



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

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Report No.: SHEM18010035702

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Human Exposure Report

Application No.: SHEM1801000357CR
FCC ID: 2AL76MTSL
Applicant: ZHENJIANG YANKON GROUP CO LTD
Address of Applicant: TONGJIANG MIDDLE ROAD, SHANGYU ECONOMIC DEVELOPMENT ZONE, ZHEJIANG PROVINCE, CHINA
Manufacturer: ZHENJIANG YANKON GROUP CO LTD
Address of Manufacturer: TONGJIANG MIDDLE ROAD, SHANGYU ECONOMIC DEVELOPMENT ZONE, ZHEJIANG PROVINCE, CHINA
Factory: ZHENJIANG YANKON GROUP CO LTD
Address of Factory: TONGJIANG MIDDLE ROAD, SHANGYU ECONOMIC DEVELOPMENT ZONE, ZHEJIANG PROVINCE, CHINA
Equipment Under Test (EUT):
EUT Name: LED Desk
Model No.: MTSL1011HB, MTSL1011XX (XX represents the color of the enclosure which can be used in two words. For example, HR means red for H represents Hong and R represents Red.)
☐ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Standards: 47 CFR PART 1, Subpart I, Section 1.1310
Date of Receipt: 2018-01-15
Date of Test: 2018-01-16 to 2018-03-06
Date of Issue: 2018-03-06

Test Result :	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.



Parlam Zhan
E&E Section Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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(Shanghai) Co., Ltd.**

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Revision Record			
Version	Description	Date	Remark
00	Original	2018-03-09	/

Authorized for issue by:			
			
		<hr/> Vincent Zhu /Project Engineer	
			
		<hr/> Parlam /Reviewer	



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3 General Information

Details of E.U.T.

Adapter: INPUT: AC 120V, 60Hz, 0.22A
OUTPUT: DC 12V, 1.5A
Charger input: DC 5.2V, 2A
Charger output: DC 5V, 1A
Operation frequency: 110-205 kHz
Antenna type: Inductive Loop Coil Antenna
Remark: Tests were conducted in three loads and the worst case is reported only.

Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.	Serial No.
Load	provided by client	5 Ω (DC 5V/1A) 10 Ω (DC 5V/0.5A) No load (DC 5V/ 0A)	N/A
Adapter	provided by client	LB021NA-012V	N/A
Mobile Phone	Apple	Iphone X	N/A

Remark:

Model No.: MTSL1011HB, MTSL1011XX

Only the model MTSL1011HB was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for all the above models, with only difference on enclosure color. XX represents the color of the enclosure which can be used in tow words.



Test Location

All tests were performed at:
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab
588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China
Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **NVLAP (Certificate No. 201034-0)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the National Voluntary Laboratory Accreditation Program(NVLAP). Certificate No. 201034-0.

- **FCC –Designation Number: CN5033**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

Designation Number: CN5033. Test Firm Registration Number: 479755.

- **Industry Canada (IC) – IC Assigned Code: 8617A**

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A-1.

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-3868, C-4336, T-12221, G-10830 respectively.

Deviation from Standards

None.

Abnormalities from Standard Conditions

None.



4 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Due date (yyyy-mm-dd)
1	3m Semi-Anechoic Chamber	ST	N/A	SHEM078-2	2020-07-21
2	Electromagnetic Field Probe	WANDEL & GOLTERMANN	EMR-20	SHEM0907	2018-04-12



5 Test Results

RF Exposure test

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310
Measurement Distance: 10cm
Test voltage AC 120V, 60Hz
Limit:

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 Exposures				
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
300-1500	/	/	f/300	6
1500-100,000	/	/	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
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30
F=frequency in MHz *=Plane-wave equivalent power density RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).				

E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C Humidity: 52 % RH Atmospheric Pressure: 1015 mbar

EUT Operation:

This device has been tested the worst status of full load and the device has been tested with mobile phone at zero charge, intermediate charge, and full charge.



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Measurement Data:

1: When use three type load to test, the worst case is Output Voltage=DC 5V; The max output power =5W;Calculation of resistor value=5Ω (DC 5V/1A)

Electric Field Emissions

Test Position	Operating Frequency	Test Distance (cm)	Probe Measure Result (V/m)	Limit (V/m)	30% Limit (V/m)
Side 1	139KHz	10	4.94	614	184.2
Side 2	139KHz	10	4.87	614	184.2
Side 3	139KHz	10	5.58	614	184.2
Side 4	139KHz	10	4.82	614	184.2
Top	139KHz	10	6.46	614	184.2
Bottom	139KHz	10	5.89	614	184.2

Magnetic Field Emissions

Test Position	Operating Frequency	Test Distance (cm)	Probe Measure Result (A/m)	Limit (A/m)	30% Limit (A/m)
Side 1	139KHz	10	0.0784	1.63	0.489
Side 2	139KHz	10	0.0862	1.63	0.489
Side 3	139KHz	10	0.0835	1.63	0.489
Side 4	139KHz	10	0.0879	1.63	0.489
Top	139KHz	10	0.1638	1.63	0.489
Bottom	139KHz	10	0.1465	1.63	0.489



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2: Mobile phone has been charged at zero charge, intermediate charge, and full charge. The Maximum value has been recorded in the below table.

