FCC RF Test Report

APPLICANT	:	Xiaomi Communications Co., Ltd.
EQUIPMENT	:	Mobile Phone
BRAND NAME	:	Xiaomi
MODEL NAME	:	2406APNFAG
FCC ID	:	2AFZZPNFAG
STANDARD	:	47 CFR Part 2, Part 27 Subpart Q
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	:	May 23, 2024 ~ May 30, 2024

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

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

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

Jason Jia

Approved by: Jason Jia

ACCREDITED Cert #5145.02

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG442515O	Rev. 01	Initial issue of report	Jun. 11, 2024

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	—	Report Only	-
3.5	§27.50 (k)(4)	Peak-to-Average Ratio	<13dB	PASS	
3.6	§27.50 (k)(3)	EIRP	EIRP < 1W (30dBm)	PASS	-
3.7	§2.1049	Occupied Bandwidth	—	Report Only	-
3.8	§2.1051 §27.53 (n)(2)	Conducted Band Edge Measurement	-13dBm/MHz	PASS	-
3.9	§2.1051 §27.53 (n)(2)	Conducted Spurious Emission	-13dBm/MHz	PASS	-
3.10	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within the band	PASS	-
4.4	§2.1053 §27.53 (n)(2)	Radiated Spurious Emission	-13dBm/MHz	PASS	Under limit 16.06 dB at 10354.00 MHz

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Applicant

Xiaomi Communications Co., Ltd.
#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

1.2 Manufacturer

Xiaomi Communications Co., Ltd.
#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	Xiaomi
Model Name	2406APNFAG
FCC ID	2AFZZPNFAG
IMEI Code	Conducted: 868329070074947/868329070074954 Radiation: 868329070126986/868329070126994
HW Version	1351N12A
SW Version	Xiaomi HyperOS 1.0
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
SCS	15kHz, 30kHz
Bandwidth	n77/n78(15kHz): 10 / 15 / 20 / 25 / 30 / 40 / 50 MHz n77/n78(30kHz): 10 / 15 / 20 / 25 / 30 / 40 / 50 / 60 / 70 / 80 / 90 / 100MHz
Antenna Gain	**<Ant. 6>** 5G NR n77: -2.7 dBi 5G NR n78: -2.7 dBi **<Ant. 8>** 5G NR n77: -0.5 dBi 5G NR n78: -2 dBi **<Ant. 7>** 5G NR n77: -3.5 dBi 5G NR n78: -3.5 dBi **<Ant. 9>** 5G NR n77: -1.72 dBi 5G NR n78: -1.72 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

Remark:

1. The maximum EIRP is calculated from max output power and max antenna gain, only the maximum EIRP is shown in the report, 5G NR n77/n78 for Antenna 8/9.
2. The device supports n77/n78(1T4R) SRS resources on Antenna 6/8/7/9, only the test data of worst Antenna 6 is showed in the report according to the maximum power.
3. 5G NR n77 only support SA mode, n78 support SA and NSA mode. The whole testing has assessed SA mode for n77 by referring to the higher conducted power for conducted test items.
4. 5G NR bands support SCS 15kHz and SCS 30kHz. According to the maximum power, n77/78 SCS 15kHz covers SCS 30kHz for BW 10 / 15 / 20 / 25 / 30 / 40 / 50MHz.
5. The device supports HPUE mode for 5G NR n77/n78.
6. All the supported EN-DC combinations are verified conducted power, only the EN-DC combination with highest power are shown in the report.
7. The EN-DC mode combination could be referred to the product spec.

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 for SCS 15kHz		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)
10	3455.01 ~ 3544.995	0.3548	9M27G7D	0.2812	9M28W7D
15	3457.50 ~ 3542.49	0.3334	14M1G7D	0.2723	14M1W7D
20	3460.005 ~ 3540.00	0.3311	18M8G7D	0.2742	18M9W7D
25	3462.51 ~ 3537.495	0.3350	23M7G7D	0.2692	23M7W7D
30	3465.00 ~ 3534.99	0.3289	28M5G7D	0.2704	28M5W7D
40	3470.01 ~ 3529.995	0.3404	38M6G7D	0.2655	38M6W7D
50	3475.005 ~ 3525.00	0.3357	48M1G7D	0.2667	48M4W7D

5G NR n77 for SCS 30kHz		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)
10	3455.01 ~ 3544.98	0.3206	9M27G7D	0.2649	9M28W7D
15	3457.50 ~ 3542.49	0.3155	14M1G7D	0.2606	14M1W7D
20	3460.02 ~ 3540.00	0.3266	18M8G7D	0.2582	18M9W7D
25	3462.51 ~ 3537.48	0.3083	23M7G7D	0.2547	23M7W7D

30	3465.00 ~ 3534.99	0.3090	28M5G7D	0.2541	28M5W7D
40	3470.01 ~ 3529.98	0.3184	38M6G7D	0.2535	38M6W7D
50	3475.02 ~ 3525.00	0.3126	48M1G7D	0.2506	48M4W7D
60	3480.00 ~ 3519.99	0.3214	57M6G7D	0.2512	57M8W7D
70	3485.01 ~ 3514.98	0.3273	67M6G7D	0.2582	67M5W7D
80	3490.02 ~ 3510.00	0.3357	77M4G7D	0.2636	77M6W7D
90	3495.00 ~ 3504.99	0.3273	87M3G7D	0.2661	87M5W7D
100	3500.01	0.3112	97M5G7D	0.2630	97M6W7D

5G NR n78 for SCS 15kHz		**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)**
10	3455.01 ~ 3544.995	0.2443	9M27G7D	0.1832	9M28W7D
15	3457.50 ~ 3542.49	0.2399	14M1G7D	0.1875	14M1W7D
20	3460.005 ~ 3540.00	0.2158	18M8G7D	0.1742	18M9W7D
25	3462.51 ~ 3537.495	0.2138	23M7G7D	0.1730	23M7W7D
30	3465.00 ~ 3534.99	0.2173	28M5G7D	0.1762	28M5W7D
40	3470.01 ~ 3529.995	0.2163	38M6G7D	0.1750	38M6W7D
50	3475.005 ~ 3525.00	0.2649	48M1G7D	0.2089	48M4W7D

5G NR n78 for SCS 30kHz		**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)**
10	3455.01 ~ 3544.98	0.2483	9M27G7D	0.1972	9M28W7D
15	3457.50 ~ 3542.49	0.2483	14M1G7D	0.2009	14M1W7D
20	3460.02 ~ 3540.00	0.2564	18M8G7D	0.2009	18M9W7D
25	3462.51 ~ 3537.48	0.2432	23M7G7D	0.2018	23M7W7D
30	3465.00 ~ 3534.99	0.2443	28M5G7D	0.2004	28M5W7D
40	3470.01 ~ 3529.98	0.2443	38M6G7D	0.1954	38M6W7D
50	3475.02 ~ 3525.00	0.2455	48M1G7D	0.1914	48M4W7D
60	3480.00 ~ 3519.99	0.2523	57M6G7D	0.1932	57M8W7D
70	3485.01 ~ 3514.98	0.2600	67M6G7D	0.1954	67M5W7D
80	3490.02 ~ 3510.00	0.2483	77M4G7D	0.2000	77M6W7D
90	3495.00 ~ 3504.99	0.2477	87M3G7D	0.2004	87M5W7D
100	3500.01	0.2523	97M5G7D	0.1968	97M6W7D

Note:

1. 5G NR Band n77 overlaps the entire frequency range of Band n78, and n77 power > n78 power, therefore

the conducted test results of n77 provided in this report cover n78.

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

1.7 Testing Site

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

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-KS	CN1257	314309

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

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH03-SZ	CN1256	421272

Test data subcontracted: Radiated test case in section 4 of this report.

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	TH01-KS	Tonscend	JS1120-3 test system China_210602	3.3.10
2.	03CH03-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.

2 Test Configuration of Equipment Under Test

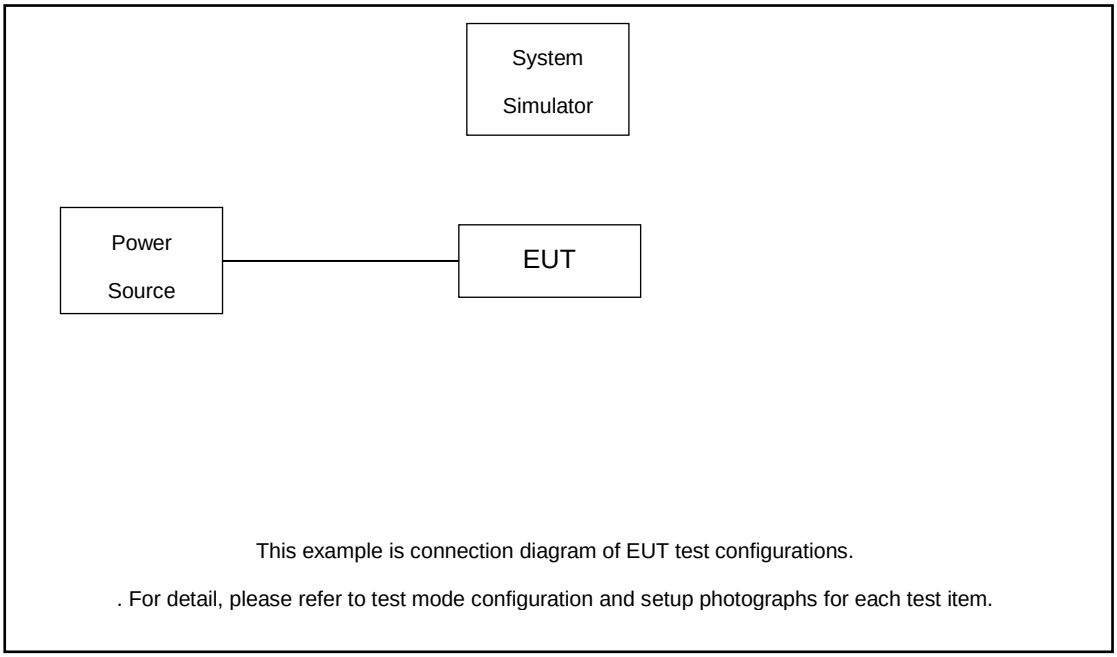
2.1 Test Mode

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(Y Plane).

Test Items	5G NR	Bandwidth (MHz)										Modulation					RB #			Test Channel		
		10	15	20	25~40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256 QAM	1	Partial	Full	L	M	H
Max. Output Power	n77	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	n78	v	v	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	
26dB and 99% Bandwidth	n77	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		v	v		v
Conducted Spurious Emission	n77	v		v		v	v		v		v	v	v				v			v	v	v
Frequency Stability	n77			v			v					v							v		v	
E.I.R.P	n77	v	v	v	v	v	v		v		v	v	v	v	v	v	v	v	v	v	v	v
	n78	v	v	v	v	v	v		v		v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	n77	Worst Case																			v	
	n78	Worst Case																			v	
Note	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. Frequency Stability：Normal Voltage = 3.89V; Low Voltage =3.6V; High Voltage =4.3V.																					

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.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	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 5.8 dB and 20dB attenuator.

Example :

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

= 5.8 + 20 = 25.8 (dB)

2.5 Frequency List of Low/Middle/High Channels

5G n77/n78 Channel and Frequency List for SCS 15kHz				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
50	Channel	631667	633334	635000
	Frequency	3475.005	3500.01	3525
40	Channel	631334	633334	635333
	Frequency	3470.01	3500.01	3529.995
30	Channel	631000	633334	635666
	Frequency	3465	3500.01	3534.99
25	Channel	630834	633334	635833
	Frequency	3462.51	3500.01	3537.495
20	Channel	630667	633334	636000
	Frequency	3460.005	3500.01	3540
15	Channel	630500	633334	636166
	Frequency	3457.5	3500.01	3542.49
10	Channel	630334	633334	636333
	Frequency	3455.01	3500.01	3544.995

5G n77/n78 Channel and Frequency List for SCS 30kHz				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
100	Channel	-	633334	-
	Frequency	-	3500.01	-
90	Channel	633000	633334	633666
	Frequency	3495	3500.01	3504.99
80	Channel	632668	633334	634000
	Frequency	3490.02	3500.01	3510
70	Channel	632334	633334	634332
	Frequency	3485.01	3500.01	3514.98
60	Channel	632000	633334	634666
	Frequency	3480	3500.01	3519.99
50	Channel	631668	633334	635000
	Frequency	3475.02	3500.01	3525
40	Channel	631334	633334	635332
	Frequency	3470.01	3500.01	3529.98
30	Channel	631000	633334	635666
	Frequency	3465	3500.01	3534.99
25	Channel	630834	633334	635832
	Frequency	3462.51	3500.01	3537.48
20	Channel	630668	633334	636000
	Frequency	3460.02	3500.01	3540
15	Channel	630500	633334	636166
	Frequency	3457.5	3500.01	3542.49
10	Channel	630334	633334	636332
	Frequency	3455.01	3500.01	3544.98

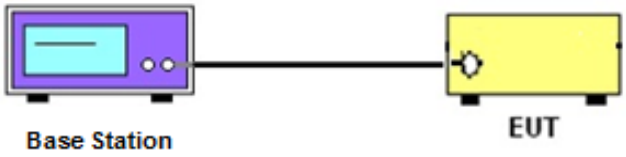
3 Conducted Test Items

3.1 Measuring Instruments

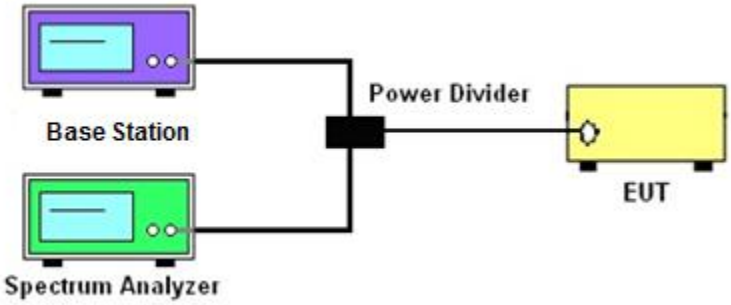
See list of measuring instruments of this test report.

