36@18	23.32	22.82	0.1914
77	30	30	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.3	22.8	0.1905
77	30	30	656000	3840	DFT-s-OFDM PI/2 BPSK	1@76	23.34	22.84	0.1923
77	30	30	656000	3840	DFT-s-OFDM QPSK	36@18	23.31	22.81	0.1910
77	30	30	656000	3840	DFT-s-OFDM QPSK	1@1	23.35	22.85	0.1928
77	30	30	656000	3840	DFT-s-OFDM QPSK	1@76	23.29	22.79	0.1901
77	30	30	656000	3840	DFT-s-OFDM 16 QAM	36@18	22.29	21.79	0.1510
77	30	30	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.53	22.03	0.1596
77	30	30	656000	3840	DFT-s-OFDM 16 QAM	1@76	22.52	22.02	0.1592
77	30	30	656000	3840	DFT-s-OFDM 64 QAM	36@18	20.85	20.35	0.1084
77	30	30	656000	3840	DFT-s-OFDM 64 QAM	1@1	20.83	20.33	0.1079
77	30	30	656000	3840	DFT-s-OFDM 64 QAM	1@76	20.83	20.33	0.1079
77	30	30	656000	3840	DFT-s-OFDM 256 QAM	36@18	18.79	18.29	0.0675
77	30	30	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.59	18.09	0.0644
77	30	30	656000	3840	DFT-s-OFDM 256 QAM	1@76	18.56	18.06	0.0640
77	30	30	656000	3840	CP-OFDM QPSK	39@19	21.8	21.3	0.1349
77	30	30	656000	3840	CP-OFDM QPSK	1@1	21.79	21.29	0.1346

77	30	30	656000	3840	CP-OFDM QPSK	1@76	21.78	21.28	0.1343
77	30	30	664332	3964.98	DFT-s-OFDM PI/2 BPSK	36@18	23.55	23.05	0.2018
77	30	30	664332	3964.98	DFT-s-OFDM PI/2 BPSK	1@1	23.66	23.16	0.2070
77	30	30	664332	3964.98	DFT-s-OFDM PI/2 BPSK	1@76	23.55	23.05	0.2018
77	30	30	664332	3964.98	DFT-s-OFDM QPSK	36@18	23.54	23.04	0.2014
77	30	30	664332	3964.98	DFT-s-OFDM QPSK	1@1	23.7	23.2	0.2089
77	30	30	664332	3964.98	DFT-s-OFDM QPSK	1@76	23.6	23.1	0.2042
77	30	30	664332	3964.98	DFT-s-OFDM 16 QAM	36@18	22.53	22.03	0.1596
77	30	30	664332	3964.98	DFT-s-OFDM 16 QAM	1@1	22.78	22.28	0.1690
77	30	30	664332	3964.98	DFT-s-OFDM 16 QAM	1@76	22.69	22.19	0.1656
77	30	30	664332	3964.98	DFT-s-OFDM 64 QAM	36@18	21.1	20.6	0.1148
77	30	30	664332	3964.98	DFT-s-OFDM 64 QAM	1@1	21.35	20.85	0.1216
77	30	30	664332	3964.98	DFT-s-OFDM 64 QAM	1@76	21.24	20.74	0.1186
77	30	30	664332	3964.98	DFT-s-OFDM 256 QAM	36@18	19.01	18.51	0.0710
77	30	30	664332	3964.98	DFT-s-OFDM 256 QAM	1@1	18.96	18.46	0.0701
77	30	30	664332	3964.98	DFT-s-OFDM 256 QAM	1@76	18.84	18.34	0.0682
77	30	30	664332	3964.98	CP-OFDM QPSK	39@19	22.04	21.54	0.1426
77	30	30	664332	3964.98	CP-OFDM QPSK	1@1	22.15	21.65	0.1462
77	30	30	664332	3964.98	CP-OFDM QPSK	1@76	22.02	21.52	0.1419
77	30	40	648000	3720	DFT-s-OFDM PI/2 BPSK	50@25	23.51	23.01	0.2000
77	30	40	648000	3720	DFT-s-OFDM PI/2 BPSK	1@1	23.68	23.18	0.2080
77	30	40	648000	3720	DFT-s-OFDM PI/2 BPSK	1@104	23.51	23.01	0.2000
77	30	40	648000	3720	DFT-s-OFDM QPSK	50@25	23.51	23.01	0.2000
77	30	40	648000	3720	DFT-s-OFDM QPSK	1@1	23.75	23.25	0.2113

77	30	40	648000	3720	DFT-s-OFDM QPSK	1@104	23.56	23.06	0.2023
77	30	40	648000	3720	DFT-s-OFDM 16 QAM	50@25	22.51	22.01	0.1589
77	30	40	648000	3720	DFT-s-OFDM 16 QAM	1@1	22.75	22.25	0.1679
77	30	40	648000	3720	DFT-s-OFDM 16 QAM	1@104	22.61	22.11	0.1626
77	30	40	648000	3720	DFT-s-OFDM 64 QAM	50@25	21.03	20.53	0.1130
77	30	40	648000	3720	DFT-s-OFDM 64 QAM	1@1	21.33	20.83	0.1211
77	30	40	648000	3720	DFT-s-OFDM 64 QAM	1@104	21.14	20.64	0.1159
77	30	40	648000	3720	DFT-s-OFDM 256 QAM	50@25	19	18.5	0.0708
77	30	40	648000	3720	DFT-s-OFDM 256 QAM	1@1	18.93	18.43	0.0697
77	30	40	648000	3720	DFT-s-OFDM 256 QAM	1@104	18.75	18.25	0.0668
77	30	40	648000	3720	CP-OFDM QPSK	53@26	22.01	21.51	0.1416
77	30	40	648000	3720	CP-OFDM QPSK	1@1	22.18	21.68	0.1472
77	30	40	648000	3720	CP-OFDM QPSK	1@104	22.05	21.55	0.1429
77	30	40	656000	3840	DFT-s-OFDM PI/2 BPSK	50@25	23.31	22.81	0.1910
77	30	40	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.28	22.78	0.1897
77	30	40	656000	3840	DFT-s-OFDM PI/2 BPSK	1@104	23.17	22.67	0.1849
77	30	40	656000	3840	DFT-s-OFDM QPSK	50@25	23.32	22.82	0.1914
77	30	40	656000	3840	DFT-s-OFDM QPSK	1@1	23.29	22.79	0.1901
77	30	40	656000	3840	DFT-s-OFDM QPSK	1@104	23.2	22.7	0.1862
77	30	40	656000	3840	DFT-s-OFDM 16 QAM	50@25	22.3	21.8	0.1514
77	30	40	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.38	21.88	0.1542
77	30	40	656000	3840	DFT-s-OFDM 16 QAM	1@104	22.28	21.78	0.1507
77	30	40	656000	3840	DFT-s-OFDM 64 QAM	50@25	20.86	20.36	0.1086
77	30	40	656000	3840	DFT-s-OFDM 64	1@1	20.93	20.43	0.1104

					QAM				
77	30	40	656000	3840	DFT-s-OFDM 64 QAM	1@104	20.85	20.35	0.1084
77	30	40	656000	3840	DFT-s-OFDM 256 QAM	50@25	18.78	18.28	0.0673
77	30	40	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.56	18.06	0.0640
77	30	40	656000	3840	DFT-s-OFDM 256 QAM	1@104	18.51	18.01	0.0632
77	30	40	656000	3840	CP-OFDM QPSK	53@26	21.78	21.28	0.1343
77	30	40	656000	3840	CP-OFDM QPSK	1@1	21.77	21.27	0.1340
77	30	40	656000	3840	CP-OFDM QPSK	1@104	21.72	21.22	0.1324
77	30	40	664000	3960	DFT-s-OFDM PI/2 BPSK	50@25	23.66	23.16	0.2070
77	30	40	664000	3960	DFT-s-OFDM PI/2 BPSK	1@1	23.78	23.28	0.2128
77	30	40	664000	3960	DFT-s-OFDM PI/2 BPSK	1@104	23.69	23.19	0.2084
77	30	40	664000	3960	DFT-s-OFDM QPSK	50@25	23.64	23.14	0.2061
77	30	40	664000	3960	DFT-s-OFDM QPSK	1@1	23.8	23.3	0.2138
77	30	40	664000	3960	DFT-s-OFDM QPSK	1@104	23.72	23.22	0.2099
77	30	40	664000	3960	DFT-s-OFDM 16 QAM	50@25	22.66	22.16	0.1644
77	30	40	664000	3960	DFT-s-OFDM 16 QAM	1@1	22.88	22.38	0.1730
77	30	40	664000	3960	DFT-s-OFDM 16 QAM	1@104	22.83	22.33	0.1710
77	30	40	664000	3960	DFT-s-OFDM 64 QAM	50@25	21.13	20.63	0.1156
77	30	40	664000	3960	DFT-s-OFDM 64 QAM	1@1	21.42	20.92	0.1236
77	30	40	664000	3960	DFT-s-OFDM 64 QAM	1@104	21.34	20.84	0.1213
77	30	40	664000	3960	DFT-s-OFDM 256 QAM	50@25	19.16	18.66	0.0735
77	30	40	664000	3960	DFT-s-OFDM 256 QAM	1@1	19.05	18.55	0.0716
77	30	40	664000	3960	DFT-s-OFDM 256 QAM	1@104	18.97	18.47	0.0703
77	30	40	664000	3960	CP-OFDM QPSK	53@26	22.11	21.61	0.1449

77	30	40	664000	3960	CP-OFDM QPSK	1@1	22.31	21.81	0.1517
77	30	40	664000	3960	CP-OFDM QPSK	1@104	22.16	21.66	0.1466
77	30	50	648334	3725.01	DFT-s-OFDM PI/2 BPSK	64@32	23.38	22.88	0.1941
77	30	50	648334	3725.01	DFT-s-OFDM PI/2 BPSK	1@1	23.32	22.82	0.1914
77	30	50	648334	3725.01	DFT-s-OFDM PI/2 BPSK	1@131	23.11	22.61	0.1824
77	30	50	648334	3725.01	DFT-s-OFDM QPSK	64@32	23.37	22.87	0.1936
77	30	50	648334	3725.01	DFT-s-OFDM QPSK	1@1	23.33	22.83	0.1919
77	30	50	648334	3725.01	DFT-s-OFDM QPSK	1@131	23.12	22.62	0.1828
77	30	50	648334	3725.01	DFT-s-OFDM 16 QAM	64@32	22.4	21.9	0.1549
77	30	50	648334	3725.01	DFT-s-OFDM 16 QAM	1@1	22.44	21.94	0.1563
77	30	50	648334	3725.01	DFT-s-OFDM 16 QAM	1@131	22.26	21.76	0.1500
77	30	50	648334	3725.01	DFT-s-OFDM 64 QAM	64@32	20.86	20.36	0.1086
77	30	50	648334	3725.01	DFT-s-OFDM 64 QAM	1@1	20.9	20.4	0.1096
77	30	50	648334	3725.01	DFT-s-OFDM 64 QAM	1@131	20.59	20.09	0.1021
77	30	50	648334	3725.01	DFT-s-OFDM 256 QAM	64@32	18.85	18.35	0.0684
77	30	50	648334	3725.01	DFT-s-OFDM 256 QAM	1@1	18.53	18.03	0.0635
77	30	50	648334	3725.01	DFT-s-OFDM 256 QAM	1@131	18.34	17.84	0.0608
77	30	50	648334	3725.01	CP-OFDM QPSK	67@33	21.88	21.38	0.1374
77	30	50	648334	3725.01	CP-OFDM QPSK	1@1	21.82	21.32	0.1355
77	30	50	648334	3725.01	CP-OFDM QPSK	1@131	21.58	21.08	0.1282
77	30	50	656000	3840	DFT-s-OFDM PI/2 BPSK	64@32	23.5	23	0.1995
77	30	50	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.52	23.02	0.2004
77	30	50	656000	3840	DFT-s-OFDM PI/2 BPSK	1@131	23.54	23.04	0.2014
77	30	50	656000	3840	DFT-s-OFDM QPSK	64@32	23.51	23.01	0.2000

77	30	50	656000	3840	DFT-s-OFDM QPSK	1@1	23.5	23	0.1995
77	30	50	656000	3840	DFT-s-OFDM QPSK	1@131	23.49	22.99	0.1991
77	30	50	656000	3840	DFT-s-OFDM 16 QAM	64@32	22.49	21.99	0.1581
77	30	50	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.62	22.12	0.1629
77	30	50	656000	3840	DFT-s-OFDM 16 QAM	1@131	22.54	22.04	0.1600
77	30	50	656000	3840	DFT-s-OFDM 64 QAM	64@32	20.98	20.48	0.1117
77	30	50	656000	3840	DFT-s-OFDM 64 QAM	1@1	20.96	20.46	0.1112
77	30	50	656000	3840	DFT-s-OFDM 64 QAM	1@131	21.07	20.57	0.1140
77	30	50	656000	3840	DFT-s-OFDM 256 QAM	64@32	18.97	18.47	0.0703
77	30	50	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.7	18.2	0.0661
77	30	50	656000	3840	DFT-s-OFDM 256 QAM	1@131	18.81	18.31	0.0678
77	30	50	656000	3840	CP-OFDM QPSK	67@33	21.95	21.45	0.1396
77	30	50	656000	3840	CP-OFDM QPSK	1@1	21.96	21.46	0.1400
77	30	50	656000	3840	CP-OFDM QPSK	1@131	21.93	21.43	0.1390
77	30	50	663666	3954.99	DFT-s-OFDM PI/2 BPSK	64@32	23.45	22.95	0.1972
77	30	50	663666	3954.99	DFT-s-OFDM PI/2 BPSK	1@1	23.53	23.03	0.2009
77	30	50	663666	3954.99	DFT-s-OFDM PI/2 BPSK	1@131	23.41	22.91	0.1954
77	30	50	663666	3954.99	DFT-s-OFDM QPSK	64@32	23.42	22.92	0.1959
77	30	50	663666	3954.99	DFT-s-OFDM QPSK	1@1	23.48	22.98	0.1986
77	30	50	663666	3954.99	DFT-s-OFDM QPSK	1@131	23.41	22.91	0.1954
77	30	50	663666	3954.99	DFT-s-OFDM 16 QAM	64@32	22.47	21.97	0.1574
77	30	50	663666	3954.99	DFT-s-OFDM 16 QAM	1@1	22.57	22.07	0.1611
77	30	50	663666	3954.99	DFT-s-OFDM 16 QAM	1@131	22.51	22.01	0.1589
77	30	50	663666	3954.99	DFT-s-OFDM 64	64@32	20.92	20.42	0.1102

