



FCC Test Report

**Test Report
On Behalf of
Alogic Corporation Pty Ltd
For**

**Matrix Ultimate Fold 3-in-1 Stand with Power Bank
Model No.: MFPB5KM, MFPB5KM-AU, MFPB5KQ-AU, MFPB5KM-UK,
MFPB5KQ-UK, MFPB5KM-EU, MFPB5KQ-EU, MUPB5KM, MUPB5KQ,
MUAWC, MFPB5KM-G**

FCC ID: 2ATCA-MFPB5KM

Prepared For : **Alogic Corporation Pty Ltd**
Level 40, 140 William Street, Melbourne VIC 3000, Australia

Prepared By : **Shenzhen HUAK Testing Technology Co., Ltd.**
**1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping,
Fuhai Street, Bao'an District, Shenzhen, Guangdong, China**

Date of Test: **Dec. 13, 2023 ~ Dec. 22, 2023**

Date of Report: **Dec. 22, 2023**

Report Number: **HK2312136073-2E**



Test Result Certification

Applicant's Name..... : Alogic Corporation Pty Ltd

Address..... : Level 40, 140 William Street, Melbourne VIC 3000, Australia

Manufacture's Name..... : Alogic Corporation Pty Ltd

Address..... : Level 40, 140 William Street, Melbourne VIC 3000, Australia

Product Description

Trade Mark : N/A

Product Name : Matrix Ultimate Fold 3-in-1 Stand with Power Bank

Model and/or Type Reference: MFPB5KM, MFPB5KM-AU, MFPB5KQ-AU, MFPB5KM-UK,
MFPB5KQ-UK, MFPB5KM-EU, MFPB5KQ-EU, MUPB5KM,
MUPB5KQ, MUAWC, MFPB5KM-G

Standards : FCC CFR 47 PART 18, KDB 680106 D01

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen HUAKE Testing Technology Co., Ltd. is acknowledged as copyright owner and source of the material. Shenzhen HUAKE Testing Technology Co., Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Date of Test..... :

Date (s) of Performance of Tests : Dec. 13, 2023 ~ Dec. 22, 2023

Date of Issue..... : Dec. 22, 2023

Test Result..... : Pass

Testing Engineer :

Len Liao

(Len Liao)

Technical Manager :

Sliver Wan

(Sliver Wan)

Authorized Signatory :

Jason Zhou

(Jason Zhou)



Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

Channel List							
Channel	Frequency (KHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	131						

The EUT antenna is Coil Antenna. No antenna other than that furnished by the responsible party shall be used with the device.

2. Summary of Test Results

2.1. Test procedures according to the technical standards:

FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v03r01

FCC CFR 47			
Standard Section	Test Item	Judgment	Remark
FCC CFR 47 part1, 1.1310 KDB 680106 D01v03r01 (3)(3)	Magnetic Field Strength (H) (A/m)	PASS	

2.2. Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, 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	Uncertainty
1	All Emissions, Radiated(<30M)(9KHz-30MHz)	$\pm 3.90\text{dB}$
2	Temperature	$\pm 0.5^\circ\text{C}$
3	Humidity	$\pm 2\%$



2.3. Test Mode

EUT Mode		Description
Working	ANT 1	Full Load
		Half Load
		No Load

Note: All modes have been tested, and the report only reflects the worst case data.

2.4. Test Instruments

Description	Brand	Model No.	S/N	Calibrated Date	Calibrated Until
Electric and Magnetic Field Analyzer	narda	EHP-200AC	180ZX11028	Feb. 17, 2023	Feb. 16, 2024

NOTE: 1. The calibration interval of the above test instruments is 12 months.



3. 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 1.63A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