Electric Field Emissions

Test Position	Operating Frequency	Test Distance (cm)	Probe Measure Result(V/m)			Limit(V/m)/ 30%Limit(V/m)
			zero charge	intermediate charge	full charge	
Side 1	117kHz	10	4.67	4.84	3.65	614/184.2
Side 2	117kHz	10	4.48	4.86	3.35	614/184.2
Side 3	117kHz	10	4.34	5.62	4.54	614/184.2
Side 4	117kHz	10	3.93	4.21	3.48	614/184.2
Top	117kHz	10	5.77	5.48	5.24	614/184.2
Bottom	117kHz	10	5.64	5.42	5.13	614/184.2

Magnetic Field Emissions

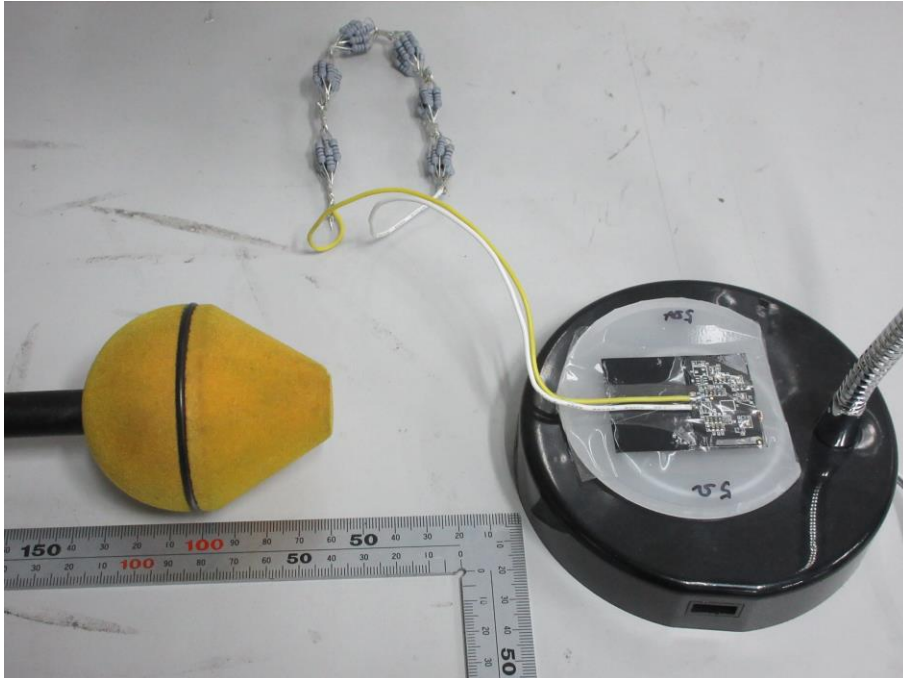
Test Position	Operating Frequency	Test Distance (cm)	Probe Measure Result(A/m)			Limit(A/m)/ 30%Limit(A/m)
			zero charge	intermediate charge	full charge	
Side 1	117kHz	10	0.0213	0.0182	0.0187	1.63/0.489
Side 2	117kHz	10	0.0226	0.0164	0.0158	1.63/0.489
Side 3	117kHz	10	0.0264	0.0157	0.0194	1.63/0.489
Side 4	117kHz	10	0.0178	0.0146	0.0181	1.63/0.489
Top	117kHz	10	0.0352	0.0263	0.0324	1.63/0.489
Bottom	117kHz	10	0.3374	0.0251	0.0312	1.63/0.489

