FCC RF Test Report

APPLICANT	:	NOTHING TECHNOLOGY LIMITED
EQUIPMENT	:	Smart Phone
BRAND NAME	:	cmf by NOTHING
MODEL NAME	:	A001
FCC ID	:	2AZEQ-A001
STANDARD	:	47 CFR Part 27 Subpart Q
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	:	Jan. 01, 2025 ~ Jan. 09, 2025

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)

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055

People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG4N1331H	Rev. 01	Initial issue of report	Mar. 26, 2025

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 30.58 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

NOTHING TECHNOLOGY LIMITED
Bedford House, 21A John Street, London, United Kingdom WC1N 2BF

1.2 Manufacturer

NOTHING TECHNOLOGY LIMITED
Bedford House, 21A John Street, London, United Kingdom WC1N 2BF

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Smart Phone
Brand Name	cmf by NOTHING
Model Name	A001
FCC ID	2AZEQ-A001
IMEI Code	Conducted : 353560160031528/353560160031536 Radiation : 353560160033102/353560160033110
HW Version	SM683_MB_T1
SW Version	Nothing OS 3.2
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Product Feature	
Tx/Rx Frequency	5G NR n77: 3450 MHz ~ 3550 MHz
SCS	30kHz
Bandwidth	n77: 20 / 30 / 40 / 60 / 80 / 100MHz
Antenna Gain	**<Ant. 1>** 5G NR n77: -1.24 dBi **<Ant. 3>** 5G NR n77: -1.45 dBi **<Ant. 5>** 5G NR n77: -1.27 dBi **<Ant. 7>** 5G NR n77: -0.44 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 for Antenna 7.
2. 5G NR n77 supports SA and NSA mode. The whole testing has assessed SA mode for n77 by referring to the higher conducted power for conducted test items.

3. All the supported EN-DC combinations are verified conducted power, only the EN-DC combination with highest power are shown in the report.
4. 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		PI/2 BPSK / QPSK		16QAM/64QAM/256QAM	
BW (MHz)	**Frequency Range (MHz)**	**Maximum EIRP(W)**	**Emission Designator (99%OBW)**	**Maximum EIRP(W)**	**Emission Designator (99%OBW)**
20	3460.02 ~ 3540.00	0.2109	18M2G7D	0.1683	18M2W7D
30	3465.00 ~ 3534.99	0.2056	27M9G7D	0.1648	27M8W7D
40	3470.01 ~ 3529.98	0.2042	37M8G7D	0.1648	37M9W7D
60	3480.00 ~ 3519.99	0.2009	57M6G7D	0.1618	57M8W7D
80	3490.02 ~ 3510.00	0.2061	77M5G7D	0.1694	77M7W7D
100	3500.01	0.2133	97M4G7D	0.1722	97M5W7D

Note: 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. (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.**
	TH01-SZ 03CH02-SZ	CN1256	421272

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH02-SZ	AUDIX	E3	6.2009-8-24a

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 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

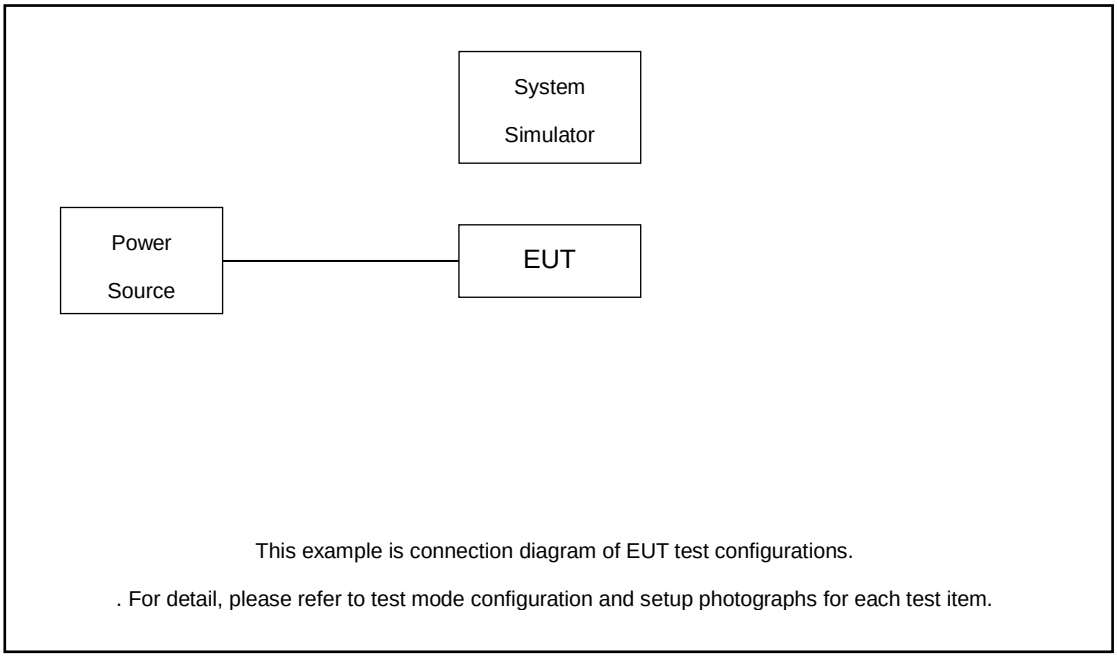
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

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

Test Cases	Band	Bandwidth (MHz)	Modulation	RB #	Test Channel
		eg. 5M, 10M, 15M, 20M	eg. PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	1RB, Partial RB, Full RB	L/M/H
Max. Output Power	5G n77	20M, 30M, 40M, 60M, 80M, 100M	All Modulations	1RB, Full RB	L, M, H
Peak-to-Average Ratio	5G n77	20M	PI/2 BPSK, QPSK	Full RB	M
E.I.R.P	5G n77	20M, 30M, 40M, 60M, 80M, 100M	All Modulations	1RB, Full RB	L, M, H
26dB and 99% Bandwidth	5G n77	20M, 30M, 40M, 60M, 80M, 100M	QPSK, 16QAM, 64QAM, 256QAM	Full RB	M
Conducted Band Edge	5G n77	20M, 60M, 100M	PI/2 BPSK, QPSK	1RB, Full RB	L, H
Conducted Spurious Emission	5G n77	20M, 60M, 100M	PI/2 BPSK, QPSK	1RB	L, M, H
Frequency Stability	5G n77	20M	QPSK	Full RB	M
Radiated Spurious Emission	5G n77	Worst case from maximum power			M

Note:
1. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.
2. Frequency Stability: Normal Voltage = 3.89V ; Low Voltage =3.50V.; High Voltage =4.50V.

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

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

Offset = RF cable loss.

Following shows an offset computation example with cable loss 8.9 dB.

Example :

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

= 8.9 (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	-	633334	-
	Frequency	-	3500.01	-
80	Channel	632668	633334	634000
	Frequency	3490.02	3500.01	3510
60	Channel	632000	633334	634666
	Frequency	3480	3500.01	3519.99
40	Channel	631334	633334	635332
	Frequency	3470.01	3500.01	3529.98
30	Channel	631000	633334	635666
	Frequency	3465	3500.01	3534.99
20	Channel	630668	633334	636000
	Frequency	3460.02	3500.01	3540

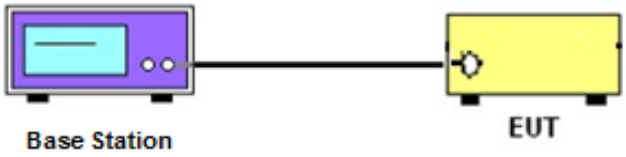
3 Conducted Test Items

3.1 Measuring Instruments

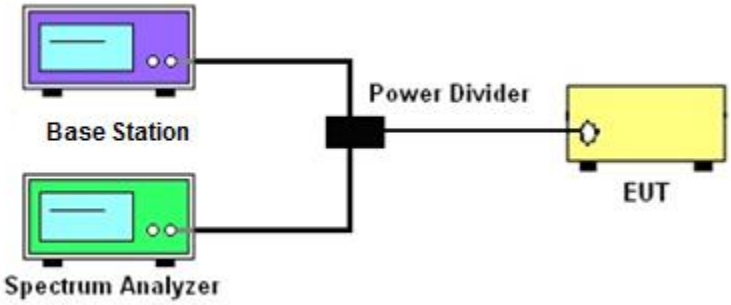
See list of measuring instruments of this test report.

3.2 Test Setup

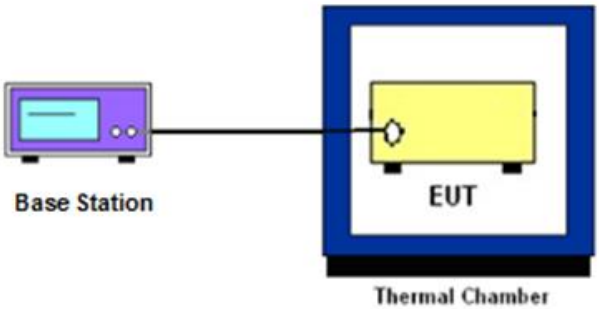
3.2.1 Conducted Output Power



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 10th 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.