					QAM				
77	30	50	663666	3954.99	DFT-s-OFDM 64 QAM	1@1	21.14	20.64	0.1159
77	30	50	663666	3954.99	DFT-s-OFDM 64 QAM	1@131	21.02	20.52	0.1127
77	30	50	663666	3954.99	DFT-s-OFDM 256 QAM	64@32	18.91	18.41	0.0693
77	30	50	663666	3954.99	DFT-s-OFDM 256 QAM	1@1	18.72	18.22	0.0664
77	30	50	663666	3954.99	DFT-s-OFDM 256 QAM	1@131	18.64	18.14	0.0652
77	30	50	663666	3954.99	CP-OFDM QPSK	67@33	21.93	21.43	0.1390
77	30	50	663666	3954.99	CP-OFDM QPSK	1@1	21.96	21.46	0.1400
77	30	50	663666	3954.99	CP-OFDM QPSK	1@131	21.84	21.34	0.1361
77	30	60	648668	3730.02	DFT-s-OFDM PI/2 BPSK	81@40	23.29	22.79	0.1901
77	30	60	648668	3730.02	DFT-s-OFDM PI/2 BPSK	1@1	23.32	22.82	0.1914
77	30	60	648668	3730.02	DFT-s-OFDM PI/2 BPSK	1@160	23.11	22.61	0.1824
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	81@40	23.27	22.77	0.1892
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@1	23.27	22.77	0.1892
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@160	23.09	22.59	0.1816
77	30	60	648668	3730.02	DFT-s-OFDM 16 QAM	81@40	22.3	21.8	0.1514
77	30	60	648668	3730.02	DFT-s-OFDM 16 QAM	1@1	22.5	22	0.1585
77	30	60	648668	3730.02	DFT-s-OFDM 16 QAM	1@160	22.28	21.78	0.1507
77	30	60	648668	3730.02	DFT-s-OFDM 64 QAM	81@40	20.8	20.3	0.1072
77	30	60	648668	3730.02	DFT-s-OFDM 64 QAM	1@1	20.79	20.29	0.1069
77	30	60	648668	3730.02	DFT-s-OFDM 64 QAM	1@160	20.6	20.1	0.1023
77	30	60	648668	3730.02	DFT-s-OFDM 256 QAM	81@40	18.81	18.31	0.0678
77	30	60	648668	3730.02	DFT-s-OFDM 256 QAM	1@1	18.6	18.1	0.0646
77	30	60	648668	3730.02	DFT-s-OFDM 256 QAM	1@160	18.37	17.87	0.0612

77	30	60	648668	3730.02	CP-OFDM QPSK	81@40	21.77	21.27	0.1340
77	30	60	648668	3730.02	CP-OFDM QPSK	1@1	21.81	21.31	0.1352
77	30	60	648668	3730.02	CP-OFDM QPSK	1@160	21.55	21.05	0.1274
77	30	60	656000	3840	DFT-s-OFDM PI/2 BPSK	81@40	23.47	22.97	0.1982
77	30	60	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.47	22.97	0.1982
77	30	60	656000	3840	DFT-s-OFDM PI/2 BPSK	1@160	23.53	23.03	0.2009
77	30	60	656000	3840	DFT-s-OFDM QPSK	81@40	23.45	22.95	0.1972
77	30	60	656000	3840	DFT-s-OFDM QPSK	1@1	23.52	23.02	0.2004
77	30	60	656000	3840	DFT-s-OFDM QPSK	1@160	23.58	23.08	0.2032
77	30	60	656000	3840	DFT-s-OFDM 16 QAM	81@40	22.45	21.95	0.1567
77	30	60	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.71	22.21	0.1663
77	30	60	656000	3840	DFT-s-OFDM 16 QAM	1@160	22.72	22.22	0.1667
77	30	60	656000	3840	DFT-s-OFDM 64 QAM	81@40	21	20.5	0.1122
77	30	60	656000	3840	DFT-s-OFDM 64 QAM	1@1	21	20.5	0.1122
77	30	60	656000	3840	DFT-s-OFDM 64 QAM	1@160	21.04	20.54	0.1132
77	30	60	656000	3840	DFT-s-OFDM 256 QAM	81@40	18.99	18.49	0.0706
77	30	60	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.81	18.31	0.0678
77	30	60	656000	3840	DFT-s-OFDM 256 QAM	1@160	18.8	18.3	0.0676
77	30	60	656000	3840	CP-OFDM QPSK	81@40	21.96	21.46	0.1400
77	30	60	656000	3840	CP-OFDM QPSK	1@1	21.98	21.48	0.1406
77	30	60	656000	3840	CP-OFDM QPSK	1@160	21.97	21.47	0.1403
77	30	60	663332	3949.98	DFT-s-OFDM PI/2 BPSK	81@40	23.34	22.84	0.1923
77	30	60	663332	3949.98	DFT-s-OFDM PI/2 BPSK	1@1	23.3	22.8	0.1905
77	30	60	663332	3949.98	DFT-s-OFDM PI/2 BPSK	1@160	23.17	22.67	0.1849

77	30	60	663332	3949.98	DFT-s-OFDM QPSK	81@40	23.31	22.81	0.1910
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@1	23.22	22.72	0.1871
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@160	23.16	22.66	0.1845
77	30	60	663332	3949.98	DFT-s-OFDM 16 QAM	81@40	22.3	21.8	0.1514
77	30	60	663332	3949.98	DFT-s-OFDM 16 QAM	1@1	22.47	21.97	0.1574
77	30	60	663332	3949.98	DFT-s-OFDM 16 QAM	1@160	22.39	21.89	0.1545
77	30	60	663332	3949.98	DFT-s-OFDM 64 QAM	81@40	20.84	20.34	0.1081
77	30	60	663332	3949.98	DFT-s-OFDM 64 QAM	1@1	20.78	20.28	0.1067
77	30	60	663332	3949.98	DFT-s-OFDM 64 QAM	1@160	20.64	20.14	0.1033
77	30	60	663332	3949.98	DFT-s-OFDM 256 QAM	81@40	18.82	18.32	0.0679
77	30	60	663332	3949.98	DFT-s-OFDM 256 QAM	1@1	18.59	18.09	0.0644
77	30	60	663332	3949.98	DFT-s-OFDM 256 QAM	1@160	18.43	17.93	0.0621
77	30	60	663332	3949.98	CP-OFDM QPSK	81@40	21.78	21.28	0.1343
77	30	60	663332	3949.98	CP-OFDM QPSK	1@1	21.76	21.26	0.1337
77	30	60	663332	3949.98	CP-OFDM QPSK	1@160	21.61	21.11	0.1291
77	30	70	649000	3735	DFT-s-OFDM PI/2 BPSK	90@45	23.32	22.82	0.1914
77	30	70	649000	3735	DFT-s-OFDM PI/2 BPSK	1@1	23.35	22.85	0.1928
77	30	70	649000	3735	DFT-s-OFDM PI/2 BPSK	1@187	23.05	22.55	0.1799
77	30	70	649000	3735	DFT-s-OFDM QPSK	90@45	23.33	22.83	0.1919
77	30	70	649000	3735	DFT-s-OFDM QPSK	1@1	23.32	22.82	0.1914
77	30	70	649000	3735	DFT-s-OFDM QPSK	1@187	22.99	22.49	0.1774
77	30	70	649000	3735	DFT-s-OFDM 16 QAM	90@45	22.29	21.79	0.1510
77	30	70	649000	3735	DFT-s-OFDM 16 QAM	1@1	22.53	22.03	0.1596
77	30	70	649000	3735	DFT-s-OFDM 16	1@187	22.2	21.7	0.1479

					QAM				
77	30	70	649000	3735	DFT-s-OFDM 64 QAM	90@45	20.81	20.31	0.1074
77	30	70	649000	3735	DFT-s-OFDM 64 QAM	1@1	20.8	20.3	0.1072
77	30	70	649000	3735	DFT-s-OFDM 64 QAM	1@187	20.5	20	0.1000
77	30	70	649000	3735	DFT-s-OFDM 256 QAM	90@45	18.83	18.33	0.0681
77	30	70	649000	3735	DFT-s-OFDM 256 QAM	1@1	18.6	18.1	0.0646
77	30	70	649000	3735	DFT-s-OFDM 256 QAM	1@187	18.27	17.77	0.0598
77	30	70	649000	3735	CP-OFDM QPSK	95@47	21.77	21.27	0.1340
77	30	70	649000	3735	CP-OFDM QPSK	1@1	21.8	21.3	0.1349
77	30	70	649000	3735	CP-OFDM QPSK	1@187	21.55	21.05	0.1274
77	30	70	656000	3840	DFT-s-OFDM PI/2 BPSK	90@45	23.36	22.86	0.1932
77	30	70	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.33	22.83	0.1919
77	30	70	656000	3840	DFT-s-OFDM PI/2 BPSK	1@187	23.34	22.84	0.1923
77	30	70	656000	3840	DFT-s-OFDM QPSK	90@45	23.34	22.84	0.1923
77	30	70	656000	3840	DFT-s-OFDM QPSK	1@1	23.3	22.8	0.1905
77	30	70	656000	3840	DFT-s-OFDM QPSK	1@187	23.27	22.77	0.1892
77	30	70	656000	3840	DFT-s-OFDM 16 QAM	90@45	22.37	21.87	0.1538
77	30	70	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.51	22.01	0.1589
77	30	70	656000	3840	DFT-s-OFDM 16 QAM	1@187	22.51	22.01	0.1589
77	30	70	656000	3840	DFT-s-OFDM 64 QAM	90@45	20.83	20.33	0.1079
77	30	70	656000	3840	DFT-s-OFDM 64 QAM	1@1	20.82	20.32	0.1076
77	30	70	656000	3840	DFT-s-OFDM 64 QAM	1@187	20.79	20.29	0.1069
77	30	70	656000	3840	DFT-s-OFDM 256 QAM	90@45	18.84	18.34	0.0682
77	30	70	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.54	18.04	0.0637

77	30	70	656000	3840	DFT-s-OFDM 256 QAM	1@187	18.5	18	0.0631
77	30	70	656000	3840	CP-OFDM QPSK	95@47	21.8	21.3	0.1349
77	30	70	656000	3840	CP-OFDM QPSK	1@1	21.78	21.28	0.1343
77	30	70	656000	3840	CP-OFDM QPSK	1@187	21.8	21.3	0.1349
77	30	70	663000	3945	DFT-s-OFDM PI/2 BPSK	90@45	23.36	22.86	0.1932
77	30	70	663000	3945	DFT-s-OFDM PI/2 BPSK	1@1	23.37	22.87	0.1936
77	30	70	663000	3945	DFT-s-OFDM PI/2 BPSK	1@187	23.1	22.6	0.1820
77	30	70	663000	3945	DFT-s-OFDM QPSK	90@45	23.36	22.86	0.1932
77	30	70	663000	3945	DFT-s-OFDM QPSK	1@1	23.27	22.77	0.1892
77	30	70	663000	3945	DFT-s-OFDM QPSK	1@187	23.12	22.62	0.1828
77	30	70	663000	3945	DFT-s-OFDM 16 QAM	90@45	22.36	21.86	0.1535
77	30	70	663000	3945	DFT-s-OFDM 16 QAM	1@1	22.49	21.99	0.1581
77	30	70	663000	3945	DFT-s-OFDM 16 QAM	1@187	22.33	21.83	0.1524
77	30	70	663000	3945	DFT-s-OFDM 64 QAM	90@45	20.88	20.38	0.1091
77	30	70	663000	3945	DFT-s-OFDM 64 QAM	1@1	20.77	20.27	0.1064
77	30	70	663000	3945	DFT-s-OFDM 64 QAM	1@187	20.62	20.12	0.1028
77	30	70	663000	3945	DFT-s-OFDM 256 QAM	90@45	18.85	18.35	0.0684
77	30	70	663000	3945	DFT-s-OFDM 256 QAM	1@1	18.67	18.17	0.0656
77	30	70	663000	3945	DFT-s-OFDM 256 QAM	1@187	18.38	17.88	0.0614
77	30	70	663000	3945	CP-OFDM QPSK	95@47	21.78	21.28	0.1343
77	30	70	663000	3945	CP-OFDM QPSK	1@1	21.76	21.26	0.1337
77	30	70	663000	3945	CP-OFDM QPSK	1@187	21.61	21.11	0.1291
77	30	80	649334	3740.01	DFT-s-OFDM PI/2 BPSK	108@54	23.28	22.78	0.1897
77	30	80	649334	3740.01	DFT-s-OFDM PI/2 BPSK	1@1	23.29	22.79	0.1901

77	30	80	649334	3740.01	DFT-s-OFDM PI/2 BPSK	1@215	23.03	22.53	0.1791
77	30	80	649334	3740.01	DFT-s-OFDM QPSK	108@54	23.27	22.77	0.1892
77	30	80	649334	3740.01	DFT-s-OFDM QPSK	1@1	23.24	22.74	0.1879
77	30	80	649334	3740.01	DFT-s-OFDM QPSK	1@215	22.99	22.49	0.1774
77	30	80	649334	3740.01	DFT-s-OFDM 16 QAM	108@54	22.26	21.76	0.1500
77	30	80	649334	3740.01	DFT-s-OFDM 16 QAM	1@1	22.37	21.87	0.1538
77	30	80	649334	3740.01	DFT-s-OFDM 16 QAM	1@215	22.07	21.57	0.1435
77	30	80	649334	3740.01	DFT-s-OFDM 64 QAM	108@54	20.75	20.25	0.1059
77	30	80	649334	3740.01	DFT-s-OFDM 64 QAM	1@1	20.98	20.48	0.1117
77	30	80	649334	3740.01	DFT-s-OFDM 64 QAM	1@215	20.66	20.16	0.1038
77	30	80	649334	3740.01	DFT-s-OFDM 256 QAM	108@54	18.81	18.31	0.0678
77	30	80	649334	3740.01	DFT-s-OFDM 256 QAM	1@1	18.48	17.98	0.0628
77	30	80	649334	3740.01	DFT-s-OFDM 256 QAM	1@215	18.17	17.67	0.0585
77	30	80	649334	3740.01	CP-OFDM QPSK	109@54	21.79	21.29	0.1346
77	30	80	649334	3740.01	CP-OFDM QPSK	1@1	21.81	21.31	0.1352
77	30	80	649334	3740.01	CP-OFDM QPSK	1@215	21.49	20.99	0.1256
77	30	80	656000	3840	DFT-s-OFDM PI/2 BPSK	108@54	23.32	22.82	0.1914
77	30	80	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.28	22.78	0.1897
77	30	80	656000	3840	DFT-s-OFDM PI/2 BPSK	1@215	23.31	22.81	0.1910
77	30	80	656000	3840	DFT-s-OFDM QPSK	108@54	23.32	22.82	0.1914
77	30	80	656000	3840	DFT-s-OFDM QPSK	1@1	23.32	22.82	0.1914
77	30	80	656000	3840	DFT-s-OFDM QPSK	1@215	23.31	22.81	0.1910
77	30	80	656000	3840	DFT-s-OFDM 16 QAM	108@54	22.33	21.83	0.1524
77	30	80	656000	3840	DFT-s-OFDM 16	1@1	22.45	21.95	0.1567

