



# FCC RF Test Report

**APPLICANT** : Lenovo(Shanghai) Electronics Technology Co., Ltd.  
**EQUIPMENT** : Portable Tablet Computer  
**BRAND NAME** : Lenovo  
**MODEL NAME** : TB336ZJ  
**FCC ID** : O57TB336ZJ  
**STANDARD** : 47 CFR Part 27 Subpart Q  
**CLASSIFICATION** : Licensed Non-Broadcast Station Transmitter (TNB)  
**TEST DATE(S)** : Jun. 08, 2025 ~ Jul. 12, 2025

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.

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

**Sporton International Inc. (Kunshan)**  
**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300**  
**People's Republic of China**



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## 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 25.76 dB at 6900.00 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

**Lenovo(Shanghai) Electronics Technology Co., Ltd.**  
 Section 304-305, Building No. 4, # 222, Meiyue Road, China (Shanghai) Pilot Free Trade Zone

## 1.2 Manufacturer

**Lenovo PC HK Limited**  
 23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong, China

## 1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Portable Tablet Computer
Brand Name	Lenovo
Model Name	TB336ZJ
FCC ID	O57TB336ZJ
IMEI Code	Conducted: 860228080000694/860228080000702 Radiation: 860228080001676
HW Version	TB336ZJ
SW Version	Lenovo ZUI 17.0
EUT Stage	Identical Prototype

**Remark:** There are four types of EUT, for the differences please refer to the TB336ZJ\_Operational Description of Product Equality Declaration exhibit separately. After evaluation, the differences will not affect the RF performance, so we chose Sample 1 to full test.

## 1.4 Product Specification of Equipment Under Test

Product Feature	
Tx/Rx Frequency	5G NR n78: 3450 MHz ~ 3550 MHz
SCS	30kHz
Bandwidth	n78: 20 / 30 / 40 / 50 / 60 / 70 / 80 / 90 / 100MHz
Antenna Gain	<Ant. 3> 5G NR n78: -3.3 dBi <Ant. 6> 5G NR n78: -5.2 dBi <Ant. 7> 5G NR n78: -3.5 dBi <Ant. 8> 5G NR n78: -6.4 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

**Remark:**

- The maximum EIRP is calculated from max output power and max antenna gain, only the maximum

EIRP is shown in the report, 5G NR n78 for Antenna 3.

2. For 5G NR n78, only the test data of Ant.3 are showed in the report according to the maximum conducted power for conducted test items.
3. 5G NR n78 support SA mode only.

## 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 n78		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	0.0643	18M2G7D	0.0533	18M3W7D
30	3465.00 ~ 3534.99	0.0659	27M8G7D	0.0547	27M8W7D
40	3470.01 ~ 3529.98	0.0650	37M8G7D	0.0548	37M9W7D
50	3475.02 ~ 3525.00	0.0652	47M4G7D	0.0547	47M4W7D
60	3480.00 ~ 3519.99	0.0664	57M8G7D	0.0557	57M8W7D
70	3485.01 ~ 3514.98	0.0676	67M5G7D	0.0564	67M6W7D
80	3490.02 ~ 3510.00	0.0679	77M5G7D	0.0565	77M7W7D
90	3495.00 ~ 3504.99	0.0678	87M5G7D	0.0566	87M7W7D
100	3500.01	0.0668	97M5G7D	0.0558	97M9W7D

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

<b>Test Firm</b>	Sporton International Inc. (Kunshan)		
<b>Test Site Location</b>	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	03CH04-KS TH01-KS	CN1257	314309

## 1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	TH01-KS	Tonscend	JS1120-3 test system China_210602	3.3.10
2.	03CH04-KS	AUDIX	E3	210616

## 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

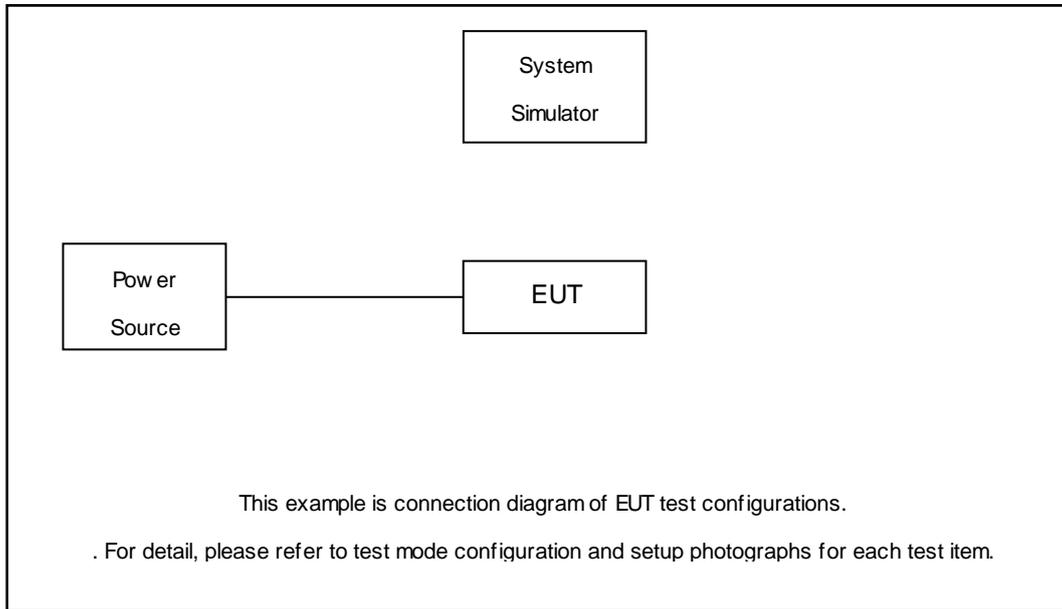
### 2.1 Test Mode

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.

Test Items	5G NR	Bandwidth (MHz)									Modulation			RB #		Test Channel				
		20	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16 QAM	64 QAM	256 QAM	1	Full	L	M	H
Max. Output Power	n78	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	n78	v									v	v				v	v		v	
26dB and 99% Bandwidth	n78	v	v	v	v	v	v	v	v	v		v	v	v	v		v		v	
Conducted Band Edge	n78	v				v				v	v	v				v	v	v		v
Conducted Spurious Emission	n78	v				v				v	v	v				v		v	v	v
Frequency Stability	n78	v										v					v	v		v
E.I.R.P	n78	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	n78	<b>Worst Case</b>																	v	
Note	<ol style="list-style-type: none"> <li>The mark "v" means that this configuration is chosen for testing</li> <li>The mark "-" means that this bandwidth is not supported.</li> <li>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.</li> <li>Frequency Stability : Normal Voltage = 3.91V; Low Voltage = 3.6V; High Voltage = 4.5V.</li> </ol>																			

## 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.	NR Base Station	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
3.	Adapter	N/A	N/A	N/A	N/A	N/A
4.	USB Cable	N/A	N/A	N/A	N/A	N/A

