



FCC TEST REPORT

Test report
On Behalf of
Shenzhen Lingyi Innovation Tech Co., Ltd
For
MagBar
Model No.: MB1001

FCC ID: 2ARI5-MB1001

Prepared for: Shenzhen Lingyi Innovation Tech Co., Ltd

12 F, Block C, Central Avenue Building, Xixiang BLVD West, Baoan District,

Shenzhen, China

Prepared By: Shenzhen HUAK Testing Technology Co., Ltd.

1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park, Fuhai Street,

Bao'an District, Shenzhen City, China

Date of Test: June 18, 2019 ~ June 27, 2019

Date of Report: June 27, 2019
Report Number: HK1906171345-2E



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	125								

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 KDB680106 D01 RF Exposure Wireless Charging Apps v03

	FCC CFR 47		
Standard Section	Test Item	Judgment	Remark
FCC CFR 47 part1,	Electric Field Strength (E) (V/m)	PASS	
1.1310 KDB680106 D01v03 (3)(3)	Magnetic Field Strength (H) (A/m)	PASS	

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $\mathbf{y} \pm \mathbf{U}$, where expended uncertainty \mathbf{U} is based on a standard uncertainty multiplied by a coverage factor of $\mathbf{k=2}$, providing a level of confidence of approximately $\mathbf{95}$ %.

No.	Item	Uncertainty
1	All emissions,radiated(<30M)(9KHz-30MHz)	±2.45dB
2	Temperature	±0.5°C
3	Humidity	±2%



2.3 Test Instruments

Description	Brand	Model No.	Frequency Range	Calibrated Date	Calibrated Until
Broadband Field Meter	NARDA	NBM-550	-	Dec. 27, 2018	Dec. 26, 2019
Magnetic Field Meter	NARDA	ELT-400	1 – 400kHz	Dec. 27, 2018	Dec. 26, 2019
Magnetic Probe	NARDA	HF-3061	300kHz – 30MHz	Dec. 27, 2018	Dec. 26, 2019
Magnetic Probe	NARDA	HF-0191	27 – 1000MHz	Dec. 27, 2018	Dec. 26, 2019
Broadband Field Meter	NARDA	NBM-550	-	Dec. 27, 2018	Dec. 26, 2019
Electric Field Meter	COMBINOVA	EFM 200	5Hz – 400kHz	Dec. 27, 2018	Dec. 26, 2019
E-Field Probe	NARDA	EF-0391	100kHz – 3GHz	Dec. 27, 2018	Dec. 26, 2019
E-Field Probe	NARDA	EF-6091	100MHz – 60GHz	Dec. 27, 2018	Dec. 26, 2019

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



3. MAXIMUM PERMISSIBLE EXPOSURE

3.1 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								
	Limits for General	Population / Uncont	trolled Exposure					
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Population / Uncont Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time E ², H ² or S (minutes)				
	Electric Field	Magnetic Field	Power Density (S)	$ E ^2, H ^2$ or S				
(MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	E ² , H ² or S (minutes)				
(MHz) 0.3-1.34	Electric Field Strength (E) (V/m) 614	Magnetic Field Strength (H) (A/m) 1.63	Power Density (S) (mW/ cm²) (100)*	E ², H ² or S (minutes)				
(MHz) 0.3-1.34 1.34-30	Electric Field Strength (E) (V/m) 614 824/f	Magnetic Field Strength (H) (A/m) 1.63 2.19/f	Power Density (S) (mW/ cm²) (100)* (180 / f)*	E ² , H ² or S (minutes) 30 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.

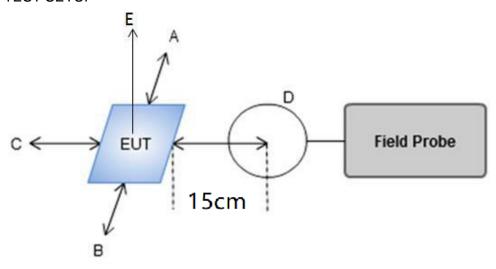




4. TEST PROCEDURE

a. For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm. 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

Remark: 1.We tested the voltage in 5V/9V DC, the worst case was recorded. 2.ANT.1 and ANT.2 do not share antennas and can transmit simultaneously.



For Full load mode:

E-Field Strength at 15 cm from the edges surrounding the EUT (V/m)

Frequency	Test	Test	Test	Test	Test	Limits
Range	Position	Position	Position	Position	Position	Test
(MHz)	A	B	C	D	E	(V/m)
0.125	1.18	1.27	1.23	1.28	1.22	614

H-Field Strength at 15 cm from the edges surrounding the EUT (A/m)

Frequency	Test	Test	Test	Test	Test	Limits
Range	Position	Position	Position	Position	Position	Test
(MHz)	A	B	C	D	E	(A/m)
0.125	0.26	0.23	0.22	0.24	0.25	

For Half Load for wrist band mode:

E-Field Strength at 15 cm from the edges surrounding the EUT (V/m)

Frequency	Test	Test	Test	Test	Test	Limits
Range	Position	Position	Position	Position	Position	Test
(MHz)	A	B	C	D	E	(V/m)
0.125	1.18	1.20	1.38	1.31	1.29	614

H-Field Strength at 15 cm from the edges surrounding the EUT (A/m)

Frequency	Test	Test	Test	Test	Test	Limits
Range	Position	Position	Position	Position	Position	Test
(MHz)	A	B	C	D	E	(A/m)
0.125	0.18	0.23	0.29	0.23	0.26	1.63



For Half Load for shoepod mode: E-Field Strength at 15 cm from the edges surrounding the EUT (V/m)

Frequency	Test	Test	Test	Test	Test	Limits
Range	Position	Position	Position	Position	Position	Test
(MHz)	A	B	C	D	E	(V/m)
0.125	1.17	1.16	1.29	1.22	1.25	614

H-Field Strength at 15 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits Test (A/m)
0.125	0.21	0.26	0.20	0.18	0.23	1.63

For No load mode:

E-Field Strength at 15 cm from the edges surrounding the EUT (V/m)

Frequency	Test	Test	Test	Test	Test	Limits
Range	Position	Position	Position	Position	Position	Test
(MHz)	A	B	C	D	E	(V/m)
0.125	1.21	1.18	1.16	1.21	1.20	614

H-Field Strength at 15 cm from the edges surrounding the EUT (A/m)

Frequency	Test	Test	Test	Test	Test	Limits
Range	Position	Position	Position	Position	Position	Test
(MHz)	A	B	C	D	E	(A/m)
0.125	0.22	0.21	0.14	0.31	0.22	

Page 8 of 8

Report No.: HK1906171345-2E



PHOTOGRAPH OF TEST

