



# **MPE TEST REPORT**

Report No: STS1711162W02

Issued for

YULIN TECH CO., LTD.

No.504, 5 Floor, Kaizhongzhihui park, Huaan Road No.8, Zhongkai Hi-tech Industry Park, Huizhou, Guangdong Province, 516006, P.R. China

Product Name:	Car Wireless Charger
Brand Name:	N/A
Model Name:	WTS-C002-005
Series Model:	WTS-C002-001
FCC ID:	2AKDFWTS-C002-005
Test Standard:	FCC CFR 47 part 1, 1.1310

Any reproduction of this document must be done in full. No single part of this document may be reproduced without permission from STS, All Test Data Presented in this report is only applicable to presented Test sample.

Shenzhen STS Test Services Co., Ltd.

1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road,
Fuyong Street, Bao'an District, Shenzhen, Guangdong, China
TEL: +86-755 3688 6288 FAX: +86-755 3688 6277 E-mail:sts@stsapp.com





#### **TEST RESULT CERTIFICATION**

Applicant's name: YULIN TECH CO., LTD.

No.504, 5 Floor, Kaizhongzhihui park, Huaan Road No.8,

Address: Zhongkai Hi-tech Industry Park, Huizhou, Guangdong Province,

516006, P.R. China

Manufacture's Name : YULIN TECH CO., LTD.

No.504, 5 Floor, Kaizhongzhihui park, Huaan Road No.8,

Address: Zhongkai Hi-tech Industry Park, Huizhou, Guangdong Province,

516006, P.R. China

**Product description** 

Product Name ...... Car Wireless Charger

Brand Name ...... N/A

Model Name...... WTS-C002-005

Series Model ...... WTS-C002-001

Standards : FCC CFR 47 part 1, 1.1310

Test Procedure: 680106 D01 RF Exposure Wireless Charging Apps v02

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

This report shall not be reproduced except in full, without the written approval of STS, this document may be altered or revised by STS, personal only, and shall be noted in the revision of the document.

Date of performance of tests: 17 Nov. 2017 ~21 Nov. 2017

Date of Issue: 22 Nov. 2017

Test Result : Pass

Testing Engineer : Sean She

(Sean she)

Technical Manager :

Authorized Signatory:

(Hakim.hou)

ALO

(Vita Li)



Report No.: STS1711162W02



Table of Contents	Page
1. SUMMARY OF TEST RESULTS	5
1.1 TEST FACTORY	5
1.2 MEASUREMENT UNCERTAINTY	5
1.3 GENERAL DESCRIPTION OF EUT	6
1.4 EQUIPMENTS LIST FOR ALL TEST ITEMS	7
2. MAXIMUM PERMISSIBLE EXPOSURE	8
2.1 MAXIMUM PERMISSIBLE EXPOSURE	8
2.2 TEST PROCEDURE	9
2.3 TEST SETUP	9
2.4 RESULT OF MAXIMUM PERMISSIBLE EXPOSURE	9



# **Revision History**

Rev.	Rev. Issue Date Report NO.		Effect Page	Contents
00	22 Nov. 2017	STS1711162W02	ALL	Initial Issue





#### 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards: FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v02

FCC CFR 47					
Standard Section	Test Item	Judgment	Remark		
FCC CFR 47 part1,	Electric Field Strength (E) (V/m)	PASS			
1.1310 KDB680106 D01v02 (3)(3)	Magnetic Field Strength (H) (A/m)	PASS			

## 1.1 TEST FACTORY

Shenzhen STS Test Services Co., Ltd.

