FCC RF Test Report

APPLICANT	: Motorola Mobility LLC
EQUIPMENT	: Mobile Cellular Phone
BRAND NAME	: Motorola
MODEL NAME	: XT2141-2
FCC ID	: IHDT56ZP2
STANDARD	: 47 CFR Part 2, Part 27 Subpart Q
CLASSIFICATION	: PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	: Jun. 06, 2021 ~ Jun. 30, 2021

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

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

Reviewed by: Derreck Chen / Supervisor

Approved by: Eric Shih / Manager

Sporton International (ShenZhen) Inc.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG151701-01H	Rev. 01	Initial issue of report	Jul. 09, 2021

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
3.5	§27.50 (k)(4)	Peak-to-Average Ratio	<13dB	PASS	
3.6	§27.50 (k)(3)	EIRP	EIRP < 1W (30dBm)	PASS	-
3.7	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.8	§2.1051 §27.53 (n)(2)	Conducted Band Edge Measurement	-13dBm/MHz	PASS	-
3.9	§2.1051 §27.53 (n)(2)	Conducted Spurious Emission	-13dBm/MHz	PASS	-
3.10	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within the band	PASS	-
4.4	§2.1053 §27.53 (n)(2)	Radiated Spurious Emission	-13dBm/MHz	PASS	Under limit 32.95 dB at 14000.040 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	XT2141-2
FCC ID	IHDT56ZP2
EUT supports Radios application	GSM/WCDMA/LTE/5G NR WLAN 2.4GHz 802.11b/g/n HT20 WLAN 2.4GHz 802.11ac/ax VHT20/HE20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11a/n HT20/HT40 WLAN 6GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 6GHz 802.11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC and GNSS
IMEI Code	Conducted: N/A Radiation: 354398490013240
HW Version	DVT2
SW Version	RRM31.43
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Product Feature	
Tx/Rx Frequency	5G NR n77: 3450 MHz ~ 3550 MHz 5G NR n78: 3450 MHz ~ 3550 MHz
Bandwidth	20MHz / 30MHz / 40MHz / 50MHz / 60MHz / 70MHz / 80MHz / 90MHz / 100MHz
SCS	30kHz
Maximum Output Power to Antenna	5G NR n77 : 26.96 dBm 5G NR n78 : 24.67 dBm
Antenna Gain	5G NR n77 : -2.78 dBi 5G NR n78 : -2.59 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

Remark:

1. 5G NR n77/n78 supports SA mode and NSA mode. For NSA mode of all EN-DC combination, we only show the combination of the maximum power among all NSA combinations in the report.
2. For modulation of CP-OFDM and DFT-s-OFDM, the maximum power of CP-OFDM is lower than DFT-s-OFDM modulation, therefore, we chose higher power (DFT-s-OFDM modulation) to perform all tests and show in the report.
3. The EN-DC mode combination could be referred to the product spec.
4. 5G NR n77 supports HPUE.

1.5 Modification of EUT

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

1.6 Maximum EIRP Power and Emission Designator

5G NR n77 SA		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20	3460.02 ~ 3540.00	0.2547	18M2G7D	0.1871	18M2W7D
30	3465.00 ~ 3534.99	0.2600	27M9G7D	0.1875	27M9W7D
40	3470.01 ~ 3529.98	0.2576	37M8G7D	0.2051	37M8W7D
50	3475.02 ~ 3525.00	0.2553	47M5G7D	0.2360	47M5W7D
60	3480.00 ~ 3519.99	0.2606	57M9G7D	0.1866	57M9W7D
70	3485.01 ~ 3514.98	0.2529	67M5G7D	0.1782	67M5W7D
80	3490.02 ~ 3510.00	0.2506	77M5G7D	0.2360	77M5W7D
90	3495.00 ~ 3504.99	0.2535	87M6G7D	0.2360	87M5W7D
100	3500.01 ~ 3500.01	0.2618	97M5G7D	0.1766	97M6W7D

5G NR n77 (EN DC_2A-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	3460.02 ~ 3540.00	0.2477	18M2G7D	0.1581	18M2W7D
30	3465.00 ~ 3534.99	0.2506	27M9G7D	0.1782	27M9W7D
40	3470.01 ~ 3529.98	0.2506	37M8G7D	0.1774	37M9W7D
50	3475.02 ~ 3525.00	0.2489	47M5G7D	0.1726	47M6W7D
60	3480.00 ~ 3519.99	0.2518	58M0G7D	0.1774	57M9W7D
70	3485.01 ~ 3514.98	0.2421	67M5G7D	0.1730	67M6W7D
80	3490.02 ~ 3510.00	0.2455	77M6G7D	0.1694	77M6W7D
90	3495.00 ~ 3504.99	0.2432	87M3G7D	0.1746	87M5W7D
100	3500.01 ~ 3500.01	0.2388	97M3G7D	0.1663	97M5W7D

5G NR n78 SA		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20	3460.02 ~ 3540.00	0.1396	18M2G7D	0.1102	18M2W7D
30	3465.00 ~ 3534.99	0.1435	27M9G7D	0.1132	27M9W7D
40	3470.01 ~ 3529.98	0.1449	37M8G7D	0.1167	37M8W7D
50	3475.02 ~ 3525.00	0.1380	47M5G7D	0.1074	47M5W7D
60	3480.00 ~ 3519.99	0.1614	57M9G7D	0.1300	57M9W7D
70	3485.01 ~ 3514.98	0.1355	67M5G7D	0.1102	67M5W7D
80	3490.02 ~ 3510.00	0.1384	77M5G7D	0.1109	77M5W7D
90	3495.00 ~ 3504.99	0.1384	87M6G7D	0.1069	87M5W7D
100	3500.01 ~ 3500.01	0.1614	97M5G7D	0.1062	97M6W7D

5G NR n78 (EN DC_2A-n78A)		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20	3460.02 ~ 3540.00	0.1219	18M2G7D	0.1019	18M2W7D
30	3465.00 ~ 3534.99	0.1250	27M9G7D	0.1014	27M9W7D
40	3470.01 ~ 3529.98	0.1276	37M8G7D	0.1047	37M9W7D
50	3475.02 ~ 3525.00	0.1199	47M5G7D	0.0973	47M6W7D
60	3480.00 ~ 3519.99	0.1318	58M0G7D	0.1059	57M9W7D
70	3485.01 ~ 3514.98	0.1202	67M5G7D	0.0966	67M6W7D
80	3490.02 ~ 3510.00	0.1236	77M6G7D	0.0982	77M6W7D
90	3495.00 ~ 3504.99	0.1202	87M3G7D	0.1000	87M5W7D
100	3500.01 ~ 3500.01	0.1130	97M3G7D	0.0955	97M5W7D

Note:

1. All modulations have been tested, only the worst test results of PSK & QAM are shown in the report .
2. 5G NR n77 overlaps the entire frequency range of n78, Therefore, the test results provided in this report covers n77 as well as n78.

1.7 Testing Site

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

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

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103 TEL: +86-755-33202398		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH04-SZ	CN1256	421272

1.8 Test Software

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

1.9 Applied Standards

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

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

Remark:

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

1.10 Specification of Accessory

Specification of Accessory				
AC Adapter 1	**Brand Name**	Motorola (Salom)	**Model Name**	MC-301
AC Adapter 2	**Brand Name**	Motorola (Acbel)	**Model Name**	MC-301
Battery	**Brand Name**	Motorola (ATL)	**Model Name**	MB50
USB Cable 1	**Brand Name**	Motorola (Luxshare)	**Model Name**	SC18D13217
USB Cable 2	**Brand Name**	Motorola (Saibao)	**Model Name**	SC18D13215
USB Cable 3	**Brand Name**	Motorola (Cabletech)	**Model Name**	SC18D13216

2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

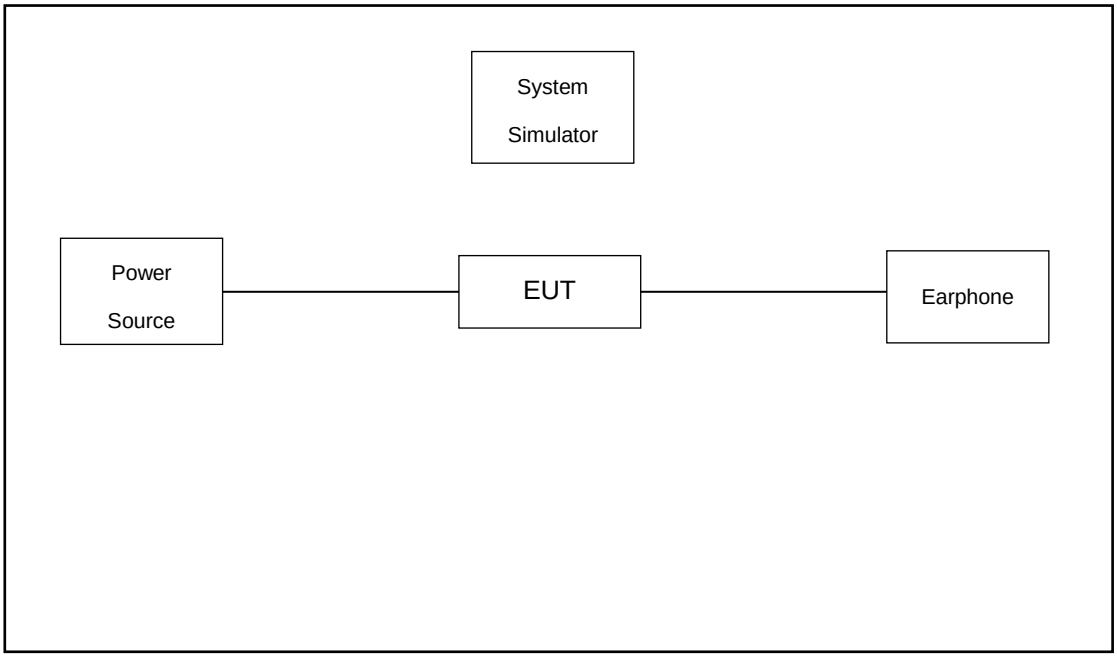
Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

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

Note:

1. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.
2. Based on engineering evaluation, only the worst modulations test results are shown in the report.
3. 5G NR n77 overlaps the entire frequency range of n78, Therefore, the test results provided in this report covers n77 as well as n78.

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
3.	NR Base Station	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

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

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

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 1.75 dB and 10dB attenuator.

Example :

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

= 1.75 + 10 = 11.75 (dB)

2.5 Frequency List of Low/Middle/High Channels

5G n77/n78 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
100	Channel	-	633334	-
	Frequency	-	3500.01	-
90	Channel	633000	633334	633666
	Frequency	3495.00	3500.01	3504.99
80	Channel	632668	633334	634000
	Frequency	3490.02	3500.01	3510.00
70	Channel	632334	633334	634332
	Frequency	3485.01	3500.01	3514.98
60	Channel	632000	633334	634666
	Frequency	3480.00	3500.01	3519.99
50	Channel	631668	633334	635000
	Frequency	3475.02	3500.01	3525.00
40	Channel	631334	633334	635332
	Frequency	3470.01	3500.01	3529.98
30	Channel	631000	633334	635666
	Frequency	3465.00	3500.01	3534.99
20	Channel	630668	633334	636000
	Frequency	3460.02	3500.01	3540.00

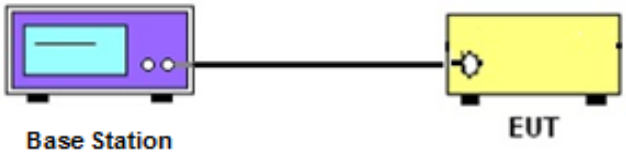
3 Conducted Test Items

3.1 Measuring Instruments

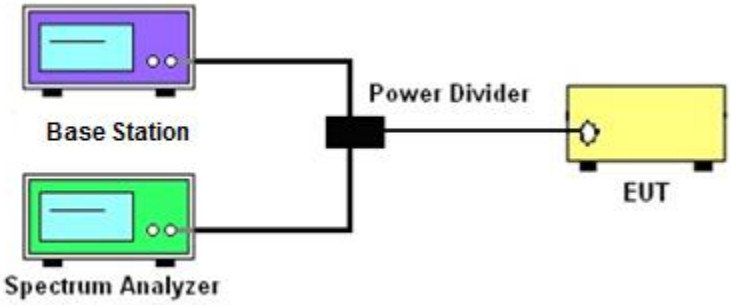
See list of measuring instruments of this test report.

3.2 Test Setup

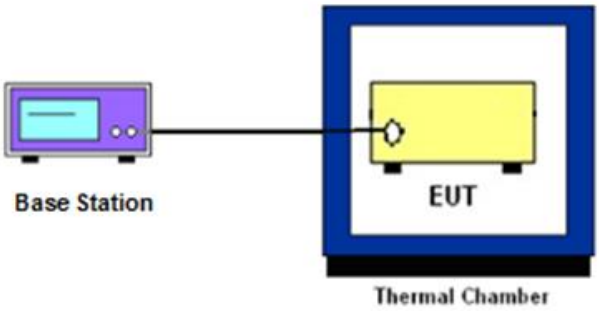
3.2.1 Conducted Output Power



3.2.2 Peak-to-Average Ratio, Occupied / 26dB Bandwidth, Band-Edge and Conducted Spurious Emission



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power Measurement

3.4.1 Description of the Conducted Output Power Measurement

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

3.4.2 Test Procedures

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

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

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

3.5.2 Test Procedures

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

3.6 EIRP

3.6.1 Description of EIRP Limit

§ 27.50 (k)(3)

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

3.6.2 Test Procedures

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

   P_T = transmitter output power in dBm

   G_T = gain of the transmitting antenna in dBi

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

3.7 Occupied Bandwidth

3.7.1 Description of Occupied Bandwidth Measurement

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

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

3.7.2 Test Procedures

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

3.8 Conducted Band Edge Measurement

3.8.1 Description of Conducted Band Edge Measurement

§ 27.53 (n)(2)

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

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

3.8.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW ≥ 1% EBW but limited to a maximum of 200 kHz in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz and 5 MHz removed from the band edge, set RBW ≥ 500KHz.
6. Beyond the 5 MHz removed from the band edge, set RBW = 1MHz.
7. Set spectrum analyzer with RMS detector.
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
9. Checked that all the results comply with the emission limit line.

3.9 Conducted Spurious Emission Measurement

3.9.1 Description of Conducted Spurious Emission Measurement

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

It is measured by means of a calibrated spectrum analyzer and scanned from 9 kHz up to a frequency including its 10^{th} harmonic.

3.9.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Set spectrum analyzer with RMS detector.
8. Taking the record of maximum spurious emission.
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
10. Checked that all the results comply with the emission limit line.

3.10 Frequency Stability Measurement

3.10.1 Description of Frequency Stability Measurement

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

3.10.2 Test Procedures for Temperature Variation

1. The testing follows ANSI C63.26 section 5.6.4
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°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.

3.10.3 Test Procedures for Voltage Variation

1. The testing follows ANSI C63.26 section 5.6.5.
2. The EUT was placed in a temperature chamber at 20±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.

