

TEST REPORT

Reference No...... : WTD23X06119997W002
FCC ID : 2ALCVWBS12
Applicant : Emerson Radio Corp.
Address : 959 Route 46 East, Suite 210, 2nd Floor, Parsippany NJ 07054, USA
Manufacturer : Shenzhen Maniway Electronics Limited
Address : Bldg 8, Hualian Hebei Industrial Estate, Longhua Street, Longhua District, SHENZHEN Guangdong
Product Name : Alarm Clock Radio with Weather Band and Wireless Charger
Model No...... : WBS12
Standards : KDB 680106 D01 V03
Date of Receipt sample : 2023-06-01
Date of Test..... : 2023-06-01 to 2023-07-04
Date of Issue : 2023-07-04
Test Report Form No. : WTX_KDB 680106_D01_V03W
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 (Shenzhen) Co., Ltd.

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road,
Block 70 Bao'an District, Shenzhen, Guangdong, China

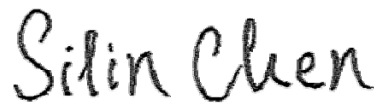
Tel.: +86-755-33663308 Fax.: +86-755-33663309 Email: sem@waltek.com.cn

Tested by:



Mike Shi

Approved by:



Silin Chen

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Report version

| Version No. | Date of issue | Description |
|-------------|---------------|-------------|
| Rev.00 | 2023-07-04 | Original |
| / | / | / |

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

| General Description of EUT | |
|--|---|
| Product Name: | Alarm Clock Radio with Weather Band and Wireless Charger |
| Trade Name: | Emerson |
| Model No.: | WBS12 |
| Adding Model(s): | WBSXX (where XX is alphanumeric denotes different display color or cosmetics) |
| Battery Capacity | / |
| <p><i>Note: The test data is gathered from a production sample, provided by the manufacturer. The appearance of others models listed in the report is different from main-test model WBS12, but the circuit and the electronic construction do not change, declared by the manufacturer.</i></p> | |

| Technical Characteristics of EUT | |
|----------------------------------|--|
| Frequency Range: | 112~205kHz |
| Modulation Type: | ASK |
| Antenna Type: | Coil Antenna |
| Input: | / |
| Wireless output: | 5W,7.5W,10W,15W(MAX) |
| Adapter: | INPUT:120VAC~60Hz POWER CONSUMPTION:30W |
| Radio Technology: | / |

1.2 Auxiliary Equipment List and Details

Auxiliary Equipment List and Details

| Description | Manufacturer | Model | Serial Number |
|------------------------|--------------|------------------------------|---------------|
| Wireless Charging Load | YBZ | YBZ wireless charging tester | / |
| Adapter | GaN2 Pro | CCDAN65C2 | / |

Special Cable List and Details

| Description | Manufacturer | Model | Serial Number |
|-------------|--------------|------------|-----------------|
| USB-C Cable | 1.22 | Unshielded | Without Ferrite |

1.3 Test Equipment List and Details

| Description | Manufacturer | Model | Serial No. | Cal Date | Due Date |
|---|--------------|-----------|------------|------------|------------|
| ELECTRIC AND MAGNETIC FIELD ANALYZER | Narda | EHP-200AC | 180ZX10226 | 2021-05-20 | 2024-05-19 |
| Note: The deviation response is 0.8dB. | | | | | |

2. RF Exposure Test Report

2.1 Standard Applicable

According to §1.1310 system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

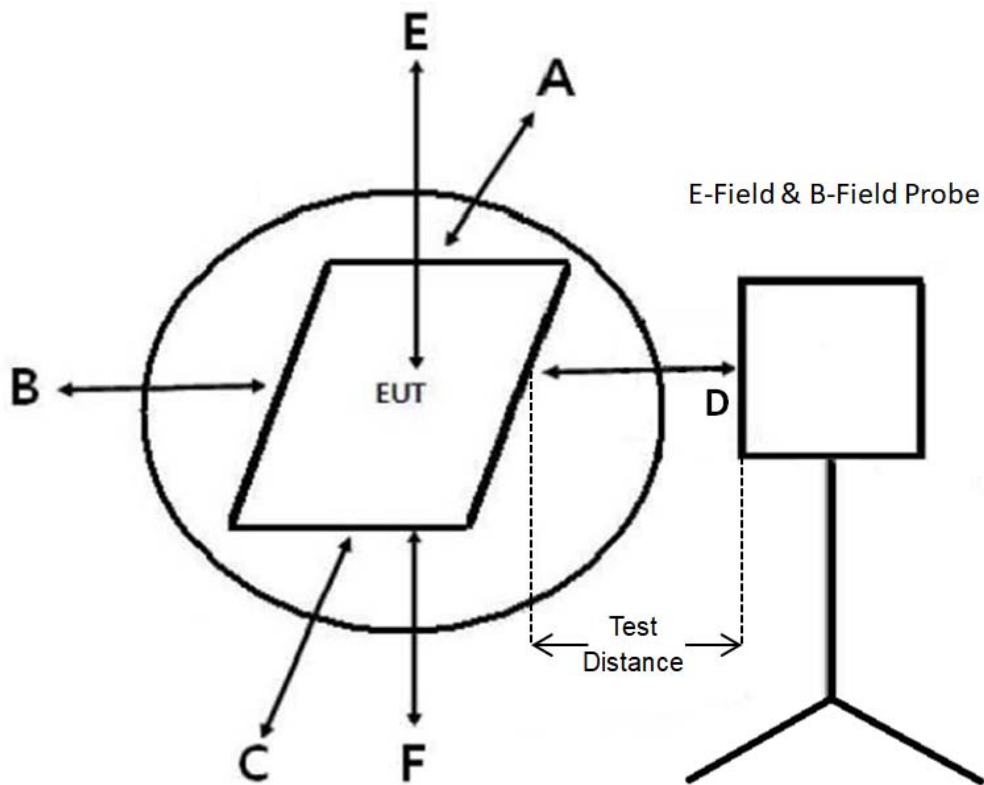
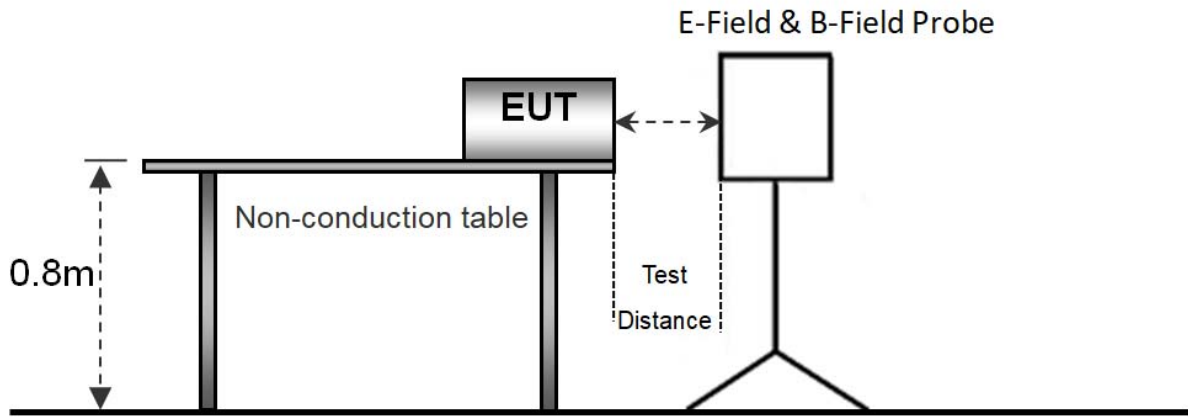
| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm ²) | Averaging time (minutes) |
|--|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled 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 |
| (B) 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

2.2 Test Conditions

| Test Mode | Description | Remark | Power Supply Mode |
|---|-------------------|----------------------|-------------------|
| TM1 | Wireless charging | Wireless output(5W) | Input: DC5V/9V |
| TM2 | Wireless charging | Wireless output(10W) | Input: DC5V/9V |
| TM3 | Wireless charging | Wireless output(15W) | Input: DC5V/9V |
| Note: The EUT was tested with empty load, half load, and full load, and recorded the worst mode (full load) data in the report. | | | |
| Measurement Distance: | 15 cm and 20 cm | | |

2.3 Test Procedure



- a. The measurement probe was placed at test distance(15 cm for A,B,C,D,F and 20 cm for E) which is between the edge of the charger and the geometric center of probe.
- b. The highest emission level was recorded at the measurement points (A, B, C, D, E, F).
- c. The EUT was measured according to the distance of KDB 680106 D01 v03r01.

2.4 Test Result

The EUT complies with item 5.2 of KDB 680106 D01V03

1. Power transfer frequency is less than 1 MHz
Yes, the device operates in the frequency range from 112 kHz to 205 kHz.
2. Output power from each primary coil is less than or equal to 15 watts
Yes, the maximum output power of the primary coil is equal to 15W.
3. The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils
Yes, the client device includes only single primary coils.
4. Client device is inserted in or placed directly in contact with the transmitter
Yes, Client device is placed directly in contact with the transmitter.
5. Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
Yes, it is mobile exposure conditions only.
6. The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.
Yes, The EUT field strength levels are less than 50% of the MPE limit, refer to test TM1, TM2, TM3 and the coils can't transmitted simultaneous.

Test Mode: TM1 (worst case)

| Electric Field Emissions | | | |
|---------------------------------|----------------------------|-------------------|------------------------|
| Test Position | Measure Value (V/m) | Limit(V/m) | 50% Limit (V/m) |
| Point E | 3.58 | 614 | 307 |
| Point F | 2.48 | 614 | 307 |
| Point A | 3.05 | 614 | 307 |
| Point B | 1.99 | 614 | 307 |
| Point C | 2.88 | 614 | 307 |
| Point D | 1.68 | 614 | 307 |
| Magnetic Field Emissions | | | |
| Test Position | Measure Value (A/m) | Limit(A/m) | 50% Limit (A/m) |
| Point E | 0.26 | 1.63 | 0.815 |
| Point F | 0.16 | 1.63 | 0.815 |
| Point A | 0.23 | 1.63 | 0.815 |
| Point B | 0.14 | 1.63 | 0.815 |
| Point C | 0.18 | 1.63 | 0.815 |
| Point D | 0.12 | 1.63 | 0.815 |

2.5 Measurement Uncertainty

| Measurement uncertainty | | |
|--------------------------|------------|------------------|
| Parameter | Conditions | Uncertainty |
| Electric Field Emissions | Radiated | ± 1.56 (V/m) |
| Magnetic Field Emissions | Radiated | ± 0.08 (A/m) |

2.6 Test Photos



APPENDIX PHOTOGRAPHS

Please refer to "ANNEX"

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