

# FCC RF Test Report

APPLICANT : NOTHING TECHNOLOGY LIMITED  
EQUIPMENT : Smart Phone  
BRAND NAME : NOTHING  
MODEL NAME : A059P  
FCC ID : 2AZEQ-24111  
STANDARD : 47 CFR Part 96  
CLASSIFICATION : Citizens Band End User Devices (CBE)  
EQUIPMENT TYPE : End User Equipment  
TEST DATE(S) : Nov. 28, 2024

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



**Sporton International Inc. (ShenZhen)**

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**People's Republic of China**



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History of this test report

Report No.	Version	Description	Issued Date
FG490417-01C	01	Initial issue of report	Dec. 17, 2024

## Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.4	§2.1051 §96.41	Radiated Spurious Emission	Pass	Under limit 11.05 dB at 14424.92 MHz

**Note:** This is a variant report for A059P the change note could be referred to the product equality declaration which is exhibit separately. According to the change, only the related test cases of RSE from original test report (Sporton Report Number FG490417H) were verified for the differences.

**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/manufacture 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 Feature of Equipment Under Test

Product Feature	
Equipment	Smart Phone
Brand Name	NOTHING
Model Name	A059P
FCC ID	2AZEQ-24111
Tx/Rx Frequency	5G NR n48: 3550 MHz ~ 3700 MHz
SCS	30kHz
Bandwidth	n48: 20MHz / 40MHz
Type of Modulation	DFT-s-OFDM (PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM) CP-OFDM (QPSK / 16QAM / 64QAM / 256QAM)
IMEI Code	Radiation : 353458700043584/353458700043592
HW Version	24111 Pro
SW Version	Nothing OS 3.1
EUT Stage	Identical Prototype

## 1.4 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.
	03CH01-SZ	CN1256	421272

## 1.5 Test Software

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

## 1.6 Applied Standards

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

- ♦ ANSI C63.26-2015
- ♦ 47 CFR Part 96
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 940660 D01 Part 96 CBRS v03
- ♦ 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

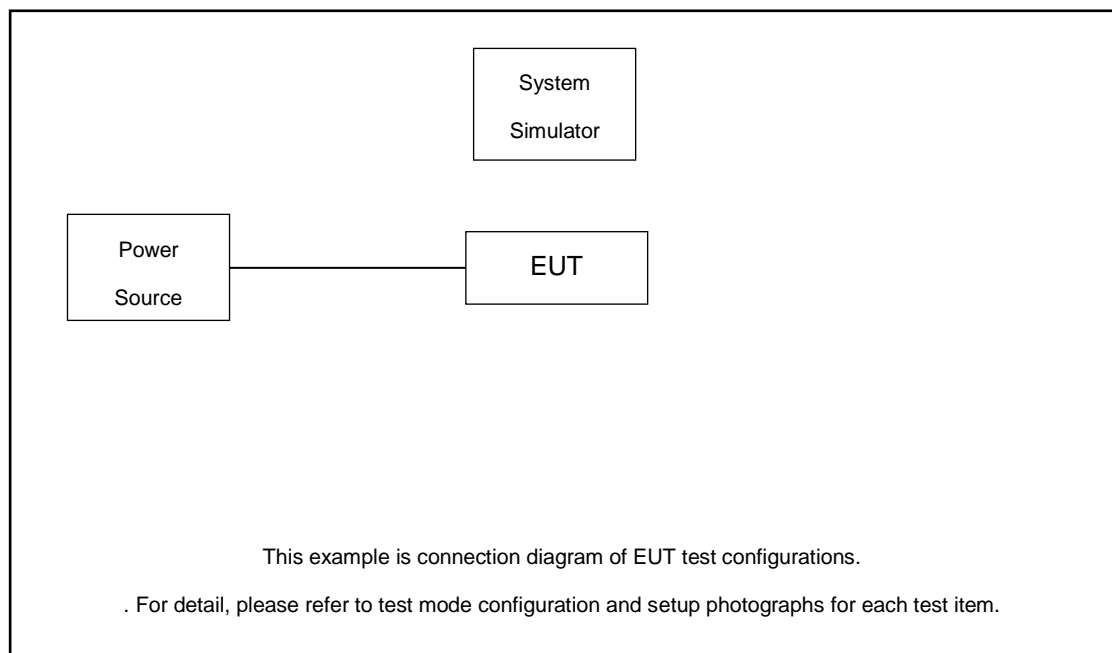
### 2.1 Test Mode

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.