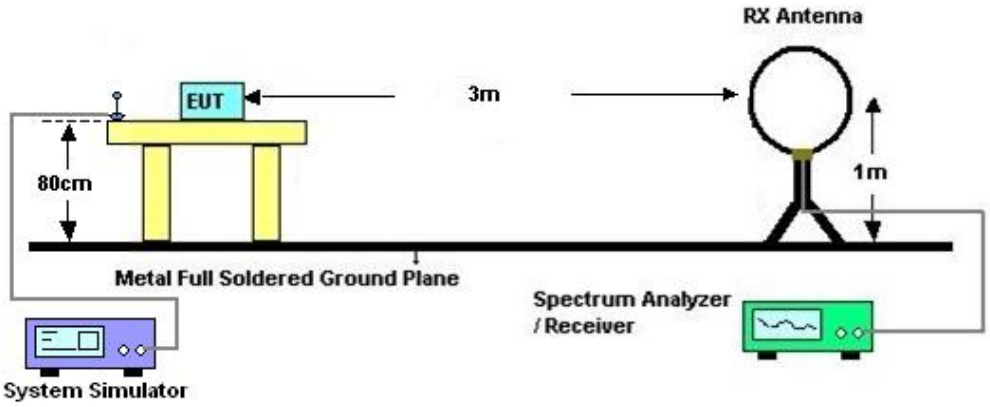
4 Radiated Test Items

4.1 Measuring Instruments

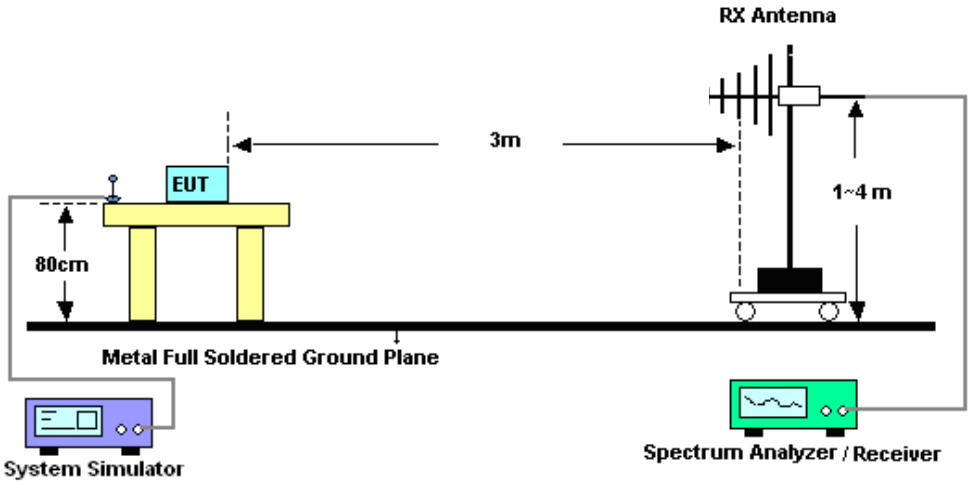
See list of measuring instruments of this test report.

4.2 Test Setup

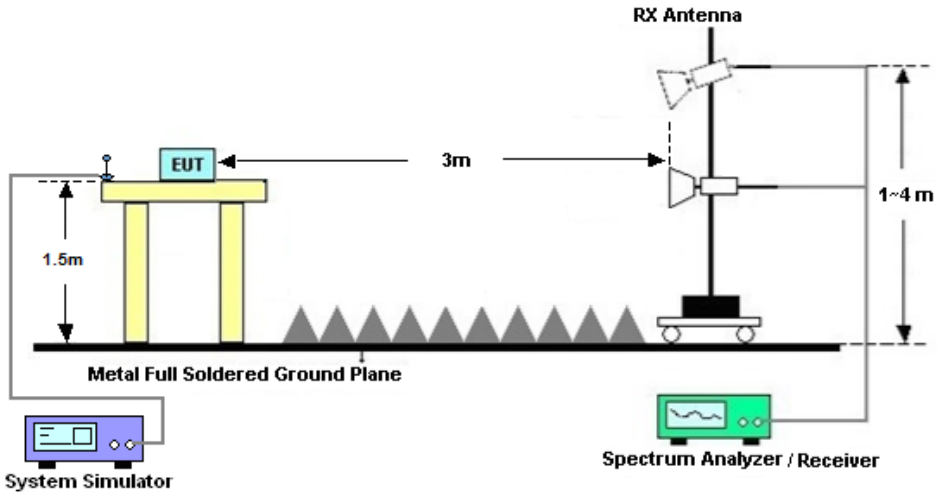
4.2.1 For radiated test below 30MHz



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 Measurement

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI/TIA-603-E.

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

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

4.4.2 Test Procedures

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

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 08, 2021	Jun. 06, 2021~ Jun. 16, 2021	Apr. 07, 2022	Conducted (TH01-SZ)
DC Power Supply	TTI	PL330P	290070	Max 32V，3A	Oct. 15, 2020	Jun. 06, 2021~ Jun. 16, 2021	Oct. 14, 2021	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 26, 2020	Jun. 06, 2021~ Jun. 16, 2021	Dec. 25, 2021	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 22, 2020	Jun. 06, 2021~ Jun. 16, 2021	Jul. 21, 2021	Conducted (TH01-SZ)
EMI Test Receiver	R&S	ESR7	101404	9kHz~7GHz	Oct. 16, 2020	Jun. 22, 2021~ Jun. 30, 2021	Oct. 15, 2021	Radiation (03CH04-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 21, 2020	Jun. 22, 2021~ Jun. 30, 2021	Jul. 20, 2021	Radiation (03CH04-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 22, 2020	Jun. 22, 2021~ Jun. 30, 2021	Jun. 21, 2022	Radiation (03CH04-SZ)
Bilog Antenna	TeseQ	CBL6111D	41909	30MHz~1GHz	Nov. 07, 2020	Jun. 22, 2021~ Jun. 30, 2021	Nov. 06, 2021	Radiation (03CH04-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1474	1GHz~18GHz	Jul. 16, 2020	Jun. 22, 2021~ Jun. 30, 2021	Jul. 15, 2021	Radiation (03CH04-SZ)
Horn Antenna	SCHWARZBECK	BBHA9170	9170#679	15GHz~40GHz	Jul. 26, 2020	Jun. 22, 2021~ Jun. 30, 2021	Jul. 25, 2021	Radiation (03CH04-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 16, 2020	Jun. 22, 2021~ Jun. 30, 2021	Oct. 15, 2021	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P-R	1943528	1GHz~18GHz	Oct. 17, 2020	Jun. 22, 2021~ Jun. 30, 2021	Oct. 16, 2021	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 21. 2020	Jun. 22, 2021~ Jun. 30, 2021	Jul. 20. 2021	Radiation (03CH04-SZ)
Amplifier	Agilent Technologies	83017A	MY53270156	500MHz~26.5GHz	Oct. 17, 2020	Jun. 22, 2021~ Jun. 30, 2021	Oct. 16, 2021	Radiation (03CH04-SZ)
AC Power Source	Chroma	61601	N/A	N/A	NCR	Jun. 22, 2021~ Jun. 30, 2021	NCR	Radiation (03CH04-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jun. 22, 2021~ Jun. 30, 2021	NCR	Radiation (03CH04-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jun. 22, 2021~ Jun. 30, 2021	NCR	Radiation (03CH04-SZ)

NCR: No Calibration Required

6 Uncertainty of Evaluation

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

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

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

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.1dB**

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.9dB**

Appendix A. Test Results of Conducted Test

Software Version: 21.02.052301

FR1 N77 SA

Transmitter Conducted Output Power And ERP/EIRP, (G_T - L_C)=-2.78dB

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
77	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	25@12	26.8	24.02	0.2523
77	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@1	26.27	23.49	0.2234
77	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@49	26.73	23.95	0.2483
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	25@12	26.77	23.99	0.2506
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@1	26.42	23.64	0.2312
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@49	26.83	24.05	0.2541
77	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	25@12	24.98	22.2	0.1660
77	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@1	25.32	22.54	0.1795
77	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@49	25.25	22.47	0.1766
77	30	20	630668	3460.02	DFT-s-OFDM 64 QAM	25@12	23.9	21.12	0.1294
77	30	20	630668	3460.02	DFT-s-OFDM 64 QAM	1@1	23.93	21.15	0.1303
77	30	20	630668	3460.02	DFT-s-OFDM 64 QAM	1@49	23.86	21.08	0.1282
77	30	20	630668	3460.02	DFT-s-OFDM 256 QAM	25@12	21.86	19.08	0.0809
77	30	20	630668	3460.02	DFT-s-OFDM 256 QAM	1@1	21.43	18.65	0.0733
77	30	20	630668	3460.02	DFT-s-OFDM 256 QAM	1@49	21.92	19.14	0.0820
77	30	20	630668	3460.02	CP-OFDM QPSK	25@121	23.32	20.54	0.1132
77	30	20	630668	3460.02	CP-OFDM QPSK	1@1	24.92	22.14	0.1637
77	30	20	630668	3460.02	CP-OFDM QPSK	1@49	24.8	22.02	0.1592
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	25@12	26.44	23.66	0.2323

77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.51	23.73	0.2360
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@49	26.65	23.87	0.2438
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	25@12	26.84	24.06	0.2547
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.69	23.91	0.2460
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@49	26.76	23.98	0.2500
77	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	25@12	25.28	22.5	0.1778
77	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	25.5	22.72	0.1871
77	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@49	25.49	22.71	0.1866
77	30	20	633334	3500.01	DFT-s-OFDM 64 QAM	25@12	23.73	20.95	0.1245
77	30	20	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.62	20.84	0.1213
77	30	20	633334	3500.01	DFT-s-OFDM 64 QAM	1@49	23.97	21.19	0.1315
77	30	20	633334	3500.01	DFT-s-OFDM 256 QAM	25@12	21.8	19.02	0.0798
77	30	20	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	22.13	19.35	0.0861
77	30	20	633334	3500.01	DFT-s-OFDM 256 QAM	1@49	21.53	18.75	0.0750
77	30	20	633334	3500.01	CP-OFDM QPSK	25@121	23.01	20.23	0.1054
77	30	20	633334	3500.01	CP-OFDM QPSK	1@1	24.55	21.77	0.1503
77	30	20	633334	3500.01	CP-OFDM QPSK	1@49	24.36	21.58	0.1439
77	30	20	636000	3540.0	DFT-s-OFDM PI/2 BPSK	25@12	26.74	23.96	0.2489
77	30	20	636000	3540.0	DFT-s-OFDM PI/2 BPSK	1@1	26.41	23.63	0.2307
77	30	20	636000	3540.0	DFT-s-OFDM PI/2 BPSK	1@49	26.75	23.97	0.2495
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	25@12	26.68	23.9	0.2455
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@1	26.71	23.93	0.2472
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@49	26.63	23.85	0.2427
77	30	20	636000	3540.0	DFT-s-OFDM 16 QAM	25@12	25.16	22.38	0.1730

77	30	20	636000	3540.0	DFT-s-OFDM 16 QAM	1@1	25.46	22.68	0.1854
77	30	20	636000	3540.0	DFT-s-OFDM 16 QAM	1@49	25.11	22.33	0.1710
77	30	20	636000	3540.0	DFT-s-OFDM 64 QAM	25@12	23.69	20.91	0.1233
77	30	20	636000	3540.0	DFT-s-OFDM 64 QAM	1@1	23.75	20.97	0.1250
77	30	20	636000	3540.0	DFT-s-OFDM 64 QAM	1@49	23.45	20.67	0.1167
77	30	20	636000	3540.0	DFT-s-OFDM 256 QAM	25@12	21.88	19.1	0.0813
77	30	20	636000	3540.0	DFT-s-OFDM 256 QAM	1@1	21.93	19.15	0.0822
77	30	20	636000	3540.0	DFT-s-OFDM 256 QAM	1@49	21.8	19.02	0.0798
77	30	20	636000	3540.0	CP-OFDM QPSK	25@121	23.2	20.42	0.1102
77	30	20	636000	3540.0	CP-OFDM QPSK	1@1	24.7	21.92	0.1556
77	30	20	636000	3540.0	CP-OFDM QPSK	1@49	24.3	21.52	0.1419
77	30	30	631000	3465.0	DFT-s-OFDM PI/2 BPSK	36@18	25.27	22.49	0.1774
77	30	30	631000	3465.0	DFT-s-OFDM PI/2 BPSK	1@1	26.67	23.89	0.2449
77	30	30	631000	3465.0	DFT-s-OFDM PI/2 BPSK	1@76	26.8	24.02	0.2523
77	30	30	631000	3465.0	DFT-s-OFDM QPSK	36@18	26.91	24.13	0.2588
77	30	30	631000	3465.0	DFT-s-OFDM QPSK	1@1	26.88	24.1	0.2570
77	30	30	631000	3465.0	DFT-s-OFDM QPSK	1@76	26.47	23.69	0.2339
77	30	30	631000	3465.0	DFT-s-OFDM 16 QAM	36@18	24.94	22.16	0.1644
77	30	30	631000	3465.0	DFT-s-OFDM 16 QAM	1@1	24.93	22.15	0.1641
77	30	30	631000	3465.0	DFT-s-OFDM 16 QAM	1@76	25.44	22.66	0.1845
77	30	30	631000	3465.0	DFT-s-OFDM 64 QAM	36@18	23.54	20.76	0.1191
77	30	30	631000	3465.0	DFT-s-OFDM 64 QAM	1@1	23.99	21.21	0.1321
77	30	30	631000	3465.0	DFT-s-OFDM 64 QAM	1@76	23.79	21.01	0.1262
77	30	30	631000	3465.0	DFT-s-OFDM 256 QAM	36@18	21.48	18.7	0.0741

77	30	30	631000	3465.0	DFT-s-OFDM 256 QAM	1@1	22.48	19.7	0.0933
77	30	30	631000	3465.0	DFT-s-OFDM 256 QAM	1@76	21.33	18.55	0.0716
77	30	30	631000	3465.0	CP-OFDM QPSK	39@19	24.93	22.15	0.1641
77	30	30	631000	3465.0	CP-OFDM QPSK	1@1	24.93	22.15	0.1641
77	30	30	631000	3465.0	CP-OFDM QPSK	1@76	24.5	21.72	0.1486
77	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	36@18	26.83	24.05	0.2541
77	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.93	24.15	0.2600
77	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@76	26.87	24.09	0.2564
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	36@18	26.55	23.77	0.2382
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.65	23.87	0.2438
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@76	26.5	23.72	0.2355
77	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	36@18	25	22.22	0.1667
77	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	25.51	22.73	0.1875
77	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@76	24.9	22.12	0.1629
77	30	30	633334	3500.01	DFT-s-OFDM 64 QAM	36@18	23.42	20.64	0.1159
77	30	30	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.65	20.87	0.1222
77	30	30	633334	3500.01	DFT-s-OFDM 64 QAM	1@76	23.62	20.84	0.1213
77	30	30	633334	3500.01	DFT-s-OFDM 256 QAM	36@18	21.99	19.21	0.0834
77	30	30	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.72	18.94	0.0783
77	30	30	633334	3500.01	DFT-s-OFDM 256 QAM	1@76	21.47	18.69	0.0740
77	30	30	633334	3500.01	CP-OFDM QPSK	39@19	24.86	22.08	0.1614
77	30	30	633334	3500.01	CP-OFDM QPSK	1@1	24.61	21.83	0.1524
77	30	30	633334	3500.01	CP-OFDM QPSK	1@76	24.85	22.07	0.1611
77	30	30	635666	3500.01	DFT-s-OFDM PI/2 BPSK	36@18	26.51	23.73	0.2360

