

TEST REPORT

Reference No...... : WTD22D01004910W004
FCC ID : 2ALCVER100501
Applicant..... : Emerson Radio Corp.
Address..... : 35 Waterview Blvd, Parsippany, New Jersey 07054, United States
Manufacturer : Huizhou Shangmeijia Electronic Technology Co., Ltd.
Address..... : Jiutan North Development Area, Yuanzhou Town, Boluo Country, Huizhou City, GuangDong, China.
Brand Name..... : Emerson
Product..... : Alarm Clock Radio with Bluetooth and Wireless Chargers
Model(s) : ER100501, ER100502, ER100503, CKSW1516
Standards..... : FCC 47CFR Part 2 Subpart J Section 2.1091
Date of Receipt sample : 2022-01-26
Date of Test : 2022-01-26 to 2022-02-17
Date of Issue..... : 2022-04-08
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

Waltek Testing Group Co., Ltd.

Address: No. 77, Houjie Section, Guantai Road, Houjie Town, Dongguan City, Guangdong, China

Tel: +86-769-2267 6998

Fax: +86-769-2267 6828

Compiled by:

Estel Qian

Estel Qian / Project Engineer

Approved by:



Daniel Liu

Daniel Liu / Manager

2. Contents

	Page
1 COVER PAGE.....	1
2. CONTENTS	2
3. REVISION HISTORY	3
4. GENERAL INFORMATION.....	4
4.1. GENERAL DESCRIPTION OF E.U.T.....	4
4.2. DETAILS OF E.U.T.....	4
4.3. TEST FACILITY	5
4.4. SUBCONTRACTED	5
4.5. ABNORMALITIES FROM STANDARD CONDITIONS	5
5. TEST SUMMARY	6
6. RF EXPOSURE.....	7
6.1. REQUIREMENTS.....	7
6.2. THE PROCEDURES / LIMIT	7
6.3. MPE CALCULATION METHOD	8
6.4. RESULT: COMPLIANCE	8

3. Revision History

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTD22D01004910 W004	2022-01-26	2022-01-26 to 2022-02-17	2022-04-08	Original	-	Valid

4. General Information

4.1. General Description of E.U.T.

Product:	Alarm Clock Radio with Bluetooth and Wireless Chargers
Model(s):	ER100501, ER100502, ER100503, CKSW1516
Model difference:	The model names, cosmetics and display colors are different. The test sample's model is ER100501
BT Version:	5.1
Operation Frequency:	2402-2480MHz, 79 Channels in total
Max. RF output power:	2.98dBm
Antenna installation:	PCB Printed Antenna
Antenna Gain:	0dBi
Type of Modulation:	FHSS
Modulation Technology:	GFSK, $\pi/4$ DQPSK, 8DPSK
Hardware Version:	MAIN BOARD: REV. 2.1 DISPLAY BOARD: REV. 1.0 WIRELESS CHARGER: REV. 1.0
Software Version:	V32

4.2. Details of E.U.T.

Ratings:	DC 12V from adapter DC 3V by CR2032 Lithium Battery (clock backup)
Top wireless output:	10W Max.
Side wireless output:	3W Max.
USB port output:	USB-A: 5VDC 0.5A, USB-C: 5VDC 1.0A
Adapter:	Input: 120V ~ 60Hz Power consumption 36W

4.3. Test Facility

The test facility has a test site registered with the following organizations:

ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.

Waltek Testing Group Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files.

Registration number 7760A, October 15, 2016.

FCC Designation No.: CN1201. Test Firm Registration No.: 523476.

Waltek Testing Group Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration number 523476, September 10, 2019.

4.4. Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

☐ Yes ☒ No

If Yes, list the related test items and lab information:

Test Lab: N/A

Lab address: N/A

Test items: N/A

4.5. Abnormalities from Standard Conditions

None.

5. Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	FCC Part 2.1091	PASS

6. RF Exposure

Test Requirement: FCC 47CFR Part 2 Subpart J Section 2.1091

Evaluation Method: FCC 47CFR Part 1 Subpart I Section 1.1310,
KDB 447498 D01 General RF Exposure Guidance v06

6.1. Requirements

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

6.2. The procedures / 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	<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	<30

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

6.3. MPE Calculation Method

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

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

P = output power to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

From the peak EUT RF output power, the minimum mobile separation distance, R=20cm, as well as the gain of the used antenna, the RF power density can be obtained

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. conducted Output Power (dBm)	Max. conducted Output Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Result
0.00	1.000	2.98	1.99	0.000395	1	Compliance

6.4. Result: Compliance

No SAR measurement is required.

=====End of Report=====