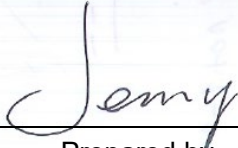


# RF EVALUATION TEST REPORT

Applicant..... : Raffel Systems, LLC  
Address..... : N112 W14600 Mequon Road Germantown, WI 53022  
Manufacturer..... : Xiamen Raffel Electronic Technology Co., LTD  
Address..... : Room 1902, Tianshou Operations Center, NO.5 Yilan Road, Guanyinshan CBD  
: Siming District, Xiamen, Fujian, China  
Factory..... : Fortress Electronics (Xiamen) Co., LTD  
Address..... : East of the fifth floor, 181 banqiao road, jimei district, Xiamen, Fujian, China  
Product Name..... : Power Strip  
Brand Name..... : Raffel Systems  
Model No. .... : ACC PS2 QU2 01, ACC PS2 QU2 02  
(For model difference refers to section 2.)  
FCC ID..... : YZHACCPS2QU201  
Measurement Standard..... : 47 CFR PART 2, Section 2.1093  
Receipt Date of Samples.... : March 07, 2024  
Date of Tested..... : March 07, 2024 to March 14, 2024  
Date of Report..... : March 20, 2024

This report shows that above equipment is technically compliant with the requirements of the standards above. All test results in this report apply only to the tested sample(s). Without prior written approval of Dongguan Nore Testing Center Co., Ltd, this report shall not be reproduced except in full.



Prepared by  
Jenny Liu / Project Engineer



Iori Fan / Authorized Signatory

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**Revision History**

Report Number	Description	Issued Date
NTC2403112F-1	Initial Issue	2024-03-20

## 1. General Description of EUT

Product Information	
Product Name:	Power Strip
Main Model Name:	ACC PS2 QU2 01
Additional Model Name:	ACC PS2 QU2 02
Model Difference:	Both of two models have the same circuit schematic, construction, PCB Layout and critical components. The differences are model number and appearance design only due to trading purpose.
S/N:	2403-1048
Brand Name:	Raffel Systems
Hardware Version:	Not Stated
Software Version:	Not Stated
Rating:	Input: AC 120V 50/60Hz Output: AC 120V 15A Max USB-A: DC 5V 2A Max Wireless charging: 5W Max USB-A + Wireless charging: 10W Max
Typical Arrangement:	Table-top
I/O Port:	Refer to user manual
Accessories Information	
Adapter:	N/A
Cable:	Power cord: 1.9m, unshielded, undetachable
Other:	N/A
Additional Information	
Note:	According to the model difference and the requirements of the manufacturer, all tests were performed on model ACC PS2 QU2 01.
Remark:	All the information above are provided by the manufacturer. More detailed feature of the EUT please refers to the user manual.

Technical Specification	
Frequency Range:	110.5-205KHz
Modulation Type:	FSK
Antenna Type:	Coil antenna
Output power for each coil:	5W