3.2 Test Setup

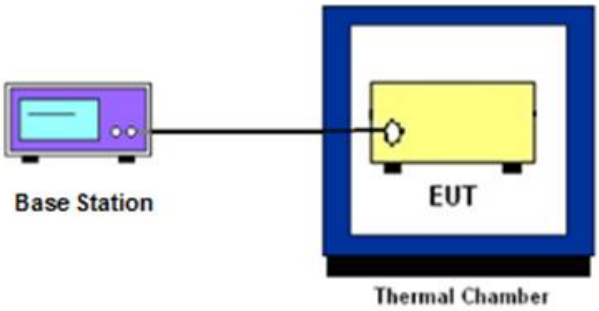
3.2.1 Conducted Output Power



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.

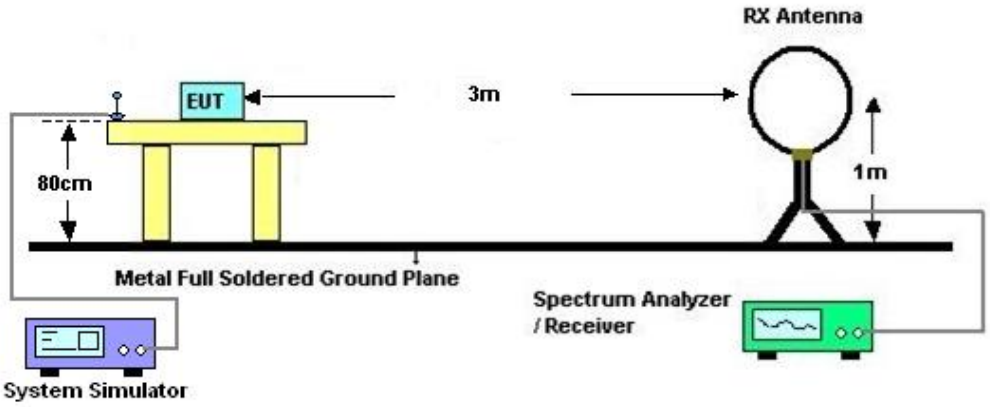
4 Radiated Test Items

4.1 Measuring Instruments

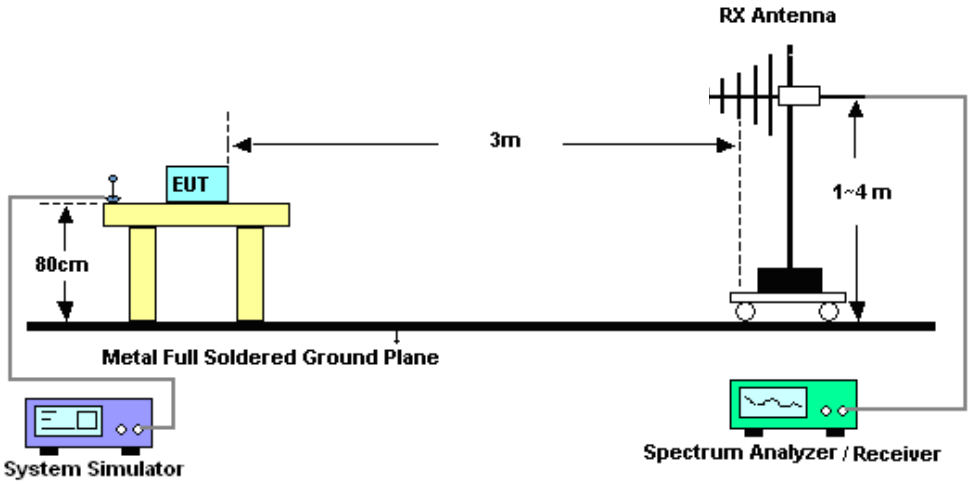
See list of measuring instruments of this test report.

4.2 Test Setup

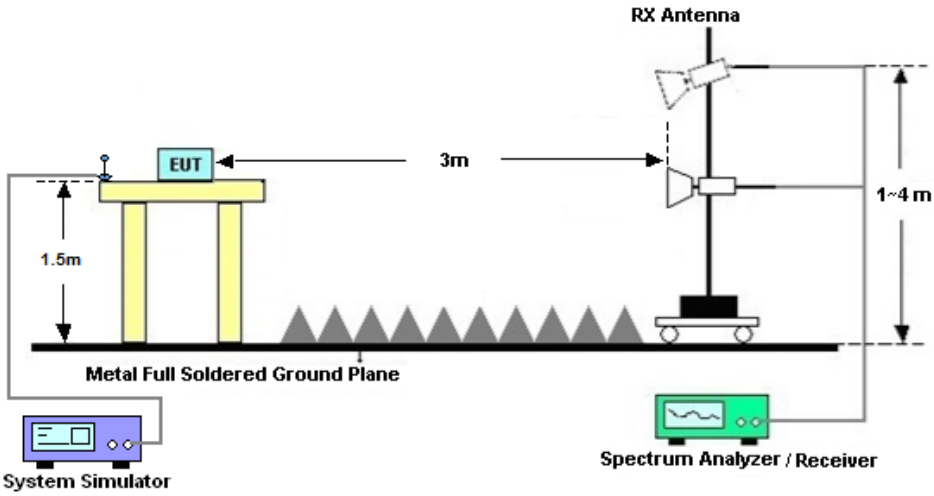
4.2.1 For radiated test below 30MHz



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
EXA Spectrum Analyzer	Keysight	N9010A	MY55370528	10Hz-44GHz	Oct. 11, 2023	May 24, 2024	Oct. 10, 2024	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	NCR	May 24, 2024	NCR	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 06, 2023	May 24, 2024	Jul. 05, 2024	Conducted (TH01-KS)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	Apr. 09, 2024	May 30, 2024	Apr. 08, 2025	Radiation (03CH03-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 28, 2022	May 30, 2024	Jun. 27, 2024	Radiation (03CH03-SZ)
EXA Spectrum Anaiyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	Apr. 09, 2024	May 30, 2024	Apr. 08, 2025	Radiation (03CH03-SZ
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz-2GHz	Aug. 20, 2023	May 30, 2024	Aug. 19, 2025	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	Apr. 09, 2024	May 30, 2024	Apr. 08, 2025	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 18, 2023	May 30, 2024	Oct. 17, 2024	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 07, 2023	May 30, 2024	Jul.06, 2024	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 09, 2024	May 30, 2024	Apr. 08, 2025	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 27, 2023	May 30, 2024	Dec. 26, 2024	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010002729	N/A	Oct. 18, 2023	May 30, 2024	Oct. 17, 2024	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	May 30, 2024	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	May 30, 2024	NCR	Radiation (03CH03-SZ)

NCR: No Calibration Required

6 Measurement Uncertainty

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 Conducted Measurement

Conducted Spurious Emission & Bandedge	**±2.26 dB**
Occupied Channel Bandwidth	**±0.1%**
Conducted Power	**±0.46 dB**
Peak to Average Ratio	**±0.46 dB**
Frequency Stability	**±0.4 Hz**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.0dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.6dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.8dB**

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

Appendix A. Test Results of Conducted Test

Test Engineer :	Smile Wang	**Temperature :**	22~23℃
		Relative Humidity :	40~42%

Software Version: 23.06.1602

FR1 N77(ANT8)_SCS15kHz

Transmitter Conducted Output Power and EIRP, (G_T - L_C)=-0.5dB

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
77	15	50	631667	3475.005	DFT-s-OFDM PI/2 BPSK	135@67	25.72	25.22	0.3327
77	15	50	631667	3475.005	DFT-s-OFDM PI/2 BPSK	1@1	25.52	25.02	0.3177
77	15	50	631667	3475.005	DFT-s-OFDM PI/2 BPSK	1@268	25.46	24.96	0.3133
77	15	50	631667	3475.005	DFT-s-OFDM QPSK	135@67	25.76	25.26	0.3357
77	15	50	631667	3475.005	DFT-s-OFDM QPSK	1@1	25.69	25.19	0.3304
77	15	50	631667	3475.005	DFT-s-OFDM QPSK	1@268	25.44	24.94	0.3119
77	15	50	631667	3475.005	DFT-s-OFDM 16 QAM	135@67	24.76	24.26	0.2667
77	15	50	631667	3475.005	DFT-s-OFDM 16 QAM	1@1	24.65	24.15	0.2600
77	15	50	631667	3475.005	DFT-s-OFDM 16 QAM	1@268	24.52	24.02	0.2523
77	15	50	631667	3475.005	DFT-s-OFDM 64 QAM	135@67	23.28	22.78	0.1897
77	15	50	631667	3475.005	DFT-s-OFDM 64 QAM	1@1	23.17	22.67	0.1849
77	15	50	631667	3475.005	DFT-s-OFDM 64 QAM	1@268	23.1	22.6	0.1820
77	15	50	631667	3475.005	DFT-s-OFDM 256 QAM	135@67	21.24	20.74	0.1186
77	15	50	631667	3475.005	DFT-s-OFDM 256 QAM	1@1	20.86	20.36	0.1086
77	15	50	631667	3475.005	DFT-s-OFDM 256 QAM	1@268	20.72	20.22	0.1052
77	15	50	631667	3475.005	CP-OFDM QPSK	135@67	24.27	23.77	0.2382
77	15	50	631667	3475.005	CP-OFDM QPSK	1@1	24.19	23.69	0.2339
77	15	50	631667	3475.005	CP-OFDM QPSK	1@268	23.9	23.4	0.2188
77	15	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	135@67	25.67	25.17	0.3289
77	15	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.55	25.05	0.3199
77	15	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@268	25.44	24.94	0.3119
77	15	50	633334	3500.01	DFT-s-OFDM QPSK	135@67	25.71	25.21	0.3319
77	15	50	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.55	25.05	0.3199
77	15	50	633334	3500.01	DFT-s-OFDM QPSK	1@268	25.49	24.99	0.3155
77	15	50	633334	3500.01	DFT-s-OFDM 16 QAM	135@67	24.74	24.24	0.2655
77	15	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.69	24.19	0.2624
77	15	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@268	24.49	23.99	0.2506
77	15	50	633334	3500.01	DFT-s-OFDM 64 QAM	135@67	23.24	22.74	0.1879
77	15	50	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.23	22.73	0.1875
77	15	50	633334	3500.01	DFT-s-OFDM 64 QAM	1@268	23.06	22.56	0.1803
77	15	50	633334	3500.01	DFT-s-OFDM 256 QAM	135@67	21.18	20.68	0.1169
77	15	50	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	20.89	20.39	0.1094
77	15	50	633334	3500.01	DFT-s-OFDM 256 QAM	1@268	20.65	20.15	0.1035
77	15	50	633334	3500.01	CP-OFDM QPSK	135@67	24.2	23.7	0.2344
77	15	50	633334	3500.01	CP-OFDM QPSK	1@1	24.11	23.61	0.2296
77	15	50	633334	3500.01	CP-OFDM QPSK	1@268	23.88	23.38	0.2178
77	15	50	635000	3525	DFT-s-OFDM PI/2 BPSK	135@67	25.7	25.2	0.3311
77	15	50	635000	3525	DFT-s-OFDM PI/2 BPSK	1@1	25.59	25.09	0.3228
77	15	50	635000	3525	DFT-s-OFDM PI/2 BPSK	1@268	25.51	25.01	0.3170
77	15	50	635000	3525	DFT-s-OFDM QPSK	135@67	25.73	25.23	0.3334