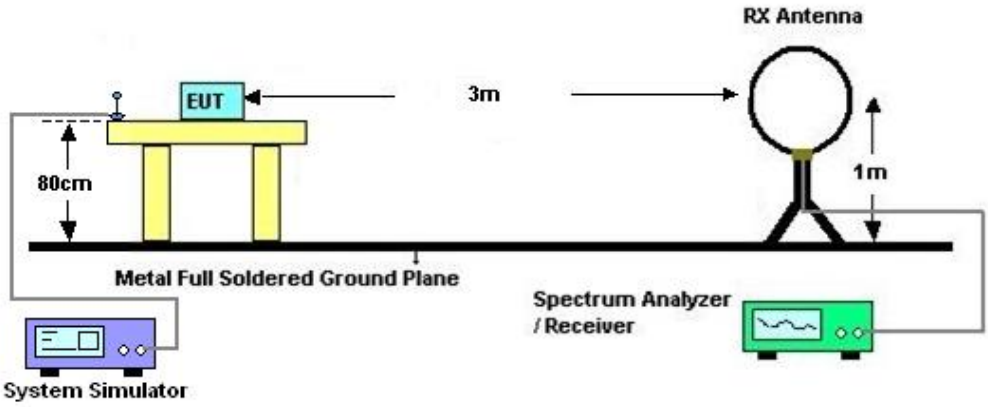
4 Radiated Test Items

4.1 Measuring Instruments

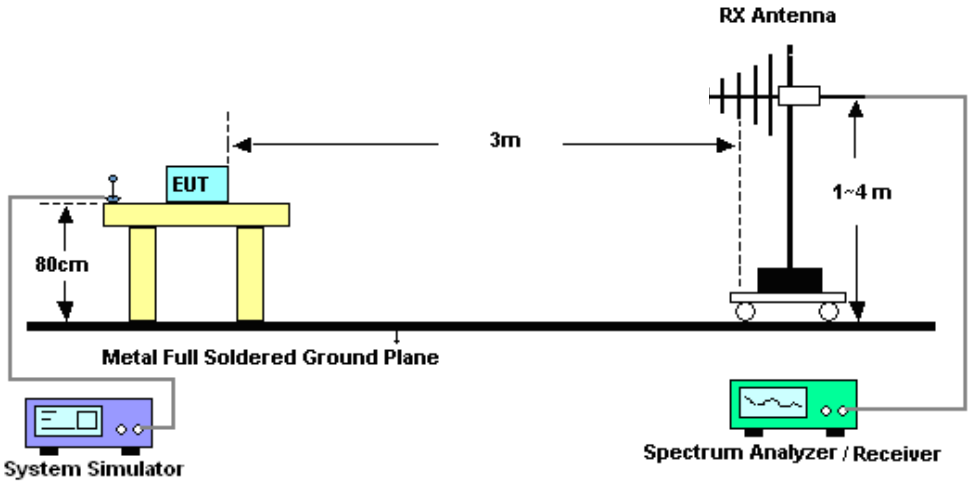
See list of measuring instruments of this test report.

4.2 Test Setup

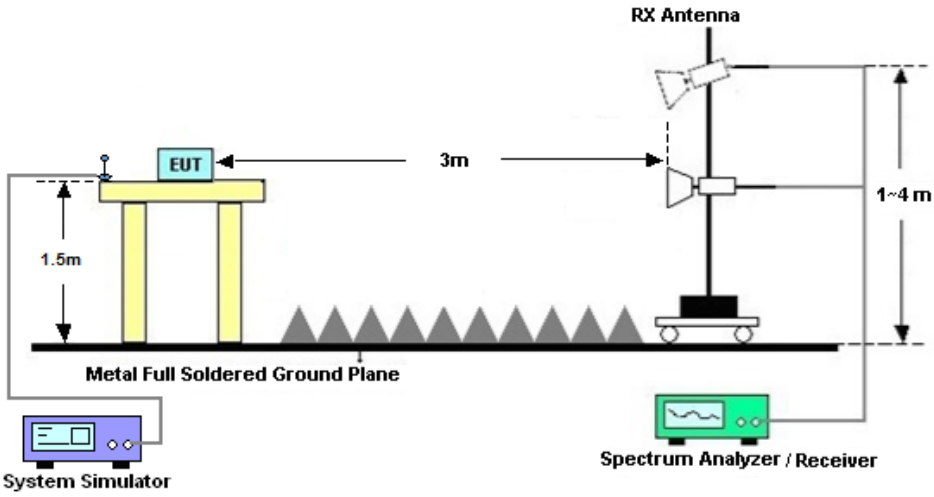
4.2.1 For radiated test below 30MHz



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 C63.26. The power of any emission outside of the authorized operating frequency ranges shall not exceed −13 dBm/MHz.

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

4.4.2 Test Procedures

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

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 09, 2024	Jan. 01, 2025	Apr. 08, 2025	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.0077	0.4GHz~26.5GHz	Dec. 24, 2024	Jan. 01, 2025	Dec. 23, 2025	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 03, 2024	Jan. 01, 2025	Jul. 02, 2025	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 03, 2024	Jan. 08, 2025~ Jan. 09, 2025	Jul. 02, 2025	Radiation (03CH02-SZ)
Loop Antenna	R&S	HFH2-Z2E	101141	9kHz~30MHz	Dec. 28, 2024	Jan. 08, 2025~ Jan. 09, 2025	Dec. 27, 2025	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Jan. 08, 2025~ Jan. 09, 2025	Oct. 23, 2025	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 04, 2024	Jan. 08, 2025~ Jan. 09, 2025	Jul. 04, 2025	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 03, 2024	Jan. 08, 2025~ Jan. 09, 2025	Jul. 03, 2025	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 09, 2024	Jan. 08, 2025~ Jan. 09, 2025	Apr. 08, 2025	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 18, 2024	Jan. 08, 2025~ Jan. 09, 2025	Oct. 17, 2025	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 14, 2024	Jan. 08, 2025~ Jan. 09, 2025	Oct. 13, 2025	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010003043	N/A	Oct. 18, 2024	Jan. 08, 2025~ Jan. 09, 2025	Oct. 17, 2025	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Jan. 08, 2025~ Jan. 09, 2025	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Jan. 08, 2025~ Jan. 09, 2025	NCR	Radiation (03CH02-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

Test Item	Uncertainty
Conducted Spurious Emission & Bandedge	±1.34 dB
Occupied Channel Bandwidth	±0.012 MHz
Conducted Power	±1.34 dB
Peak to Average Ratio	±1.34 dB
Frequency Stability	±1.3 Hz

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.47 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.31 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.72 dB

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

Appendix A. Test Results of Conducted Test

Test Engineer :	Khan Zhen	**Temperature :**	22~23℃
		Relative Humidity :	40~42%

Software Version: 23.06.1602

FR1 N77(ANT7)

Transmitter Conducted Output Power And EIRP, (G_T - L_C)=-0.44dB

NR Band	SCS	BandWidth	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	25@12	23.52	23.08	0.2032
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@1	23.55	23.11	0.2046
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@49	23.49	23.05	0.2018
77	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	25@12	22.58	22.14	0.1637
77	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@1	22.59	22.15	0.1641
77	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@49	22.5	22.06	0.1607
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	25@12	23.46	23.02	0.2004
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.54	23.1	0.2042
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@49	23.56	23.12	0.2051
77	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	25@12	22.7	22.26	0.1683
77	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.55	22.11	0.1626
77	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@49	22.6	22.16	0.1644
77	30	20	636000	3540	DFT-s-OFDM QPSK	25@12	23.59	23.15	0.2065
77	30	20	636000	3540	DFT-s-OFDM QPSK	1@1	23.68	23.24	0.2109
77	30	20	636000	3540	DFT-s-OFDM QPSK	1@49	23.62	23.18	0.2080
77	30	20	636000	3540	DFT-s-OFDM 16 QAM	25@12	22.57	22.13	0.1633
77	30	20	636000	3540	DFT-s-OFDM 16 QAM	1@1	22.7	22.26	0.1683
77	30	20	636000	3540	DFT-s-OFDM 16 QAM	1@49	22.61	22.17	0.1648
77	30	30	631000	3465	DFT-s-OFDM QPSK	36@18	23.28	22.84	0.1923
77	30	30	631000	3465	DFT-s-OFDM QPSK	1@1	23.56	23.12	0.2051
77	30	30	631000	3465	DFT-s-OFDM QPSK	1@76	23.42	22.98	0.1986
77	30	30	631000	3465	DFT-s-OFDM 16 QAM	36@18	22.41	21.97	0.1574
77	30	30	631000	3465	DFT-s-OFDM 16 QAM	1@1	22.56	22.12	0.1629
77	30	30	631000	3465	DFT-s-OFDM 16 QAM	1@76	22.33	21.89	0.1545
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	36@18	23.41	22.97	0.1982
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.52	23.08	0.2032
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@76	23.45	23.01	0.2000
77	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	36@18	22.39	21.95	0.1567
77	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.49	22.05	0.1603
77	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@76	22.44	22	0.1585
77	30	30	635666	3534.99	DFT-s-OFDM QPSK	36@18	23.5	23.06	0.2023
77	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@1	23.57	23.13	0.2056
77	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@76	23.5	23.06	0.2023

77	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	36@18	22.51	22.07	0.1611
77	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@1	22.61	22.17	0.1648
77	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@76	22.43	21.99	0.1581
77	30	40	631334	3470.01	DFT-s-OFDM QPSK	50@25	23.2	22.76	0.1888
77	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@1	23.46	23.02	0.2004
77	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@104	23.39	22.95	0.1972
77	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	50@25	22.27	21.83	0.1524
77	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@1	22.6	22.16	0.1644
77	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@104	22.4	21.96	0.1570
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	50@25	23.44	23	0.1995
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.44	23	0.1995
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@104	23.45	23.01	0.2000
77	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	50@25	22.39	21.95	0.1567
77	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.46	22.02	0.1592
77	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@104	22.48	22.04	0.1600
77	30	40	635332	3529.98	DFT-s-OFDM QPSK	50@25	23.43	22.99	0.1991
77	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@1	23.54	23.1	0.2042
77	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@104	23.41	22.97	0.1982
77	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	50@25	22.49	22.05	0.1603
77	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@1	22.61	22.17	0.1648
77	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@104	22.43	21.99	0.1581
77	30	60	632000	3480	DFT-s-OFDM QPSK	81@40	23.27	22.83	0.1919
77	30	60	632000	3480	DFT-s-OFDM QPSK	1@1	23.46	23.02	0.2004
77	30	60	632000	3480	DFT-s-OFDM QPSK	1@160	23.35	22.91	0.1954
77	30	60	632000	3480	DFT-s-OFDM 16 QAM	81@40	22.33	21.89	0.1545
77	30	60	632000	3480	DFT-s-OFDM 16 QAM	1@1	22.49	22.05	0.1603
77	30	60	632000	3480	DFT-s-OFDM 16 QAM	1@160	22.37	21.93	0.1560
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	81@40	23.37	22.93	0.1963
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.4	22.96	0.1977
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@160	23.33	22.89	0.1945
77	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	81@40	22.44	22	0.1585
77	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.38	21.94	0.1563
77	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@160	22.39	21.95	0.1567
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	81@40	23.45	23.01	0.2000
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@1	23.47	23.03	0.2009
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@160	23.34	22.9	0.1950
77	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	81@40	22.45	22.01	0.1589
77	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@1	22.53	22.09	0.1618
77	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@160	22.4	21.96	0.1570
77	30	80	632668	3490.02	DFT-s-OFDM QPSK	108@54	23.4	22.96	0.1977

