FCC RF Test Report

APPLICANT	:	vivo Mobile Communication Co., Ltd.
EQUIPMENT	:	Mobile Phone
BRAND NAME	:	vivo
MODEL NAME	:	V2145
FCC ID	:	2AUCY-V2145
STANDARD	:	47 CFR Part 2, 27O
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	:	Mar. 31, 2022 ~ Apr. 24, 2022

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

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

Jason Jia

Approved by: Jason Jia

ACCREDITED Cert #5145.01

Sporton International Inc. (ShenZhen)

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People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG212202G	Rev. 01	Initial issue of report	Apr. 26, 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	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	< 43+10log10(P[Watts])	PASS	-
3.8	§2.1051 §27.53(l)(2)	Conducted Spurious Emission	< 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	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 38.25 dB at 15360.000 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

vivo Mobile Communication Co., Ltd.
No.1, vivo Road, Chang'an, Dongguan,Guangdong,China

1.2 Manufacturer

vivo Mobile Communication Co., Ltd.
No.1, vivo Road, Chang'an, Dongguan,Guangdong,China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	vivo
Model Name	V2145
FCC ID	2AUCY-V2145
IMEI Code	Radiation: 868488069970513/868488069970505 Conducted: 868488069971263
HW Version	MP_0.1
SW Version	PD2185BF_EX_A_12.0.9.2.W30.V000L1
EUT Stage	Production Unit

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	n77: 20MHz / 30MHz / 40MHz / 60MHz / 80MHz / 100MHz n78: 20MHz / 30MHz / 40MHz / 50MHz / 60MHz / 70MHz / 80MHz / 90MHz / 100MHz
Antenna Gain	**Ant. 12:** 5G NR n77: -6.0 dBi 5G NR n78: -6.0 dBi **Ant. 101:** 5G NR n78: -5.0 dBi **Ant. 103:** 5G NR n78: -5.0 dBi **Ant. 24:** 5G NR n77: 0 dBi 5G NR n78: 0 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, 5G NR n77/n78 for Antenna 24.
2. The device supports n78(1T4R) SRS resources on Ant.12/101/102/24, only the test data of worst Ant.24 is showed in the report according to the maximum power
3. 5G NR n77 support SA, n78 support SA & NSA, SA covers NSA by referring to the maximum power.
4. The EN-DC mode combination: DC_2A_n78A, DC_4A_n78A, DC_5A_n78A, DC_7A_n78A, DC_38A_n78A, DC_41A_n78A, DC_66A_n78A.

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	3710.01 ~ 3969.99	0.2203	18M2G7D	0.1734	18M2W7D
30	3715.02 ~ 3964.98	0.2183	27M8G7D	0.1726	27M9W7D
40	3720.00 ~ 3960.00	0.2228	37M8G7D	0.1849	38M0W7D
60	3730.02 ~ 3949.98	0.2037	57M9G7D	0.1629	57M9W7D
80	3740.01 ~ 3939.99	0.1986	77M5G7D	0.1589	77M5W7D
100	3750.00 ~ 3930.00	0.2004	97M5G7D	0.1592	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	3710.01 ~ 3789.99	0.2716	18M2G7D	0.2218	18M2W7D
30	3715.02 ~ 3984.98	0.2642	27M8G7D	0.2148	27M9W7D
40	3720.00 ~ 3780.00	0.2512	37M8G7D	0.2014	37M9W7D
50	3725.01 ~ 3774.99	0.2600	47M5G7D	0.2113	47M6W7D
60	3730.02 ~ 3769.98	0.2588	57M9G7D	0.2104	57M9W7D
70	3735.00 ~ 3765.00	0.2495	68M5G7D	0.1675	68M7W7D
80	3740.01 ~ 3759.99	0.2483	77M5G7D	0.2014	77M6W7D
90	3745.02 ~ 3754.98	0.2495	87M5G7D	0.2032	87M6W7D
100	3750.00	0.2518	97M5G7D	0.2000	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. (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 Firm	Sporton International Inc. (Shenzhen)		
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.**
	03CH01-SZ	CN1256	421272

1.8 Test Software

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

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.

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.

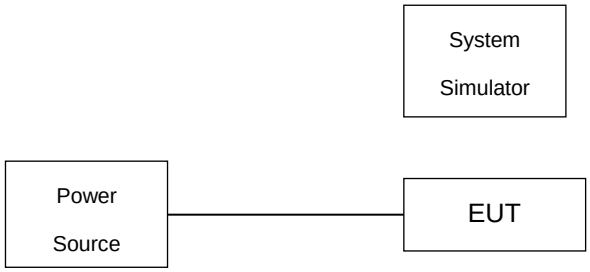
For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Z plane) were recorded in this report.

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
	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	v
	n78	v									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	
	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
	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: 7.78Vdc, Extreme Voltage: 7.20Vdc ~8.96Vdc																			

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	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 between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss.

Offset = RF cable loss.

Following shows an offset computation example with cable loss 8.60 dB.

Example :

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

= 8.60 (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
80	Channel	649334	656000	662666
	Frequency	3740.01	3840	3939.99
60	Channel	648668	656000	663332
	Frequency	3730.02	3840	3949.98
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

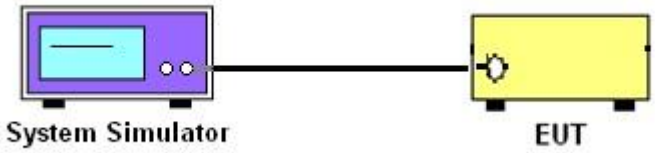
3 Conducted Test Items

3.1 Measuring Instruments

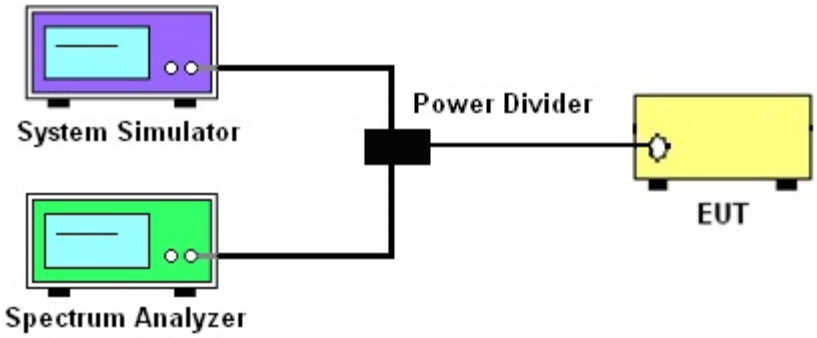
See list of measuring instruments of this test report.

3.2 Test Setup

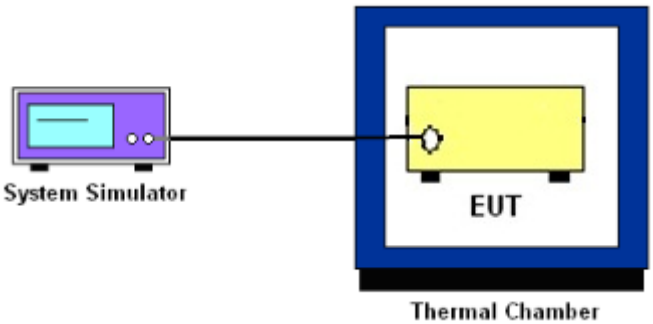
3.2.1 Conducted Output Power



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.

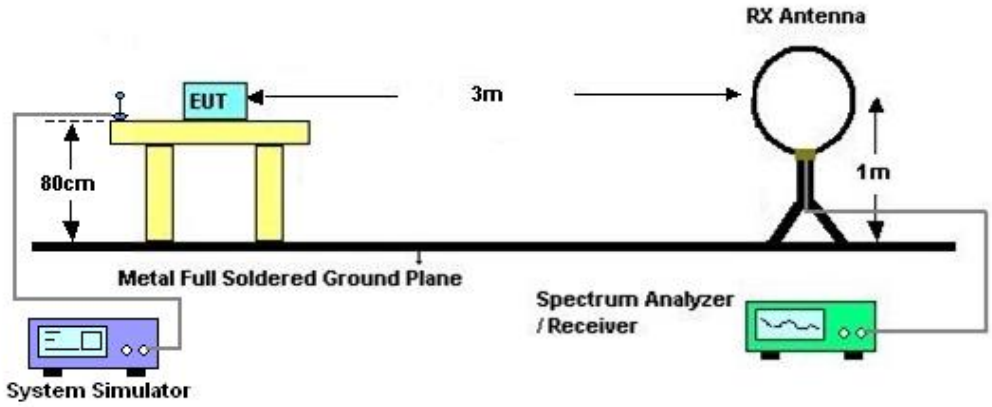
4 Radiated Test Items

4.1 Measuring Instruments

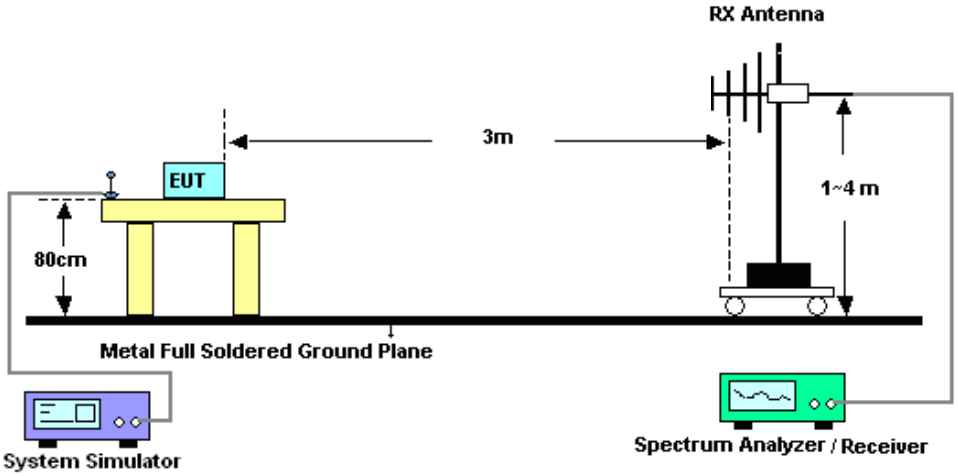
See list of measuring instruments of this test report.

4.2 Test Setup

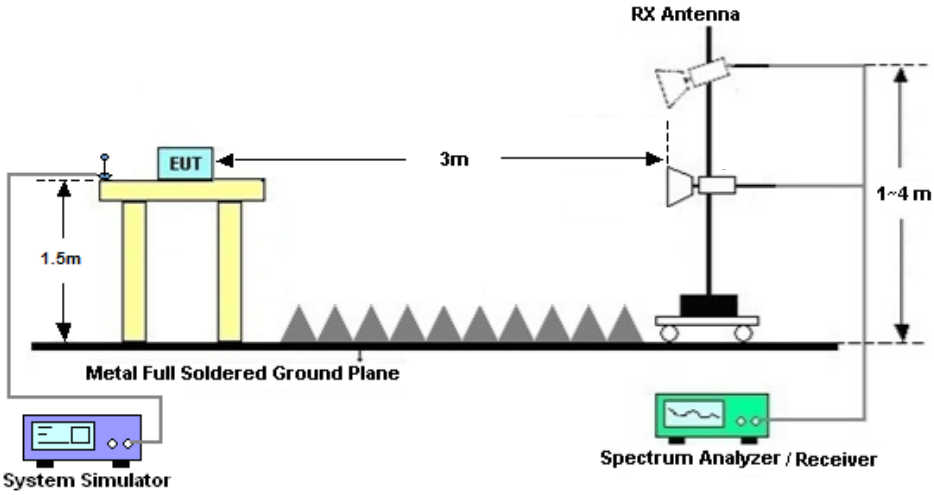
4.2.1 For radiated test below 30MHz



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	Mar. 31, 2022	Apr. 02, 2022	Conducted (TH01-SZ)
EXA Signal Analyzer	KEYSIGHT	N9010B	MY60240803	10Hz~44GHz	Apr. 02, 2022	Apr. 24, 2022	Apr. 01, 2023	Conducted (TH01-SZ)
Power divider	STI	STI08-0055	-	0.5~40GHz	Aug. 26, 2021	Mar. 31, 2022~ Apr. 24, 2022	Aug. 25, 2022	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 14, 2021	Mar. 31, 2022~ Apr. 24, 2022	Jul. 13, 2022	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 02, 2021	Apr. 07, 2022	Dec. 01, 2022	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 22, 2020	Apr. 07, 2022	Jun. 21, 2022	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 16, 2021	Apr. 07, 2022	Oct. 15, 2022	Radiation (03CH01-SZ
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Jul. 15, 2021	Apr. 07, 2022	Jul. 14, 2022	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 25, 2021	Apr. 07, 2022	Jul. 24, 2022	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 11, 2021	Apr. 07, 2022	Apr. 10, 2022	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 06, 2022	Apr. 07, 2022	Apr. 05, 2023	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 15, 2021	Apr. 07, 2022	Oct. 14, 2022	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 21, 2021	Apr. 07, 2022	Jul. 20, 2022	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Apr. 07, 2022	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Apr. 07, 2022	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Apr. 07, 2022	NCR	Radiation (03CH01-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))	**2.48dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.53dB**

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

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

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

Appendix A. Test Results of Conducted Test

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

Software Version: 22.02.012801

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Transmitter Conducted Output Power And EIRP, (GT-LC)=0dB

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	23.43	23.43	0.2203
77	30	20	647334	3710.01	DFT-s-OFDM PI/2 BPSK	1@1	23.34	23.34	0.2158
77	30	20	647334	3710.01	DFT-s-OFDM PI/2 BPSK	1@49	23.31	23.31	0.2143
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	25@12	23.39	23.39	0.2183
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@1	23.33	23.33	0.2153
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@49	23.41	23.41	0.2193
77	30	20	647334	3710.01	DFT-s-OFDM 16 QAM	25@12	22.39	22.39	0.1734
77	30	20	647334	3710.01	DFT-s-OFDM 16 QAM	1@1	22.36	22.36	0.1722
77	30	20	647334	3710.01	DFT-s-OFDM 16 QAM	1@49	22.39	22.39	0.1734
77	30	20	647334	3710.01	DFT-s-OFDM 64 QAM	25@12	20.89	20.89	0.1227
77	30	20	647334	3710.01	DFT-s-OFDM 64 QAM	1@1	20.6	20.6	0.1148
77	30	20	647334	3710.01	DFT-s-OFDM 64 QAM	1@49	20.62	20.62	0.1153
77	30	20	647334	3710.01	DFT-s-OFDM 256 QAM	25@12	18.83	18.83	0.0764
77	30	20	647334	3710.01	DFT-s-OFDM 256 QAM	1@1	18.7	18.7	0.0741
77	30	20	647334	3710.01	DFT-s-OFDM 256 QAM	1@49	18.65	18.65	0.0733
77	30	20	647334	3710.01	CP-OFDM QPSK	25@12	21.88	21.88	0.1542
77	30	20	647334	3710.01	CP-OFDM QPSK	1@1	21.89	21.89	0.1545
77	30	20	647334	3710.01	CP-OFDM QPSK	1@49	21.91	21.91	0.1552
77	30	20	656000	3840	DFT-s-OFDM PI/2 BPSK	25@12	23.22	23.22	0.2099
77	30	20	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.21	23.21	0.2094
77	30	20	656000	3840	DFT-s-OFDM PI/2 BPSK	1@49	23.06	23.06	0.2023
77	30	20	656000	3840	DFT-s-OFDM QPSK	25@12	23.21	23.21	0.2094
77	30	20	656000	3840	DFT-s-OFDM QPSK	1@1	23.22	23.22	0.2099
77	30	20	656000	3840	DFT-s-OFDM QPSK	1@49	23.11	23.11	0.2046
77	30	20	656000	3840	DFT-s-OFDM 16 QAM	25@12	22.21	22.21	0.1663

