TEST REPORT

REPORT NUMBER:25B02W000008-004

ON

Type of Equipment:	**Smart POS system**
Type of Designation:	**T6F10**
Brand Name：	**SUNMI**
Manufacturer:	**Shanghai Sunmi Technology Co.,Ltd.**
FCC ID:	**2AH25T6F10**

ACCORDING TO

FCC 47 CFR Part 2;FCC 47 CFR Part 22; FCC 47 CFR Part 24; FCC 47 CFR Part 27; ANSI C63.26-2015

Chongqing Academy of Information and Communications Technology

Month date, year

Jun.10th, 2025

Signature

Zhou Xin

Director

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of Chongqing Academy of Information and Communications Technology.

Revision Version

Report Number	Revision	Date
25B02W000008-004	00	2025-06-10

CONTENTS

1. Test Laboratory

1.1. Testing Location

Name:	Chongqing Academy of Information and Communications Technology
Designation Number:	CN1239
Address:	No.19EastRoad,Xiantao Big-data Valley,Yubei District,Chongqing,People's Republic of China
Postal Code:	401336
Telephone:	0086-23-88069965
Fax:	0086-23-88608777

1.2. Testing Environment

Normal Temperature:	15-35℃
Relative Humidity:	30-60%

1.3. Project data

Testing Start Date:	2025-04-16
Testing End Date:	2025-05-08

1.4. Signature

李润豪	**2025-06-10**
Li Runhao **(Prepared this test report)**	**Date**
肖雨	**2025-06-10**
Xiao Yu **(Reviewed this test report)**	**Date**
周进	**2025-06-10**
Zhou Jin **Director of the laboratory** **(Approved this test report)**	**Date**

2. Client Information

2.1. Applicant Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address /Post:	Room 505, No.388 Song Hu Road, Yang Pu District, Shanghai, China
City:	Shanghai
Country:	China
Telephone:	18826519551
Fax:	N/A
Email:	chenxuanfei@sunmi.com
Contact Person:	chenxuanfei

2.2. Manufacturer Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address /Post:	Room 505, No.388 Song Hu Road, Yang Pu District, Shanghai, China
City:	Shanghai
Country:	China
Telephone:	18826519551
Fax:	N/A
Email:	chenxuanfei@sunmi.com
Contact Person:	chenxuanfei

3. Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

EUT Description	Smart POS system
Model name	T6F10
Brand name	SUNMI
GSM Frequency Band	GSM:850/ 900/ 1800/1900
WCDMA Frequency Band	WCDMA Band I/II/IV/V/VI/VIII/XIX
LTE Frequency Band	LTE:B1/2/3/4/5/7/8/20/28/38/41
Type of WCDMA modulation	QPSK/16QAM
Power Class 2	N/A
Power Class 3	WCDMA Band I/II/IV/V/VI/VIII/XIX
HVIN	T6F10
Extreme Temperature	-10/+50℃
Nominal Test Voltage	7.7V
Extreme Test High Voltage	8.8V
Extreme Test Low Voltage	6.0V

Note: Photographs of EUT are shown in ANNEX A of this test report.
Note: High and low voltage values in extreme condition test are given by manufacturer.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
25B02W000008#S1	866413070768997;866413070770860	V1.0(LA+EU)	V3.0.0	2025-04-16

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Outline of Equipment under Test

Technology	Band	UL Freq.(MHz)	DL Freq.(MHz)	Note
WCDMA	II	1850-1910	1930-1990	--

Technology	Band	UL Freq.(MHz)	DL Freq.(MHz)	Note
WCDMA	IV	1710-1755	2110-2155	--
WCDMA	V	824-849	869-894	--

3.4. Internal Identification of AE used during the test

AE ID*	Description	Note
A1	Adapter	Model:TPA-23A050200UU01 INPUT: 100-240V~50/60Hz 0.3A OUTPUT: 5.0V2.0A
C1	USB Cable	N/A
B1	Battery	Model: FHPS 7.74V, 3000mAh

*AE ID: is used to identify the test sample in the lab internally.

