MPE TEST REPORT

Report No:STS2112009H01

Issued for

Lenovo (Beijing) Limited

No.6 Chuang Ye Road, Shangdi Information Industry Base, Haidian District, Beijing, China

Product Name:	Lenovo Go Wireless Mobile Power Bank
Brand Name:	Lenovo
Model Name:	PBLG1W
Series Model:	N/A
FCC ID:	A5MPBLG1W
Test Standard:	FCC CFR 47 part 1, 1.1310

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TEST RESULT CERTIFICATION

Applicant's Name .....:	Lenovo (Beijing) Limited
Address.....:	No.6 Chuang Ye Road, Shangdi Information Industry Base, Haidian District, Beijing, China
Manufacturer's Name .....:	Lenovo (Beijing) Limited
Address.....:	No.6 Chuang Ye Road, Shangdi Information Industry Base, Haidian District, Beijing, China

Product Description

Product Name .....:	Lenovo Go Wireless Mobile Power Bank
Brand Name .....:	Lenovo
Model Name.....:	PBLG1W
Series Model .....:	N/A
Standards.....:	FCC CFR 47 part 1, 1.1310
Test Procedure .....:	680106 D01 RF Exposure Wireless Charging Apps v03

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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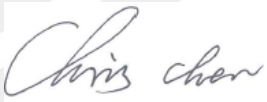
Date of Test.....:	
Date of receipt of test item.....:	02 Dec. 2021
Date of performance of tests ..:	02 Dec. 2021 ~ 14 Jan. 2022
Date of Issue.....:	14 Jan. 2022
Test Result .....:	**Pass**

Testing Engineer : 

(Chris Chen)

Technical Manager : 

(Sean She)

Authorized Signatory : 

(Vita Li)

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 THE EUT 6
1.4 EQUIPMENTS LIST FOR ALL TEST ITEMS 7
1.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS 7
2. MAXIMUM PERMISSIBLE EXPOSURE **8**
2.1 MAXIMUM PERMISSIBLE EXPOSURE 8
2.2 TEST PROCEDURE 9
2.3 TEST SETUP 9
2.4 TEST RESULTS 10
2.5 MAXIMUM PERMISSIBLE EXPOSURE 11

Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	14 Jan. 2022	STS2112009H01	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** ±**U**, where expended 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	1.2μT
2	E-filed	16%

1.3 GENERAL DESCRIPTION OF THE EUT

Product Name	Lenovo Go Wireless Mobile Power Bank
Trade Name	Lenovo
Model Name	PBLG1W
Series Model	N/A
Model Difference	N/A
Equipemnt Category	Non-ISM frequency
Antenna Type	Please refer to the Note 2.
Operating frequency	111-205KHz
Modulation Type	FSK
Rating	USB-C / Type-C Input: DC 5V, 3A or DC 9V, 3A USB-C / Type-C Output: DC 5V, 3A or DC 9V, 3A DC 7.7V, 5000mAh (38.5Wh) via internal lithium battery pack
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	FINE	FYS290003	Coil	NA	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
Electric and Magnetic field Probe - Analyzer	Narda	EHP 200A	180ZX10220	2021.07.22	2022.07.21

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 Plus	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/ 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 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.

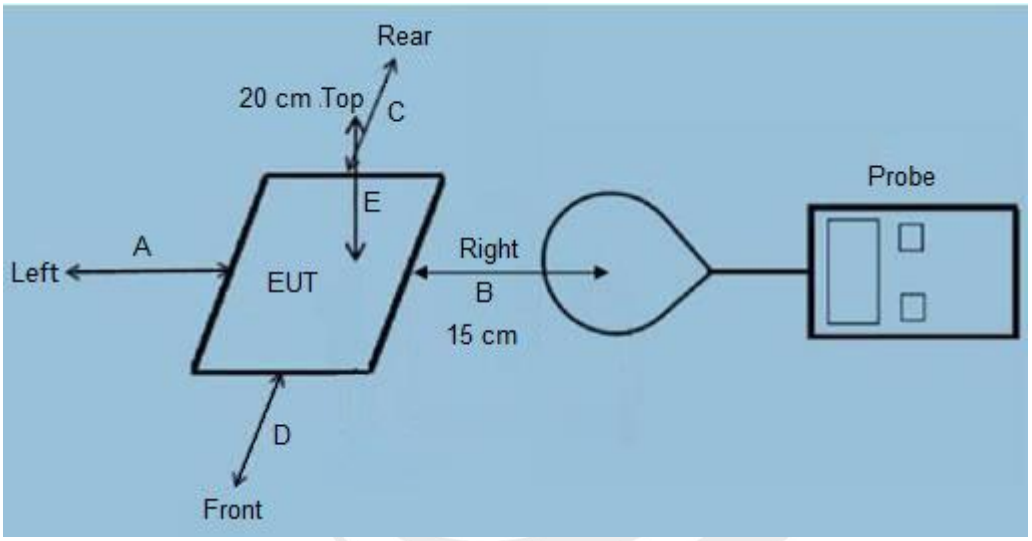
2.2 TEST PROCEDURE

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 leve laws 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

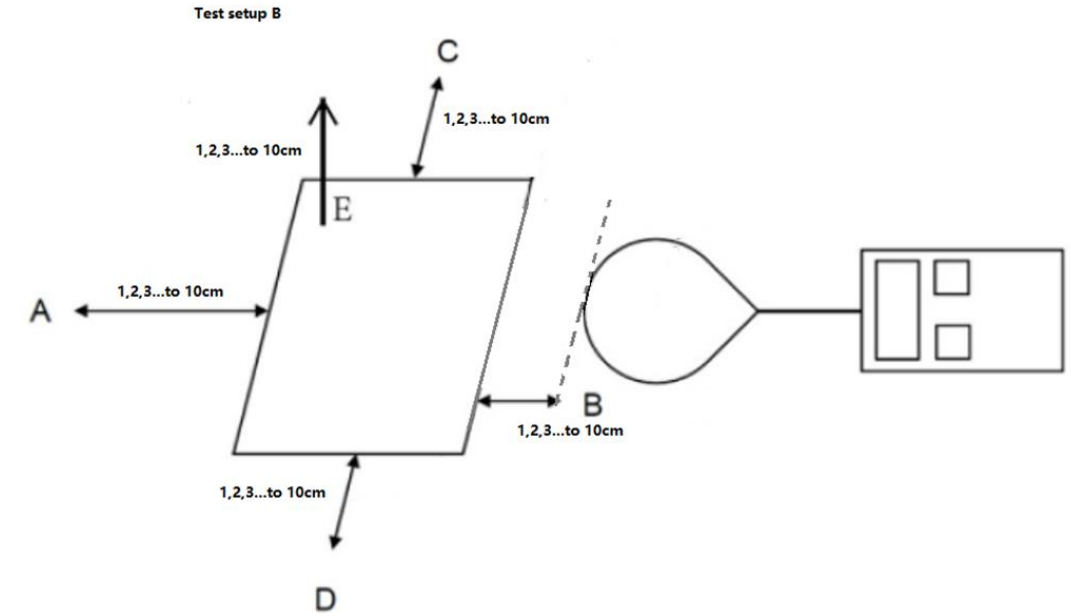
Remark：The EUT′ s test position A, B,C, D and E is valid for the E and H field measurements.

2.3 TEST SETUP

A:



B:



Remark: The E300 probe antenna diameter is 11.5cm.

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 transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.
(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)

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%	0.894	0.558	0.964	0.850	0.389	614
50%	0.873	0.515	0.844	0.823	0.354	614
>90 %	0.783	0.255	0.687	0.452	0.364	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%	0.110	0.058	0.086	0.197	0.075	1.63
50%	0.103	0.030	0.002	0.170	0.015	1.63
>90 %	0.040	0.001	0.048	0.169	0.031	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.

Test Result for Test setup B:

E-Filed Strength at (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,) surrounding the EUT (V/m)

Test distance (cm)	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)
1	5.188	5.180	5.182	5.158	5.245	614
2	5.143	5.065	5.114	5.127	5.092	614
3	5.056	5.045	5.101	5.154	5.130	614
4	5.132	4.964	4.903	5.070	4.911	614
5	4.772	4.884	5.143	4.837	5.107	614
6	5.142	4.804	4.948	4.874	5.066	614
7	4.883	4.899	4.772	4.850	5.016	614
8	5.028	5.056	5.126	4.998	5.029	614
9	4.611	4.843	4.926	4.620	4.708	614
10	4.544	4.615	5.150	4.767	4.786	614

H-Filed Strength at (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,) surrounding the EUT (A/m)

Test distance (cm)	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)
1	1.473	1.465	1.521	1.476	1.519	1.63
2	1.415	1.413	1.411	1.404	1.342	1.63
3	1.342	1.371	1.354	1.333	1.396	1.63
4	1.250	1.200	1.175	1.394	1.295	1.63
5	1.219	1.156	1.238	1.312	1.417	1.63
6	0.981	1.136	1.082	1.168	0.949	1.63
7	0.923	1.331	1.072	1.001	1.284	1.63
8	1.083	1.224	1.226	0.924	0.783	1.63
9	1.110	1.231	1.389	0.733	1.329	1.63
10	1.307	0.855	0.994	1.011	0.969	1.63

Note:

1. 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.
2. <5%, 50%, >90% load all have been tested, only worse case Max load <5% is reported.

MPE SETUP PHOTO

Refer to photos documents

※※※※※END OF THE REPORT※※※※※