77	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@1	23.57	23.13	0.2056
77	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@215	23.36	22.92	0.1959
77	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	108@54	22.43	21.99	0.1581
77	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@1	22.67	22.23	0.1671
77	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@215	22.47	22.03	0.1596
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	108@54	23.43	22.99	0.1991
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.57	23.13	0.2056
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@215	23.37	22.93	0.1963
77	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	108@54	22.49	22.05	0.1603
77	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.73	22.29	0.1694
77	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@215	22.42	21.98	0.1578
77	30	80	634000	3510	DFT-s-OFDM QPSK	108@54	23.52	23.08	0.2032
77	30	80	634000	3510	DFT-s-OFDM QPSK	1@1	23.58	23.14	0.2061
77	30	80	634000	3510	DFT-s-OFDM QPSK	1@215	23.33	22.89	0.1945
77	30	80	634000	3510	DFT-s-OFDM 16 QAM	108@54	22.54	22.1	0.1622
77	30	80	634000	3510	DFT-s-OFDM 16 QAM	1@1	22.67	22.23	0.1671
77	30	80	634000	3510	DFT-s-OFDM 16 QAM	1@215	22.39	21.95	0.1567
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	135@67	23.36	22.92	0.1959
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	23.73	23.29	0.2133
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@271	23.33	22.89	0.1945
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	135@67	23.47	23.03	0.2009
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@1	23.68	23.24	0.2109
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@271	23.37	22.93	0.1963
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	135@67	22.41	21.97	0.1574
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	22.8	22.36	0.1722
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@271	22.41	21.97	0.1574
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	135@67	20.99	20.55	0.1135
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	21.21	20.77	0.1194
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@271	20.85	20.41	0.1099
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	135@67	18.97	18.53	0.0713
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	18.94	18.5	0.0708
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@271	18.6	18.16	0.0655
77	30	100	633334	3500.01	CP-OFDM QPSK	137@68	21.96	21.52	0.1419
77	30	100	633334	3500.01	CP-OFDM QPSK	1@1	22.23	21.79	0.1510
77	30	100	633334	3500.01	CP-OFDM QPSK	1@271	21.94	21.5	0.1413

Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (Hz)	Verdict	Environment
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	14.3	**PASS**	NV
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-14.6	**PASS**	LV
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	12.9	**PASS**	HV
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	12.4	**PASS**	-30℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	12.5	**PASS**	-20℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-11.5	**PASS**	-10℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	15.8	**PASS**	0℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-12.5	**PASS**	10℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	14.3	**PASS**	20℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	18.8	**PASS**	30℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-11.9	**PASS**	40℃
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	17.9	**PASS**	50℃

|MAX(△f)| = 18.8 Hz

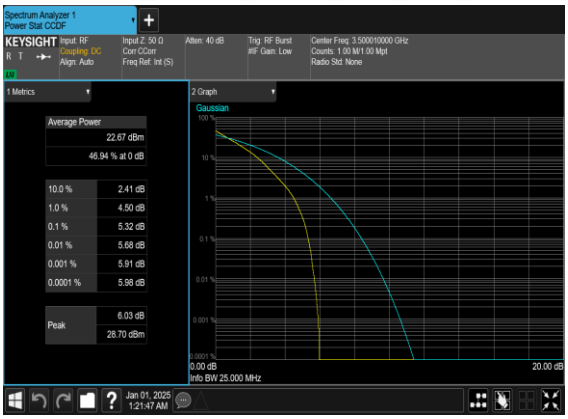
Frequency Stability	Frequency (MHz)	Limit Line	Result
fL – |MAX(△ f)|	3450.909081	≧ 3450 MHz	PASS
fH + |MAX(△ f)|	3548.751219	≦ 3550 MHz	

Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	50@0	4.14	13	**PASS**
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	5.32	13	**PASS**

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

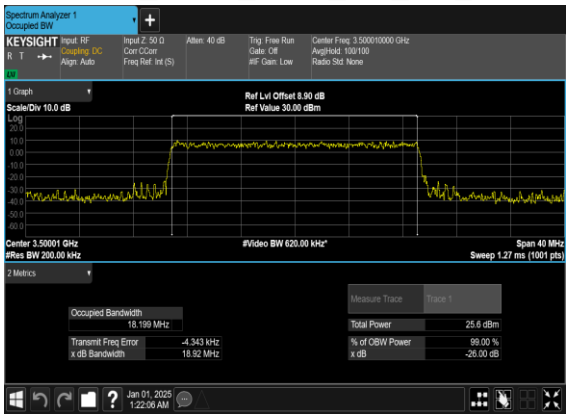
N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



Occupied Bandwidth

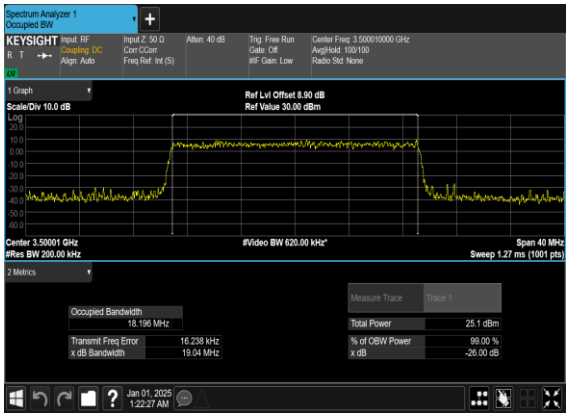
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
77	30	20	633334	3500.01	CP-OFDM QPSK	51@0	18.199	18.92
77	30	20	633334	3500.01	CP-OFDM 16 QAM	51@0	18.173	18.95
77	30	20	633334	3500.01	CP-OFDM 64 QAM	51@0	18.196	19.04
77	30	20	633334	3500.01	CP-OFDM 256 QAM	51@0	18.187	18.96
77	30	30	633334	3500.01	CP-OFDM QPSK	78@0	27.855	28.81
77	30	30	633334	3500.01	CP-OFDM 16 QAM	78@0	27.817	29.05
77	30	30	633334	3500.01	CP-OFDM 64 QAM	78@0	27.737	28.78
77	30	30	633334	3500.01	CP-OFDM 256 QAM	78@0	27.769	28.91
77	30	40	633334	3500.01	CP-OFDM QPSK	106@0	37.832	39.12
77	30	40	633334	3500.01	CP-OFDM 16 QAM	106@0	37.783	39.3
77	30	40	633334	3500.01	CP-OFDM 64 QAM	106@0	37.935	39.14
77	30	40	633334	3500.01	CP-OFDM 256 QAM	106@0	37.792	39.16
77	30	60	633334	3500.01	CP-OFDM QPSK	162@0	57.551	59.8
77	30	60	633334	3500.01	CP-OFDM 16 QAM	162@0	57.818	59.71
77	30	60	633334	3500.01	CP-OFDM 64 QAM	162@0	57.802	59.68
77	30	60	633334	3500.01	CP-OFDM 256 QAM	162@0	57.728	59.72
77	30	80	633334	3500.01	CP-OFDM QPSK	217@0	77.494	79.89
77	30	80	633334	3500.01	CP-OFDM 16 QAM	217@0	77.664	79.88
77	30	80	633334	3500.01	CP-OFDM 64 QAM	217@0	77.346	79.86
77	30	80	633334	3500.01	CP-OFDM 256 QAM	217@0	77.483	80.03
77	30	100	633334	3500.01	CP-OFDM QPSK	273@0	97.381	100.5
77	30	100	633334	3500.01	CP-OFDM 16 QAM	273@0	97.432	100.5
77	30	100	633334	3500.01	CP-OFDM 64 QAM	273@0	97.507	100.6
77	30	100	633334	3500.01	CP-OFDM 256 QAM	273@0	97.423	100.2

N77(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

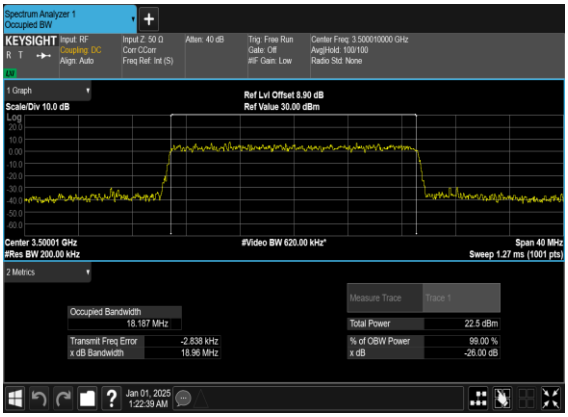


N77(20M)_CP-OFDM_16QAM_Outer_Full_Mid_CH

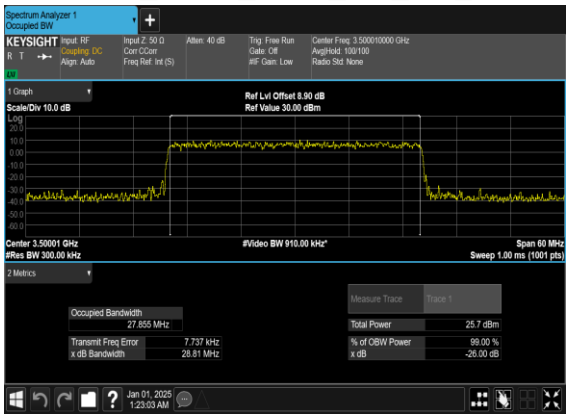
N77(20M)_CP-OFDM_64QAM_Outer_Full_Mid_CH



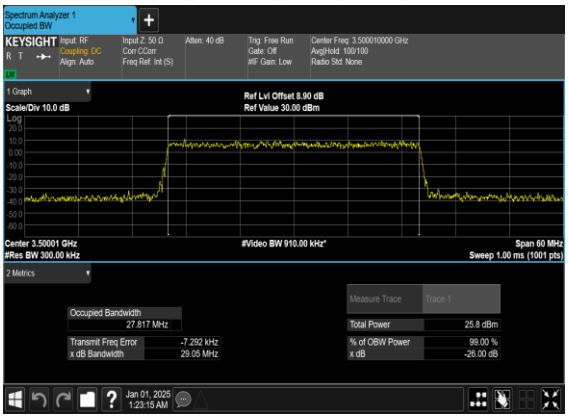
N77(20M)_CP-OFDM_256QAM_Outer_Full_Mid_CH