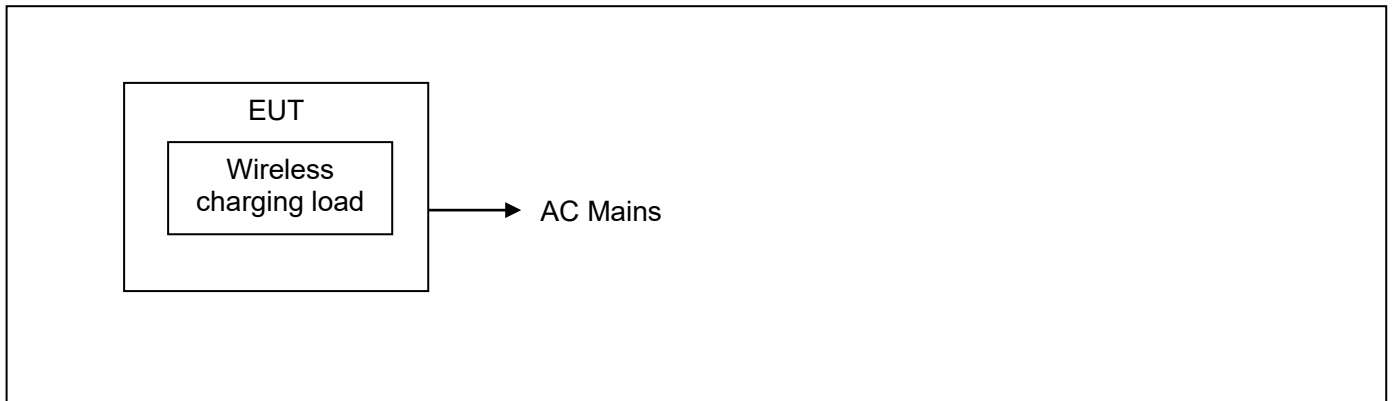
## 2. Test Facility and Location

Test Site	:	Dongguan Nore Testing Center Co., Ltd. (Dongguan NTC Co., Ltd.)
Accreditations and Authorizations	:	<p>The Laboratory has been assessed and proved to be in compliance with CNAS/CL01</p> <p>Listed by CNAS, August 13, 2018</p> <p>The Certificate Registration Number is L5795.</p> <p>The Certificate is valid until August 13, 2024</p> <p>The Laboratory has been assessed and proved to be in compliance with ISO17025</p> <p>Listed by A2LA, November 01, 2017</p> <p>The Certificate Registration Number is 4429.01</p> <p>Listed by FCC, November 06, 2017</p> <p>Test Firm Registration Number: 907417</p> <p>Listed by Industry Canada, June 08, 2017</p> <p>The Certificate Registration Number. Is 46405-9743A</p>
Test Site Location	:	Building D, Gaosheng Science and Technology Park, Hongtu Road, Nancheng District, Dongguan City, Guangdong Province, China

### 3. Test Modes Detail

Test Mode	Test Setup Configuration	Remark
1.	Wireless Charging 5W	Full Load, Half Load, Empty Load

### 4. Configuration of EUT



### 5. Modification of EUT

No modifications are made to the EUT during all test items.

## 6. Description of Support Device

The EUT has tested as an independent unit together with other necessary accessories or support units. The following support units or accessories used to form a representative test configuration during the tests.

No.	Equipment	Brand	M/N	S/N	Cable Specification	Remarks
1.	Wireless Charging Load	Consumer Electronics	2S	---	---	Provided by the Lab.

## 7. Deviations and Abnormalities from Standard Conditions

No additions, deviations and exclusions from the standard.

## 8. Applicable Standards and References

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

### Test Standards:

47 CFR Part 1, 1.1307(b) and 1.1310

KDB 680106 D01v04



## 9. Measurement Uncertainty

No.	Test Item	Uncertainty	Remarks
1.	Magnetic Field Emissions	$\pm 0.15$ dB	---
2.	Electric Field Emissions	$\pm 0.36$ dB	---

**Note:** This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .

## 10. Maximum Permissible Exposure

### LIMIT

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
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
1500-100,000	/	/	5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
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
1500-100,00	/	/	1.0	30