## 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.

$$\text{Offset} = \text{RF cable loss} + \text{attenuator factor}.$$

Following shows an offset computation example with cable loss 6.50 dB and 20dB attenuator.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 6.50 + 20 = 26.50 \text{ (dB)} \end{aligned}$$

## 2.5 Frequency List of Low/Middle/High Channels

5G 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
20	Channel	630668	633334	636000
	Frequency	3460.02	3500.01	3540

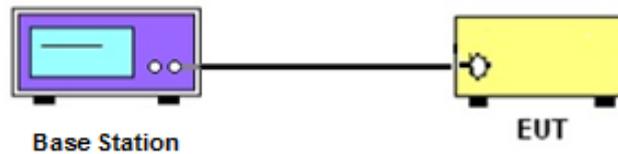
### 3 Conducted Test Items

#### 3.1 Measuring Instruments

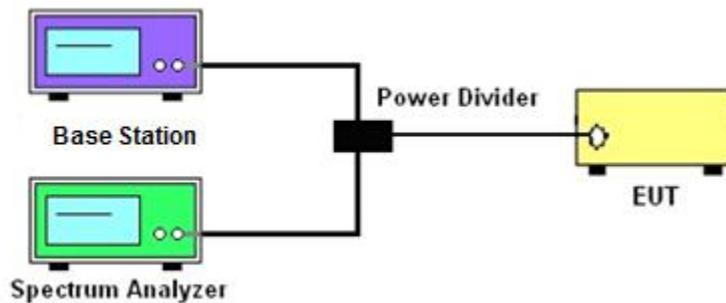
See list of measuring instruments of this test report.

#### 3.2 Test Setup

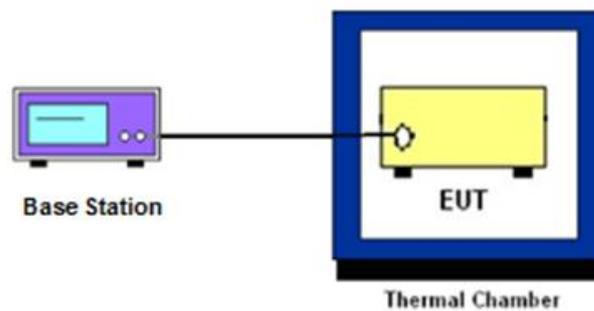
##### 3.2.1 Conducted Output Power



##### 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  $\geq$  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  $\geq$  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<sup>th</sup> 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  $-30^{\circ}\text{C}$  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  $10^{\circ}\text{C}$  step up to  $50^{\circ}\text{C}$ . 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  $20\pm 5^{\circ}\text{C}$  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.

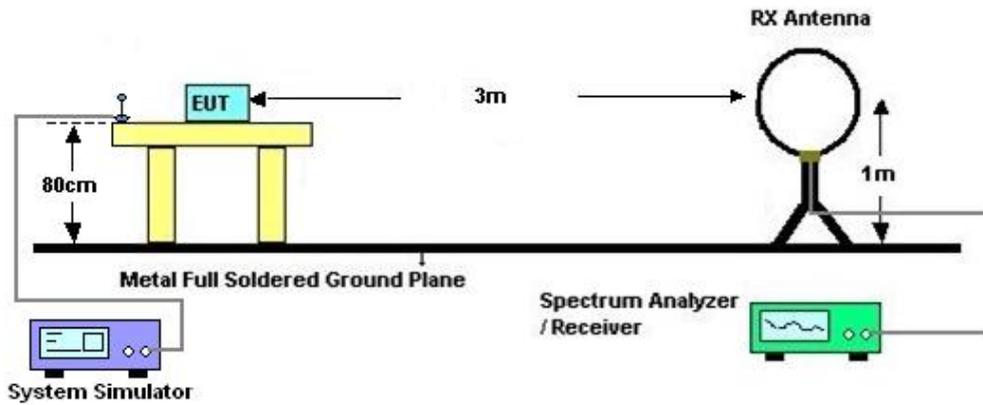
## 4 Radiated Test Items

### 4.1 Measuring Instruments

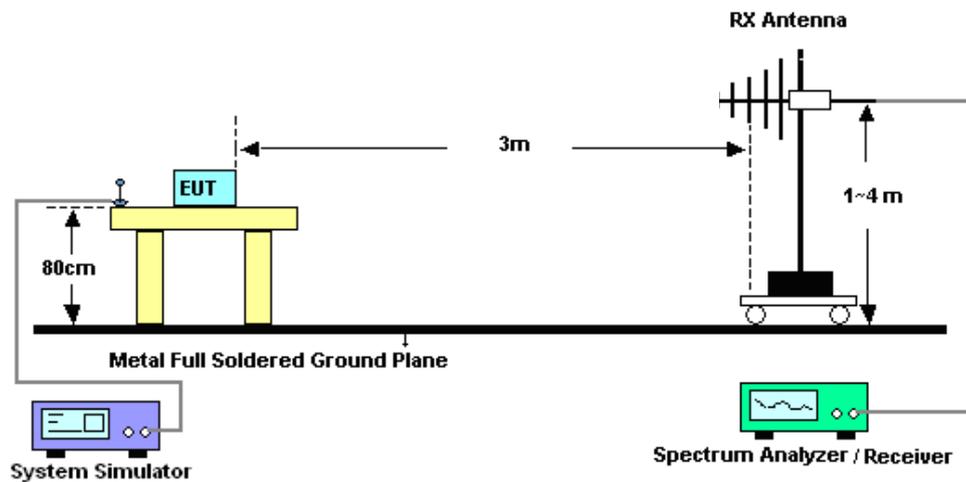
See list of measuring instruments of this test report.

### 4.2 Test Setup

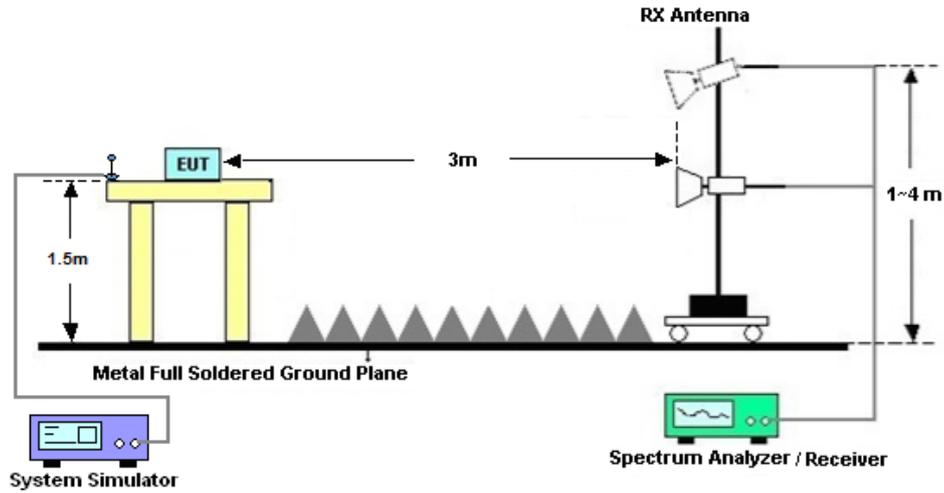
#### 4.2.1 For radiated test below 30MHz