N77(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

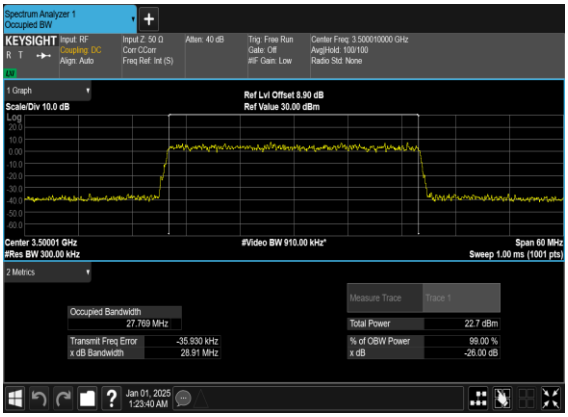


N77(30M)_CP-OFDM_16QAM_Outer_Full_Mid_CH

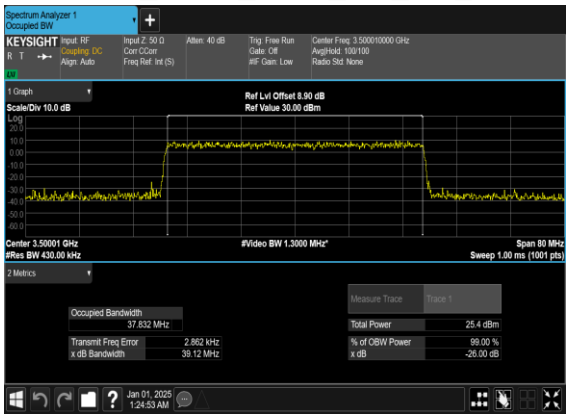


N77(30M)_CP-OFDM_64QAM_Outer_Full_Mid_CH

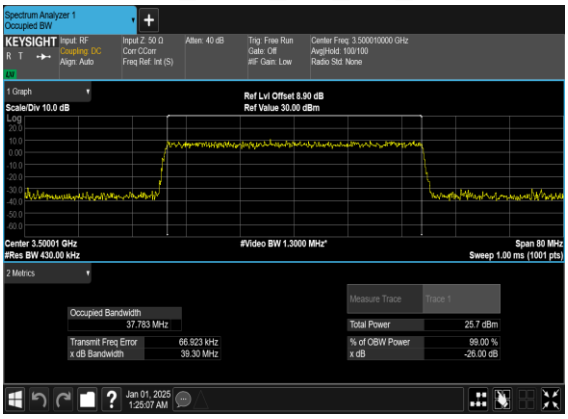
N77(30M)_CP-OFDM_256QAM_Outer_Full_Mid_CH



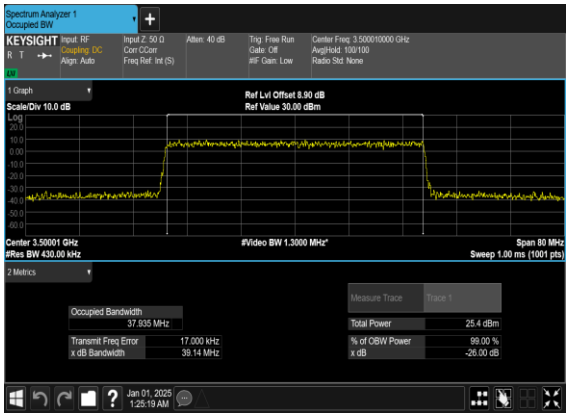
N77(40M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



N77(40M)_CP-OFDM_16QAM_Outer_Full_Mid_CH



N77(40M)_CP-OFDM_64QAM_Outer_Full_Mid_CH



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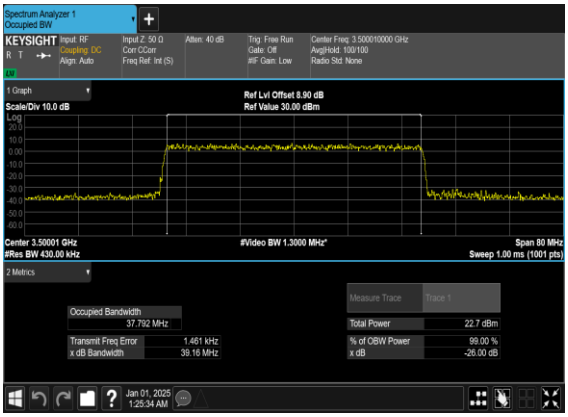
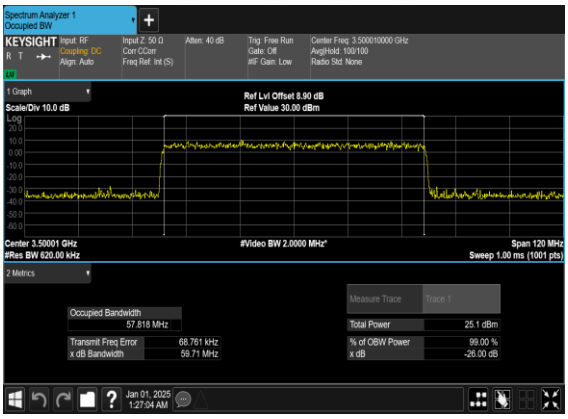
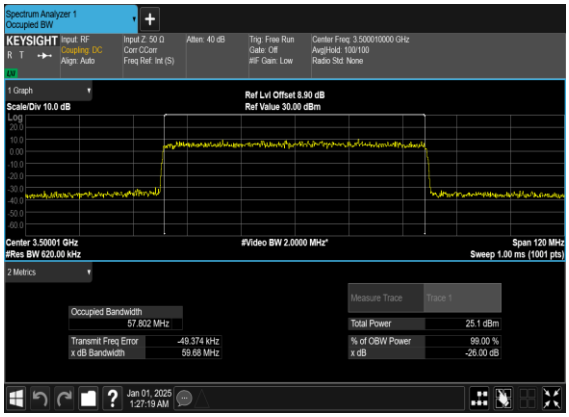


N77(60M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

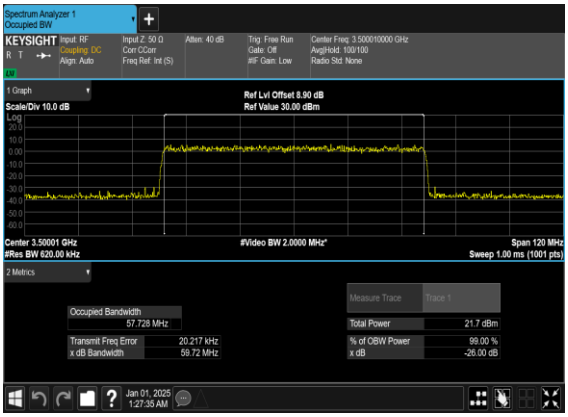
N77(60M)_CP-OFDM_16QAM_Outer_Full_Mid_CH



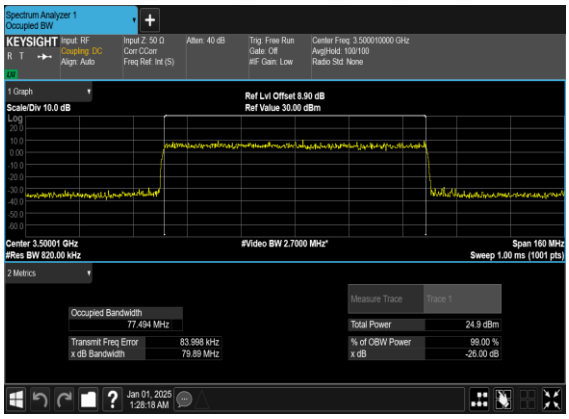
N77(60M)_CP-OFDM_64QAM_Outer_Full_Mid_CH



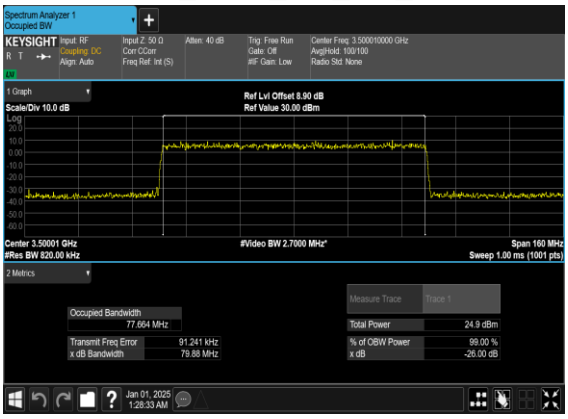
N77(60M)_CP-OFDM_256QAM_Outer_Full_Mid_CH



N77(80M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

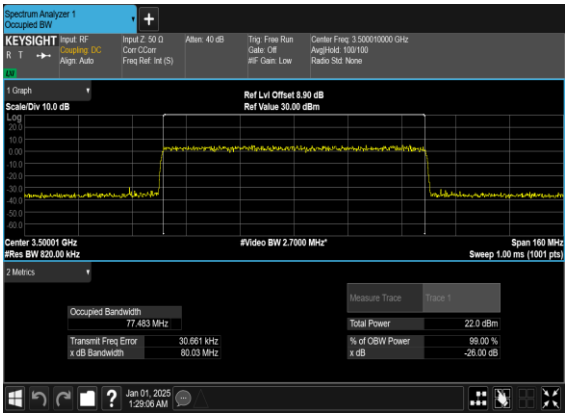


N77(80M)_CP-OFDM_16QAM_Outer_Full_Mid_CH

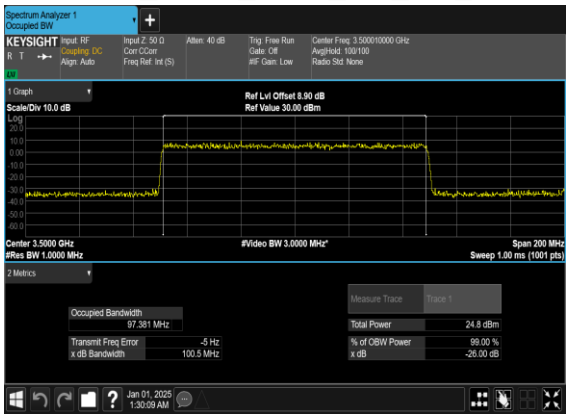


N77(80M)_CP-OFDM_64QAM_Outer_Full_Mid_CH

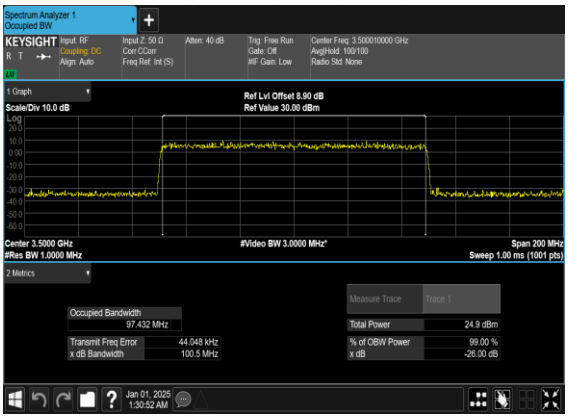
N77(80M)_CP-OFDM_256QAM_Outer_Full_Mid_CH