77	15	50	635000	3525	DFT-s-OFDM QPSK	1@1	25.57	25.07	0.3214
77	15	50	635000	3525	DFT-s-OFDM QPSK	1@268	25.53	25.03	0.3184
77	15	50	635000	3525	DFT-s-OFDM 16 QAM	135@67	24.75	24.25	0.2661
77	15	50	635000	3525	DFT-s-OFDM 16 QAM	1@1	24.71	24.21	0.2636
77	15	50	635000	3525	DFT-s-OFDM 16 QAM	1@268	24.58	24.08	0.2559
77	15	50	635000	3525	DFT-s-OFDM 64 QAM	135@67	23.25	22.75	0.1884
77	15	50	635000	3525	DFT-s-OFDM 64 QAM	1@1	23.32	22.82	0.1914
77	15	50	635000	3525	DFT-s-OFDM 64 QAM	1@268	23.14	22.64	0.1837
77	15	50	635000	3525	DFT-s-OFDM 256 QAM	135@67	21.18	20.68	0.1169
77	15	50	635000	3525	DFT-s-OFDM 256 QAM	1@1	20.92	20.42	0.1102
77	15	50	635000	3525	DFT-s-OFDM 256 QAM	1@268	20.7	20.2	0.1047
77	15	50	635000	3525	CP-OFDM QPSK	135@67	24.25	23.75	0.2371
77	15	50	635000	3525	CP-OFDM QPSK	1@1	24.28	23.78	0.2388
77	15	50	635000	3525	CP-OFDM QPSK	1@268	23.92	23.42	0.2198
77	15	10	630334	3455.01	DFT-s-OFDM PI/2 BPSK	1@1	25.74	25.24	0.3342
77	15	10	630334	3455.01	DFT-s-OFDM QPSK	1@1	25.74	25.24	0.3342
77	15	10	630334	3455.01	DFT-s-OFDM 16 QAM	1@1	24.99	24.49	0.2812
77	15	10	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.75	25.25	0.3350
77	15	10	633334	3500.01	DFT-s-OFDM QPSK	1@1	26	25.5	0.3548
77	15	10	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.82	24.32	0.2704
77	15	10	636333	3544.995	DFT-s-OFDM PI/2 BPSK	1@1	25.79	25.29	0.3381
77	15	10	636333	3544.995	DFT-s-OFDM QPSK	1@1	25.76	25.26	0.3357
77	15	10	636333	3544.995	DFT-s-OFDM 16 QAM	1@1	24.89	24.39	0.2748
77	15	15	630500	3457.5	DFT-s-OFDM PI/2 BPSK	1@1	25.68	25.18	0.3296
77	15	15	630500	3457.5	DFT-s-OFDM QPSK	1@1	25.67	25.17	0.3289
77	15	15	630500	3457.5	DFT-s-OFDM 16 QAM	1@1	24.79	24.29	0.2685
77	15	15	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.67	25.17	0.3289
77	15	15	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.66	25.16	0.3281
77	15	15	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.81	24.31	0.2698
77	15	15	636166	3542.49	DFT-s-OFDM PI/2 BPSK	1@1	25.73	25.23	0.3334
77	15	15	636166	3542.49	DFT-s-OFDM QPSK	1@1	25.71	25.21	0.3319
77	15	15	636166	3542.49	DFT-s-OFDM 16 QAM	1@1	24.85	24.35	0.2723
77	15	20	630667	3460.005	DFT-s-OFDM PI/2 BPSK	1@1	25.64	25.14	0.3266
77	15	20	630667	3460.005	DFT-s-OFDM QPSK	1@1	25.64	25.14	0.3266
77	15	20	630667	3460.005	DFT-s-OFDM 16 QAM	1@1	24.73	24.23	0.2649
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.62	25.12	0.3251
77	15	20	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.65	25.15	0.3273
77	15	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.82	24.32	0.2704
77	15	20	636000	3540	DFT-s-OFDM PI/2 BPSK	1@1	25.69	25.19	0.3304
77	15	20	636000	3540	DFT-s-OFDM QPSK	1@1	25.7	25.2	0.3311
77	15	20	636000	3540	DFT-s-OFDM 16 QAM	1@1	24.88	24.38	0.2742
77	15	25	630834	3462.51	DFT-s-OFDM PI/2 BPSK	1@1	25.53	25.03	0.3184
77	15	25	630834	3462.51	DFT-s-OFDM QPSK	1@1	25.55	25.05	0.3199
77	15	25	630834	3462.51	DFT-s-OFDM 16 QAM	1@1	24.75	24.25	0.2661
77	15	25	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.59	25.09	0.3228
77	15	25	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.75	25.25	0.3350
77	15	25	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.76	24.26	0.2667
77	15	25	635833	3537.495	DFT-s-OFDM PI/2 BPSK	1@1	25.61	25.11	0.3243

77	15	25	635833	3537.495	DFT-s-OFDM QPSK	1@1	25.63	25.13	0.3258
77	15	25	635833	3537.495	DFT-s-OFDM 16 QAM	1@1	24.8	24.3	0.2692
77	15	30	631000	3465	DFT-s-OFDM PI/2 BPSK	1@1	25.58	25.08	0.3221
77	15	30	631000	3465	DFT-s-OFDM QPSK	1@1	25.59	25.09	0.3228
77	15	30	631000	3465	DFT-s-OFDM 16 QAM	1@1	24.71	24.21	0.2636
77	15	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.63	25.13	0.3258
77	15	30	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.63	25.13	0.3258
77	15	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.81	24.31	0.2698
77	15	30	635666	3534.99	DFT-s-OFDM PI/2 BPSK	1@1	25.67	25.17	0.3289
77	15	30	635666	3534.99	DFT-s-OFDM QPSK	1@1	25.66	25.16	0.3281
77	15	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@1	24.82	24.32	0.2704
77	15	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	1@1	25.54	25.04	0.3192
77	15	40	631334	3470.01	DFT-s-OFDM QPSK	1@1	25.55	25.05	0.3199
77	15	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@1	24.66	24.16	0.2606
77	15	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.56	25.06	0.3206
77	15	40	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.56	25.06	0.3206
77	15	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.7	24.2	0.2630
77	15	40	635333	3529.995	DFT-s-OFDM PI/2 BPSK	1@1	25.62	25.12	0.3251
77	15	40	635333	3529.995	DFT-s-OFDM QPSK	1@1	25.82	25.32	0.3404
77	15	40	635333	3529.995	DFT-s-OFDM 16 QAM	1@1	24.74	24.24	0.2655

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Frequency Stability

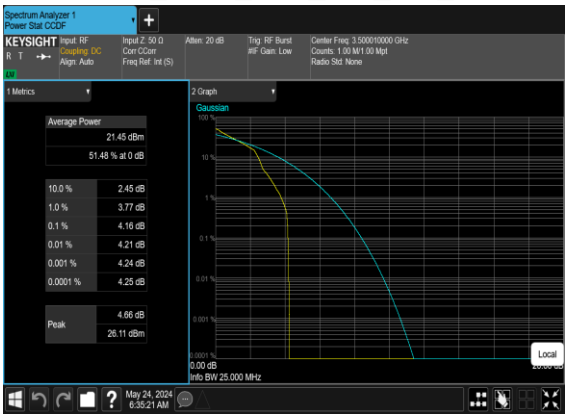
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	0.0016	**PASS**	NV
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	0.0043	**PASS**	LV
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	0.0021	**PASS**	HV
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	0.0039	**PASS**	-30℃
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	0.0009	**PASS**	-20℃
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	0.0002	**PASS**	-10℃
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	0.0017	**PASS**	0℃
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	0.0006	**PASS**	10℃
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	0.0013	**PASS**	20℃
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	0.0051	**PASS**	30℃
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	0.0032	**PASS**	40℃
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	0.0033	**PASS**	50℃

Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	100@0	4.16	13	**PASS**
77	15	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@0	4.16	13	**PASS**
77	15	20	633334	3500.01	DFT-s-OFDM QPSK	100@0	5.12	13	**PASS**
77	15	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	6.1	13	**PASS**

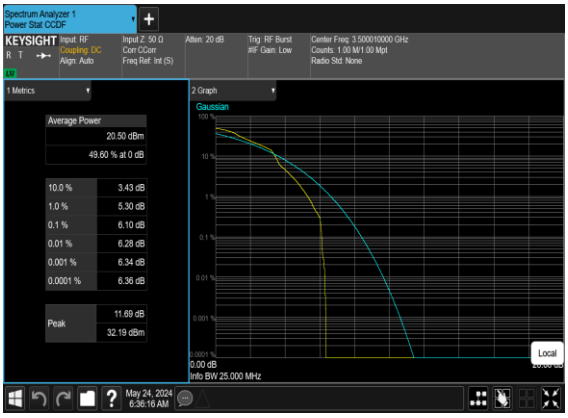
N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

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



N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH

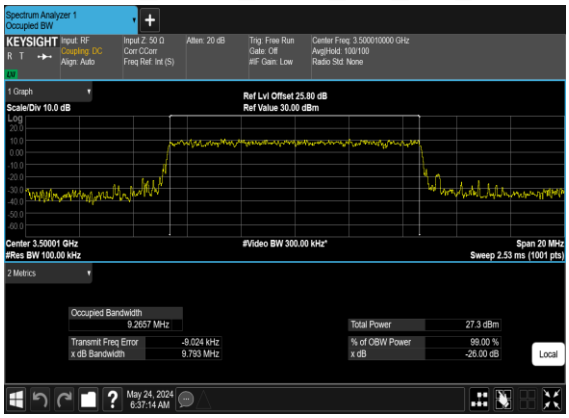
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



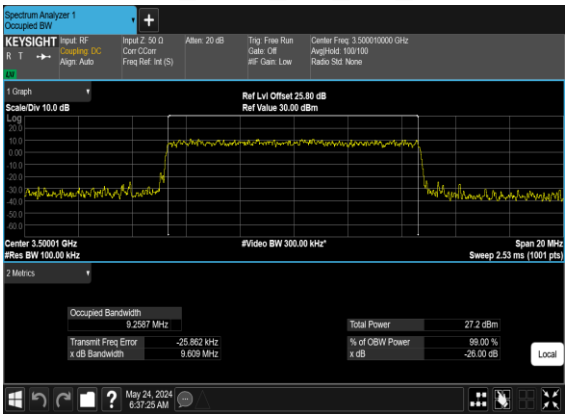
Occupied Bandwidth

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
77	15	10	633334	3500.01	CP-OFDM QPSK	52@0	9.2657	9.793
77	15	10	633334	3500.01	CP-OFDM 16 QAM	52@0	9.2587	9.609
77	15	10	633334	3500.01	CP-OFDM 64 QAM	52@0	9.2825	9.687
77	15	10	633334	3500.01	CP-OFDM 256 QAM	52@0	9.2551	9.668
77	15	15	633334	3500.01	CP-OFDM QPSK	79@0	14.116	14.59
77	15	15	633334	3500.01	CP-OFDM 16 QAM	79@0	14.077	14.68
77	15	15	633334	3500.01	CP-OFDM 64 QAM	79@0	14.11	14.75
77	15	15	633334	3500.01	CP-OFDM 256 QAM	79@0	14.095	14.57
77	15	20	633334	3500.01	CP-OFDM QPSK	106@0	18.845	19.6
77	15	20	633334	3500.01	CP-OFDM 16 QAM	106@0	18.893	19.54
77	15	20	633334	3500.01	CP-OFDM 64 QAM	106@0	18.857	19.54
77	15	20	633334	3500.01	CP-OFDM 256 QAM	106@0	18.873	19.55
77	15	25	633334	3500.01	CP-OFDM QPSK	133@0	23.708	24.8
77	15	25	633334	3500.01	CP-OFDM 16 QAM	133@0	23.702	24.69
77	15	25	633334	3500.01	CP-OFDM 64 QAM	133@0	23.728	24.67
77	15	25	633334	3500.01	CP-OFDM 256 QAM	133@0	23.641	24.58
77	15	30	633334	3500.01	CP-OFDM QPSK	160@0	28.537	29.45
77	15	30	633334	3500.01	CP-OFDM 16 QAM	160@0	28.541	29.52
77	15	30	633334	3500.01	CP-OFDM 64 QAM	160@0	28.508	30.66
77	15	30	633334	3500.01	CP-OFDM 256 QAM	160@0	28.446	29.53
77	15	40	633334	3500.01	CP-OFDM QPSK	216@0	38.598	39.82
77	15	40	633334	3500.01	CP-OFDM 16 QAM	216@0	38.563	39.9
77	15	40	633334	3500.01	CP-OFDM 64 QAM	216@0	38.523	39.8
77	15	40	633334	3500.01	CP-OFDM 256 QAM	216@0	38.577	39.82
77	15	50	633334	3500.01	CP-OFDM QPSK	270@0	48.09	49.77
77	15	50	633334	3500.01	CP-OFDM 16 QAM	270@0	48.159	49.72
77	15	50	633334	3500.01	CP-OFDM 64 QAM	270@0	48.051	49.67
77	15	50	633334	3500.01	CP-OFDM 256 QAM	270@0	48.419	49.86

N77(10M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



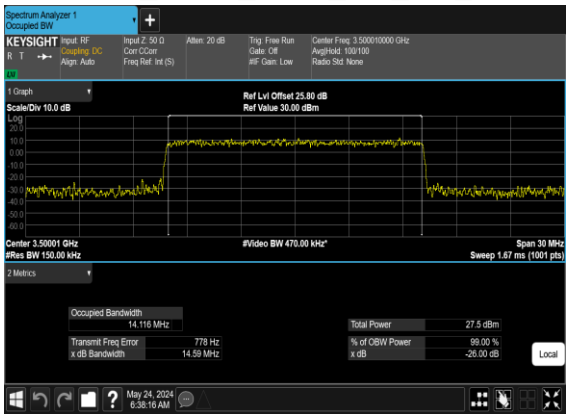
N77(10M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



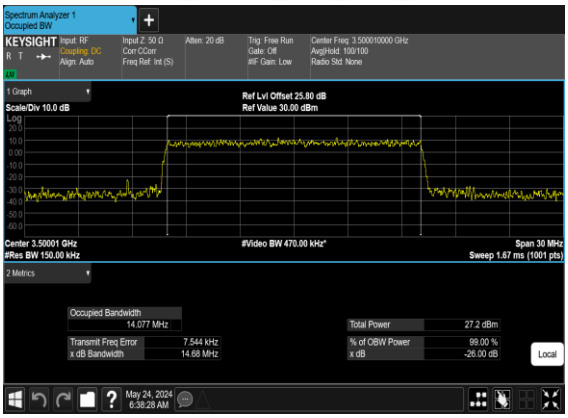
N77(10M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N77(10M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