					QAM				
77	30	80	656000	3840	DFT-s-OFDM 16 QAM	1@215	22.36	21.86	0.1535
77	30	80	656000	3840	DFT-s-OFDM 64 QAM	108@54	20.85	20.35	0.1084
77	30	80	656000	3840	DFT-s-OFDM 64 QAM	1@1	21	20.5	0.1122
77	30	80	656000	3840	DFT-s-OFDM 64 QAM	1@215	20.98	20.48	0.1117
77	30	80	656000	3840	DFT-s-OFDM 256 QAM	108@54	18.84	18.34	0.0682
77	30	80	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.59	18.09	0.0644
77	30	80	656000	3840	DFT-s-OFDM 256 QAM	1@215	18.62	18.12	0.0649
77	30	80	656000	3840	CP-OFDM QPSK	109@54	21.82	21.32	0.1355
77	30	80	656000	3840	CP-OFDM QPSK	1@1	21.75	21.25	0.1334
77	30	80	656000	3840	CP-OFDM QPSK	1@215	21.83	21.33	0.1358
77	30	80	662666	3939.99	DFT-s-OFDM PI/2 BPSK	108@54	23.34	22.84	0.1923
77	30	80	662666	3939.99	DFT-s-OFDM PI/2 BPSK	1@1	23.28	22.78	0.1897
77	30	80	662666	3939.99	DFT-s-OFDM PI/2 BPSK	1@215	23.1	22.6	0.1820
77	30	80	662666	3939.99	DFT-s-OFDM QPSK	108@54	23.33	22.83	0.1919
77	30	80	662666	3939.99	DFT-s-OFDM QPSK	1@1	23.29	22.79	0.1901
77	30	80	662666	3939.99	DFT-s-OFDM QPSK	1@215	23.09	22.59	0.1816
77	30	80	662666	3939.99	DFT-s-OFDM 16 QAM	108@54	22.28	21.78	0.1507
77	30	80	662666	3939.99	DFT-s-OFDM 16 QAM	1@1	22.4	21.9	0.1549
77	30	80	662666	3939.99	DFT-s-OFDM 16 QAM	1@215	22.16	21.66	0.1466
77	30	80	662666	3939.99	DFT-s-OFDM 64 QAM	108@54	20.89	20.39	0.1094
77	30	80	662666	3939.99	DFT-s-OFDM 64 QAM	1@1	20.94	20.44	0.1107
77	30	80	662666	3939.99	DFT-s-OFDM 64 QAM	1@215	20.77	20.27	0.1064
77	30	80	662666	3939.99	DFT-s-OFDM 256 QAM	108@54	18.83	18.33	0.0681

77	30	80	662666	3939.99	DFT-s-OFDM 256 QAM	1@1	18.6	18.1	0.0646
77	30	80	662666	3939.99	DFT-s-OFDM 256 QAM	1@215	18.35	17.85	0.0610
77	30	80	662666	3939.99	CP-OFDM QPSK	109@54	21.79	21.29	0.1346
77	30	80	662666	3939.99	CP-OFDM QPSK	1@1	21.78	21.28	0.1343
77	30	80	662666	3939.99	CP-OFDM QPSK	1@215	21.59	21.09	0.1285
77	30	90	649668	3745.02	DFT-s-OFDM PI/2 BPSK	120@60	23.27	22.77	0.1892
77	30	90	649668	3745.02	DFT-s-OFDM PI/2 BPSK	1@1	23.26	22.76	0.1888
77	30	90	649668	3745.02	DFT-s-OFDM PI/2 BPSK	1@243	23	22.5	0.1778
77	30	90	649668	3745.02	DFT-s-OFDM QPSK	120@60	23.24	22.74	0.1879
77	30	90	649668	3745.02	DFT-s-OFDM QPSK	1@1	23.28	22.78	0.1897
77	30	90	649668	3745.02	DFT-s-OFDM QPSK	1@243	22.97	22.47	0.1766
77	30	90	649668	3745.02	DFT-s-OFDM 16 QAM	120@60	22.3	21.8	0.1514
77	30	90	649668	3745.02	DFT-s-OFDM 16 QAM	1@1	22.35	21.85	0.1531
77	30	90	649668	3745.02	DFT-s-OFDM 16 QAM	1@243	22.05	21.55	0.1429
77	30	90	649668	3745.02	DFT-s-OFDM 64 QAM	120@60	20.76	20.26	0.1062
77	30	90	649668	3745.02	DFT-s-OFDM 64 QAM	1@1	20.96	20.46	0.1112
77	30	90	649668	3745.02	DFT-s-OFDM 64 QAM	1@243	20.64	20.14	0.1033
77	30	90	649668	3745.02	DFT-s-OFDM 256 QAM	120@60	18.72	18.22	0.0664
77	30	90	649668	3745.02	DFT-s-OFDM 256 QAM	1@1	18.5	18	0.0631
77	30	90	649668	3745.02	DFT-s-OFDM 256 QAM	1@243	18.18	17.68	0.0586
77	30	90	649668	3745.02	CP-OFDM QPSK	123@61	21.73	21.23	0.1327
77	30	90	649668	3745.02	CP-OFDM QPSK	1@1	21.76	21.26	0.1337
77	30	90	649668	3745.02	CP-OFDM QPSK	1@243	21.48	20.98	0.1253
77	30	90	656000	3840	DFT-s-OFDM PI/2 BPSK	120@60	23.34	22.84	0.1923

77	30	90	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.3	22.8	0.1905
77	30	90	656000	3840	DFT-s-OFDM PI/2 BPSK	1@243	23.34	22.84	0.1923
77	30	90	656000	3840	DFT-s-OFDM QPSK	120@60	23.34	22.84	0.1923
77	30	90	656000	3840	DFT-s-OFDM QPSK	1@1	23.33	22.83	0.1919
77	30	90	656000	3840	DFT-s-OFDM QPSK	1@243	23.32	22.82	0.1914
77	30	90	656000	3840	DFT-s-OFDM 16 QAM	120@60	22.33	21.83	0.1524
77	30	90	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.42	21.92	0.1556
77	30	90	656000	3840	DFT-s-OFDM 16 QAM	1@243	22.46	21.96	0.1570
77	30	90	656000	3840	DFT-s-OFDM 64 QAM	120@60	20.92	20.42	0.1102
77	30	90	656000	3840	DFT-s-OFDM 64 QAM	1@1	20.99	20.49	0.1119
77	30	90	656000	3840	DFT-s-OFDM 64 QAM	1@243	21.04	20.54	0.1132
77	30	90	656000	3840	DFT-s-OFDM 256 QAM	120@60	18.83	18.33	0.0681
77	30	90	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.56	18.06	0.0640
77	30	90	656000	3840	DFT-s-OFDM 256 QAM	1@243	18.57	18.07	0.0641
77	30	90	656000	3840	CP-OFDM QPSK	123@61	21.8	21.3	0.1349
77	30	90	656000	3840	CP-OFDM QPSK	1@1	21.74	21.24	0.1330
77	30	90	656000	3840	CP-OFDM QPSK	1@243	21.81	21.31	0.1352
77	30	90	662332	3934.98	DFT-s-OFDM PI/2 BPSK	120@60	23.21	22.71	0.1866
77	30	90	662332	3934.98	DFT-s-OFDM PI/2 BPSK	1@1	23.29	22.79	0.1901
77	30	90	662332	3934.98	DFT-s-OFDM PI/2 BPSK	1@243	23.06	22.56	0.1803
77	30	90	662332	3934.98	DFT-s-OFDM QPSK	120@60	23.18	22.68	0.1854
77	30	90	662332	3934.98	DFT-s-OFDM QPSK	1@1	23.27	22.77	0.1892
77	30	90	662332	3934.98	DFT-s-OFDM QPSK	1@243	23.06	22.56	0.1803
77	30	90	662332	3934.98	DFT-s-OFDM 16	120@60	22.21	21.71	0.1483

					QAM				
77	30	90	662332	3934.98	DFT-s-OFDM 16 QAM	1@1	22.36	21.86	0.1535
77	30	90	662332	3934.98	DFT-s-OFDM 16 QAM	1@243	22.17	21.67	0.1469
77	30	90	662332	3934.98	DFT-s-OFDM 64 QAM	120@60	20.69	20.19	0.1045
77	30	90	662332	3934.98	DFT-s-OFDM 64 QAM	1@1	20.93	20.43	0.1104
77	30	90	662332	3934.98	DFT-s-OFDM 64 QAM	1@243	20.8	20.3	0.1072
77	30	90	662332	3934.98	DFT-s-OFDM 256 QAM	120@60	18.62	18.12	0.0649
77	30	90	662332	3934.98	DFT-s-OFDM 256 QAM	1@1	18.44	17.94	0.0622
77	30	90	662332	3934.98	DFT-s-OFDM 256 QAM	1@243	18.28	17.78	0.0600
77	30	90	662332	3934.98	CP-OFDM QPSK	123@61	21.71	21.21	0.1321
77	30	90	662332	3934.98	CP-OFDM QPSK	1@1	21.75	21.25	0.1334
77	30	90	662332	3934.98	CP-OFDM QPSK	1@243	21.54	21.04	0.1271
77	30	100	650000	3750	DFT-s-OFDM PI/2 BPSK	135@67	23.21	22.71	0.1866
77	30	100	650000	3750	DFT-s-OFDM PI/2 BPSK	1@1	23.2	22.7	0.1862
77	30	100	650000	3750	DFT-s-OFDM PI/2 BPSK	1@271	22.98	22.48	0.1770
77	30	100	650000	3750	DFT-s-OFDM QPSK	135@67	23.21	22.71	0.1866
77	30	100	650000	3750	DFT-s-OFDM QPSK	1@1	23.2	22.7	0.1862
77	30	100	650000	3750	DFT-s-OFDM QPSK	1@271	22.98	22.48	0.1770
77	30	100	650000	3750	DFT-s-OFDM 16 QAM	135@67	22.22	21.72	0.1486
77	30	100	650000	3750	DFT-s-OFDM 16 QAM	1@1	22.36	21.86	0.1535
77	30	100	650000	3750	DFT-s-OFDM 16 QAM	1@271	22.07	21.57	0.1435
77	30	100	650000	3750	DFT-s-OFDM 64 QAM	135@67	20.7	20.2	0.1047
77	30	100	650000	3750	DFT-s-OFDM 64 QAM	1@1	20.69	20.19	0.1045
77	30	100	650000	3750	DFT-s-OFDM 64 QAM	1@271	20.47	19.97	0.0993

77	30	100	650000	3750	DFT-s-OFDM 256 QAM	135@67	18.76	18.26	0.0670
77	30	100	650000	3750	DFT-s-OFDM 256 QAM	1@1	18.44	17.94	0.0622
77	30	100	650000	3750	DFT-s-OFDM 256 QAM	1@271	18.19	17.69	0.0587
77	30	100	650000	3750	CP-OFDM QPSK	137@68	21.7	21.2	0.1318
77	30	100	650000	3750	CP-OFDM QPSK	1@1	21.73	21.23	0.1327
77	30	100	650000	3750	CP-OFDM QPSK	1@271	21.4	20.9	0.1230
77	30	100	656000	3840	DFT-s-OFDM PI/2 BPSK	135@67	23.3	22.8	0.1905
77	30	100	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.31	22.81	0.1910
77	30	100	656000	3840	DFT-s-OFDM PI/2 BPSK	1@271	23.45	22.95	0.1972
77	30	100	656000	3840	DFT-s-OFDM QPSK	135@67	23.33	22.83	0.1919
77	30	100	656000	3840	DFT-s-OFDM QPSK	1@1	23.3	22.8	0.1905
77	30	100	656000	3840	DFT-s-OFDM QPSK	1@271	23.47	22.97	0.1982
77	30	100	656000	3840	DFT-s-OFDM 16 QAM	135@67	22.33	21.83	0.1524
77	30	100	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.41	21.91	0.1552
77	30	100	656000	3840	DFT-s-OFDM 16 QAM	1@271	22.59	22.09	0.1618
77	30	100	656000	3840	DFT-s-OFDM 64 QAM	135@67	20.81	20.31	0.1074
77	30	100	656000	3840	DFT-s-OFDM 64 QAM	1@1	20.75	20.25	0.1059
77	30	100	656000	3840	DFT-s-OFDM 64 QAM	1@271	20.99	20.49	0.1119
77	30	100	656000	3840	DFT-s-OFDM 256 QAM	135@67	18.88	18.38	0.0689
77	30	100	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.47	17.97	0.0627
77	30	100	656000	3840	DFT-s-OFDM 256 QAM	1@271	18.64	18.14	0.0652
77	30	100	656000	3840	CP-OFDM QPSK	137@68	21.81	21.31	0.1352
77	30	100	656000	3840	CP-OFDM QPSK	1@1	21.69	21.19	0.1315
77	30	100	656000	3840	CP-OFDM QPSK	1@271	21.91	21.41	0.1384

77	30	100	662000	3930	DFT-s-OFDM PI/2 BPSK	135@67	23.23	22.73	0.1875
77	30	100	662000	3930	DFT-s-OFDM PI/2 BPSK	1@1	23.18	22.68	0.1854
77	30	100	662000	3930	DFT-s-OFDM PI/2 BPSK	1@271	23.17	22.67	0.1849
77	30	100	662000	3930	DFT-s-OFDM QPSK	135@67	23.26	22.76	0.1888
77	30	100	662000	3930	DFT-s-OFDM QPSK	1@1	23.19	22.69	0.1858
77	30	100	662000	3930	DFT-s-OFDM QPSK	1@271	23.15	22.65	0.1841
77	30	100	662000	3930	DFT-s-OFDM 16 QAM	135@67	22.24	21.74	0.1493
77	30	100	662000	3930	DFT-s-OFDM 16 QAM	1@1	22.33	21.83	0.1524
77	30	100	662000	3930	DFT-s-OFDM 16 QAM	1@271	22.31	21.81	0.1517
77	30	100	662000	3930	DFT-s-OFDM 64 QAM	135@67	20.75	20.25	0.1059
77	30	100	662000	3930	DFT-s-OFDM 64 QAM	1@1	20.73	20.23	0.1054
77	30	100	662000	3930	DFT-s-OFDM 64 QAM	1@271	20.84	20.34	0.1081
77	30	100	662000	3930	DFT-s-OFDM 256 QAM	135@67	18.78	18.28	0.0673
77	30	100	662000	3930	DFT-s-OFDM 256 QAM	1@1	18.36	17.86	0.0611
77	30	100	662000	3930	DFT-s-OFDM 256 QAM	1@271	18.34	17.84	0.0608
77	30	100	662000	3930	CP-OFDM QPSK	137@68	21.72	21.22	0.1324
77	30	100	662000	3930	CP-OFDM QPSK	1@1	21.67	21.17	0.1309
77	30	100	662000	3930	CP-OFDM QPSK	1@271	21.6	21.1	0.1288

