



Shenzhen Global Test Service Co.,Ltd.

No.7-101 and 8A-104,Building 7 and 8,DCC Cultural and Creative Garden No.98,Pingxin North Road,Shangmugu,Pinghu Street, Longgang District,Shenzhen,Guangdong,China

TEST REPORT

Report Reference No......: **GTS20190605007-1-1-2**
FCC ID.....: 2ATLB_SY-W0258
Compiled by
(position+printed name+signature)...: File administrators Jimmy Wang
Supervised by
(position+printed name+signature)...: Test Engineer Aaron Tan
Approved by
(position+printed name+signature)...: Manager Jason Hu
Date of issue.....: Jun.12, 2019

Jimmy Wang



Representative Laboratory Name ..: **Shenzhen Global Test Service Co.,Ltd.**
Address.....: No.7-101 and 8A-104,Building 7 and 8,DCC Cultural and Creative Garden No.98,Pingxin North Road,Shangmugu,Pinghu Street,Longgang District,Shenzhen,Guangdong,China

Applicant's name: Shenzhen Shuo Yu Technology co.,LTD
Address: 3rd Floor, Block 5, Huaifu Industrial Park, Dalang, LongHua District, Shenzhen, Guangdong, China

Test specification:
Standard: FCC CFR 47 part1,1.1310
KDB680106 D01v03 (3)(3)

Shenzhen Global Test Service Co.,Ltd. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen Global Test Service Co.,Ltd. is acknowledged as copyright owner and source of the material. Shenzhen Global Test Service Co.,Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Test item description: Alarm Clock Wireless Charger
Trade Mark: /
Manufacturer: Shenzhen Shuo Yu Technology co.,LTD
Model/Type reference.....: SY-W0258
List Model: /
Modulation Type: ASK
Operation Frequency.....: 110-205KHz
Ratings: Input voltage: DC5V/9V From adapter
Output voltage: DC5V
Result.....: **PASS**

TEST REPORT

Test Report No. :	GTS20190605007-1-1-2	Jun 12 , 2019
		Date of issue

Equipment under Test : Alarm Clock Wireless Charger

Model /Type : SY-W0258

Listed Models : /

Applicant : Shenzhen Shuo Yu Technology co.,LTD

Address : 3rd Floor, Block 5, Huaifu Industrial Park, Dalang, LongHua District,
Shenzhen, Guangdong, China

Manufacturer : Shenzhen Shuo Yu Technology co.,LTD

Address : 3rd Floor, Block 5, Huaifu Industrial Park, Dalang, LongHua District,
Shenzhen, Guangdong, China

Test Result:	PASS
---------------------	-------------

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Contents

<u>1.</u>	<u>SUMMARY</u>	<u>4</u>
1.1.	General Remarks	4
1.2.	Product Description	4
1.3.	Equipment Under Test	4
1.4.	Modifications	4
<u>2.</u>	<u>TEST ENVIRONMENT</u>	<u>5</u>
2.1.	Address of the test laboratory	5
2.2.	Test Description	5
2.3.	Statement of the measurement uncertainty	5
2.4.	Equipments Used during the Test	5
<u>3.</u>	<u>TEST CONDITIONS AND RESULTS</u>	<u>7</u>
<u>3.1 MAXIMUM PERMISSIBLE EXPOSURE</u>		<u>7</u>
<u>LIMIT OF MAXIMUM PERMISSIBLE EXPOSURE</u>		<u>7</u>
<u>4.1 TEST SETUP</u>		<u>8</u>
<u>4.</u>	<u>TEST SETUP PHOTOS OF THE EUT</u>	<u>11</u>
<u>5.</u>	<u>EXTERNAL AND INTERNAL PHOTOS OF THE EUT</u>	<u>12</u>

1. SUMMARY

1.1. General Remarks

Date of receipt of test sample	:	Jun.02, 2019
Testing commenced on	:	Jun.04, 2019
Testing concluded on	:	Jun.06, 2019

1.2. Product Description

Product Name:	Alarm Clock Wireless Charger
Trade Mark:	/
Model/Type reference:	SY-W0258
List Model:	/
Power supply:	Input voltage: DC5V/9V From adapter Output voltage: DC5V
Adapter information:	Mode:EP-TA20CBC Input:AC100-240V-50/60Hz, 0.5A Output:DC 5V,2A/9V,2A
Antenna Type	Coil Antenna
Antenna Gain	0dBi
Operation frequency	110-205KHz
Modulation Type	CW (Continuous Wave)

1.3. Equipment Under Test

Power supply system utilised

Power supply voltage	:	<input type="radio"/> 230V / 50 Hz	<input type="radio"/> 120V / 60Hz
		<input type="radio"/> 12 V DC	<input type="radio"/> 24 V DC
		<input checked="" type="radio"/> Other (specified in blank below)	

DC 5.0V/9V From adapter

Description of the test mode

Operation Frequency each of channel	
Channel	Frequency
/	110-205KHz

Operating Mode

The mode is used: Transmitting mode

1.4. Modifications

No modifications were implemented to meet testing criteria.