F=frequency in MHz

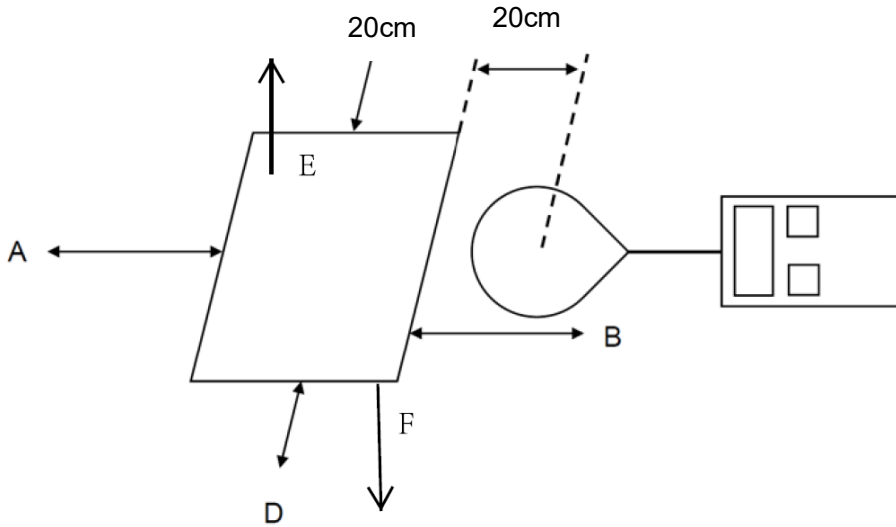
\*=Plane-wave equivalent power density

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).

Per KDB 680106 D01v04, RF exposure evaluation at 15cm surrounding the device and 20cm above the top surface. Emission between 50 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 1.63/Am and aggregate H-field strengths from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

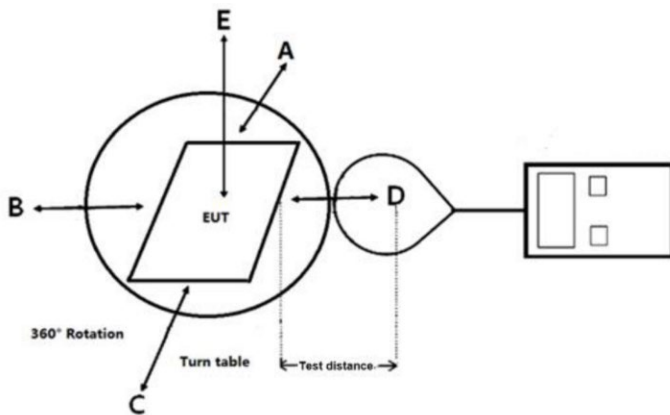
**BLOCK DIAGRAM OF TEST SETUP**

**For Mobile:**



Note: The distance of the points A/B/C/D/E and F(if necessary) is 20cm.

**For Portable:**



Note: The distance of the points A/B/C/D/E is 2 4 6 8 10 15 20 cm.

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## TEST PROCEDURES

For mobile exposure conditions:

- a. The RF exposure test was performed in anechoic chamber;
- b. E and H-field measurements should be made with the center of the probe at a distance of 20cm surrounding the EUT of the primary/client pair.
- c. The highest emission level was recorded and compared with limit.
- d. The EUT was measured according to the dictates of KDB 680106 D01v04.

For portable exposure conditions:

- a. The RF exposure test was performed in anechoic chamber;
- b. E and H-field measurements should be made with the probe at 0cm for all sides of the EUT.
- c. The highest emission level was recorded and compared with limit.

For portable exposure conditions:

Perform H-field measurements for each edge/top surface of the host/client pair at every 2cm, starting from as close as possible out to 20cm.

## TEST RESULTS

PASS

Please refer to the following pages of the worst case.