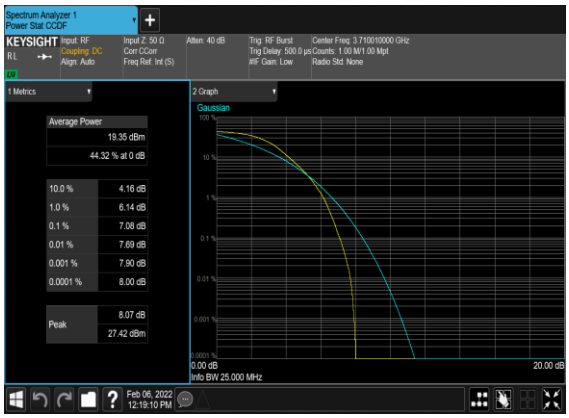
Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00507	**PASS**	NV
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00518	**PASS**	LV
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00562	**PASS**	HV
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00412	**PASS**	-30℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00687	**PASS**	-20℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00294	**PASS**	-10℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00419	**PASS**	0℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00529	**PASS**	10℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00372	**PASS**	20℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00218	**PASS**	30℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00255	**PASS**	40℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00597	**PASS**	50℃

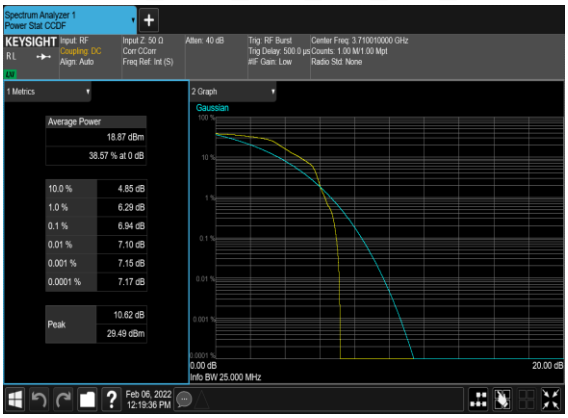
Peak to Average Radio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
77	30	20	647334	3710.01	DFT-s-OFDM PI/2 BPSK	50@0	7.08	13	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM PI/2 BPSK	1@0	6.94	13	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	50@0	8.36	13	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@0	8.14	13	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM PI/2 BPSK	50@0	6.88	13	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM PI/2 BPSK	1@0	7.46	13	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	8.08	13	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	1@0	8.62	13	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM PI/2 BPSK	50@0	6.71	13	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM PI/2 BPSK	1@0	6.74	13	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	50@0	8.09	13	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@0	8.35	13	**PASS**

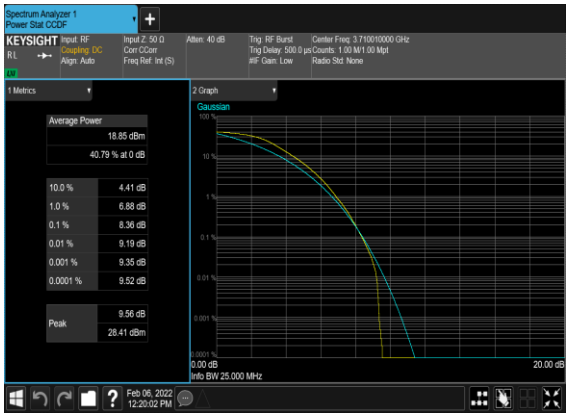
B41_N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



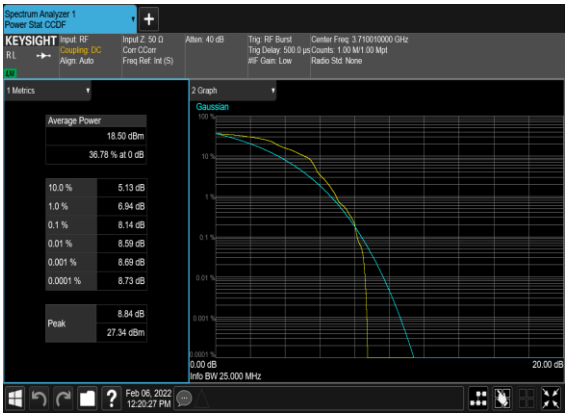
B41_N77(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Low_CH



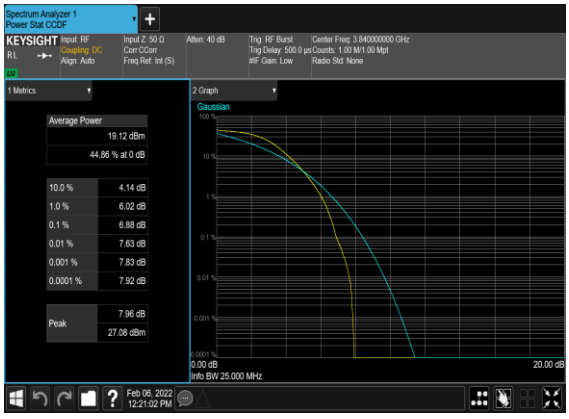
B41_N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



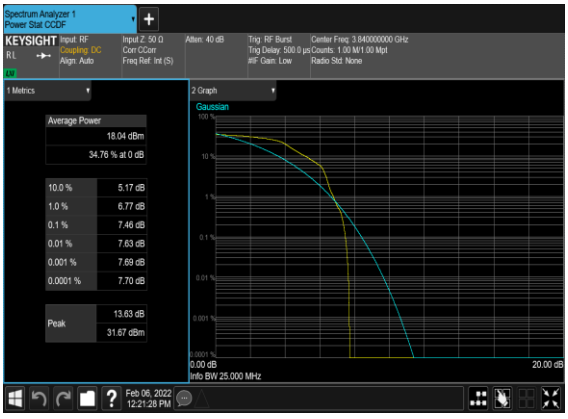
B41_N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



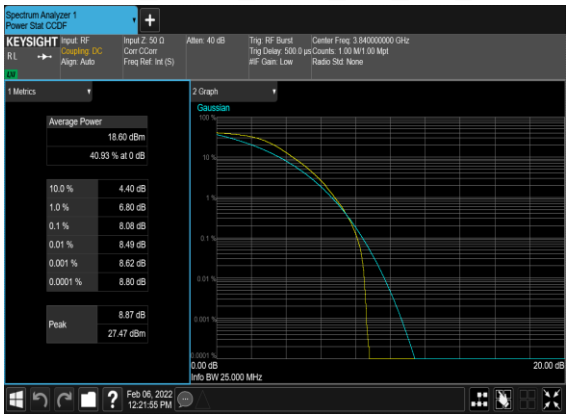
B41_N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



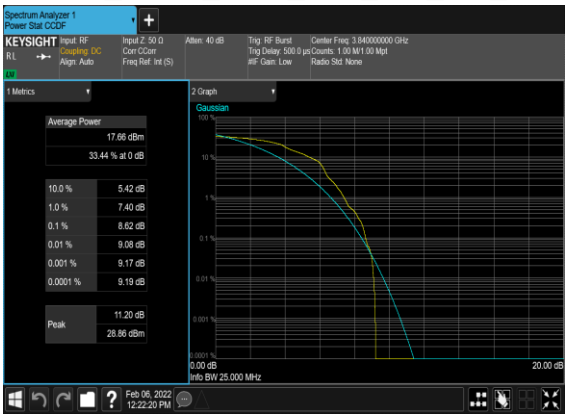
B41_N77(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Mid_CH



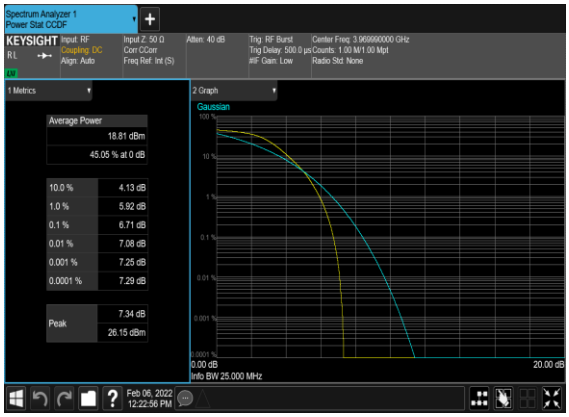
B41_N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



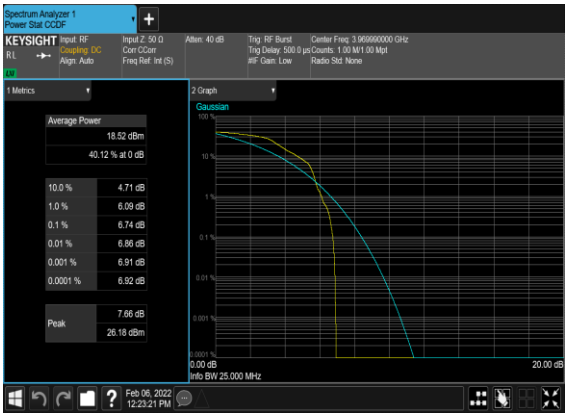
B41_N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



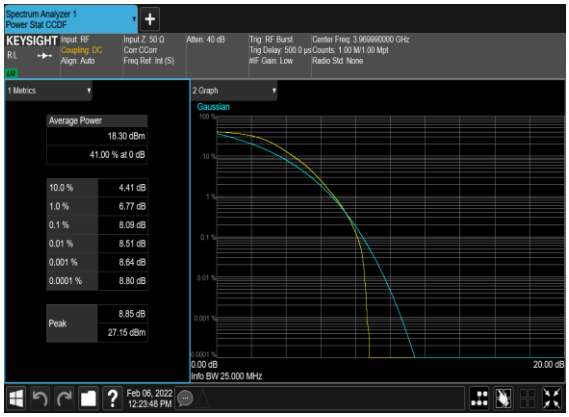
B41_N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



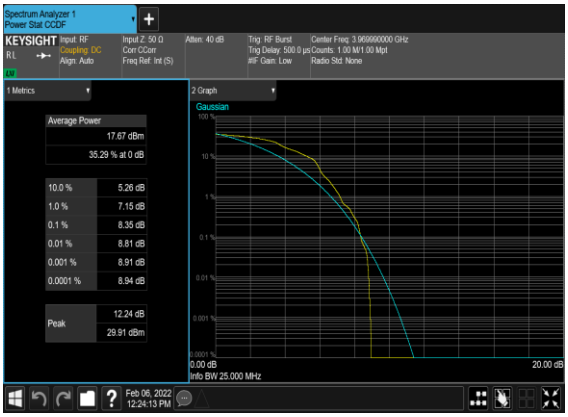
B41_N77(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_High_CH



B41_N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



B41_N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



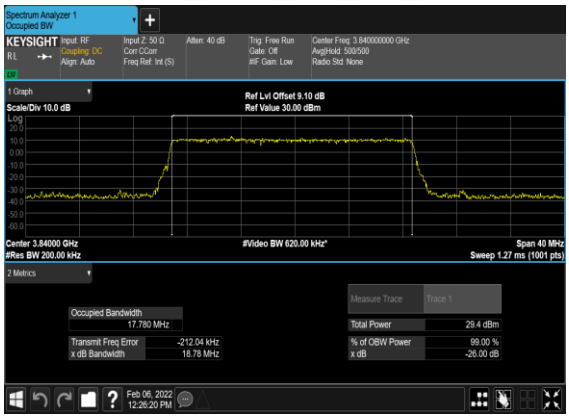
Occupied Bandwidth

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB OBW (MHz)
77	30	20	656000	3840.0	DFT-s-OFDM PI/2 BPSK	50@0	17.78	18.78
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	17.799	19.15
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	18.206	19.31
77	30	20	656000	3840.0	CP-OFDM 16 QAM	51@0	18.211	19.26
77	30	20	656000	3840.0	CP-OFDM 64 QAM	51@0	18.182	19.31
77	30	20	656000	3840.0	CP-OFDM 256 QAM	51@0	18.219	19.42
77	30	30	656000	3840.0	DFT-s-OFDM PI/2 BPSK	75@0	26.763	28.16
77	30	30	656000	3840.0	DFT-s-OFDM QPSK	75@0	26.736	28.06
77	30	30	656000	3840.0	CP-OFDM QPSK	78@0	27.823	29.29
77	30	30	656000	3840.0	CP-OFDM 16 QAM	78@0	27.86	28.96
77	30	30	656000	3840.0	CP-OFDM 64 QAM	78@0	27.801	29.07
77	30	30	656000	3840.0	CP-OFDM 256 QAM	78@0	27.847	29.25
77	30	40	656000	3840.0	DFT-s-OFDM PI/2 BPSK	100@0	35.707	37.36
77	30	40	656000	3840.0	DFT-s-OFDM QPSK	100@0	35.771	37.34
77	30	40	656000	3840.0	CP-OFDM QPSK	106@0	37.717	39.3
77	30	40	656000	3840.0	CP-OFDM 16 QAM	106@0	37.77	39.55
77	30	40	656000	3840.0	CP-OFDM 64 QAM	106@0	37.851	39.5
77	30	40	656000	3840.0	CP-OFDM 256 QAM	106@0	37.809	39.62
77	30	50	656000	3840.0	DFT-s-OFDM PI/2 BPSK	128@0	45.765	47.58
77	30	50	656000	3840.0	DFT-s-OFDM QPSK	128@0	45.844	47.44
77	30	50	656000	3840.0	CP-OFDM QPSK	133@0	47.509	49.41
77	30	50	656000	3840.0	CP-OFDM 16 QAM	133@0	47.377	49.06
77	30	50	656000	3840.0	CP-OFDM 64 QAM	133@0	47.447	49.12
77	30	50	656000	3840.0	CP-OFDM 256 QAM	133@0	47.524	49.17

