



RF Exposure Report

On Behalf of

ShenZhen litian technology Co.,Ltd

Rm209, #2 Zonghe Bldg, Bao yun da center, Xixiang St, Bao an District, Shenzhen, China

FCC ID: 2AYZG-DS2203

Model: DS2203, DS2203A, DS2203B, DS223C

June 24, 2024

This Report Concerns:

☒ Original Report

Equipment Type:

Wireless Charging Alarm Clock

Test Engineer:

LBI Li / *LBI Li*

Report Number:

QCT24FR-1692E-02

Test Date:

June 6, 2024 ~ June 24, 2024

Reviewed By:

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Revision History of This Test Report

[illegible]



1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Description	Wireless Charging Alarm Clock
Model No.	DS2203, DS2203A, DS2203B, DS223C
Model Difference:	All models in each series have similar construction with the same diagram circuit and PCB layout, but different from model names. All tests were conducted on the models (DS2203) and the test result was passed.
Tested Model	DS2203
Sample(s) Status	Engineer sample
Operation Frequency:	110.5kHz~205kHz
Modulation type:	ASK
Antenna Type:	Inductive loop coil Antenna
Antenna gain*1:	0dBi (Max)
Input voltage:	DC 5V (Powered by adapter), DC 3V (2*1.5V AAA battery)
Adaptor Information:	Model: YMK-18W050210A Input: 100-120V~,50/60Hz, 0.4A Max Output: 5VDC 2100mA
WPT Output Power:	10W
Trade Mark:	N/A
Applicant	ShenZhen litian technology Co.,Ltd
Address	Rm209, #2 Zonghe Bldg, Bao yun da center, Xixiang St, Bao anDistrict, Shenzhen, China
Manufacturer	ShenZhen litian technology Co.,Ltd
Address	Rm209, #2 Zonghe Bldg, Bao yun da center, Xixiang St, Bao anDistrict, Shenzhen, China
Sample No.	Y24F1692E01YN (Model:DS2203)

Note: *1This information provided by Manufacturer, SZ QC Lab is not responsible for the accuracy of this information.

1.2 System Test Configuration

1.2.1 Support Equipment

Manufacturer	Description	Model	Serial Number
EESON	Wireless charger load	2S	/



1.3 Test Facility

Test Firm : Shenzhen QC Testing Laboratory Co., Ltd.

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19. The testing quality system of our laboratory meets with ISO/IEC-17025 requirements. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAS – Registration No.: L8464

The EMC Laboratory has been accredited by CNAS, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

A2LA Certificate Number: 6759.01

The EMC Laboratory has been accredited by A2LA, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

FCC Registration Number: 561109

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission.

IC Registration Number: 29628

CAB identifier: CN0141

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada.

1.4 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
E-field	110.5kHz~205kHz	0.5V/m	(1)
H-field	110.5kHz~205kHz	0.1A/m	(1)

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.



2. Requirements

2.1 Test Methodology

The tests documented in this report were performed in accordance with FCC CFR Title 47 Part 1 §1.1307, FCC CFR Title 47 Part 1 §1.1310, FCC CFR Title 47 Part 2 §2.1091 and KDB 680106 D01 Wireless Power Transfer v04

2.2 Limit

Table 1 to § 1.1310(e)(1) - Limits for Maximum Permissible Exposure (MPE)

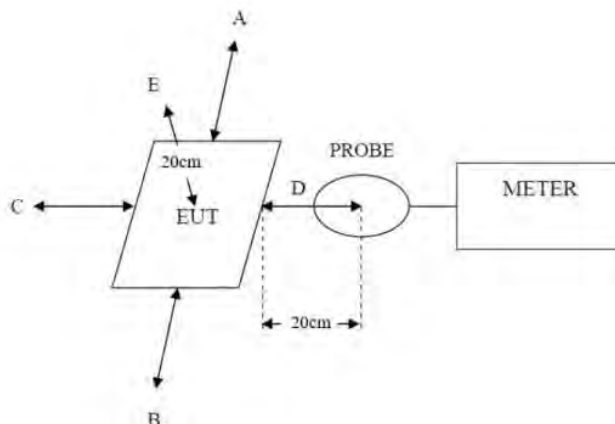
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			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.

2.3 Method Of Measurement:

- The RF exposure test was performed in shielded chamber.
- The geometric centre of probe was placed at 20 cm test distance surrounding the device and the top surface.
- The measurement probe used to search of highest strength.
- The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
- The EUT were measured according to the dictates of KDB 680106 D01 Wireless Power Transfer v04.