77	30	30	635666	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.53	23.75	0.2371
77	30	30	635666	3500.01	DFT-s-OFDM PI/2 BPSK	1@76	26.38	23.6	0.2291
77	30	30	635666	3534.99	DFT-s-OFDM QPSK	36@18	26.81	24.03	0.2529
77	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@1	26.55	23.77	0.2382
77	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@76	26.85	24.07	0.2553
77	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	36@18	24.88	22.1	0.1622
77	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@1	25.15	22.37	0.1726
77	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@76	24.74	21.96	0.1570
77	30	30	635666	3534.99	DFT-s-OFDM 64 QAM	36@18	23.92	21.14	0.1300
77	30	30	635666	3534.99	DFT-s-OFDM 64 QAM	1@1	23.77	20.99	0.1256
77	30	30	635666	3534.99	DFT-s-OFDM 64 QAM	1@76	23.21	20.43	0.1104
77	30	30	635666	3534.99	DFT-s-OFDM 256 QAM	36@18	21.96	19.18	0.0828
77	30	30	635666	3534.99	DFT-s-OFDM 256 QAM	1@1	21.87	19.09	0.0811
77	30	30	635666	3534.99	DFT-s-OFDM 256 QAM	1@76	21.58	18.8	0.0759
77	30	30	635666	3534.99	CP-OFDM QPSK	39@19	24.44	21.66	0.1466
77	30	30	635666	3534.99	CP-OFDM QPSK	1@1	24.71	21.93	0.1560
77	30	30	635666	3534.99	CP-OFDM QPSK	1@76	24.69	21.91	0.1552
77	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	50@25	26.65	23.87	0.2438
77	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	1@1	26.81	24.03	0.2529
77	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	1@104	26.49	23.71	0.2350
77	30	40	631334	3470.01	DFT-s-OFDM QPSK	50@25	26.58	23.8	0.2399
77	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@1	26.84	24.06	0.2547
77	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@104	26.57	23.79	0.2393
77	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	50@25	25.9	23.12	0.2051

77	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@1	25.52	22.74	0.1879
77	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@104	25.13	22.35	0.1718
77	30	40	631334	3470.01	DFT-s-OFDM 64 QAM	50@25	23.84	21.06	0.1276
77	30	40	631334	3470.01	DFT-s-OFDM 64 QAM	1@1	23.85	21.07	0.1279
77	30	40	631334	3470.01	DFT-s-OFDM 64 QAM	1@104	23.8	21.02	0.1265
77	30	40	631334	3470.01	DFT-s-OFDM 256 QAM	50@25	21.55	18.77	0.0753
77	30	40	631334	3470.01	DFT-s-OFDM 256 QAM	1@1	21.42	18.64	0.0731
77	30	40	631334	3470.01	DFT-s-OFDM 256 QAM	1@104	21.93	19.15	0.0822
77	30	40	631334	3470.01	CP-OFDM QPSK	53@26	24.63	21.85	0.1531
77	30	40	631334	3470.01	CP-OFDM QPSK	1@1	24.91	22.13	0.1633
77	30	40	631334	3470.01	CP-OFDM QPSK	1@104	24.55	21.77	0.1503
77	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	50@25	26.89	24.11	0.2576
77	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.81	24.03	0.2529
77	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@104	26.86	24.08	0.2559
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	50@25	26.55	23.77	0.2382
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.67	23.89	0.2449
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@104	26.49	23.71	0.2350
77	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	50@25	25.27	22.49	0.1774
77	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	25.72	22.94	0.1968
77	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@104	25.02	22.24	0.1675
77	30	40	633334	3500.01	DFT-s-OFDM 64 QAM	50@25	23.88	21.1	0.1288
77	30	40	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.99	21.21	0.1321
77	30	40	633334	3500.01	DFT-s-OFDM 64 QAM	1@104	24.03	21.25	0.1334
77	30	40	633334	3500.01	DFT-s-OFDM 256 QAM	50@25	21.45	18.67	0.0736

77	30	40	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.94	19.16	0.0824
77	30	40	633334	3500.01	DFT-s-OFDM 256 QAM	1@104	21.75	18.97	0.0789
77	30	40	633334	3500.01	CP-OFDM QPSK	53@26	24.9	22.12	0.1629
77	30	40	633334	3500.01	CP-OFDM QPSK	1@1	24.71	21.93	0.1560
77	30	40	633334	3500.01	CP-OFDM QPSK	1@104	24.59	21.81	0.1517
77	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	50@25	26.56	23.78	0.2388
77	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	1@1	26.81	24.03	0.2529
77	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	1@104	26.78	24	0.2512
77	30	40	635332	3529.98	DFT-s-OFDM QPSK	50@25	26.51	23.73	0.2360
77	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@1	26.46	23.68	0.2333
77	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@104	26.48	23.7	0.2344
77	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	50@25	25.02	22.24	0.1675
77	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@1	25.47	22.69	0.1858
77	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@104	25.3	22.52	0.1786
77	30	40	635332	3529.98	DFT-s-OFDM 64 QAM	50@25	23.52	20.74	0.1186
77	30	40	635332	3529.98	DFT-s-OFDM 64 QAM	1@1	23.99	21.21	0.1321
77	30	40	635332	3529.98	DFT-s-OFDM 64 QAM	1@104	23.61	20.83	0.1211
77	30	40	635332	3529.98	DFT-s-OFDM 256 QAM	50@25	22.03	19.25	0.0841
77	30	40	635332	3529.98	DFT-s-OFDM 256 QAM	1@1	21.82	19.04	0.0802
77	30	40	635332	3529.98	DFT-s-OFDM 256 QAM	1@104	21.61	18.83	0.0764
77	30	40	635332	3529.98	CP-OFDM QPSK	53@26	24.84	22.06	0.1607
77	30	40	635332	3529.98	CP-OFDM QPSK	1@1	25.06	22.28	0.1690
77	30	40	635332	3529.98	CP-OFDM QPSK	1@104	24.97	22.19	0.1656
77	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	64@32	26.44	23.66	0.2323

77	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	1@1	26.8	24.02	0.2523
77	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	1@131	26.15	23.37	0.2173
77	30	50	631668	3475.02	DFT-s-OFDM QPSK	64@32	26.85	24.07	0.2553
77	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@1	26.79	24.01	0.2518
77	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@131	26.58	23.8	0.2399
77	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	64@32	26.51	23.73	0.2360
77	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	1@1	25.34	22.56	0.1803
77	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	1@131	25.04	22.26	0.1683
77	30	50	631668	3475.02	DFT-s-OFDM 64 QAM	64@32	23.43	20.65	0.1161
77	30	50	631668	3475.02	DFT-s-OFDM 64 QAM	1@1	23.56	20.78	0.1197
77	30	50	631668	3475.02	DFT-s-OFDM 64 QAM	1@131	23.34	20.56	0.1138
77	30	50	631668	3475.02	DFT-s-OFDM 256 QAM	64@32	21.57	18.79	0.0757
77	30	50	631668	3475.02	DFT-s-OFDM 256 QAM	1@1	21.67	18.89	0.0774
77	30	50	631668	3475.02	DFT-s-OFDM 256 QAM	1@131	21.23	18.45	0.0700
77	30	50	631668	3475.02	CP-OFDM QPSK	67@33	24.77	21.99	0.1581
77	30	50	631668	3475.02	CP-OFDM QPSK	1@1	24.79	22.01	0.1589
77	30	50	631668	3475.02	CP-OFDM QPSK	1@131	24.57	21.79	0.1510
77	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	64@32	26.68	23.9	0.2455
77	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.82	24.04	0.2535
77	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@131	26.83	24.05	0.2541
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	64@32	26.73	23.95	0.2483
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.58	23.8	0.2399
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@131	26.17	23.39	0.2183
77	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	64@32	24.8	22.02	0.1592

77	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.73	21.95	0.1567
77	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@131	24.48	21.7	0.1479
77	30	50	633334	3500.01	DFT-s-OFDM 64 QAM	64@32	23.35	20.57	0.1140
77	30	50	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.58	20.8	0.1202
77	30	50	633334	3500.01	DFT-s-OFDM 64 QAM	1@131	22.98	20.2	0.1047
77	30	50	633334	3500.01	DFT-s-OFDM 256 QAM	64@32	21.51	18.73	0.0746
77	30	50	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.75	18.97	0.0789
77	30	50	633334	3500.01	DFT-s-OFDM 256 QAM	1@131	21.45	18.67	0.0736
77	30	50	633334	3500.01	CP-OFDM QPSK	67@33	24.4	21.62	0.1452
77	30	50	633334	3500.01	CP-OFDM QPSK	1@1	24.56	21.78	0.1507
77	30	50	633334	3500.01	CP-OFDM QPSK	1@131	24.61	21.83	0.1524
77	30	50	635000	3525.0	DFT-s-OFDM PI/2 BPSK	64@32	26.29	23.51	0.2244
77	30	50	635000	3525.0	DFT-s-OFDM PI/2 BPSK	1@1	26.71	23.93	0.2472
77	30	50	635000	3525.0	DFT-s-OFDM PI/2 BPSK	1@131	26.51	23.73	0.2360
77	30	50	635000	3525.0	DFT-s-OFDM QPSK	64@32	26.74	23.96	0.2489
77	30	50	635000	3525.0	DFT-s-OFDM QPSK	1@1	26.42	23.64	0.2312
77	30	50	635000	3525.0	DFT-s-OFDM QPSK	1@131	26.1	23.32	0.2148
77	30	50	635000	3525.0	DFT-s-OFDM 16 QAM	64@32	25.51	22.73	0.1875
77	30	50	635000	3525.0	DFT-s-OFDM 16 QAM	1@1	25.31	22.53	0.1791
77	30	50	635000	3525.0	DFT-s-OFDM 16 QAM	1@131	25.05	22.27	0.1687
77	30	50	635000	3525.0	DFT-s-OFDM 64 QAM	64@32	23.17	20.39	0.1094
77	30	50	635000	3525.0	DFT-s-OFDM 64 QAM	1@1	23.92	21.14	0.1300
77	30	50	635000	3525.0	DFT-s-OFDM 64 QAM	1@131	23.7	20.92	0.1236
77	30	50	635000	3525.0	DFT-s-OFDM 256 QAM	64@32	21.2	18.42	0.0695

77	30	50	635000	3525.0	DFT-s-OFDM 256 QAM	1@1	21.41	18.63	0.0729
77	30	50	635000	3525.0	DFT-s-OFDM 256 QAM	1@131	21.5	18.72	0.0745
77	30	50	635000	3525.0	CP-OFDM QPSK	67@33	24.25	21.47	0.1403
77	30	50	635000	3525.0	CP-OFDM QPSK	1@1	24.7	21.92	0.1556
77	30	50	635000	3525.0	CP-OFDM QPSK	1@131	24.44	21.66	0.1466
77	30	60	632000	3480.0	DFT-s-OFDM PI/2 BPSK	81@40	26.83	24.05	0.2541
77	30	60	632000	3480.0	DFT-s-OFDM PI/2 BPSK	1@1	26.02	23.24	0.2109
77	30	60	632000	3480.0	DFT-s-OFDM PI/2 BPSK	1@160	26.88	24.1	0.2570
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	81@40	26.8	24.02	0.2523
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@1	25.7	22.92	0.1959
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@160	26.94	24.16	0.2606
77	30	60	632000	3480.0	DFT-s-OFDM 16 QAM	81@40	25.31	22.53	0.1791
77	30	60	632000	3480.0	DFT-s-OFDM 16 QAM	1@1	24.69	21.91	0.1552
77	30	60	632000	3480.0	DFT-s-OFDM 16 QAM	1@160	25.49	22.71	0.1866
77	30	60	632000	3480.0	DFT-s-OFDM 64 QAM	81@40	23.82	21.04	0.1271
77	30	60	632000	3480.0	DFT-s-OFDM 64 QAM	1@1	23.18	20.4	0.1096
77	30	60	632000	3480.0	DFT-s-OFDM 64 QAM	1@160	23.65	20.87	0.1222
77	30	60	632000	3480.0	DFT-s-OFDM 256 QAM	81@40	21.83	19.05	0.0804
77	30	60	632000	3480.0	DFT-s-OFDM 256 QAM	1@1	20.59	17.81	0.0604
77	30	60	632000	3480.0	DFT-s-OFDM 256 QAM	1@160	21.94	19.16	0.0824
77	30	60	632000	3480.0	CP-OFDM QPSK	81@40	24.63	21.85	0.1531
77	30	60	632000	3480.0	CP-OFDM QPSK	1@1	24.07	21.29	0.1346
77	30	60	632000	3480.0	CP-OFDM QPSK	1@160	24.45	21.67	0.1469
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	81@40	26.44	23.66	0.2323

77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.1	23.32	0.2148
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@160	26.84	24.06	0.2547
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	81@40	26.75	23.97	0.2495
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.1	23.32	0.2148
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@160	26.82	24.04	0.2535
77	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	81@40	25.26	22.48	0.1770
77	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.39	21.61	0.1449
77	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@160	25.29	22.51	0.1782
77	30	60	633334	3500.01	DFT-s-OFDM 64 QAM	81@40	23.44	20.66	0.1164
77	30	60	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	22.71	19.93	0.0984
77	30	60	633334	3500.01	DFT-s-OFDM 64 QAM	1@160	23.68	20.9	0.1230
77	30	60	633334	3500.01	DFT-s-OFDM 256 QAM	81@40	21.5	18.72	0.0745
77	30	60	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.33	18.55	0.0716
77	30	60	633334	3500.01	DFT-s-OFDM 256 QAM	1@160	21.34	18.56	0.0718
77	30	60	633334	3500.01	CP-OFDM QPSK	81@40	24.88	22.1	0.1622
77	30	60	633334	3500.01	CP-OFDM QPSK	1@1	24.17	21.39	0.1377
77	30	60	633334	3500.01	CP-OFDM QPSK	1@160	24.68	21.9	0.1549
77	30	60	634666	3500.01	DFT-s-OFDM PI/2 BPSK	81@40	26.51	23.73	0.2360
77	30	60	634666	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.09	23.31	0.2143
77	30	60	634666	3500.01	DFT-s-OFDM PI/2 BPSK	1@160	26.51	23.73	0.2360
77	30	60	634666	3500.01	DFT-s-OFDM QPSK	81@40	26.81	24.03	0.2529
77	30	60	634666	3500.01	DFT-s-OFDM QPSK	1@1	26.11	23.33	0.2153
77	30	60	634666	3500.01	DFT-s-OFDM QPSK	1@160	26.45	23.67	0.2328
77	30	60	634666	3500.01	DFT-s-OFDM 16 QAM	81@40	25.32	22.54	0.1795