77	30	20	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.21	22.21	0.1663
77	30	20	656000	3840	DFT-s-OFDM 16 QAM	1@49	22.11	22.11	0.1626
77	30	20	656000	3840	DFT-s-OFDM 64 QAM	25@12	20.75	20.75	0.1189
77	30	20	656000	3840	DFT-s-OFDM 64 QAM	1@1	20.57	20.57	0.1140
77	30	20	656000	3840	DFT-s-OFDM 64 QAM	1@49	20.41	20.41	0.1099
77	30	20	656000	3840	DFT-s-OFDM 256 QAM	25@12	18.64	18.64	0.0731
77	30	20	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.5	18.5	0.0708
77	30	20	656000	3840	DFT-s-OFDM 256 QAM	1@49	18.35	18.35	0.0684
77	30	20	656000	3840	CP-OFDM QPSK	25@12	21.73	21.73	0.1489
77	30	20	656000	3840	CP-OFDM QPSK	1@1	21.79	21.79	0.1510
77	30	20	656000	3840	CP-OFDM QPSK	1@49	21.72	21.72	0.1486
77	30	20	664666	3969.99	DFT-s-OFDM PI/2 BPSK	25@12	22.9	22.9	0.1950
77	30	20	664666	3969.99	DFT-s-OFDM PI/2 BPSK	1@1	22.82	22.82	0.1914
77	30	20	664666	3969.99	DFT-s-OFDM PI/2 BPSK	1@49	22.81	22.81	0.1910
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	25@12	22.92	22.92	0.1959
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@1	22.83	22.83	0.1919
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@49	22.86	22.86	0.1932
77	30	20	664666	3969.99	DFT-s-OFDM 16 QAM	25@12	21.94	21.94	0.1563
77	30	20	664666	3969.99	DFT-s-OFDM 16 QAM	1@1	21.86	21.86	0.1535
77	30	20	664666	3969.99	DFT-s-OFDM 16 QAM	1@49	21.89	21.89	0.1545
77	30	20	664666	3969.99	DFT-s-OFDM 64 QAM	25@12	20.44	20.44	0.1107
77	30	20	664666	3969.99	DFT-s-OFDM 64 QAM	1@1	20.14	20.14	0.1033
77	30	20	664666	3969.99	DFT-s-OFDM 64 QAM	1@49	20.11	20.11	0.1026
77	30	20	664666	3969.99	DFT-s-OFDM 256 QAM	25@12	18.34	18.34	0.0682
77	30	20	664666	3969.99	DFT-s-OFDM 256 QAM	1@1	18.07	18.07	0.0641
77	30	20	664666	3969.99	DFT-s-OFDM 256 QAM	1@49	18.11	18.11	0.0647
77	30	20	664666	3969.99	CP-OFDM QPSK	25@12	21.42	21.42	0.1387
77	30	20	664666	3969.99	CP-OFDM QPSK	1@1	21.36	21.36	0.1368
77	30	20	664666	3969.99	CP-OFDM QPSK	1@49	21.4	21.4	0.1380
77	30	30	647668	3715.02	DFT-s-OFDM PI/2 BPSK	36@18	23.37	23.37	0.2173
77	30	30	647668	3715.02	DFT-s-OFDM PI/2 BPSK	1@1	23.32	23.32	0.2148

77	30	30	647668	3715.02	DFT-s-OFDM PI/2 BPSK	1@76	23.33	23.33	0.2153
77	30	30	647668	3715.02	DFT-s-OFDM QPSK	36@18	23.39	23.39	0.2183
77	30	30	647668	3715.02	DFT-s-OFDM QPSK	1@1	23.31	23.31	0.2143
77	30	30	647668	3715.02	DFT-s-OFDM QPSK	1@76	23.39	23.39	0.2183
77	30	30	647668	3715.02	DFT-s-OFDM 16 QAM	36@18	22.37	22.37	0.1726
77	30	30	647668	3715.02	DFT-s-OFDM 16 QAM	1@1	22.24	22.24	0.1675
77	30	30	647668	3715.02	DFT-s-OFDM 16 QAM	1@76	22.3	22.3	0.1698
77	30	30	647668	3715.02	DFT-s-OFDM 64 QAM	36@18	20.89	20.89	0.1227
77	30	30	647668	3715.02	DFT-s-OFDM 64 QAM	1@1	20.68	20.68	0.1169
77	30	30	647668	3715.02	DFT-s-OFDM 64 QAM	1@76	20.71	20.71	0.1178
77	30	30	647668	3715.02	DFT-s-OFDM 256 QAM	36@18	18.83	18.83	0.0764
77	30	30	647668	3715.02	DFT-s-OFDM 256 QAM	1@1	18.82	18.82	0.0762
77	30	30	647668	3715.02	DFT-s-OFDM 256 QAM	1@76	18.67	18.67	0.0736
77	30	30	647668	3715.02	CP-OFDM QPSK	39@19	21.85	21.85	0.1531
77	30	30	647668	3715.02	CP-OFDM QPSK	1@1	21.91	21.91	0.1552
77	30	30	647668	3715.02	CP-OFDM QPSK	1@76	21.78	21.78	0.1507
77	30	30	656000	3840	DFT-s-OFDM PI/2 BPSK	36@18	23.25	23.25	0.2113
77	30	30	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.3	23.3	0.2138
77	30	30	656000	3840	DFT-s-OFDM PI/2 BPSK	1@76	23.13	23.13	0.2056
77	30	30	656000	3840	DFT-s-OFDM QPSK	36@18	23.16	23.16	0.2070
77	30	30	656000	3840	DFT-s-OFDM QPSK	1@1	23.31	23.31	0.2143
77	30	30	656000	3840	DFT-s-OFDM QPSK	1@76	23.09	23.09	0.2037
77	30	30	656000	3840	DFT-s-OFDM 16 QAM	36@18	22.25	22.25	0.1679
77	30	30	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.32	22.32	0.1706
77	30	30	656000	3840	DFT-s-OFDM 16 QAM	1@76	22.11	22.11	0.1626
77	30	30	656000	3840	DFT-s-OFDM 64 QAM	36@18	20.73	20.73	0.1183
77	30	30	656000	3840	DFT-s-OFDM 64 QAM	1@1	20.76	20.76	0.1191
77	30	30	656000	3840	DFT-s-OFDM 64 QAM	1@76	20.54	20.54	0.1132
77	30	30	656000	3840	DFT-s-OFDM 256 QAM	36@18	18.65	18.65	0.0733
77	30	30	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.61	18.61	0.0726
77	30	30	656000	3840	DFT-s-OFDM 256 QAM	1@76	18.39	18.39	0.0690

77	30	30	656000	3840	CP-OFDM QPSK	39@19	21.7	21.7	0.1479
77	30	30	656000	3840	CP-OFDM QPSK	1@1	21.7	21.7	0.1479
77	30	30	656000	3840	CP-OFDM QPSK	1@76	21.54	21.54	0.1426
77	30	30	664332	3964.98	DFT-s-OFDM PI/2 BPSK	36@18	22.82	22.82	0.1914
77	30	30	664332	3964.98	DFT-s-OFDM PI/2 BPSK	1@1	22.91	22.91	0.1954
77	30	30	664332	3964.98	DFT-s-OFDM PI/2 BPSK	1@76	22.86	22.86	0.1932
77	30	30	664332	3964.98	DFT-s-OFDM QPSK	36@18	22.84	22.84	0.1923
77	30	30	664332	3964.98	DFT-s-OFDM QPSK	1@1	22.96	22.96	0.1977
77	30	30	664332	3964.98	DFT-s-OFDM QPSK	1@76	22.85	22.85	0.1928
77	30	30	664332	3964.98	DFT-s-OFDM 16 QAM	36@18	21.88	21.88	0.1542
77	30	30	664332	3964.98	DFT-s-OFDM 16 QAM	1@1	21.94	21.94	0.1563
77	30	30	664332	3964.98	DFT-s-OFDM 16 QAM	1@76	21.89	21.89	0.1545
77	30	30	664332	3964.98	DFT-s-OFDM 64 QAM	36@18	20.35	20.35	0.1084
77	30	30	664332	3964.98	DFT-s-OFDM 64 QAM	1@1	20.4	20.4	0.1096
77	30	30	664332	3964.98	DFT-s-OFDM 64 QAM	1@76	20.29	20.29	0.1069
77	30	30	664332	3964.98	DFT-s-OFDM 256 QAM	36@18	18.26	18.26	0.0670
77	30	30	664332	3964.98	DFT-s-OFDM 256 QAM	1@1	18.34	18.34	0.0682
77	30	30	664332	3964.98	DFT-s-OFDM 256 QAM	1@76	18.14	18.14	0.0652
77	30	30	664332	3964.98	CP-OFDM QPSK	39@19	21.4	21.4	0.1380
77	30	30	664332	3964.98	CP-OFDM QPSK	1@1	21.45	21.45	0.1396
77	30	30	664332	3964.98	CP-OFDM QPSK	1@76	21.26	21.26	0.1337
77	30	40	648000	3720	DFT-s-OFDM PI/2 BPSK	50@25	23.37	23.37	0.2173
77	30	40	648000	3720	DFT-s-OFDM PI/2 BPSK	1@1	23.47	23.47	0.2223
77	30	40	648000	3720	DFT-s-OFDM PI/2 BPSK	1@104	23.35	23.35	0.2163
77	30	40	648000	3720	DFT-s-OFDM QPSK	50@25	23.35	23.35	0.2163
77	30	40	648000	3720	DFT-s-OFDM QPSK	1@1	23.48	23.48	0.2228
77	30	40	648000	3720	DFT-s-OFDM QPSK	1@104	23.36	23.36	0.2168
77	30	40	648000	3720	DFT-s-OFDM 16 QAM	50@25	22.4	22.4	0.1738
77	30	40	648000	3720	DFT-s-OFDM 16 QAM	1@1	22.67	22.67	0.1849
77	30	40	648000	3720	DFT-s-OFDM 16 QAM	1@104	22.53	22.53	0.1791
77	30	40	648000	3720	DFT-s-OFDM 64 QAM	50@25	20.9	20.9	0.1230

77	30	40	648000	3720	DFT-s-OFDM 64 QAM	1@1	20.86	20.86	0.1219
77	30	40	648000	3720	DFT-s-OFDM 64 QAM	1@104	20.7	20.7	0.1175
77	30	40	648000	3720	DFT-s-OFDM 256 QAM	50@25	18.77	18.77	0.0753
77	30	40	648000	3720	DFT-s-OFDM 256 QAM	1@1	18.85	18.85	0.0767
77	30	40	648000	3720	DFT-s-OFDM 256 QAM	1@104	18.79	18.79	0.0757
77	30	40	648000	3720	CP-OFDM QPSK	53@26	21.85	21.85	0.1531
77	30	40	648000	3720	CP-OFDM QPSK	1@1	21.95	21.95	0.1567
77	30	40	648000	3720	CP-OFDM QPSK	1@104	21.9	21.9	0.1549
77	30	40	656000	3840	DFT-s-OFDM PI/2 BPSK	50@25	23.25	23.25	0.2113
77	30	40	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.38	23.38	0.2178
77	30	40	656000	3840	DFT-s-OFDM PI/2 BPSK	1@104	23.09	23.09	0.2037
77	30	40	656000	3840	DFT-s-OFDM QPSK	50@25	23.24	23.24	0.2109
77	30	40	656000	3840	DFT-s-OFDM QPSK	1@1	23.43	23.43	0.2203
77	30	40	656000	3840	DFT-s-OFDM QPSK	1@104	23.09	23.09	0.2037
77	30	40	656000	3840	DFT-s-OFDM 16 QAM	50@25	22.25	22.25	0.1679
77	30	40	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.37	22.37	0.1726
77	30	40	656000	3840	DFT-s-OFDM 16 QAM	1@104	22.01	22.01	0.1589
77	30	40	656000	3840	DFT-s-OFDM 64 QAM	50@25	20.79	20.79	0.1199
77	30	40	656000	3840	DFT-s-OFDM 64 QAM	1@1	20.74	20.74	0.1186
77	30	40	656000	3840	DFT-s-OFDM 64 QAM	1@104	20.45	20.45	0.1109
77	30	40	656000	3840	DFT-s-OFDM 256 QAM	50@25	18.72	18.72	0.0745
77	30	40	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.78	18.78	0.0755
77	30	40	656000	3840	DFT-s-OFDM 256 QAM	1@104	18.53	18.53	0.0713
77	30	40	656000	3840	CP-OFDM QPSK	53@26	21.76	21.76	0.1500
77	30	40	656000	3840	CP-OFDM QPSK	1@1	21.89	21.89	0.1545
77	30	40	656000	3840	CP-OFDM QPSK	1@104	21.64	21.64	0.1459
77	30	40	664000	3960	DFT-s-OFDM PI/2 BPSK	50@25	22.94	22.94	0.1968
77	30	40	664000	3960	DFT-s-OFDM PI/2 BPSK	1@1	22.97	22.97	0.1982
77	30	40	664000	3960	DFT-s-OFDM PI/2 BPSK	1@104	22.99	22.99	0.1991
77	30	40	664000	3960	DFT-s-OFDM QPSK	50@25	22.92	22.92	0.1959
77	30	40	664000	3960	DFT-s-OFDM QPSK	1@1	23.04	23.04	0.2014