N77(100M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

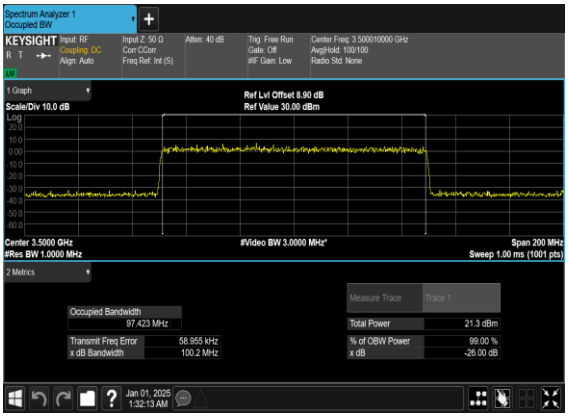


N77(100M)_CP-OFDM_16QAM_Outer_Full_Mid_CH



N77(100M)_CP-OFDM_64QAM_Outer_Full_Mid_CH

N77(100M)_CP-OFDM_256QAM_Outer_Full_Mid_CH

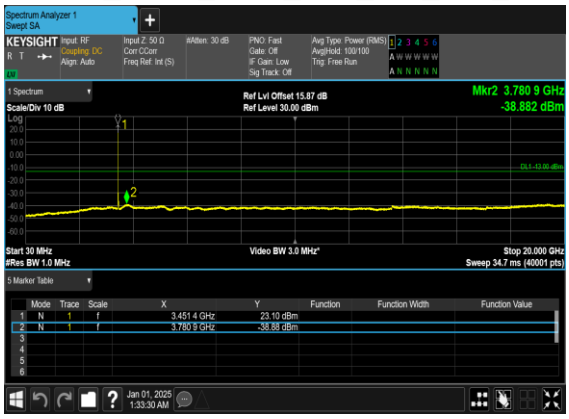


Conducted Spurious Emissions

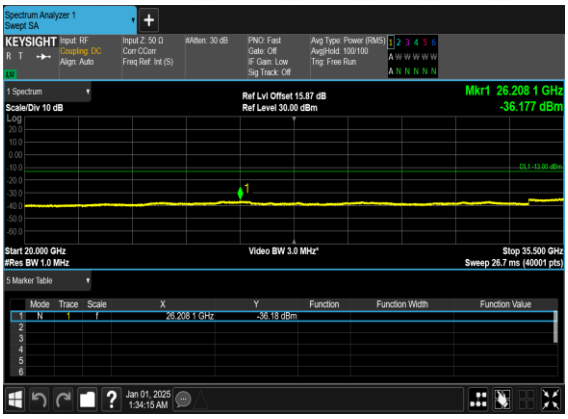
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	---
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	20	630668	3460.02	DFT-s-OFDM QPSK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

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

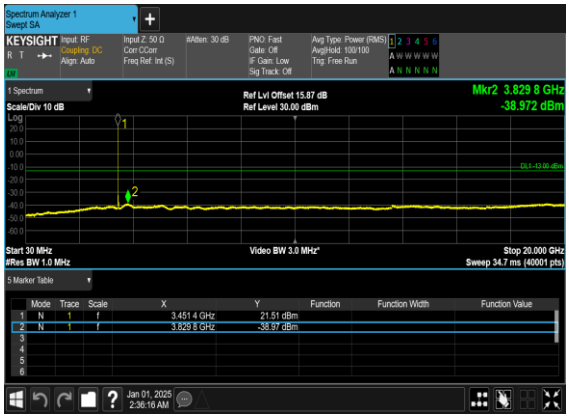
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



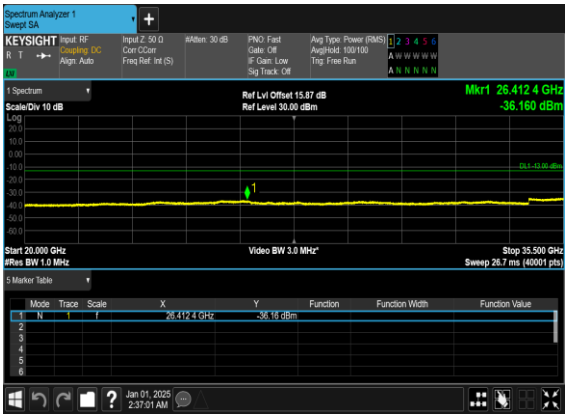
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



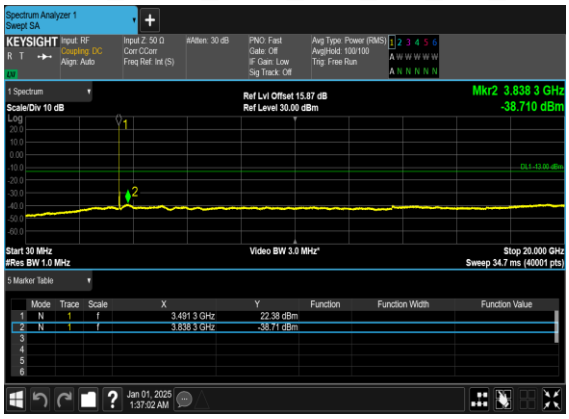
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



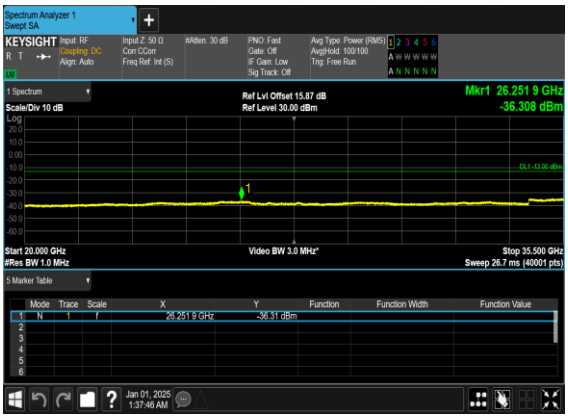
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



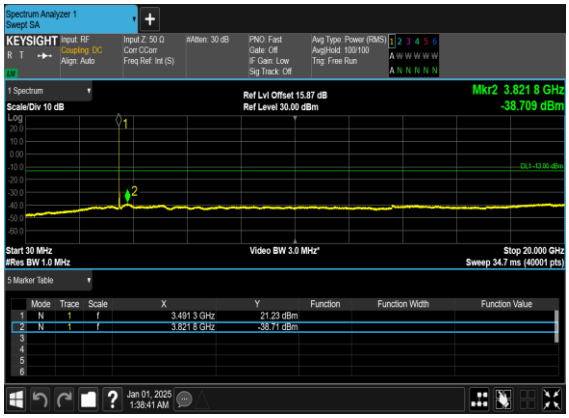
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



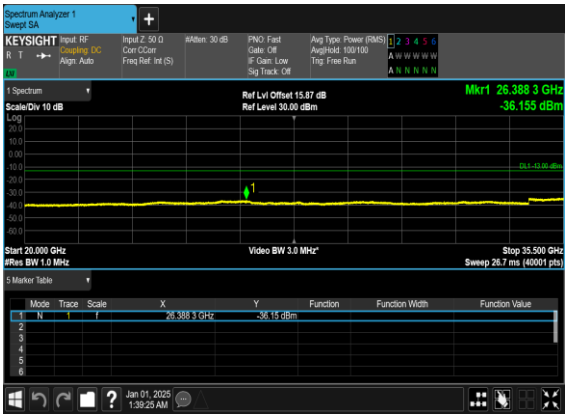
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



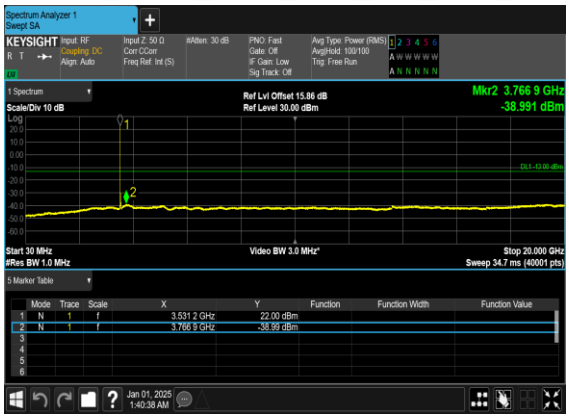
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH

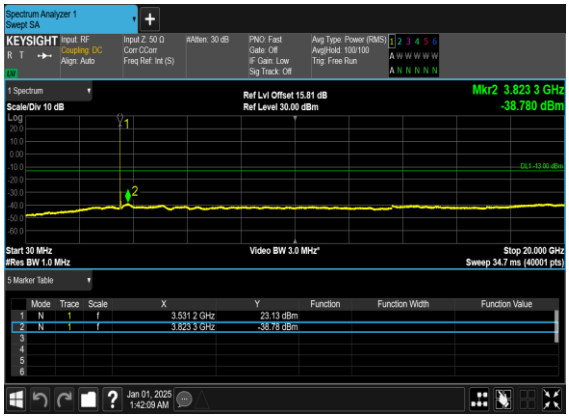


N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH

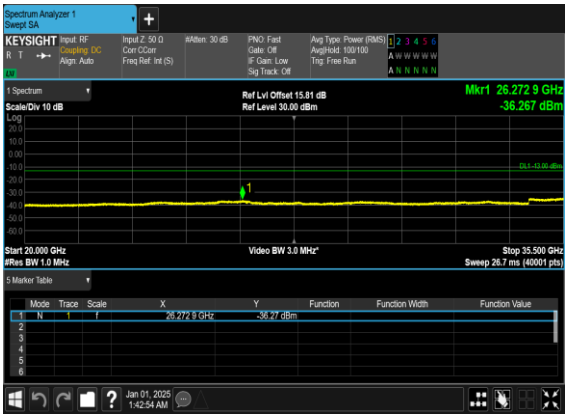


N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH

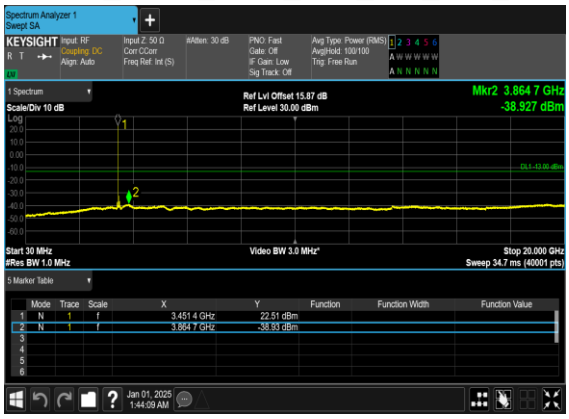
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