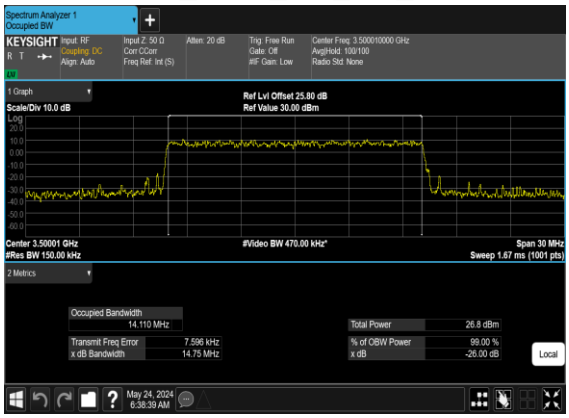
N77(15M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



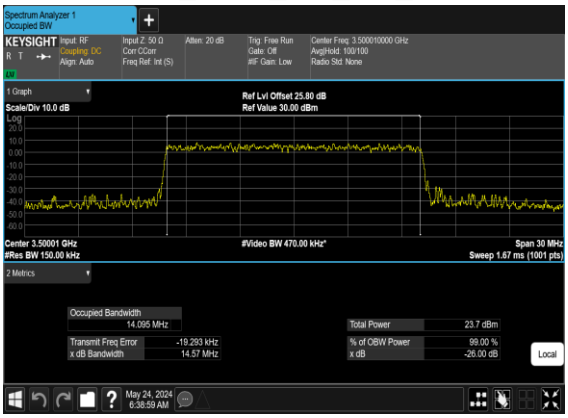
N77(15M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



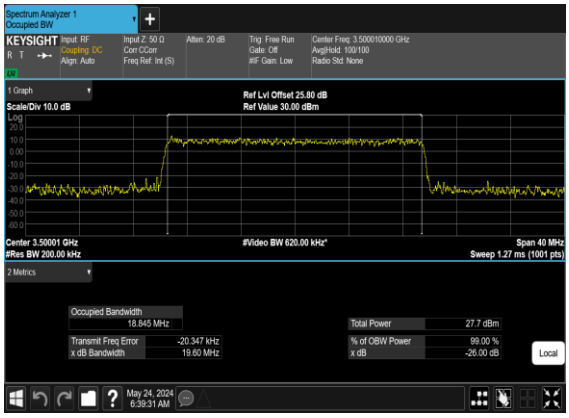
N77(15M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



N77(15M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



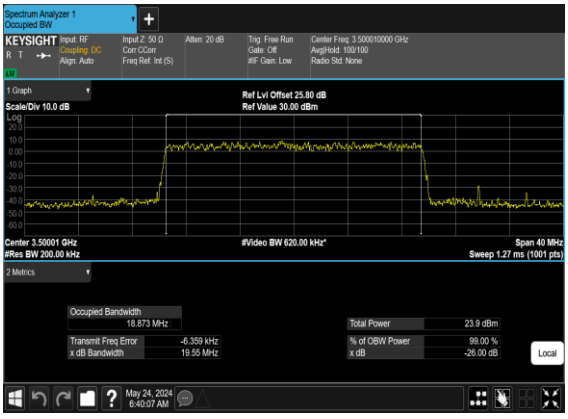
N77(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



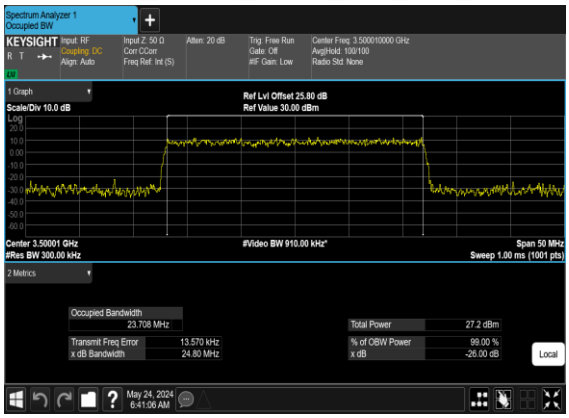
N77(20M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

N77(20M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

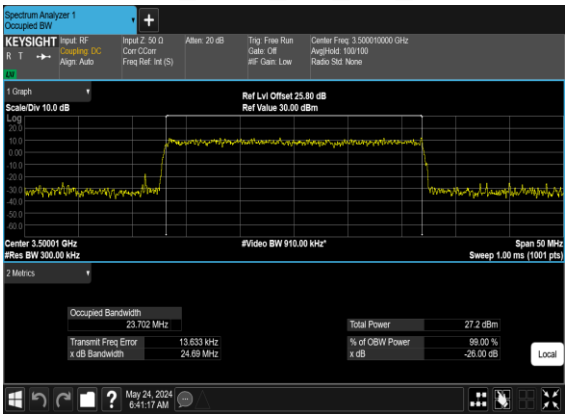
N77(20M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



N77(25M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

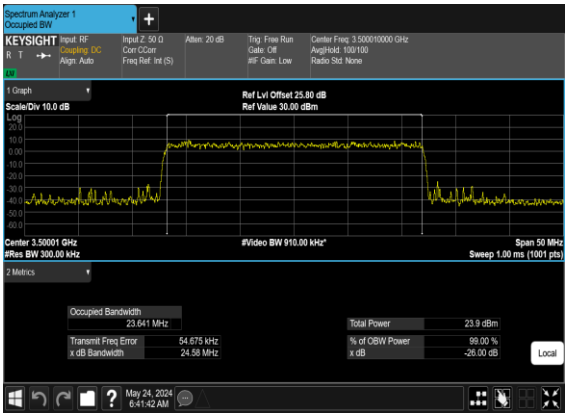


N77(25M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



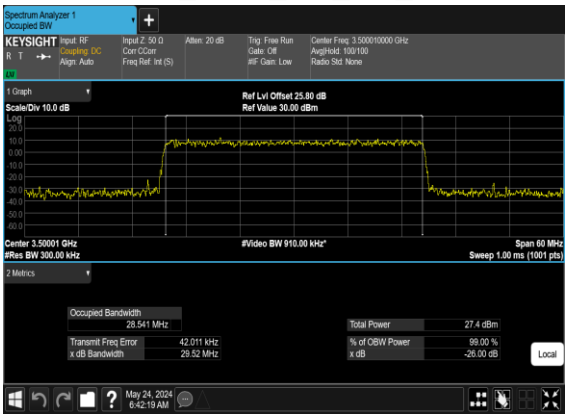
N77(25M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N77(25M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

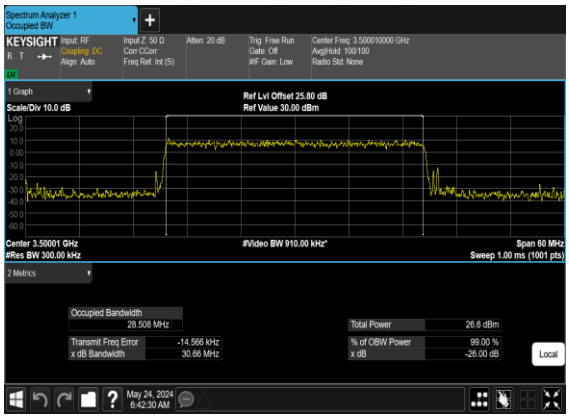


N77(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

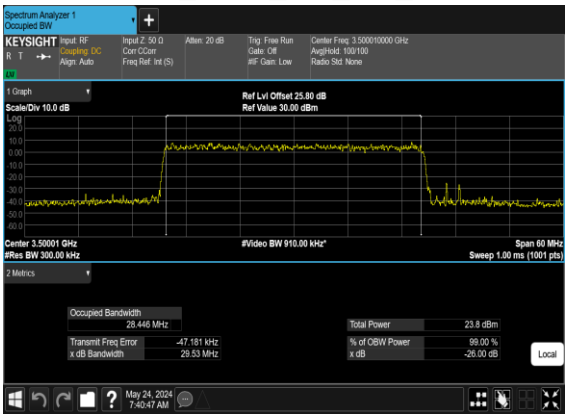
N77(30M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



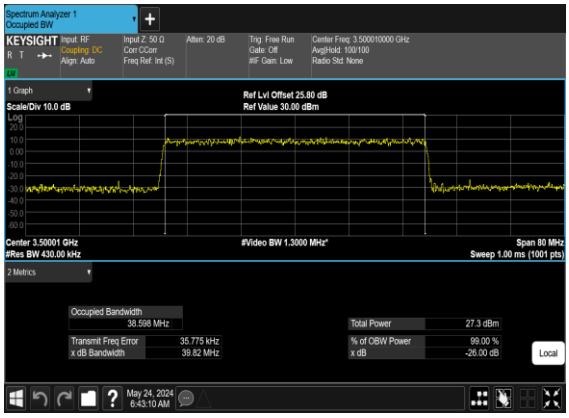
N77(30M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



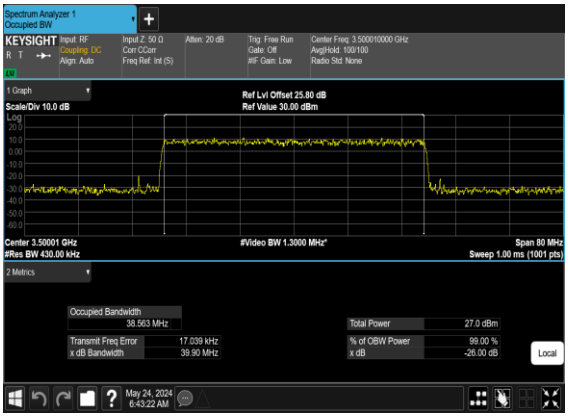
N77(30M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



N77(40M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

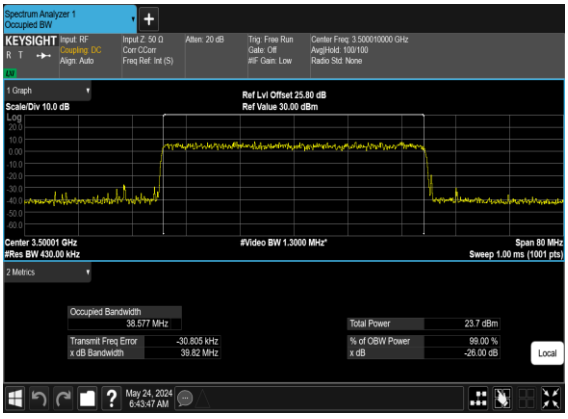


N77(40M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

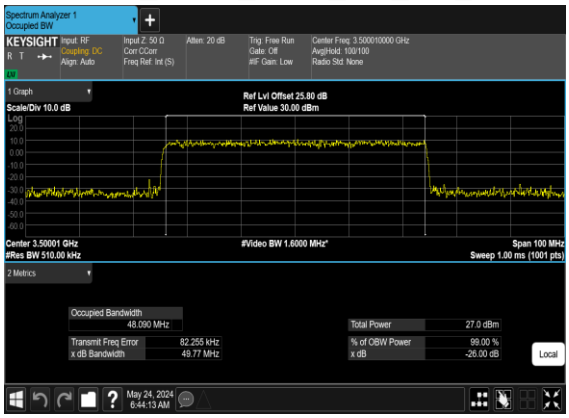


N77(40M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

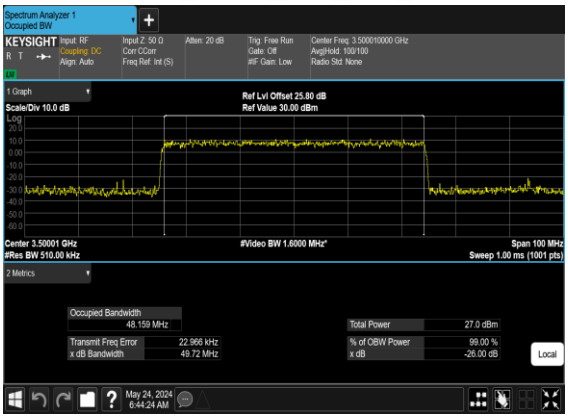
N77(40M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



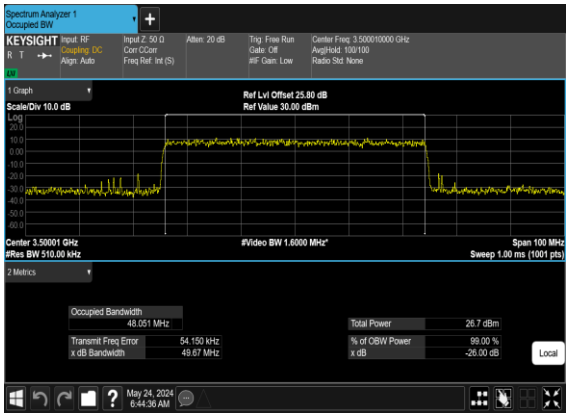
N77(50M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



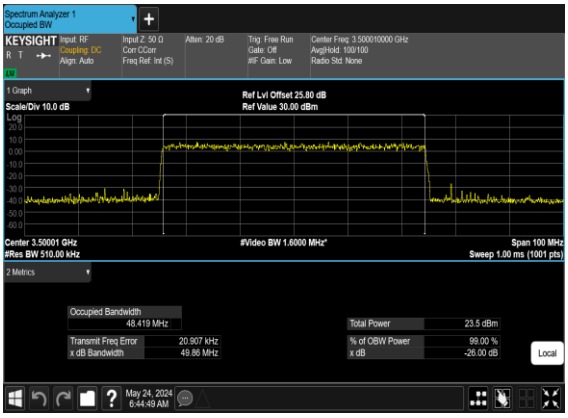
N77(50M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N77(50M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