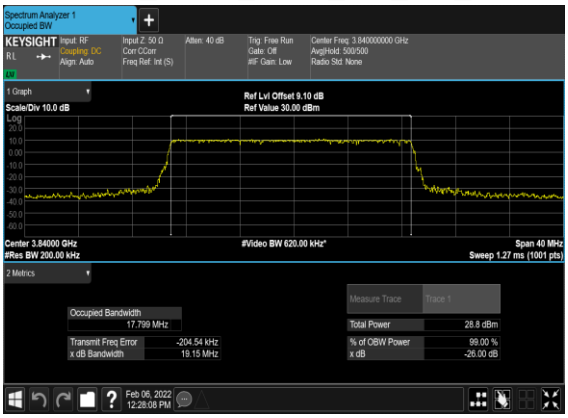
77	30	60	656000	3840.0	DFT-s-OFDM PI/2 BPSK	162@0	57.95	59.74
77	30	60	656000	3840.0	DFT-s-OFDM QPSK	162@0	57.931	59.85
77	30	60	656000	3840.0	CP-OFDM QPSK	162@0	57.809	59.8
77	30	60	656000	3840.0	CP-OFDM 16 QAM	162@0	57.887	59.73
77	30	60	656000	3840.0	CP-OFDM 64 QAM	162@0	57.817	59.87
77	30	60	656000	3840.0	CP-OFDM 256 QAM	162@0	57.761	59.87
77	30	70	656000	3840.0	DFT-s-OFDM PI/2 BPSK	180@0	64.462	66.57
77	30	70	656000	3840.0	DFT-s-OFDM QPSK	180@0	64.334	66.72
77	30	70	656000	3840.0	CP-OFDM QPSK	189@0	67.514	69.88
77	30	70	656000	3840.0	CP-OFDM 16 QAM	189@0	67.437	69.54
77	30	70	656000	3840.0	CP-OFDM 64 QAM	189@0	67.48	69.66
77	30	70	656000	3840.0	CP-OFDM 256 QAM	189@0	67.623	69.81
77	30	80	656000	3840.0	DFT-s-OFDM PI/2 BPSK	216@0	77.121	79.68
77	30	80	656000	3840.0	DFT-s-OFDM QPSK	216@0	77.186	79.67
77	30	80	656000	3840.0	CP-OFDM QPSK	217@0	77.465	79.92
77	30	80	656000	3840.0	CP-OFDM 16 QAM	217@0	77.512	80.12
77	30	80	656000	3840.0	CP-OFDM 64 QAM	217@0	77.617	80.06
77	30	80	656000	3840.0	CP-OFDM 256 QAM	217@0	77.45	80.05
77	30	90	656000	3840.0	DFT-s-OFDM PI/2 BPSK	240@0	85.832	88.58
77	30	90	656000	3840.0	DFT-s-OFDM QPSK	240@0	85.833	88.52
77	30	90	656000	3840.0	CP-OFDM QPSK	245@0	87.452	90.22
77	30	90	656000	3840.0	CP-OFDM 16 QAM	245@0	87.487	90.36
77	30	90	656000	3840.0	CP-OFDM 64 QAM	245@0	87.532	90.37
77	30	90	656000	3840.0	CP-OFDM 256 QAM	245@0	87.658	90.33
77	30	100	656000	3840.0	DFT-s-OFDM PI/2 BPSK	270@0	96.587	99.51
77	30	100	656000	3840.0	DFT-s-OFDM	270@0	96.558	99.6

					QPSK			
77	30	100	656000	3840.0	CP-OFDM QPSK	273@0	97.469	100.7
77	30	100	656000	3840.0	CP-OFDM 16 QAM	273@0	97.559	100.5
77	30	100	656000	3840.0	CP-OFDM 64 QAM	273@0	97.497	100.6
77	30	100	656000	3840.0	CP-OFDM 256 QAM	273@0	97.421	100.5

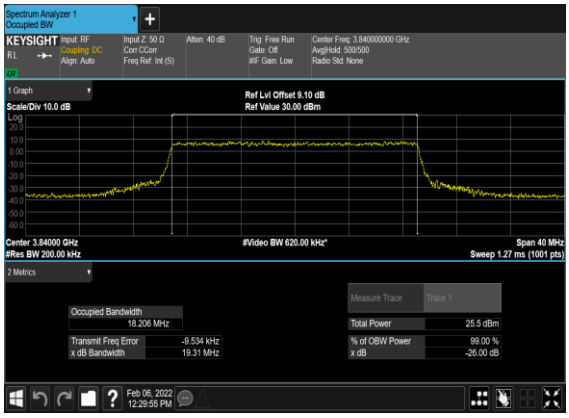
B41_N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



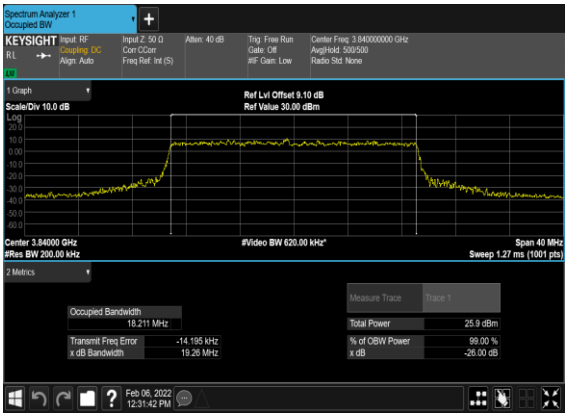
B41_N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



B41_N77(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



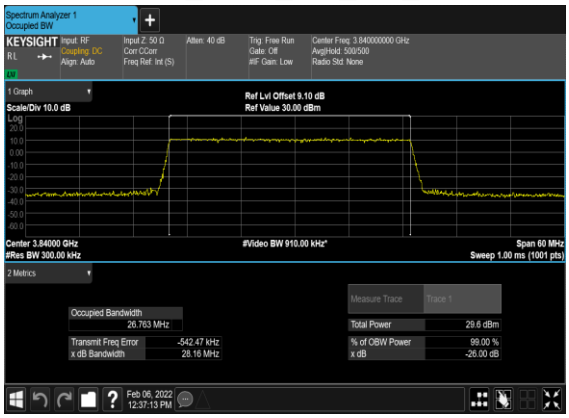
B41_N77(20M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



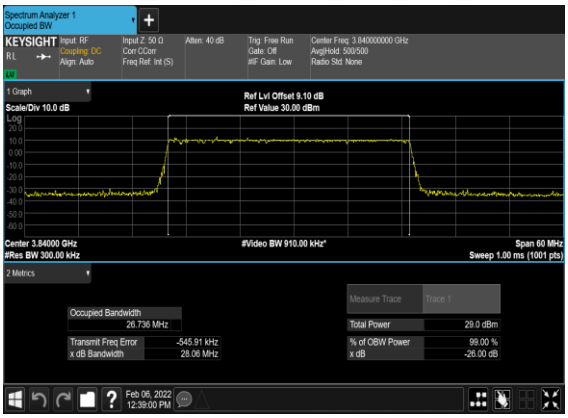
B41_N77(20M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

B41_N77(20M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

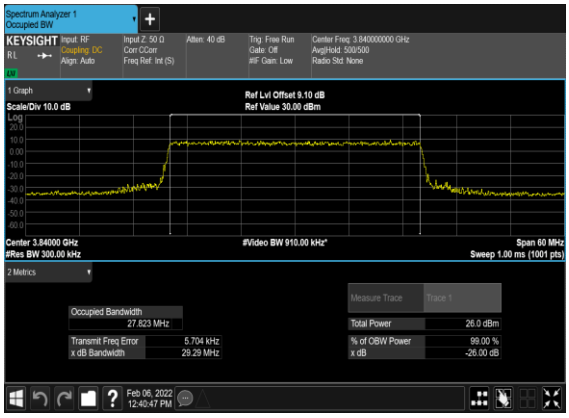
B41_N77(30M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



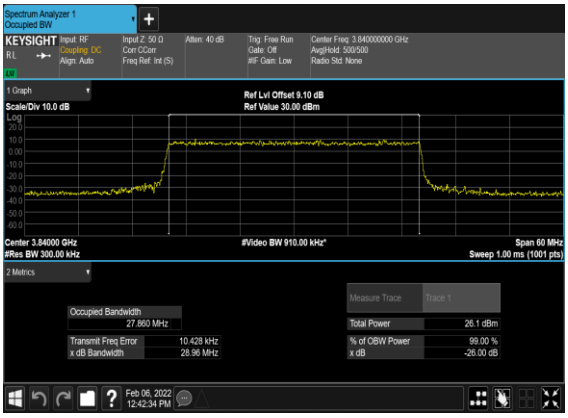
B41_N77(30M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



B41_N77(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

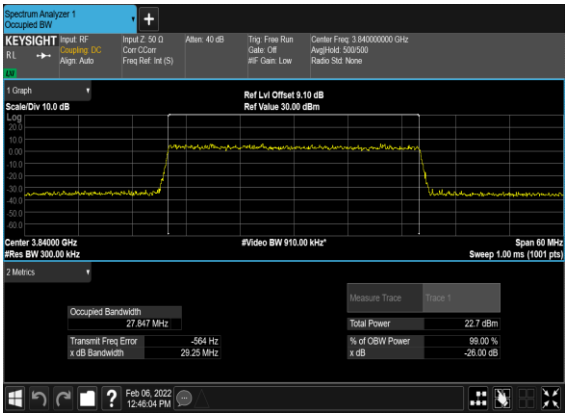


B41_N77(30M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

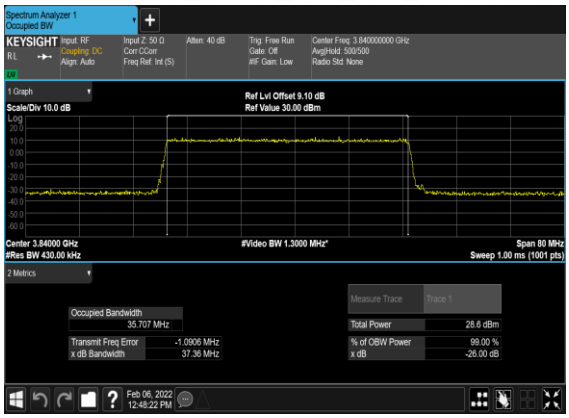


B41_N77(30M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

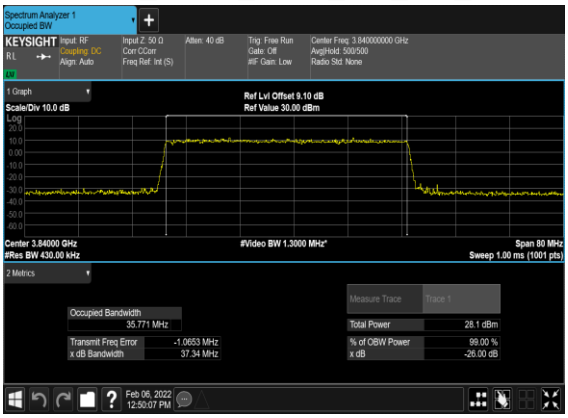
B41_N77(30M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



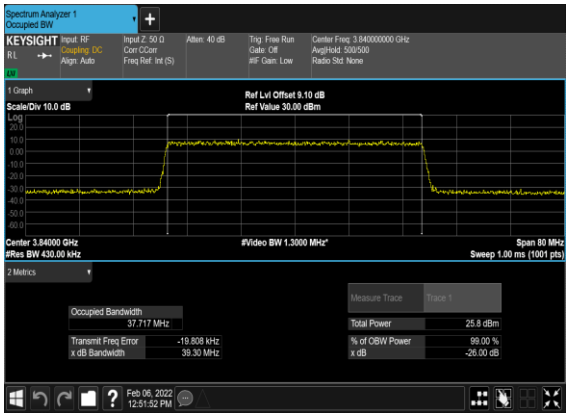
B41_N77(40M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



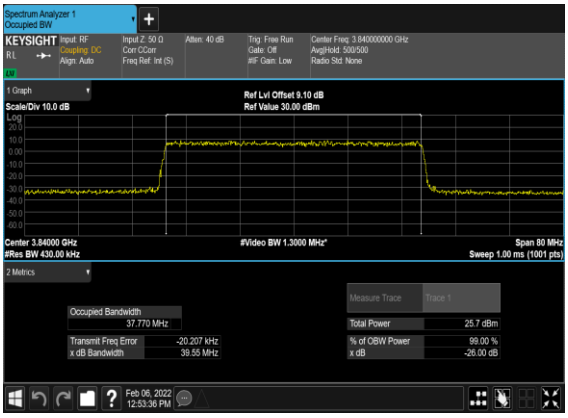
B41_N77(40M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



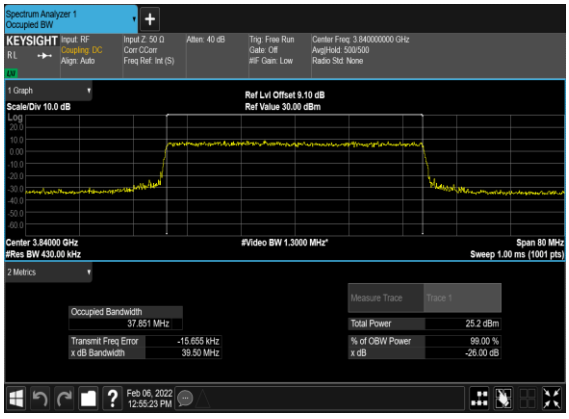
B41_N77(40M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



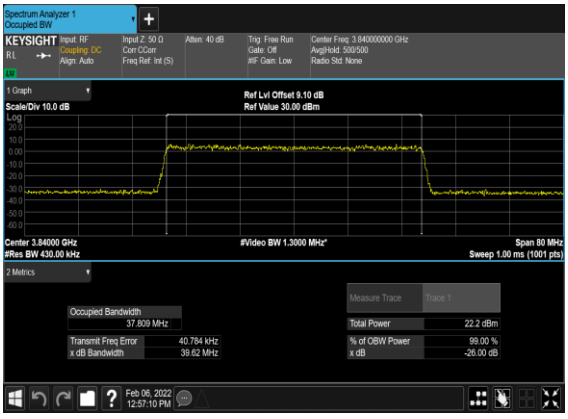
B41_N77(40M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



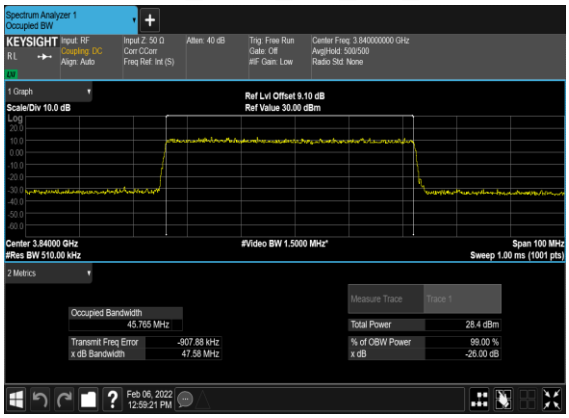
B41_N77(40M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