2. TEST ENVIRONMENT

2.1. Address of the test laboratory

Shenzhen Global Test Service Co.,Ltd.

No.7-101 and 8A-104,Building 7 and 8,DCC Cultural and Creative Garden No.98,Pingxin North Road,Shangmugu,Pinghu Street,Longgang District,Shenzhen,Guangdong,China

2.2. Test Description

FCC CFR 47			
Standard Section	Test Item	Judgment	Remark
FCC CFR 47 part1, 1.1310 KDB680106 D01v03 (3)(3)	Electric Field Strength (E) (V/m)	PASS	
	Magnetic Field Strength (H) (A/m)	PASS	

2.3. Statement of the measurement uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95 %**.

No.	Item	Uncertainty
1	All emissions,radiated(<30M)(9KHz-30MHz)	$\pm 2.45\text{dB}$
2	Temperature	$\pm 0.5^\circ\text{C}$
3	Humidity	$\pm 2\%$

2.4. Equipments Used during the Test

Description	Brand	Model No.	Frequency Range	Calibrated Date	Calibrated Until
Broadband Field Meter	NARDA	NBM-550	-	Dec. 28, 2018	Dec. 27, 2019
Magnetic Field Meter	NARDA	ELT-400	1 – 400kHz	Dec. 28, 2018	Dec. 27, 2019
Magnetic Probe	NARDA	HF-3061	300kHz – 30MHz	Dec. 28, 2018	Dec. 27, 2019
Magnetic Probe	NARDA	HF-0191	27 – 1000MHz	Dec. 28, 2018	Dec. 27, 2019

Broadband Field Meter	NARDA	NBM-550	-	Dec. 28, 2018	Dec. 27, 2019
Electric Field Meter	COMBINOVA	EFM 200	5Hz – 400kHz	Dec. 28, 2018	Dec. 27, 2019
E-Field Probe	NARDA	EF-0391	100kHz – 3GHz	Dec. 28, 2018	Dec. 27, 2019
E-Field Probe	NARDA	EF-6091	100MHz – 60GHz	Dec. 28, 2018	Dec. 27, 2019

NOTE: 1. The calibration interval of the above test instruments is 12 months .

3. TEST CONDITIONS AND RESULTS

3.1 MAXIMUM PERMISSIBLE EXPOSURE

Limit of Maximum Permissible Exposure

Limits for Occupational / Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6
Limits for General Population / Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180 / f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1	30

Note 1: f = frequency in MHz ; *Plane-wave equivalent power density

Note 2: For the applicable limit, see FCC 1.1310, 680106 D01 RF Exposure Wireless Charging Apps v03

Note 3: Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table

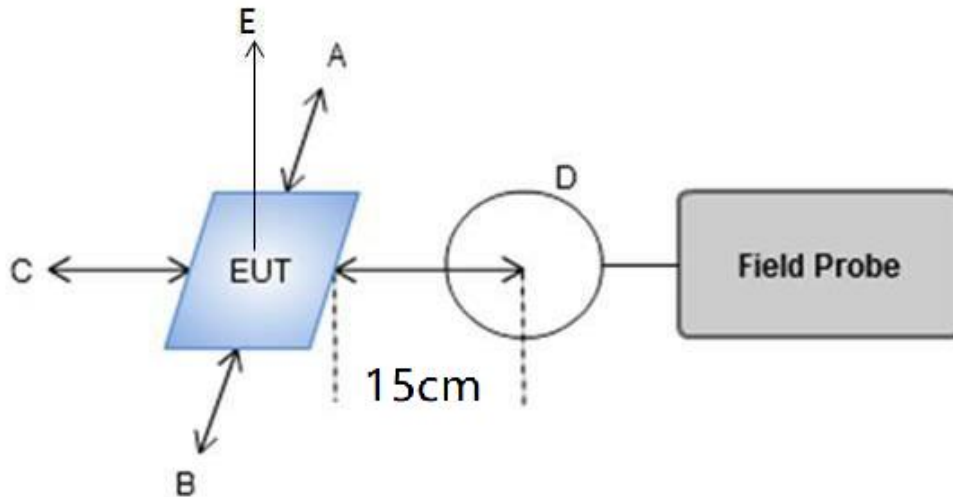
1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable

exposure limits below 100 kHz.

4. TEST PROCEDURE

a. For devices designed for typical desktop applications, such as wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device.