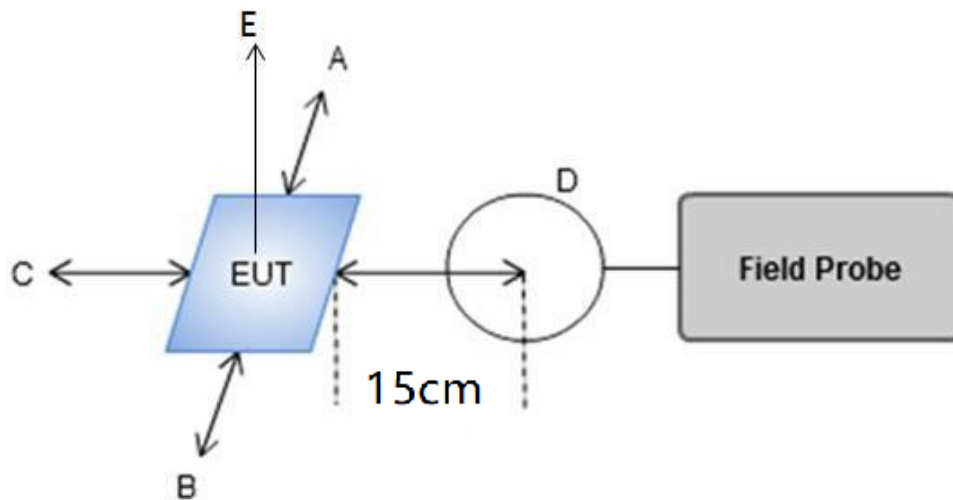


4. Test Procedure

a. For devices designed for typical desktop applications, such as wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of (H-field & E-field strengths for all sides is 15cm, H-field strengths of top side is 20cm).

E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device.

4.1 Test Setup



4.2 Result of Maximum Permissible Exposure



For Full load:

H-Field Strength at 15 cm (E top side: 20cm) from the edges surrounding the EUT (A/m)

Field strength	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits (A/m)
A/m	0.6009	0.6222	0.6172	0.5844	0.6510	1.63

For Half Load mode:

H-Field Strength at 15 cm (E top side: 20cm) from the edges surrounding the EUT (A/m)

Field strength	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits (A/m)
A/m	0.5371	0.5344	0.5260	0.5641	0.5735	1.63

For No load mode:

H-Field Strength at 15 cm (E top side: 20cm) from the edges surrounding the EUT (A/m)

Field strength	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits (A/m)
A/m	0.5124	0.5036	0.4987	0.4752	0.4719	1.63



Remark: According KDB 680106 D01 RF Exposure Wireless Charging App v03r01, section 5, b). 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. The E- field evaluation conducted assuming a user separation distance of 15 cm according to the KDB 680106 D01 RF Exposure Wireless Charging App v03 section 3, c).

Result: The device comply with the RF exposure requirement according to 680106 D01 v03r01, section 5, b):

(1) Power transfer frequency is less than 1 MHz..

- The device operate in the frequency range for 112 KHz~ 205 KHz

(2) Output power from each primary coil is less than or equal to 15 watts.

- The maximum output power of ANT1 is 5W

(3) A 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 can be powered on at the same time

-The transfer system including a charging system with only single primary coils is to detect and allow only

(4) Client device is placed directly in contact with the transmitter.

-The EUT is placed directly in contact with the transmitter

(5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

- Yes, mobile device only.

(6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.

- The EUT meet the conditions.

