

TEST REPORT

Reference No..... : WTD22X12263982W
FCC ID : 2ALCVCKSW7708M
Applicant : Emerson Radio Corp.
Address : 959 Route 46 East Suite 210, 2nd Floor Parsippany, NJ 07054
Manufacturer : Shenzhen Maniway Electronics Limited
Address : Bldg 8, Hualian Hebei Industrial Estate, Longhua Street, Longhua District,
SHENZHEN Guangdong
Product Name : Alarm Clock Radio with Bluetooth and Wireless Charger
Model No..... : CKSW7708M
Standards : KDB 680106 D01 V03
Date of Receipt sample : 2022-12-30
Date of Test..... : 2022-12-30 to 2023-02-23
Date of Issue : 2023-02-23
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.

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Report version

Version No.	Date of issue	Description
Rev.00	2023-02-23	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	Alarm Clock Radio with Bluetooth and Wireless Charger
Trade Name:	Emerson
Model No.:	CKSW7708M
Adding Model(s):	CKSWXXXXM (where XXXX denotes different LED display colors and cosmetics)
Battery Capacity	/
<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 CKSW7708M, but the circuit and the electronic construction do not change, declared by the manufacturer.</i>	

Technical Characteristics of EUT	
Frequency Range:	110~145KHz
Modulation Type:	FSK
Antenna Type:	Coil Antenna
Rated Power:	Output: MAX. 15W
Adapter:	INPUT: 120V AC~ 60Hz POWER CONSUMPTION: 42W

1.2 Auxiliary Equipment List and Details

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Smart phone	Apple	IPhone 12 Pro Max	/

EUT Cable List and Details

Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
DC Cable	1.66	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)

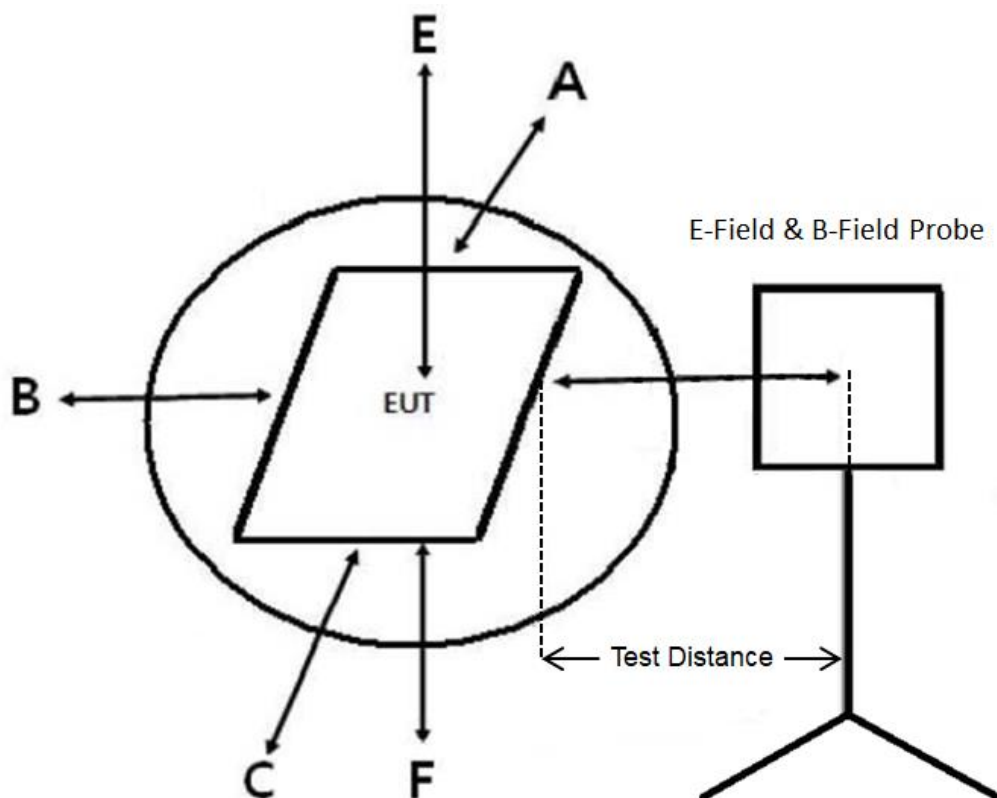
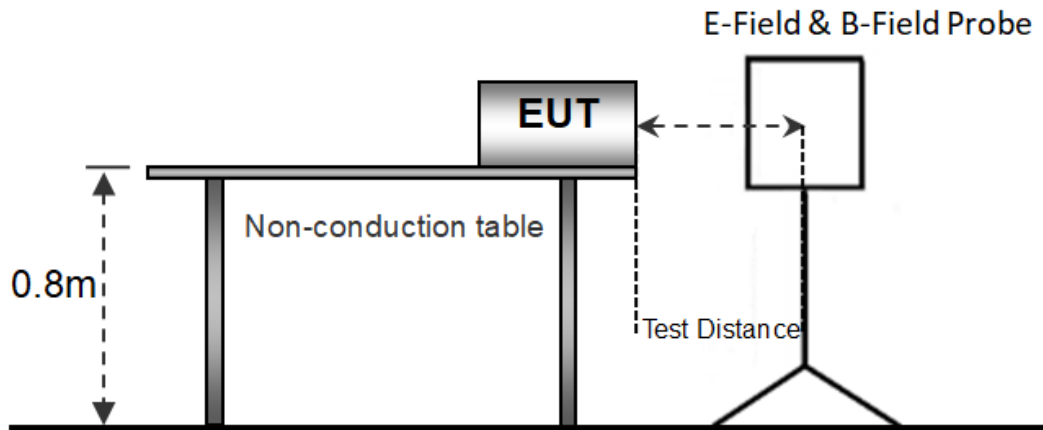
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	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	Output 5W	Output: MAX. 15W
TM2	Wireless Charging	Output 10W	Output: MAX. 15W
TM3	Wireless Charging	Output 15W	Output: MAX. 15W
Measurement Distance:	15 cm and 20 cm		

2.3 Test Procedure



- 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.
- The highest emission level was recorded at the measurement points (A, B, C, D, E, F).
- The EUT was measured according to the distance of KDB 680106 D01 V03.

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 110kHz to 145kHz.
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 less than 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 list, and the coils can't transmitted simultaneously.

Test Mode: TM1

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	0.3669	614	307
Point F	0.2248	614	307
Point A	0.2249	614	307
Point B	0.2056	614	307
Point C	0.3027	614	307
Point D	0.2031	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.3471	1.63	0.815
Point F	0.2302	1.63	0.815
Point A	0.2112	1.63	0.815
Point B	0.1034	1.63	0.815
Point C	0.0973	1.63	0.815
Point D	0.0911	1.63	0.815

Test Mode: TM2

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	0.5953	614	307
Point F	0.3461	614	307
Point A	0.3198	614	307
Point B	0.5737	614	307
Point C	0.3178	614	307
Point D	0.2527	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.6265	1.63	0.815
Point F	0.3452	1.63	0.815
Point A	0.3208	1.63	0.815
Point B	0.1031	1.63	0.815
Point C	0.0879	1.63	0.815
Point D	0.0907	1.63	0.815

Test Mode: TM3

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	0.8409	614	307
Point F	0.4500	614	307
Point A	0.4159	614	307
Point B	0.7845	614	307
Point C	0.5019	614	307
Point D	0.4693	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.8053	1.63	0.815
Point F	0.4364	1.63	0.815
Point A	0.4052	1.63	0.815
Point B	0.1034	1.63	0.815
Point C	0.0815	1.63	0.815
Point D	0.0938	1.63	0.815

Note: 1. The EUT was tested at 3 (X, Y, Z) orthogonal positions, and the worst-case position data was reported. Worst data for Electric Field Emissions (X), worst data for Magnetic Field Emissions (Z)

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 *****