4. Reference Documents

4.1. Documents supplied by applicant

PICS/PIXIT, referring to Annex B for detailed information, is supplied by the client or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC 47 CFR Part 2	FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS	--
FCC 47 CFR Part 22	PUBLIC MOBILE SERVICES	--
FCC 47 CFR Part 24	PERSONAL COMMUNICATIONS SERVICES	--
FCC 47 CFR Part 27	MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES	--
ANSI C63.26	American National Standard of Procedures for Compliance Testing of Licensed Transmitters Used in Licensed Radio	2015
KDB 971168 D01 Power Meas License Digital Systems	Measurement Guidance for Certification of Licensed Digital Transmitters	v03r01
Note: The standard of FCC 47 CFR Part 2 and KDB 971168 D01 Power Meas License Digital Systems have not been accredited by A2LA.		

5. Test Equipments Utilized

5.1. RSE Test System

No.	Equipment	Model	SN	HW Version	SW Version	Manufacture	Cal.Due Date
1	Universal Radio Communication Tester	CMW500	128181	--	--	R&S	2025-06-28
2	Test Receiver	ESU40	100350	01	4.43 SP3	R&S	2025-06-28
3	Ultra-wideband Log Periodic Antenna	VULB 9163	9163-586	--	--	Schwarzbeck	2026-10-28
4	Double Ridged Guide Antenna	9120D	9120D-1103	--	--	Schwarzbeck	2026-05-13
5	Ultra-wideband Log Periodic Antenna	VULB 9163	00995	--	--	Schwarzbeck	2025-09-11
6	Double Ridged Guide Antenna	9120D	9120D-1083	--	--	Schwarzbeck	2026-11-08
7	High gain horn antenna	DATE 1152	LM7127			ETS	2026-09-30
8	Generator	SMU 200A	104517	--	--	R&S	2025-06-28
9	Amplifier1	SCU-08F1	8320027	--	--	R&S	--
10	Amplifier2	SCU-18F	180093	--	--	R&S	--
11	Test Receiver	ESW 26	101382	00	1.50 SP1	R&S	2025-06-28

5.2. Anechoic chamber Vibration table

No.	Name	Type	SN	HW Version	SW Version	Manufacture	Cal.Due Date
1	Fully-Anechoic Chamber	FAC-5	--	--	--	TDK	2027-11-04
2	Anechoic Chamber	SAC-10	--	--	--	TDK	2027-11-05

5.3. Test software

No.	Name	version	SN	Manufacture
1	EMC32	V9.26.01	--	R&S
2	EMC 32	V10.20.01	--	R&S

6. Test Results

6.1. Summary of Test Results

A brief summary of the tests carried out is shown as following.

WCDMA II

FCC Rules	Name of Test	Result
2.1046/24.232(c)	Output Power/EIRP	PASS(Note 2)
2.1053/24.238(a)	Emission Limit	PASS
2.1055/24.235	Frequency Stability	PASS(Note 2)
2.1049	Occupied Bandwidth	PASS(Note 2)
2.1049	Emission Bandwidth	PASS(Note 2)
2.1051/24.238(a)	Band Edge Compliance	PASS(Note 2)
2.1051/24.238(a)	Conducted Spurious Emission	PASS(Note 2)
24.232 (d)	Peak to Average Power Ratio	PASS(Note 2)

WCDMA IV

FCC Rules	Name of Test	Result
2.1046/27.50(d)(4)	Output Power/EIRP	PASS(Note 2)
2.1053/27.53(h)	Emission Limit	PASS(Note 2)
2.1055/27.54	Frequency Stability	PASS(Note 2)
2.1049	Occupied Bandwidth	PASS(Note 2)
2.1049	Emission Bandwidth	PASS(Note 2)
2.1051/27.53(h)	Band Edge Compliance	PASS(Note 2)
2.1051/27.53(h)	Conducted Spurious Emission	PASS(Note 2)
27.50(d)(5)	Peak to Average Power Ratio	PASS(Note 2)

WCDMA V

FCC Rules	Name of Test	Result
2.1046/22.913(a)	Output Power/EIRP	PASS(Note 2)
2.1053/22.917(a)	Emission Limit	PASS(Note 2)
2.1055/22.355	Frequency Stability	PASS(Note 2)
2.1049	Occupied Bandwidth	PASS(Note 2)
2.1049	Emission Bandwidth	PASS(Note 2)
2.1051/22.917(a)	Band Edge Compliance	PASS(Note 2)
2.1051/22.917(a)	Conducted Spurious Emission	PASS(Note 2)
N/A	Peak to Average Power Ratio	PASS(Note 2)

Note1:

The T6F10 manufactured by Shanghai Sunmi Technology Co.,Ltd. is a variant product for testing.