#### 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.  
$$\text{EIRP (dBm)} = \text{S.G. Power} - \text{Tx Cable Loss} + \text{Tx Antenna Gain}$$
$$\text{ERP (dBm)} = \text{EIRP} - 2.15$$
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	101040	10Hz~40GHz	Oct. 10, 2024	Jun. 08, 2025	Oct. 09, 2025	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	NCR	Jun. 08, 2025	NCR	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 04, 2024	Jun. 08, 2025	Jul. 03, 2025	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55370528	10Hz-44G,MAX 30dB	Dec. 03, 2024	Jun. 12, 2025	Dec. 02, 2025	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 08, 2024	Jun. 12, 2025	Sep. 07, 2025	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz-1GHz	Nov. 23, 2024	Jun. 12, 2025	Nov. 22, 2025	Radiation (03CH04-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00227860	1GHz~18GHz	Aug. 16, 2024	Jun. 12, 2025	Aug. 15, 2025	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101116	18GHz~40GHz	Oct. 22, 2024	Jun. 12, 2025	Oct. 21, 2025	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	380826	9KHz-1GHz	Jul. 03, 2024	Jun. 12, 2025	Jul. 02, 2025	Radiation (03CH04-KS)
Amplifier	EM	EM18G40G A	060852	18~40GHz	Jan. 03, 2025	Jun. 12, 2025	Jan. 02, 2026	Radiation (03CH04-KS)
high gain Amplifier	EM	EM01G18G A	060840	1Ghz-18Ghz	Oct. 09, 2024	Jun. 12, 2025	Oct. 08, 2025	Radiation (03CH04-KS)
Amplifier	EM	EM01G18G A	060892	1Ghz-18Ghz	Oct. 09, 2024	Jun. 12, 2025	Oct. 08, 2025	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Jun. 12, 2025	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Jun. 12, 2025	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Jun. 12, 2025	NCR	Radiation (03CH04-KS)

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	±2.22 dB
Occupied Channel Bandwidth	±0.1%
Conducted Power	±0.50 dB
Peak to Average Ratio	±0.50 dB
Frequency Stability	±0.04 ppm

### Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.83 dB
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.83 dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.82 dB
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----- THE END -----



## Appendix A. Test Results of Conducted Test

Test Engineer :	Simle Wang	Temperature :	22~23°C
		Relative Humidity :	40~42%



# FR1 N78\_ANT3

## Transmitter Conducted Output Power And EIRP, (G<sub>T</sub> - L<sub>C</sub>)=-3.3dBi

NR Band	SCS	BandWidth	Arfcn	Freq (MHz)	Modulation	RB	Conducted Power (dBm)	EIRP (dBm)	EIRP (W)
78	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@1	21.34	18.04	0.0637
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@1	21.38	18.08	0.0643
78	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@1	20.57	17.27	0.0533
78	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	21.00	17.70	0.0589
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@1	21.04	17.74	0.0594
78	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	20.23	16.93	0.0493
78	30	20	636000	3540	DFT-s-OFDM PI/2 BPSK	1@1	21.10	17.80	0.0603
78	30	20	636000	3540	DFT-s-OFDM QPSK	1@1	21.17	17.87	0.0612
78	30	20	636000	3540	DFT-s-OFDM 16 QAM	1@1	20.36	17.06	0.0508
78	30	30	631000	3465	DFT-s-OFDM PI/2 BPSK	1@1	21.45	18.15	0.0653
78	30	30	631000	3465	DFT-s-OFDM QPSK	1@1	21.49	18.19	0.0659
78	30	30	631000	3465	DFT-s-OFDM 16 QAM	1@1	20.68	17.38	0.0547
78	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	21.25	17.95	0.0624
78	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@1	21.27	17.97	0.0627
78	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	20.48	17.18	0.0522
78	30	30	635666	3534.99	DFT-s-OFDM PI/2 BPSK	1@1	21.16	17.86	0.0611
78	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@1	21.22	17.92	0.0619
78	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@1	20.42	17.12	0.0515
78	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	1@1	21.40	18.10	0.0646
78	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@1	21.43	18.13	0.0650
78	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@1	20.69	17.39	0.0548
78	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	21.28	17.98	0.0628
78	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@1	21.30	18.00	0.0631
78	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	20.53	17.23	0.0528
78	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	1@1	21.13	17.83	0.0607
78	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@1	21.17	17.87	0.0612
78	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@1	20.39	17.09	0.0512



78	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	1@1	21.42	18.12	0.0649
78	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@1	21.44	18.14	0.0652
78	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	1@1	20.68	17.38	0.0547
78	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	21.34	18.04	0.0637
78	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@1	21.35	18.05	0.0638
78	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	20.59	17.29	0.0536
78	30	50	635000	3525	DFT-s-OFDM PI/2 BPSK	1@1	21.14	17.84	0.0608
78	30	50	635000	3525	DFT-s-OFDM QPSK	1@1	21.15	17.85	0.0610
78	30	50	635000	3525	DFT-s-OFDM 16 QAM	1@1	20.39	17.09	0.0512
78	30	60	632000	3480	DFT-s-OFDM PI/2 BPSK	1@1	21.47	18.17	0.0656
78	30	60	632000	3480	DFT-s-OFDM QPSK	1@1	21.52	18.22	0.0664
78	30	60	632000	3480	DFT-s-OFDM 16 QAM	1@1	20.76	17.46	0.0557
78	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	21.41	18.11	0.0647
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@1	21.41	18.11	0.0647
78	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	20.70	17.40	0.0550
78	30	60	634666	3519.99	DFT-s-OFDM PI/2 BPSK	1@1	21.23	17.93	0.0621
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@1	21.19	17.89	0.0615
78	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@1	20.46	17.16	0.0520
78	30	70	632334	3485.01	DFT-s-OFDM PI/2 BPSK	1@1	21.58	18.28	0.0673
78	30	70	632334	3485.01	DFT-s-OFDM QPSK	1@1	21.60	18.30	0.0676
78	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	1@1	20.81	17.51	0.0564
78	30	70	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	21.52	18.22	0.0664
78	30	70	633334	3500.01	DFT-s-OFDM QPSK	1@1	21.53	18.23	0.0665
78	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	20.79	17.49	0.0561
78	30	70	634332	3514.98	DFT-s-OFDM PI/2 BPSK	1@1	21.34	18.04	0.0637
78	30	70	634332	3514.98	DFT-s-OFDM QPSK	1@1	21.37	18.07	0.0641
78	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	1@1	20.57	17.27	0.0533
78	30	80	632668	3490.02	DFT-s-OFDM PI/2 BPSK	1@1	21.60	18.30	0.0676
78	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@1	21.62	18.32	0.0679
78	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@1	20.81	17.51	0.0564
78	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	21.59	18.29	0.0675
78	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@1	21.60	18.30	0.0676
78	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	20.82	17.52	0.0565
78	30	80	634000	3510	DFT-s-OFDM PI/2 BPSK	1@1	21.53	18.23	0.0665