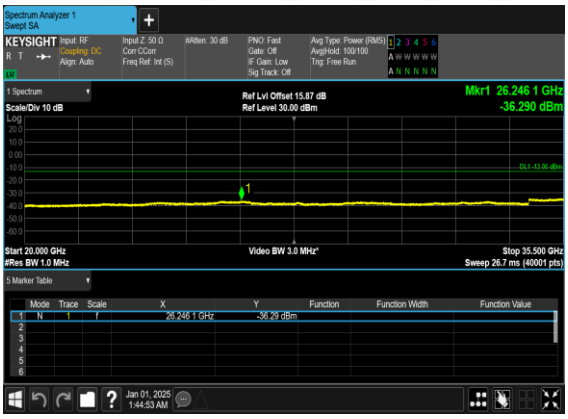
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



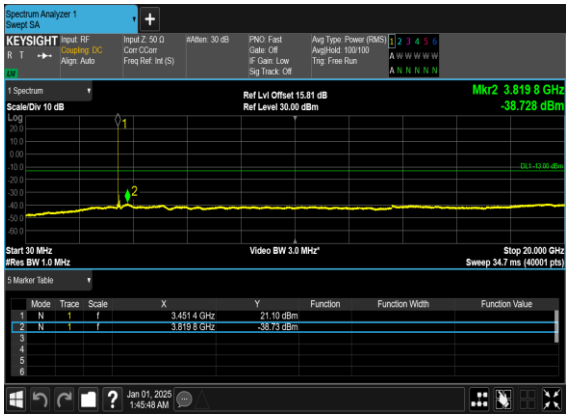
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



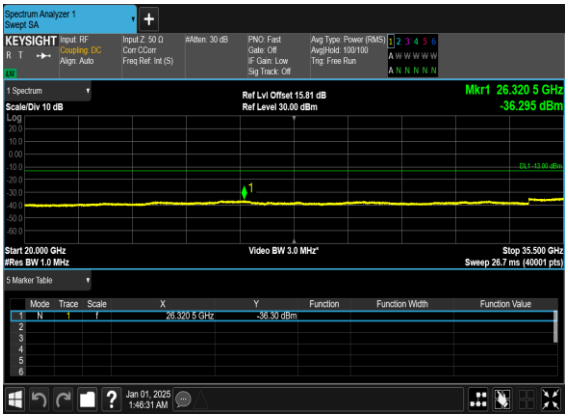
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



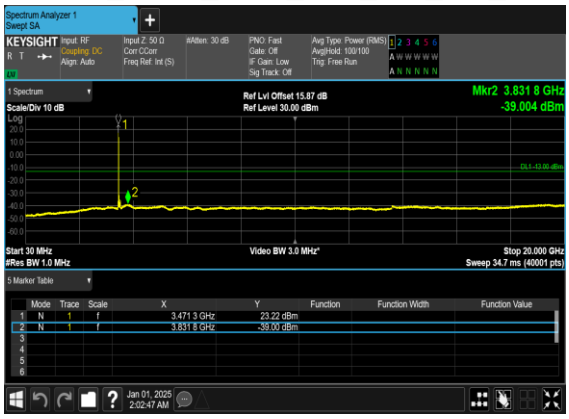
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



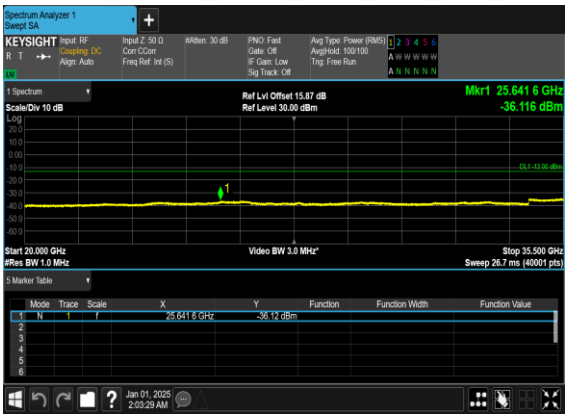
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



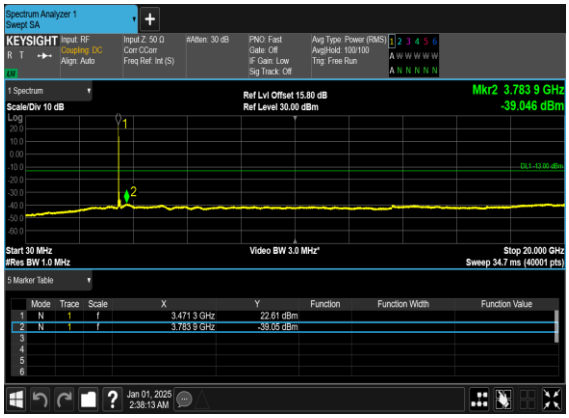
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



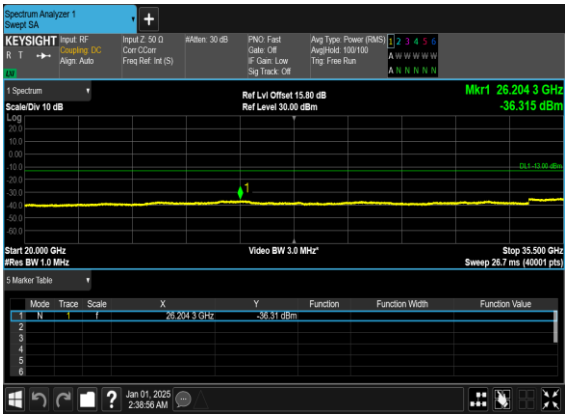
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



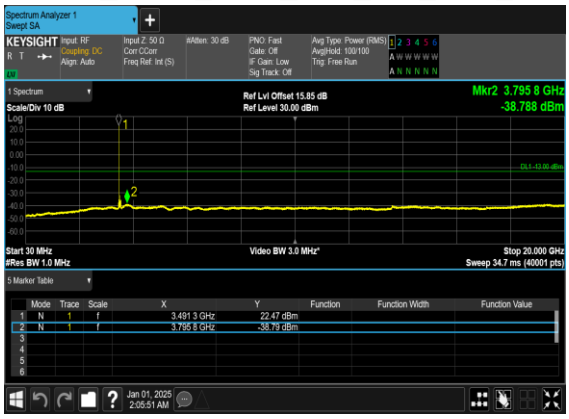
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH

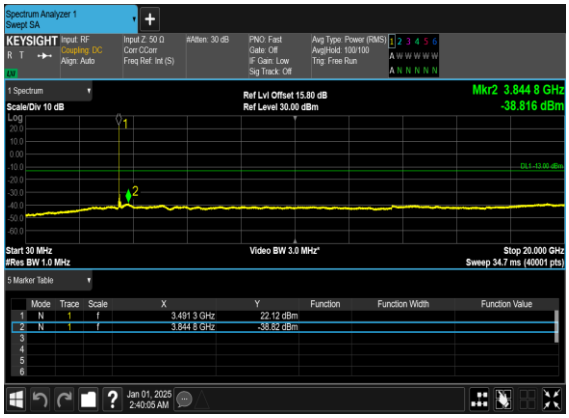


N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH

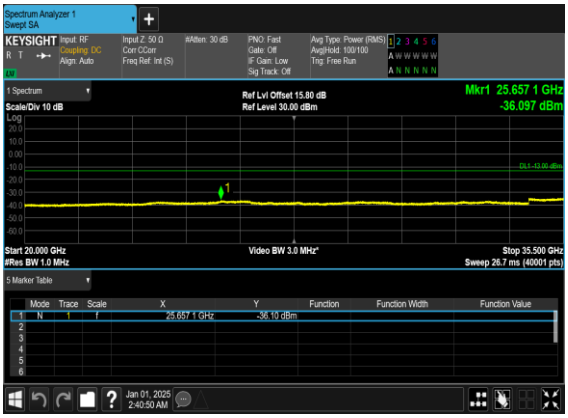


N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH

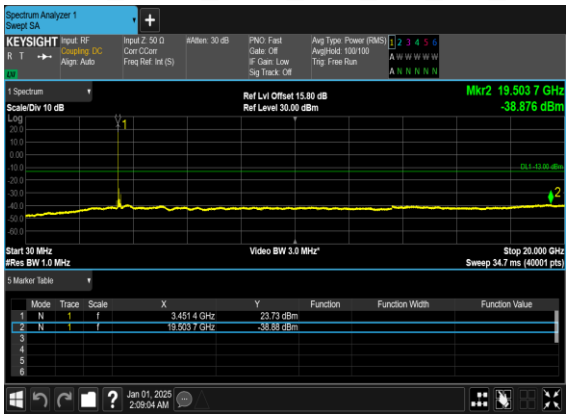
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



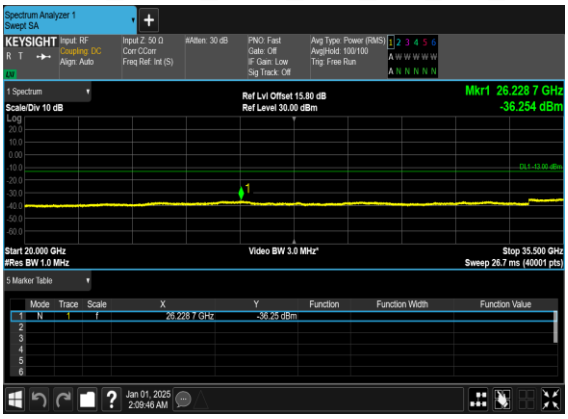
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



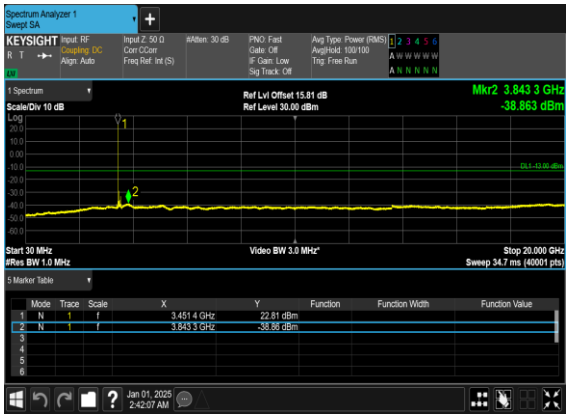
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