77	30	40	664000	3960	DFT-s-OFDM QPSK	1@104	23.1	23.1	0.2042
77	30	40	664000	3960	DFT-s-OFDM 16 QAM	50@25	21.96	21.96	0.1570
77	30	40	664000	3960	DFT-s-OFDM 16 QAM	1@1	22.01	22.01	0.1589
77	30	40	664000	3960	DFT-s-OFDM 16 QAM	1@104	21.89	21.89	0.1545
77	30	40	664000	3960	DFT-s-OFDM 64 QAM	50@25	20.48	20.48	0.1117
77	30	40	664000	3960	DFT-s-OFDM 64 QAM	1@1	20.44	20.44	0.1107
77	30	40	664000	3960	DFT-s-OFDM 64 QAM	1@104	20.39	20.39	0.1094
77	30	40	664000	3960	DFT-s-OFDM 256 QAM	50@25	18.38	18.38	0.0689
77	30	40	664000	3960	DFT-s-OFDM 256 QAM	1@1	18.44	18.44	0.0698
77	30	40	664000	3960	DFT-s-OFDM 256 QAM	1@104	18.35	18.35	0.0684
77	30	40	664000	3960	CP-OFDM QPSK	53@26	21.44	21.44	0.1393
77	30	40	664000	3960	CP-OFDM QPSK	1@1	21.53	21.53	0.1422
77	30	40	664000	3960	CP-OFDM QPSK	1@104	21.55	21.55	0.1429
77	30	60	648668	3730.02	DFT-s-OFDM PI/2 BPSK	81@40	23.05	23.05	0.2018
77	30	60	648668	3730.02	DFT-s-OFDM PI/2 BPSK	1@1	23.09	23.09	0.2037
77	30	60	648668	3730.02	DFT-s-OFDM PI/2 BPSK	1@160	22.93	22.93	0.1963
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	81@40	23.08	23.08	0.2032
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@1	23.03	23.03	0.2009
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@160	22.98	22.98	0.1986
77	30	60	648668	3730.02	DFT-s-OFDM 16 QAM	81@40	22.04	22.04	0.1600
77	30	60	648668	3730.02	DFT-s-OFDM 16 QAM	1@1	22.12	22.12	0.1629
77	30	60	648668	3730.02	DFT-s-OFDM 16 QAM	1@160	21.9	21.9	0.1549
77	30	60	648668	3730.02	DFT-s-OFDM 64 QAM	81@40	20.59	20.59	0.1146
77	30	60	648668	3730.02	DFT-s-OFDM 64 QAM	1@1	20.44	20.44	0.1107
77	30	60	648668	3730.02	DFT-s-OFDM 64 QAM	1@160	20.3	20.3	0.1072
77	30	60	648668	3730.02	DFT-s-OFDM 256 QAM	81@40	18.6	18.6	0.0724
77	30	60	648668	3730.02	DFT-s-OFDM 256 QAM	1@1	18.54	18.54	0.0714
77	30	60	648668	3730.02	DFT-s-OFDM 256 QAM	1@160	18.34	18.34	0.0682
77	30	60	648668	3730.02	CP-OFDM QPSK	81@40	21.59	21.59	0.1442
77	30	60	648668	3730.02	CP-OFDM QPSK	1@1	21.74	21.74	0.1493
77	30	60	648668	3730.02	CP-OFDM QPSK	1@160	21.45	21.45	0.1396

77	30	60	656000	3840	DFT-s-OFDM PI/2 BPSK	81@40	22.93	22.93	0.1963
77	30	60	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.02	23.02	0.2004
77	30	60	656000	3840	DFT-s-OFDM PI/2 BPSK	1@160	22.76	22.76	0.1888
77	30	60	656000	3840	DFT-s-OFDM QPSK	81@40	23.01	23.01	0.2000
77	30	60	656000	3840	DFT-s-OFDM QPSK	1@1	23	23	0.1995
77	30	60	656000	3840	DFT-s-OFDM QPSK	1@160	22.8	22.8	0.1905
77	30	60	656000	3840	DFT-s-OFDM 16 QAM	81@40	21.97	21.97	0.1574
77	30	60	656000	3840	DFT-s-OFDM 16 QAM	1@1	21.99	21.99	0.1581
77	30	60	656000	3840	DFT-s-OFDM 16 QAM	1@160	21.8	21.8	0.1514
77	30	60	656000	3840	DFT-s-OFDM 64 QAM	81@40	20.47	20.47	0.1114
77	30	60	656000	3840	DFT-s-OFDM 64 QAM	1@1	20.34	20.34	0.1081
77	30	60	656000	3840	DFT-s-OFDM 64 QAM	1@160	20.13	20.13	0.1030
77	30	60	656000	3840	DFT-s-OFDM 256 QAM	81@40	18.48	18.48	0.0705
77	30	60	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.46	18.46	0.0701
77	30	60	656000	3840	DFT-s-OFDM 256 QAM	1@160	18.1	18.1	0.0646
77	30	60	656000	3840	CP-OFDM QPSK	81@40	21.47	21.47	0.1403
77	30	60	656000	3840	CP-OFDM QPSK	1@1	21.61	21.61	0.1449
77	30	60	656000	3840	CP-OFDM QPSK	1@160	21.32	21.32	0.1355
77	30	60	663332	3949.98	DFT-s-OFDM PI/2 BPSK	81@40	22.72	22.72	0.1871
77	30	60	663332	3949.98	DFT-s-OFDM PI/2 BPSK	1@1	22.74	22.74	0.1879
77	30	60	663332	3949.98	DFT-s-OFDM PI/2 BPSK	1@160	22.62	22.62	0.1828
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	81@40	22.69	22.69	0.1858
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@1	22.73	22.73	0.1875
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@160	22.24	22.24	0.1675
77	30	60	663332	3949.98	DFT-s-OFDM 16 QAM	81@40	21.72	21.72	0.1486
77	30	60	663332	3949.98	DFT-s-OFDM 16 QAM	1@1	21.84	21.84	0.1528
77	30	60	663332	3949.98	DFT-s-OFDM 16 QAM	1@160	21.48	21.48	0.1406
77	30	60	663332	3949.98	DFT-s-OFDM 64 QAM	81@40	20.23	20.23	0.1054
77	30	60	663332	3949.98	DFT-s-OFDM 64 QAM	1@1	20.14	20.14	0.1033
77	30	60	663332	3949.98	DFT-s-OFDM 64 QAM	1@160	19.7	19.7	0.0933
77	30	60	663332	3949.98	DFT-s-OFDM 256 QAM	81@40	18.23	18.23	0.0665

77	30	60	663332	3949.98	DFT-s-OFDM 256 QAM	1@1	18.15	18.15	0.0653
77	30	60	663332	3949.98	DFT-s-OFDM 256 QAM	1@160	17.92	17.92	0.0619
77	30	60	663332	3949.98	CP-OFDM QPSK	81@40	21.21	21.21	0.1321
77	30	60	663332	3949.98	CP-OFDM QPSK	1@1	21.29	21.29	0.1346
77	30	60	663332	3949.98	CP-OFDM QPSK	1@160	20.93	20.93	0.1239
77	30	80	649334	3740.01	DFT-s-OFDM PI/2 BPSK	108@54	22.96	22.96	0.1977
77	30	80	649334	3740.01	DFT-s-OFDM PI/2 BPSK	1@1	22.95	22.95	0.1972
77	30	80	649334	3740.01	DFT-s-OFDM PI/2 BPSK	1@215	22.81	22.81	0.1910
77	30	80	649334	3740.01	DFT-s-OFDM QPSK	108@54	22.97	22.97	0.1982
77	30	80	649334	3740.01	DFT-s-OFDM QPSK	1@1	22.98	22.98	0.1986
77	30	80	649334	3740.01	DFT-s-OFDM QPSK	1@215	22.87	22.87	0.1936
77	30	80	649334	3740.01	DFT-s-OFDM 16 QAM	108@54	22.01	22.01	0.1589
77	30	80	649334	3740.01	DFT-s-OFDM 16 QAM	1@1	21.99	21.99	0.1581
77	30	80	649334	3740.01	DFT-s-OFDM 16 QAM	1@215	21.9	21.9	0.1549
77	30	80	649334	3740.01	DFT-s-OFDM 64 QAM	108@54	20.52	20.52	0.1127
77	30	80	649334	3740.01	DFT-s-OFDM 64 QAM	1@1	20.3	20.3	0.1072
77	30	80	649334	3740.01	DFT-s-OFDM 64 QAM	1@215	20.22	20.22	0.1052
77	30	80	649334	3740.01	DFT-s-OFDM 256 QAM	108@54	18.47	18.47	0.0703
77	30	80	649334	3740.01	DFT-s-OFDM 256 QAM	1@1	18.36	18.36	0.0685
77	30	80	649334	3740.01	DFT-s-OFDM 256 QAM	1@215	18.2	18.2	0.0661
77	30	80	649334	3740.01	CP-OFDM QPSK	109@54	21.5	21.5	0.1413
77	30	80	649334	3740.01	CP-OFDM QPSK	1@1	21.52	21.52	0.1419
77	30	80	649334	3740.01	CP-OFDM QPSK	1@215	21.34	21.34	0.1361
77	30	80	656000	3840	DFT-s-OFDM PI/2 BPSK	108@54	22.84	22.84	0.1923
77	30	80	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	22.83	22.83	0.1919
77	30	80	656000	3840	DFT-s-OFDM PI/2 BPSK	1@215	22.44	22.44	0.1754
77	30	80	656000	3840	DFT-s-OFDM QPSK	108@54	22.86	22.86	0.1932
77	30	80	656000	3840	DFT-s-OFDM QPSK	1@1	22.9	22.9	0.1950
77	30	80	656000	3840	DFT-s-OFDM QPSK	1@215	22.54	22.54	0.1795
77	30	80	656000	3840	DFT-s-OFDM 16 QAM	108@54	21.88	21.88	0.1542
77	30	80	656000	3840	DFT-s-OFDM 16 QAM	1@1	21.92	21.92	0.1556

77	30	80	656000	3840	DFT-s-OFDM 16 QAM	1@215	21.5	21.5	0.1413
77	30	80	656000	3840	DFT-s-OFDM 64 QAM	108@54	20.37	20.37	0.1089
77	30	80	656000	3840	DFT-s-OFDM 64 QAM	1@1	20.16	20.16	0.1038
77	30	80	656000	3840	DFT-s-OFDM 64 QAM	1@215	19.83	19.83	0.0962
77	30	80	656000	3840	DFT-s-OFDM 256 QAM	108@54	18.31	18.31	0.0678
77	30	80	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.16	18.16	0.0655
77	30	80	656000	3840	DFT-s-OFDM 256 QAM	1@215	17.86	17.86	0.0611
77	30	80	656000	3840	CP-OFDM QPSK	109@54	21.32	21.32	0.1355
77	30	80	656000	3840	CP-OFDM QPSK	1@1	21.37	21.37	0.1371
77	30	80	656000	3840	CP-OFDM QPSK	1@215	20.97	20.97	0.1250
77	30	80	662666	3939.99	DFT-s-OFDM PI/2 BPSK	108@54	22.62	22.62	0.1828
77	30	80	662666	3939.99	DFT-s-OFDM PI/2 BPSK	1@1	22.68	22.68	0.1854
77	30	80	662666	3939.99	DFT-s-OFDM PI/2 BPSK	1@215	22.51	22.51	0.1782
77	30	80	662666	3939.99	DFT-s-OFDM QPSK	108@54	22.68	22.68	0.1854
77	30	80	662666	3939.99	DFT-s-OFDM QPSK	1@1	22.69	22.69	0.1858
77	30	80	662666	3939.99	DFT-s-OFDM QPSK	1@215	22.29	22.29	0.1694
77	30	80	662666	3939.99	DFT-s-OFDM 16 QAM	108@54	21.67	21.67	0.1469
77	30	80	662666	3939.99	DFT-s-OFDM 16 QAM	1@1	21.59	21.59	0.1442
77	30	80	662666	3939.99	DFT-s-OFDM 16 QAM	1@215	21.14	21.14	0.1300
77	30	80	662666	3939.99	DFT-s-OFDM 64 QAM	108@54	20.17	20.17	0.1040
77	30	80	662666	3939.99	DFT-s-OFDM 64 QAM	1@1	19.89	19.89	0.0975
77	30	80	662666	3939.99	DFT-s-OFDM 64 QAM	1@215	19.7	19.7	0.0933
77	30	80	662666	3939.99	DFT-s-OFDM 256 QAM	108@54	18.15	18.15	0.0653
77	30	80	662666	3939.99	DFT-s-OFDM 256 QAM	1@1	17.95	17.95	0.0624
77	30	80	662666	3939.99	DFT-s-OFDM 256 QAM	1@215	17.89	17.89	0.0615
77	30	80	662666	3939.99	CP-OFDM QPSK	109@54	21.16	21.16	0.1306
77	30	80	662666	3939.99	CP-OFDM QPSK	1@1	21.18	21.18	0.1312
77	30	80	662666	3939.99	CP-OFDM QPSK	1@215	20.84	20.84	0.1213
77	30	100	650000	3750	DFT-s-OFDM PI/2 BPSK	135@67	23.02	23.02	0.2004
77	30	100	650000	3750	DFT-s-OFDM PI/2 BPSK	1@1	22.98	22.98	0.1986
77	30	100	650000	3750	DFT-s-OFDM PI/2 BPSK	1@271	22.88	22.88	0.1941

77	30	100	650000	3750	DFT-s-OFDM QPSK	135@67	23.02	23.02	0.2004
77	30	100	650000	3750	DFT-s-OFDM QPSK	1@1	22.99	22.99	0.1991
77	30	100	650000	3750	DFT-s-OFDM QPSK	1@271	22.91	22.91	0.1954
77	30	100	650000	3750	DFT-s-OFDM 16 QAM	135@67	22	22	0.1585
77	30	100	650000	3750	DFT-s-OFDM 16 QAM	1@1	22.02	22.02	0.1592
77	30	100	650000	3750	DFT-s-OFDM 16 QAM	1@271	21.96	21.96	0.1570
77	30	100	650000	3750	DFT-s-OFDM 64 QAM	135@67	20.53	20.53	0.1130
77	30	100	650000	3750	DFT-s-OFDM 64 QAM	1@1	20.36	20.36	0.1086
77	30	100	650000	3750	DFT-s-OFDM 64 QAM	1@271	20.2	20.2	0.1047
77	30	100	650000	3750	DFT-s-OFDM 256 QAM	135@67	18.51	18.51	0.0710
77	30	100	650000	3750	DFT-s-OFDM 256 QAM	1@1	18.36	18.36	0.0685
77	30	100	650000	3750	DFT-s-OFDM 256 QAM	1@271	18.24	18.24	0.0667
77	30	100	650000	3750	CP-OFDM QPSK	137@68	21.53	21.53	0.1422
77	30	100	650000	3750	CP-OFDM QPSK	1@1	21.37	21.37	0.1371
77	30	100	650000	3750	CP-OFDM QPSK	1@271	21.41	21.41	0.1384
77	30	100	656000	3840	DFT-s-OFDM PI/2 BPSK	135@67	22.9	22.9	0.1950
77	30	100	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	22.83	22.83	0.1919
77	30	100	656000	3840	DFT-s-OFDM PI/2 BPSK	1@271	22.46	22.46	0.1762
77	30	100	656000	3840	DFT-s-OFDM QPSK	135@67	22.85	22.85	0.1928
77	30	100	656000	3840	DFT-s-OFDM QPSK	1@1	22.86	22.86	0.1932
77	30	100	656000	3840	DFT-s-OFDM QPSK	1@271	22.49	22.49	0.1774
77	30	100	656000	3840	DFT-s-OFDM 16 QAM	135@67	21.86	21.86	0.1535
77	30	100	656000	3840	DFT-s-OFDM 16 QAM	1@1	21.88	21.88	0.1542
77	30	100	656000	3840	DFT-s-OFDM 16 QAM	1@271	21.54	21.54	0.1426
77	30	100	656000	3840	DFT-s-OFDM 64 QAM	135@67	20.37	20.37	0.1089
77	30	100	656000	3840	DFT-s-OFDM 64 QAM	1@1	20.2	20.2	0.1047
77	30	100	656000	3840	DFT-s-OFDM 64 QAM	1@271	19.81	19.81	0.0957
77	30	100	656000	3840	DFT-s-OFDM 256 QAM	135@67	18.33	18.33	0.0681
77	30	100	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.2	18.2	0.0661
77	30	100	656000	3840	DFT-s-OFDM 256 QAM	1@271	17.84	17.84	0.0608
77	30	100	656000	3840	CP-OFDM QPSK	137@68	21.38	21.38	0.1374