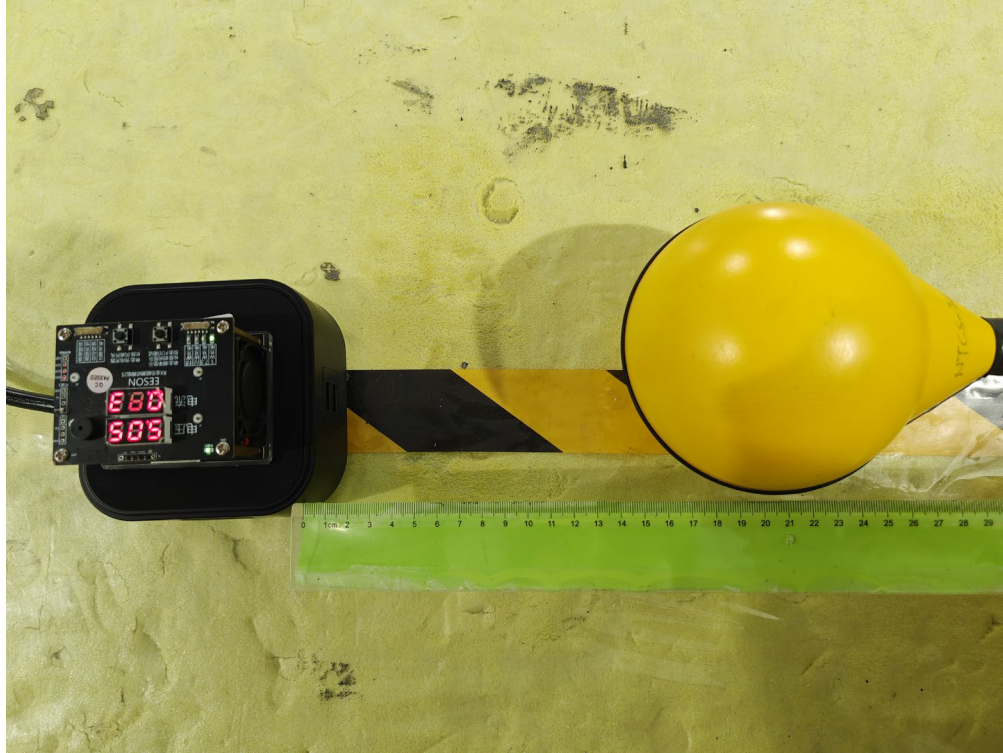
5W, Test Mode 1, Full load					
Test Distance (cm)	Test Position	Mobile Measure Result (V/m)	Mobile Measure Result (A/m)	Limit (V/m)	Limit (A/m)
20	Side A	0.241	0.19	614	1.63
	Side B	0.244	0.19	614	1.63
	Side C	0.242	0.19	614	1.63
	Side D	0.242	0.19	614	1.63
	Side E	0.243	0.19	614	1.63

## 11. Test Equipment List

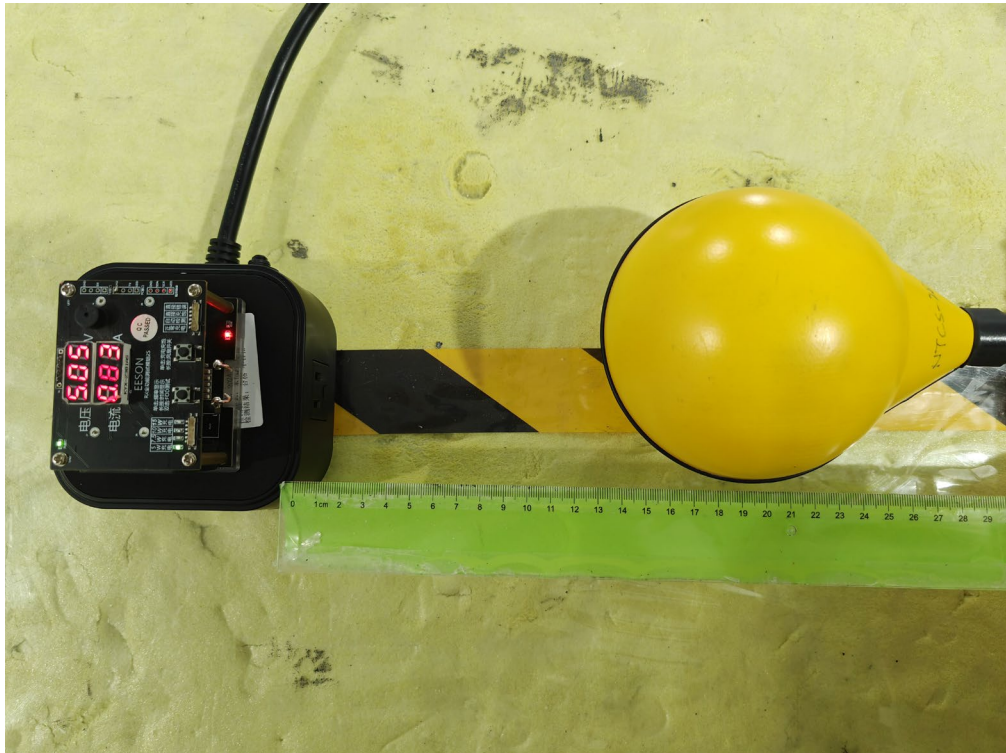
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Magnetic field probe 100cm <sup>2</sup>	Narda	ETL-400 Probe 1Hz-400KHz (r=6.2cm)	O-0167	June 28, 2023	1 Year
2.	E-Field Probe	Narda	EP-601	611WX70729	Mar. 23, 2023	1 Year