6 Photographs

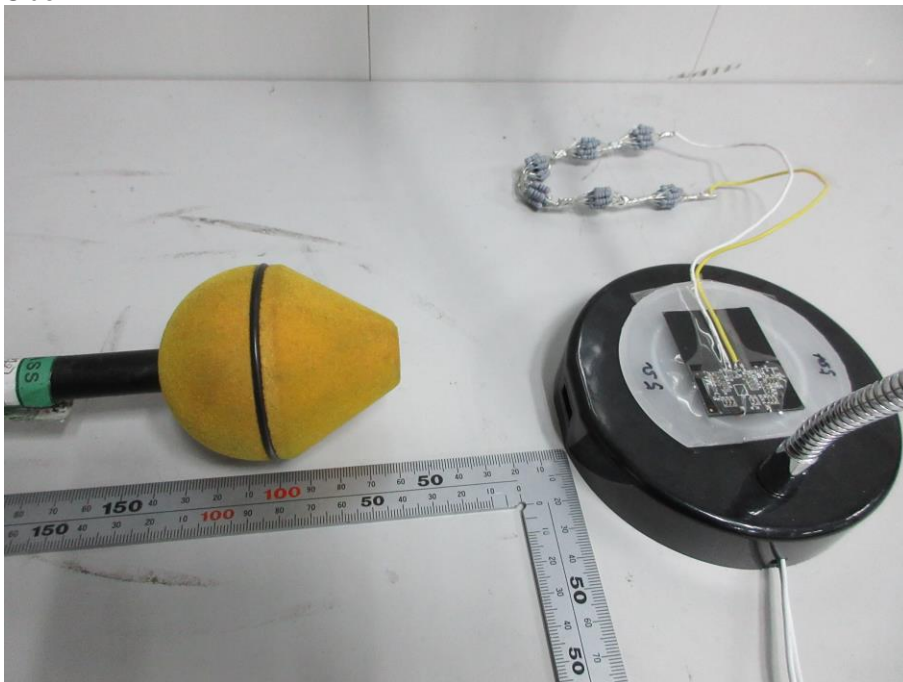
Test photos

Test with 5 Ω load

Side 1



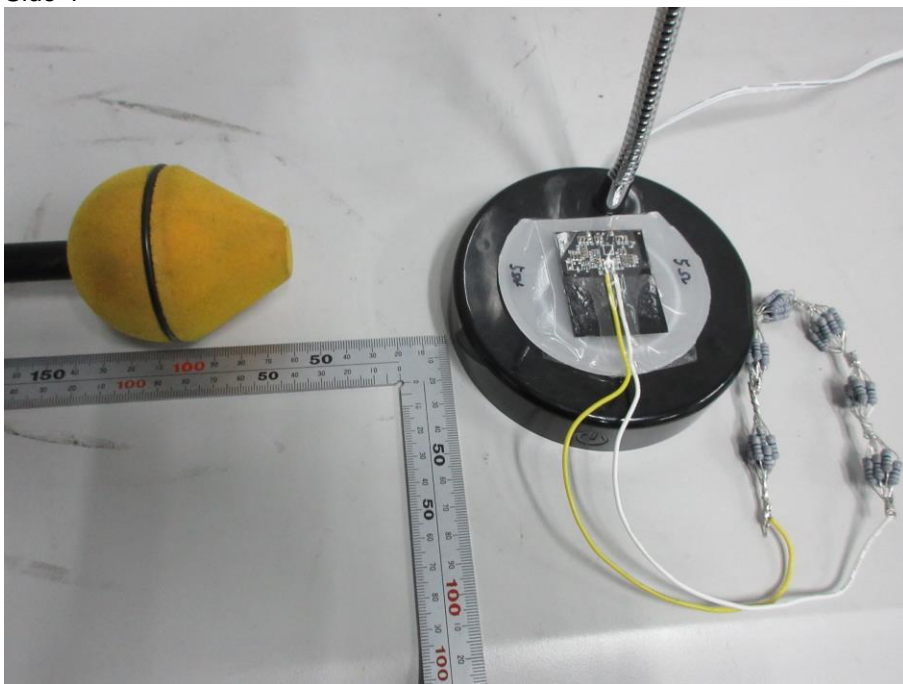
Side 2



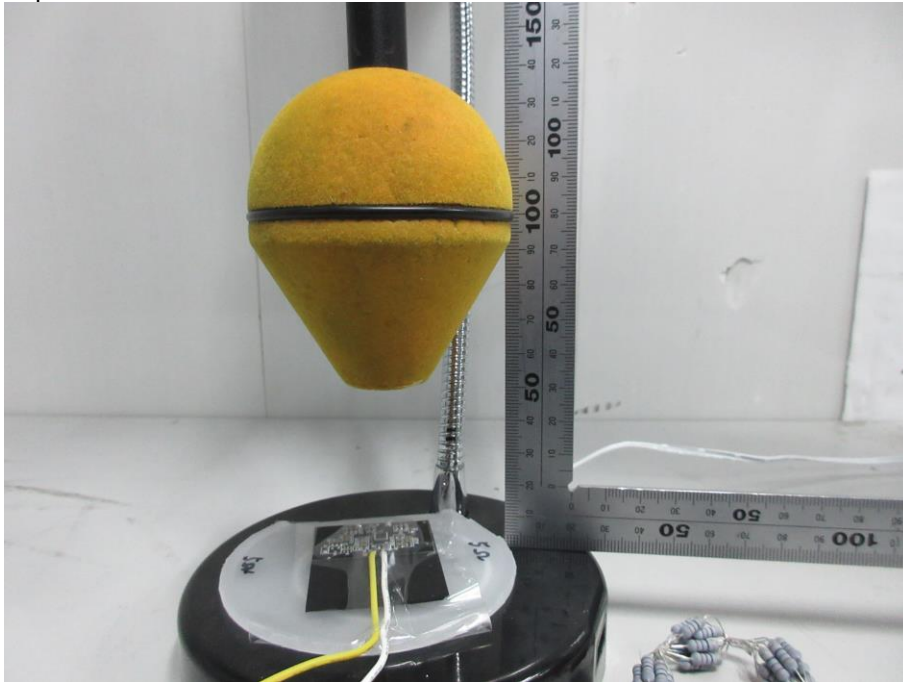
Side 3



Side 4



Top



Bottom





7 Test Setup Photographs

Refer to the < Test Setup photos-FCC>.

8 EUT Constructional Details

Refer to the < External Photos > & < Internal Photos >.

- End of the Report -