77	30	100	656000	3840	CP-OFDM QPSK	1@1	21.34	21.34	0.1361
77	30	100	656000	3840	CP-OFDM QPSK	1@271	21.02	21.02	0.1265
77	30	100	662000	3930	DFT-s-OFDM PI/2 BPSK	135@67	22.71	22.71	0.1866
77	30	100	662000	3930	DFT-s-OFDM PI/2 BPSK	1@1	22.74	22.74	0.1879
77	30	100	662000	3930	DFT-s-OFDM PI/2 BPSK	1@271	22.54	22.54	0.1795
77	30	100	662000	3930	DFT-s-OFDM QPSK	135@67	22.73	22.73	0.1875
77	30	100	662000	3930	DFT-s-OFDM QPSK	1@1	22.76	22.76	0.1888
77	30	100	662000	3930	DFT-s-OFDM QPSK	1@271	22.21	22.21	0.1663
77	30	100	662000	3930	DFT-s-OFDM 16 QAM	135@67	21.71	21.71	0.1483
77	30	100	662000	3930	DFT-s-OFDM 16 QAM	1@1	21.81	21.81	0.1517
77	30	100	662000	3930	DFT-s-OFDM 16 QAM	1@271	21.33	21.33	0.1358
77	30	100	662000	3930	DFT-s-OFDM 64 QAM	135@67	20.22	20.22	0.1052
77	30	100	662000	3930	DFT-s-OFDM 64 QAM	1@1	20.12	20.12	0.1028
77	30	100	662000	3930	DFT-s-OFDM 64 QAM	1@271	19.69	19.69	0.0931
77	30	100	662000	3930	DFT-s-OFDM 256 QAM	135@67	18.21	18.21	0.0662
77	30	100	662000	3930	DFT-s-OFDM 256 QAM	1@1	18.1	18.1	0.0646
77	30	100	662000	3930	DFT-s-OFDM 256 QAM	1@271	17.94	17.94	0.0622
77	30	100	662000	3930	CP-OFDM QPSK	137@68	21.22	21.22	0.1324
77	30	100	662000	3930	CP-OFDM QPSK	1@1	21.29	21.29	0.1346
77	30	100	662000	3930	CP-OFDM QPSK	1@271	20.78	20.78	0.1197

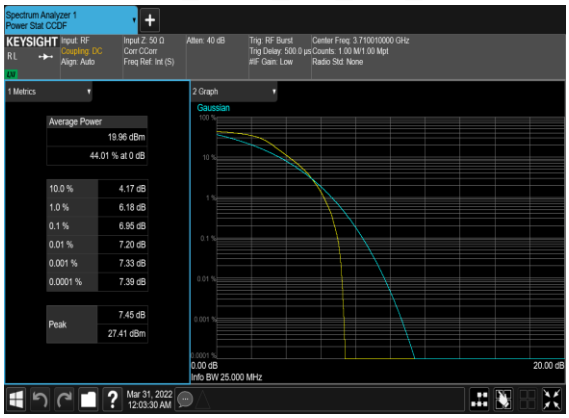
Frequency Stability

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	0.00255	**PASS**	NV
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00039	**PASS**	LV
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00596	**PASS**	HV
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00372	**PASS**	-30℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00457	**PASS**	-20℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00425	**PASS**	-10℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00043	**PASS**	0℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00649	**PASS**	10℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00233	**PASS**	20℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00259	**PASS**	30℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00316	**PASS**	40℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	0.00024	**PASS**	50℃

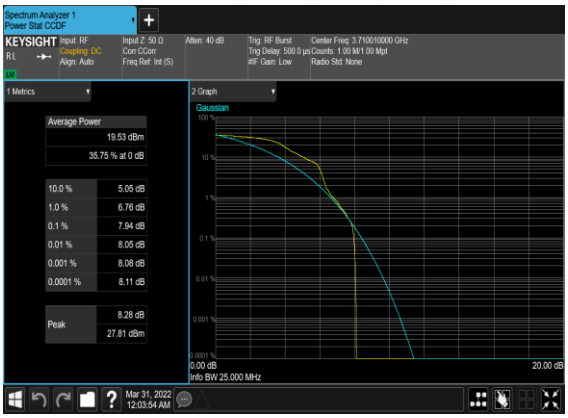
Peak to Average Radio

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	6.95	13	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM PI/2 BPSK	1@0	7.94	13	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	50@0	8.16	13	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@0	9.35	13	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM PI/2 BPSK	50@0	6.83	13	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM PI/2 BPSK	1@0	7.14	13	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	8.13	13	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	1@0	9.29	13	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM PI/2 BPSK	50@0	6.8	13	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM PI/2 BPSK	1@0	7.63	13	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	50@0	8.11	13	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@0	9.38	13	**PASS**

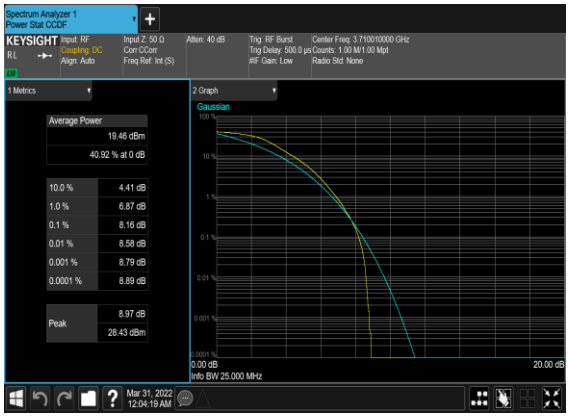
N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



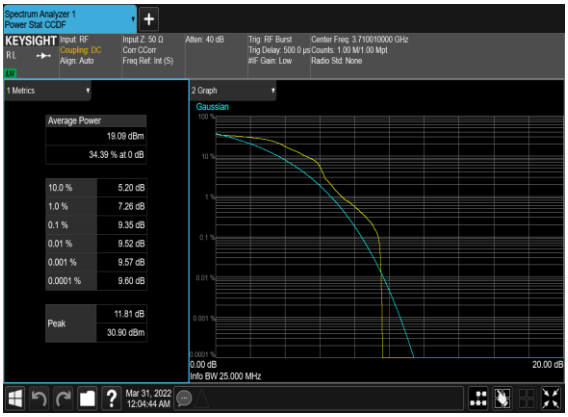
N77(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Low_CH



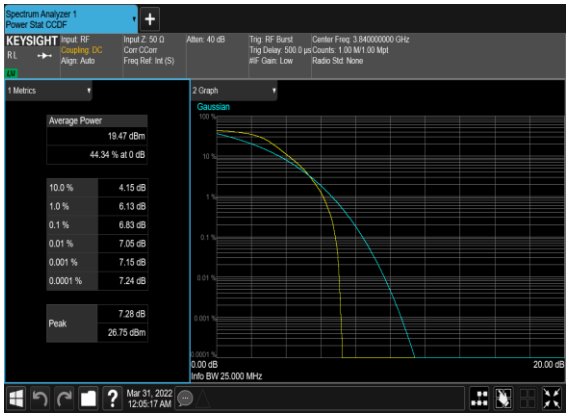
N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



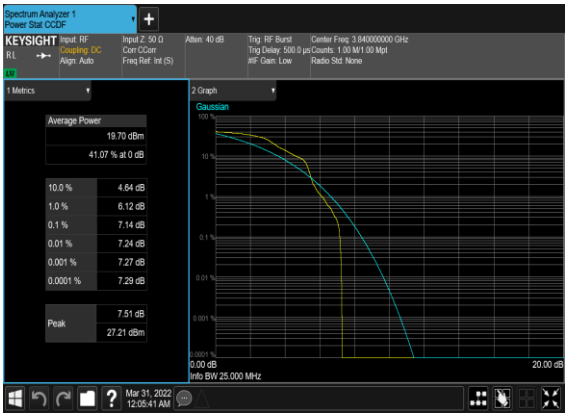
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



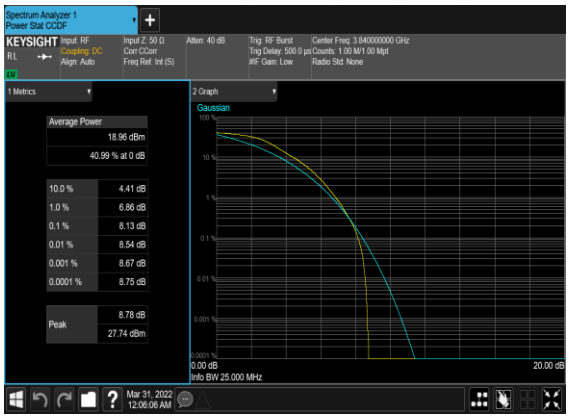
N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



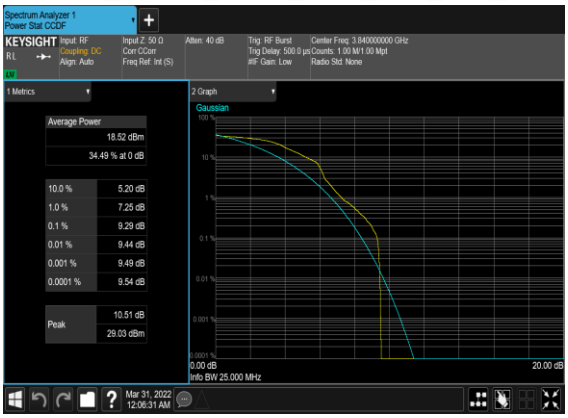
N77(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Mid_CH



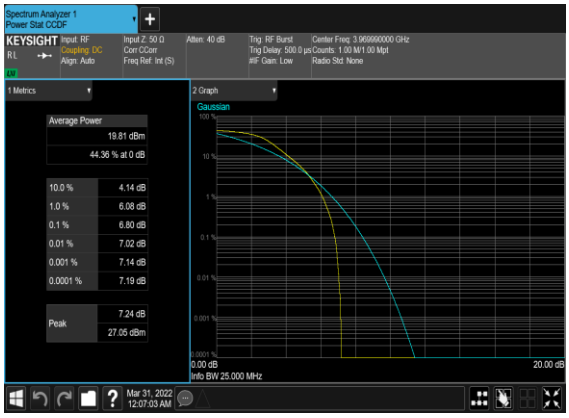
N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



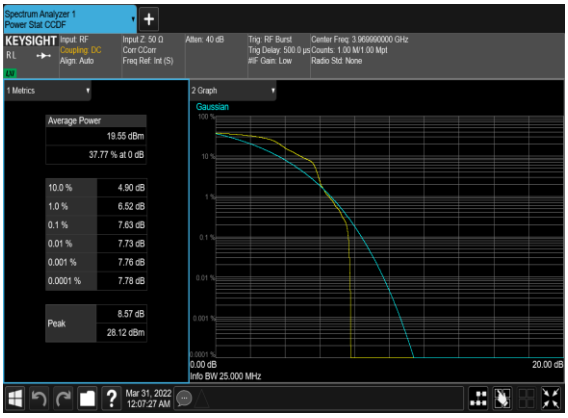
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



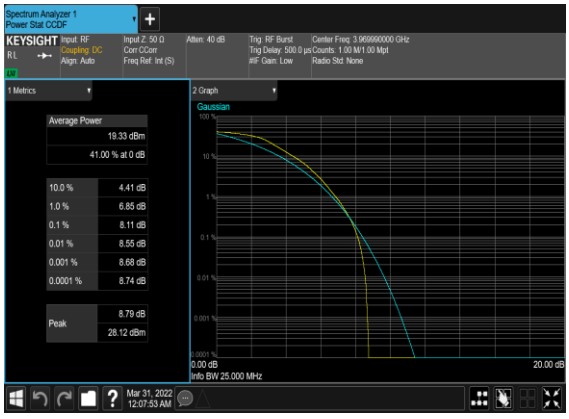
N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



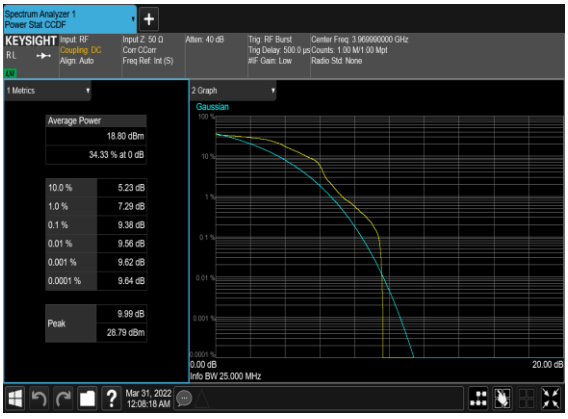
N77(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_High_CH