N77(50M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

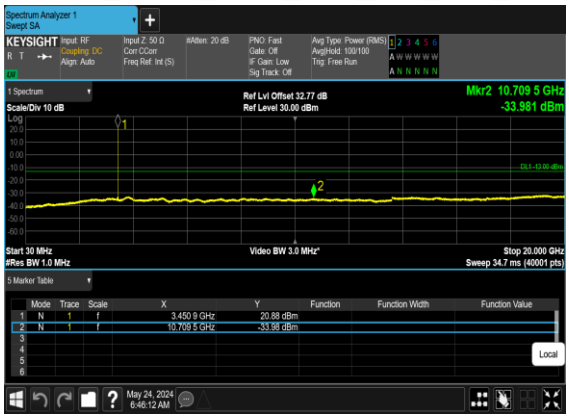


Conducted Spurious Emissions

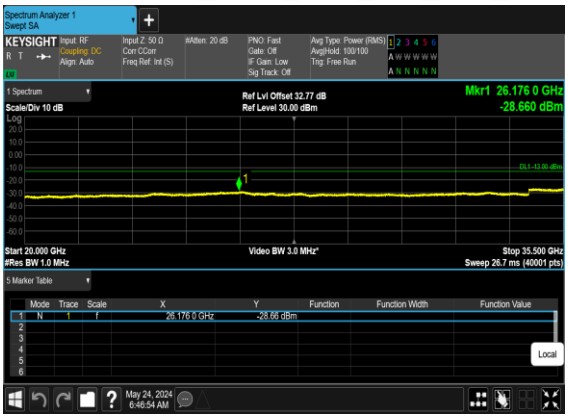
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	15	10	630334	3455.01	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	15	10	630334	3455.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	10	630334	3455.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	10	630334	3455.01	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	15	10	630334	3455.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	10	630334	3455.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	10	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	15	10	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	10	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	10	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	15	10	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	10	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	10	636333	3544.995	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	15	10	636333	3544.995	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	10	636333	3544.995	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	10	636333	3544.995	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	15	10	636333	3544.995	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	10	636333	3544.995	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	30	631000	3465.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	15	30	631000	3465.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	30	631000	3465.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	30	631000	3465.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	15	30	631000	3465.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	30	631000	3465.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	30	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	15	30	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	30	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	30	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	15	30	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	30	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	30	635666	3534.99	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	15	30	635666	3534.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	30	635666	3534.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	30	635666	3534.99	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	15	30	635666	3534.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**

77	15	30	635666	3534.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	50	631667	3475.005	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	15	50	631667	3475.005	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	50	631667	3475.005	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	50	631667	3475.005	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	15	50	631667	3475.005	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	50	631667	3475.005	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	50	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	15	50	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	50	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	50	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	15	50	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	50	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	50	635000	3525.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	15	50	635000	3525.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	50	635000	3525.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	50	635000	3525.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	15	50	635000	3525.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	50	635000	3525.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**

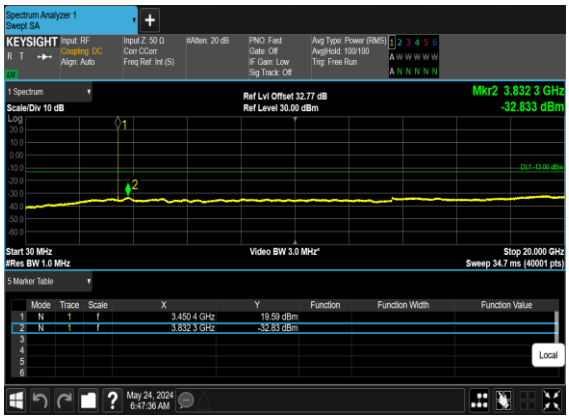
N77(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



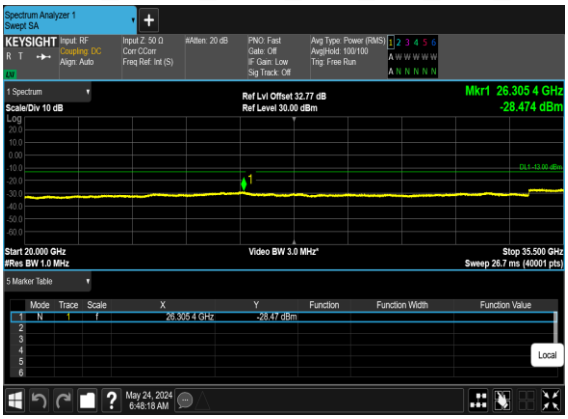
N77(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



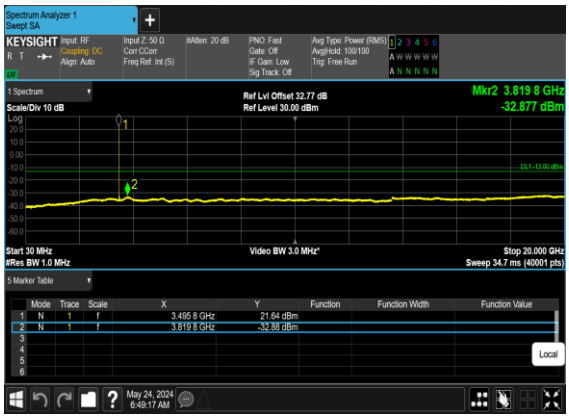
N77(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



N77(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

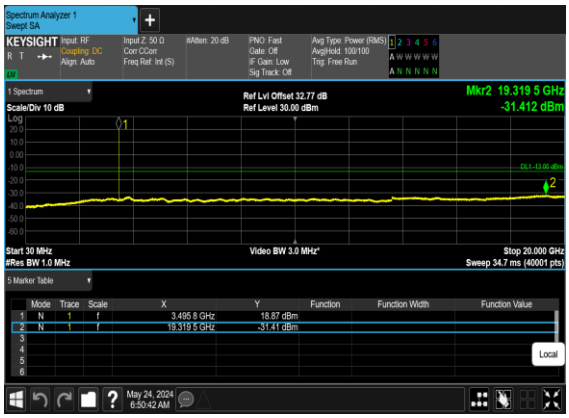


N77(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH

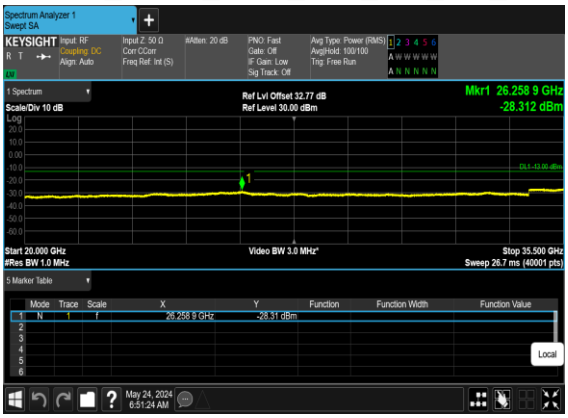


N77(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH

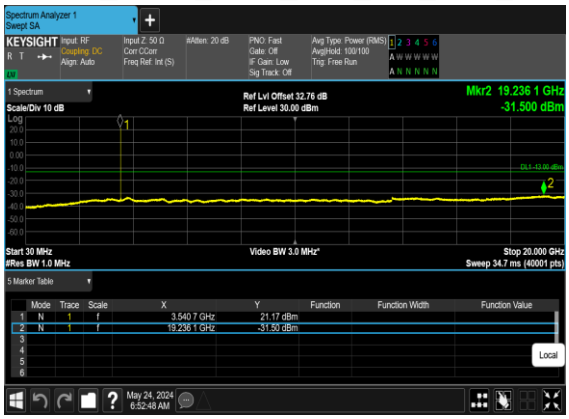
N77(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



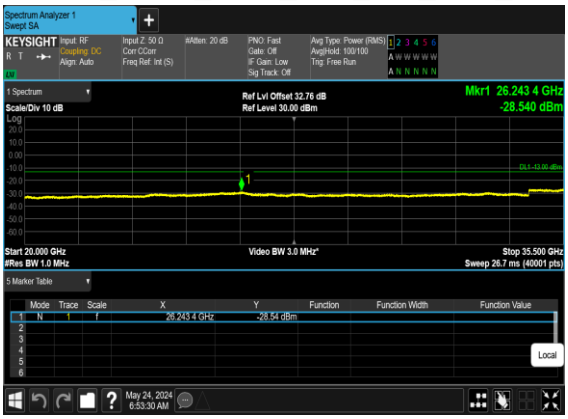
N77(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



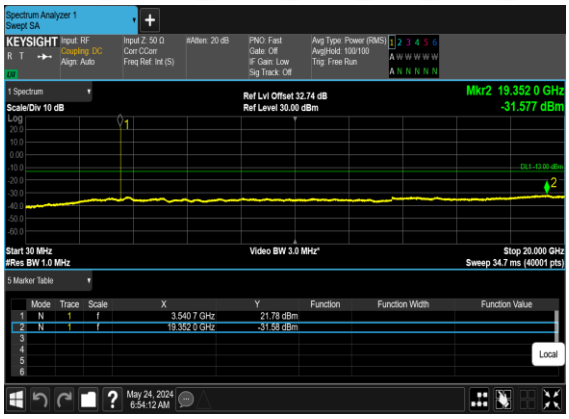
N77(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



N77(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH

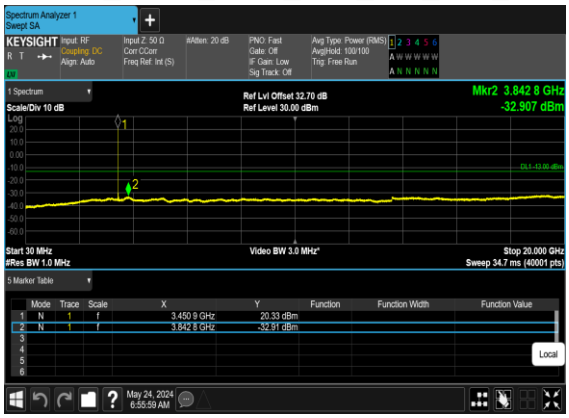


N77(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH

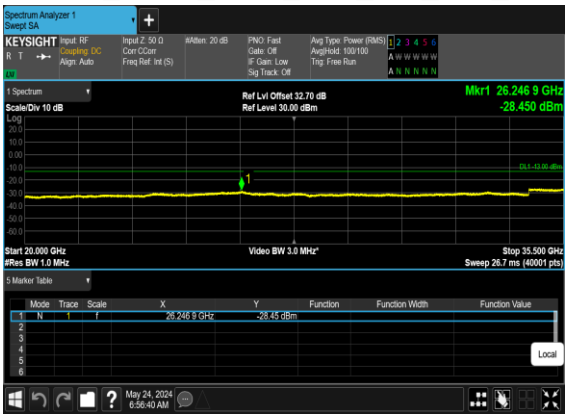


N77(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH

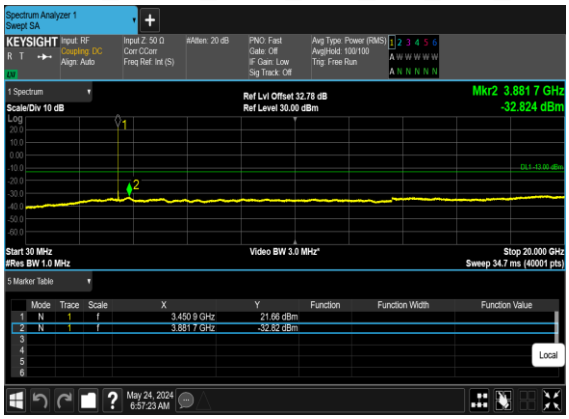
N77(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



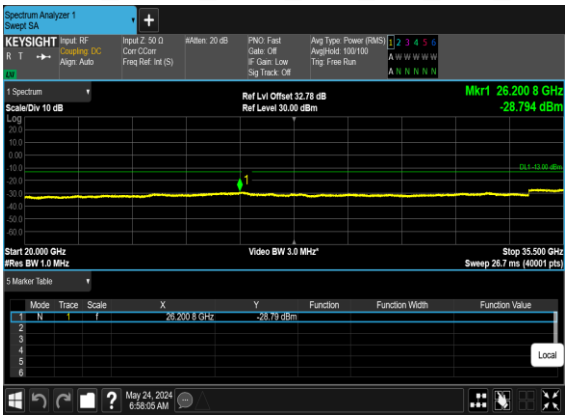
N77(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



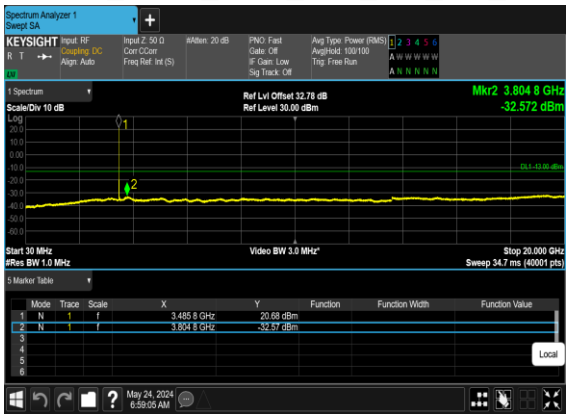
N77(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