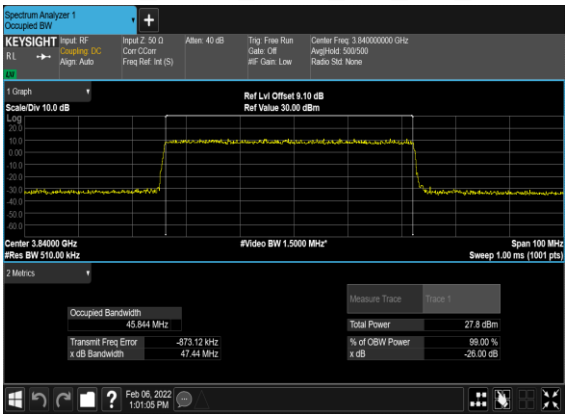
B41_N77(40M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



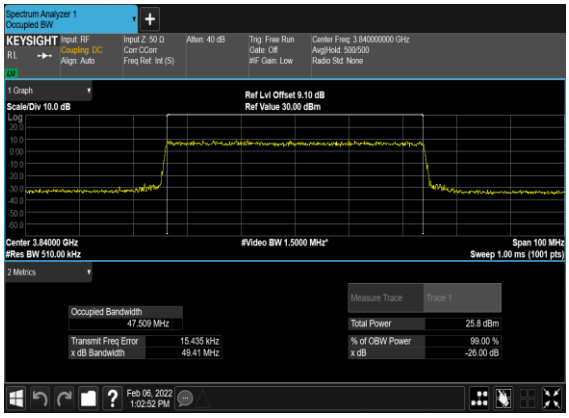
B41_N77(50M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



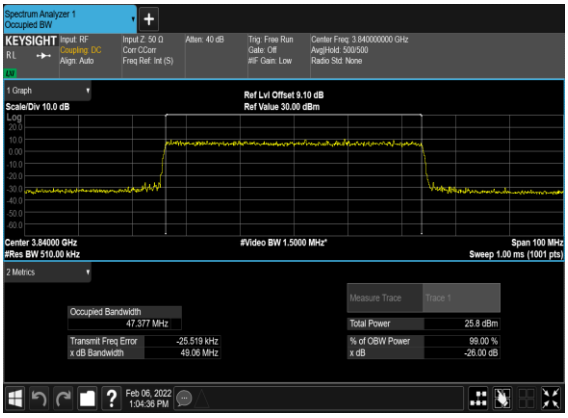
B41_N77(50M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



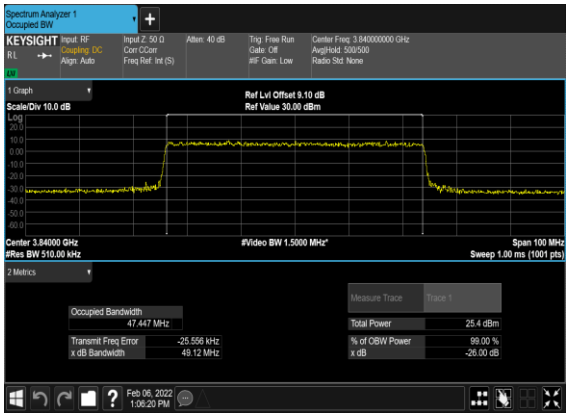
B41_N77(50M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



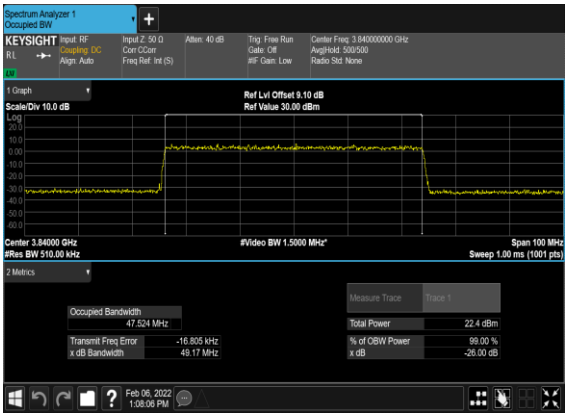
B41_N77(50M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



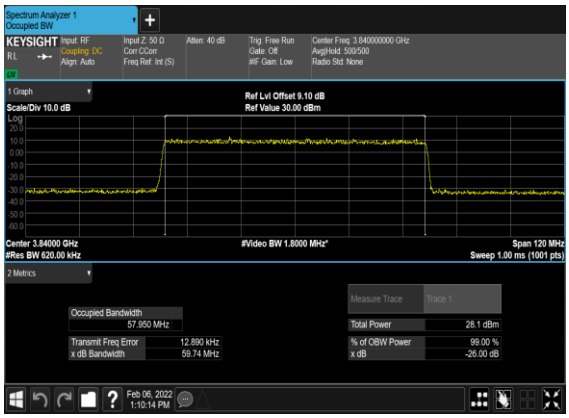
B41_N77(50M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



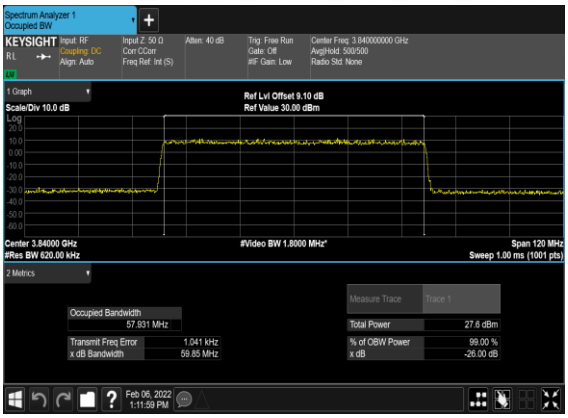
B41_N77(50M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



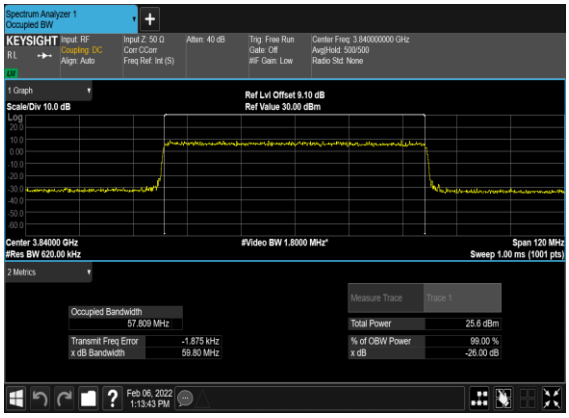
B41_N77(60M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



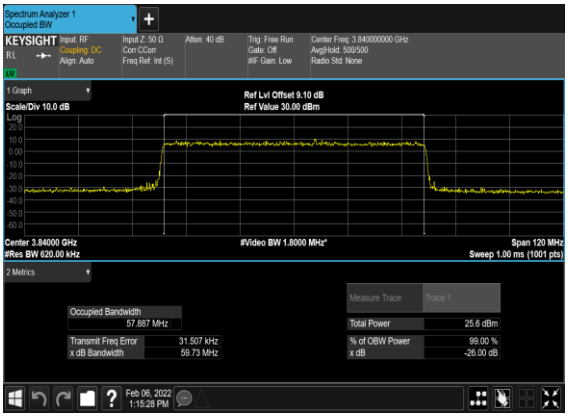
B41_N77(60M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



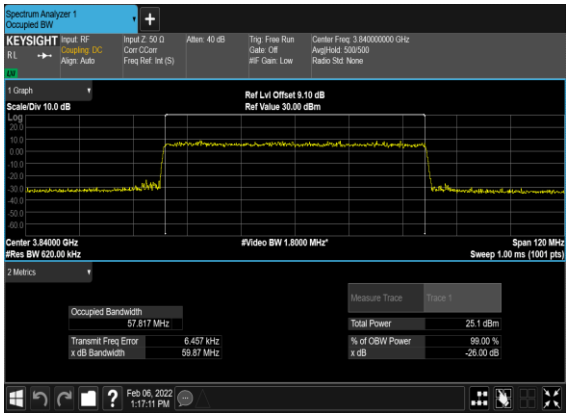
B41_N77(60M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



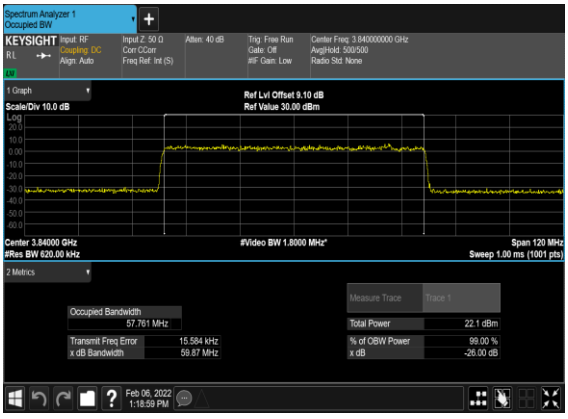
B41_N77(60M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



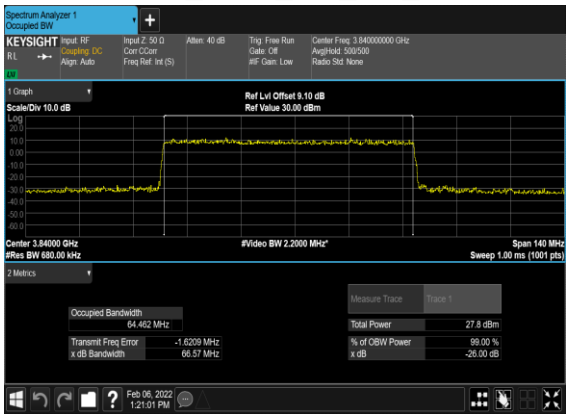
B41_N77(60M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



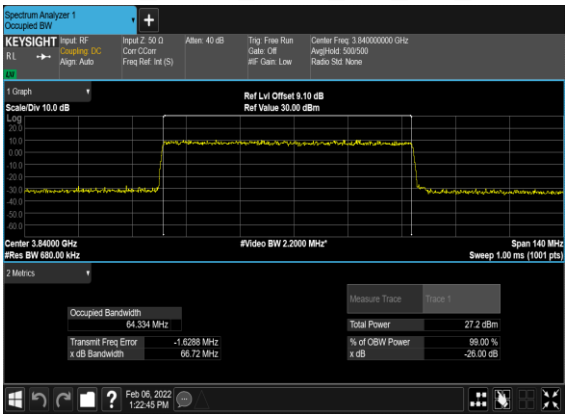
B41_N77(60M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



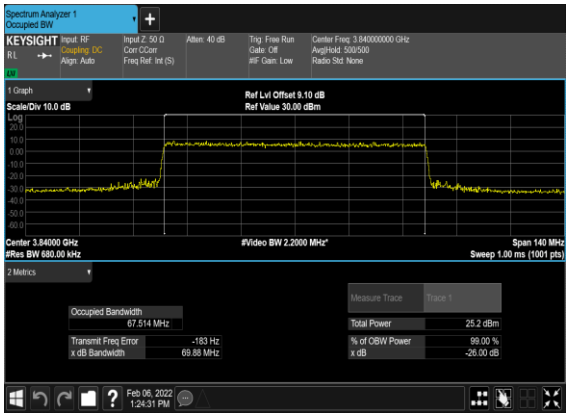
B41_N77(70M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



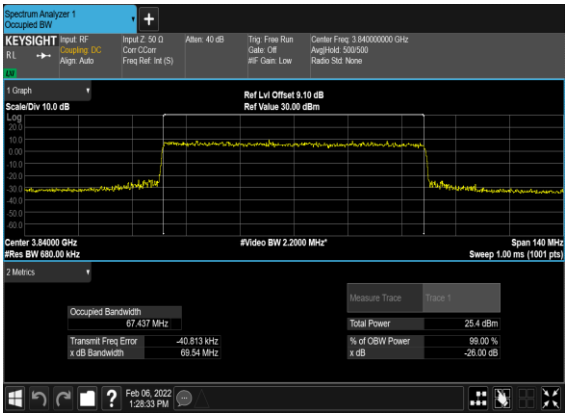
B41_N77(70M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



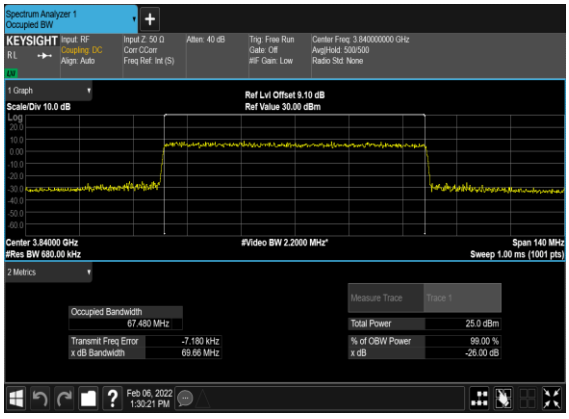
B41_N77(70M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



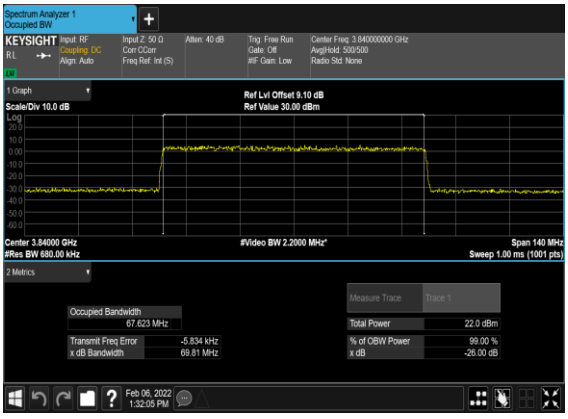
B41_N77(70M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



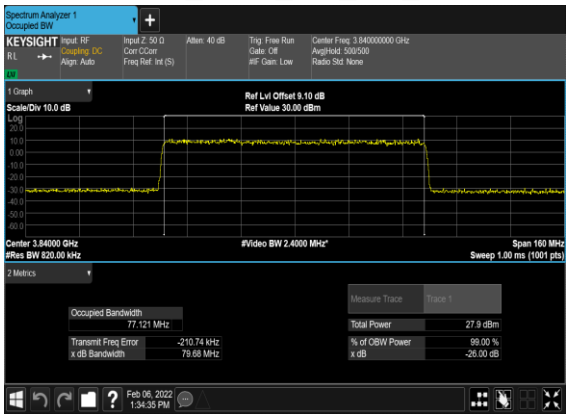
B41_N77(70M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