N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH

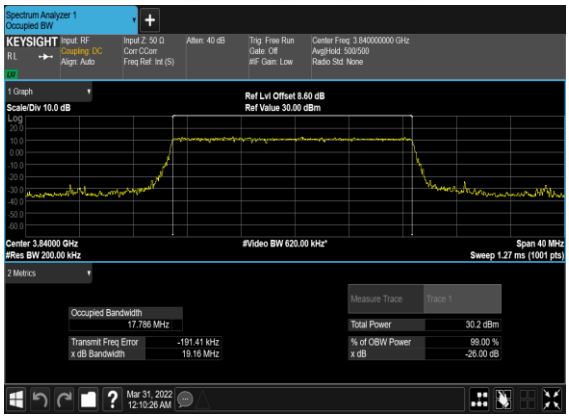


Occupied Bandwidth

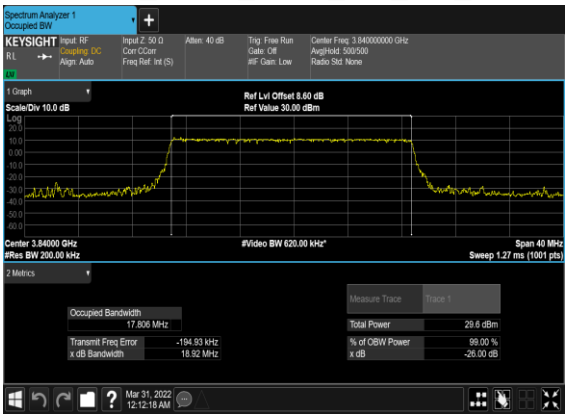
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB OBW (MHz)
77	30	20	656000	3840.0	DFT-s-OFDM PI/2 BPSK	50@0	17.786	19.16
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	17.806	18.92
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	18.188	19.86
77	30	20	656000	3840.0	CP-OFDM 16 QAM	51@0	18.197	19.45
77	30	20	656000	3840.0	CP-OFDM 64 QAM	51@0	18.21	19.67
77	30	20	656000	3840.0	CP-OFDM 256 QAM	51@0	18.209	19.48
77	30	30	656000	3840.0	DFT-s-OFDM PI/2 BPSK	75@0	26.772	28.46
77	30	30	656000	3840.0	DFT-s-OFDM QPSK	75@0	26.777	28.1
77	30	30	656000	3840.0	CP-OFDM QPSK	78@0	27.847	29.55
77	30	30	656000	3840.0	CP-OFDM 16 QAM	78@0	27.888	29.33
77	30	30	656000	3840.0	CP-OFDM 64 QAM	78@0	27.824	29.32
77	30	30	656000	3840.0	CP-OFDM 256 QAM	78@0	27.877	29.31
77	30	40	656000	3840.0	DFT-s-OFDM PI/2 BPSK	100@0	35.747	37.7
77	30	40	656000	3840.0	DFT-s-OFDM QPSK	100@0	35.766	37.8
77	30	40	656000	3840.0	CP-OFDM QPSK	106@0	37.813	39.42
77	30	40	656000	3840.0	CP-OFDM 16 QAM	106@0	37.759	39.91
77	30	40	656000	3840.0	CP-OFDM 64 QAM	106@0	37.858	39.62
77	30	40	656000	3840.0	CP-OFDM 256 QAM	106@0	37.996	39.73
77	30	60	656000	3840.0	DFT-s-OFDM PI/2 BPSK	162@0	57.886	60.14
77	30	60	656000	3840.0	DFT-s-OFDM QPSK	162@0	57.902	60.27
77	30	60	656000	3840.0	CP-OFDM QPSK	162@0	57.876	60.32
77	30	60	656000	3840.0	CP-OFDM 16 QAM	162@0	57.897	59.87
77	30	60	656000	3840.0	CP-OFDM 64 QAM	162@0	57.796	60.05
77	30	60	656000	3840.0	CP-OFDM 256 QAM	162@0	57.749	59.84

77	30	80	656000	3840.0	DFT-s-OFDM PI/2 BPSK	216@0	77.217	79.72
77	30	80	656000	3840.0	DFT-s-OFDM QPSK	216@0	77.285	79.87
77	30	80	656000	3840.0	CP-OFDM QPSK	217@0	77.518	80.13
77	30	80	656000	3840.0	CP-OFDM 16 QAM	217@0	77.49	80.25
77	30	80	656000	3840.0	CP-OFDM 64 QAM	217@0	77.494	80.15
77	30	80	656000	3840.0	CP-OFDM 256 QAM	217@0	77.496	80.24
77	30	100	656000	3840.0	DFT-s-OFDM PI/2 BPSK	270@0	96.613	99.58
77	30	100	656000	3840.0	DFT-s-OFDM QPSK	270@0	96.559	99.49
77	30	100	656000	3840.0	CP-OFDM QPSK	273@0	97.457	100.7
77	30	100	656000	3840.0	CP-OFDM 16 QAM	273@0	97.527	100.8
77	30	100	656000	3840.0	CP-OFDM 64 QAM	273@0	97.44	100.6
77	30	100	656000	3840.0	CP-OFDM 256 QAM	273@0	97.414	100.8

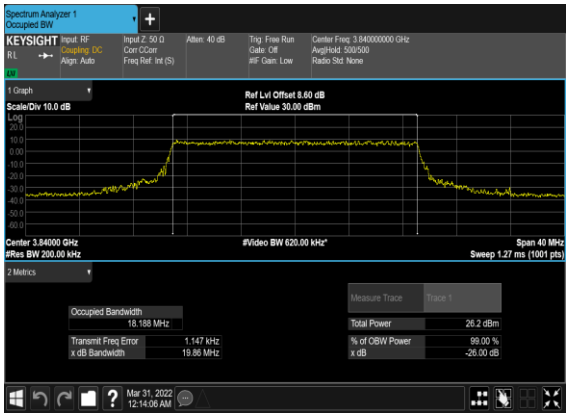
N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



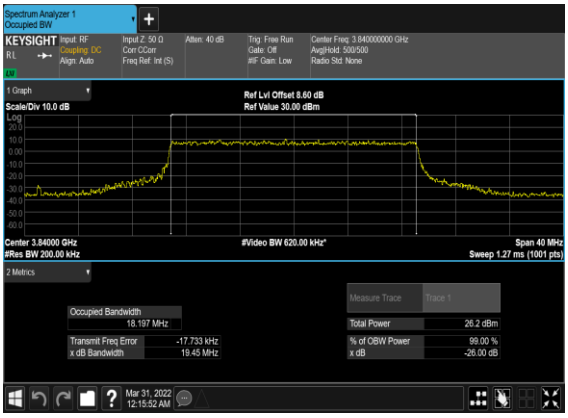
N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



N77(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



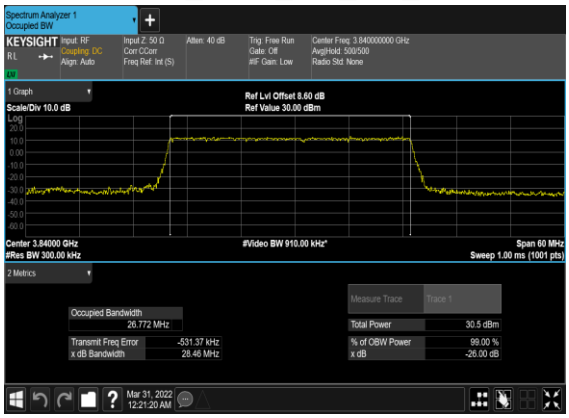
N77(20M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



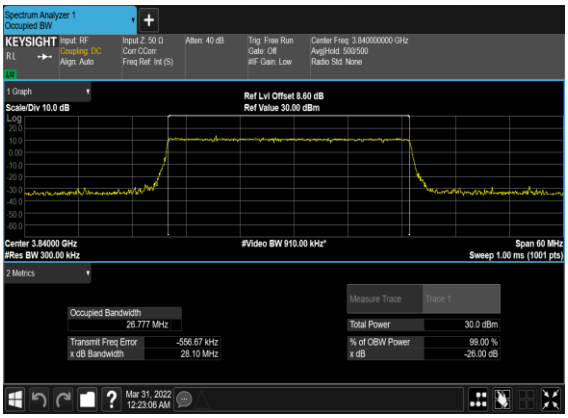
N77(20M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N77(20M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

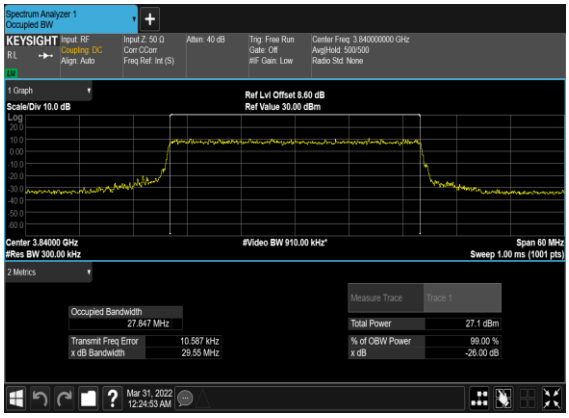
N77(30M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



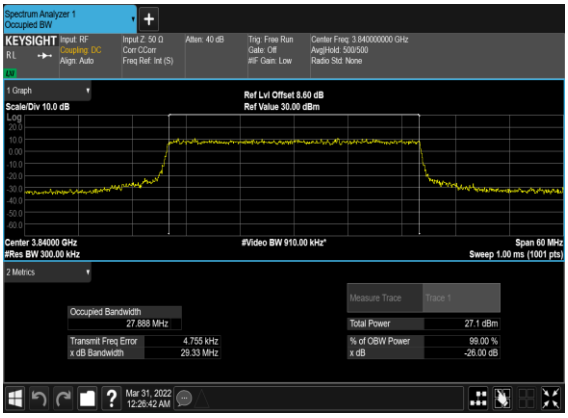
N77(30M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



N77(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

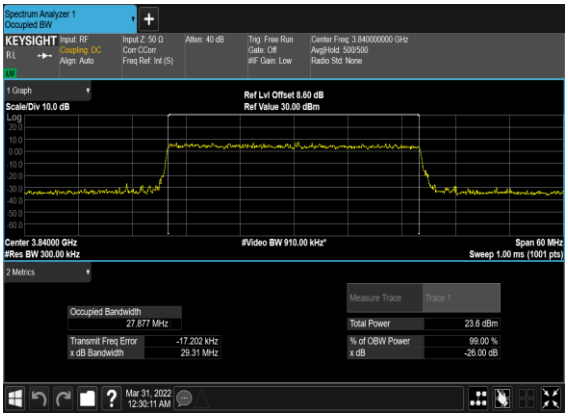


N77(30M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

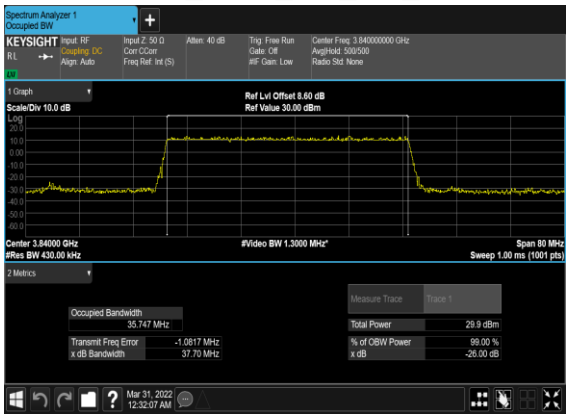


N77(30M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

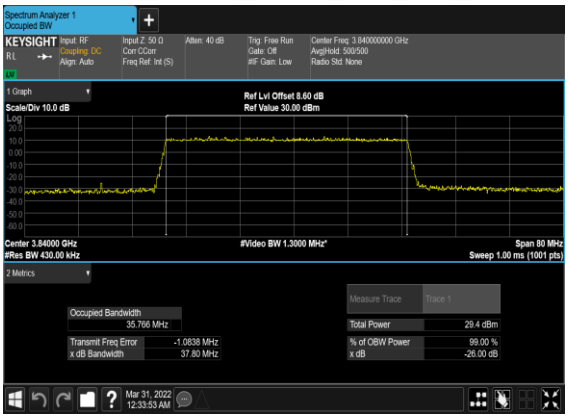
N77(30M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



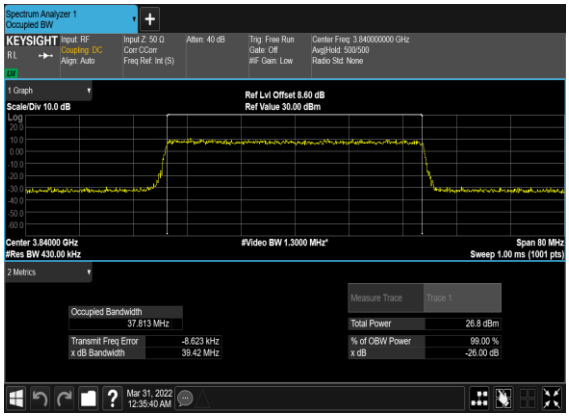
N77(40M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



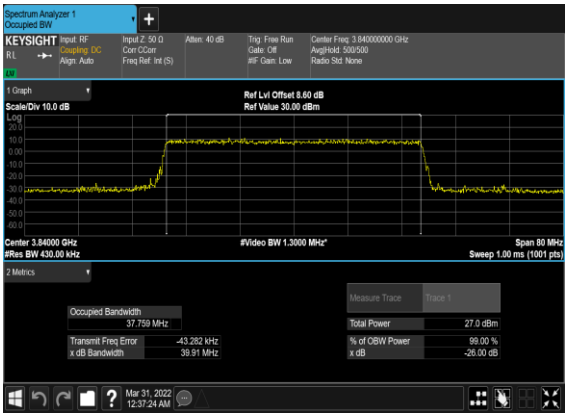
N77(40M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



N77(40M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

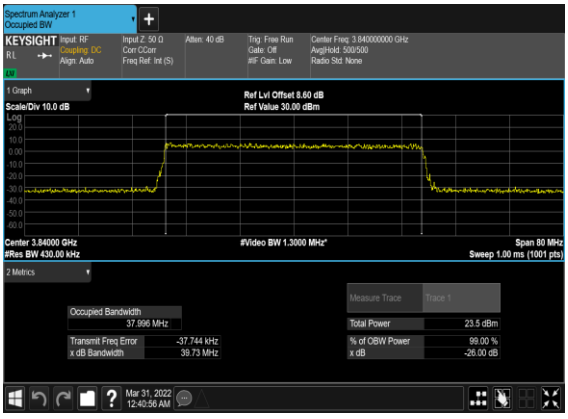


N77(40M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

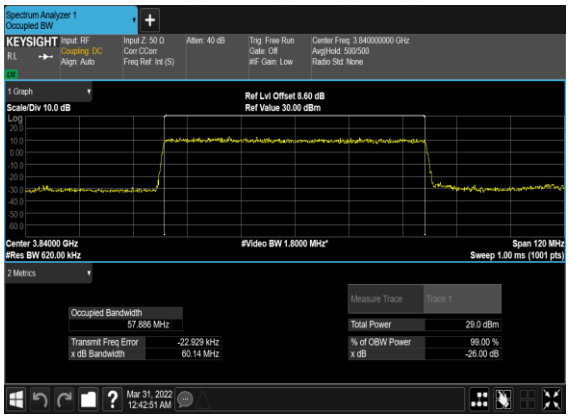


N77(40M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

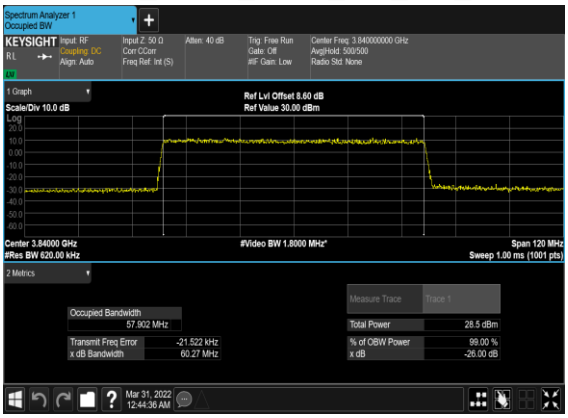
N77(40M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



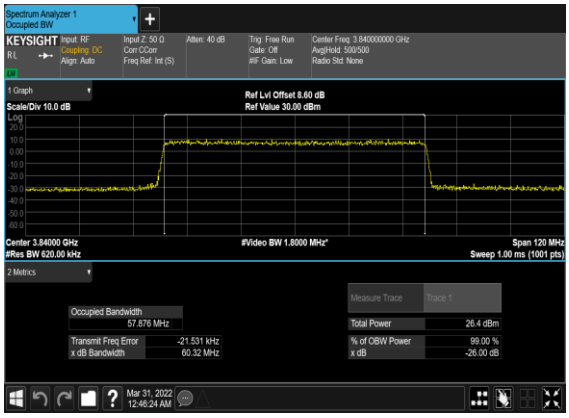
N77(60M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



