

# MAXIMUM PERMISSIBLE EXPOSURE

## TEST REPORT

For

### XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD.

(5/F) NO.168, QIANPU ROAD, SIMING DISTRICT, XIAMEN, CHINA

**FCC ID : YMX-EC3209K**

<b>Report Type:</b> Original Report	<b>Product Type:</b> Massage Chair
<b>Report Number:</b> RTZ210315018-00C	
<b>Report Date:</b> 2021-04-17	
Jacob Kong 	
<b>Reviewed By:</b> RF Engineer	
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## 1.1.GENERAL INFORMATION

Product	Massage Chair
Tested Model	EC-3209K
Multiple Model	AM-Juno II
Model Differences	All the same except model name is different.
Frequency Range	110.5kHz-205kHz
Type of Antenna	Coil
Voltage Range	AC110-120V/60Hz
Date of Test	2021-04-16
Sample serial number	RTZ210315018 -RF-S1
Received date	2021-03-15
Sample/EUT Status	Good condition

## 1.2.Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) ,6F,7F,the 3rd Phase of Wan Li Industrial Building D,Shihua Rd, FuTian Free Trade Zone, Shenzhen, China..

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 342867, the FCC Designation No. : CN1221.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier : CN0023.

## 1.3.Measuring Standard

FCC CFR 47 Part 1(1.1310) KDB 680106 D01 v03r01

#### 1.4.Requirements

The EUT does comply with item 5(b) of KDB 680106 D01 v03r01

- 1) Power transfer frequency is less than 1 MHz
- 2) Output power from each primary coil is less than or equal to 15 watts.
- 3) The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.
- 4) Client device is placed directly in contact with the transmitter.
- 5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
- 6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.

#### 1.5.Test Configuration

- 7) The field strength of both E-field and H-field was measured at 15cm using the equipment list above for determining compliance with the MPE requirements of FCC Part 1.1310.
- 8) The RF power density was measured at Under maximum load test
- 9) Maximum E-field and H-field measurements were made 15cm from each side of the EUT. Along the side of the EUT and still 15cm away from the edge of the EUT, the field probes were positioned at the location where there is maximum field strength. The maximum E-field and H-field is reported below.
- 10) This device uses a wireless charging circuit for power transfer operating at the frequency of 110.5-205kHz. Thus, the 300kHz limits were used: E-field Limit = 614 (V/m); H-field limit = 1.63 (A/m).

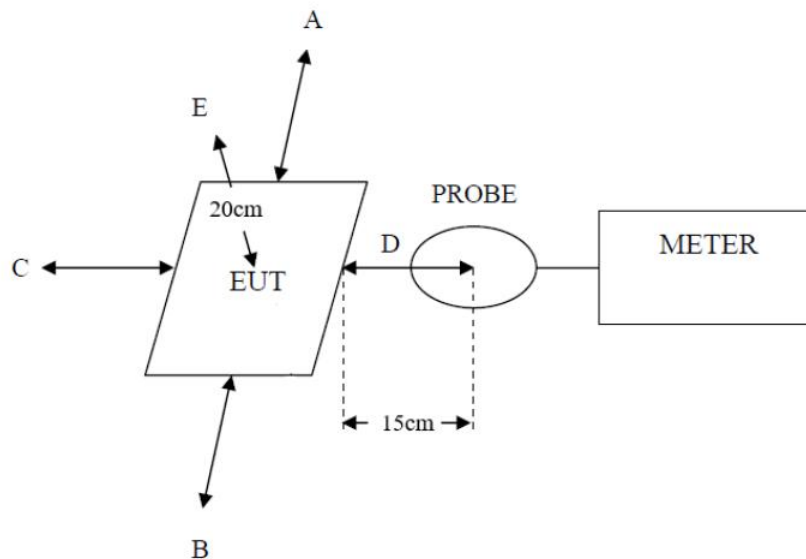
### 1.6. Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface
- 3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v03r01.

Remark:

The EUT's test position A, B, C, D, and E is valid for the E and H field measurements.

### 1.7. Test Setup



## 1.8.Limits

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

Remark: Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m

## 1.9.Measuring Device and Test Equipment

### For MPE Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Exposure Level Tester	Narda	ELT-400	N-0229	Nov. 15, 2019	3 Year
2.	B Field Probe	Narda	ELT Probe 100cm2	M-0666	Nov. 15, 2019	3 Year
3.	Isotropic Field Probe	ETS-Lindgreen	HI - 6005	69461	Sep. 28, 2018	4 Year

**\* Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

## 1.10.External I/O Cable

Cable Description	Length (m)	From Port	To
Unshielded Detachable AC Line	1.0	AC Main power	EUT

## 1.11.Support Equipment List and Details

Manufacturer	Description	Model	Serial Number	Specification
Unknown	Load 1	Wireless load 01	Unknown	5W

## 1.12.Measuring Results

### Environmental Conditions

Temperature:	25 °C
Relative Humidity:	46%
ATM Pressure:	101.0 kPa

*The testing was performed by Joker Chen on 2021-04-16.*

Table 1: E-Field Strength at 15 cm from the edges surrounding the EUT and 20cm from the top surface of the EUT

Frequency Range (kHz)	Measured E-Field Strength Values (V/m)					50% Limit (V/m)	Limit (V/m)
	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		
110.5-205	2.357	2.564	2.674	2.886	4.784	307	614

Table 2: H-Field Strength at 15 cm from the edges surrounding the EUT and 20cm from the top surface of the EUT

Frequency Range (kHz)	Measured H-Field Strength Values (A/m)					50% Limit (A/m)	Limit (A/m)
	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		
110.5-205	0.135	0.143	0.156	0.162	0.259	0.815	1.63

**Result: Compliance**



**Considerations of compliance 680106 D01 RF Exposure Wireless Charging App v03r01 clause 5 b:**

(1) Power transfer frequency is less than 1 MHz.

Yes, the operation frequency is 110.5-205 kHz.

(2) Output power from each primary coil is less than or equal to 15 watts.

Yes, the maximum output power of primary coil is 5 Watts.

(3) The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.

The transfer system includes one coil.

(4) Client device is 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, mobile exposure conditions only

(6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.

Yes, the test result for H and E-field strength less than 50% of the MPE limit.

### 1.13. Photographs of Test Setup

H-field strengths:  
Position A



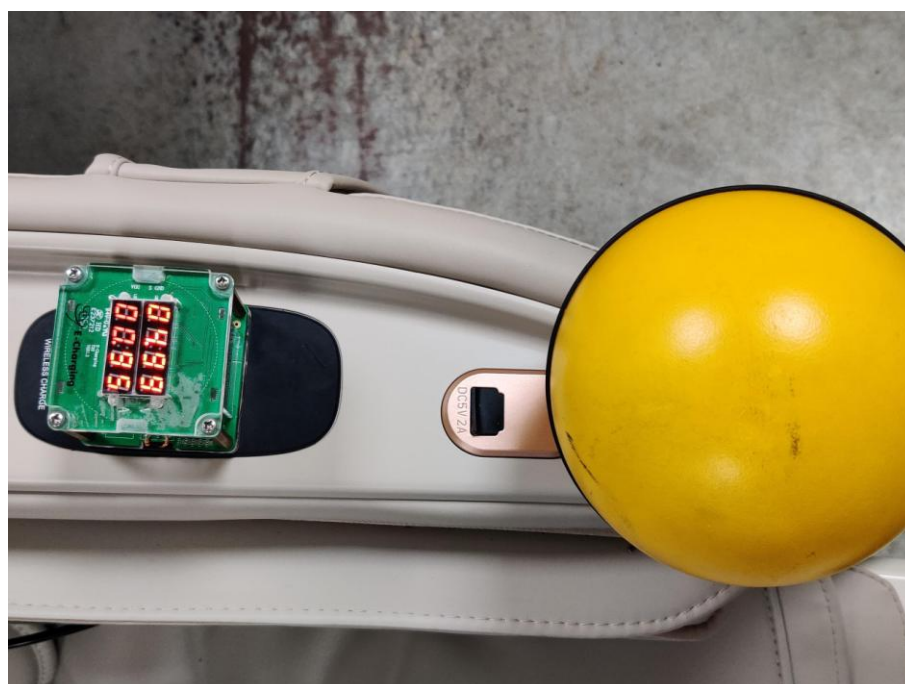
Position B



Position C



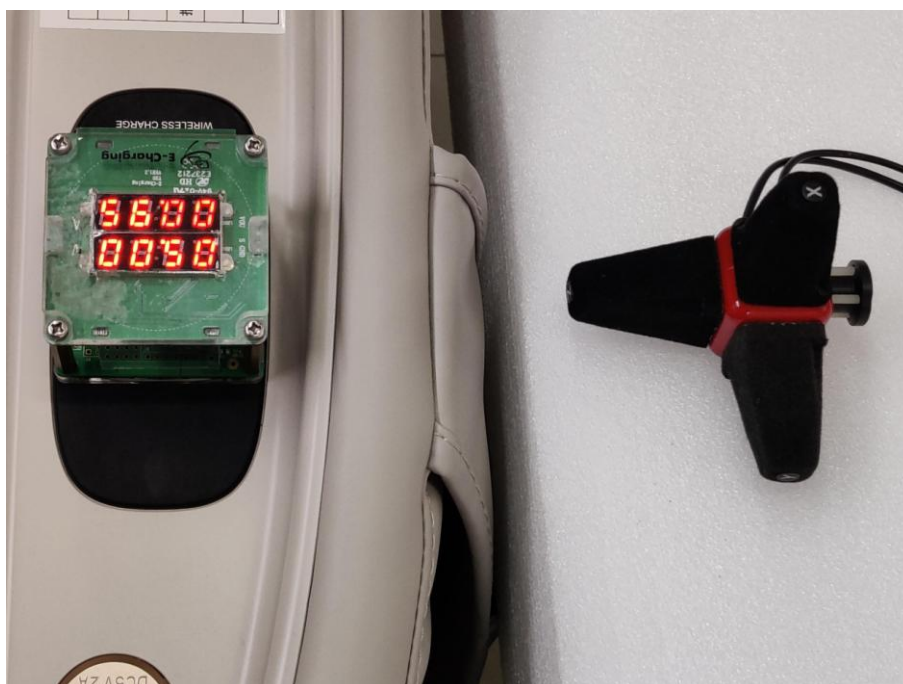
Position D



Position E

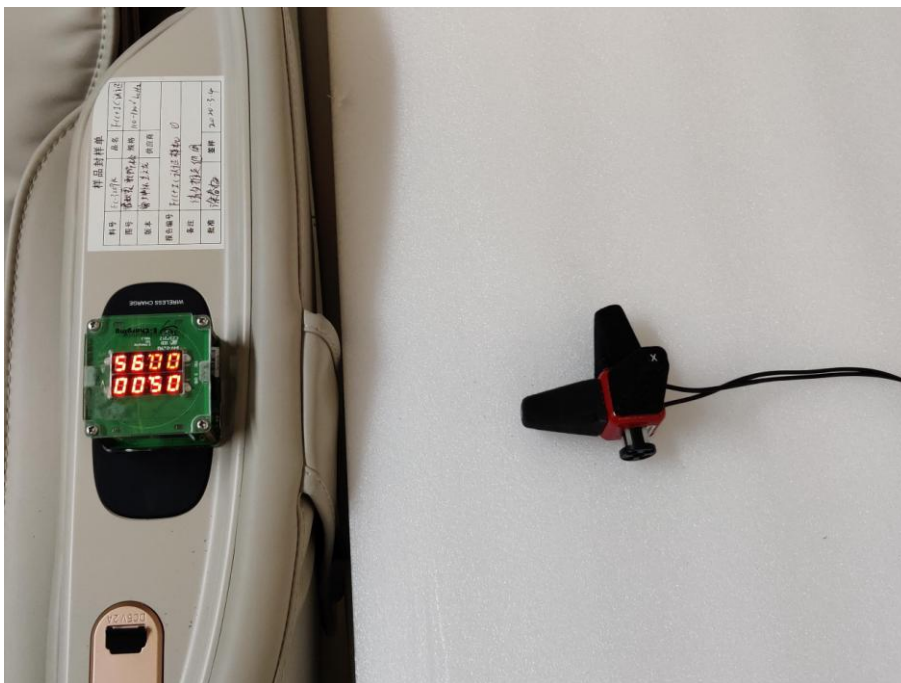


E-field strengths:  
Position A





Position B



Position C



Position D



Position E



\*\*\*\*\* End of Test Report \*\*\*\*\*