77	30	60	634666	3500.01	DFT-s-OFDM 16 QAM	1@1	24.61	21.83	0.1524
77	30	60	634666	3500.01	DFT-s-OFDM 16 QAM	1@160	25.13	22.35	0.1718
77	30	60	634666	3500.01	DFT-s-OFDM 64 QAM	81@40	23.56	20.78	0.1197
77	30	60	634666	3500.01	DFT-s-OFDM 64 QAM	1@1	23.09	20.31	0.1074
77	30	60	634666	3500.01	DFT-s-OFDM 64 QAM	1@160	24.07	21.29	0.1346
77	30	60	634666	3519.99	DFT-s-OFDM 256 QAM	81@40	21.75	18.97	0.0789
77	30	60	634666	3519.99	DFT-s-OFDM 256 QAM	1@1	21.04	18.26	0.0670
77	30	60	634666	3519.99	DFT-s-OFDM 256 QAM	1@160	21.92	19.14	0.0820
77	30	60	634666	3519.99	CP-OFDM QPSK	81@40	24.26	21.48	0.1406
77	30	60	634666	3519.99	CP-OFDM QPSK	1@1	24.01	21.23	0.1327
77	30	60	634666	3519.99	CP-OFDM QPSK	1@160	24.88	22.1	0.1622
77	30	70	632334	3485.01	DFT-s-OFDM PI/2 BPSK	90@45	26.73	23.95	0.2483
77	30	70	632334	3485.01	DFT-s-OFDM PI/2 BPSK	1@1	26.75	23.97	0.2495
77	30	70	632334	3485.01	DFT-s-OFDM PI/2 BPSK	1@187	25.94	23.16	0.2070
77	30	70	632334	3485.01	DFT-s-OFDM QPSK	90@45	26.51	23.73	0.2360
77	30	70	632334	3485.01	DFT-s-OFDM QPSK	1@1	26.81	24.03	0.2529
77	30	70	632334	3485.01	DFT-s-OFDM QPSK	1@187	26.48	23.7	0.2344
77	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	90@45	24.81	22.03	0.1596
77	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	1@1	25.29	22.51	0.1782
77	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	1@187	24.44	21.66	0.1466
77	30	70	632334	3485.01	DFT-s-OFDM 64 QAM	90@45	23.7	20.92	0.1236
77	30	70	632334	3485.01	DFT-s-OFDM 64 QAM	1@1	23.71	20.93	0.1239
77	30	70	632334	3485.01	DFT-s-OFDM 64 QAM	1@187	23.51	20.73	0.1183
77	30	70	632334	3485.01	DFT-s-OFDM 256 QAM	90@45	21.7	18.92	0.0780

77	30	70	632334	3485.01	DFT-s-OFDM 256 QAM	1@1	21.76	18.98	0.0791
77	30	70	632334	3485.01	DFT-s-OFDM 256 QAM	1@187	21.55	18.77	0.0753
77	30	70	632334	3485.01	CP-OFDM QPSK	95@47	24.33	21.55	0.1429
77	30	70	632334	3485.01	CP-OFDM QPSK	1@1	24.38	21.6	0.1445
77	30	70	632334	3485.01	CP-OFDM QPSK	1@187	24.38	21.6	0.1445
77	30	70	633334	3485.01	DFT-s-OFDM PI/2 BPSK	90@45	26.3	23.52	0.2249
77	30	70	633334	3485.01	DFT-s-OFDM PI/2 BPSK	1@1	26.78	24	0.2512
77	30	70	633334	3485.01	DFT-s-OFDM PI/2 BPSK	1@187	26.32	23.54	0.2259
77	30	70	633334	3500.01	DFT-s-OFDM QPSK	90@45	26.5	23.72	0.2355
77	30	70	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.41	23.63	0.2307
77	30	70	633334	3500.01	DFT-s-OFDM QPSK	1@187	26.42	23.64	0.2312
77	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	90@45	25.22	22.44	0.1754
77	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	25.23	22.45	0.1758
77	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	1@187	24.82	22.04	0.1600
77	30	70	633334	3500.01	DFT-s-OFDM 64 QAM	90@45	23.33	20.55	0.1135
77	30	70	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.33	20.55	0.1135
77	30	70	633334	3500.01	DFT-s-OFDM 64 QAM	1@187	23.04	20.26	0.1062
77	30	70	633334	3500.01	DFT-s-OFDM 256 QAM	90@45	21.71	18.93	0.0782
77	30	70	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.8	19.02	0.0798
77	30	70	633334	3500.01	DFT-s-OFDM 256 QAM	1@187	21.63	18.85	0.0767
77	30	70	633334	3500.01	CP-OFDM QPSK	95@47	24.72	21.94	0.1563
77	30	70	633334	3500.01	CP-OFDM QPSK	1@1	24.33	21.55	0.1429
77	30	70	633334	3500.01	CP-OFDM QPSK	1@187	24.1	21.32	0.1355
77	30	70	634332	3500.01	DFT-s-OFDM PI/2 BPSK	90@45	26.81	24.03	0.2529

77	30	70	634332	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.78	24	0.2512
77	30	70	634332	3500.01	DFT-s-OFDM PI/2 BPSK	1@187	26.51	23.73	0.2360
77	30	70	634332	3500.01	DFT-s-OFDM QPSK	90@45	26.33	23.55	0.2265
77	30	70	634332	3500.01	DFT-s-OFDM QPSK	1@1	26.31	23.53	0.2254
77	30	70	634332	3514.98	DFT-s-OFDM QPSK	1@187	26.08	23.3	0.2138
77	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	90@45	25.13	22.35	0.1718
77	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	1@1	25.29	22.51	0.1782
77	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	1@187	24.89	22.11	0.1626
77	30	70	634332	3514.98	DFT-s-OFDM 64 QAM	90@45	23.6	20.82	0.1208
77	30	70	634332	3514.98	DFT-s-OFDM 64 QAM	1@1	23.84	21.06	0.1276
77	30	70	634332	3514.98	DFT-s-OFDM 64 QAM	1@187	23.13	20.35	0.1084
77	30	70	634332	3514.98	DFT-s-OFDM 256 QAM	90@45	21.36	18.58	0.0721
77	30	70	634332	3514.98	DFT-s-OFDM 256 QAM	1@1	21.9	19.12	0.0817
77	30	70	634332	3514.98	DFT-s-OFDM 256 QAM	1@187	21.41	18.63	0.0729
77	30	70	634332	3514.98	CP-OFDM QPSK	95@47	24.28	21.5	0.1413
77	30	70	634332	3514.98	CP-OFDM QPSK	1@1	24.48	21.7	0.1479
77	30	70	634332	3514.98	CP-OFDM QPSK	1@187	24.29	21.51	0.1416
77	30	80	632668	3490.02	DFT-s-OFDM PI/2 BPSK	108@54	26.69	23.91	0.2460
77	30	80	632668	3490.02	DFT-s-OFDM PI/2 BPSK	1@1	26.3	23.52	0.2249
77	30	80	632668	3490.02	DFT-s-OFDM PI/2 BPSK	1@215	25.89	23.11	0.2046
77	30	80	632668	3490.02	DFT-s-OFDM QPSK	108@54	26.65	23.87	0.2438
77	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@1	26.3	23.52	0.2249
77	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@215	26.6	23.82	0.2410
77	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	108@54	26.51	23.73	0.2360

77	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@1	24.85	22.07	0.1611
77	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@215	24.52	21.74	0.1493
77	30	80	632668	3490.02	DFT-s-OFDM 64 QAM	108@54	23.28	20.5	0.1122
77	30	80	632668	3490.02	DFT-s-OFDM 64 QAM	1@1	23.28	20.5	0.1122
77	30	80	632668	3490.02	DFT-s-OFDM 64 QAM	1@215	23.56	20.78	0.1197
77	30	80	632668	3490.02	DFT-s-OFDM 256 QAM	108@54	21.72	18.94	0.0783
77	30	80	632668	3490.02	DFT-s-OFDM 256 QAM	1@1	21.42	18.64	0.0731
77	30	80	632668	3490.02	DFT-s-OFDM 256 QAM	1@215	20.89	18.11	0.0647
77	30	80	632668	3490.02	CP-OFDM QPSK	109@54	24.66	21.88	0.1542
77	30	80	632668	3490.02	CP-OFDM QPSK	1@1	24.32	21.54	0.1426
77	30	80	632668	3490.02	CP-OFDM QPSK	1@215	24.04	21.26	0.1337
77	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	108@54	26.73	23.95	0.2483
77	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.37	23.59	0.2286
77	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@215	26.4	23.62	0.2301
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	108@54	26.72	23.94	0.2477
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.38	23.6	0.2291
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@215	26.09	23.31	0.2143
77	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	108@54	24.82	22.04	0.1600
77	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	25.17	22.39	0.1734
77	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@215	24.91	22.13	0.1633
77	30	80	633334	3500.01	DFT-s-OFDM 64 QAM	108@54	23.74	20.96	0.1247
77	30	80	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.74	20.96	0.1247
77	30	80	633334	3500.01	DFT-s-OFDM 64 QAM	1@215	23.69	20.91	0.1233
77	30	80	633334	3500.01	DFT-s-OFDM 256 QAM	108@54	21.81	19.03	0.0800

77	30	80	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.76	18.98	0.0791
77	30	80	633334	3500.01	DFT-s-OFDM 256 QAM	1@215	20.78	18	0.0631
77	30	80	633334	3500.01	CP-OFDM QPSK	109@54	24.58	21.8	0.1514
77	30	80	633334	3500.01	CP-OFDM QPSK	1@1	24.89	22.11	0.1626
77	30	80	633334	3500.01	CP-OFDM QPSK	1@215	24.04	21.26	0.1337
77	30	80	634000	3510.0	DFT-s-OFDM PI/2 BPSK	108@54	26.36	23.58	0.2280
77	30	80	634000	3510.0	DFT-s-OFDM PI/2 BPSK	1@1	26.75	23.97	0.2495
77	30	80	634000	3510.0	DFT-s-OFDM PI/2 BPSK	1@215	26.56	23.78	0.2388
77	30	80	634000	3510.0	DFT-s-OFDM QPSK	108@54	26.77	23.99	0.2506
77	30	80	634000	3510.0	DFT-s-OFDM QPSK	1@1	26.75	23.97	0.2495
77	30	80	634000	3510.0	DFT-s-OFDM QPSK	1@215	26.48	23.7	0.2344
77	30	80	634000	3510.0	DFT-s-OFDM 16 QAM	108@54	25.23	22.45	0.1758
77	30	80	634000	3510.0	DFT-s-OFDM 16 QAM	1@1	25.28	22.5	0.1778
77	30	80	634000	3510.0	DFT-s-OFDM 16 QAM	1@215	25.01	22.23	0.1671
77	30	80	634000	3510.0	DFT-s-OFDM 64 QAM	108@54	23.73	20.95	0.1245
77	30	80	634000	3510.0	DFT-s-OFDM 64 QAM	1@1	23.53	20.75	0.1189
77	30	80	634000	3510.0	DFT-s-OFDM 64 QAM	1@215	23.47	20.69	0.1172
77	30	80	634000	3510.0	DFT-s-OFDM 256 QAM	108@54	21.53	18.75	0.0750
77	30	80	634000	3510.0	DFT-s-OFDM 256 QAM	1@1	21.89	19.11	0.0815
77	30	80	634000	3510.0	DFT-s-OFDM 256 QAM	1@215	21.45	18.67	0.0736
77	30	80	634000	3510.0	CP-OFDM QPSK	109@54	24.59	21.81	0.1517
77	30	80	634000	3510.0	CP-OFDM QPSK	1@1	24.69	21.91	0.1552
77	30	80	634000	3510.0	CP-OFDM QPSK	1@215	24.37	21.59	0.1442
77	30	90	633000	3495.0	DFT-s-OFDM PI/2 BPSK	120@60	26.38	23.6	0.2291

77	30	90	633000	3495.0	DFT-s-OFDM PI/2 BPSK	1@1	26.4	23.62	0.2301
77	30	90	633000	3495.0	DFT-s-OFDM PI/2 BPSK	1@243	26.07	23.29	0.2133
77	30	90	633000	3495.0	DFT-s-OFDM QPSK	120@60	26.66	23.88	0.2443
77	30	90	633000	3495.0	DFT-s-OFDM QPSK	1@1	26.76	23.98	0.2500
77	30	90	633000	3495.0	DFT-s-OFDM QPSK	1@243	26.63	23.85	0.2427
77	30	90	633000	3495.0	DFT-s-OFDM 16 QAM	120@60	26.51	23.73	0.2360
77	30	90	633000	3495.0	DFT-s-OFDM 16 QAM	1@1	25.41	22.63	0.1832
77	30	90	633000	3495.0	DFT-s-OFDM 16 QAM	1@243	24.79	22.01	0.1589
77	30	90	633000	3495.0	DFT-s-OFDM 64 QAM	120@60	23.35	20.57	0.1140
77	30	90	633000	3495.0	DFT-s-OFDM 64 QAM	1@1	23.39	20.61	0.1151
77	30	90	633000	3495.0	DFT-s-OFDM 64 QAM	1@243	23.49	20.71	0.1178
77	30	90	633000	3495.0	DFT-s-OFDM 256 QAM	120@60	21.72	18.94	0.0783
77	30	90	633000	3495.0	DFT-s-OFDM 256 QAM	1@1	21.39	18.61	0.0726
77	30	90	633000	3495.0	DFT-s-OFDM 256 QAM	1@243	21.29	18.51	0.0710
77	30	90	633000	3495.0	CP-OFDM QPSK	123@61	24.8	22.02	0.1592
77	30	90	633000	3495.0	CP-OFDM QPSK	1@1	24.44	21.66	0.1466
77	30	90	633000	3495.0	CP-OFDM QPSK	1@243	24.16	21.38	0.1374
77	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	120@60	26.75	23.97	0.2495
77	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.28	23.5	0.2239
77	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@243	26.63	23.85	0.2427
77	30	90	633334	3500.01	DFT-s-OFDM QPSK	120@60	26.77	23.99	0.2506
77	30	90	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.82	24.04	0.2535
77	30	90	633334	3500.01	DFT-s-OFDM QPSK	1@243	26.57	23.79	0.2393
77	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	120@60	25.51	22.73	0.1875

77	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	25.19	22.41	0.1742
77	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	1@243	24.95	22.17	0.1648
77	30	90	633334	3500.01	DFT-s-OFDM 64 QAM	120@60	23.76	20.98	0.1253
77	30	90	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.49	20.71	0.1178
77	30	90	633334	3500.01	DFT-s-OFDM 64 QAM	1@243	23.2	20.42	0.1102
77	30	90	633334	3500.01	DFT-s-OFDM 256 QAM	120@60	21.78	19	0.0794
77	30	90	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.57	18.79	0.0757
77	30	90	633334	3500.01	DFT-s-OFDM 256 QAM	1@243	21.52	18.74	0.0748
77	30	90	633334	3500.01	CP-OFDM QPSK	123@61	24.41	21.63	0.1455
77	30	90	633334	3500.01	CP-OFDM QPSK	1@1	24.81	22.03	0.1596
77	30	90	633334	3500.01	CP-OFDM QPSK	1@243	24.45	21.67	0.1469
77	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	120@60	26.79	24.01	0.2518
77	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	1@1	26.8	24.02	0.2523
77	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	1@243	25.99	23.21	0.2094
77	30	90	633666	3504.99	DFT-s-OFDM QPSK	120@60	26.26	23.48	0.2228
77	30	90	633666	3504.99	DFT-s-OFDM QPSK	1@1	26.34	23.56	0.2270
77	30	90	633666	3504.99	DFT-s-OFDM QPSK	1@243	26.59	23.81	0.2404
77	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	120@60	26.51	23.73	0.2360
77	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	1@1	24.96	22.18	0.1652
77	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	1@243	25.05	22.27	0.1687
77	30	90	633666	3504.99	DFT-s-OFDM 64 QAM	120@60	23.78	21	0.1259
77	30	90	633666	3504.99	DFT-s-OFDM 64 QAM	1@1	23.76	20.98	0.1253
77	30	90	633666	3504.99	DFT-s-OFDM 64 QAM	1@243	23.58	20.8	0.1202
77	30	90	633666	3504.99	DFT-s-OFDM 256 QAM	120@60	21.71	18.93	0.0782