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

Test Items	5G NR	Bandwidth (MHz)												Modulation					RB #		Test Channel		
		10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256 QAM	1	Full	L	M	H
Radiated Spurious Emission	n48	Worst Case																				v	
Note	1. The mark “v ” means that this configuration is chosen for testing 2. The mark “-” means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. Based on engineering evaluation, only the worst modulations test results are shown in the report. 5. Frequency Stability : Normal Voltage = 3.89V ; Low Voltage =3.60V. ; High Voltage =4.48V																						

### 2.2 Connection Diagram of Test System



## 2.3 Support Unit used in test configuration

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

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

5G NR n48 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
40	Channel	638000	641666	645332
	Frequency	3570	3624.99	3679.98
20	Channel	637334	641666	646000
	Frequency	3560.01	3624.99	3690



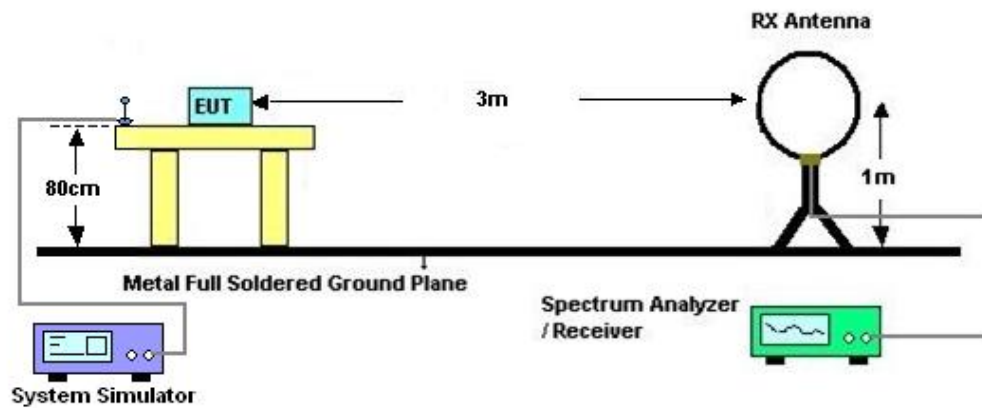
### 3 Radiated Test Items

#### 3.1 Measuring Instruments

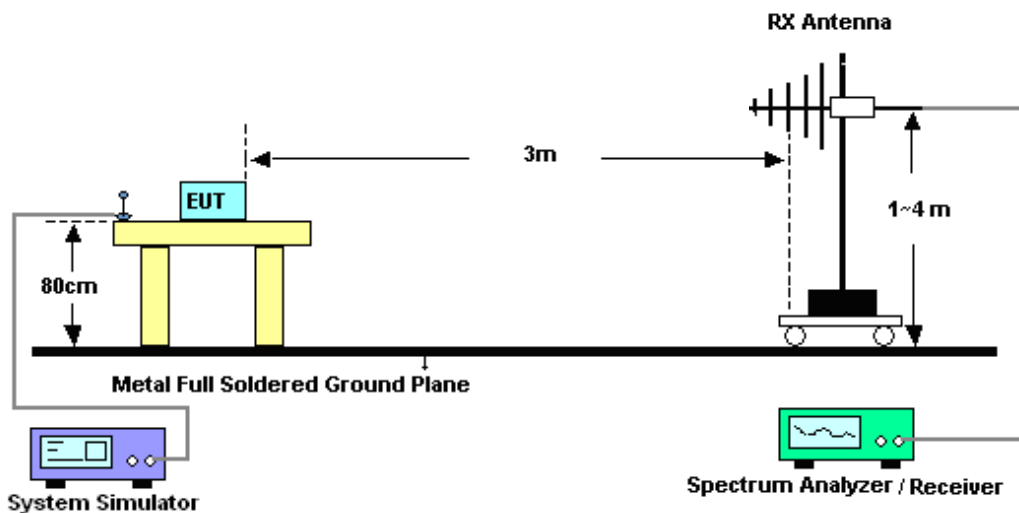
See list of measuring instruments of this test report.