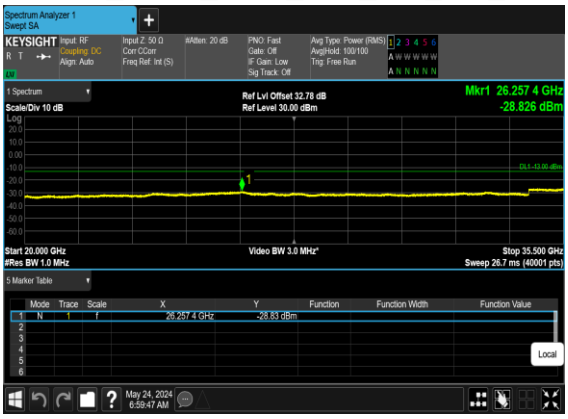
N77(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



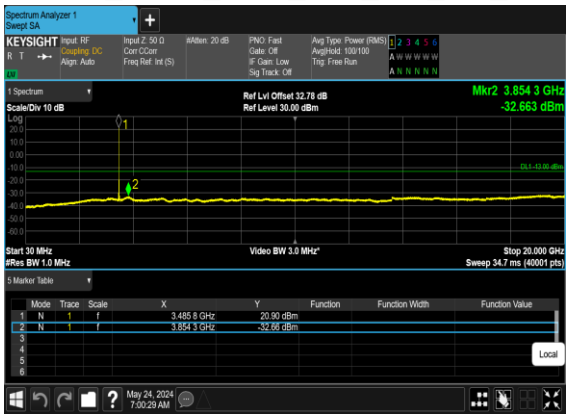
N77(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



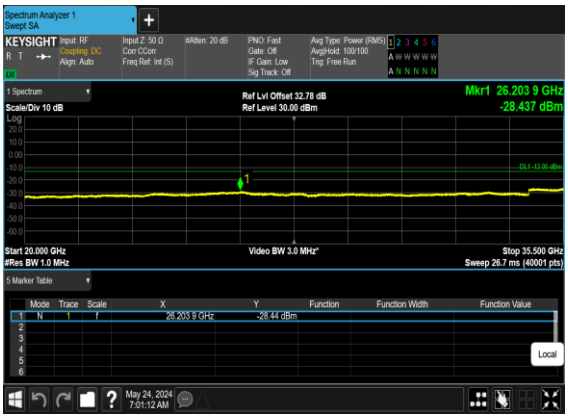
N77(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



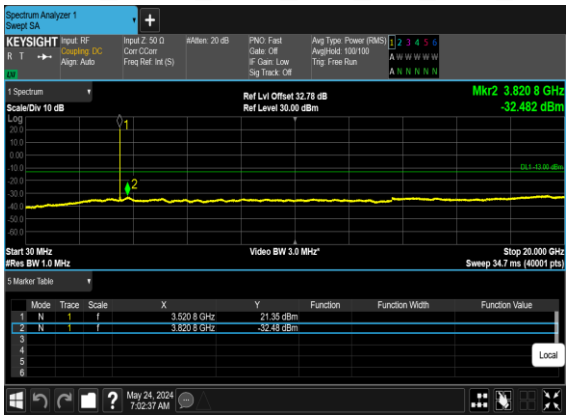
N77(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



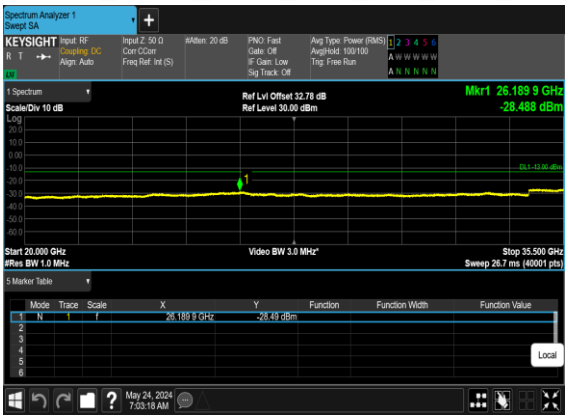
N77(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



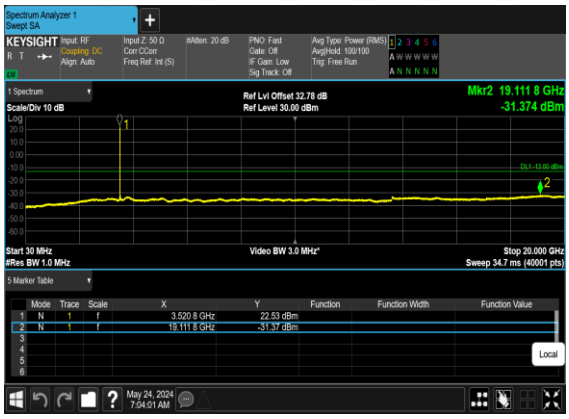
N77(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



N77(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH

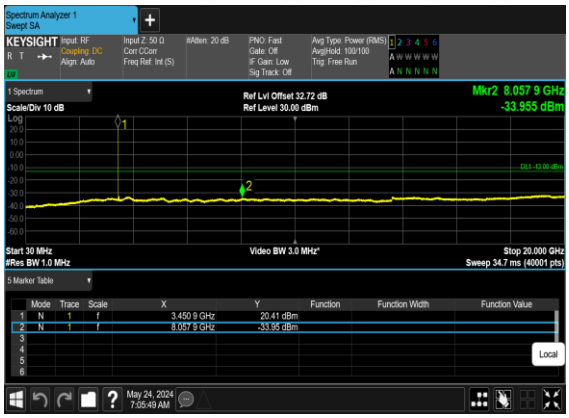


N77(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH

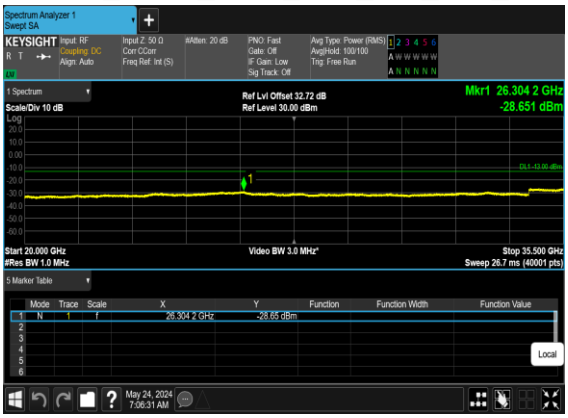


N77(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH

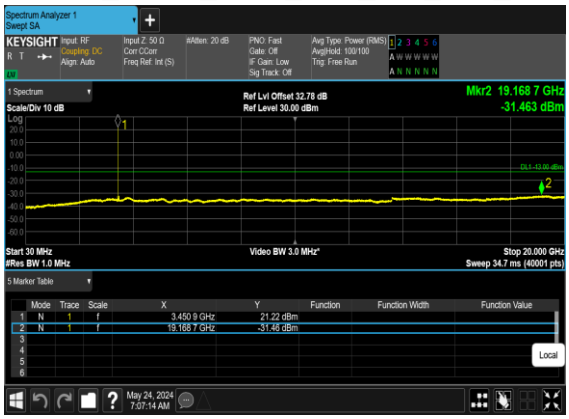
N77(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



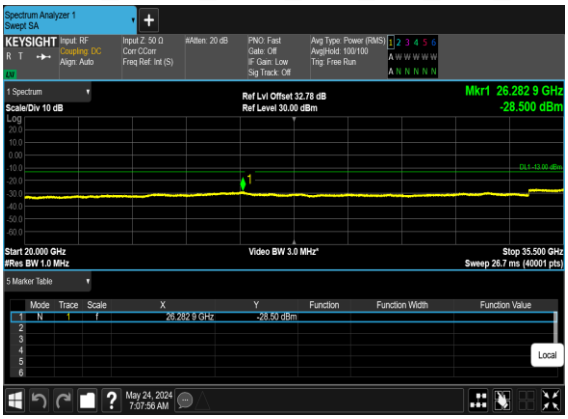
N77(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



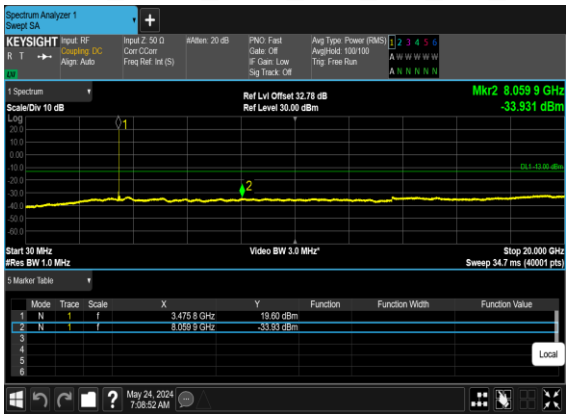
N77(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



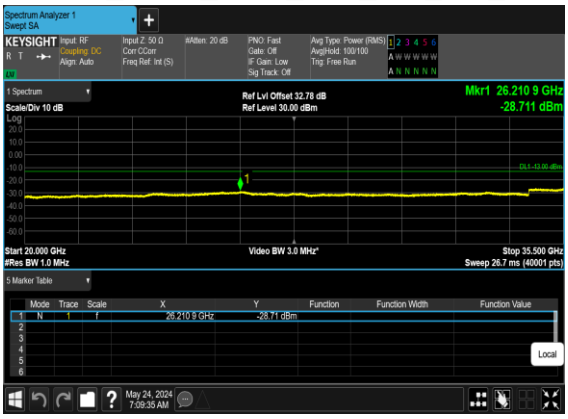
N77(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



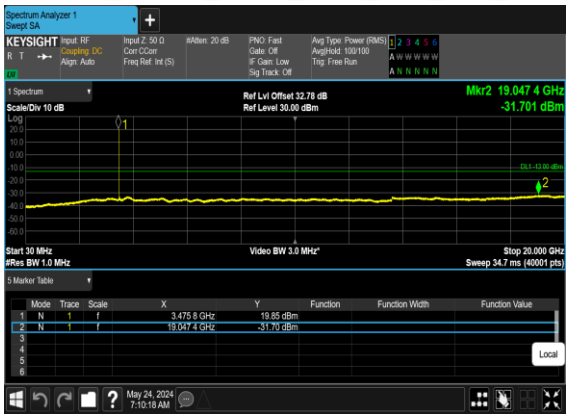
N77(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



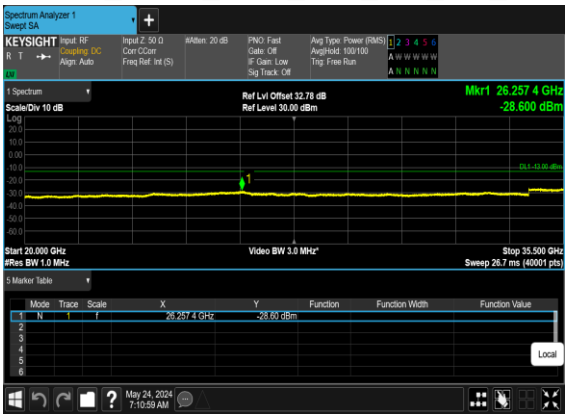
N77(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



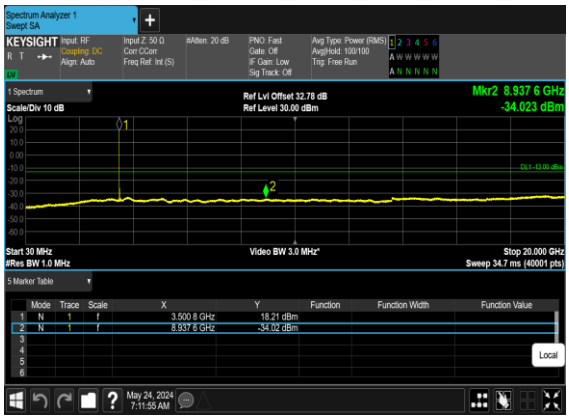
N77(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



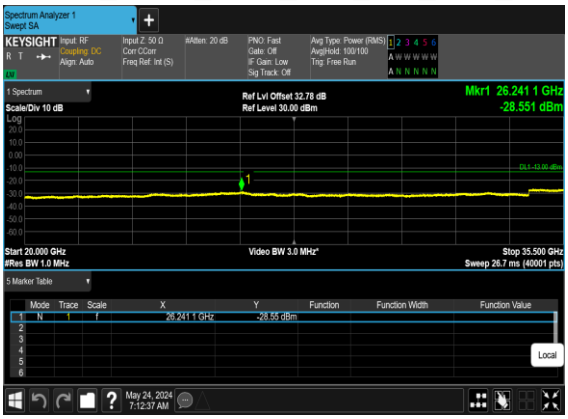
N77(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



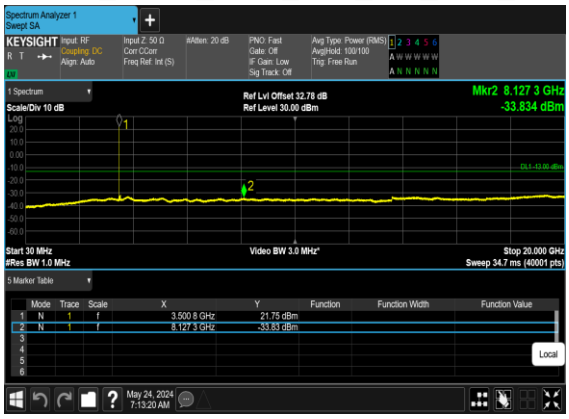
N77(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