77	30	90	633666	3504.99	DFT-s-OFDM 256 QAM	1@1	21.45	18.67	0.0736
77	30	90	633666	3504.99	DFT-s-OFDM 256 QAM	1@243	21.19	18.41	0.0693
77	30	90	633666	3504.99	CP-OFDM QPSK	123@61	24.72	21.94	0.1563
77	30	90	633666	3504.99	CP-OFDM QPSK	1@1	24.71	21.93	0.1560
77	30	90	633666	3504.99	CP-OFDM QPSK	1@243	24.51	21.73	0.1489
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	135@67	26.19	23.41	0.2193
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	26.7	23.92	0.2466
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@271	26.03	23.25	0.2113
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	135@67	26.39	23.61	0.2296
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@1	26.96	24.18	0.2618
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@271	26.11	23.33	0.2153
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	135@67	25.25	22.47	0.1766
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.93	22.15	0.1641
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@271	25	22.22	0.1667
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	135@67	23.35	20.57	0.1140
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.67	20.89	0.1227
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@271	23.48	20.7	0.1175
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	135@67	21.72	18.94	0.0783
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	21.48	18.7	0.0741
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@271	21.17	18.39	0.0690
77	30	100	633334	3500.01	CP-OFDM QPSK	137@68	24.72	21.94	0.1563
77	30	100	633334	3500.01	CP-OFDM QPSK	1@1	24.89	22.11	0.1626
77	30	100	633334	3500.01	CP-OFDM QPSK	1@271	24.19	21.41	0.1384

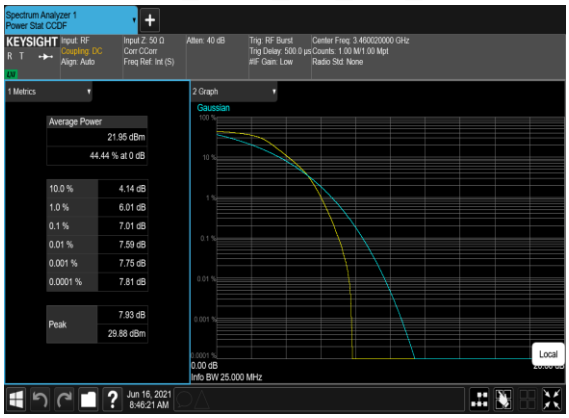
Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.02006	PASS	NV
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00471	PASS	LV
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00363	PASS	HV
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00407	PASS	-30℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00353	PASS	-20℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00668	PASS	-10℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00718	PASS	0℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00517	PASS	10℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00589	PASS	20℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00385	PASS	30℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00382	PASS	40℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-0.00662	PASS	50℃

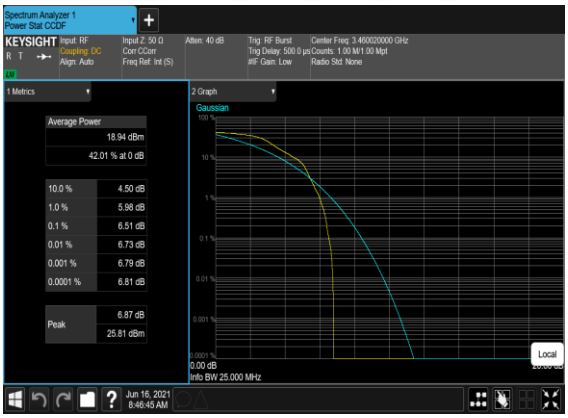
Peak to Average Radio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
77	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	50@0	7.01	13	PASS
77	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@0	6.51	13	PASS
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	50@0	8.18	13	PASS
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	7.77	13	PASS
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	50@0	7.02	13	PASS
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@0	7.31	13	PASS
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	8.74	13	PASS
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	7.72	13	PASS
77	30	20	636000	3540.0	DFT-s-OFDM PI/2 BPSK	50@0	6.96	13	PASS
77	30	20	636000	3540.0	DFT-s-OFDM PI/2 BPSK	1@0	6.61	13	PASS
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	50@0	7.94	13	PASS
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	10.5	13	PASS

N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH

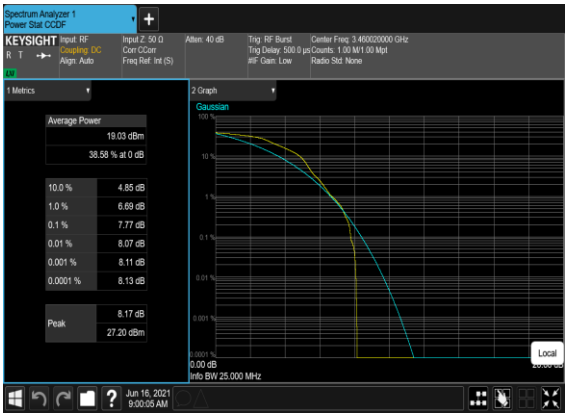


N77(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Low_CH

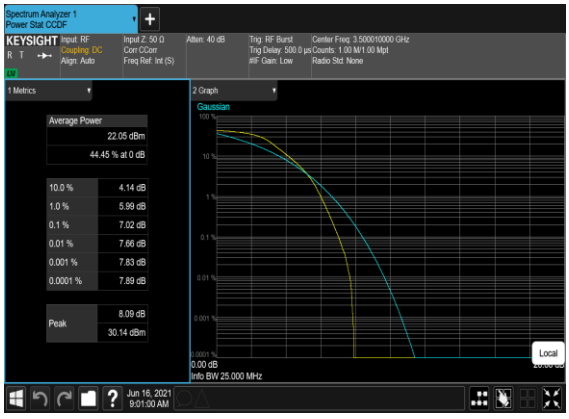


N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

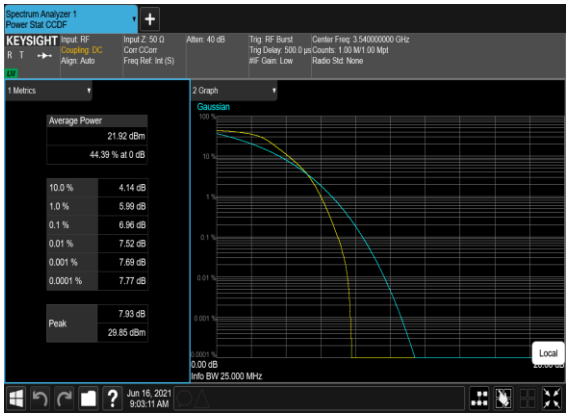


N77(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Mid_CH

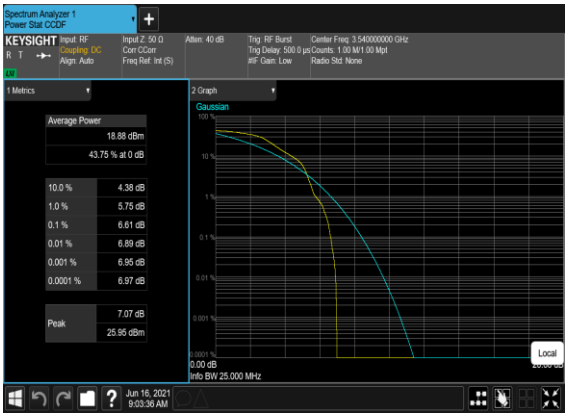
N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH

N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH

N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



N77(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_High_CH



N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH

Occupied Bandwidth

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB OBW (MHz)
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	50@0	17.752	18.72
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	17.8	19.06
77	30	20	633334	3500.01	CP-OFDM QPSK	51@0	18.219	19.34
77	30	20	633334	3500.01	CP-OFDM 16 QAM	51@0	18.204	19.31
77	30	20	633334	3500.01	CP-OFDM 64 QAM	51@0	18.195	19.22
77	30	20	633334	3500.01	CP-OFDM 256 QAM	51@0	18.191	19.18
77	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	75@0	26.79	28.18
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	75@0	26.754	28.31
77	30	30	633334	3500.01	CP-OFDM QPSK	78@0	27.856	29.25
77	30	30	633334	3500.01	CP-OFDM 16 QAM	78@0	27.857	29.07
77	30	30	633334	3500.01	CP-OFDM 64 QAM	78@0	27.796	29.35
77	30	30	633334	3500.01	CP-OFDM 256 QAM	78@0	27.847	29.3
77	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	35.739	37.35
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	100@0	35.674	37.25
77	30	40	633334	3500.01	CP-OFDM QPSK	106@0	37.804	39.36
77	30	40	633334	3500.01	CP-OFDM 16 QAM	106@0	37.806	39.34
77	30	40	633334	3500.01	CP-OFDM 64 QAM	106@0	37.844	39.44
77	30	40	633334	3500.01	CP-OFDM 256 QAM	106@0	37.789	39.36
77	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	128@0	45.722	47.44
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	128@0	45.77	47.48
77	30	50	633334	3500.01	CP-OFDM QPSK	133@0	47.491	49.26
77	30	50	633334	3500.01	CP-OFDM 16 QAM	133@0	47.518	49.24
77	30	50	633334	3500.01	CP-OFDM 64 QAM	133@0	47.485	49.2
77	30	50	633334	3500.01	CP-OFDM 256 QAM	133@0	47.462	49.34

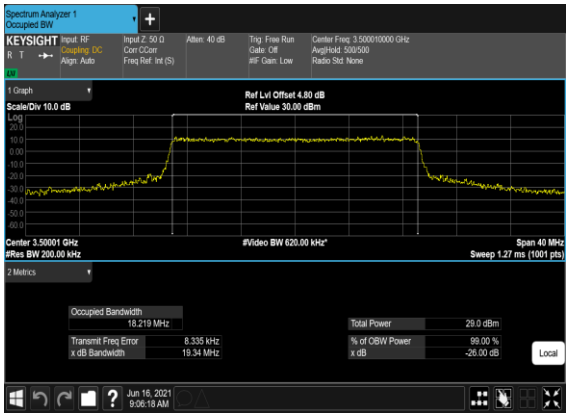
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	57.871	59.83
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	162@0	57.872	59.9
77	30	60	633334	3500.01	CP-OFDM QPSK	162@0	57.871	59.88
77	30	60	633334	3500.01	CP-OFDM 16 QAM	162@0	57.873	59.93
77	30	60	633334	3500.01	CP-OFDM 64 QAM	162@0	57.72	59.8
77	30	60	633334	3500.01	CP-OFDM 256 QAM	162@0	57.886	59.84
77	30	70	633334	3500.01	DFT-s-OFDM PI/2 BPSK	180@0	64.293	66.53
77	30	70	633334	3500.01	DFT-s-OFDM QPSK	180@0	64.31	66.55
77	30	70	633334	3500.01	CP-OFDM QPSK	189@0	67.508	69.62
77	30	70	633334	3500.01	CP-OFDM 16 QAM	189@0	67.478	69.72
77	30	70	633334	3500.01	CP-OFDM 64 QAM	189@0	67.45	69.59
77	30	70	633334	3500.01	CP-OFDM 256 QAM	189@0	67.46	70.06
77	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	216@0	77.088	80.86
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	216@0	77.165	79.78
77	30	80	633334	3500.01	CP-OFDM QPSK	217@0	77.482	79.92
77	30	80	633334	3500.01	CP-OFDM 16 QAM	217@0	77.482	80.0
77	30	80	633334	3500.01	CP-OFDM 64 QAM	217@0	77.446	80.26
77	30	80	633334	3500.01	CP-OFDM 256 QAM	217@0	77.505	80.11
77	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	240@0	85.813	88.61
77	30	90	633334	3500.01	DFT-s-OFDM QPSK	240@0	85.826	88.69
77	30	90	633334	3500.01	CP-OFDM QPSK	245@0	87.578	90.21
77	30	90	633334	3500.01	CP-OFDM 16 QAM	245@0	87.404	90.2
77	30	90	633334	3500.01	CP-OFDM 64 QAM	245@0	87.478	90.31
77	30	90	633334	3500.01	CP-OFDM 256 QAM	245@0	87.453	90.27
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	270@0	96.511	99.5
77	30	100	633334	3500.01	DFT-s-OFDM	270@0	96.448	99.5

					QPSK			
77	30	100	633334	3500.01	CP-OFDM QPSK	273@0	97.462	100.6
77	30	100	633334	3500.01	CP-OFDM 16 QAM	273@0	97.482	100.5
77	30	100	633334	3500.01	CP-OFDM 64 QAM	273@0	97.361	100.6
77	30	100	633334	3500.01	CP-OFDM 256 QAM	273@0	97.579	100.6

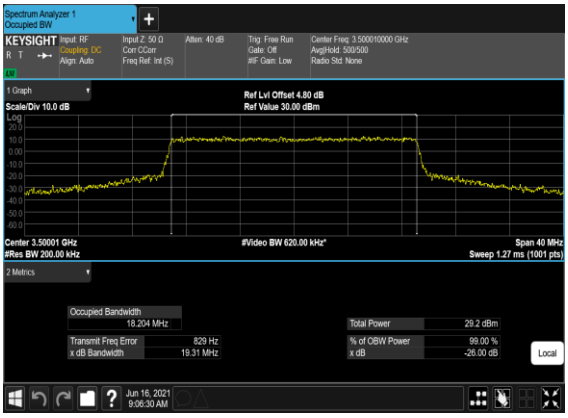
N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH

N77(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



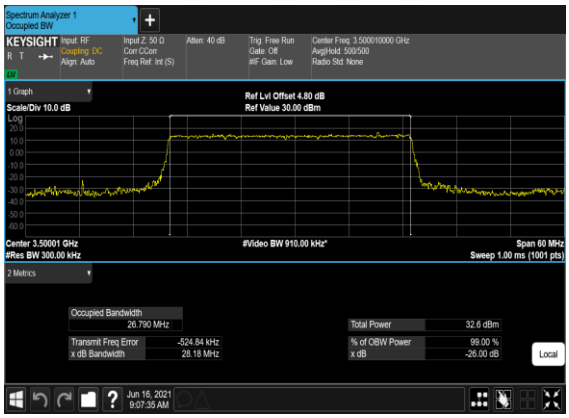
N77(20M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



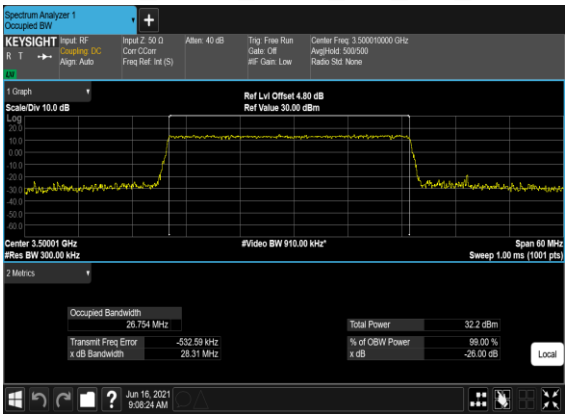
N77(20M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N77(20M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

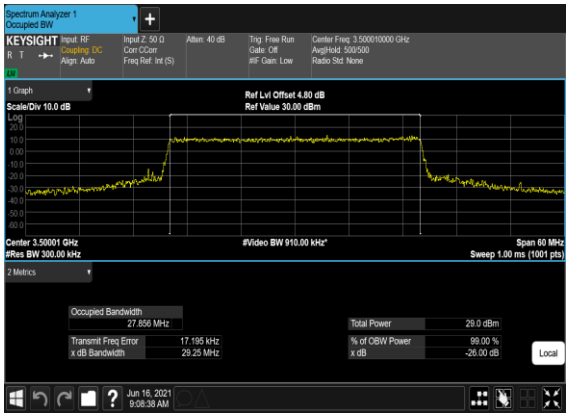
N77(30M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



