

MPE TEST REPORT

Applicant Shanghai Sunmi Technology Co.,Ltd.
FCC ID 2AH25D3
Product POS System
Brand SUNMI
Model F153A
Report No. EFTA25070076-IE-14-M3
Issue Date December 30, 2025

Eurofins TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC 47 CFR Part 1 §1.1310, §2.1091**. The test results show that the equipment tested can demonstrate compliance with the requirements as documented in this report.



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Table of Contents

1	Test Laboratory	3
1.1	Notes of the Test Report.....	3
1.2	Test Facility.....	3
1.3	Testing Location.....	3
1.4	Laboratory Environment	3
2	Description of Equipment Under Test	4
3	Maximum Tune up and Antenna Gain	5
4	MPE Limit.....	6
5	RF Exposure Evaluation Result.....	8
	ANNEX A: The EUT Appearance	9

1 Test Laboratory

1.1 Notes of the Test Report

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1.2 Test Facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

1.3 Testing Location

Company: Eurofins TA Technology (Shanghai) Co., Ltd.
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1.4 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25°C
Relative humidity	Min. = 20%, Max. = 80%
Ground system resistance	< 0.5 Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

2 Description of Equipment Under Test

Client Information

Applicant	Shanghai Sunmi Technology Co.,Ltd.
Applicant address	Room 505,No.388,Song Hu Road, Yang Pu District, Shanghai, China
Manufacturer	Shanghai Sunmi Technology Co.,Ltd.
Manufacturer address	Room 505,No.388,Song Hu Road, Yang Pu District, Shanghai, China

General Technologies

EUT Description			
Model	F153A		
SN	D301E56BJ0093		
Hardware Version	D3_MB_V1.1		
Software Version	V1.0		
Frequency	Band	TX (MHz)	RX (MHz)
	Wi-Fi 2.4G	2400 ~ 2483.5	2400 ~ 2483.5
	Wi-Fi 5GHz (U-NII-1)	5150 ~ 5250	5150 ~ 5250
	Wi-Fi 5GHz (U-NII-2A)	5250 ~ 5350	5250 ~ 5350
	Wi-Fi 5GHz (U-NII-2C)	5470 ~ 5725	5470 ~ 5725
	Wi-Fi 5GHz (U-NII-3)	5725 ~ 5850	5725 ~ 5850
	Bluetooth	2400 ~ 2483.5	2400 ~ 2483.5
EUT Description			
Adapter	Manufacturer: Jiangsu Chenyang Electron Co., Ltd. Model: CYZS36-240150		
Date of Testing	July 12, 2025 ~ July 22, 2025 and December 12, 2025 ~ December 19, 2025		
Date of Sample Received	July 7, 2025		
Note:			
1. The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant.			
2. All indications of Pass/Fail in this report are opinions expressed by Eurofins TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

3 Maximum Tune up and Antenna Gain

The numeric gain (G) of the antenna with a gain specified in dB is determined by

$$\text{Numeric gain (G)} = 10^{(\text{antenna gain}/10)}$$

Band	Maximum Tune up Tolerance		Antenna Gain (dBi)	Numeric Gain
	(dBm)	(mW)		
Wi-Fi 2.4G	19.00	79.43	4.01	2.52
Wi-Fi 5GHz (U-NII-1)	19.00	79.43	4.12	2.58
Wi-Fi 5GHz (U-NII-2A)	19.00	79.43	4.17	2.61
Wi-Fi 5GHz (U-NII-2C)	19.00	79.43	4.99	3.16
Wi-Fi 5GHz (U-NII-3)	20.00	100.00	2.93	1.96
Bluetooth	6.00	3.98	4.01	2.52

4 MPE Limit

According to section 1.1310 of FCC 47 CFR Part 1, limits for maximum permissible exposure (MPE) are as following.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(i) 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
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) 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
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

*f = frequency in MHz. * = Plane-wave equivalent power density.*

Note1. Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational / controlled limits apply provided he or she is made aware of the potential for exposure.

Note2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

The maximum permissible exposure for for 1500~100,000MHz is 1.0. So

Band	The Maximum Permissible Exposure (mW/cm ²)
Wi-Fi 2.4GHz	1.000
Wi-Fi 5GHz	1.000
Bluetooth	1.000

5 RF Exposure Evaluation Result

RF exposure evaluation method is based on KDB 447498 D01, this calculation is based on the conducted power, maximum power and antenna gain with provides the minimum separation distance. The formula shown below is from OET Bulletin 65 Edition 97-01 Per KDB 447498 D01:

$$S = PG / 4\pi R^2$$

Where: S = power density (in appropriate units, e.g. mW/cm²)

P = Time-average maximum tune up procedure (in appropriate units, e.g., mW)

G = the numeric gain of the antenna

R = distance to the center of radiation of the antenna (20 cm = limit for MPE)

Band	Maximum Tune up (dBm)	Antenna Gain (dBi)	Maximum EIRP (dBm)	PG (mW)	Result (mW/cm ²)	Limit Value (mW/cm ²)	The MPE Ratio
Wi-Fi 2.4G	19.000	4.01	23.010	199.986	0.040	1.000	0.040
Wi-Fi 5GHz (U-NII-1)	19.000	4.12	23.120	205.116	0.041	1.000	0.041
Wi-Fi 5GHz (U-NII-2A)	19.000	4.17	23.170	207.491	0.041	1.000	0.041
Wi-Fi 5GHz (U-NII-2C)	19.000	4.99	23.990	250.611	0.050	1.000	0.050
Wi-Fi 5GHz (U-NII-3)	20.000	2.93	22.930	196.336	0.039	1.000	0.039
Bluetooth	6.000	4.01	10.010	10.023	0.002	1.000	0.002
Note: R = 20cm $\pi = 3.1416$ The MPE Ratio = Mac Result ÷ Limit Value							

This device does not support transmit simultaneously.

Note: For this device, minimum separation distance is 20cm, even if calculations indicate MPE distance is less.

ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.

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