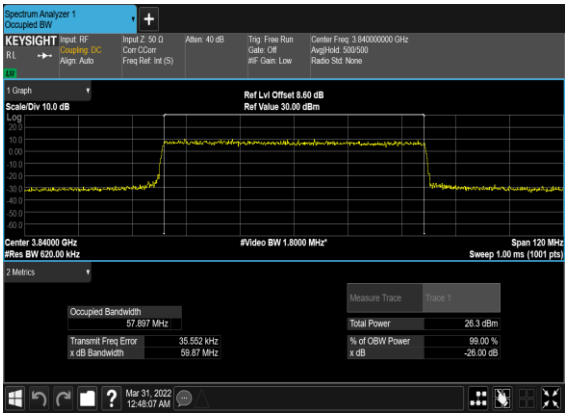
N77(60M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



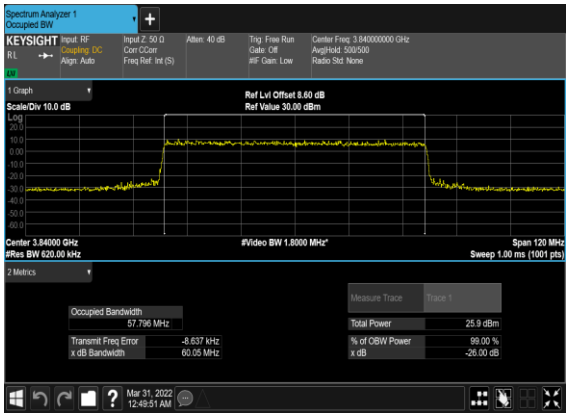
N77(60M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



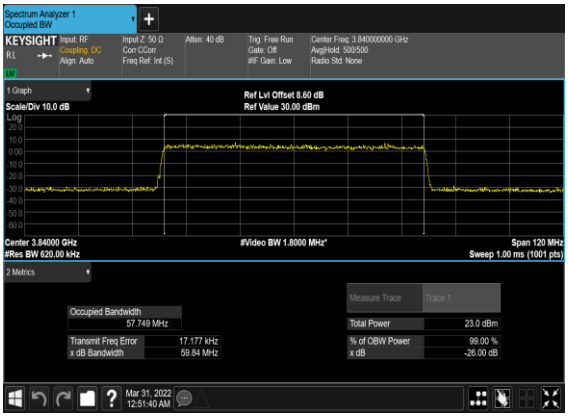
N77(60M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



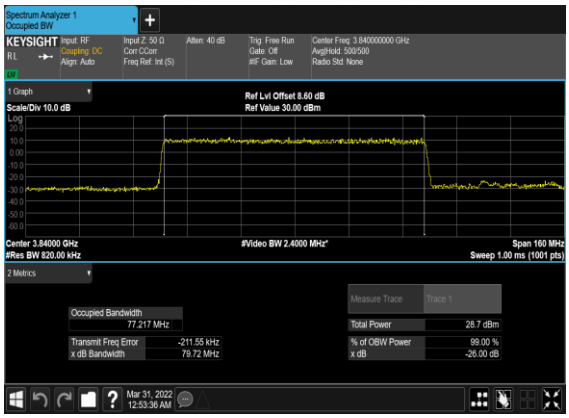
N77(60M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



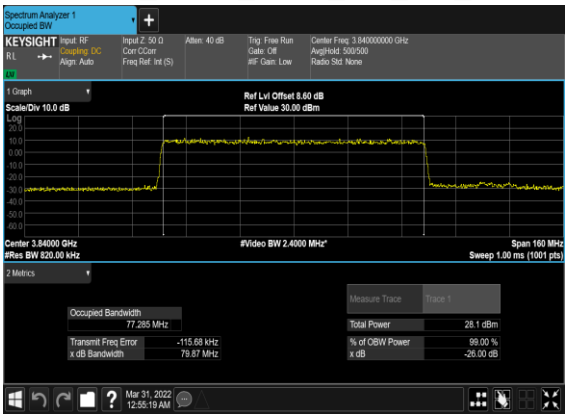
N77(60M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



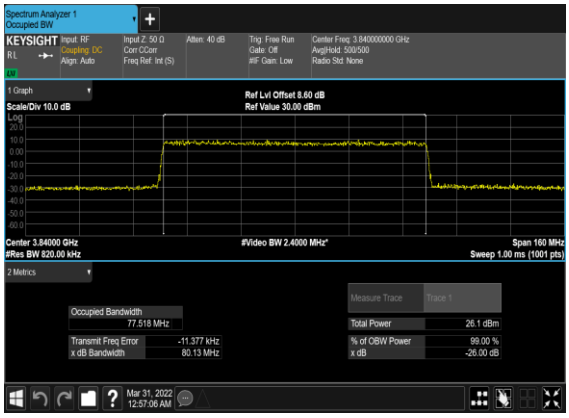
N77(80M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



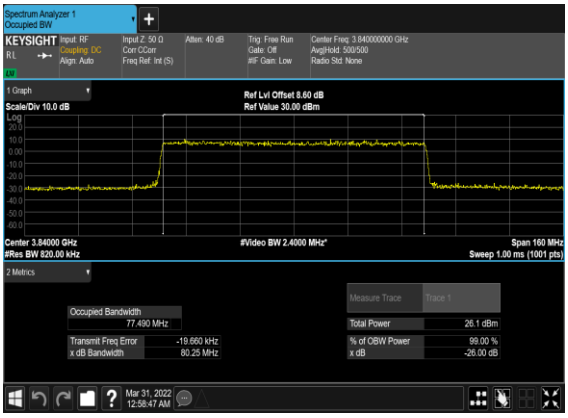
N77(80M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



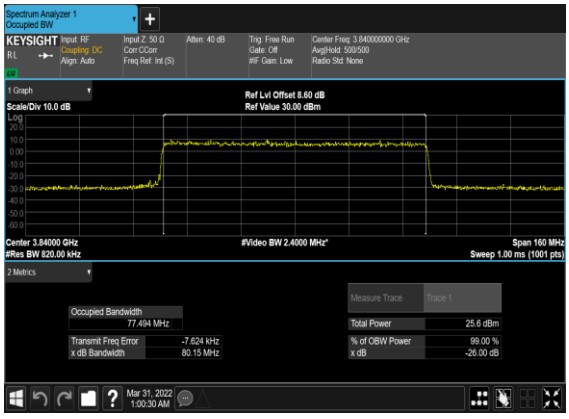
N77(80M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



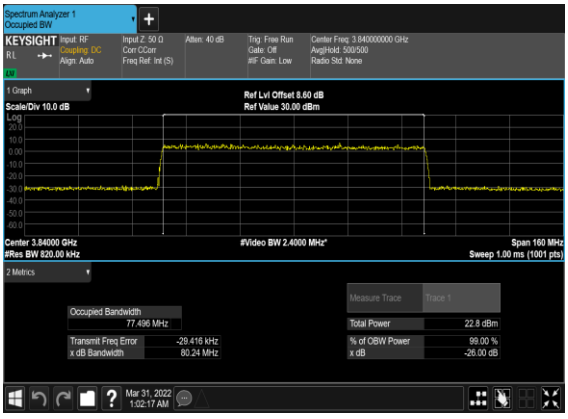
N77(80M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



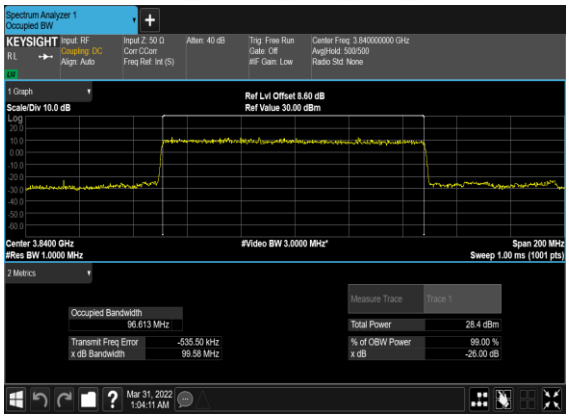
N77(80M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



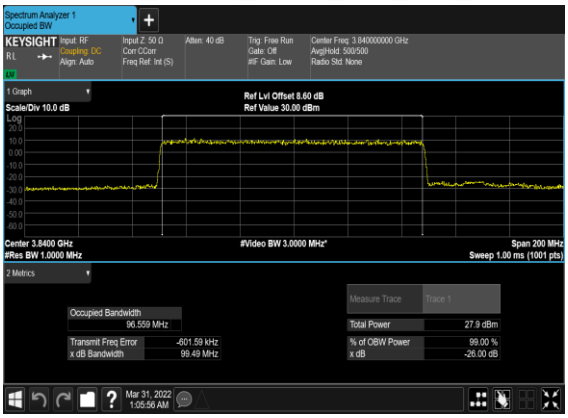
N77(80M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



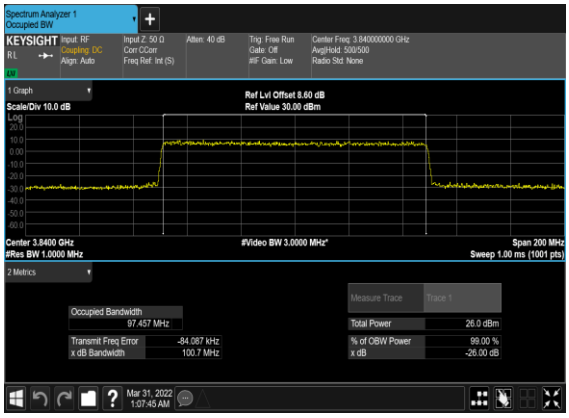
N77(100M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



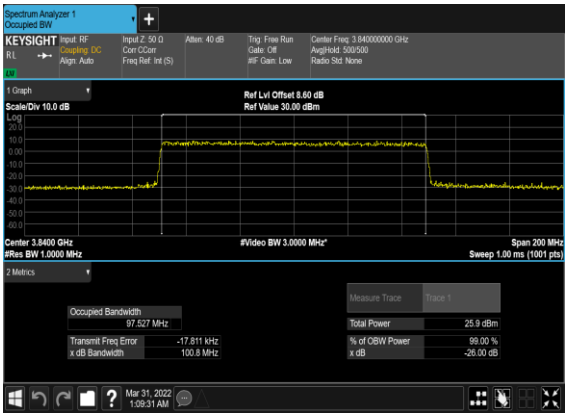
N77(100M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



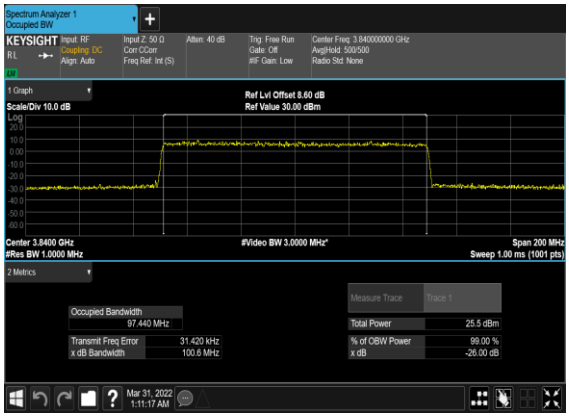
N77(100M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



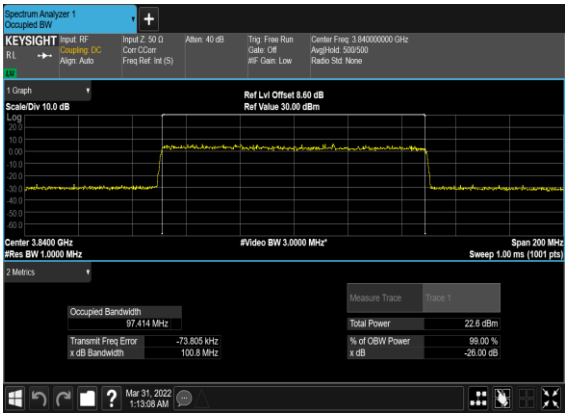
N77(100M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N77(100M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



N77(100M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



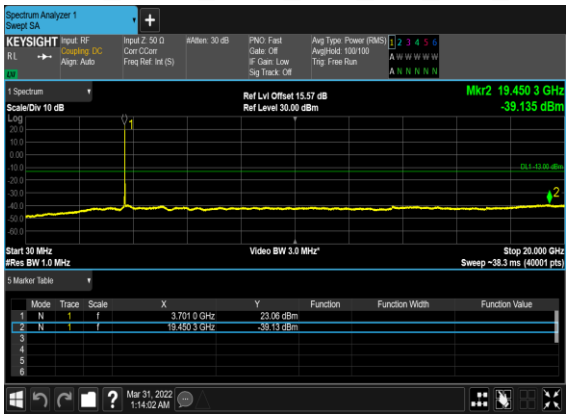
Conducted Spurious Emissions

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	30	20	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	**---**

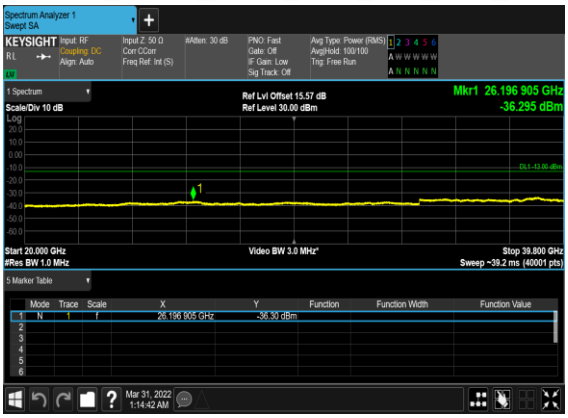
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	60	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph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

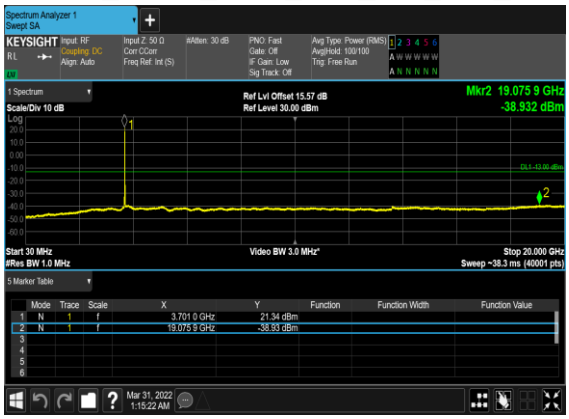
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