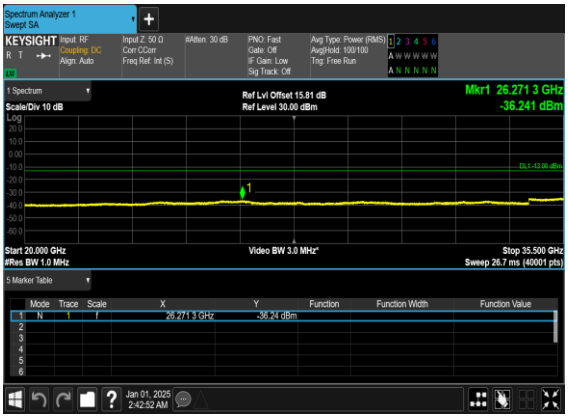
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



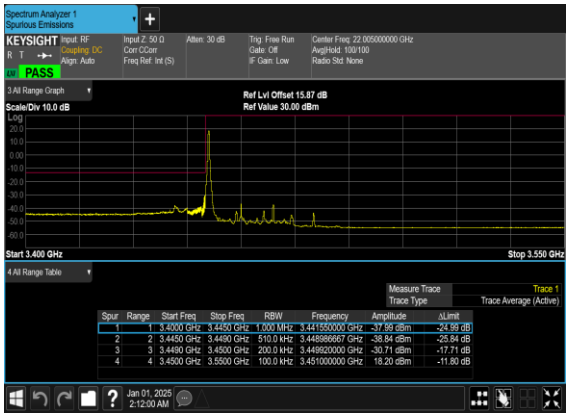
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



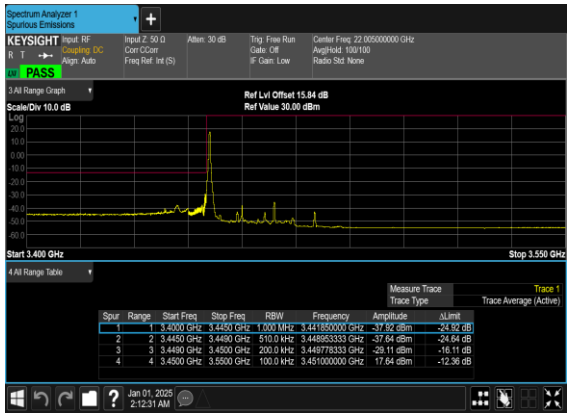
Conducted Band Edge

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

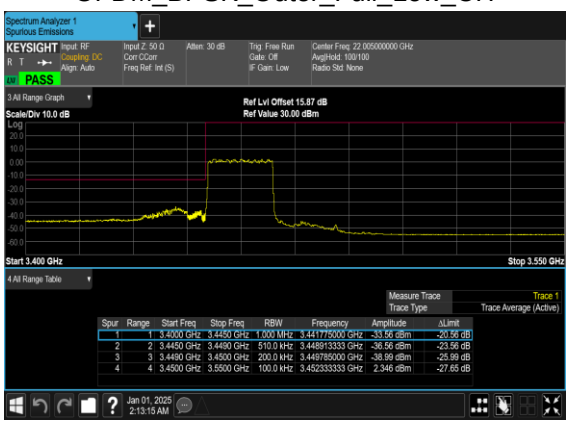
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



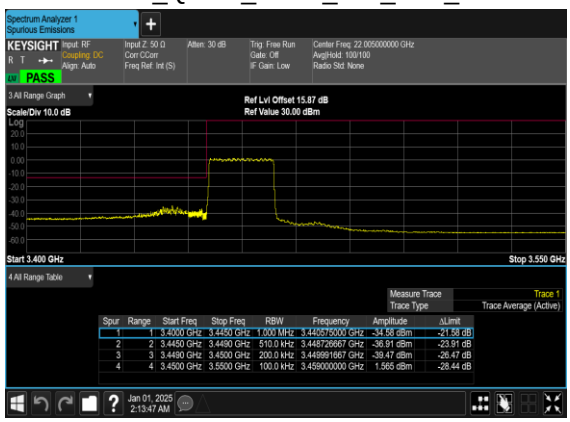
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



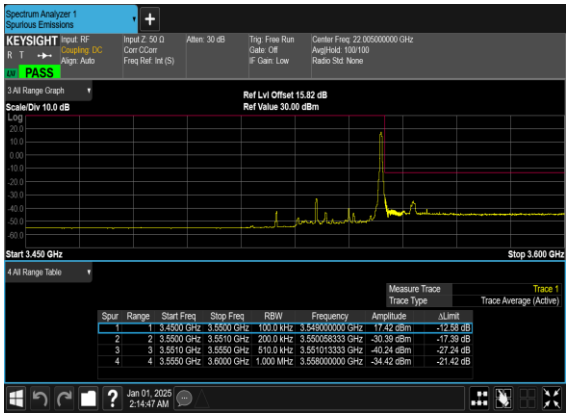
N77(20M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



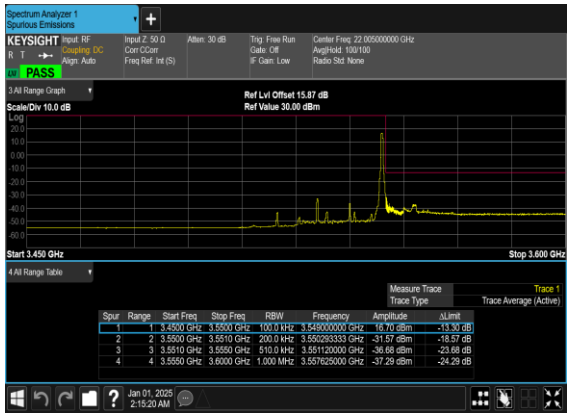
N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



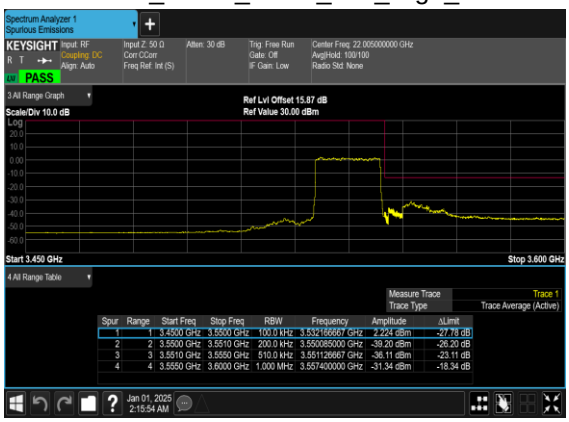
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



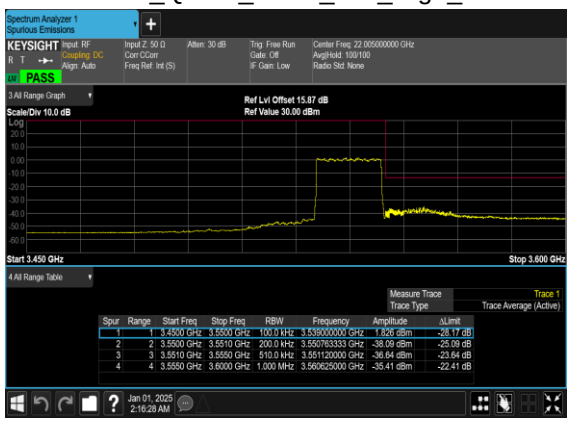
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



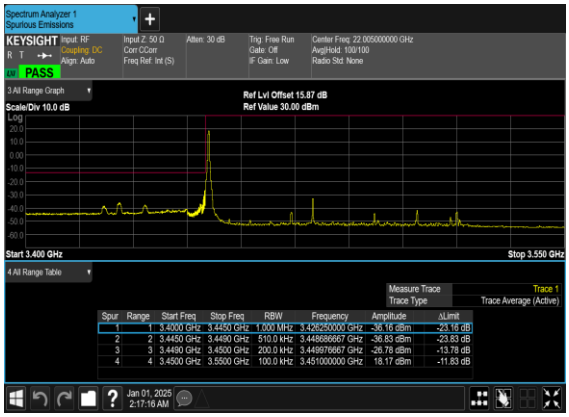
N77(20M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



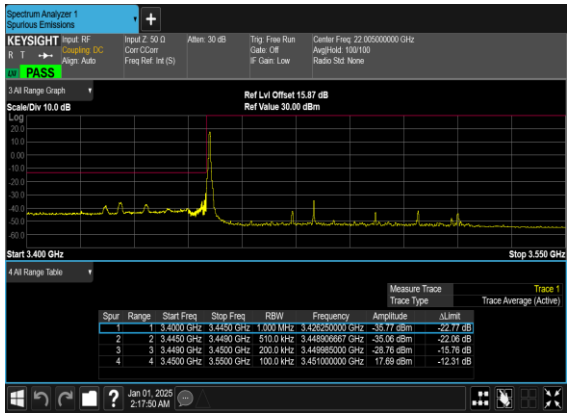
N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



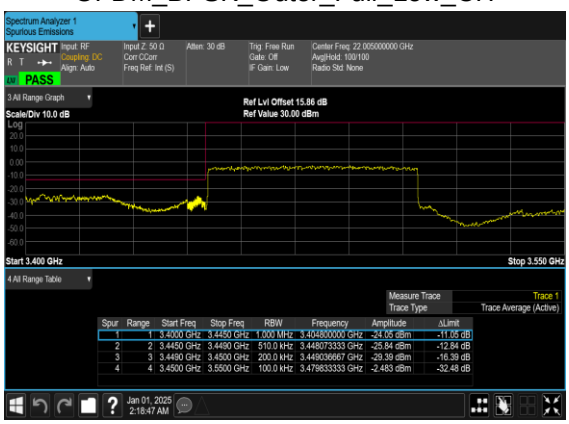
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



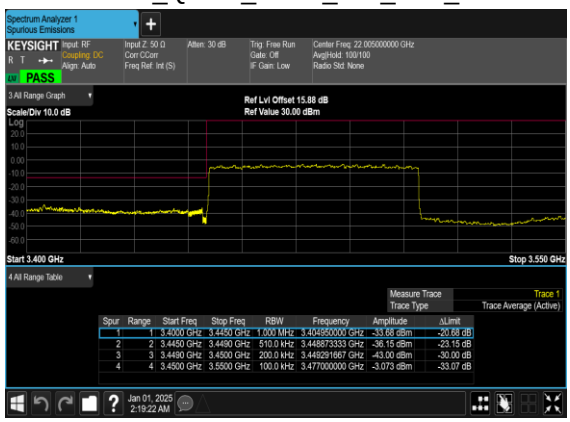
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