78	30	80	634000	3510	DFT-s-OFDM QPSK	1@1	21.54	18.24	0.0667
78	30	80	634000	3510	DFT-s-OFDM 16 QAM	1@1	20.76	17.46	0.0557
78	30	90	633000	3495	DFT-s-OFDM PI/2 BPSK	1@1	21.55	18.25	0.0668
78	30	90	633000	3495	DFT-s-OFDM QPSK	1@1	21.56	18.26	0.0670
78	30	90	633000	3495	DFT-s-OFDM 16 QAM	1@1	20.77	17.47	0.0558
78	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	21.52	18.22	0.0664
78	30	90	633334	3500.01	DFT-s-OFDM QPSK	1@1	21.51	18.21	0.0662
78	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	20.76	17.46	0.0557
78	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	1@1	21.61	18.31	0.0678
78	30	90	633666	3504.99	DFT-s-OFDM QPSK	1@1	21.61	18.31	0.0678
78	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	1@1	20.83	17.53	0.0566
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	135@67	21.26	17.96	0.0625
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	21.54	18.24	0.0667
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@271	21.17	17.87	0.0612
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	135@67	21.30	18.00	0.0631
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@1	21.55	18.25	0.0668
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@271	21.17	17.87	0.0612
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	135@67	20.32	17.02	0.0504
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	20.77	17.47	0.0558
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@271	20.49	17.19	0.0524
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	135@67	18.80	15.50	0.0355
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	18.98	15.68	0.0370
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@271	18.69	15.39	0.0346
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	135@67	16.81	13.51	0.0224
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	16.96	13.66	0.0232
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@271	16.62	13.32	0.0215
78	30	100	633334	3500.01	CP-OFDM QPSK	137@68	19.76	16.46	0.0443
78	30	100	633334	3500.01	CP-OFDM QPSK	1@1	20.03	16.73	0.0471
78	30	100	633334	3500.01	CP-OFDM QPSK	1@271	19.74	16.44	0.0441



### Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (Hz)	Verdict	Environment
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	6.3	PASS	NV
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-4.1	PASS	LV
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	6.8	PASS	HV
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-3.8	PASS	-30°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-4.5	PASS	-20°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	-4.7	PASS	-10°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	5.8	PASS	0°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	4.6	PASS	10°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	3.9	PASS	20°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	5.1	PASS	30°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	7.1	PASS	40°C
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	6.2	PASS	50°C

$|\text{MAX}(\Delta f)| = 7.1 \text{ Hz}$

Frequency Stability	Frequency (MHz)	Limit Line	Result
$fL -  \text{MAX}(\Delta f) $	3450.077995	$\cong 3450 \text{ MHz}$	PASS
$fH +  \text{MAX}(\Delta f) $	3548.920005	$\cong 3550 \text{ MHz}$	



### Peak to Average Ratio

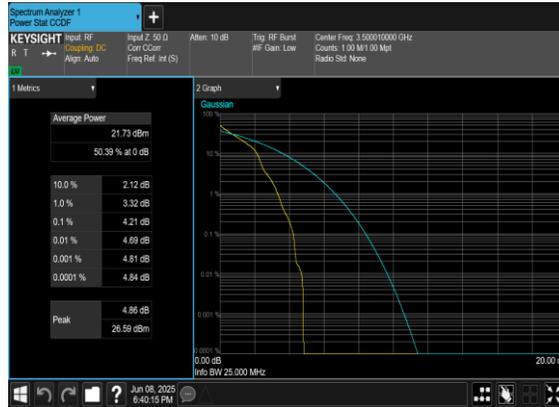
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
78	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	50@0	4.53	13	PASS
78	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@0	4.21	13	PASS
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	50@0	5.85	13	PASS
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	5.77	13	PASS



N78(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Outer\_Full\_Mid\_CH



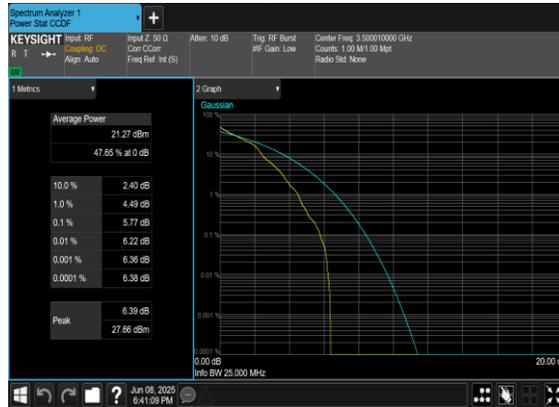
N78(20M)\_DFT-s-OFDM\_PI\_2-BPSK\_Edge\_1RB\_Left\_Mid\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH





### Occupied Bandwidth

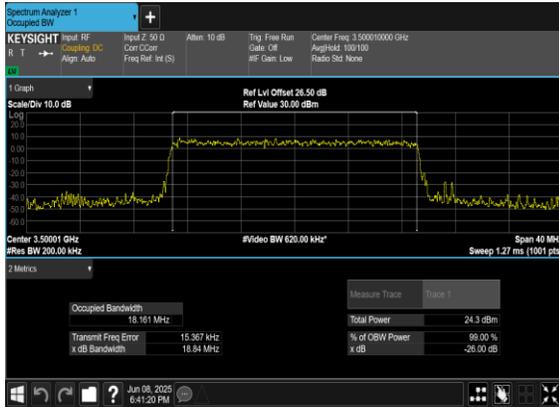
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
78	30	20	633334	3500.01	CP-OFDM QPSK	51@0	18.161	18.84
78	30	20	633334	3500.01	CP-OFDM 16 QAM	51@0	18.207	19.05
78	30	20	633334	3500.01	CP-OFDM 64 QAM	51@0	18.274	18.93
78	30	20	633334	3500.01	CP-OFDM 256 QAM	51@0	18.182	19.0
78	30	30	633334	3500.01	CP-OFDM QPSK	78@0	27.823	28.97
78	30	30	633334	3500.01	CP-OFDM 16 QAM	78@0	27.843	28.82
78	30	30	633334	3500.01	CP-OFDM 64 QAM	78@0	27.685	28.74
78	30	30	633334	3500.01	CP-OFDM 256 QAM	78@0	27.836	28.89
78	30	40	633334	3500.01	CP-OFDM QPSK	106@0	37.849	39.16
78	30	40	633334	3500.01	CP-OFDM 16 QAM	106@0	37.88	39.15
78	30	40	633334	3500.01	CP-OFDM 64 QAM	106@0	37.852	39.32
78	30	40	633334	3500.01	CP-OFDM 256 QAM	106@0	37.794	39.45
78	30	50	633334	3500.01	CP-OFDM QPSK	133@0	47.412	49.13
78	30	50	633334	3500.01	CP-OFDM 16 QAM	133@0	47.382	49.05
78	30	50	633334	3500.01	CP-OFDM 64 QAM	133@0	47.422	49.06
78	30	50	633334	3500.01	CP-OFDM 256 QAM	133@0	47.373	49.11
78	30	60	633334	3500.01	CP-OFDM QPSK	162@0	57.843	59.7
78	30	60	633334	3500.01	CP-OFDM 16 QAM	162@0	57.724	59.61
78	30	60	633334	3500.01	CP-OFDM 64 QAM	162@0	57.768	59.64
78	30	60	633334	3500.01	CP-OFDM 256 QAM	162@0	57.665	59.69
78	30	70	633334	3500.01	CP-OFDM QPSK	189@0	67.487	69.72
78	30	70	633334	3500.01	CP-OFDM 16 QAM	189@0	67.484	69.66
78	30	70	633334	3500.01	CP-OFDM 64 QAM	189@0	67.4	69.74
78	30	70	633334	3500.01	CP-OFDM 256 QAM	189@0	67.594	69.63
78	30	80	633334	3500.01	CP-OFDM QPSK	217@0	77.515	80.02
78	30	80	633334	3500.01	CP-OFDM 16 QAM	217@0	77.475	80.02



