

Nantong Tenchown Intelligent Technology Co., Ltd

MPE ASSESSMENT REPORT

Report Type:

FCC MPE assessment report

Model:

TC-C-W(03), TC-C-W(04)

REPORT NUMBER:

240500466SHA-002

ISSUE DATE:

August 13, 2024

DOCUMENT CONTROL NUMBER:

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No.18 Xisu Road, High-tech District, Hai'an Country, NANTONG CITY
Jiangsu 226600

Manufacturer : Nantong Tenchown Intelligent Technology Co., Ltd
No.18 Xisu Road, High-tech District, Hai'an Country, NANTONG CITY
Jiangsu 226600

FCC ID : 2A57E-TC-C-W4

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

FCC PART 1 SECTION 1.1310

PREPARED BY:

Project Engineer
Erick Liu

REVIEWED BY:

Reviewer
Wakeyou Wang

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Revision History

Report No.	Version	Description	Issued Date
240500466SHA-002	Rev. 01	Initial issue of report	August 13, 2024

Measurement result summary

TEST ITEM	FCC REFERENCE	TEST RESULT	NOTE
RF Exposure	1.1310	Pass	-

Notes: 1: NA =Not Applicable

2: Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.

3: Additions, Deviations and Exclusions from Standards: None.

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	Wireless charging
Type/Model:	TC-C-W(03), TC-C-W(04)
Description of EUT:	EUT is a wireless charger, all models are the same except USB port, secondary circuit for USB drive and model name. after evaluation, we choose TC-C-W(03) for all tests.
Rating:	Input: 29VDC, 2A Wireless output: 15W MAX USB A+USB C output: 5VDC, 2A total (for model TC-C-W(03) only)
Category of EUT:	Class B
EUT type:	<input checked="" type="checkbox"/> Table top <input type="checkbox"/> Floor standing
Software Version:	/
Hardware Version:	/
Sample received date:	July 24, 2024
Date of test:	July 27, 2024~ August 9, 2024

1.2 Technical Specification

Frequency Range:	111kHz – 205kHz
Modulation:	ASK
Antenna:	Coil antenna, 0dBi

1.3 Description of Test Facility

Name:	Intertek Testing Services (Shanghai FTZ) Co., Ltd.
Address:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L21189
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252
	A2LA Accreditation Lab Certificate Number: 3309.02

2 TEST SPECIFICATIONS

2.1 Standards or specification

FCC PART 1 SECTION 1.1310

KDB 680106 D01 Wireless Power Transfer v04

2.2 Mode of operation during the test

Within this test report, EUT was tested under its rating voltage and frequency (120V, 60Hz).
The 0%/50%/100% battery capacity was tested and the 100% battery capacity was worst case.

2.3 Test peripherals list

Item No.	Name	Band and Model	Description
1	Mobile phone	Apple iPhone12	S/N: FFYFP8EV0DYL

2.4 Record of climatic conditions

Test Item	Temperature (°C)	Relative Humidity (%)	Pressure (kPa)
RF Exposure	24	53	101

2.5 Instrument list

Used	Equipment	Manufacturer	Type	Internal no.	Due date
<input checked="" type="checkbox"/>	Emf meter	Narda	elt-400	EC2928	2025-07-15
<input checked="" type="checkbox"/>	Broadband field meter	Narda	Nbm-550	EC 6113	2025-04-07
<input checked="" type="checkbox"/>	Probe ef 0391	Narda	Ef 0391	EC 6113-1	2025-04-07
<input checked="" type="checkbox"/>	Probe hf 0361	Narda	Hf3061	EC 6113-2	2025-04-07
<input checked="" type="checkbox"/>	EMF meter	Narda	ehp-50f	EC 6527	2024-09-17

2.6 Measurement uncertainty

Test Items	Expanded Uncertainty (k=2)
H-field	0.9 dB
E-field	1.1 dB

3 RF Exposure Assessment

Test result: Pass

3.1 Assessment Limit

Reference: 47 CFR §1.1310, KDB 680106

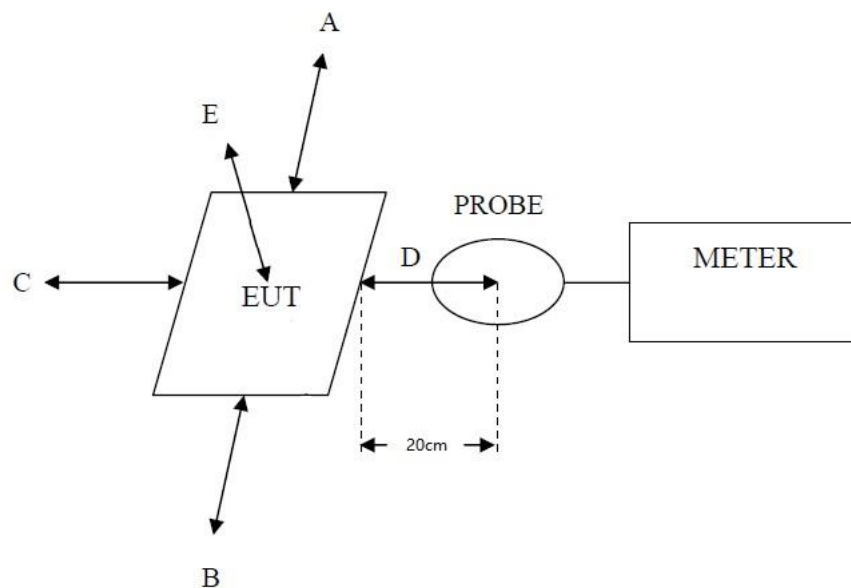
Limits for General Population/Uncontrolled Exposure

Frequency range [MHz]	Electric field strength [V/m]	Magnetic field strength [A/m]	Power density [mW/cm ²]	Averaging time [minutes]
0.1 – 0.3	614	1.63	*100	30
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 – 1 500	-	-	f/1500	30
1 500 – 100 000	-	-	1.0	30

Limits for Occupational/Controlled Exposure

Frequency range [MHz]	Electric field strength [V/m]	Magnetic field strength [A/m]	Power density [mW/cm ²]	Averaging time [minutes]
0.1 – 0.3	614	1.63	*100	6
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 – 1 500	-	-	f/300	6
1 500 – 100 000	-	-	5	6

3.2 Assessment Configuration



TEST REPORT

3.3 Assessment Results

Test result of Magnetic Field Strength:

Test Position	Test distance (cm)	Test result (A/m)	Limit (A/m)	Result (Pass/Fail)
A: Right	20	0.116	1.63 *0.5	Pass
B: Left	20	0.135	1.63 *0.5	Pass
C: Front	20	0.242	1.63 *0.5	Pass
D: Back	20	0.416	1.63 *0.5	Pass
E: Top	20	0.529	1.63 *0.5	Pass

Test result of Electric Field Strength:

Test Position	Test distance (cm)	Test result (V/m)	Limit (V/m)	Result (Pass/Fail)
A: Right	20	1.22	614 *0.5	Pass
B: Left	20	1.57	614 *0.5	Pass
C: Front	20	2.13	614 *0.5	Pass
D: Back	20	2.64	614 *0.5	Pass
E: Top	20	4.28	614 *0.5	Pass

***** END *****