2.4 Test Setup



Note: As bottom point is not required to test for desktop devices

2.5 Measuring Instrument Used:

Test Equipment	Manufacturer	Model No.	SN.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Exposure Level Tester	Narda	ELT-400	N-0231	March 14, 2024	March 13, 2025
Magnetic field probe 100cm ²	Narda	ELT probe 100cm ²	M0675	March 14, 2024	March 13, 2025
Broadband field Meter	Narda	NBM-550	E-1273	March 14, 2024	March 13, 2025
Broadband field Probe	Narda	EF0391	D-0891	March 14, 2024	March 13, 2025

2.6 E Field And H Field Strength Test Result

Test Mode	Description
Mode 1	Charging with 10 W wireless charging load (99% Load)
Mode 2	Charging with 10 W wireless charging load (50% Load)
Mode 3	Charging with 10 W wireless charging load (1% Load)

Mode 1

H-Filed Strength at 20 cm from the edges surrounding and the top surface of the EUT (A/m)

20cm					Limits(A/m)	50% Limits(A/m)
Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		
0.27	0.21	0.28	0.22	0.30	1.63	0.815

E-Filed Strength at 20 cm from the edges surrounding and the top surface of the EUT (V/m)

20cm					Limits(V/m)	50% Limits(V/m)
Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		
1.63	1.42	1.30	1.28	1.58	614	307

Mode 2

H-Filed Strength at 20 cm from the edges surrounding and the top surface of the EUT (A/m)

20cm					Limits(A/m)	50%
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Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		Limits(A/m)
0.26	0.20	0.23	0.20	0.31	1.63	0.815

E-Filed Strength at 20 cm from the edges surrounding and the top surface of the EUT (V/m)

20cm					Limits(V/m)	50% Limits(V/m)
Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		
1.59	1.35	1.22	1.22	1.59	614	307

Mode 3

H-Filed Strength at 20 cm from the edges surrounding and the top surface of the EUT (A/m)

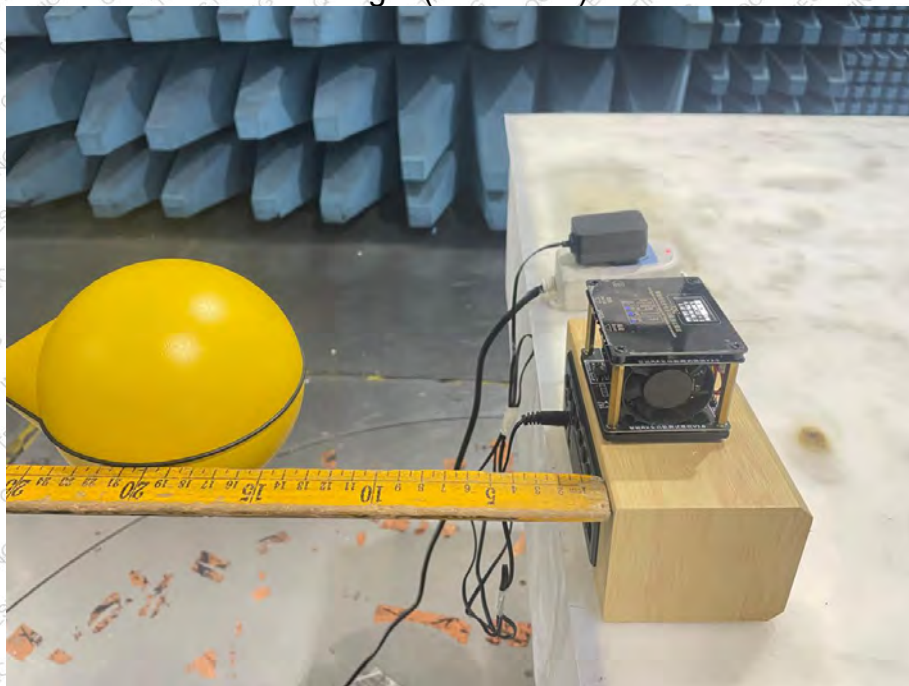
20cm					Limits(A/m)	50% Limits(A/m)
Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		
0.28	0.19	0.18	0.21	0.29	1.63	0.815

E-Filed Strength at 20 cm from the edges surrounding and the top surface of the EUT (V/m)

20cm					Limits(V/m)	50% Limits(V/m)
Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		
1.58	1.32	1.26	1.24	1.60	614	307

3. Test Setup Photo

Right (Position A)



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