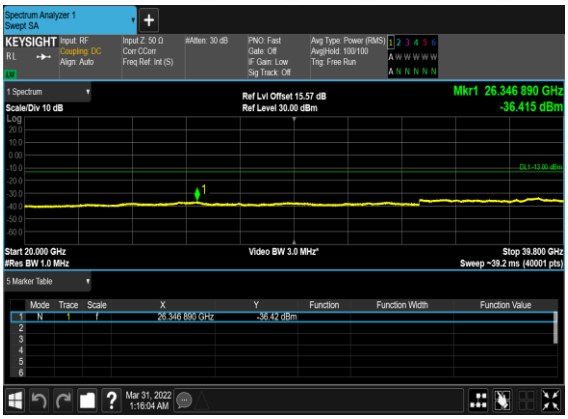
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



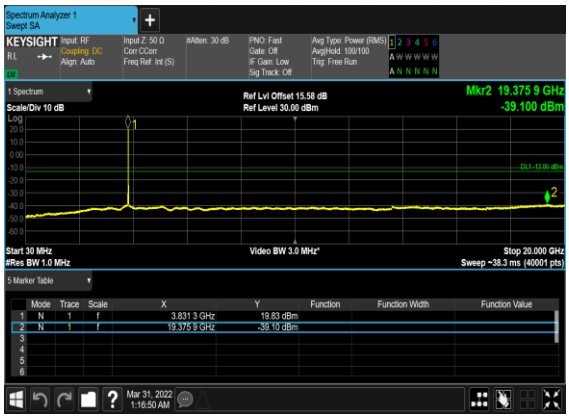
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



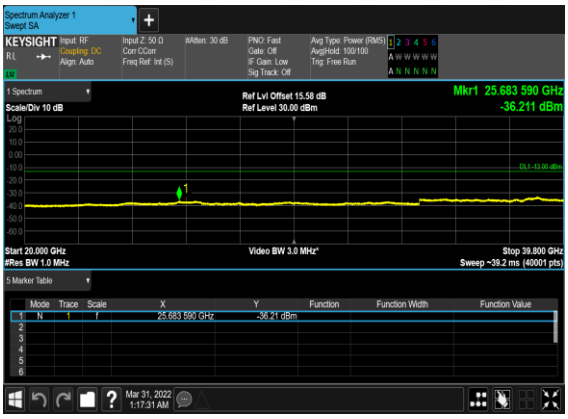
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



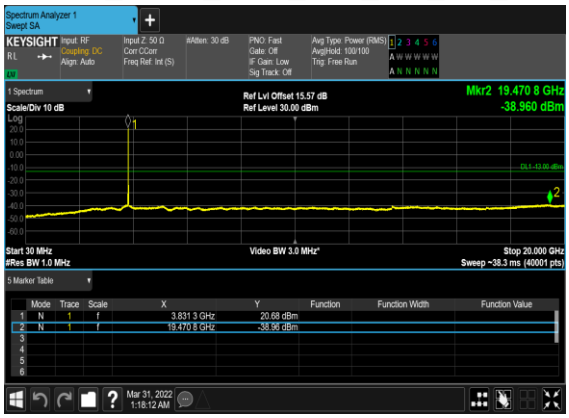
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



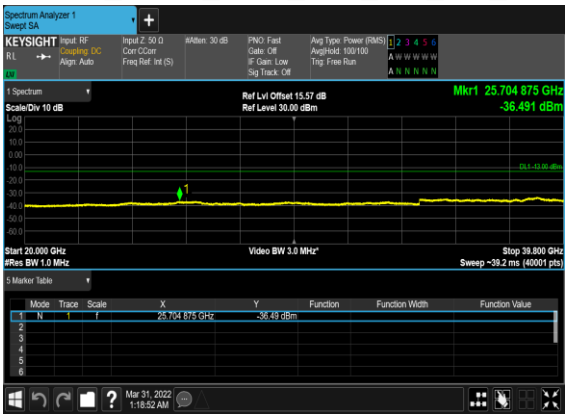
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



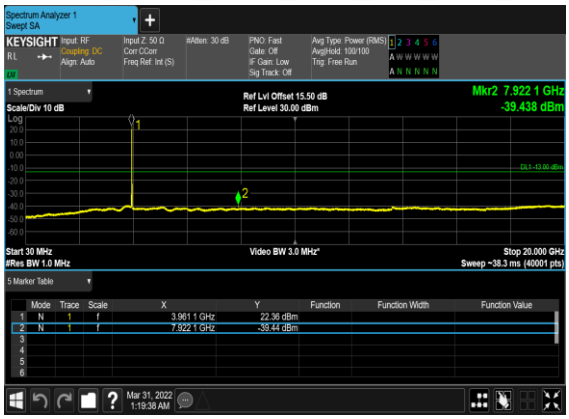
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



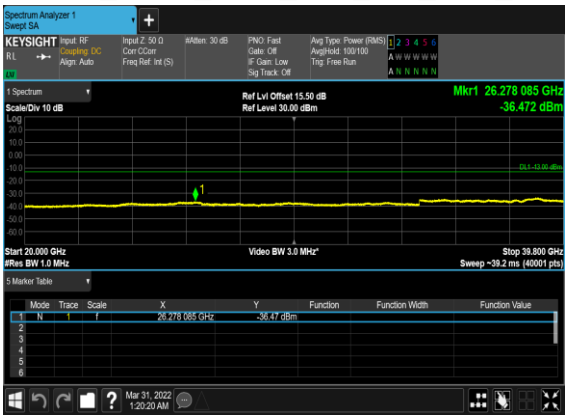
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



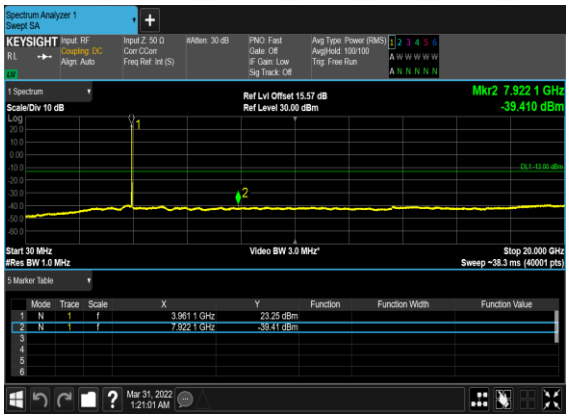
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



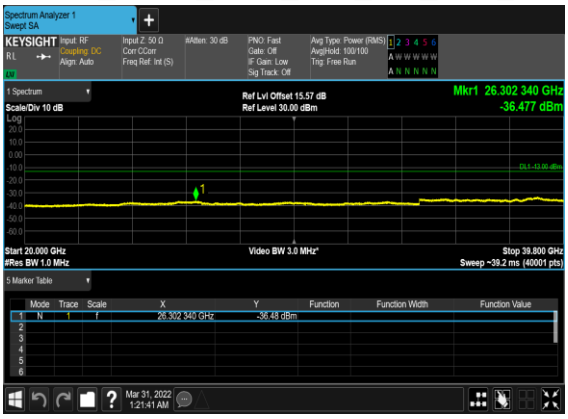
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



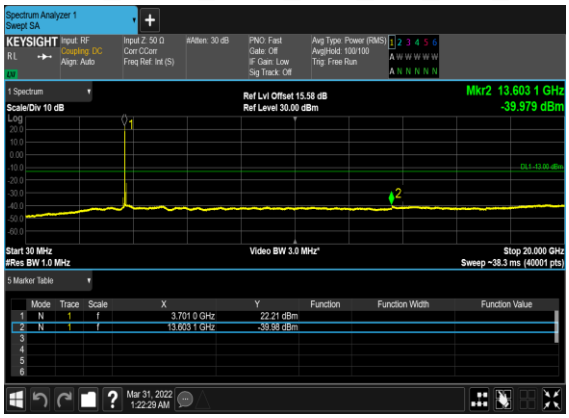
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



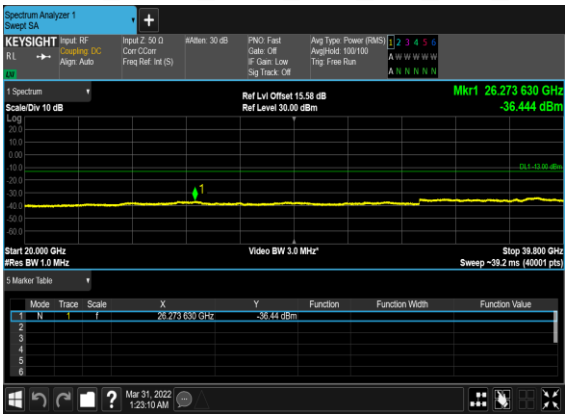
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



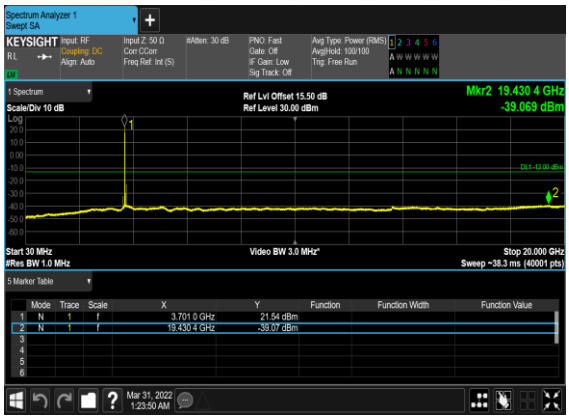
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



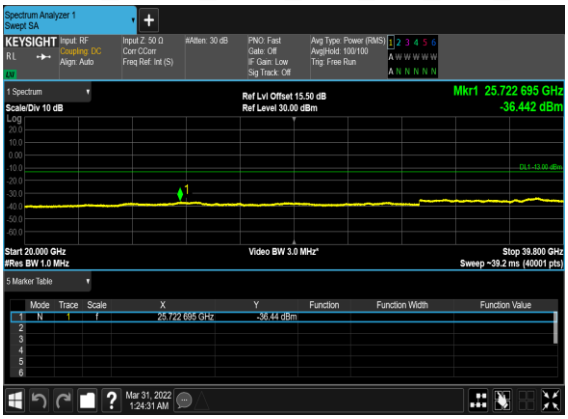
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



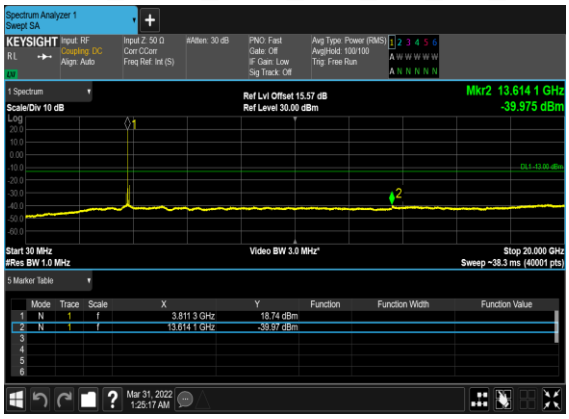
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



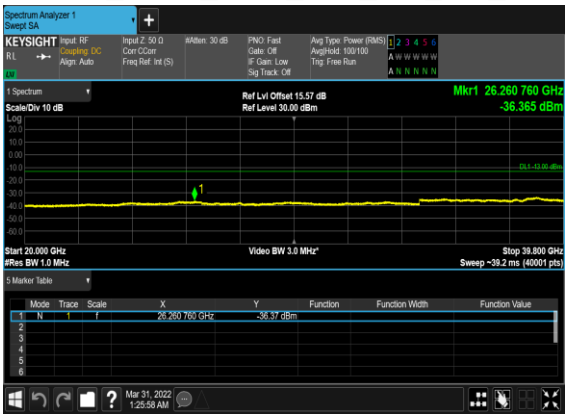
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



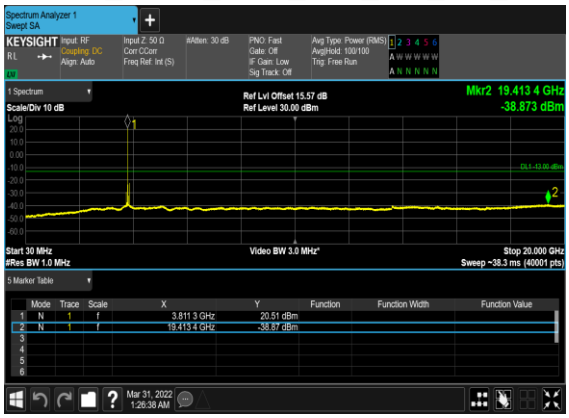
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



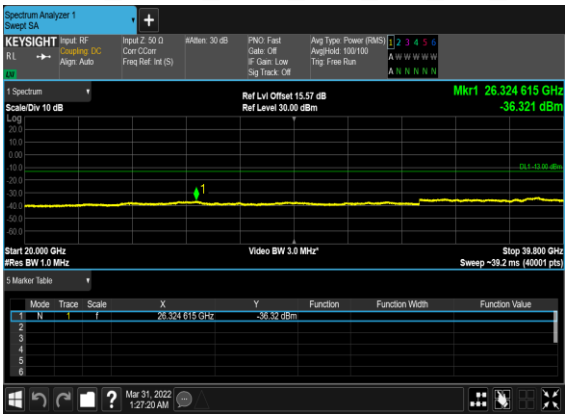
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



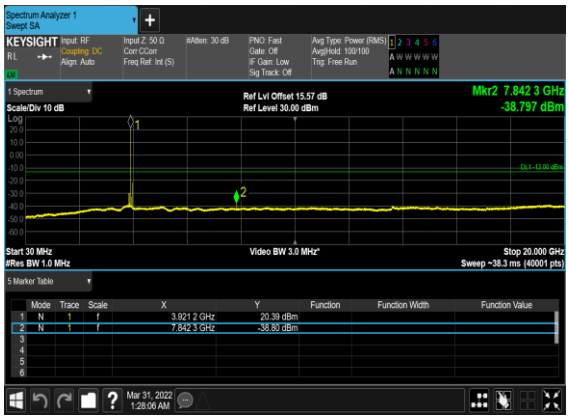
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



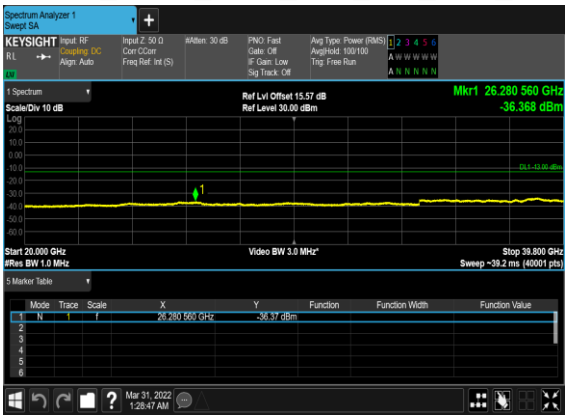
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



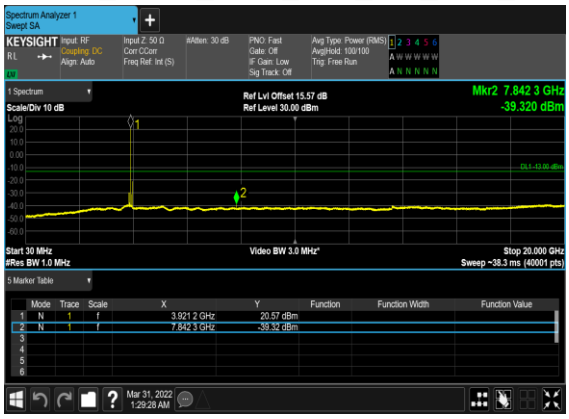
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