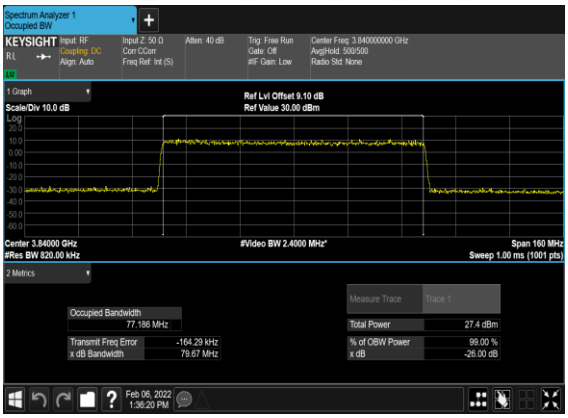
B41_N77(70M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



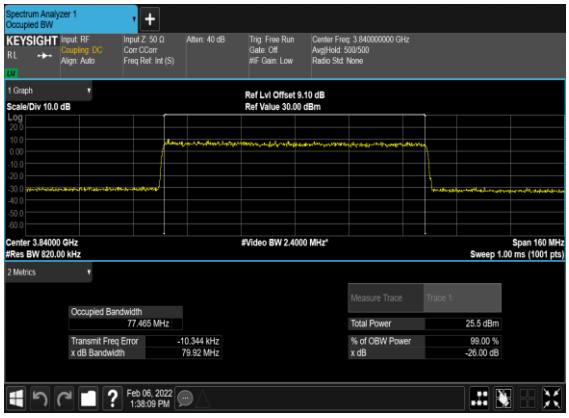
B41_N77(80M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



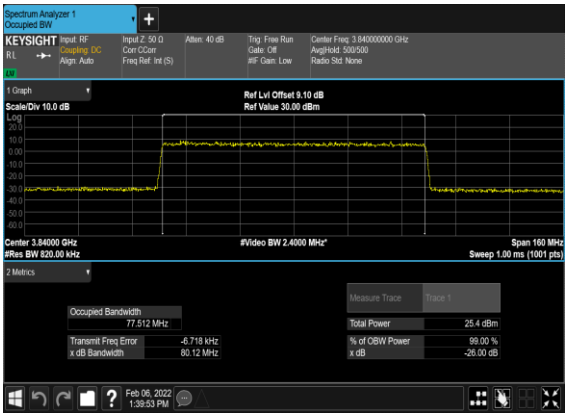
B41_N77(80M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



B41_N77(80M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

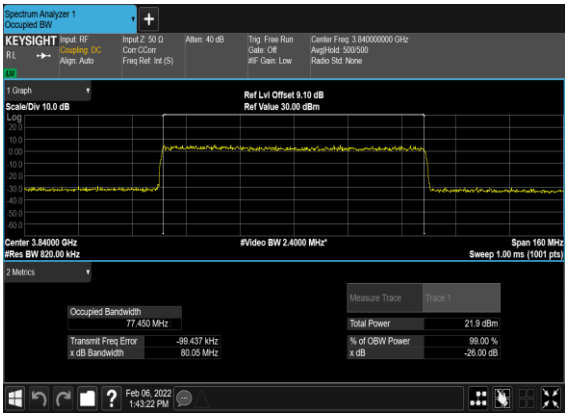


B41_N77(80M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

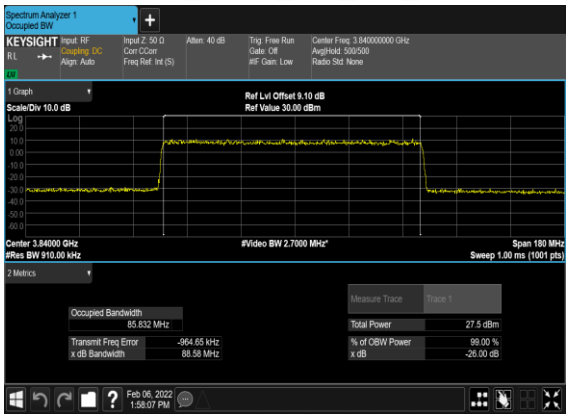


B41_N77(80M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

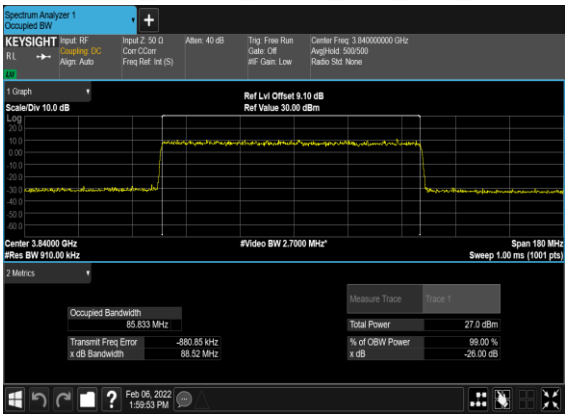
B41_N77(80M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



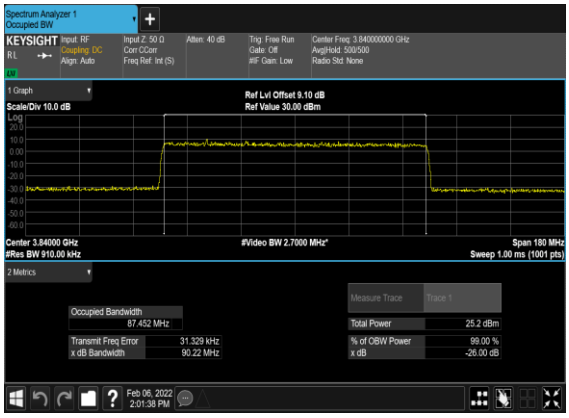
B41_N77(90M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



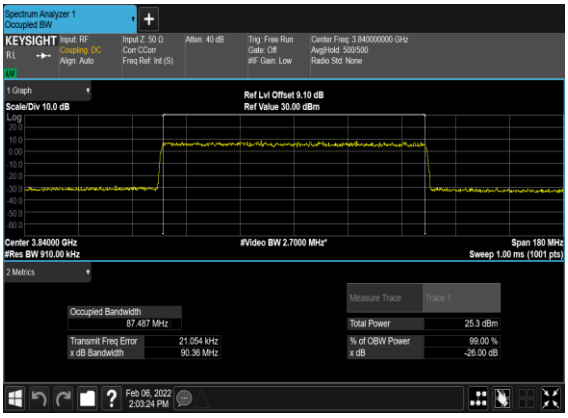
B41_N77(90M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



B41_N77(90M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



B41_N77(90M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

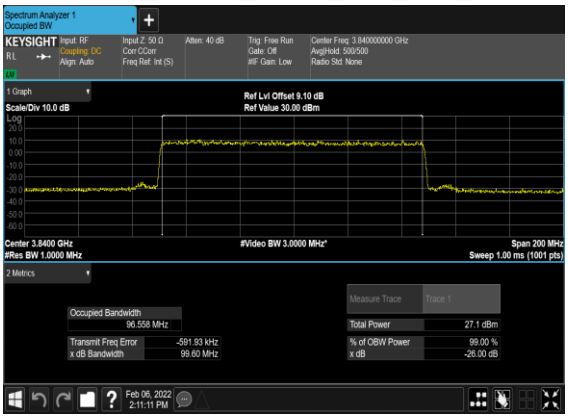


B41_N77(90M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

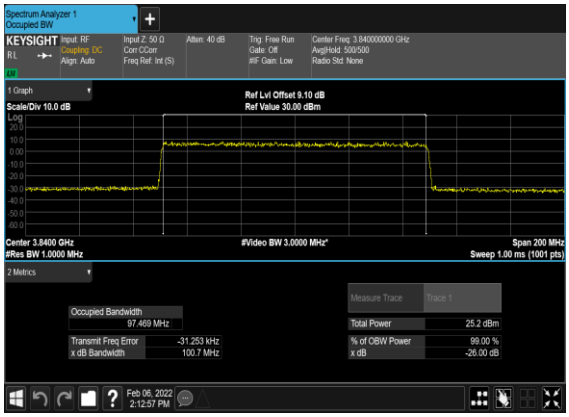
B41_N77(90M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

B41_N77(100M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

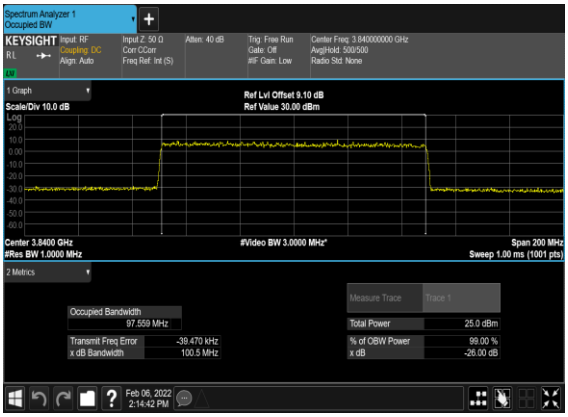
B41_N77(100M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



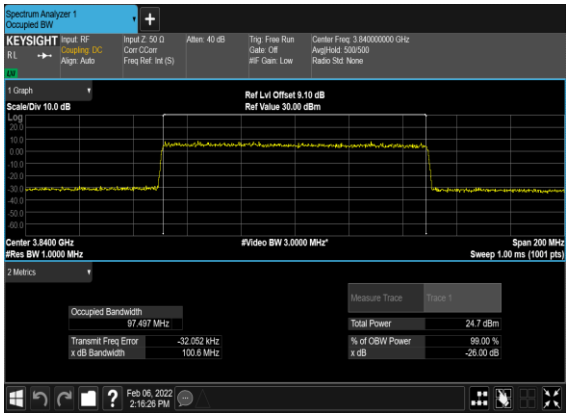
B41_N77(100M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



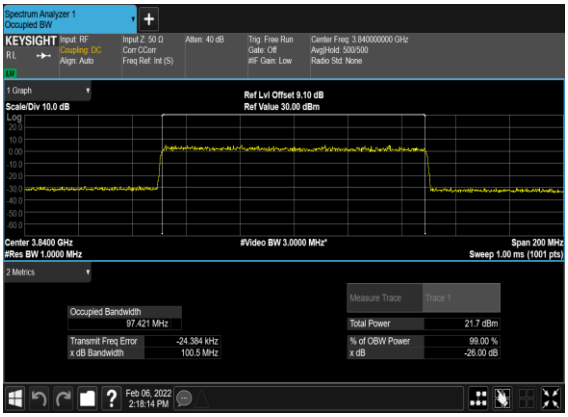
B41_N77(100M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



B41_N77(100M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



B41_N77(100M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



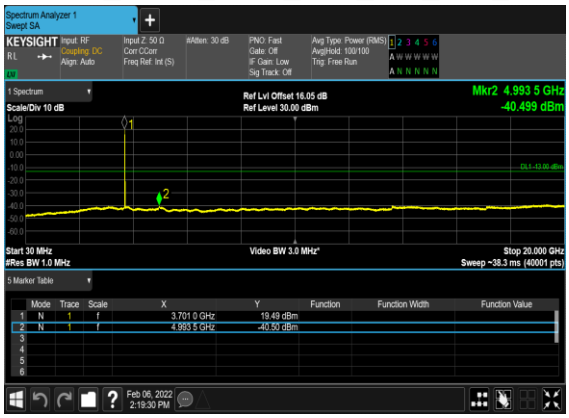
Conducted Spurious Emissions

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	30	20	647334	3710.01	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	20	647334	3710.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	20	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	20	664666	3969.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	60	648668	3730.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@0	see graph	**---**

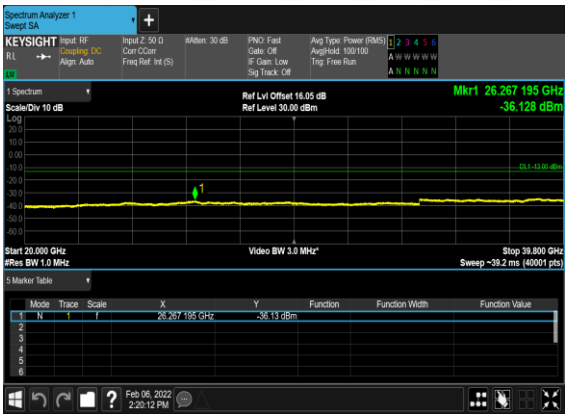
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	60	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	60	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	60	663332	3949.98	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	100	650000	3750.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	100	650000	3750.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	100	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**---**

77	30	100	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	100	662000	3930.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	100	662000	3930.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**

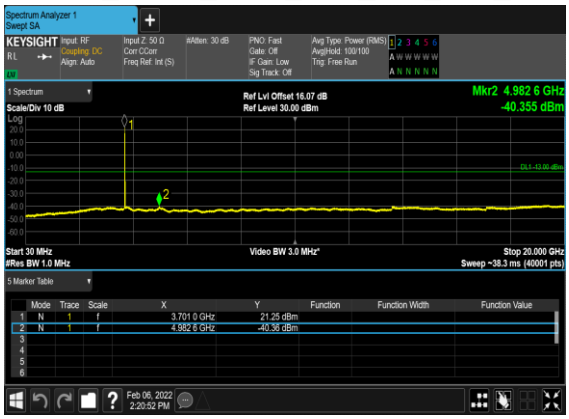
B41_N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



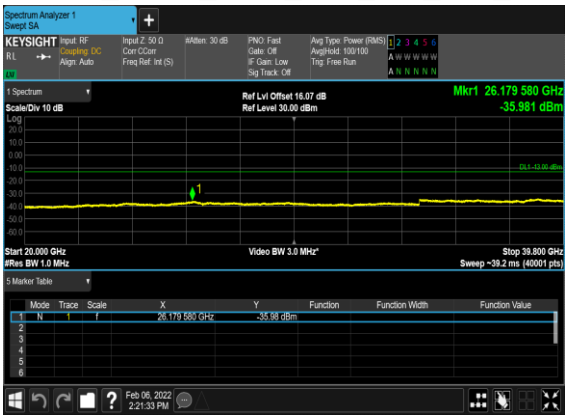
B41_N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



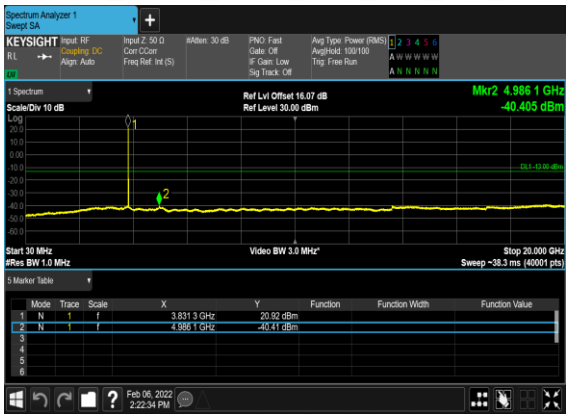
B41_N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