78	30	80	633334	3500.01	CP-OFDM 64 QAM	217@0	77.561	79.92
78	30	80	633334	3500.01	CP-OFDM 256 QAM	217@0	77.72	80.1
78	30	90	633334	3500.01	CP-OFDM QPSK	245@0	87.474	90.23
78	30	90	633334	3500.01	CP-OFDM 16 QAM	245@0	87.379	90.27
78	30	90	633334	3500.01	CP-OFDM 64 QAM	245@0	87.687	90.1
78	30	90	633334	3500.01	CP-OFDM 256 QAM	245@0	87.371	90.22
78	30	100	633334	3500.01	CP-OFDM QPSK	273@0	97.467	100.3
78	30	100	633334	3500.01	CP-OFDM 16 QAM	273@0	97.456	100.5
78	30	100	633334	3500.01	CP-OFDM 64 QAM	273@0	97.504	100.6
78	30	100	633334	3500.01	CP-OFDM 256 QAM	273@0	97.873	100.7



N78(20M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



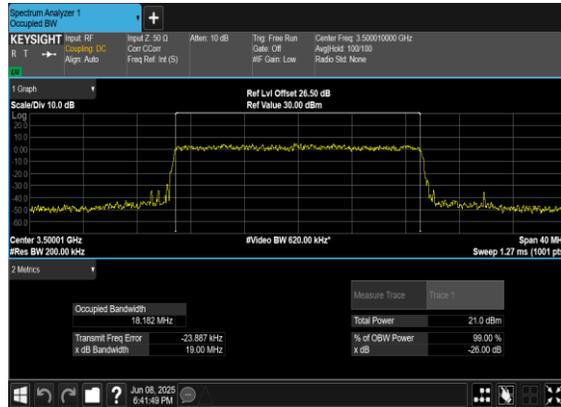
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N78(20M)\_CP-OFDM\_64QAM\_Outer\_Full\_Mid\_CH



N78(20M)\_CP-OFDM\_256QAM\_Outer\_Full\_Mid\_CH

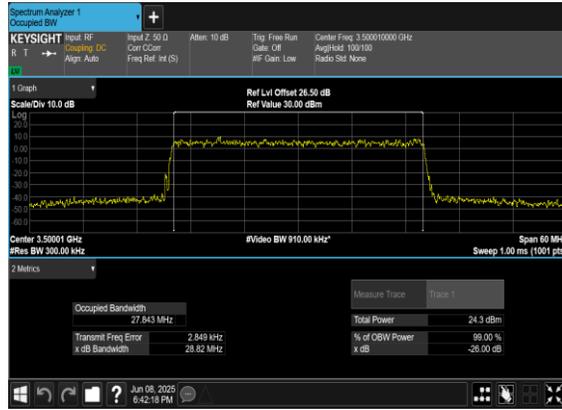




N78(30M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



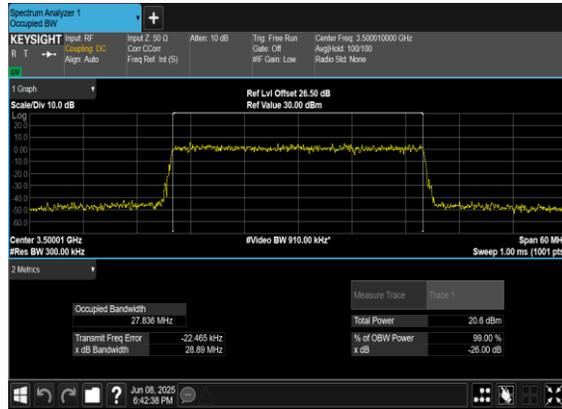
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N78(30M)\_CP-OFDM\_64QAM\_Outer\_Full\_Mid\_CH



N78(30M)\_CP-OFDM\_256QAM\_Outer\_Full\_Mid\_CH

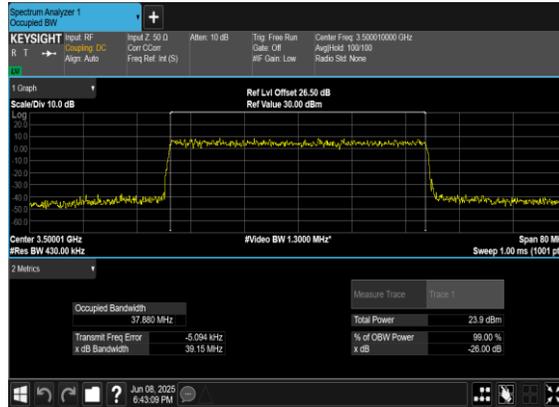




N78(40M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



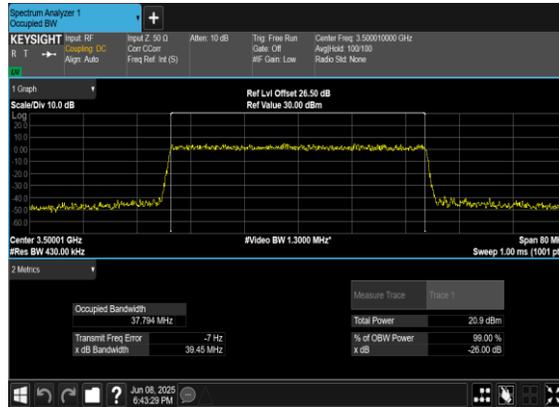
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N78(40M)\_CP-OFDM\_64QAM\_Outer\_Full\_Mid\_CH



