



MPE TEST REPORT

Report No:STS2106067H01

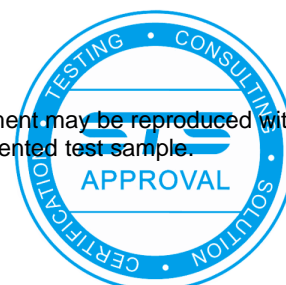
Issued for

Shenzhen Joway Power Supply Co., Ltd.

Blog 10th & 11th, Antuoshan High-Tech, Industrial Park,
Shajing Street, Shenzhen,China

Product Name:	Wireless Power Bank
Brand Name:	JOWAY
Model Name:	JP-268
Series Model:	N/A
FCC ID:	2AEZ4JP268
Test Standard:	FCC CFR 47 part 1, 1.1310

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TEST RESULT CERTIFICATION

Applicant's Name : Shenzhen Joway Power Supply Co., Ltd.
Address : Blog 10th & 11th, Antuoshan High-Tech, Industrial Park, Shajing Street, Shenzhen, China
Manufacturer's Name : Shenzhen Joway Power Supply Co., Ltd.
Address : Blog 10th & 11th, Antuoshan High-Tech, Industrial Park, Shajing Street, Shenzhen, China

Product Description

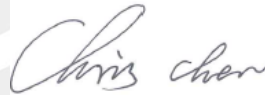
Product Name : Wireless Power Bank
Brand Name : JOWAY
Model Name : JP-268
Series Model : N/A
Standards : FCC CFR 47 part 1, 1.1310
Test Procedure : 680106 D01 RF Exposure Wireless Charging Apps v03r01

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.

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Date of Test :
Date of receipt of test item : 09 June 2021
Date of performance of tests : 09 June 2021 ~ 18 June 2021
Date of Issue : 18 June 2021
Test Result : **Pass**

Testing Engineer :



(Chris Chen)

Technical Manager :



(Sean She)

Authorized Signatory :



(Vita Li)





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Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	18 June 2021	STS2106067H01	ALL	Initial Issue





1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v03

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

1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded 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	Uncertainly
1	H-filed	$\pm 1.2\mu T$
2	E-filed	$\pm 16\%$

1.3 GENERAL DESCRIPTION OF THE EUT

Product Name	Wireless Power Bank
Trade Name	JOWAY
Model Name	JP-268
Series Model	N/A
Model Difference	N/A
Equipemnt Category	Non-ISM frequency
Antenna Type	Please refer to the Note 2.
Operating frequency	110.5-210KHz
Modulation Type	ASK
Rating:	Input: DC 5V 2A, DC 9V 2A Type-C:DC 5V 3A, DC 9V 2A Output: USB:DC 5V 3A,DC 9V 2A,DC 12V 1.5A Type-C: DC 5V 3A, DC 9V 2.2A, DC 12V 1.5A Wireless: 15W(MAX)
Battery	Rated Voltage:3.85V Charge Limit Voltage:4.4V Capacity: 10000mAh
Hardware version number	N/A
Software version number	N/A
Connecting I/O Port(s)	Please refer to the Note 1.

Note:

1. For a more detailed features description, please refer to the manufacturer’s specifications or the User Manual.
2. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	NOTE
1	JOWAY	JP-268	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
Electromagnetic field strength analyzer	Coliy Technology GmbH	E300	13945	2010.10.19	2021.10.18
Three-dimensional omnidirectional electric field probe	Coliy Technology GmbH	EP0650	N/A	2010.10.19	2021.10.18
Three-dimensional omnidirectional magnetic field probe	Coliy Technology GmbH	HP0350	N/A	2010.10.19	2021.10.18
Three-dimensional omnidirectional electric and magnetic field combo probe	Coliy Technology GmbH	EHP150	N/A	2010.10.19	2021.10.18

Note:

1. The Three-dimensional omnidirectional electric field probe frequency rang is 100 KHz - 6.5 GHz, the Three-dimensional omnidirectional magnetic field probe frequency rang is 100 KHz - 35 MHz, and the Three-dimensional omnidirectional electric and magnetic field combo probe frequency rang is 5 Hz - 150 KHz, their selectable resolution bandwidth (RBW) is 1Hz/10Hz/30Hz.
2. The isotropic probes mean deviation response is not greater than 1 dB.

1.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
N/A	N/A	N/A	N/A	N/A	N/A

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
/	Mobile Phone	Apple	iPhone 8	N/A	N/A

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) “YES” is means “with core”; “NO” is means “without core”.

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/ 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.

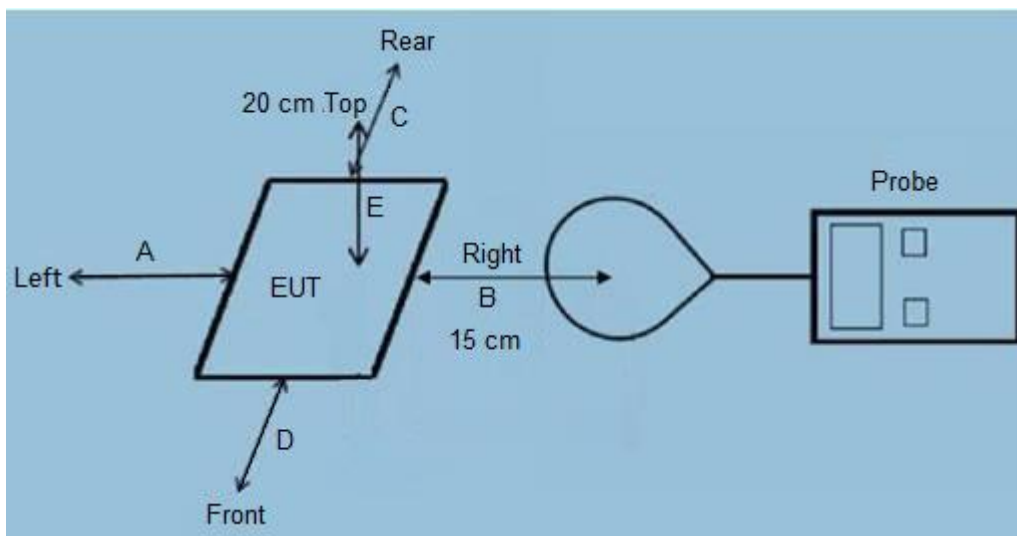
Note 4: The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

2.2 TEST PROCEDURE

- 1) The RF exposure test was performed in an echoic chamber;
- 2) The measurement probe was placed at test distance (15 cm from edges, 20 cm from top) Which is between the edge of the charger and the geometric center of probe, for test setup A;
- 3) In addition to what is described in KDB 680106 D01, please measure and provide magnetic and electrical field strength at a distance 10cm to 1cm at 1cm iteration, i.e. at a distance of 10cm, 9cm, 8cm, 1cm. Which is between the edge of the charger and the edge of of probe, for test setup B;
- 4) The highest emission level was recorded and compared with limit as soon as measurement of each points (A,B, C,D, E) were completed;
- 5) The EUT was measured according to the dictates of KDB680106D01v03; And KDB Tracking Number 671578 ; TCB Workshop, October 2018, 5.2 RF Exposure Procedures

Remark: The EUT test position A, B, C, D and E is valid for the E and H field measurements.

2.3 TEST SETUP

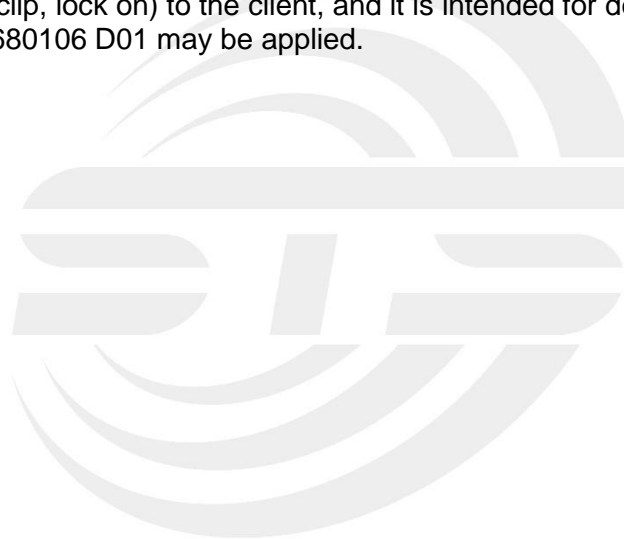




2.4 TEST RESULTS

The EUT does comply with item 5 KDB680106 D01 v03.

- (1) Power transfer frequency is less than 1 MHz.
(Conform)
- (2) Output power from each primary coil is less than or equal to 15 watts.
(Conform)
- (3) The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.
(Conform)
- (4) Client device is placed directly in contact with the transmitter.
(Conform)
- (5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
(No)
- (6) 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.
(Conform)
- (7) According to April 2018 TCB Workshop, for inductive applications where the primary does not physically attach (clip, lock on) to the client, and it is intended for desktop use, the desktop guidance in KDB 680106 D01 may be applied.



2.5 MAXIMUM PERMISSIBLE EXPOSURE

Test Result for Test setup A:

E-Filed Strength at (15 cm from edges A,B,C,D, 20 cm from top E) surrounding the EUT (V/m)

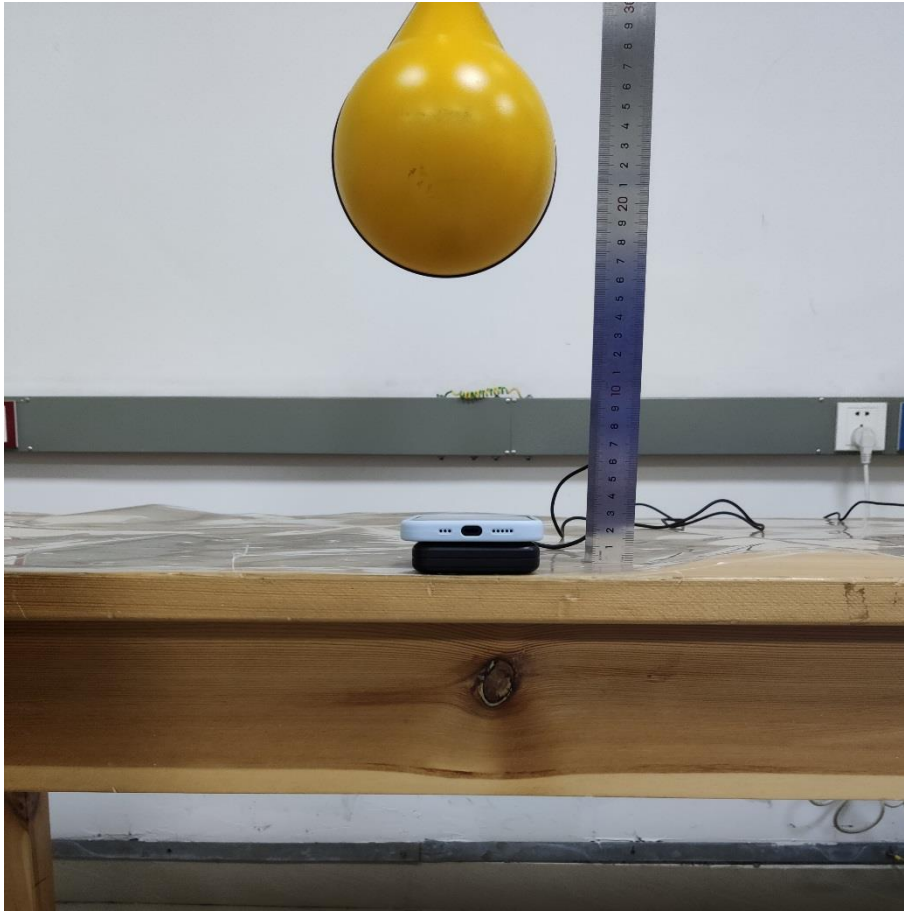
Charging Load Worse case	Test Position A(V/m)	Test Position B(V/m)	Test Position C(V/m)	Test Position D(V/m)	Test Position E(V/m)	Limits (V/m)
<5%	4.325	4.233	4.221	4.197	4.186	614
50%	4.498	4.358	4.371	4.436	4.408	614
>90 %	4.485	4.470	4.497	4.539	4.525	614

H-Filed Strength at (15 cm from edges A,B,C,D, 20 cm from top E) surrounding the EUT (A/m)

Charging Load Worse case	Test Position A(A/m)	Test Position B(A/m)	Test Position C(A/m)	Test Position D(A/m)	Test Position E(A/m)	Limits (A/m)
<5%	0.419	0.494	0.448	0.611	0.344	1.63
50%	0.808	0.753	0.778	0.545	0.721	1.63
>90 %	0.807	0.743	0.785	0.747	0.759	1.63

Note: Both the mode with AC power and the internal battery operating mode have been tested. The worst case is the internal battery operating mode, only report the worst case.

MPE SETUP PHOTO



※※※※※END OF THE REPORT※※※※※