FCC Test Report

Applicant	:	**Shenzhen Minsuo Industrial Co.,Ltd**
Address	:	**12th floor, Block B, Tengyao Building, No. 268 Gushu 2nd road,Xixiang Town, Bao'an, Shenzhen, Guangdong, China**
Product Name	:	**3-IN-1 MAGNETIC 15W WIRELESS FAST CHARGER**
Report Date	:	**Dec. 05, 2024**

Shenzhen Anbotek Compliance Laboratory Limited

Contents

TEST REPORT

Applicant	:	Shenzhen Minsuo Industrial Co.,Ltd
Manufacturer	:	Shenzhen Minsuo Industrial Co.,Ltd
Product Name	:	3-IN-1 MAGNETIC 15W WIRELESS FAST CHARGER
Model No.	:	MP-250, 3MFC-6/2081, 670983
Trade Mark	:	N/A
Rating(s)	:	Input: 5V⎓ 3A,9V⎓ 2A,12V⎓ 1.5A Wireless (Phone): 15W/10W/7.5W/5W Wireless (Earbuds): 3W Wireless (Watch): 2W

Test Standard(s) : FCC Part 1.1310, 1.1307(b)
Test Method(s) : KDB 680106 D01 Wireless Power Transfer v04

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 1.1307 & KDB680106 D01 requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt: Nov. 19, 2024

Date of Test: Nov. 19, 2024 to Nov. 29, 2024

Prepared By: (TuTu Hong)

Approved & Authorized Signer: (Kingkong Jin)

Revision History

Report Version	Description	Issued Date
R00	Original Issue.	Dec. 05, 2024

1. General Information

1.1. Client Information

Applicant	:	Shenzhen Minsuo Industrial Co.,Ltd
Address	:	12th floor, Block B, Tengyao Building, No. 268 Gushu 2nd road,Xixiang Town, Bao'an, Shenzhen, Guangdong, China
Manufacturer	:	Shenzhen Minsuo Industrial Co.,Ltd
Address	:	12th floor, Block B, Tengyao Building, No. 268 Gushu 2nd road,Xixiang Town, Bao'an, Shenzhen, Guangdong, China
Factory	:	Shenzhen Minsuo Industrial Co.,Ltd
Address	:	12th floor, Block B, Tengyao Building, No. 268 Gushu 2nd road,Xixiang Town, Bao'an, Shenzhen, Guangdong, China

1.2. Description of Device (EUT)

Product Name	:	3-IN-1 MAGNETIC 15W WIRELESS FAST CHARGER
Model No.	:	MP-250, 3MFC-6/2081, 670983 (Note: All samples are the same except the model number, so we prepare "MP-250" for test only.)
Trade Mark	:	N/A
Test Power Supply	:	AC 120V, 50Hz for adapter
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)
Adapter	:	N/A
RF Specification		
Operation Frequency	:	Wireless (Phone): 115-205kHz Wireless (Earbuds): 115-205kHz Wireless (Watch): 115-205kHz
Modulation Type	:	FSK
Antenna Type	:	Inductive loop coil Antenna
Remark: 1) All of the RF specification are provided by customer. 2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.		

1.3. Auxiliary Equipment Used During Test

Title	Manufacturer	Model No.	Serial No.
Apple Phone	Apple	iPhone 12	DNPDJC7T0DYF
Apple Watch	Apple	iwatch s6	/
Apple AirPods	Apple	AirPods Pro	/
Xiaomi 33W adapter	Xiaomi	MDY-11-EX	SA62212LA04358J

1.4. Description of Test Modes

Pretest Modes	Descriptions
TM1	Adapter+WTP Mode (Phone + Watch + Earphone)
TM2	Adapter+WTP Mode (Phone + Watch)
TM3	Adapter+WTP Mode (Phone + Earphone)
TM4	Adapter+WTP Mode (Watch + Earphone)
TM5	Adapter+WTP Mode (Phone)
TM6	Adapter+WTP Mode (Watch)
TM7	Adapter+WTP Mode (Earphone)
TM8	Standby Mode

Note: Battery Status: <1%, Battery Status: 50%, and Battery Status: >98% load cases(Phone, Watch and Earphone) were pre-tested for all modes, but we only recorded the worst case(TM1) in this report.

1.5. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Electric and Magnetic field Analyzer	NARDA	EHP-200A	180ZX10202	Oct. 15, 2024	1 Year

1.6. Measurement Uncertainty

Magnetic Field Reading(A/m)	:	+/-0.04282(A/m)
Electric Field Reading(V/m)	:	+/-0.03679(V/m)
The measurement uncertainty and decision risk evaluated according to AB/WI-RF-F-032. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.		

1.7. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 434132

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 434132.

ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A.

Test Location

Shenzhen Anbotek Compliance Laboratory Limited.
Sogood Industrial Zone Laboratory & 1/F. of Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Subdistrict, Bao'an District, Shenzhen, Guangdong, China.

1.8. Disclaimer

1. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
2. The test report is invalid if there is any evidence and/or falsification.
3. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
4. This document may not be altered or revised in any way unless done so by Anbotek and all revisions are duly noted in the revisions section.
5. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
6. The authenticity of the information provided by the customer is the responsibility of the customer and the laboratory is not responsible for its authenticity.

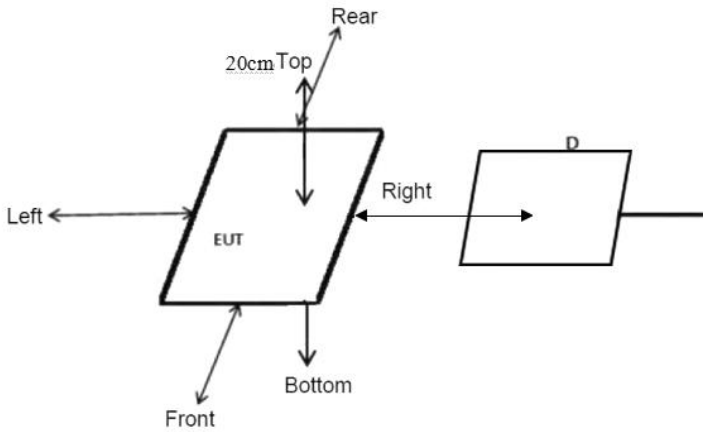
The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

2. Measurement and Result

2.1. Limits For Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
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
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
(B) Limits for General Population/Uncontrolled Exposure				
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
300-1500	/	/	f/1500	30
1500-100,000	/	/	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).				

2.2. Test Setup



Note: Measurements should be made at 20 cm surrounding the EUT and 20cm above the top surface of the EUT.

2.3. Test Procedure

1) The RF exposure test was performed in anechoic chamber.

2) The measurement probe was placed at required test distance which is between the edge of the charger and the geometric center of probe.

3) The highest emission level was recorded and compared with limit as soon as measurement of each points

(A, B, C, D, E) were completed.(A is the right, B is the back, C is the left, D is the front, and E is the top.)

4) The EUT was measured according to the dictates of KDB 680106 D01 v04.

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

2.4. Test Result

Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(b), 1.1310

Temperature:	23.6 °C	Humidity:	51 %	Atmospheric Pressure:	101 kPa

E-Field Strength at 20 cm surrounding the EUT and 20cm above the top surface of the EUT

Test Mode	Frequency Range (kHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits Test (V/m)
TM1 (1%)	115-205	2.416	2.816	2.426	2.376	2.836	614
TM1 (50%)	115-205	1.440	1.880	1.370	1.500	1.670	614
TM1 (99%)	115-205	0.418	0.568	0.408	0.411	0.538	614
TM20	115-205	0.361	0.451	0.401	0.398	0.531	614

H-Field Strength at 20 cm surrounding the EUT and 20cm above the top surface of the EUT

Test Mode	Frequency Range (kHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits Test (A/m)
TM1 (1%)	115-205	0.468	0.606	0.498	0.508	0.568	1.63
TM1 (50%)	115-205	0.426	0.458	0.496	0.366	0.506	1.63
TM1 (99%)	115-205	0.375	0.412	0.358	0.359	0.428	1.63
TM20	115-205	0.368	0.388	0.312	0.311	0.328	1.63

Note: During the test, pre-scan all modes, only the worst case is recorded in the report.

APPENDIX I -- TEST SETUP PHOTOGRAPH

Please refer to separated files Appendix I -- Test Setup Photograph_MPE

APPENDIX II -- EXTERNAL PHOTOGRAPH

Please refer to separated files Appendix II -- External Photograph

APPENDIX III -- INTERNAL PHOTOGRAPH

Please refer to separated files Appendix III -- Internal Photograph

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