N78(40M)\_CP-OFDM\_256QAM\_Outer\_Full\_Mid\_CH

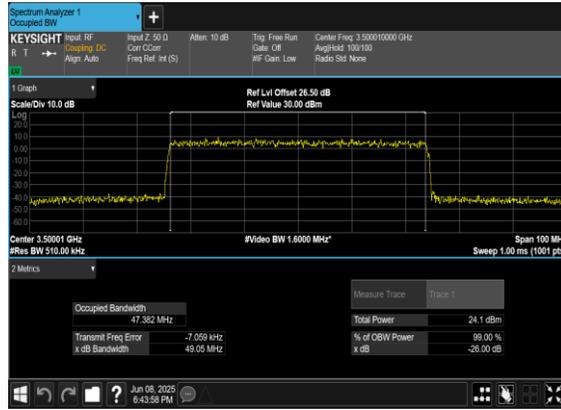




N78(50M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



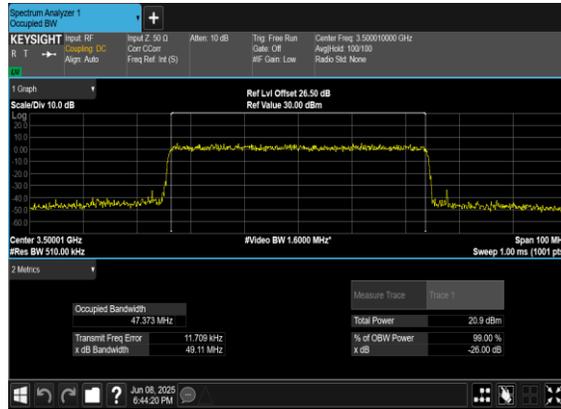
N78(50M)\_CP-OFDM\_16QAM\_Outer\_Full\_Mid\_CH



N78(50M)\_CP-OFDM\_64QAM\_Outer\_Full\_Mid\_CH



N78(50M)\_CP-OFDM\_256QAM\_Outer\_Full\_Mid\_CH





N78(60M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



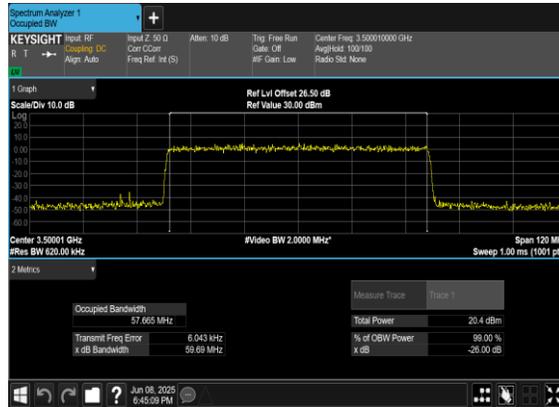
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N78(60M)\_CP-OFDM\_64QAM\_Outer\_Full\_Mid\_CH

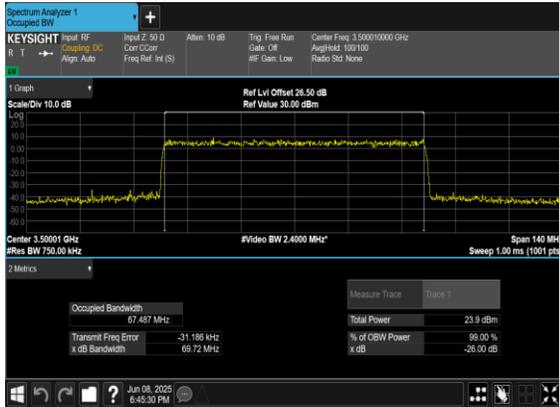


N78(60M)\_CP-OFDM\_256QAM\_Outer\_Full\_Mid\_CH

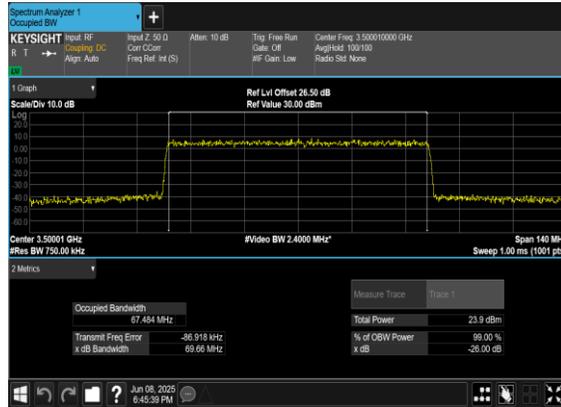




N78(70M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



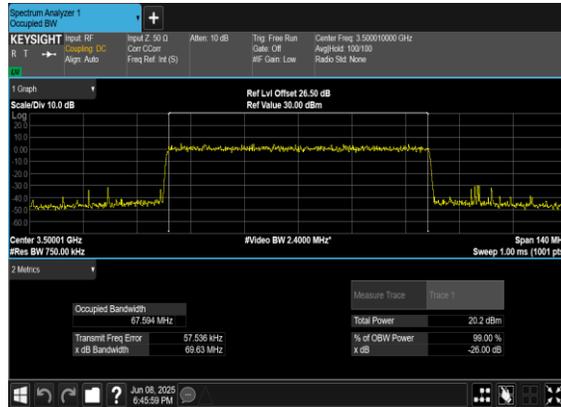
N78(70M)\_CP-OFDM\_16QAM\_Outer\_Full\_Mid\_CH



N78(70M)\_CP-OFDM\_64QAM\_Outer\_Full\_Mid\_CH



N78(70M)\_CP-OFDM\_256QAM\_Outer\_Full\_Mid\_CH

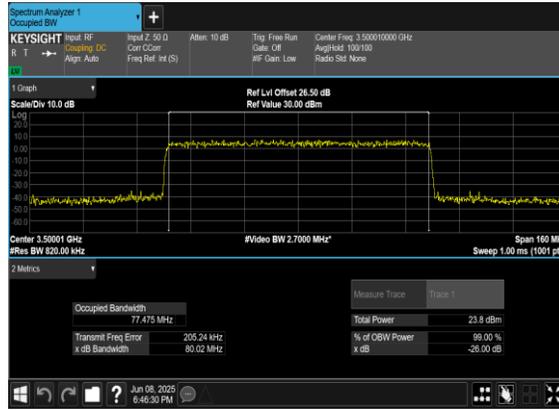




N78(80M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



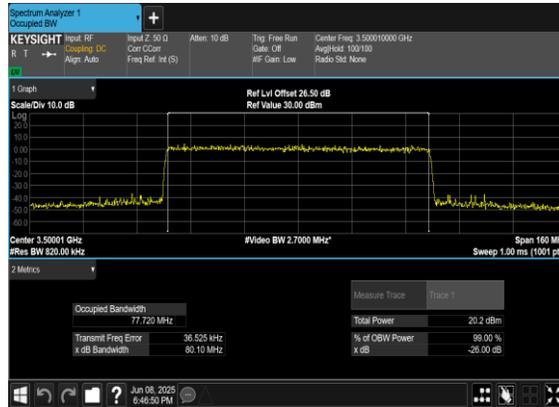
N78(80M)\_CP-OFDM\_16QAM\_Outer\_Full\_Mid\_CH



