RF EXPOSURE REPORT

Product Name:	K5EM Access control
FCC ID:	2BK4E-K5EM
Trademark:	N/A
Model Number:	K5EM, S601EM, RF004, S03EM, S100EM, K9
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Sample Received Date:	Aug. 27, 2024
Sample tested Date:	Aug. 27, 2024 to Sep. 19, 2024
Issue Date:	Sep. 19, 2024
Report No.:	CTB240919020RFX
Test Standards	FCC CFR 47 part1, 1.1307(b), 1.1310, 47 CFR§2.1091; KDB 680106 D01 Wireless Power Transfer v04
Test Results	PASS
Remark:	This is wireless charger EMF report.

Compiled by:	Reviewed by:	Approved by:
Zhou Kui	Arron Liu	Bin Mei
Zhou Kui	Arron Liu	Bin Mei / Director

Note: If there is any objection to the inspection results in this report, please submit a written report to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen CTB Testing Technology Co., Ltd. this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client. "*" indicates the testing items were fulfilled by subcontracted lab. "#" indicates the items are not in CNAS accreditation scope.

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1.LIST OF TEST AND MEASUREMENT INSTRUMENTS

1.1. For conducted emission at the mains terminals test

Item	Equipment	Brand	Model No.	Frequency Range	Last calibration	Calibrated until
1	EMF TESTER	Wavecontrol	SMP600/WP400-3	15SN0164/21WP1200029	2024.04.20	2025.04.19

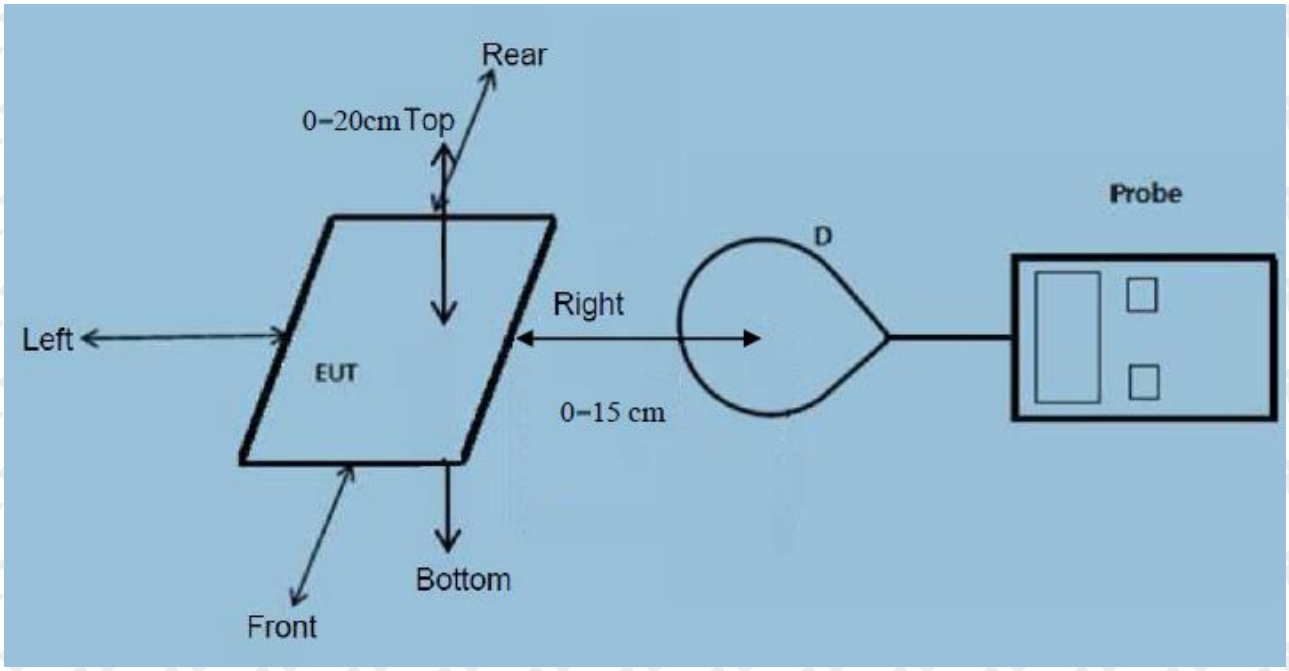
3. METHOD OF MEASUREMENT

3. 1.Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. According to §1.1310 and §2.1091 RF exposure is calculated. According to KDB 680106 D01 Wireless Power Transfer v04.

4. TEST RESULT

4.1. Conducted Emission at the Mains Terminals Test



Note: Measurements should be made from all sides and the top of the primary/client pair, with the 20 cm-0cm measured from the center of the top, and 15cm-0cm measured from the center of the rest

Test Procedure:

a) The RF exposure test was performed on 360 degree turn table in anechoic chamber.
b) 20 cm-0cm measured from the center of the top, and 15cm-0cm measured from the center of the rest sides.
c) The turn table was rotated 360d degree to search of highest strength.
d) The highest emission level was recorded and compared with limit as soon as measurement of each points were completed.
e) The EUT were measured according to the dictates of KDB 680106 D01 Wireless Power Transfer v04.

4.3. E and H field Strength

H-Filed Strength at 4 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Limits (A/m)
0.110-0.205	0.66	0.69	0.72	0.67	1.63

H-Filed Strength at 4 cm from the top of the EUT (A/m)

Frequency Range (MHz)	Test Position E	Limits (A/m)
0.110-0.205	0.72	1.63

H-Filed Strength at 2 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Limits (A/m)
0.110-0.205	0.79	0.77	0.78	0.74	1.63

H-Filed Strength at 2 cm from the top of the EUT (A/m)

Frequency Range (MHz)	Test Position E	Limits (A/m)
0.110-0.205	0.79	1.63

The probe center is 1.65cm from the coil surface, according to KDB 680106, date at 0cm must be estimated through a modle, and then the model must be validated with the actual measurements at 2cm.

Using Biot-Savart Law, the value of 2cm can be estimated through the test result of 4cm

H-Filed Strength at 2 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Limits (A/m)
0.110-0.205	0.76	0.78	0.75	0.71	1.63

H-Filed Strength at 2 cm from the top of the EUT (A/m)

Frequency Range (MHz)	Test Position E	Limits (A/m)
0.110-0.205	0.76	1.63

Using Biot-Savart Law, the value of 0cm can be estimated through the test result of 2cm

H-Filed Strength at 0 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Limits (A/m)
0.110-0.205	0.85	0.82	0.84	0.86	1.63

H-Filed Strength at 0 cm from the top of the EUT (A/m)

Frequency Range (MHz)	Test Position E	Limits (A/m)
0.110-0.205	0.86	1.63

The difference between measurements and estimates is no more than 30%

So the estimates in 0cm is ok

※※※※※THE END※※※※※