This project is a variant project based on the original report 24T041300102-006 issued by 3in with below changes:

-Add secondary screen at the top of the EUT (NFC antenna will change at the same time)

-Add secondary battery.

According to the Product Change Description, we mainly verified the worst mode of Radiated Spurious Emission.

Note 2:

The test data is reported by reference to 24T041300102-006 issued by 3in.

6.2. EMISSION LIMIT

Specifications:	FCC Part 2.1053/24.238(a); 2.1053/27.53(h); 2.1053/22.917(a)
DUT Serial Number:	25B02W000008#S1
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60%
Test Results:	Pass

6.2.1. Measurement Limit

After the first 1.0 MHz outside the equipment's smallest operating frequency block, which can contain the equipment's occupied bandwidth, the emission power in any 1 MHz bandwidth shall be attenuated below the transmitter output power P (in dBW) by at least 43 + 10 log10 p (watts) dB. Limit -13 dBm

FCC §24.238(a): Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

FCC §27.53(h): AWS emission limits —

(1) General protection levels. Except as otherwise specified below, for operations in the 1695–1710 MHz, 1710–1755 MHz, 1755–1780 MHz, 1915–1920 MHz, 1995–2000 MHz, 2000–2020 MHz, 2110–2155 MHz, 2155–2180 MHz, and 2180–2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

(2) Additional protection levels. Notwithstanding the foregoing paragraph (h)(1) of this section:

(i) Operations in the 2180–2200 MHz band are subject to the out-of-band emission requirements set forth in § 27.1134 for the protection of federal government operations operating in the 2200–2290 MHz band.

(ii) For operations in the 2000–2020 MHz band, the power of any emissions below 2000 MHz shall be attenuated below the transmitter power (P) in watts by at least 70 + 10 log10(P) dB.

(iii) For operations in the 1915–1920 MHz band, the power of any emission between 1930–1995 MHz shall be attenuated below the transmitter power (P) in watts by at least 70 + 10 log10(P) dB.

(iv) For operations in the 1995–2000 MHz band, the power of any emission between 2005–2020 MHz shall be attenuated below the transmitter power (P) in watts by at least 70 + 10 log10(P) dB.

FCC §22.917(a): Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

6.2.2. Method of Measurement

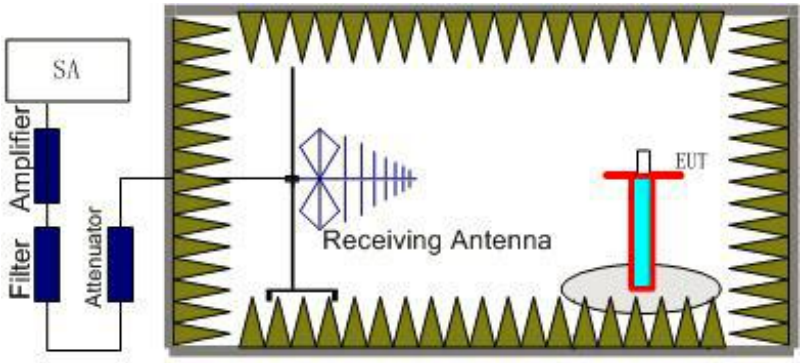
The measurements procedures in TIA-603E-2016 are used.

The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment. The resolution bandwidth is set as outlined in Part 24.238 and Part 24.917.