N78(80M)\_CP-OFDM\_64QAM\_Outer\_Full\_Mid\_CH

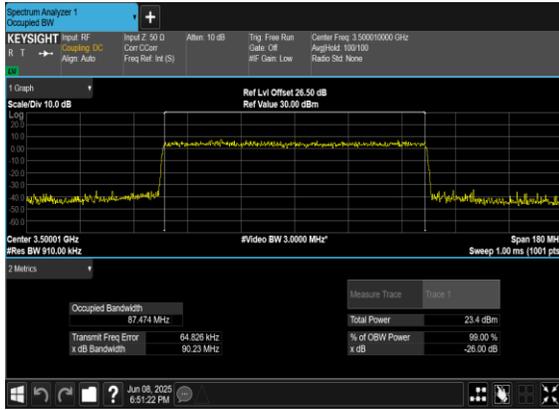


N78(80M)\_CP-OFDM\_256QAM\_Outer\_Full\_Mid\_CH

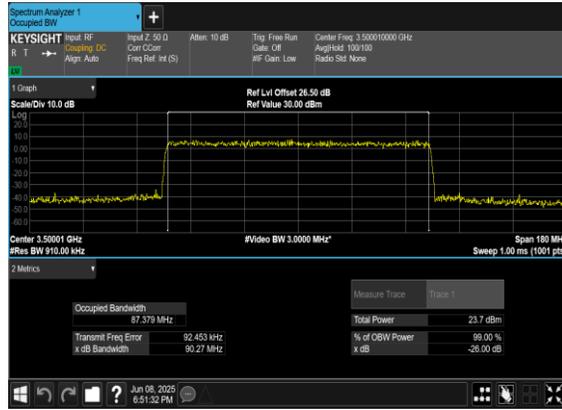




N78(90M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



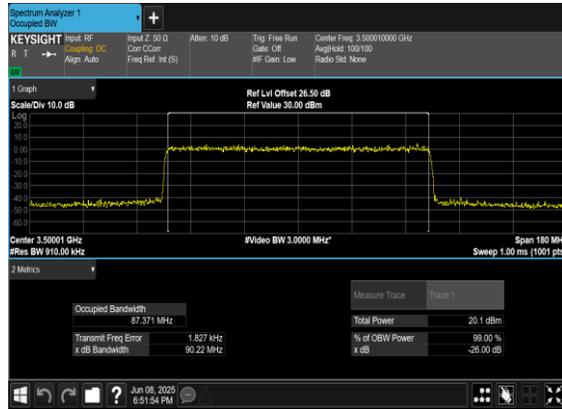
N78(90M)\_CP-OFDM\_16QAM\_Outer\_Full\_Mid\_CH



N78(90M)\_CP-OFDM\_64QAM\_Outer\_Full\_Mid\_CH



N78(90M)\_CP-OFDM\_256QAM\_Outer\_Full\_Mid\_CH

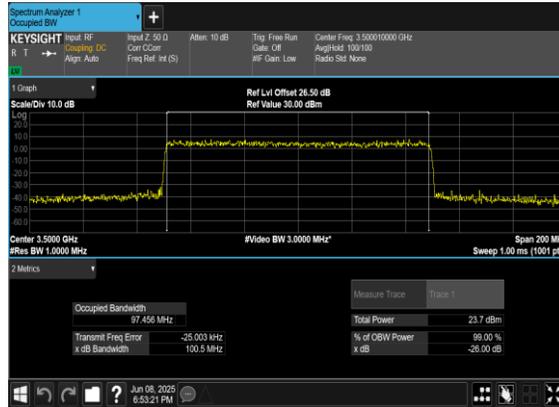




N78(100M)\_CP-OFDM\_QPSK\_Outer\_Full\_Mid\_CH



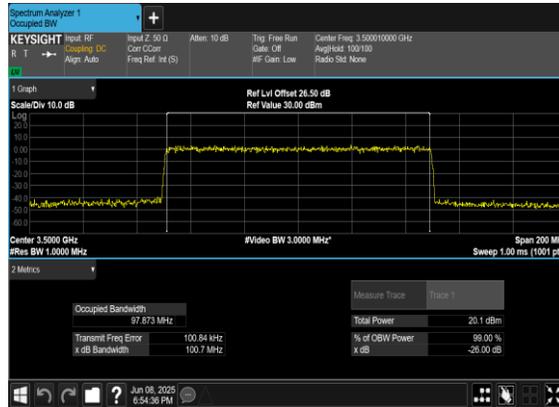
N78(100M)\_CP-OFDM\_16QAM\_Outer\_Full\_Mid\_CH



N78(100M)\_CP-OFDM\_64QAM\_Outer\_Full\_Mid\_CH



N78(100M)\_CP-OFDM\_256QAM\_Outer\_Full\_Mid\_CH





### Conducted Spurious Emissions

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
78	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	20	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	20	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	60	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS



78	30	60	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	---
78	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	---
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS



N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH

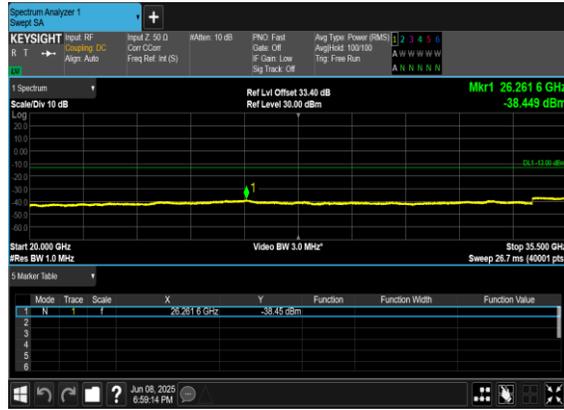




N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH

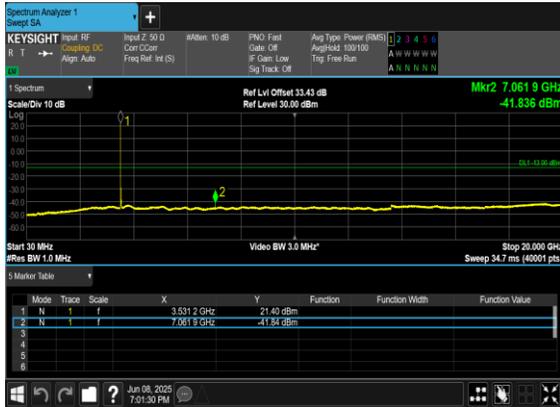


N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH





N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



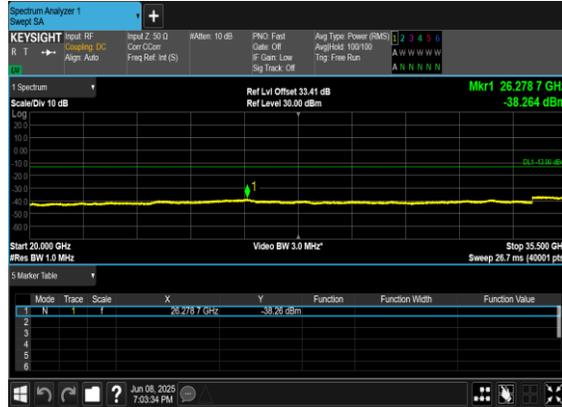
N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH

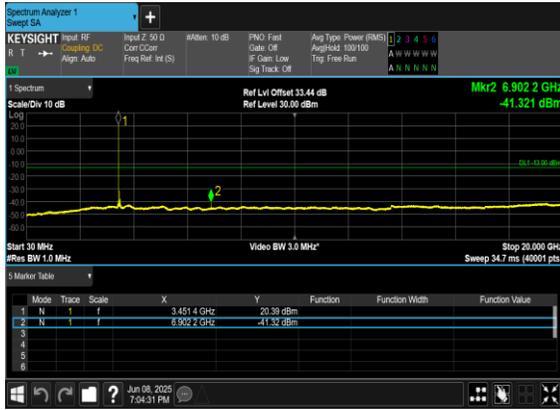


N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH





N78(60M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



N78(60M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



N78(60M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH

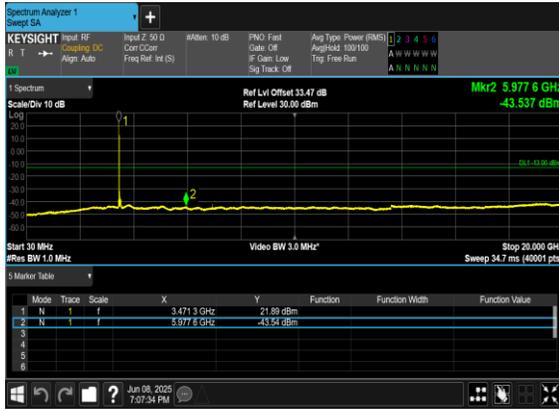


N78(60M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH

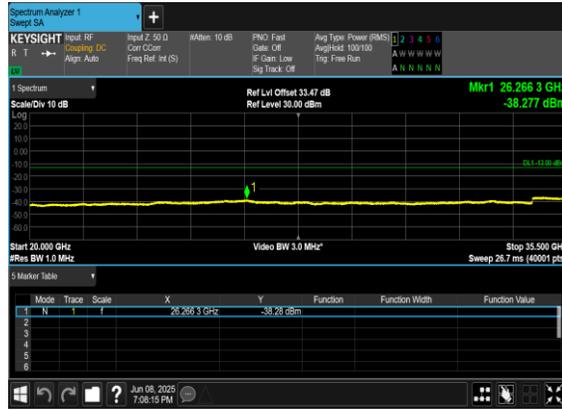




N78(60M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



N78(60M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



N78(60M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH

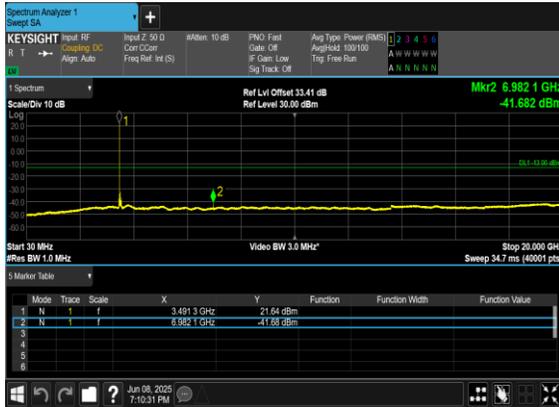


N78(60M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH





N78(60M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



N78(60M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_High\_CH



N78(60M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH



N78(60M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_High\_CH





N78(100M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



N78(100M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Mid\_CH



N78(100M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Mid\_CH



N78(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
78	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	20	630668	3460.02	DFT-s-OFDM BPSK	50@0	see graph	PASS
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	50@0	see graph	PASS
78	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@50	see graph	PASS
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@50	see graph	PASS
78	30	20	636000	3540.0	DFT-s-OFDM BPSK	50@0	see graph	PASS
78	30	20	636000	3540.0	DFT-s-OFDM QPSK	50@0	see graph	PASS
78	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	60	632000	3480.0	DFT-s-OFDM BPSK	162@0	see graph	PASS
78	30	60	632000	3480.0	DFT-s-OFDM QPSK	162@0	see graph	PASS
78	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@161	see graph	PASS
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@161	see graph	PASS
78	30	60	634666	3519.99	DFT-s-OFDM BPSK	162@0	see graph	PASS
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	162@0	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@272	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@272	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM BPSK	270@0	see graph	PASS
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	270@0	see graph	PASS



N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



N78(20M)\_DFT-s-OFDM\_BPSK\_Outer\_Full\_Low\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Low\_CH





N78(20M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Right\_High\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Right\_High\_CH



N78(20M)\_DFT-s-OFDM\_BPSK\_Outer\_Full\_High\_CH



N78(20M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_High\_CH





N78(60M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Left\_Low\_CH



N78(60M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Left\_Low\_CH



N78(60M)\_DFT-s-OFDM\_BPSK\_Outer\_Full\_Low\_CH

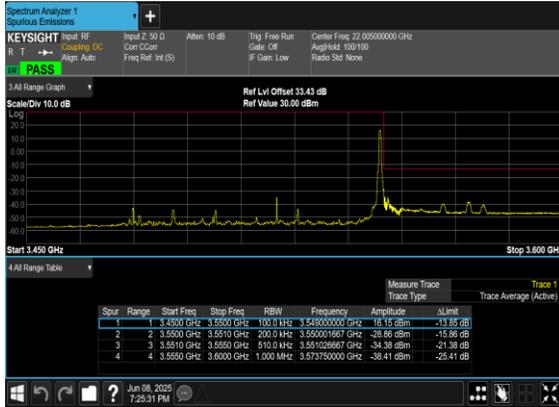


N78(60M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_Low\_CH

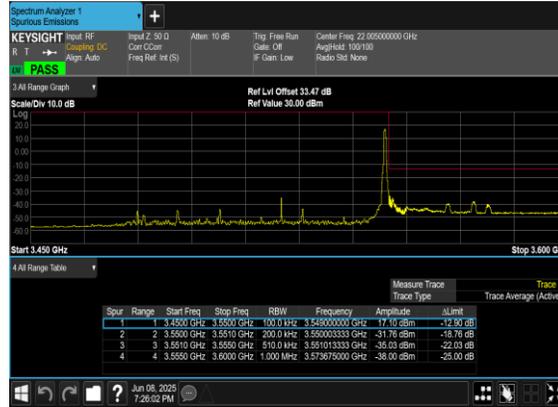




N78(60M)\_DFT-s-OFDM\_BPSK\_Edge\_1RB\_Right\_High\_CH



N78(60M)\_DFT-s-OFDM\_QPSK\_Edge\_1RB\_Right\_High\_CH



N78(60M)\_DFT-s-OFDM\_BPSK\_Outer\_Full\_High\_CH



N78(60M)\_DFT-s-OFDM\_QPSK\_Outer\_Full\_High\_CH

