Industrial Internet Innovation Center (Shanghai) Co.,Ltd.

SAR TEST REPORT

PRODUCT	POS System
BRAND	SUNMI
MODEL	L1584,L1585,L1586,L1591, L1592, L1593,L3571,L3572,L3573
APPLICANT	Shanghai Sunmi Technology Co.,Ltd.
ISSUE DATE	December 12, 2022
STANDARD(S)	FCC 47 CFR Part 2 §2.1091

Prepared by: Chen Jintao	**Reviewed by: Yan Hang**	**Approved by: Zhang Min**

CONTENTS

1 Summary of Test Report

1.1 Test Standard (s)

No.	Test Standard(s)	Title	Version
1	FCC 47 CFR Part 2 §2.1091	FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS. Section 2.1091 Radiofrequency radiation exposure evaluation: mobile devices	N/A

1.2 Reference Documents

No.	Reference Document(s)	Title	Version
1	KDB447498	General RF Exposure Guidance	D01 v06

2 General Information of The Laboratory

2.1 Testing Laboratory

Lab Name	Industrial Internet Innovation Center (Shanghai) Co.,Ltd.
Address	Building 4，No. 766，Jingang Road，Pudong，Shanghai，China
Telephone	021-68866880
FCC Registration No.	958356
FCC Designation No.	CN1177

2.2 Laboratory Environmental Requirements

Temperature	18℃~25℃
Relative Humidity	25%RH~75%RH

2.3 Project Information

Project Manager	Gao Hongning

3 General Information of The Customer

3.1 Applicant

Company	Shanghai Sunmi Technology Co.,Ltd.
Address	Room 505,No.388,Song Hu Road,Yang Pu District,Shanghai,China
Telephone	+86 18501703215

3.2 Manufacturer

Company	Shanghai Sunmi Technology Co.,Ltd.
Address	Room 505,No.388,Song Hu Road,Yang Pu District,Shanghai,China

4 General Information of The Product

4.1 Product Description for Equipment under Test (EUT)

Product	POS System
Model	L1584,L1585,L1586,L1591, L1592, L1593,L3571,L3572,L3573
Date of Receipt	N/A
EUT ID*	N/A
SN/IMEI	N/A
Supported Radio Technology and Bands	BT4.2 WLAN 802.11b/g/a/n/ac
Hardware Version	RK3568_MB_V2.0
Software Version	3.0.0
FCC ID	2AH25D2S2ND
NOTE: EUT ID is the internal identification code of the laboratory.	

4.2 Description for Auxiliary Equipment (AE)

AE ID*	Description	Model	SN/Remark
N/A	N/A	N/A	N/A
NOTE: AE ID is the internal identification code of the laboratory.			

5 General Description

5.1 Evaluation Distance

Evaluation distance 20cm as a distance between the equipment and the operator or user when it is used normally. The distance used for the assessment had be specified by the manufacturer and be onsistent with the intended usage of the equipment.

5.2 Evaluation Method

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 KDB447498 D01 and FCC 47 CFR Part 2 § 2.1091, the DUT is evaluated as a mobile device.

$$S = \frac{P \times G}{4\pi d^2}$$

Where

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

6 Assessment Results

6.1 Standalone Evaluation

6.1.1 Limit/Criterion

Table 6.1.1-1 Limits for Occupational / Controlled Exposure

Limits for Occupational / Controlled Exposure				
Frequency (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Times $\|E\|^2$, $\|H\|^2$ or S (minitues)
0.3 – 3.0	614	1.63	(100)*	6
3.0 – 30	1824/f	4.89/f	(900/f)*	6
30 – 300	61.4	0.163	1	6
300 – 1500	--	--	F/300	6
1500 - 100000	--	--	5	6
Limits for General Population / Uncontrolled Exposure				
Frequency (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Times $\|E\|^2$, $\|H\|^2$ or S (minitues)
0.3 – 1.34	614	1.63	(100)*	30
1.34 – 30	824/f	2.19/f	(180/f)*	30
30 – 300	27.5	0.073	0.2	30
300 – 1500	--	--	F/1500	30
1500 - 100000	--	--	1	30
NOTE: f = frequency in MHz; * Plane-wave equivalent power density. For the DUT, the limits for General Population / Uncontrolled Exposure are applicable.				

6.1.2 Standalone Evaluation

Table 6.1.2-1: Standalone Evaluation

Band	Frequency	Tune Up (dBm)	Highest Output Power (dBm)	Highest Output Power (mW)	Antenna Gain(dBi)	Numeric antenna gain	Power density at 20cm (mW/cm²)	Limit (mW/cm²)
BT 4.2	2402	11	11	12.59	1.58	1.439	0.004	1.000
BLE	2402	9	9	7.94	1.58	1.439	0.002	1.000
WI-FI2.4G 802.11b	2412	23	23	199.53	1.58	1.439	0.057	1.000
WI-FI2.4G 802.11g	2412	19	19	79.43	1.58	1.439	0.023	1.000
WI-FI2.4G 802.11n	2412	19	19	79.43	1.58	1.439	0.023	1.000
WI-FI5G U-NII-1 802.11a	5180	13	13	19.95	0.36	1.086	0.004	1.000
WI-FI5G U-NII-1 802.11n	5180	13	13	19.95	0.36	1.086	0.004	1.000
WI-FI5G U-NII-1 802.11ac	5180	13.5	13.5	22.39	0.36	1.086	0.005	1.000
WI-FI5G U-NII-3 802.11a	5745	16	16	39.81	1.02	1.265	0.010	1.000
WI-FI5G U-NII-3 802.11n	5745	16	16	39.81	1.02	1.265	0.010	1.000
WI-FI5G U-NII-3 802.11ac	5745	16	16	39.81	1.02	1.265	0.010	1.000

Annex A: Revised History

Version	Revised Content
V00	Initial

END OF REPORT