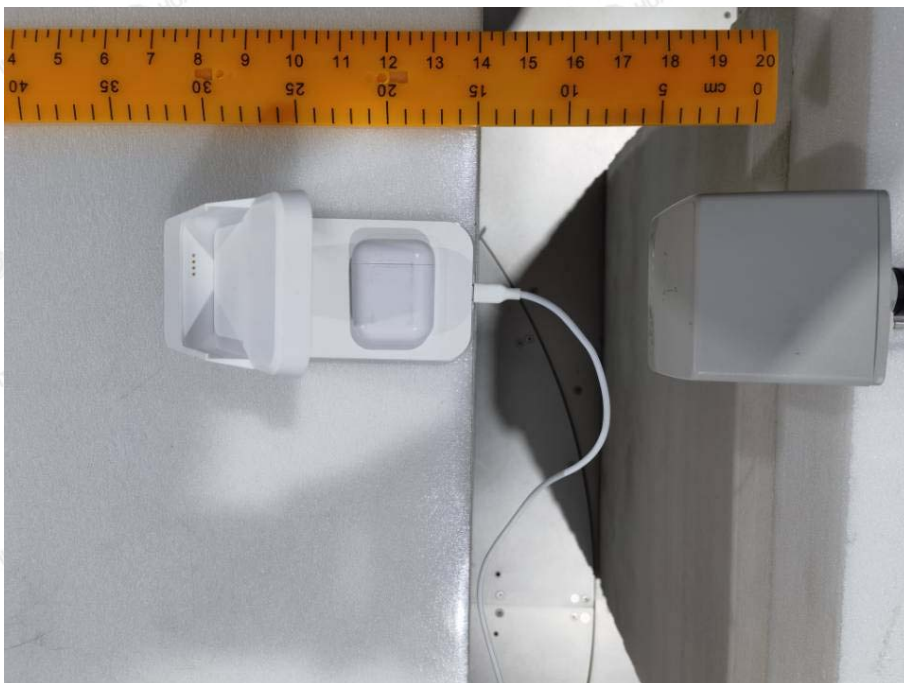


Photograph of Test

A

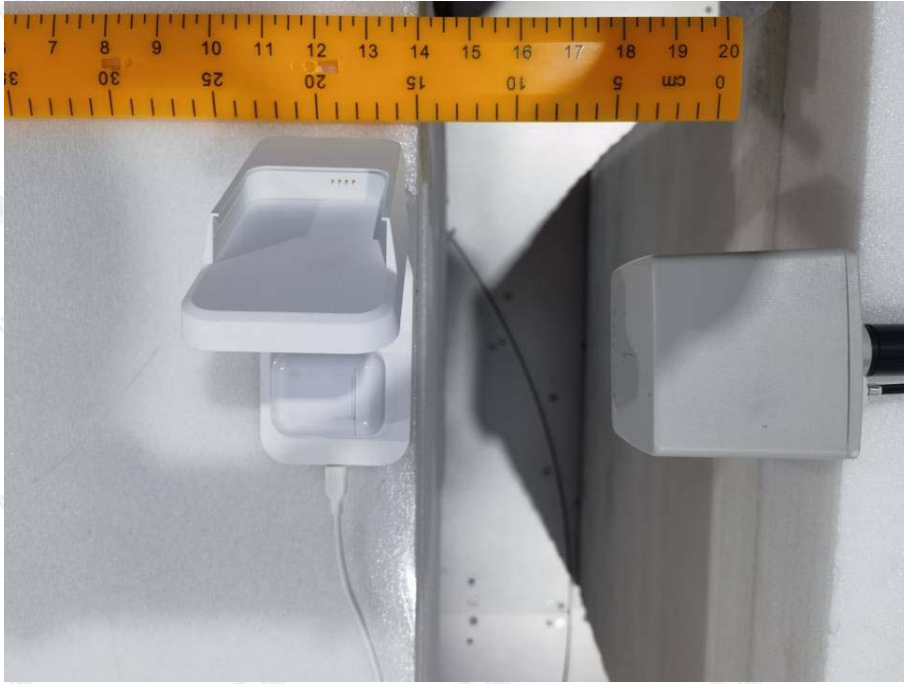


B

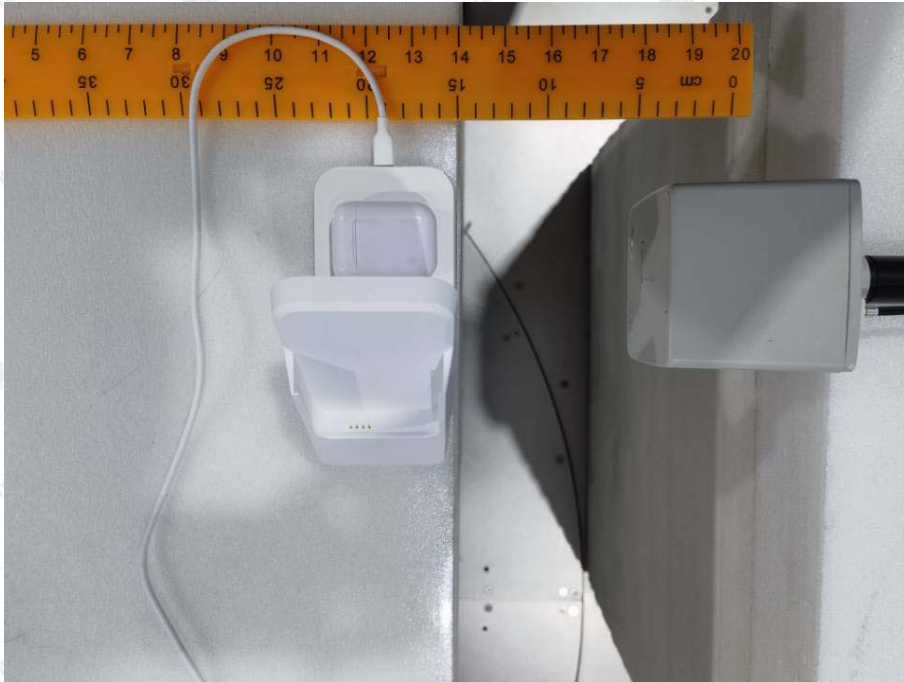




C



D





E



※※※※THE END※※※※