TEST REPORT

REPORT NUMBER: 25B02W000009-007

ON

Type of Equipment:	Cloud POS Printer
Type of Designation:	NT320
Manufacturer:	Shanghai Sunmi Technology Co.,Ltd.
Brand Name:	SUNMI
FCC ID:	2AH25NT320

ACCORDING TO

FCC CFR 47 Part 2.1091
IEEE /ANSI C95.1

Chongqing Academy of Information and Communications Technology

Month date, year
Jun.26th, 2025
Signature

Zhou Jin
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
25B02W000009-007	00	2025-06-26

CONTENTS

1. Test Laboratory

1.1. Testing Location

Company Name:	Chongqing Academy of Information andCommunications Technology
Designation Number:	CN1239
Address:	Building C, Technology Innovation Center, No.8, Yuma Road, Chayuan New Area, Nan'an District, Chongqing, People's Republic of China
Postal Code:	401336
Telephone:	0086-23-88069965
Fax:	0086-23-88608777

1.2. Testing Environment

Normal Temperature:	--
Relative Humidity:	--

1.3. Project Data

Testing Start Date:	2025-06-11
Testing End Date:	2025-06-11

1.4. Signature

刘秋萍	**2025-06-23**
Liu Qiuping **(Prepared this test report)**	**Date**
	2025-06-23
Xiao Yu **(Reviewed this test report)**	**Date**
	2025-06-26
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
Country:	CHINA
Telephone:	+86 13510126210
Fax:	--
Email:	chan.yang@sunmi.com
Contact Person:	Emma Yang

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
Country:	CHINA
Telephone:	+86 13510126210
Fax:	--
Email:	chan.yang@sunmi.com
Contact Person:	Emma Yang

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

3.1. About EUT

EUT Description:	Cloud POS Printer
Model name:	NT320
Brand name:	SUNMI
WIFI Frequency Band:	Wi-Fi 2.4G:802.11b/g/n/ax Wi-Fi 5G:802.11a/n/ac/ax
BT Frequency Band:	BT5.4 BR/EDR/BLE
Type of modulation	Wi-Fi 2.4G 802.11b: DSSS Wi-Fi 2.4G 802.11g/n: OFDM Wi-Fi 2.4G 802.11ax: OFDMA Wi-Fi 5G 802.11a/n/ac: OFDM Wi-Fi 5G 802.11ax: OFDMA BT: GFSK; π /4 DQPSK; 8DPSK BLE: GFSK
Note：Photographs of EUT are shown in ANNEX A of this test report.	

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
25B02W000009#S1	N507D53S10160	80CC_MB_X2600_V5.0	V4.1.17	2025-04-16

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

3.3. Internal Identification of AE used during the test

EUT ID*	SN	Description
NA	NA	NA

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

4. Reference Documents

4.1. Applicable Standards

The MPE report was carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Part 2.1091.

FCC CFR 47 Part 2.1091: Radio frequency radiation exposure evaluation: mobile devices

IEEE /ANSI C95.1： Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz

Note： This standard of FCC CFR 47 Part 2.1091 is not in A2LA scope.

4.2. Test Limits

Systems operating under the provisions of this section shall be operated in a mannerthat ensures that the public is not exposed to radio frequency energy level in excesslimit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2Subpart J, section 2.1091 this device has been defined as a mobile device whereby adistance of 0.2 m normally can be maintained between the user and the device.

MPE for the upper tier (people in controlled environments)

Frequency Range [MHz]	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100000	--	--	1.0	30

Note: f=frequency in MHz; *Plane-wave equivalent power density

For the DUT, the limits for the general public when an RF safety program is unavailable.

5. Test Results

5.1. Tune Up Power and Antenna Gain

Frequency Band	Highest Averaged Tune Up Power(dBm)	Highest Frame-Averaged Tune Up Power (dBm)	Antenna Gain(dBi)
Wi-Fi 2.4G	18.5	18.5	2.7
Wi-Fi 5G U-NII-1	14.5	14.5	1.5
Wi-Fi 5G U-NII-3	13.0	13.0	3.5
BT	11.5	11.5	2.7
BLE	11.5	11.5	2.7
Notes: 1) Disclaimers： The highest tune up power and antenna gain in the above table are provided by the customer			

5.2. Calculation Information

For conservative evaluation consideration, only maximum power of each frequency band based on the tighter limits respectively are used to calculate the boundary power density.

Based on the FCC KDB 447498 D01 and 47 CFR §2.1091, the DUT is evaluated as a mobile device.

$$S = \frac{PG}{4\pi d^2}$$

Where

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

5.3. Results for single antenna transmission

Frequency Band	Limit(mW/cm^2)	Results(mW/cm^2)	Verdict
Wi-Fi 2.4G	1.00	0.026	PASS
Wi-Fi 5G U-NII-1	1.00	0.008	PASS
Wi-Fi 5G U-NII-3	1.00	0.009	PASS
BT	1.00	0.005	PASS
BLE	1.00	0.005	PASS

5.3.1 Result of Wi-Fi 2.4G

Test Results: MPE Limit Calculation: the EUT'S operating frequencies @ 2412 MHz～2462 MHz; The maximum conducted is 18.5 dBm. The maximum gain is 2.7 dBi. Therefore, maximum limit for general public RF exposure: 1.00 mW/cm^2.

$$S = \frac{PG}{4\pi d^2}$$

P= input power of the antenna（mW）

G = antenna gain（numeric）

r = distance to the center of radiation of antenna (in meter)=20 cm

S=0.026 mW/cm^2

Therefore, at 20 cm the spectral power density is less than the 1.00 mW/cm^2 limit for uncontrolled exposure.

5.3.2 Result of Wi-Fi 5G U-NII-1

Test Results: MPE Limit Calculation: the EUT'S operating frequencies @ 5180 MHz～5240 MHz; The maximum conducted is 14.5 dBm. The maximum gain is 1.5 dBi. Therefore, maximum limit for general public RF exposure: 1.00 mW/cm^2.

$$S = \frac{PG}{4\pi d^2}$$

P= input power of the antenna（mW）

G = antenna gain（numeric）

r = distance to the center of radiation of antenna (in meter)=20 cm

S=0.008 mW/cm^2

Therefore, at 20 cm the spectral power density is less than the 1.00 mW/cm^2 limit for uncontrolled exposure.

5.3.3 Result of Wi-Fi 5G U-NII-3

Test Results: MPE Limit Calculation: the EUT'S operating frequencies @ 5745 MHz～5825 MHz; The maximum conducted is 13.0 dBm. The maximum gain is 3.5 dBi. Therefore, maximum limit for general public RF exposure: 1.00 mW/cm^2.

$$S = \frac{PG}{4\pi d^2}$$

P= input power of the antenna（mW）

G = antenna gain（numeric）

r = distance to the center of radiation of antenna (in meter)=20 cm

S=0.009 mW/cm^2

Therefore, at 20 cm the spectral power density is less than the 1.00 mW/cm^2 limit for uncontrolled exposure.

5.3.4 Result of BT

Test Results: MPE Limit Calculation: the EUT'S operating frequencies @ 2402 MHz～2480 MHz; The maximum conducted is 11.5 dBm. The maximum gain is 2.7 dBi. Therefore, maximum limit for general public RF exposure: 1.00 mW/cm^2.

$$S = \frac{PG}{4\pi d^2}$$

P= input power of the antenna（mW）

G = antenna gain（numeric）

r = distance to the center of radiation of antenna (in meter)=20 cm

S=0.005 mW/cm^2

Therefore, at 20 cm the spectral power density is less than the 1.00 mW/cm^2 limit for uncontrolled exposure.

5.3.5 Result of BLE

Test Results: MPE Limit Calculation: the EUT'S operating frequencies @ 2402 MHz～2480 MHz; The maximum conducted is 11.5 dBm. The maximum gain is 2.7 dBi. Therefore, maximum limit for general public RF exposure: 1.00 mW/cm^2.

$$S = \frac{PG}{4\pi d^2}$$

P= input power of the antenna（mW）

G = antenna gain（numeric）

r = distance to the center of radiation of antenna (in meter)=20 cm

S=0.005 mW/cm^2

Therefore, at 20 cm the spectral power density is less than the 1.00 mW/cm^2 limit for uncontrolled exposure.

5.4 Results for simultaneous transmission

The device does not support simultaneous transmission.

ANNEX A: EUT photograph

See the document" 25B02W000009 - External Photos".

See the document" 25B02W000009 - Internal Photos".

See the document" 25B02W000009 - Label Photos and Label location"

*****END OF REPORT*****