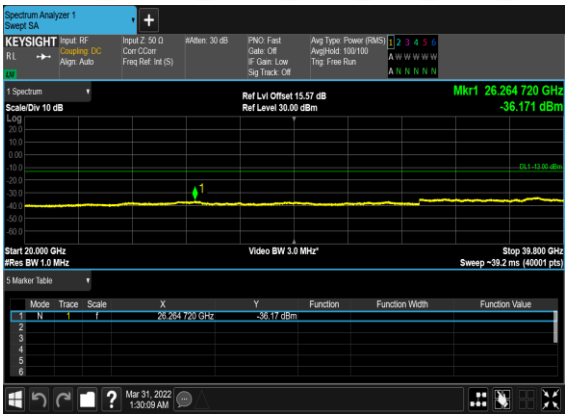
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



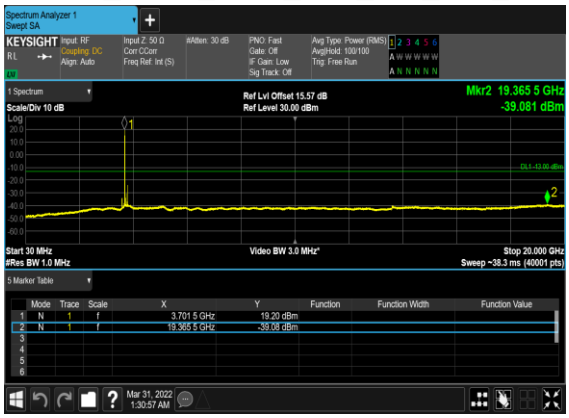
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



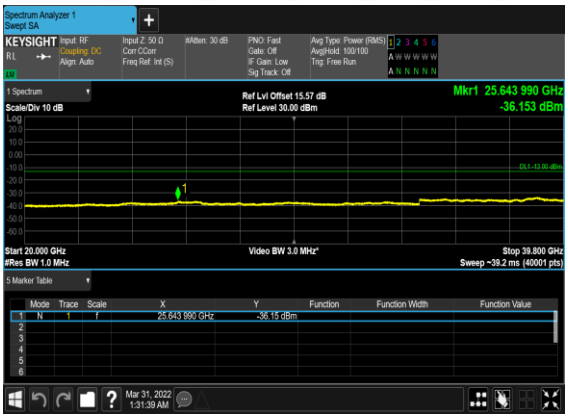
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



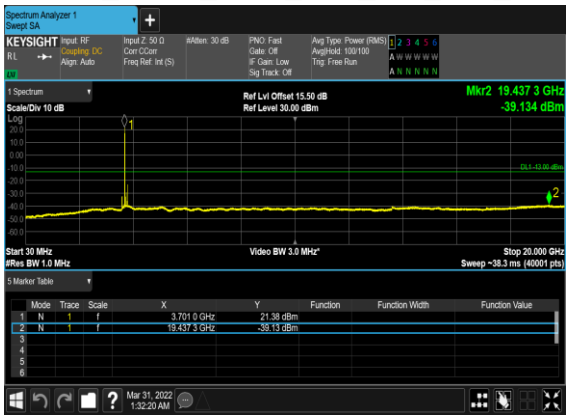
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



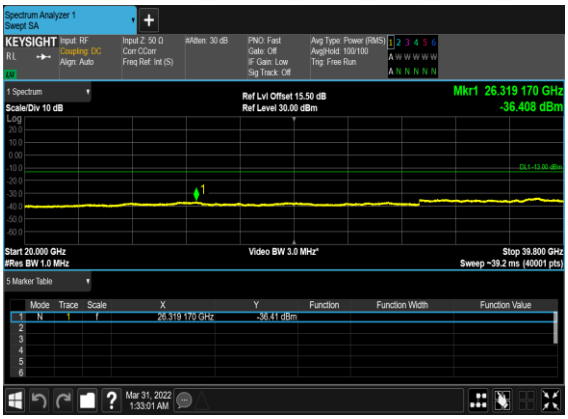
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



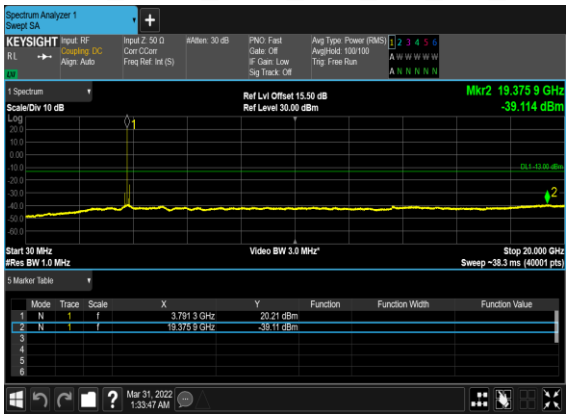
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



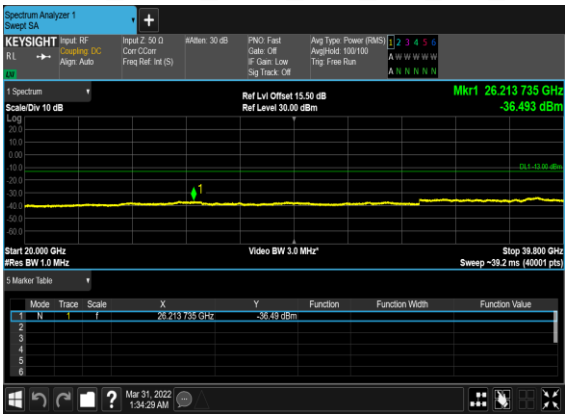
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



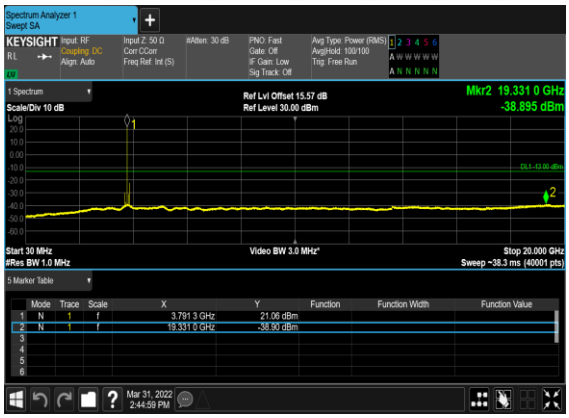
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



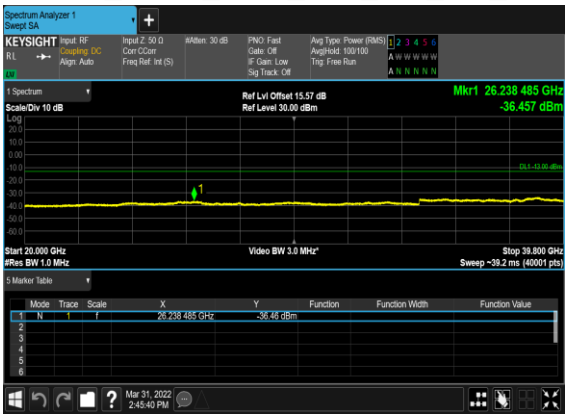
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



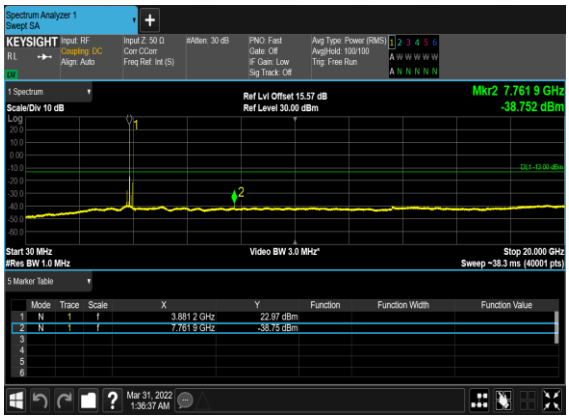
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



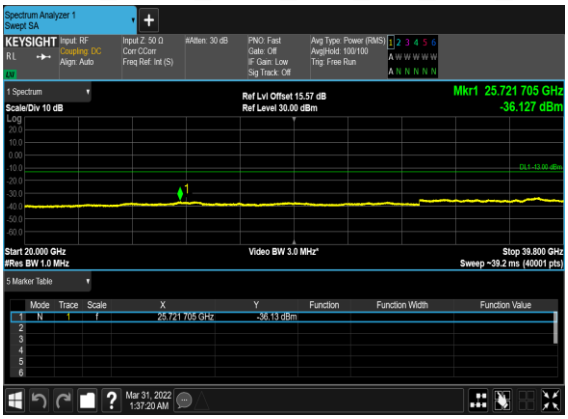
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



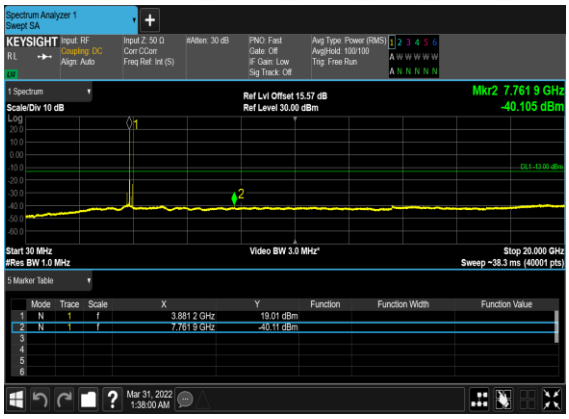
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



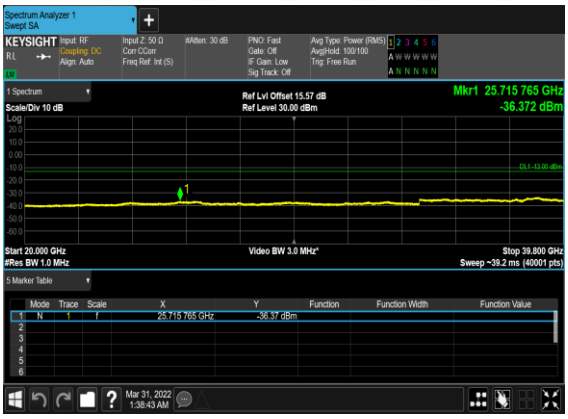
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



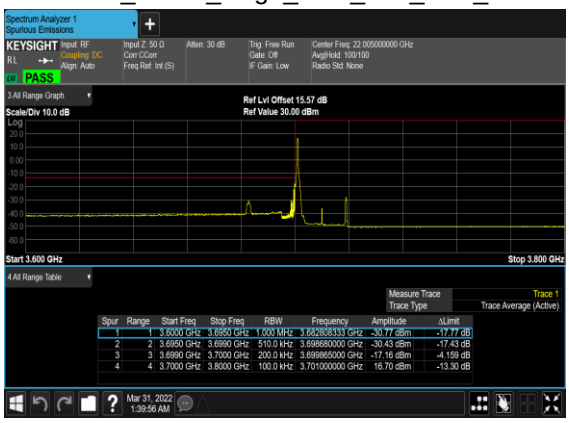
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



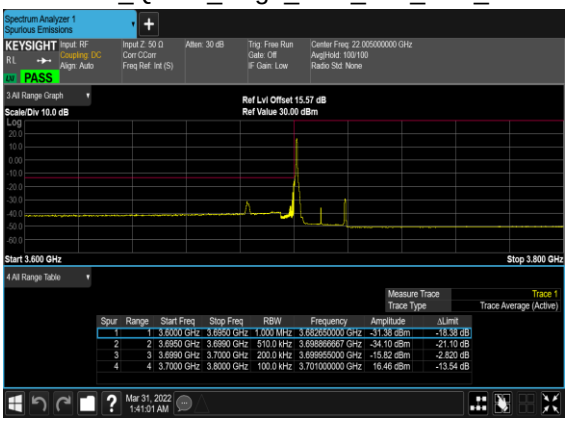
Conducted Band Edge

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	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM BPSK	50@0	see graph	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	50@0	see graph	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM BPSK	1@50	see graph	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@50	see graph	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM BPSK	50@0	see graph	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	50@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	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM BPSK	162@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	162@0	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM BPSK	1@161	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@161	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM BPSK	162@0	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	162@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	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM BPSK	270@0	see graph	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM QPSK	270@0	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM BPSK	1@272	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM QPSK	1@272	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM BPSK	270@0	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM QPSK	270@0	see graph	**PASS**

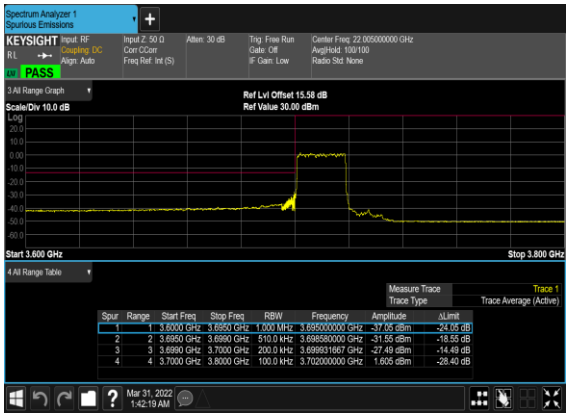
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



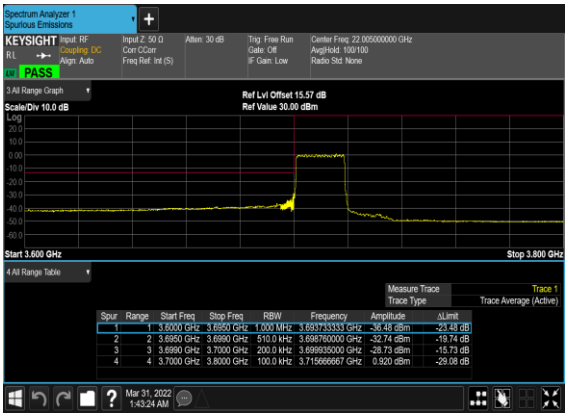
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



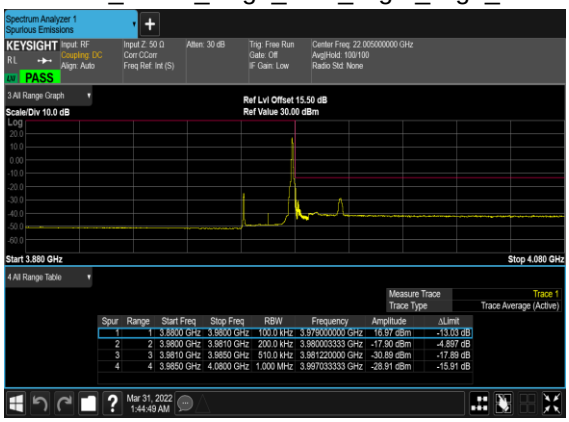
N77(20M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH