

### RF EXPOSURE TEST REPORT

for

Shenzhen Champion Industry Co., Ltd.

Smart Table Model No.: LD99-3

Prepared for :

: Shenzhen Champion Industry Co., Ltd.

Address

: Longqin Road No. 13, Shahu, Pingshan New Area, Shenzhen China

518118

Prepared By

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Date of Test : Nov. 27~ Dec. 09, 2013

Date of Report : Dec. 09, 2013



# 1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description : Smart Table

Model Number : LD99-3

Test Power Supply : DC 5V

Frequency: 113-176KHz

Modulation : Pulse Modulation

Applicant : Shenzhen Champion Industry Co., Ltd.

Address : Longqin Road No. 13, Shahu, Pingshan New Area,

Shenzhen China 518118

Manufacturer : Shenzhen Champion Industry Co., Ltd.

Address : Longqin Road No. 13, Shahu, Pingshan New Area,

Shenzhen China 518118

Date of Sample received: Nov. 27, 2013

Date of Test : Nov. 27~ Dec. 09, 2013



### 2. RF EXPOSURE EVALUATION

#### 2.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Fre Range	Last Cal.	Cal.
							Interval
1.	Exposure Level Tester	Narda	ELT-400	N-0100	1Hz~ 400KHz	Apr. 23, 2013	1 Year
2.	Field Sensor	ETS-Lindgren	HI-6105	00086945	100KHz~ 6GHz	Apr. 23, 2013	1 Year

## 2.2. Radio Frequency Radiation Exposure Limits

According to FCC CFR 47 Part 1, 1.1307(b) and 1.1310, and KDB 680106 D01v02:

§ 1.1310 The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency(RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 2.1093 of this chapter.

Frequency Range	Electric Field	Magnetic Field	Power Density	Averaging Time			
(MHz)	Strength (V/m)	Strength (A/m)	$(mW/cm^2)$	(min)			
(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 <sup>2</sup>	6			
30-300	61.4	0.163	1.0	6			
300-1500			f/300	6			
1500-100000			5	6			
(B) Limits for Occupational/ Uncontrolled Exposure							
0.3-1.34	614	1.63	*100	30			
1.34-30	824/f	2.19/f	$*180/ f^2$	30			
300-300	27.5	0.073	0.2	30			
300-1500			f/1500	30			
1500-100000			1.0	30			

f=frequency in MHz

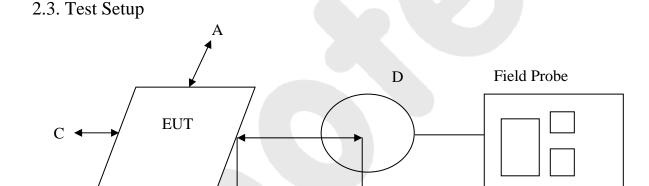
(1) Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when a person is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure. The phrase fully aware in the context of applying these exposure limits means that an exposed person has received written and/or verbal

<sup>\*=</sup>Plane-wave equivalent power density



information fully explaining the potential for RF exposure resulting from his or her employment. With the exception of transient persons, this phrase also means that an exposed person has received appropriate training regarding work practices relating to controlling or mitigating his or her exposure. Such training is not required for transient persons, but they must receive written and/or verbal information and notification (for example, using signs) concerning their exposure potential and appropriate means available to mitigate their exposure. The phrase exercise control means that an exposed person is allowed to and knows how to reduce or avoid exposure by administrative or engineering controls and work practices, such as use of personal protective equipment or time averaging of exposure.

(2) General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.



# 2.4. Test Setup

В

1. The equipment under test was placed on a wooden desk inside of shield room. Then, a preliminary scan was performed to determine the positions of maximum electromagnetic field at five positions (Above ,Top, Right , Left , Bottom edges) and specific distance based (10cm)on the general separation distance between this product and human body as following table.

10cm

- 2. This device and the test result is compliance with FCC KDB 680106 D01v02 item 5.2) below, can be excluded from FCC submitting an RF exposure evaluation.
  - (a) Power transfer frequency is less that 1 MHz;
- (b) Output power from each primary coil is less than 5 watts;
- (c) 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;
- (d) Client device is inserted in or placed directly in contact with the transmitter;
- (e) The maximum coupling surface area of the transmit (charging) device is between 60cm<sup>2</sup> and 400cm<sup>2</sup>;



(f) Aggregate leakage fields at 10 cm surrounding the device from all simultaneous transmitting coils are demonstrated to be less than 30% of the MPE limit.

E-Field Measurement (V/m)						
Position (Distance 10cm)	A	В	С	D	Limit	
0% Charged	5.51	4.79	4.93	7.21	614	
50% Charged	5.39	5.48	4.85	6.89	614	
100% Charged	5.14	5.36	4.63	6.62	614	

H-Field Measurement (A/m)						
Position (Distance 10cm)	A	В	С	D	Limit	
0% Charged	0.063	0.068	0.059	0.104	1.63	
50% Charged	0.061	0.065	0.056	0.098	1.63	
100% Charged	0.059	0.063	0.057	0.096	1.63	

The field strength limit refers to Part 1.1310 and the test result of exposure evaluation is compliant. 30% of the MPE limit. (E-Field: 184V/m; H-filed: 0.489A/m).