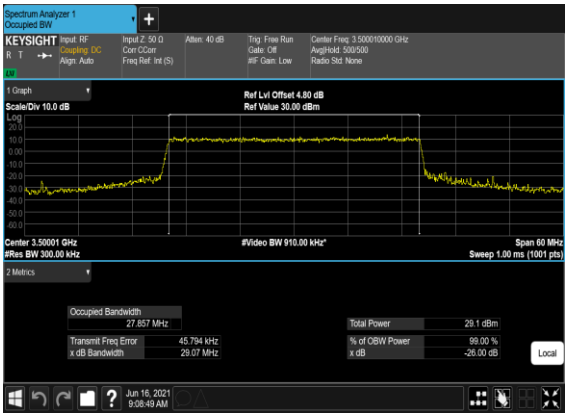
N77(30M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



N77(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



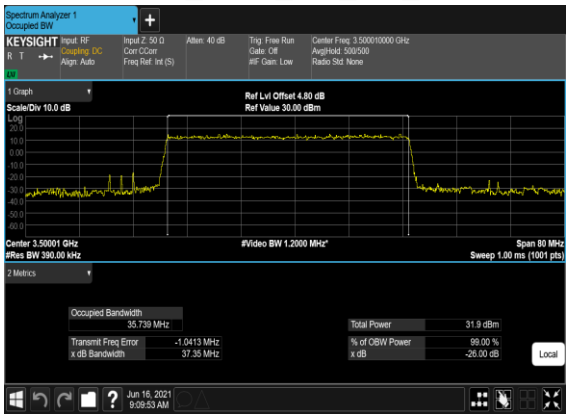
N77(30M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



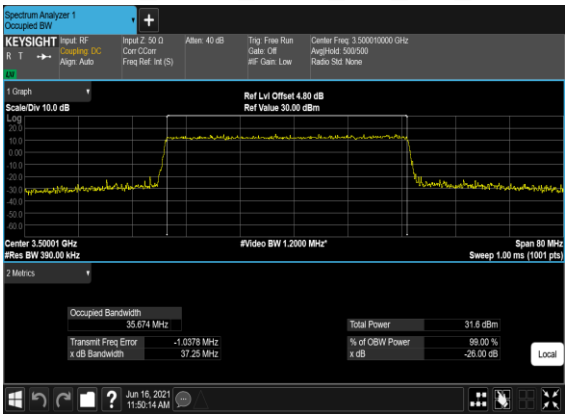
N77(30M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N77(30M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

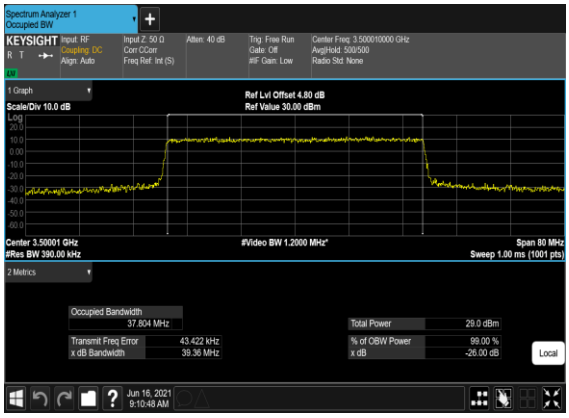
N77(40M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



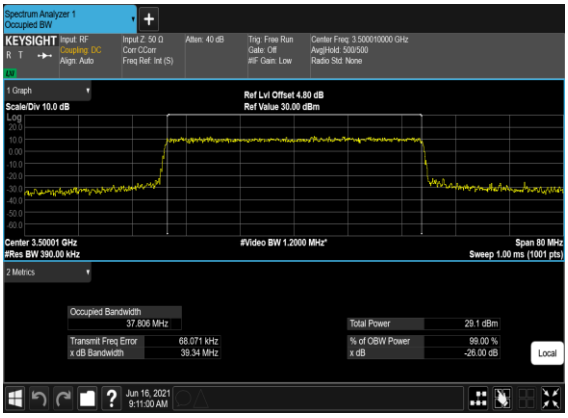
N77(40M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



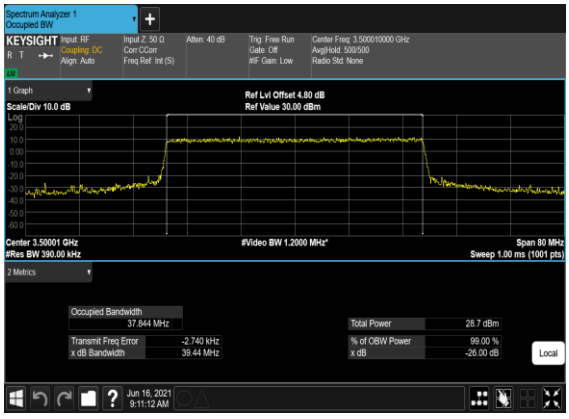
N77(40M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



N77(40M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

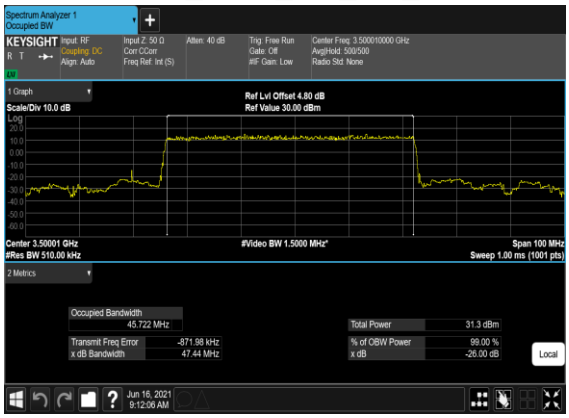


N77(40M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

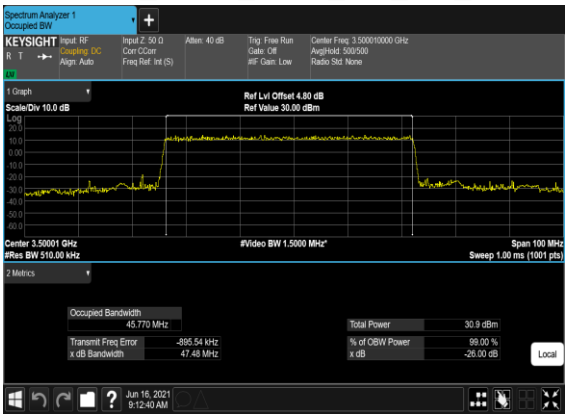


N77(40M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

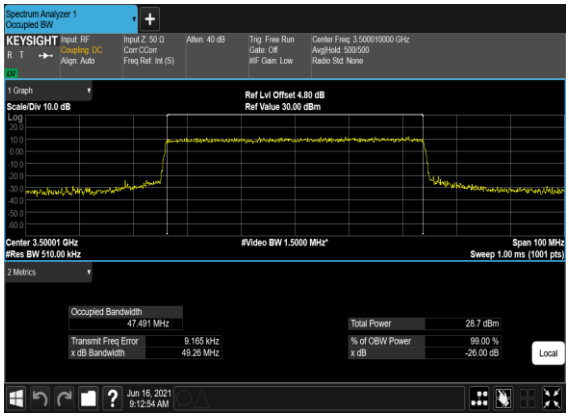
N77(50M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



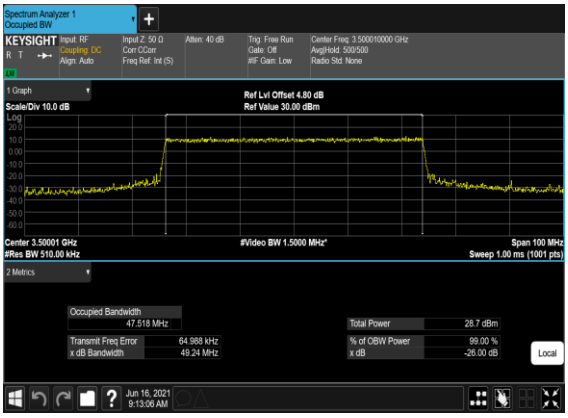
N77(50M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



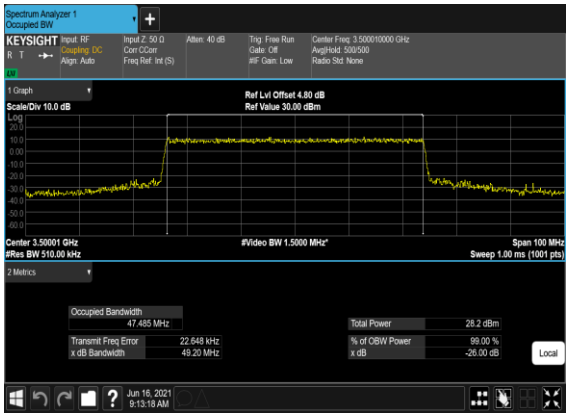
N77(50M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



N77(50M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

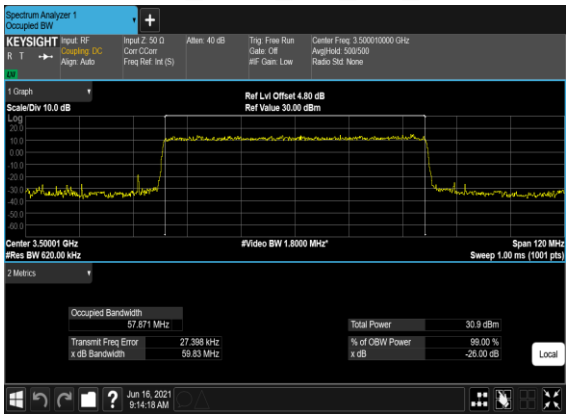


N77(50M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

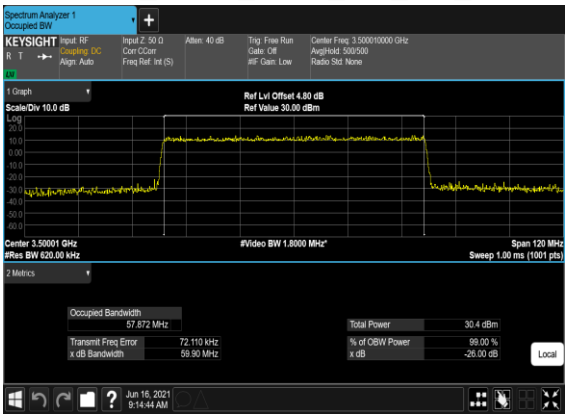


N77(50M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

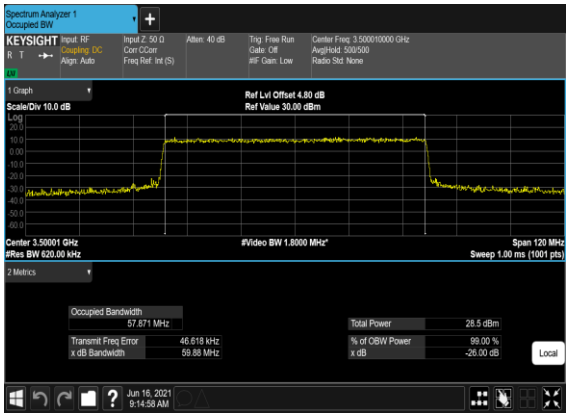
N77(60M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



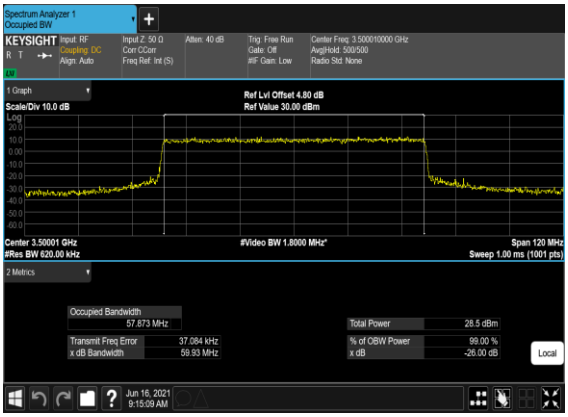
N77(60M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



N77(60M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

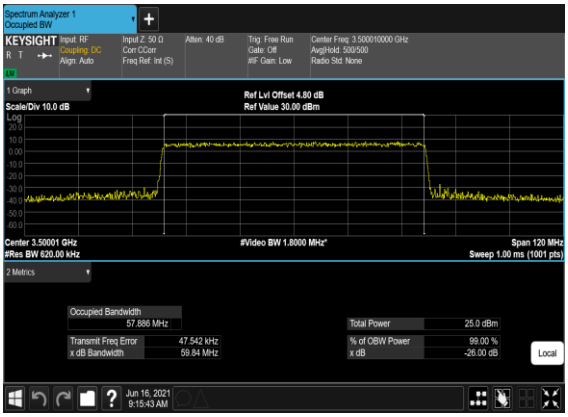


N77(60M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

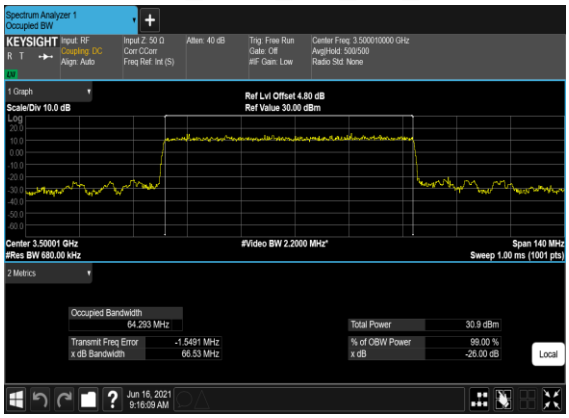


N77(60M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N77(60M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

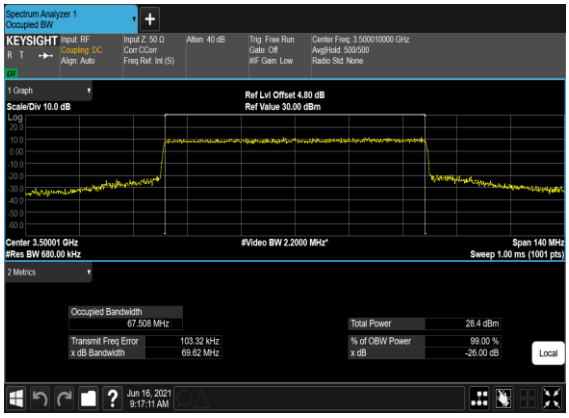


N77(70M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

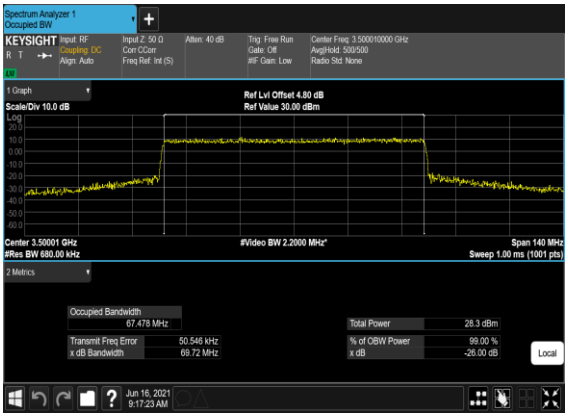


N77(70M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH

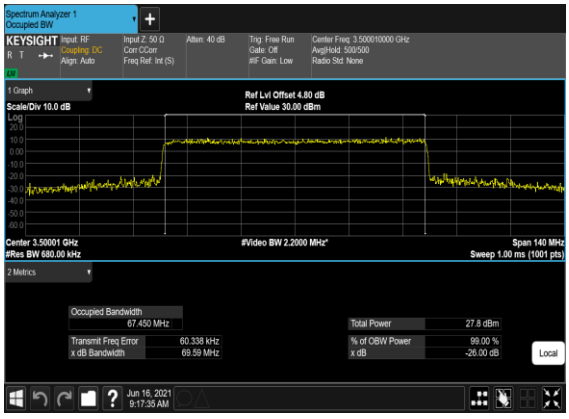
N77(70M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