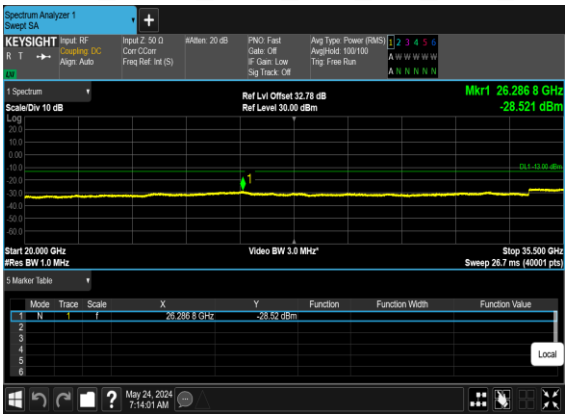
N77(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



N77(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



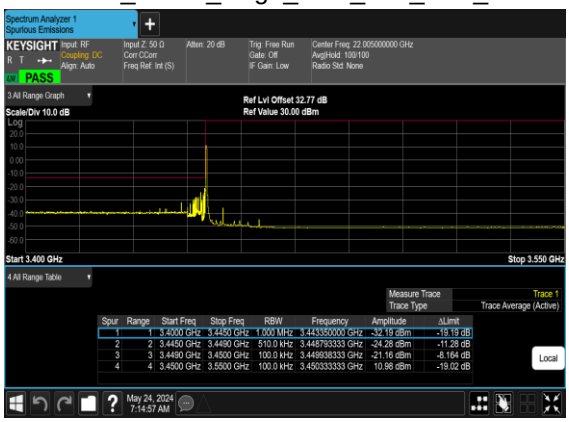
N77(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



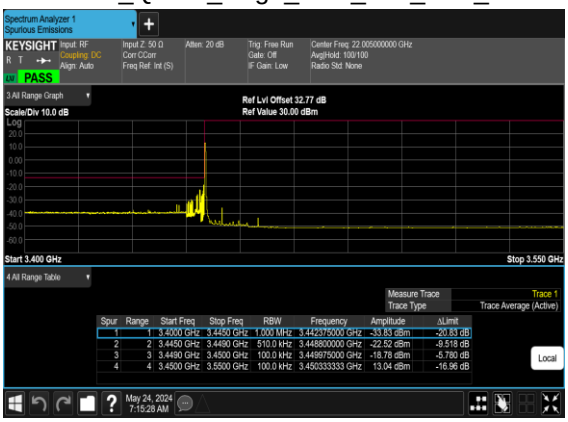
Conducted Band Edge

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	15	10	630334	3455.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	10	630334	3455.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	10	630334	3455.01	DFT-s-OFDM BPSK	50@0	see graph	**PASS**
77	15	10	630334	3455.01	DFT-s-OFDM QPSK	50@0	see graph	**PASS**
77	15	10	636333	3544.995	DFT-s-OFDM BPSK	1@51	see graph	**PASS**
77	15	10	636333	3544.995	DFT-s-OFDM QPSK	1@51	see graph	**PASS**
77	15	10	636333	3544.995	DFT-s-OFDM BPSK	50@0	see graph	**PASS**
77	15	10	636333	3544.995	DFT-s-OFDM QPSK	50@0	see graph	**PASS**
77	15	30	631000	3465.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	30	631000	3465.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	30	631000	3465.0	DFT-s-OFDM BPSK	160@0	see graph	**PASS**
77	15	30	631000	3465.0	DFT-s-OFDM QPSK	160@0	see graph	**PASS**
77	15	30	635666	3534.99	DFT-s-OFDM BPSK	1@159	see graph	**PASS**
77	15	30	635666	3534.99	DFT-s-OFDM QPSK	1@159	see graph	**PASS**
77	15	30	635666	3534.99	DFT-s-OFDM BPSK	160@0	see graph	**PASS**
77	15	30	635666	3534.99	DFT-s-OFDM QPSK	160@0	see graph	**PASS**
77	15	50	631667	3475.005	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	15	50	631667	3475.005	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	15	50	631667	3475.005	DFT-s-OFDM BPSK	270@0	see graph	**PASS**
77	15	50	631667	3475.005	DFT-s-OFDM QPSK	270@0	see graph	**PASS**
77	15	50	635000	3525.0	DFT-s-OFDM BPSK	1@269	see graph	**PASS**
77	15	50	635000	3525.0	DFT-s-OFDM QPSK	1@269	see graph	**PASS**
77	15	50	635000	3525.0	DFT-s-OFDM BPSK	270@0	see graph	**PASS**
77	15	50	635000	3525.0	DFT-s-OFDM QPSK	270@0	see graph	**PASS**

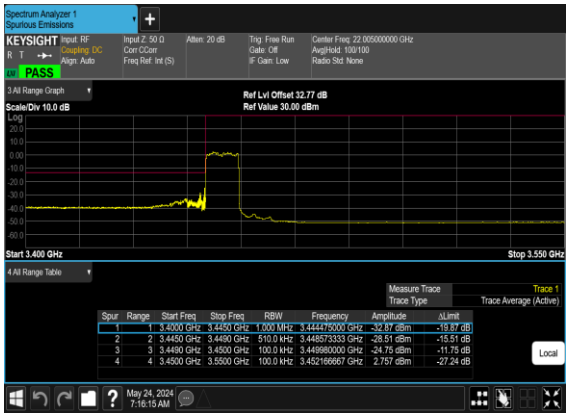
N77(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



N77(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

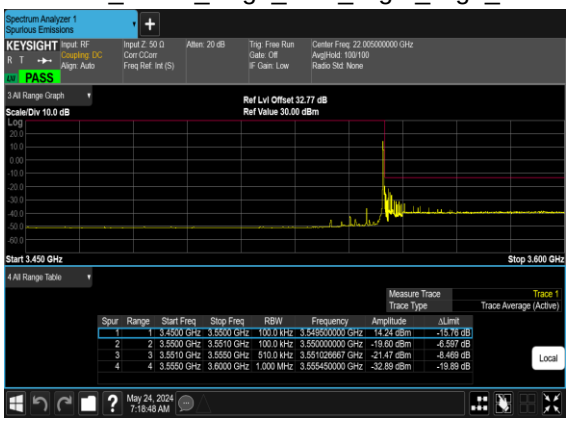


N77(10M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH

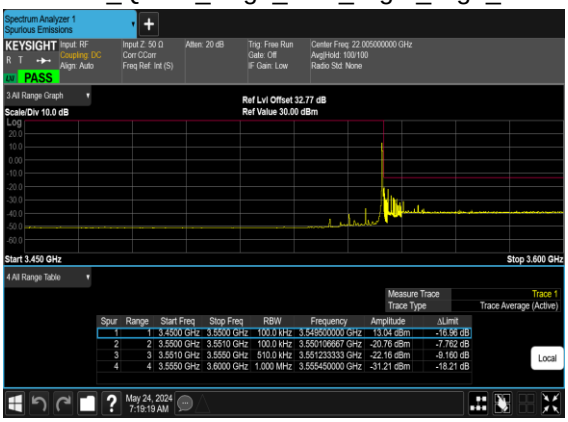


N77(10M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

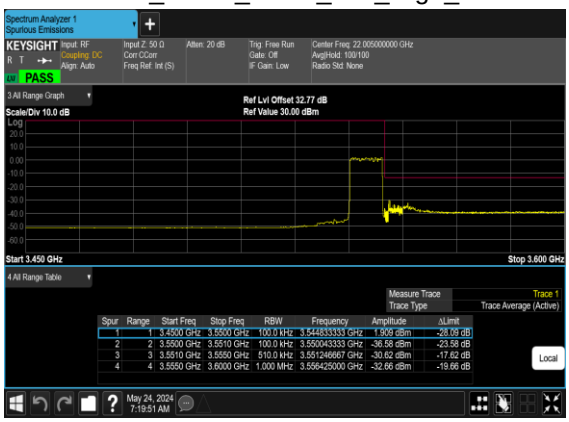
N77(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



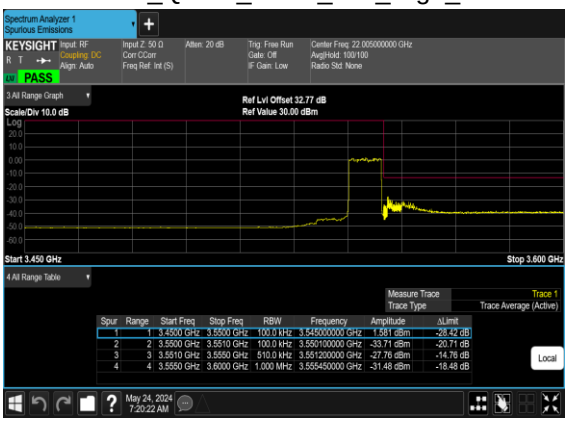
N77(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



N77(10M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



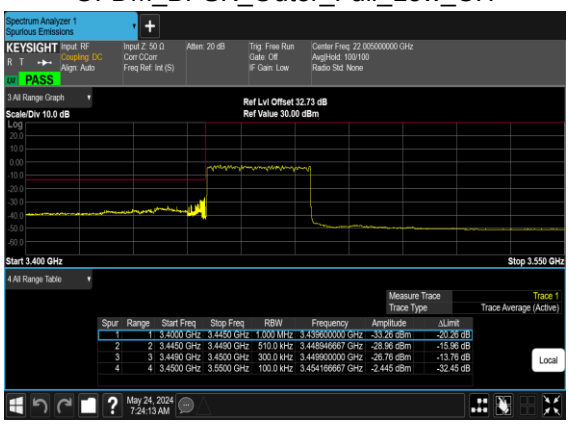
N77(10M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



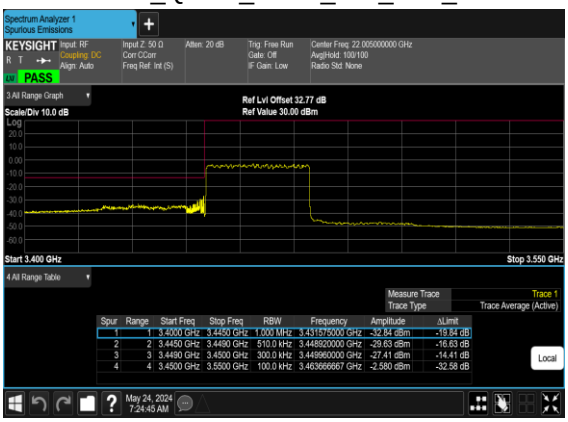
N77(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

N77(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

N77(30M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH

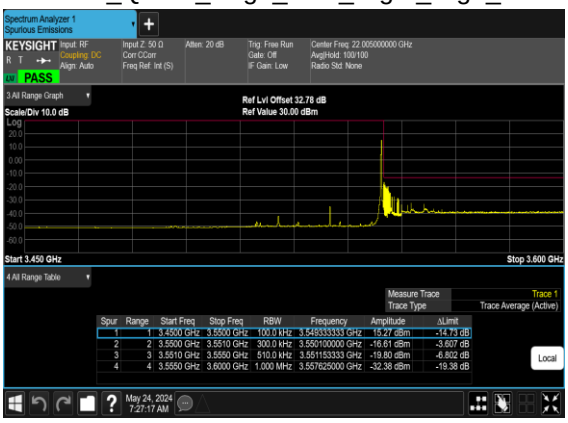


N77(30M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

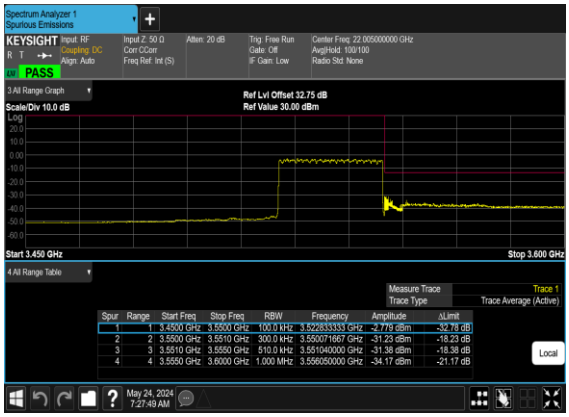


N77(30M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH

N77(30M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH

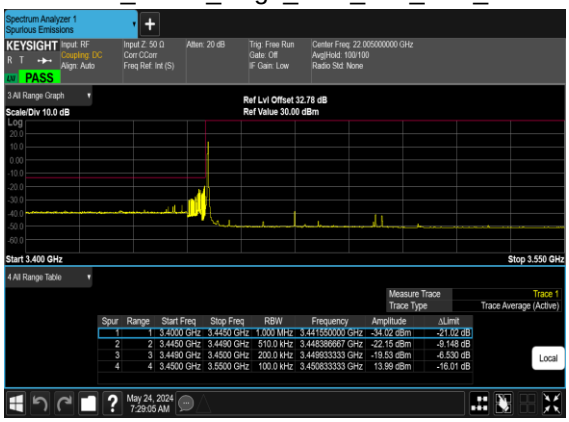


N77(30M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH

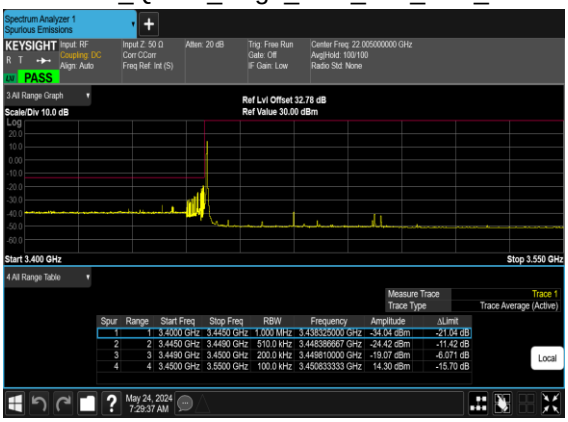


N77(30M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

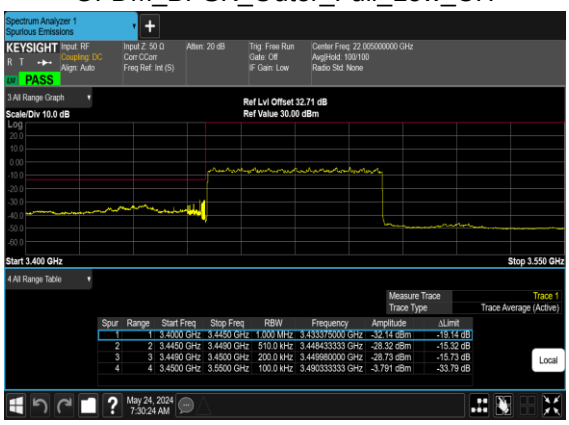
N77(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