## 12. Test Photos

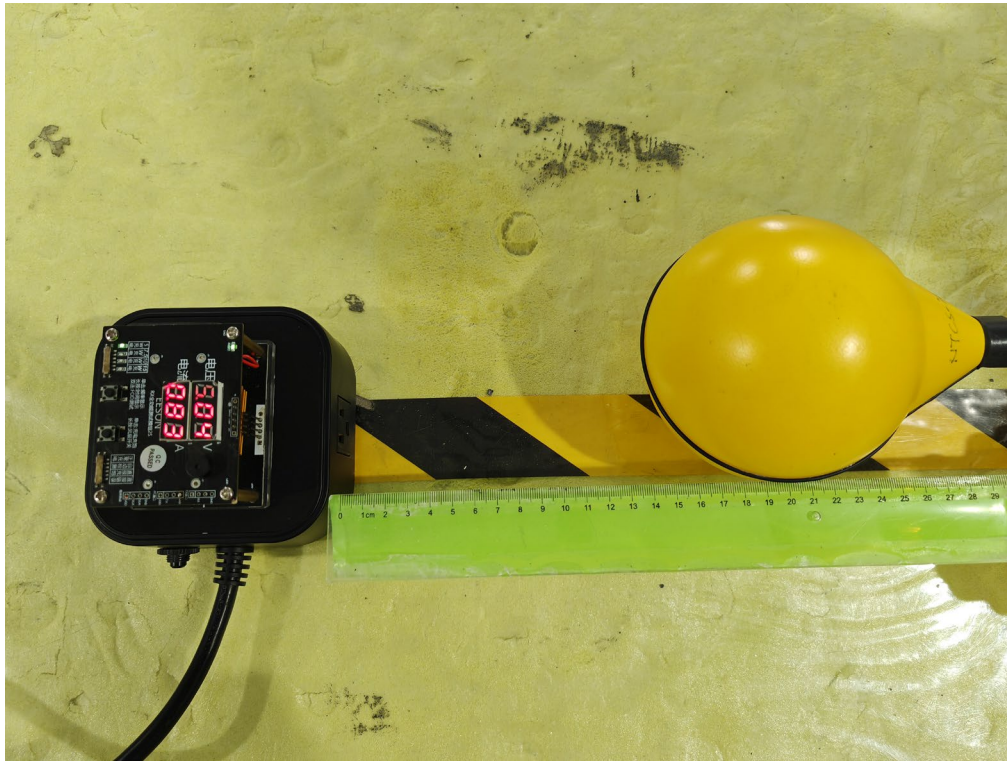
Side A: Test distance 20cm



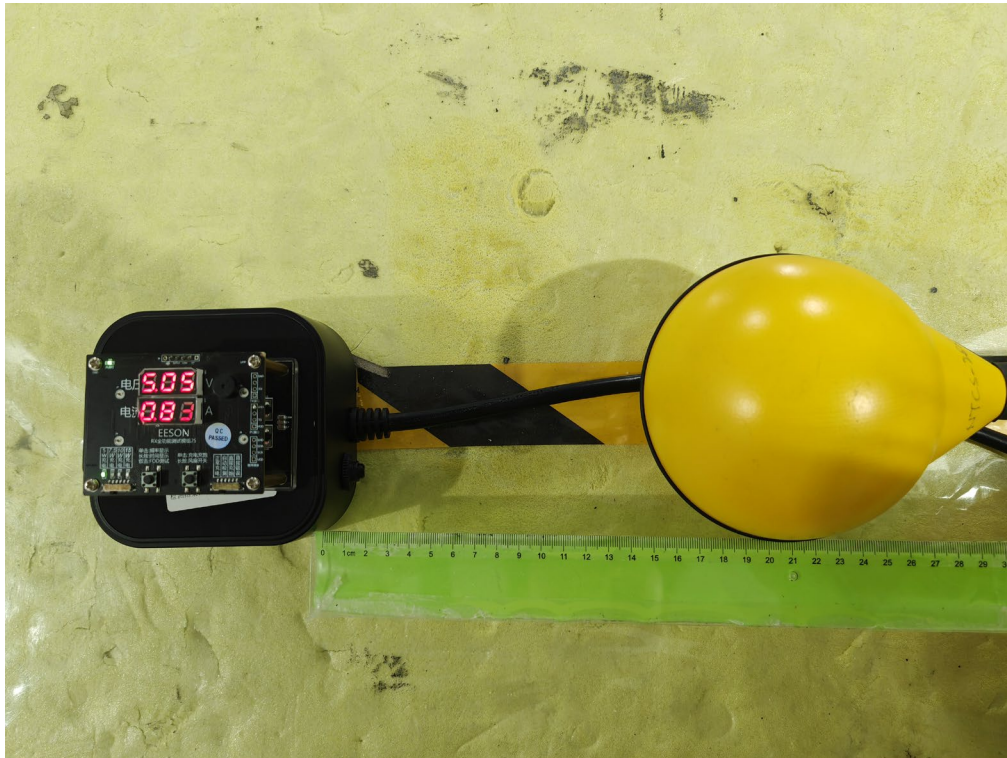
Side B: Test distance 20cm



**Side C: Test distance 20cm**

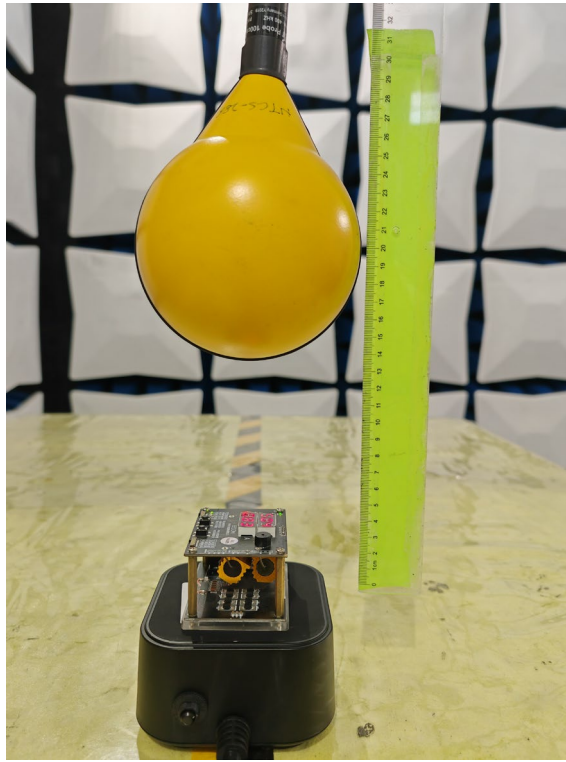


**Side D: Test distance 20cm**





**Side E: Test distance 20cm**



---End---