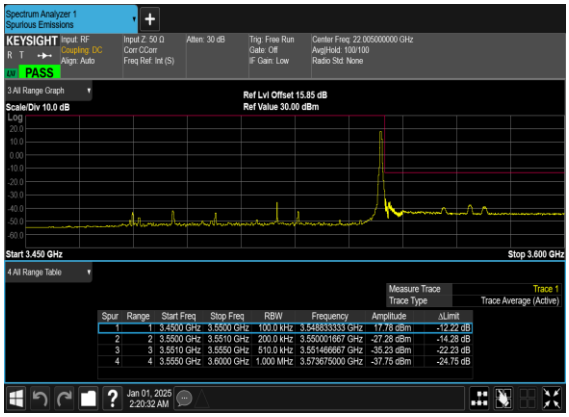
N77(60M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



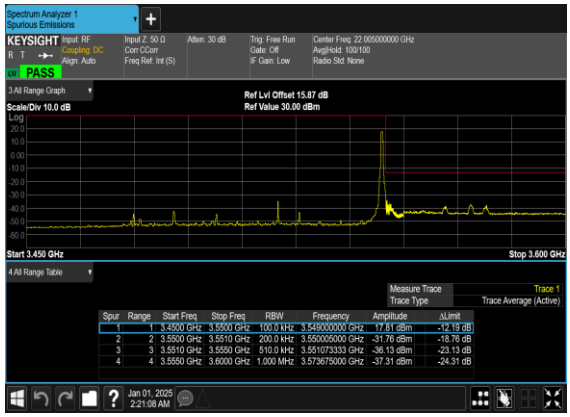
N77(60M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



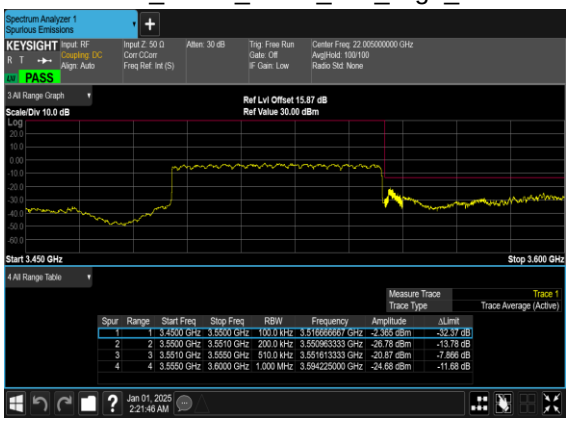
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



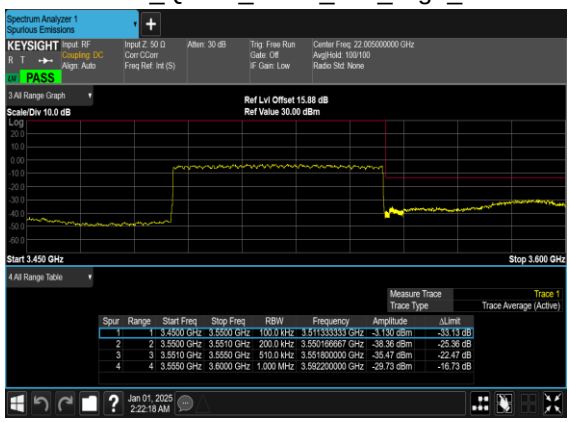
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



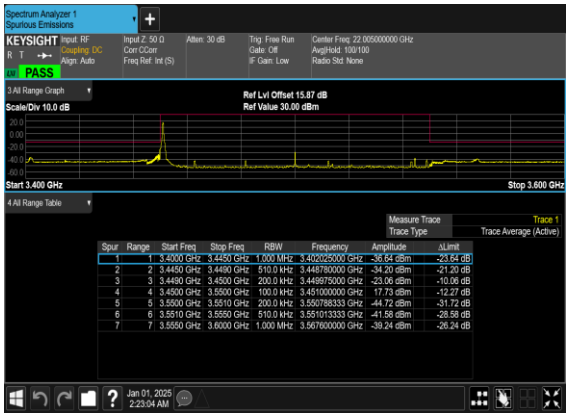
N77(60M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



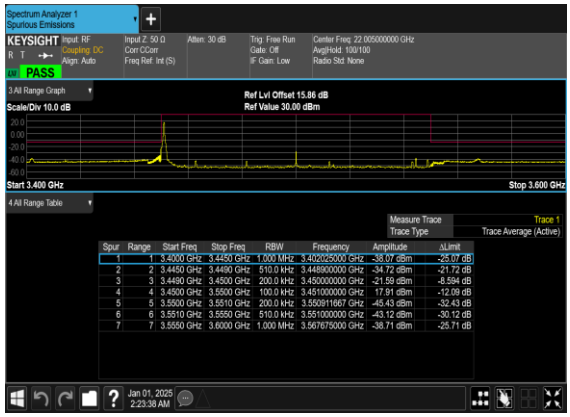
N77(60M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



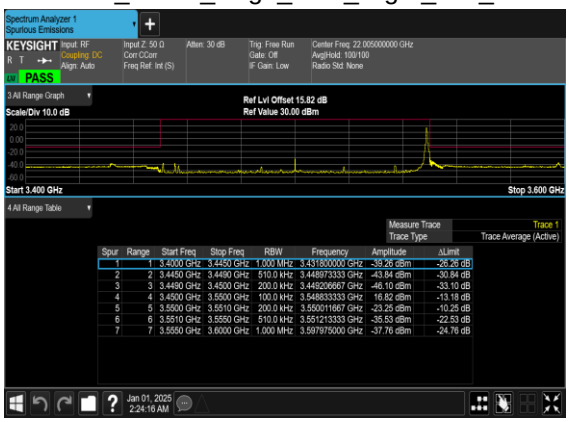
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



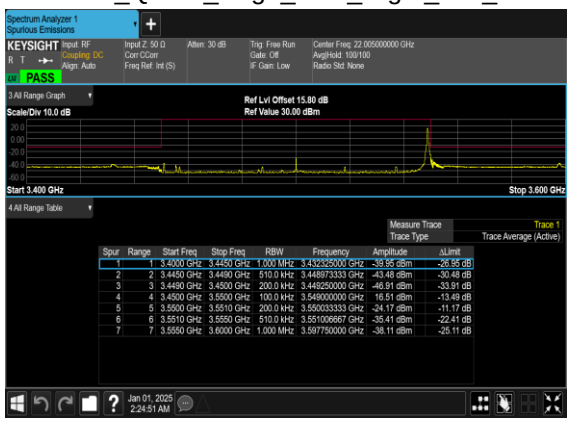
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



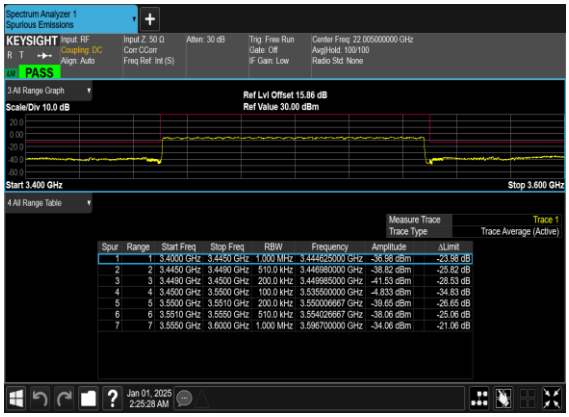
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_Mid_CH



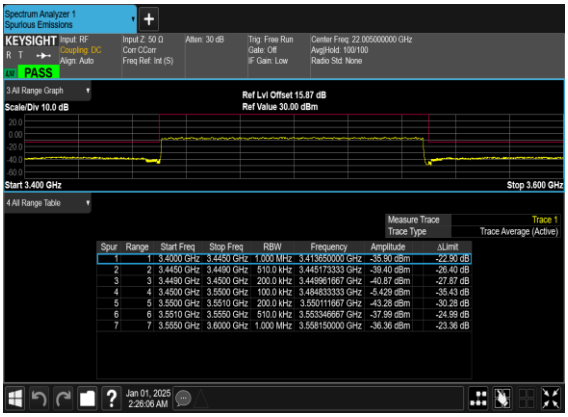
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_Mid_CH



N77(100M)_DFT-s-OFDM_BPSK_Outer_Full_Mid_CH



N77(100M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	PingZhou Liang	Temperature :	22~25℃
		Relative Humidity :	48~52%

RSE pre-scanned harmonic for different antennas, choose the worst antenna perform final test and record in the report.

SA n77 / NR 100MHz / QPSK / ANT7									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA. Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	6908	-59.32	-13	-46.32	-57.65	-62.62	8.30	11.60	H
	10362	-55.67	-13	-42.67	-58.47	-57.19	10.48	12.00	H
	13816	-51.50	-13	-38.50	-59.00	-53.20	11.80	13.50	H
	6908	-59.12	-13	-46.12	-57.93	-62.42	8.30	11.60	V
	10362	-56.52	-13	-43.52	-58.49	-58.04	10.48	12.00	V
	13816	-52.45	-13	-39.45	-59.33	-54.15	11.80	13.50	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EN-DC_41A_n77A / LTE 10MHz + NR 100MHz / QPSK / ANT4 (LTE) & ANT7(NR)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA. Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
NR n77 Middle	6908	-59.90	-13	-46.90	-58.23	-63.20	8.30	11.60	H
	10362	-55.58	-13	-42.58	-58.38	-57.10	10.48	12.00	H
	13816	-52.12	-13	-39.12	-59.62	-53.82	11.80	13.50	H
	6908	-58.55	-13	-45.55	-57.36	-61.85	8.30	11.60	V
	10362	-56.77	-13	-43.77	-58.74	-58.29	10.48	12.00	V
	13816	-52.80	-13	-39.80	-59.68	-54.50	11.80	13.50	V
LTE Band41 Middle	5177.00	-60.12	-25	-35.12	-81.91	-65.68	7.14	12.70	H
	7765.50	-59.14	-25	-34.14	-58.23	-62.44	8.30	11.60	H
	10354.00	-55.58	-25	-30.58	-58.36	-57.10	10.48	12.00	H
	5177.00	-59.68	-25	-34.68	-81.76	-65.24	7.14	12.70	V
	7765.50	-59.55	-25	-34.55	-58.48	-62.85	8.30	11.60	V
	10354.00	-56.77	-25	-31.77	-58.68	-58.29	10.48	12.00	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.