Add.: 1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road,

Fuyong Street, Bao'an District, Shenzhen, Guangdong, China CNAS Registration No.: L7649; FCC Registration No.: 625569 IC Registration No.: 12108A; A2LA Certificate No.: 4338.01;

#### 1.2 MEASUREMENT UNCERTAINTY

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

No.	Item	Uncertainty
1	All emissions,radiated(<30M)(9KHz-30MHz)	±2.45dB
2	Temperature	±0.5°C
3	Humidity	±2%



## 1.3 GENERAL DESCRIPTION OF EUT

Product Name	Car Wireless Charger
Trade Name	N/A
Model Name	WTS-C002-005
Series Model	WTS-C002-001
Model Difference	All are the same except the color and the base support appearance.
Equipemnt Category	Non-ISM frequency
Operating Frequency	110kHz~205kHz
Test Frequency	152.6KHz
Modulation Type	ASK
Power Adapter	N/A
Hardware version number	Y123010000007
Software version number	WTS_C002_V1.10

#### Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

Channel List							
Channel	Frequency (KHz)	Channel	Frequency (KHz)	Channel	Frequency (KHz)		
00	152.6						

# 3. Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	NOTE
1	N/A	WTS-C002-005	Coil	N/A	Antenna

The EUT antenna is Coil Antenna. No antenna other than that furnished by the responsible party shall be used with the device.



# 1.4 EQUIPMENTS LIST FOR ALL TEST ITEMS

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
EMF Meter	NARDA	ELT-400	N-0342	2017.10.23	2018.10.22
EMF probe	NARDA	B-Field Probe	M-0779	2017.10.23	2018.10.22
Broadband field meter NARDA NBM	550	Broadband field meter NARDA NBM	E-1275	2017.10.23	2018.10.22
Broadband field probe NARDA EF	0391	Broadband field probe NARDA EF	D-0894	2017.10.23	2018.10.22





## 2. MAXIMUM PERMISSIBLE EXPOSURE

# 2.1 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/ cm²)	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/ cm²)	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

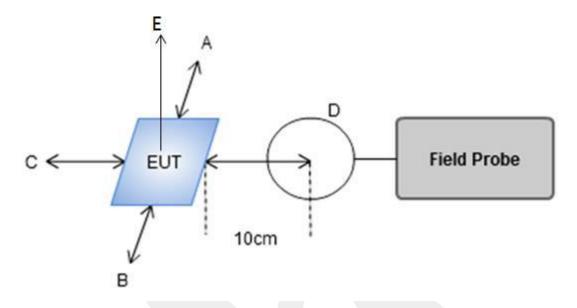
Note 2: For the applicable limit, see FCC 1.1310, 680106 D01 RF Exposure Wireless Charging Apps v02 Note 3: Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.



#### 2.2 TEST PROCEDURE

a. For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 10 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 10 cm measured from the center of the probe(s) to the edge of the device.

#### 2.3 TEST SETUP



## 2.4 RESULT OF MAXIMUM PERMISSIBLE EXPOSURE

Maximum Permissible Exposure						
Charging	Separation	Probe from EUT Side	E-field (V/m)	H-field (A/m)		
< 1% Battery	10cm	A	1.26	0.327		
< 1% Battery	10cm	В	1.30	0.319		
< 1% Battery	10cm	С	1.28	0.337		
< 1% Battery	10cm	D	1.32	0.332		
< 1% Battery 10cm E			4.63	0.356		
Limit			614	1.63		
	Margin	Limit (%)	0.75%	21.84%		



Maximum Permissible Exposure						
Charging	Separation	Probe from EUT Side	E-field (V/m)	H-field (A/m)		
50% Battery	10cm	А	1.42	0.357		
50% Battery	10cm	В	1.37	0.352		
50% Battery	10cm	С	1.47	0.369		
50% Battery	10cm	D	1.40	0.364		
50% Battery	10cm	Е	5.07	0.488		
	Li	614	1.63			
	Margin	0.83%	29.94%			

Maximum Permissible Exposure						
Charging	Separatio n	Probe from EUT Side	E-field (V/m)	H-field (A/m)		
>99% Battery	10cm	A	1.76	0.388		
>99% Battery	10cm	В	1.67	0.392		
>99% Battery	10cm	С	1.75	0.385		
>99% Battery	10cm	D	1.82	0.397		
>99% Battery	10cm	E	5.79	0.512		
	Li	614	1.63			
	Margin	0.94%	31.41%			



# **MPE SETUP PHOTO**



\* \* \* \* \* END OF THE REPORT \* \* \* \* \*