#### 3.2 Test Setup

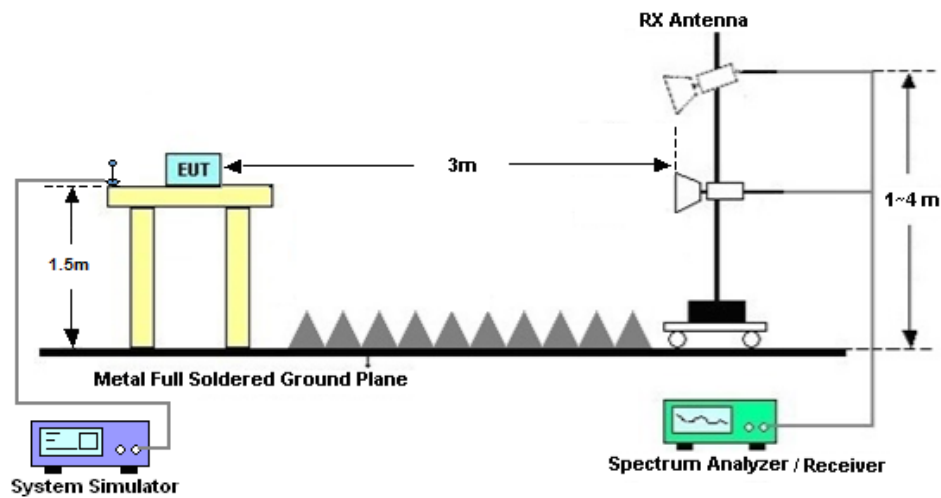
##### 3.2.1 For radiated test below 30MHz



##### 3.2.2 For radiated test from 30MHz to 1GHz



### 3.2.3 For radiated test above 1GHz



### 3.3 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.

## 3.4 Radiated Spurious Emission

### 3.4.1 Description of Radiated Spurious Emission Measurement

The radiated spurious emission was measured by substitution method according to ANSI C63.26. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least -40dBm / MHz.

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

### 3.4.2 Test Procedures

1. 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.
2. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
5. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.  
$$\text{EIRP (dBm)} = \text{S.G. Power} - \text{Tx Cable Loss} + \text{Tx Antenna Gain}$$
$$\text{ERP (dBm)} = \text{EIRP} - 2.15$$
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.  
The limit line is -40dBm/MHz



## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 27, 2023	Nov. 28, 2024	Dec. 26, 2024	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2E	101141	9kHz~30MHz	Dec. 29, 2023	Nov. 28, 2024	Dec. 28, 2024	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Nov. 28, 2024	Oct. 23, 2025	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 04, 2024	Nov. 28, 2024	Jul. 03, 2025	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 09, 2024	Nov. 28, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 09, 2024	Nov. 28, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P-R	1943528	1GHz~18GHz	Oct. 14, 2024	Nov. 28, 2024	Oct. 13, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 03, 2024	Nov. 28, 2024	Jul. 02, 2025	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	61601000198 5	N/A	Oct. 14, 2024	Nov. 28, 2024	Oct. 13, 2025	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Nov. 28, 2024	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Nov. 28, 2024	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required

## 5 Measurement Uncertainty

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.48dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.53dB
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### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.02dB
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----- THE END -----



## Appendix A. Test Results of Radiated Test

### Radiated Spurious Emission

Test Engineer :	LiangPing Zhou	Temperature :	22~25°C
		Relative Humidity :	48~52%

n48 SA / NR 40MHz / QPSK(ANT3)									
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	7212.46	-60.05	-40	-20.05	-66.05	-63.35	8.30	11.60	H
	10818.69	-54.75	-40	-14.75	-68.02	-56.27	10.48	12.00	H
	14424.92	-51.05	-40	-11.05	-68.48	-52.75	11.80	13.50	H
	7212.46	-59.66	-40	-19.66	-66.03	-62.96	8.30	11.60	V
	10818.69	-55.04	-40	-15.04	-67.93	-56.56	10.48	12.00	V
	14424.92	-51.64	-40	-11.64	-68.50	-53.34	11.80	13.50	V

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