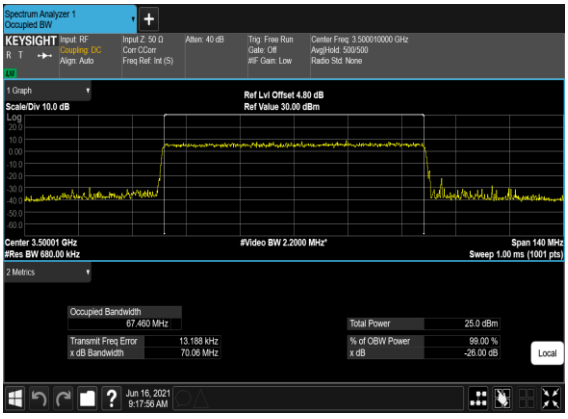
N77(70M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



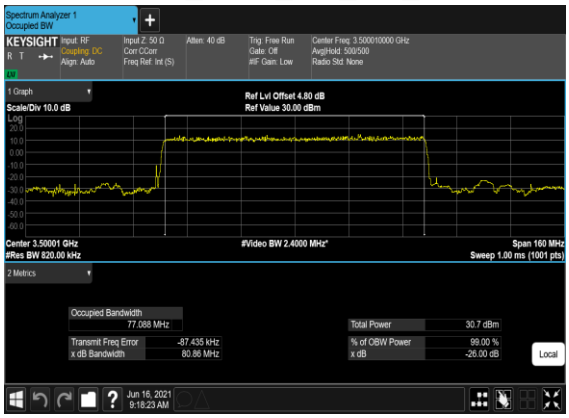
N77(70M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



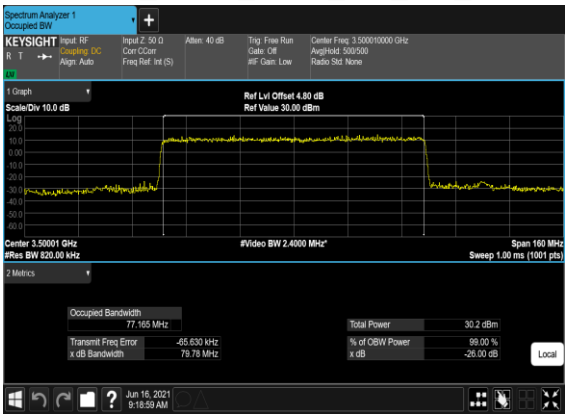
N77(70M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



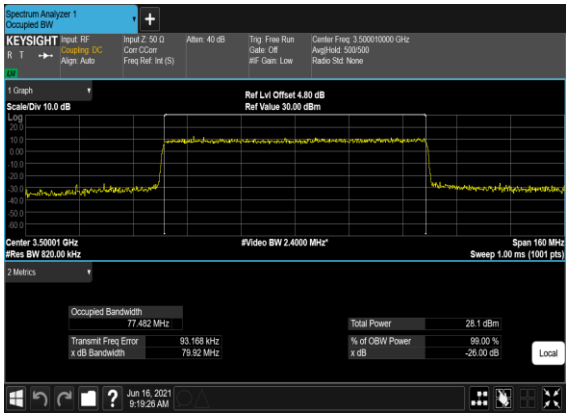
N77(80M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



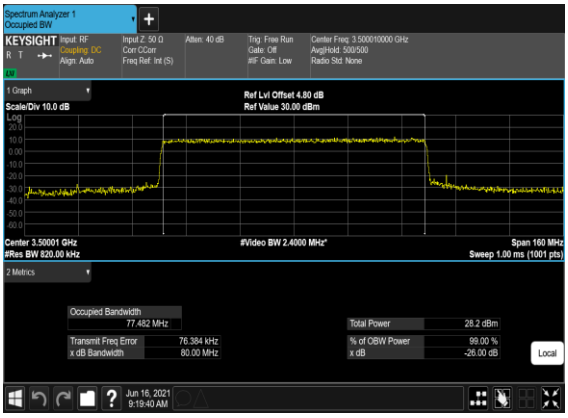
N77(80M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



N77(80M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



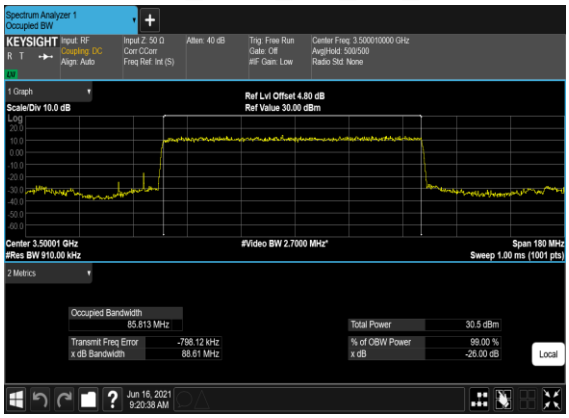
N77(80M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N77(80M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N77(80M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

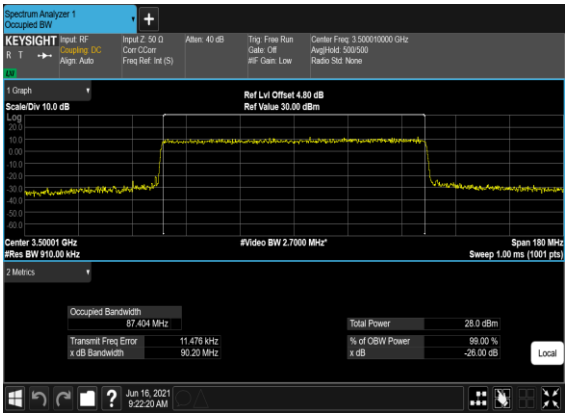
N77(90M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



N77(90M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH

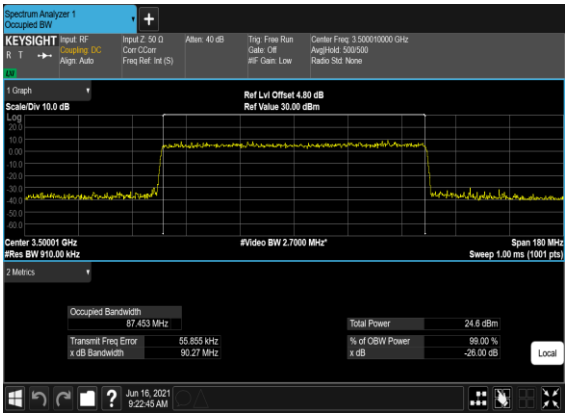
N77(90M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

N77(90M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



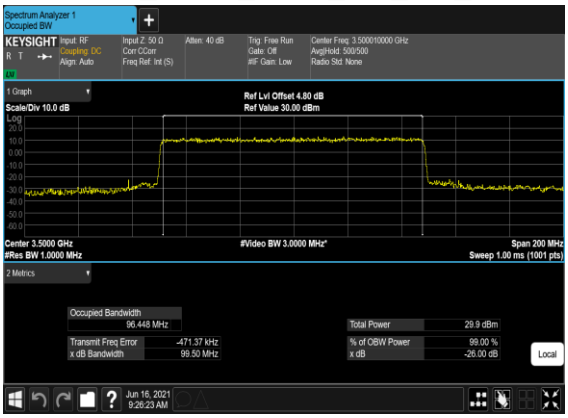
N77(90M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N77(90M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

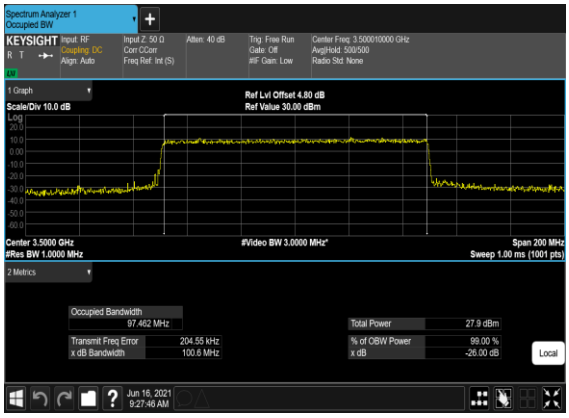


N77(100M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

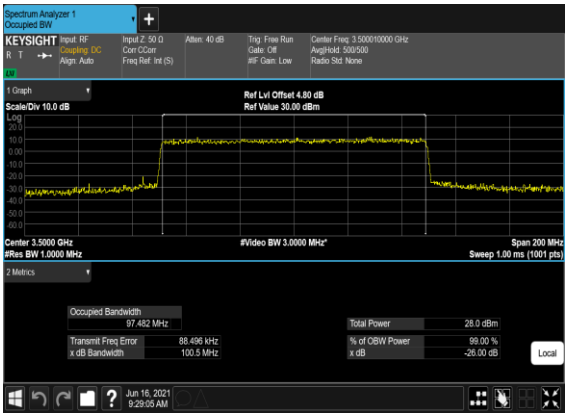
N77(100M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



N77(100M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



N77(100M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N77(100M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

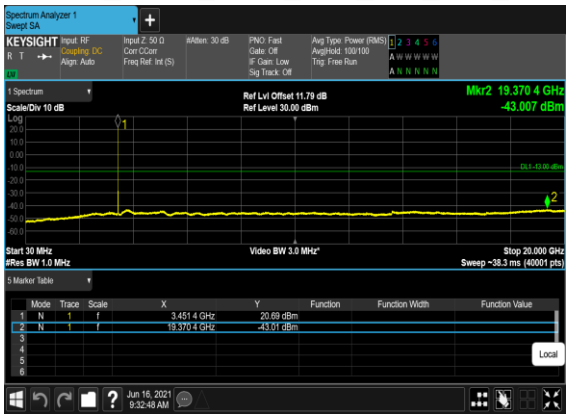
N77(100M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

Conducted Spurious Emissions

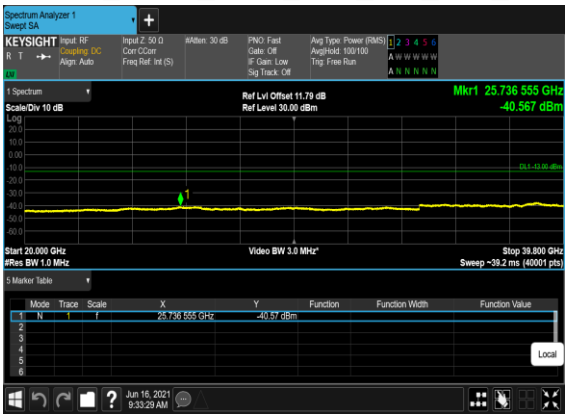
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	20	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	20	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	---

77	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	60	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	60	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	60	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS

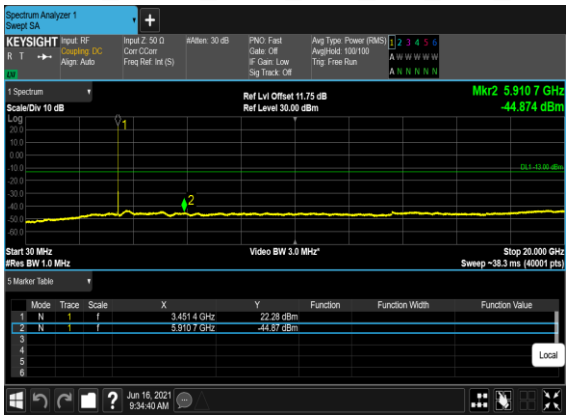
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



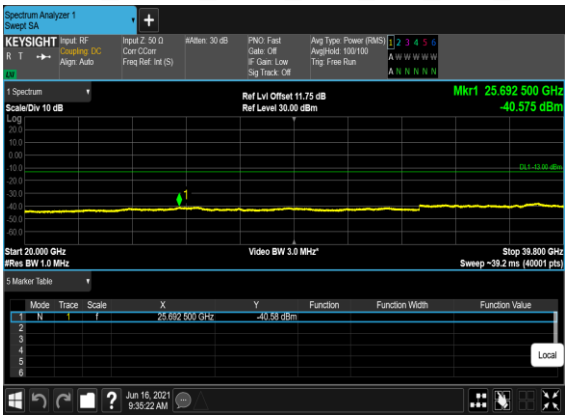
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



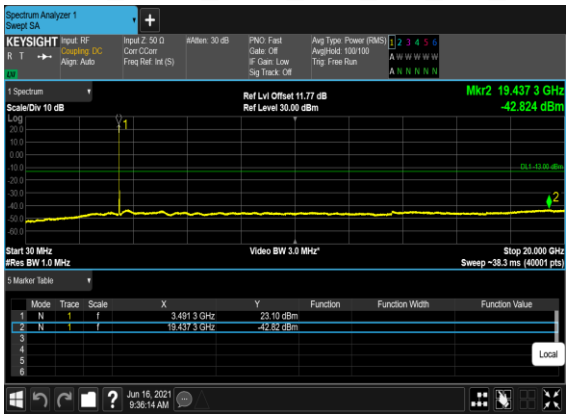
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



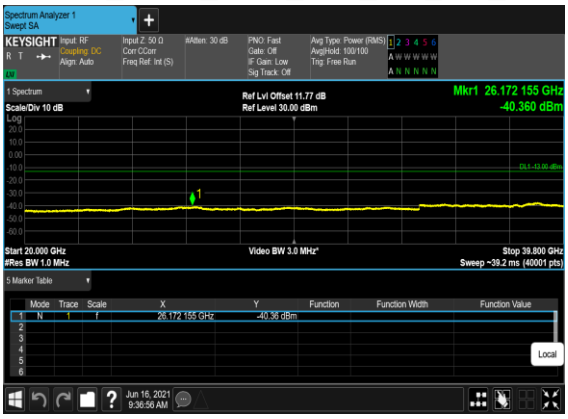
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



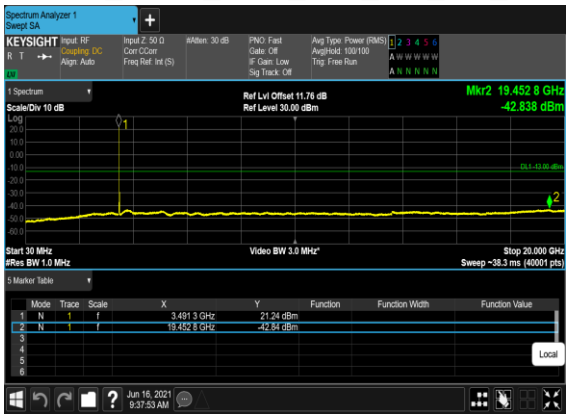
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



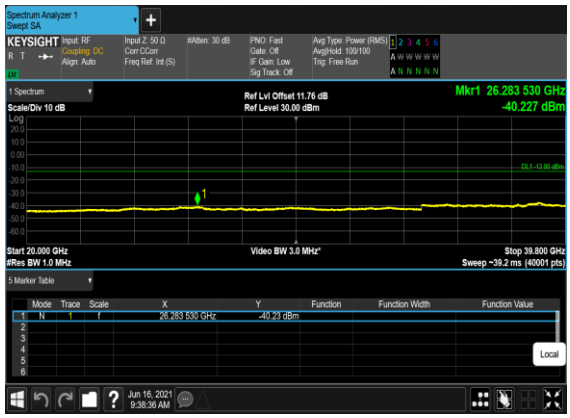
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