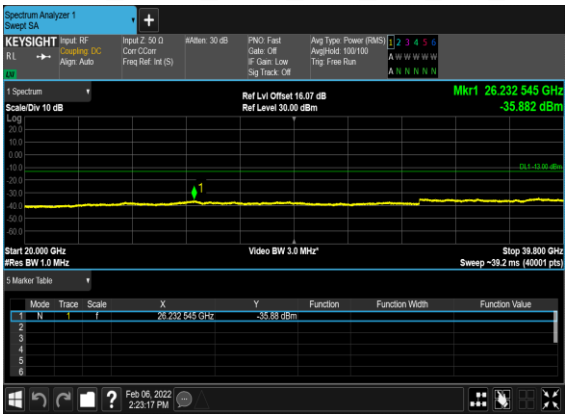
B41_N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



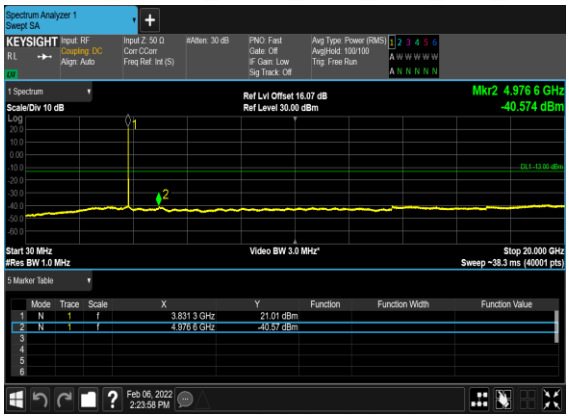
B41_N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



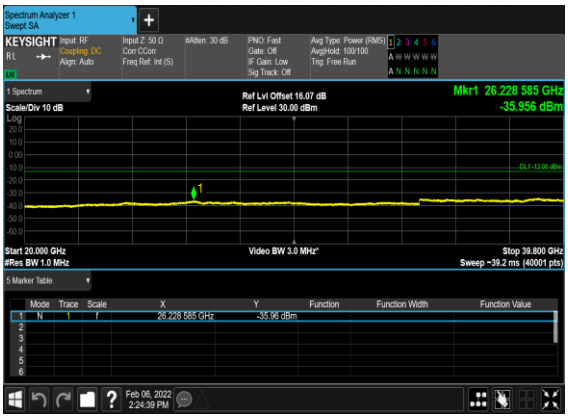
B41_N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



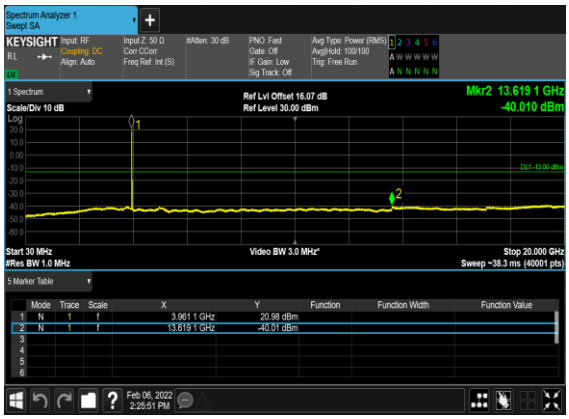
B41_N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



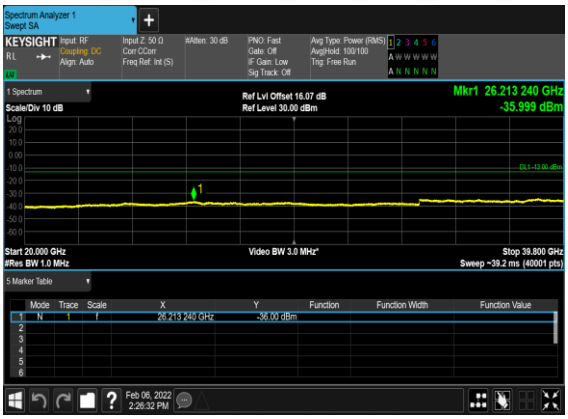
B41_N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



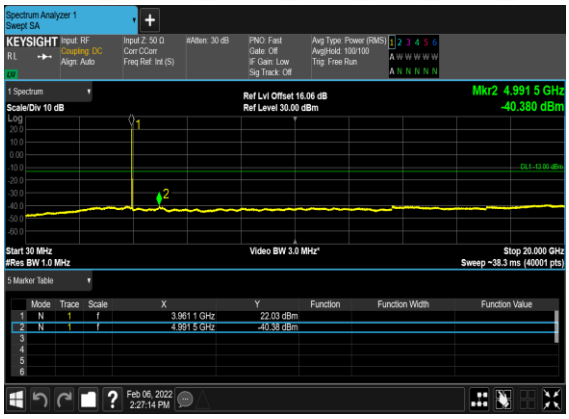
B41_N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



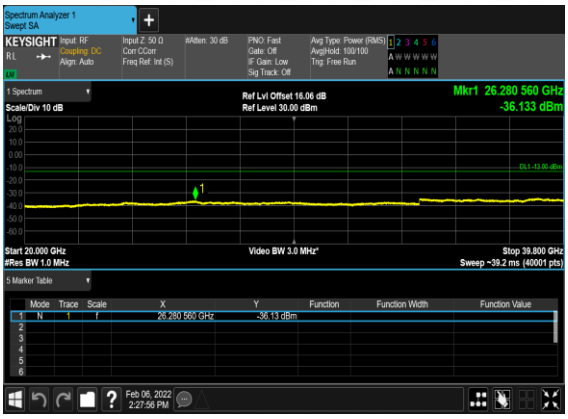
B41_N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



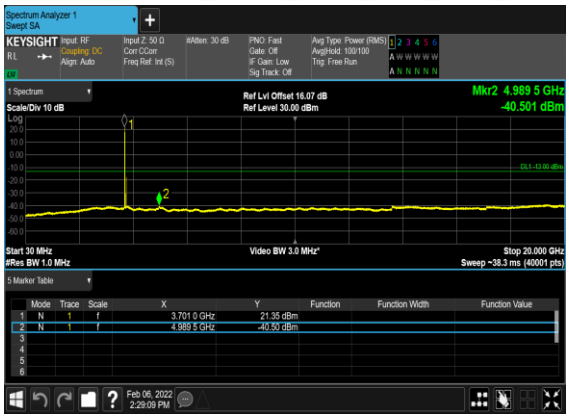
B41_N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



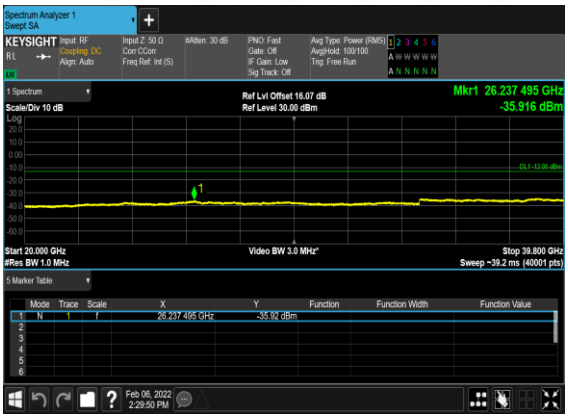
B41_N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



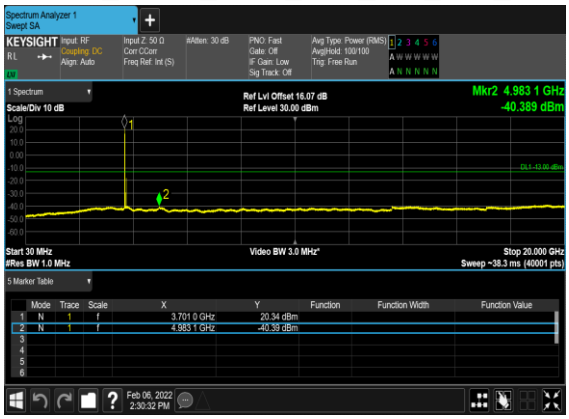
B41_N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



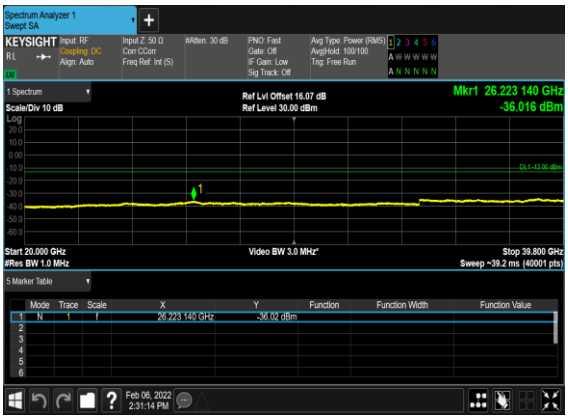
B41_N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



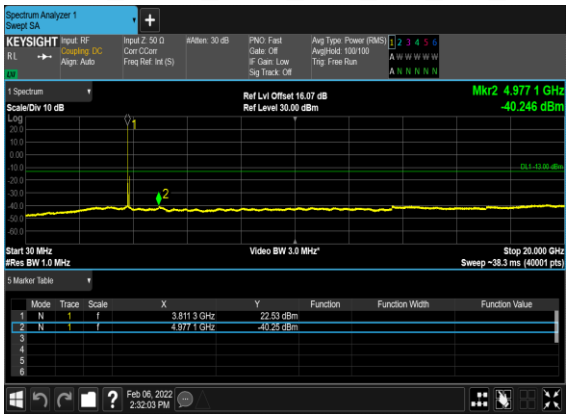
B41_N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



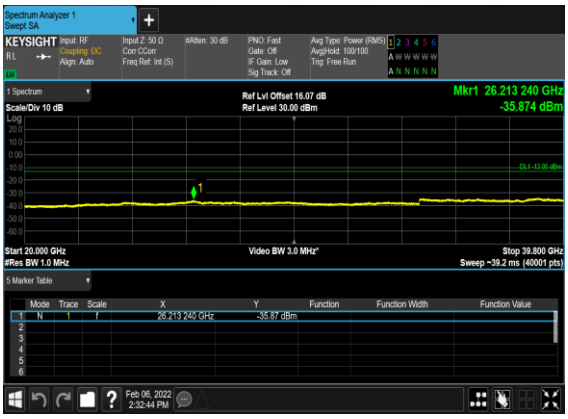
B41_N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



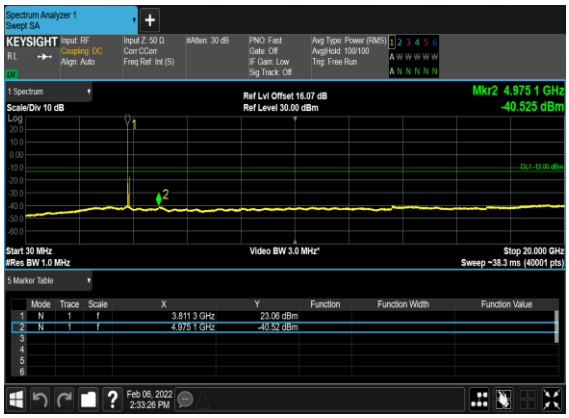
B41_N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



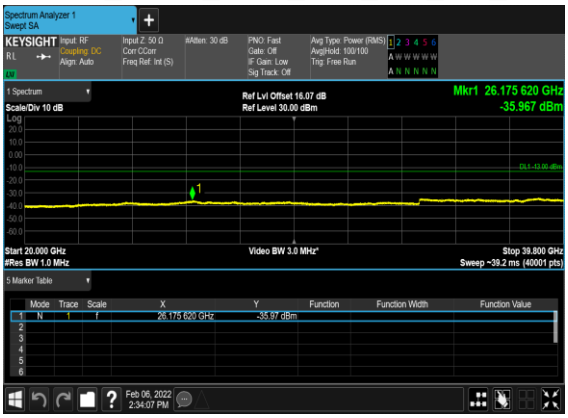
B41_N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



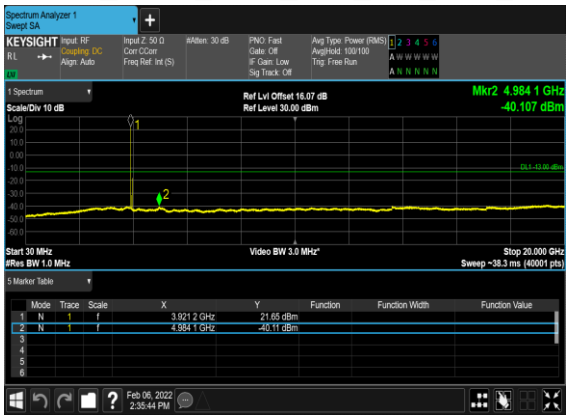
B41_N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



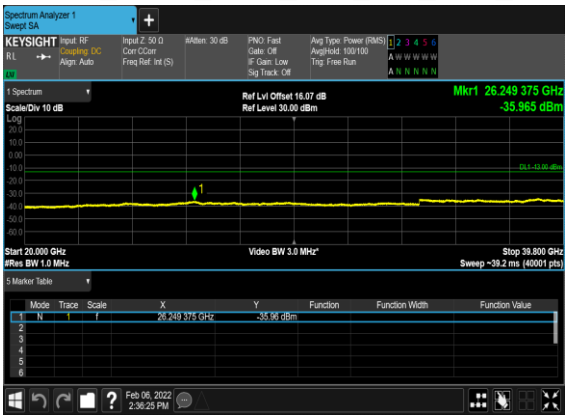
B41_N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



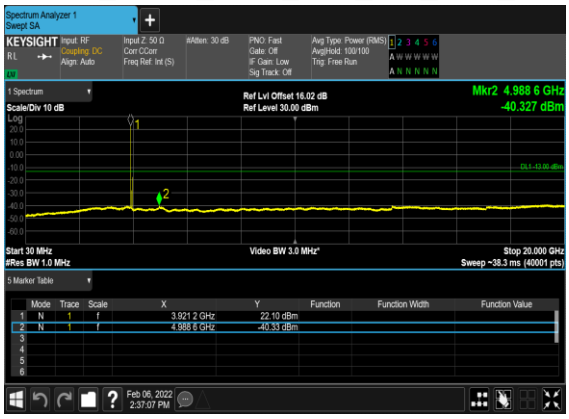
B41_N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



B41_N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



B41_N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



B41_N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH