

# Test Report

**Report No.** : MTi250422003-0105E2  
**Date of Issue** : 2025-06-18  
**Applicant** : Shenzhen USV Technology Co., Ltd  
**Product** : 3-IN-1 Magnetic Wireless Charger  
**Model(s)** : U600, V600  
**FCC ID** : 2AY5D-U600

**Shenzhen Microtest Co., Ltd.**

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<b>Test Result Certification</b>		
Applicant	Shenzhen USV Technology Co., Ltd	
Applicant Address	4F, Building B20, Hengfeng Industrial City, Hangchen, Bao'an District, Shenzhen City, Guangdong Province, China	
Manufacturer	Shenzhen USV Technology Co., Ltd	
Manufacturer Address	4F, Building B20, Hengfeng Industrial City, Hangchen, Bao'an District, Shenzhen City, Guangdong Province, China	
<b>Product description</b>		
Product name	3-IN-1 Magnetic Wireless Charger	
Trademark	N/A	
Model name	U600	
Series Model(s)	V600	
Standards	47 CFR PART 1, § 1.1310 part2.1091	
Test method	KDB 680106 D01 Wireless Power Transfer v04	
<b>Testing Information</b>		
Date of test	2025-06-10 to 2025-06-13	
Test Result	Pass	
Prepared by:	Letter Lan	<i>Letter. Lan.</i>
Reviewed by:	David Lee	<i>David. Lee</i>
Approved by:	Lewis Lian	<i>Lewis Lian</i>

## 1 General Description

### 1.1 Description of the EUT

Product name:	3-IN-1 Magnetic Wireless Charger
Model name:	U600
Series Model(s):	V600
Model difference:	All the models are the same circuit and module, except the model name.
Electrical rating:	Input: 12V= 2A, 9V= 2.77A Output: 5W/7.5W/10W/15W Watch Output: 3W TWS Output: 3W
Accessories:	Cable: Type-C to Type-C cable 1m
Hardware version:	USV-U600-ZHX-V1.1
Software version:	V1.1
Test sample(s) number:	MTi250422003-01-R001

### RF specification

Operating frequency range:	Coil 1 (Phone): 115-205KHz Coil 2 (TWS): 115-205KHz Coil 3 (Watch): 300-350KHz
Modulation type:	ASK
Antenna(s) type:	Coil

### 1.2 Description of test modes

All the test modes were carried out with the EUT in normal operation, the final test mode of the EUT was the worst test mode for emission test, which was shown in this report and defined as:

No.	Emission test modes
Mode1	Wireless output(Phone(5W)+TWS(3W)+Watch(3W))
Mode2	Wireless output(Phone(7.5W)+TWS(3W)+Watch(3W))
Mode3	Wireless output(Phone(10W)+ETWS(3W)+Watch(3W))
Mode4	Wireless output(Phone(15W)+TWS(3W)+Watch(3W))
Mode5	Wireless output(Phone(5W)+TWS(3W))
Mode6	Wireless output(Phone(7.5W)+TWS(3W))
Mode7	Wireless output(Phone(10W)+TWS(3W))
Mode8	Wireless output(Phone(15W)+TWS(3W))
Mode9	Wireless output(Phone(5W)+Watch(3W))
Mode10	Wireless output(Phone(7.5W)+Watch(3W))
Mode11	Wireless output(Phone(10W)+Watch(3W))
Mode12	Wireless output(Phone(15W)+Watch(3W))

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Mode13	Wireless Output(TWS(3W)+Watch(3W))
Mode14	Wireless output(Phone(5W))
Mode15	Wireless output(Phone(7.5W))
Mode16	Wireless output(Phone(10W))
Mode17	Wireless output(Phone(15W))
Mode18	Watch Output(3W)
Mode19	TWS Output(3W)
Mode20	stand by

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## 1.3 Description of support units

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

<b>Support equipment list</b>			
Description	Model	Serial No.	Manufacturer
HUAWEI QUICK CHARGE(65W)	HW-200325CP1	FL8606P8500764	HUAWEI
Phone	Find X3	/	OPPO
watch	Apple watch S7	M0JVGQG1VP	Apple
Air Pods	MQD83CH/A	/	Apple

<b>Support cable list</b>			
Description	Length (m)	From	To
/	/	/	/

## 2 Measurement uncertainty

Parameter	Expanded Uncertainty
Magnetic field measurements(3kHz~10MHz)	±14.8%
Electric field measurements(3kHz~10MHz)	±17.5%

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

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## 3 Test facilities and accreditations

### 3.1 Test laboratory

Test laboratory:	Shenzhen Microtest Co., Ltd.
Test site location:	101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	(86-755)88850135
Fax:	(86-755)88850136
CNAS Registration No.:	CNAS L5868
FCC Registration No.:	448573

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## 4 List of test equipment

No.	Equipment	Manufacturer	Model	Serial No.	Cal. date	Cal. Due
MTI-E143	Near-field Electric and Magnetic Field Sensor System	SPEAG	MAGPy-8H3 D+ED3	3101	2024/3/12	2027/3/11

No.	Equipment	Manufacturer	Model	Software version:	Cal. date	Cal. Due
MTI-E016S	MPE test software	SPEAG	MAGPY 2.6	2.6	/	/

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## 5 Test result

### 5.1.1 Requirement

§1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in §1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of FCC part 2.1093 of this chapter.

**Table 1 to §1.1310(e)(1) - Limits for Maximum Permissible Exposure (MPE)**

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(i) Limits for Occupational/Controlled Exposure</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
1500-100000			5	<6
<b>(ii) 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
1500-100000			1.0	<30

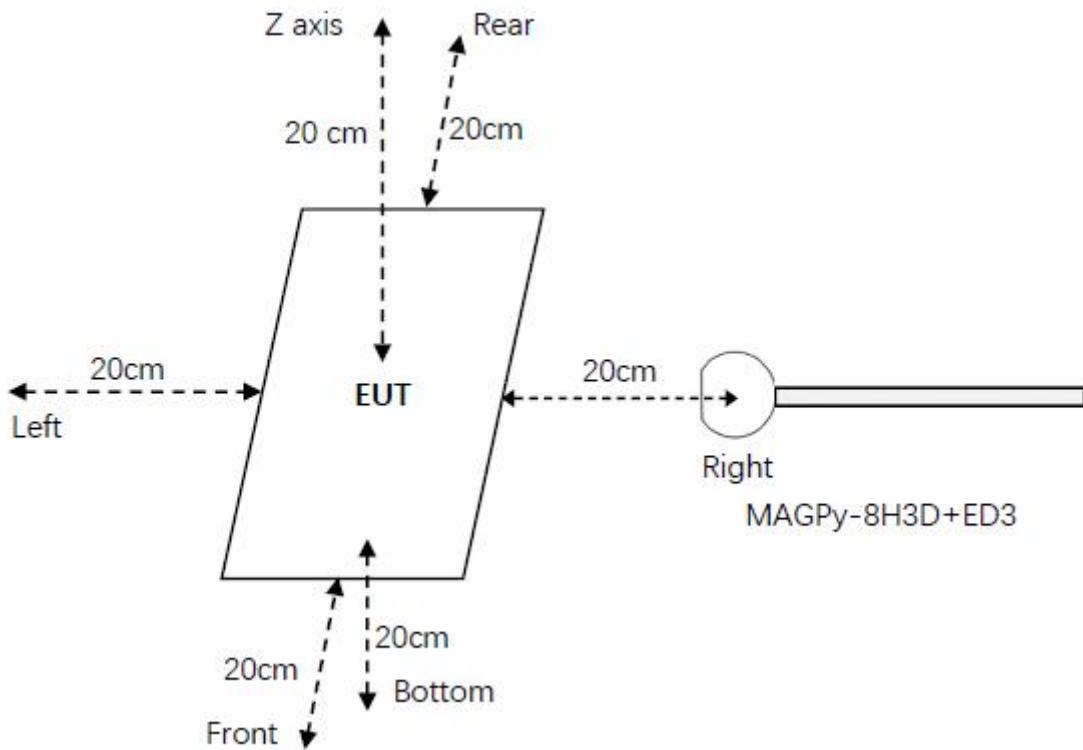
f = frequency in MHz

\* = Plane-wave equivalent power density

**Note 1:** Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.

**Note 2:** General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

## 5.2 Test setup



## 5.3 Test Procedures

- The RF exposure test was performed in anechoic chamber.
- E and H-field measurements should be made with these devices considered to meet the § 2.1091-Mobile conditions ("generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the RF source's radiating structure(s) and [the nearest person]").
- The highest emission level was recorded and compared with limit.
- The EUT was measured according to the dictates of KDB 680106 D01 Wireless Power Transfer v04.

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## 5.4 Information of test equipment

Test equipment: MAGPy-8H3D+ED3	
Diameter	60mm
8 isotropic H-field sensors	Concentric loops of 1cm <sup>2</sup> arranged at the corner of a cube of 22mm side length
1 isotropic E-field sensor	Orthogonal dipole/monopole (arm length: 50mm)
Measurement center	18.5mm from the probe tip
Dimensions	110*635*35mm (MAGPy-8H3D+E3D V2 & MAGPy-DAS V2)


Test probe, without the casing

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## 5.5 Test results

### Test condition 1: Mode 4 operating mode with client device (1 % battery status of client device)

Probe Position	E –field (V/m)			H–field (A/m)		
	Measurement	Limit	Percentage (%)	Measurement	Limit	Percentage (%)
Z axis	2.41	614	0.39%	0.16	1.63	9.82%
Left	1.64			0.08		
Right	1.85			0.11		
Front	1.76			0.1		
Rear	1.69			0.13		
Bottom	1.52			0.1		

### Test condition 2: Mode 4 operating mode with client device (50 % battery status of client device)

Probe Position	E –field (V/m)			H–field (A/m)		
	Measurement	Limit	Max. Percentage (%)	Measurement	Limit	Max. Percentage (%)
Z axis	2.36	614	0.38%	0.14	1.63	8.59%
Left	1.60			0.07		
Right	1.84			0.10		
Front	1.77			0.1		
Rear	1.61			0.12		
Bottom	1.48			0.1		

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**Test condition 3: Mode 4 operating mode with client device (99 % battery status of client device)**

Probe Position	E -field (V/m)			H-field (A/m)		
	Measurement	Limit	Percentage (%)	Measurement	Limit	Percentage (%)
Z axis	2.31	614	0.38%	0.12	1.63	7.36%
Left	1.58			0.07		
Right	1.81			0.09		
Front	1.73			0.1		
Rear	1.60			0.11		
Bottom	1.44			0.1		

## Photographs of the Test Setup

See the Appendix - Test Setup Photos.

## Photographs of the EUT

See the Appendix - EUT Photos.

## Statement

1. This report is invalid without the seal and signature of the laboratory.
2. The test results of this report are only responsible for the samples submitted. Client shall be responsible for representativeness of the sample and authenticity of the material.
3. The report shall not be partially reproduced without the written consent of the Laboratory.
4. This report is invalid if transferred, altered or tampered with in any form without authorization.
5. The observations or tests with special mark fall outside the scope of accreditation, and are only used for purpose of commission, research, training, internal quality control etc.
6. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

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