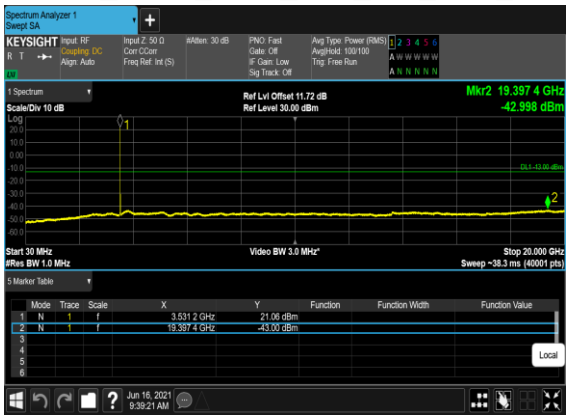
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



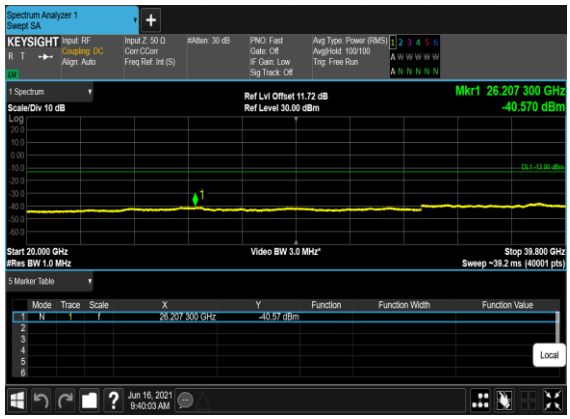
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH

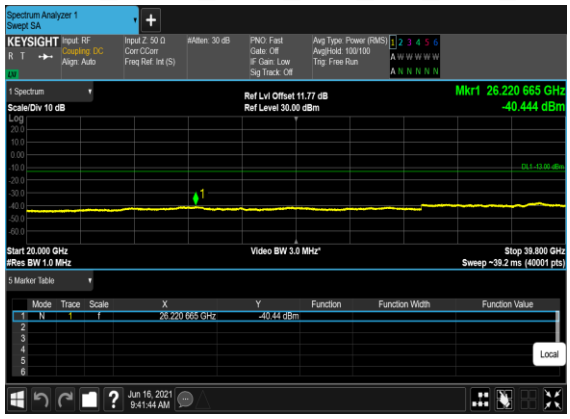


N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH

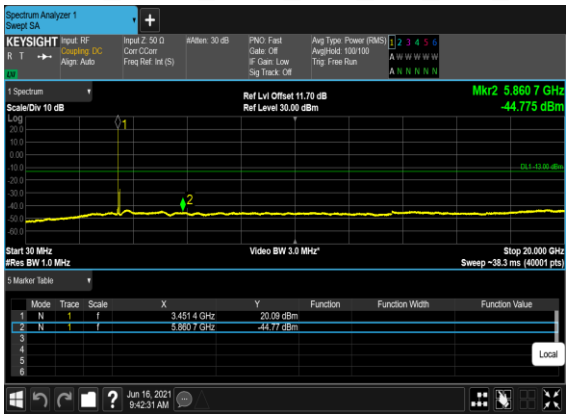


N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH

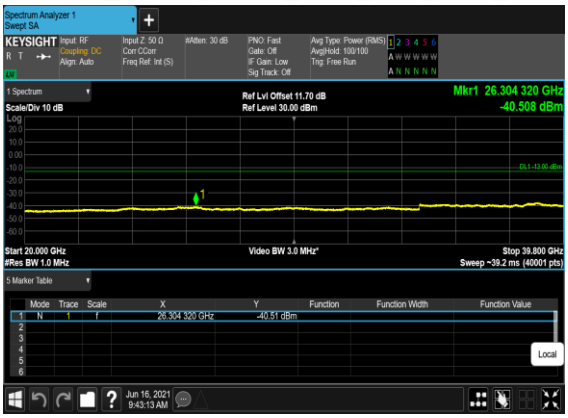
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



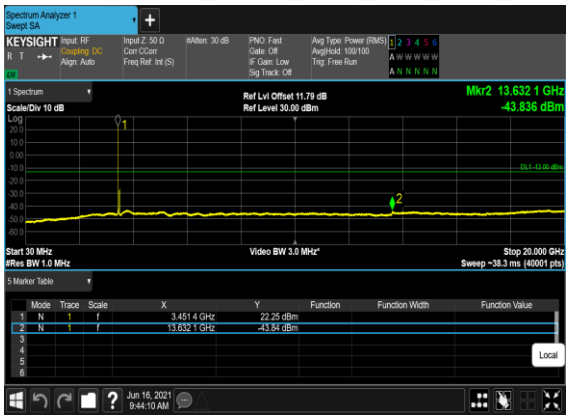
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



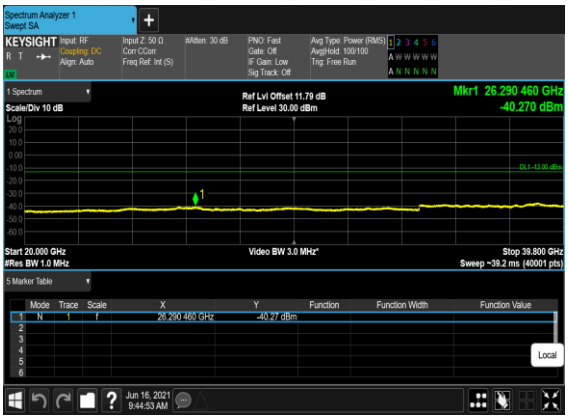
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



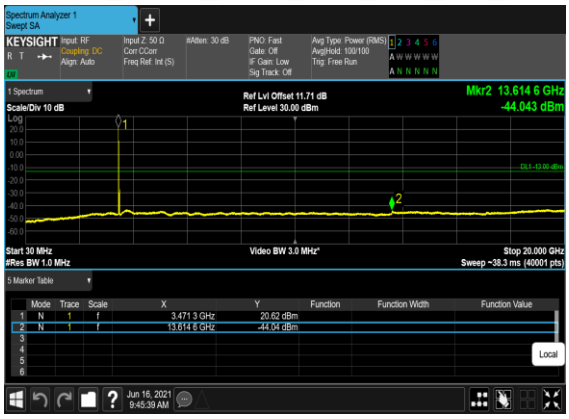
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



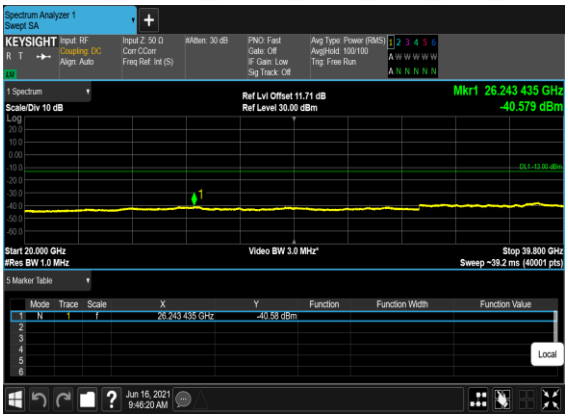
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



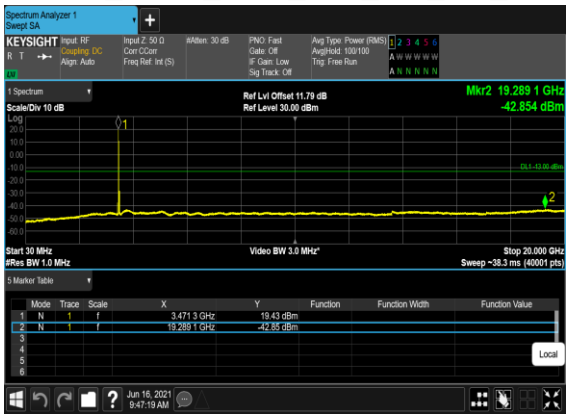
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



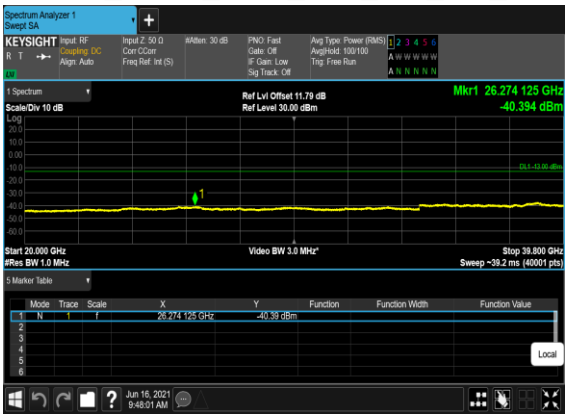
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



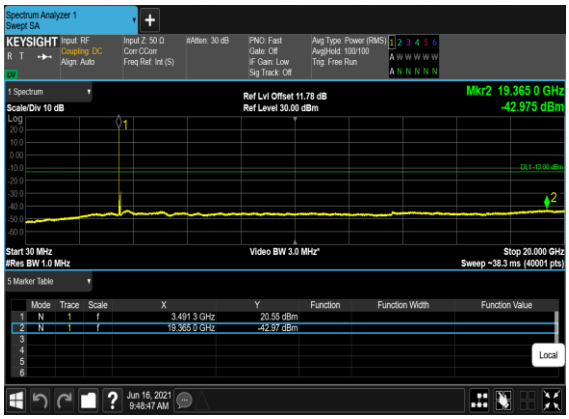
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



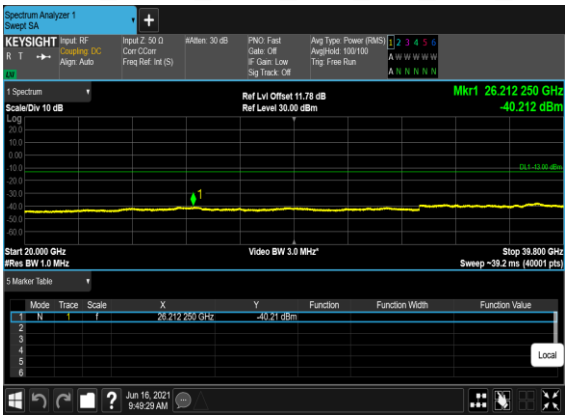
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



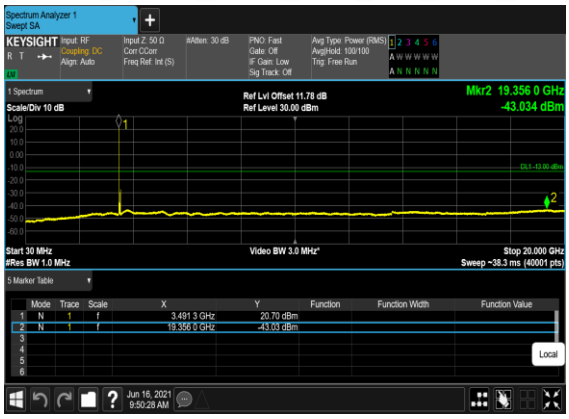
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



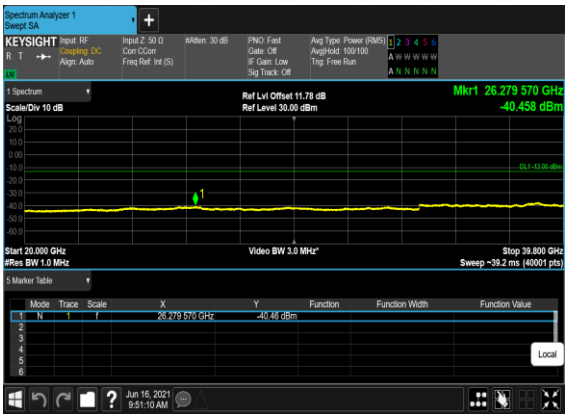
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



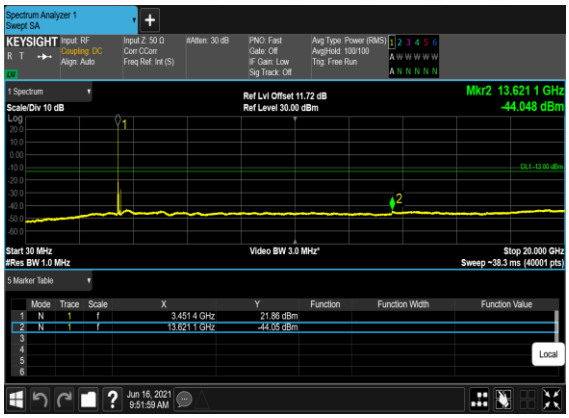
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



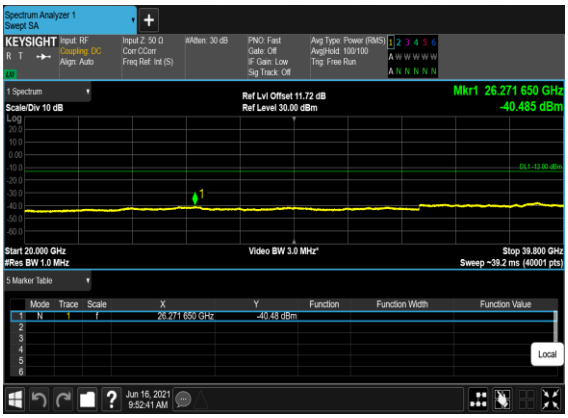
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



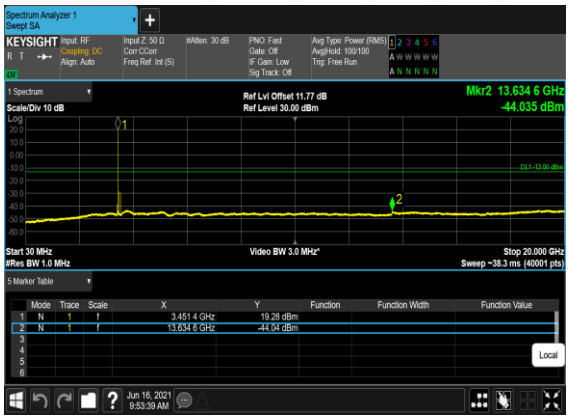
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



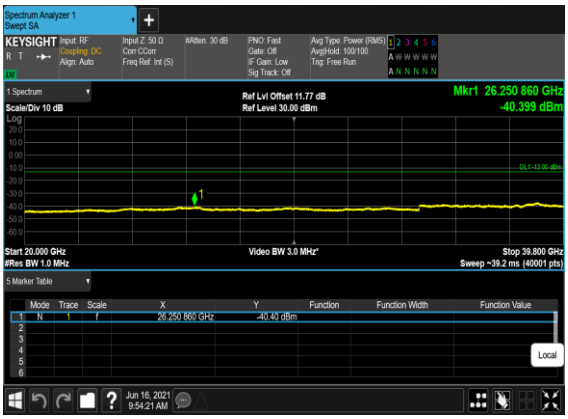
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



Conducted Band Edge

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	50@0	see graph	PASS
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	50@0	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@50	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@50	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM BPSK	50@0	see graph	PASS
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	50@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM BPSK	162@0	see graph	PASS
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	162@0	see graph	PASS
77	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@161	see graph	PASS
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@161	see graph	PASS
77	30	60	634666	3519.99	DFT-s-OFDM BPSK	162@0	see graph	PASS
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	162@0	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@272	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@272	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	270@0	see graph	PASS
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	270@0	see graph	PASS