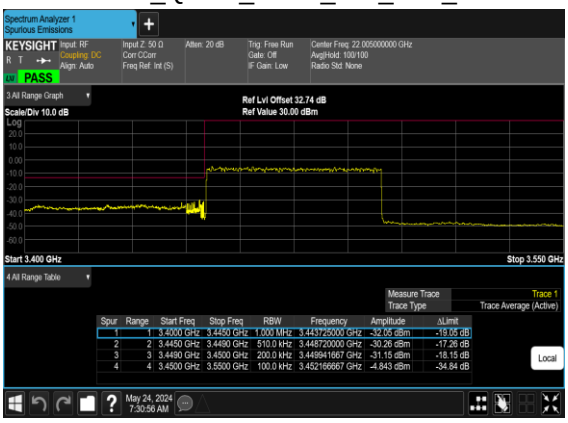
N77(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



N77(50M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



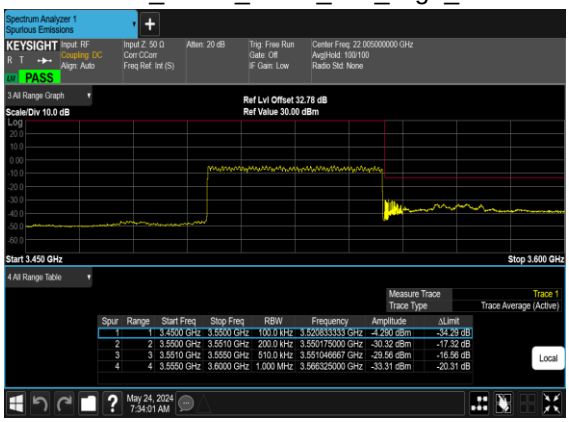
N77(50M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



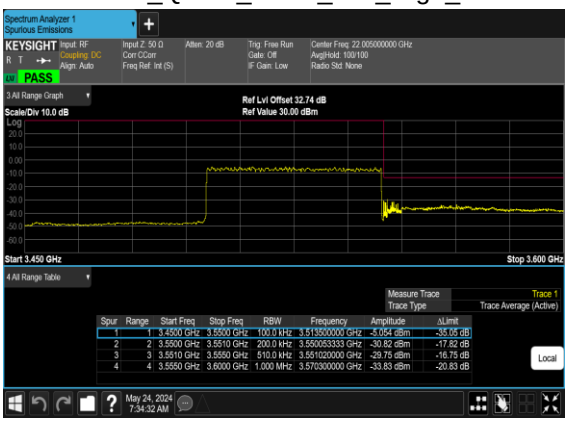
N77(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH

N77(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH

N77(50M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



N77(50M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



Software Version: 23.06.1602

FR1 N77(ANT8)_SCS30kHz

Transmitter Conducted Output Power and EIRP, (G_T - L_C)=-0.5dB

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	135@67	25.37	24.87	0.3069
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.43	24.93	0.3112
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@271	25.36	24.86	0.3062
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	135@67	25.39	24.89	0.3083
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.43	24.93	0.3112
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@271	25.24	24.74	0.2979
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	135@67	24.41	23.91	0.2460
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.7	24.2	0.2630
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@271	24.67	24.17	0.2612
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	135@67	22.92	22.42	0.1746
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	23.36	22.86	0.1932
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@271	23.17	22.67	0.1849
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	135@67	20.86	20.36	0.1086
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	20.63	20.13	0.1030
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@271	20.55	20.05	0.1012
77	30	100	633334	3500.01	CP-OFDM QPSK	137@68	23.87	23.37	0.2173
77	30	100	633334	3500.01	CP-OFDM QPSK	1@1	23.93	23.43	0.2203
77	30	100	633334	3500.01	CP-OFDM QPSK	1@271	24.31	23.81	0.2404
77	30	10	630334	3455.01	DFT-s-OFDM PI/2 BPSK	1@1	25.32	24.82	0.3034
77	30	10	630334	3455.01	DFT-s-OFDM QPSK	1@1	25.32	24.82	0.3034
77	30	10	630334	3455.01	DFT-s-OFDM 16 QAM	1@1	24.51	24.01	0.2518
77	30	10	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.36	24.86	0.3062
77	30	10	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.45	24.95	0.3126
77	30	10	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.57	24.07	0.2553
77	30	10	636332	3544.98	DFT-s-OFDM PI/2 BPSK	1@1	25.48	24.98	0.3148
77	30	10	636332	3544.98	DFT-s-OFDM QPSK	1@1	25.56	25.06	0.3206
77	30	10	636332	3544.98	DFT-s-OFDM 16 QAM	1@1	24.73	24.23	0.2649
77	30	15	630500	3457.5	DFT-s-OFDM PI/2 BPSK	1@1	25.29	24.79	0.3013
77	30	15	630500	3457.5	DFT-s-OFDM QPSK	1@1	25.33	24.83	0.3041
77	30	15	630500	3457.5	DFT-s-OFDM 16 QAM	1@1	24.46	23.96	0.2489
77	30	15	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.32	24.82	0.3034
77	30	15	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.34	24.84	0.3048
77	30	15	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.56	24.06	0.2547
77	30	15	636166	3542.49	DFT-s-OFDM PI/2 BPSK	1@1	25.48	24.98	0.3148
77	30	15	636166	3542.49	DFT-s-OFDM QPSK	1@1	25.49	24.99	0.3155
77	30	15	636166	3542.49	DFT-s-OFDM 16 QAM	1@1	24.66	24.16	0.2606
77	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@1	25.26	24.76	0.2992
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@1	25.54	25.04	0.3192
77	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@1	24.47	23.97	0.2495
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.33	24.83	0.3041

77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.64	25.14	0.3266
77	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.53	24.03	0.2529
77	30	20	636000	3540	DFT-s-OFDM PI/2 BPSK	1@1	25.43	24.93	0.3112
77	30	20	636000	3540	DFT-s-OFDM QPSK	1@1	25.48	24.98	0.3148
77	30	20	636000	3540	DFT-s-OFDM 16 QAM	1@1	24.62	24.12	0.2582
77	30	25	630834	3462.51	DFT-s-OFDM PI/2 BPSK	1@1	25.2	24.7	0.2951
77	30	25	630834	3462.51	DFT-s-OFDM QPSK	1@1	25.27	24.77	0.2999
77	30	25	630834	3462.51	DFT-s-OFDM 16 QAM	1@1	24.42	23.92	0.2466
77	30	25	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.25	24.75	0.2985
77	30	25	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.27	24.77	0.2999
77	30	25	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.47	23.97	0.2495
77	30	25	635832	3537.48	DFT-s-OFDM PI/2 BPSK	1@1	25.33	24.83	0.3041
77	30	25	635832	3537.48	DFT-s-OFDM QPSK	1@1	25.39	24.89	0.3083
77	30	25	635832	3537.48	DFT-s-OFDM 16 QAM	1@1	24.56	24.06	0.2547
77	30	30	631000	3465	DFT-s-OFDM PI/2 BPSK	1@1	25.2	24.7	0.2951
77	30	30	631000	3465	DFT-s-OFDM QPSK	1@1	25.3	24.8	0.3020
77	30	30	631000	3465	DFT-s-OFDM 16 QAM	1@1	24.4	23.9	0.2455
77	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.25	24.75	0.2985
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.29	24.79	0.3013
77	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.44	23.94	0.2477
77	30	30	635666	3534.99	DFT-s-OFDM PI/2 BPSK	1@1	25.36	24.86	0.3062
77	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@1	25.4	24.9	0.3090
77	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@1	24.55	24.05	0.2541
77	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	1@1	25.17	24.67	0.2931
77	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@1	25.2	24.7	0.2951
77	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@1	24.4	23.9	0.2455
77	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.15	24.65	0.2917
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.39	24.89	0.3083
77	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.41	23.91	0.2460
77	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	1@1	25.3	24.8	0.3020
77	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@1	25.53	25.03	0.3184
77	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@1	24.54	24.04	0.2535
77	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	1@1	25.15	24.65	0.2917
77	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@1	25.34	24.84	0.3048
77	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	1@1	24.41	23.91	0.2460
77	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.18	24.68	0.2938
77	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.27	24.77	0.2999
77	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.39	23.89	0.2449
77	30	50	635000	3525	DFT-s-OFDM PI/2 BPSK	1@1	25.32	24.82	0.3034
77	30	50	635000	3525	DFT-s-OFDM QPSK	1@1	25.45	24.95	0.3126
77	30	50	635000	3525	DFT-s-OFDM 16 QAM	1@1	24.49	23.99	0.2506
77	30	60	632000	3480	DFT-s-OFDM PI/2 BPSK	1@1	25.2	24.7	0.2951
77	30	60	632000	3480	DFT-s-OFDM QPSK	1@1	25.43	24.93	0.3112
77	30	60	632000	3480	DFT-s-OFDM 16 QAM	1@1	24.45	23.95	0.2483
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.26	24.76	0.2992
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.43	24.93	0.3112
77	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.5	24	0.2512
77	30	60	634666	3519.99	DFT-s-OFDM PI/2 BPSK	1@1	25.31	24.81	0.3027

77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@1	25.57	25.07	0.3214
77	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@1	24.48	23.98	0.2500
77	30	70	632334	3485.01	DFT-s-OFDM PI/2 BPSK	1@1	25.38	24.88	0.3076
77	30	70	632334	3485.01	DFT-s-OFDM QPSK	1@1	25.58	25.08	0.3221
77	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	1@1	24.62	24.12	0.2582
77	30	70	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.37	24.87	0.3069
77	30	70	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.65	25.15	0.3273
77	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.59	24.09	0.2564
77	30	70	634332	3514.98	DFT-s-OFDM PI/2 BPSK	1@1	25.42	24.92	0.3105
77	30	70	634332	3514.98	DFT-s-OFDM QPSK	1@1	25.62	25.12	0.3251
77	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	1@1	24.61	24.11	0.2576
77	30	80	632668	3490.02	DFT-s-OFDM PI/2 BPSK	1@1	25.42	24.92	0.3105
77	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@1	25.51	25.01	0.3170
77	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@1	24.68	24.18	0.2618
77	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.48	24.98	0.3148
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.49	24.99	0.3155
77	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.66	24.16	0.2606
77	30	80	634000	3510	DFT-s-OFDM PI/2 BPSK	1@1	25.48	24.98	0.3148
77	30	80	634000	3510	DFT-s-OFDM QPSK	1@1	25.76	25.26	0.3357
77	30	80	634000	3510	DFT-s-OFDM 16 QAM	1@1	24.71	24.21	0.2636
77	30	90	633000	3495	DFT-s-OFDM PI/2 BPSK	1@1	25.45	24.95	0.3126
77	30	90	633000	3495	DFT-s-OFDM QPSK	1@1	25.65	25.15	0.3273
77	30	90	633000	3495	DFT-s-OFDM 16 QAM	1@1	24.67	24.17	0.2612
77	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.47	24.97	0.3141
77	30	90	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.46	24.96	0.3133
77	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.71	24.21	0.2636
77	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	1@1	25.49	24.99	0.3155
77	30	90	633666	3504.99	DFT-s-OFDM QPSK	1@1	25.57	25.07	0.3214
77	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	1@1	24.75	24.25	0.2661

FR1 N77(ANT6)_SCS30kHz

Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	-0.0095	**PASS**	NV
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	-0.0060	**PASS**	LV
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	-0.0040	**PASS**	HV
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	0.0039	**PASS**	-30℃
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	-0.0052	**PASS**	-20℃
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	0.0066	**PASS**	-10℃
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	-0.0080	**PASS**	0℃
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	-0.0119	**PASS**	10℃
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	-0.0068	**PASS**	20℃
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	-0.0034	**PASS**	30℃
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	-0.0067	**PASS**	40℃
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	-0.0037	**PASS**	50℃

Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	162@0	7.02	13	**PASS**
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@0	3.91	13	**PASS**
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	162@0	7.74	13	**PASS**
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	5.73	13	**PASS**