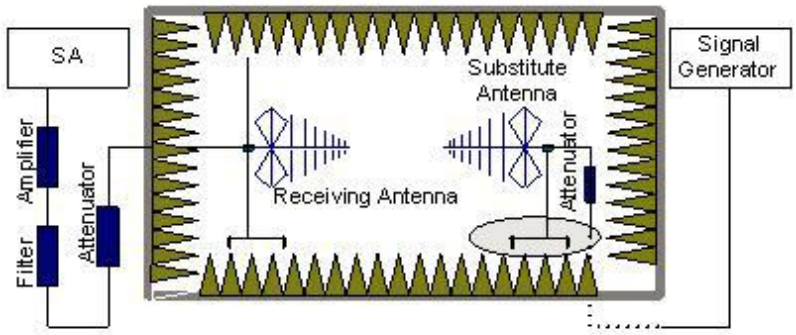
The spectrum is scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of WCDMA Bands.

The procedure of radiated spurious emissions is as follows

1. EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.5m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10thharmonic were measured with peak detector.



2. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).
3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

4. The Path loss (Pcl) between the Signal Source with the Substitution Antenna and the Substitution Antenna Gain (Ga) should be recorded after test.

A amplifier should be connected in for the test.

The Path loss (Pcl) is the summation of the cable loss .

The test results are obtained as described below:

Power(EIRP)=PMea- Pcl+ Ga

5. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.

6. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP -2.15dBi

6.2.3. Measurement Results

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of the WCDMA Band . It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of the WCDMA Band IV into any of the other blocks. The equipment must still, however, meet emissions requirements with the carrier at all frequencies over which it is capable of operating and it is the manufacturer's responsibility to verify this.

test Frequency range：30M-20G

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	30MHz-150MHz 3.82 dB (k=2) 150MHz-1000MHz 3.97 dB (k=2) 1000MHz-3000MHz 3.09 dB (k=2) 3000MHz-6000MHz 3.29 dB (k=2) 6000MHz-18000MHz 3.91 dB (k=2) 18000MHz-26000MHz 4.60 dB (k=2) 26000MHz-40000MHz 4.77 dB (k=2)

6.2.4. WCDMA Measurement Results

Frequency	Channel	Frequency Range	Result
WCDMA Band II	Low	30MHz~20GHz	Pass
	Middle	30MHz~20GHz	Pass
	High	30MHz~20GHz	Pass

RSE-W2-L

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Test Result (dBm)	Limit （dBm）	Margin(dBm)	Polarization
3706.4	-60.37	6.6	7.9	-59.07	-13	46.07	H
5555.2	-59.8	8.2	9.8	-58.2	-13	45.20	V
7412.0	-50.84	9.7	11.6	-48.94	-13	35.94	V
9255.6	-56.81	10.7	12.7	-54.81	-13	41.81	V
11129.8	-55.46	12.1	12.3	-55.26	-13	42.26	V
12963.2	-54.39	13.2	12.3	-55.29	-13	42.29	V

RSE-W2-M

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Test Result (dBm)	Limit （dBm）	Margin(dBm)	Polarization
3761.2	-59.75	6.6	7.9	-58.45	-13	45.45	V
5636.8	-60.45	8.3	10.2	-58.55	-13	45.55	V

7517.2	-50.41	9.7	11.6	-48.51	-13	35.51	V
9517.6	-56.61	10.7	12.7	-54.61	-13	41.61	H
11229.6	-55.46	12.1	12.3	-55.26	-13	42.26	V
13390.5	-52.6	13.7	12.3	-54	-13	41.00	V

RSE-W2-H

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Test Result (dBm)	Limit （dBm）	Margin(dBm)	Polarization
3816.4	-54.41	6.7	7.9	-53.21	-13	40.21	H
5720.0	-58.85	8.5	10.2	-57.15	-13	44.15	H
7625.6	-46.76	9.7	11.8	-44.66	-13	31.66	V
9540.4	-58.62	10.7	12.7	-56.62	-13	43.62	V
11441.7	-55.47	12.1	12.3	-55.27	-13	42.27	V
13352.7	-51.48	13.7	12.3	-52.88	-13	39.88	V

Note: Only worse case is recorded in this report.

Annex A EUT Photos

See the document”25B02W000008-External Photos”.
See the document”25B02W000008-Internal Photos”.

Annex B Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

END OF REPORT