



RF Exposure Evaluation

FOR

Chiyu Technology Co., Ltd.

Time Attendance & Access Controller

Test Model: CSS-M-R21

Additional Model No.: Please Refer to Page 6

Prepared for : Chiyu Technology Co., Ltd.
Address : No. 28, Jiankang 5 th St., West Dist., Chiayi City 600, Taiwan

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
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Date of receipt of test sample : November 05, 2025
Number of tested samples : 2
Sample No. : A251020020-1, A251020020-2
Serial number : Prototype
Date of Test : November 05, 2025 ~ November 13, 2025
Date of Report : November 14, 2025



Shenzhen LCS Compliance Testing Laboratory Ltd.

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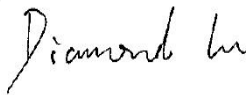
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RF Exposure Evaluation	
Report Reference No.	LCSA11045007EB
Date of Issue.....	November 14, 2025
Testing Laboratory Name.....	Shenzhen LCS Compliance Testing Laboratory Ltd.
Address.....	101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Testing Location/ Procedure.....	Full application of Harmonised standards ☒ Partial application of Harmonised standards ☐ Other standard testing method ☐
Applicant's Name.....	Chiyu Technology Co., Ltd.
Address.....	No. 28, Jiankang 5 th St., West Dist., Chiayi City 600, Taiwan
Test Specification	
Standard.....	FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06FCC CFR 47 part1 1.1310 FCC CFR 47 part2 2.1091
Test Report Form No.....	TRF-4-E-214 A/0
TRF Originator.....	Shenzhen LCS Compliance Testing Laboratory Ltd.
Master TRF.....	Dated 2011-03
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Test Item Description..... : Time Attendance & Access Controller	
Trade Mark.....	 CHIYU SMART SECURITY
Test Model.....	CSS-M-R21
Ratings.....	Please Refer to Page 6
Result	PASS

Compiled by:



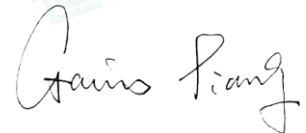
Diamond Lu/ Administrators

Supervised by:



Kevin Huang/ RF Manager

Approved by:



Gavin Liang/ Manager



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RF Exposure Evaluation

Test Report No. : LCSA11045007EB	<u>November 14, 2025</u> Date of issue
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Test Model.....	: CSS-M-R21
EUT.....	: Time Attendance & Access Controller
Applicant.....	: Chiyu Technology Co., Ltd.
Address.....	: No. 28, Jiankang 5 th St., West Dist., Chiayi City 600, Taiwan
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: Chiyu Technology Co., Ltd.
Address.....	: No. 28, Jiankang 5 th St., West Dist., Chiayi City 600, Taiwan
Telephone.....	: /
Fax.....	: /
Factory.....	: Chiyu Technology Co., Ltd.
Address.....	: No. 28, Jiankang 5 th St., West Dist., Chiayi City 600, Taiwan
Telephone.....	: /
Fax.....	: /

Test Result	PASS
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.



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Revision History

Report Version	Issue Date	Revision Content	Revised By
000	November 14, 2025	Initial Issue	---





ABLE OF CONTENTS

Description	Page
1. PRODUCT INFORMATION	6
2. EVALUATION METHOD AND LIMIT	7
3. LIMIT	7
4. MPE CALCULATION METHOD	8
5. CONDUCTED POWER	8
6. CONCLUSION	8
7. DESCRIPTION OF TEST FACILITY	8
8. MEASUREMENT UNCERTAINTY	8





1. Product Information

Product name	Time Attendance & Access Controller
Test Model	CSS-M-R21
Additional Model No.	CSS-M-R22, CSS-M-R23, CSS-M-R24, CSS-M-R25, CSS-M-R26, CSS-M-R27, CSS-M-R28, CSS-M-R29
Model Declaration	PCB board, structure and internal of these model(s) are the same, So no additional models were tested
Ratings	Voltage range: DC 9~24V Power consumption: DC 12V (350mA) Wiegand range: Max 100M Relay: DC 30V~2A/ Type C LED: 3 colors
Hardware Version	V1.1
Software Version	V1.1
NFC	
Operating Frequency	13.56MHz
Modulation Type	ASK
Antenna Description	PCB Antenna, -0.05dBi(Max.)
Exposure category	General population/uncontrolled environment
EUT Type	Production Unit
Device Type	Mobile Devices
Note: For a more detailed antenna description, please refer to the antenna specifications or the antenna report provided by the customer.	





2. Evaluation method and Limit

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

In accordance with KDB447498D01 for Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modelled or measured field strengths or power density, is ≤ 1.0 . The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field plane-wave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.

3. Limit

3.1 Refer Evaluation Method

[ANSI C95.1-2019](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz

[FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06](#): Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

[FCC CFR 47 part1 1.1310](#): Radiofrequency radiation exposure limits.

[FCC CFR 47 part2 2.1091](#): Radiofrequency radiation exposure evaluation: mobile devices.

3.2 Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
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 – 100,000	/	/	5	6

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Uncontrolled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 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 – 100,000	/	/	1.0	30

F=frequency in MHz

*=Plane-wave equivalent power density



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4. MPE Calculation Method

Predication of MPE limit at a given distance
Equation from page 18 of OET Bulletin 65, Edition 97-01

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

Where: S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

5. Conducted Power Test Procedure

TX frequency range: 13.56MHz, Limit: $824/13.56=60.77V/m$

Device category: Mobile device (Distance: 20cm)

Max. Field Strength: 43.97dBuV/m @3m

@20cm=@3m+40*log(3/0.2)=91.01dBuV/m

For 13.56MHz: $91.01dBuV/m=10^{(91.01/20)}/10^6=0.0355V/m < 60.77V/m$

6. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

7. Description of Test Facility

NVLAP Accreditation Code is 600167-0.

FCC Designation Number is CN5024.

CAB identifier is CN0071.

CNAS Registration Number is L4595.

Test Firm Registration Number: 254912.

8. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Radiation Uncertainty	9KHz~30MHz	±3.10dB	(1)
	30MHz~200MHz	±2.96dB	(1)
	200MHz~1000MHz	±3.10dB	(1)
	1GHz~26.5GHz	±3.80dB	(1)
	26.5GHz~40GHz	±3.90dB	(1)
Conduction Uncertainty	150kHz~30MHz	±1.63dB	(1)
Power disturbance	30MHz~300MHz	±1.60dB	(1)

.....THE END OF REPORT.....



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