4.1 TEST SETUP



4.2 RESULT OF MAXIMUM PERMISSIBLE EXPOSURE

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

Charging Battery Level	Frequency Range (MHz)	Measured E-Field Strength Values (V/m)					FCC E-Field Strength 50% Limits (V/m)	FCC E-Field Strength Limits (V/m)
		Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		
1%	0.125	6.41	6.59	7.35	6.71	6.84	307.0	614.0
50%	0.125	7.49	7.28	7.02	6.91	7.39	307.0	614.0
99%	0.125	6.37	6.69	7.18	7.47	6.95	307.0	614.0

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

Charging Battery Level	Frequency Range (MHz)	Measured E-Field Strength Values (A/m)					FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
		Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		
1%	0.125	0.35	0.28	0.27	0.23	0.37	0.815	1.63
50%	0.125	0.32	0.32	0.28	0.20	0.35	0.815	1.63
99%	0.125	0.31	0.36	0.32	0.29	0.29	0.815	1.63

H-Field Strength at 20cm from the top surface of the EUT

Charging Battery Level	Frequency Range (MHz)	Measured E-Field Strength Values (A/m)	FCC H-Field Strength 50% Limits (A/m)	FCC H-Field Strength Limits (A/m)
		Test Position E		
1%	0.125	0.242	0.815	1.63
50%	0.125	0.291	0.815	1.63
99%	0.125	0.287	0.815	1.63

4.3 Equipment Approval Considerations

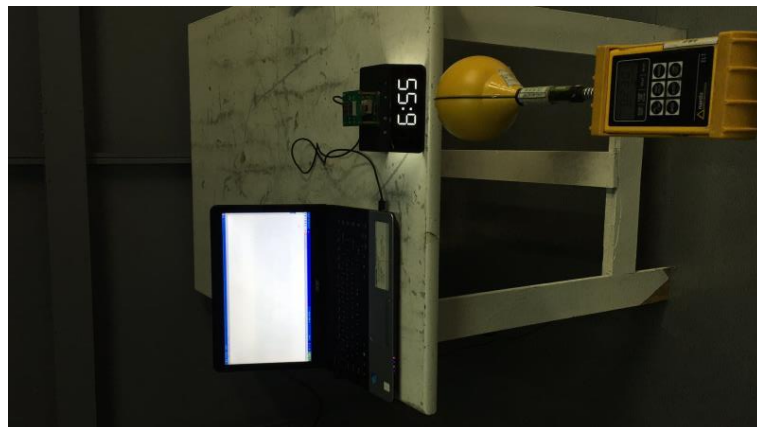
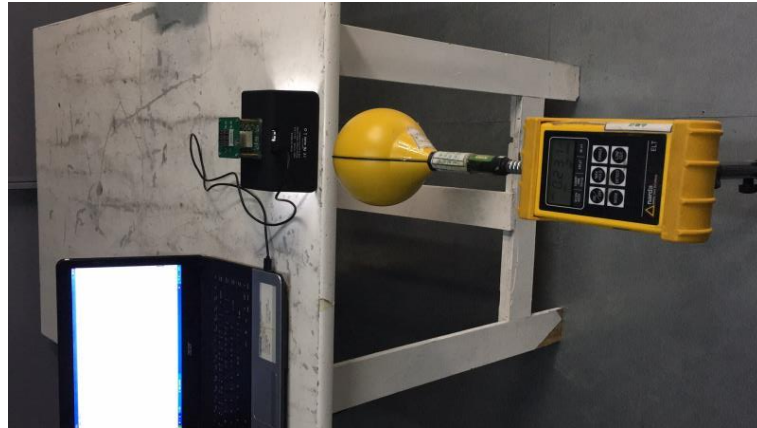
The EUT does comply with KDB 680106 D01 as follow table.

Requirements of KDB 680106 D01	Yes / No	Description
Power transfer frequency is less than 1 MHz	Yes	The device operate in the frequency range 110KHz~205KHz
Output power from each primary coil is less than 15 watts	Yes	The maximum output power for each primary coil is 10W
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 transfer system includes two primary coils and are able to detect and allow coupling only between individual pairs of coils.
Client device is placed directly in contact with the transmitter.	Yes	Client device is placed directly in contact with the transmitter.
Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).	Yes	Mobile exposure conditions only
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 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.

4.4 Conclusion

The detected emissions with a distance of 15cm surrounding the device and 20 cm above the top surface of the device are below the FCC E-Field Strength & H-Field Strength limits; and comply with the requirements of FCC KDB 680106 D01.

4. Test Setup Photos of the EUT





5. External and Internal Photos of the EUT

Reference report GTS20190605007-1-1-1

.....End of Report.....