

Human Exposure Report

FCC ID: RLY-R100MAGNETIC

Project No. : 2401G139
Equipment : Rechargeable Li-Polymer Magnetic Power Bank
Brand Name : ADATA
Test Model : R100 Magnetic
Series Model : N/A
Applicant : ADATA Technology Co., Ltd.
Address : 18F, No.258, Liancheng Rd., Zhonghe Dist, New Taipei City, Taiwan
Manufacturer : ADATA Technology Co., Ltd.
Address : 18F, No.258, Liancheng Rd., Zhonghe Dist, New Taipei City, Taiwan
Factory : DONGGUAN ARUN INDUSTRIAL CO.,LTD
Address : NO.13,Xinfeng Street,Changlong,Huangjiang Town, Dongguan City,China
Date of Receipt : Jan. 30, 2024
Date of Test : Jan. 31, 2024 ~ May 15, 2024
Issued Date : May 16, 2024
Report Version : R00
Test Sample : Engineering Sample No.: SSL20240130156
Standard(s) : 47 CFR PART 1, Subpart I, Section 1.1310
KDB 680106 D01 Wireless Power Transfer v04

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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Table of Contents	Page
REPORT ISSUED HISTORY	3
1 . GENERAL INFORMATION	4
1.1 TEST FACILITY	4
1.2 MEASUREMENT UNCERTAINTY	4
2 . APPLICABLE STANDARD	5
2.1 LIMITS	5
3 . MEASUREMENT INSTRUMENTS LIST	5
4 . TEST RESULTS	6
5 . TEST PHOTOS	11

REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-2-2401G139	R00	Original Report.	May 16, 2024	Valid

1. GENERAL INFORMATION

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Dalang, Dongguan City, Guangdong People's Republic of China

BTL's Registration Number for FCC: 747969

BTL's Designation Number for FCC: CN1377

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ($k=2$))

The BTL measurement uncertainty as below table:

Test Items	<i>U</i>
Magnetic Field strength (EMR-30, 100 kHz - 400 kHz)	5.450%
Magnetic Field strength (EMR-30, 300 kHz - 30 MHz)	15.960%
Electrical Field strength (EMR-30, 100 kHz - 3 GHz)	14.850%

2. APPLICABLE STANDARD

2.1 LIMITS

For 47 CFR PART 1, Subpart I, Section 1.1310:

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
1500-100000	/	/	5	6
(B) Limits for General Population / Uncontrolled Exposures				
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
1500-100000	/	/	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).				

For KDB 680106 D01:

The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.

3. MEASUREMENT INSTRUMENTS LIST

Human Exposure					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EM Radiation Meter	WGP	EMR-30	P-0137	Mar. 15, 2025
2	3D H/E Fieldmeter	maschek	ESM-100	971965	Nov. 20, 2024

Remark:

(1) All calibration period of equipment list is three year.

4. TEST RESULTS

Electric Field Emissions

Test Position(0cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Top	6.55	614
Front Side	6.62	614
Back Side	6.54	614
Left Side	6.56	614
Right Side	7.14	614
Bottom	6.58	614

Test Position(1cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Top	6.48	614
Front Side	6.54	614
Back Side	6.49	614
Left Side	6.48	614
Right Side	7.05	614
Bottom	6.46	614

Test Position(2cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Top	6.43	614
Front Side	6.50	614
Back Side	6.41	614
Left Side	6.40	614
Right Side	6.95	614
Bottom	6.42	614

Test Position(3cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Top	6.40	614
Front Side	6.48	614
Back Side	6.38	614
Left Side	6.39	614
Right Side	6.85	614
Bottom	6.40	614

Test Position(4cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Top	6.38	614
Front Side	6.44	614
Back Side	6.37	614
Left Side	6.37	614
Right Side	6.75	614
Bottom	6.37	614

Test Position(5cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Top	6.36	614
Front Side	6.42	614
Back Side	6.35	614
Left Side	6.35	614
Right Side	6.65	614
Bottom	6.35	614

Test Position(6cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Top	6.34	614
Front Side	6.40	614
Back Side	6.33	614
Left Side	6.32	614
Right Side	6.55	614
Bottom	6.33	614

Test Position(7cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Top	6.30	614
Front Side	6.38	614
Back Side	6.31	614
Left Side	6.29	614
Right Side	6.45	614
Bottom	6.31	614

Test Position(8cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Top	6.28	614
Front Side	6.36	614
Back Side	6.30	614
Left Side	6.27	614
Right Side	6.35	614
Bottom	6.29	614

Test Position(9cm)	Probe Measure Results (V/m)	Limit (V/m)
	intermediate charge	
Top	6.26	614
Front Side	6.34	614
Back Side	6.28	614
Left Side	6.25	614
Right Side	6.25	614
Bottom	6.27	614

Note: The maximum Probe Measure Results of this EUT is 7.14 V/m, less than 307 V/m(614 *50%).

Magnetic Field Emissions

Test Position(0cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Top	0.174	1.63
Front Side	0.173	1.63
Back Side	0.172	1.63
Left Side	0.117	1.63
Right Side	0.182	1.63
Bottom	0.268	1.63

Test Position(1cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Top	0.153	1.63
Front Side	0.161	1.63
Back Side	0.154	1.63
Left Side	0.108	1.63
Right Side	0.175	1.63
Bottom	0.171	1.63

Test Position(2cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Top	0.150	1.63
Front Side	0.160	1.63
Back Side	0.151	1.63
Left Side	0.107	1.63
Right Side	0.169	1.63
Bottom	0.171	1.63

Test Position(3cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Top	0.148	1.63
Front Side	0.156	1.63
Back Side	0.149	1.63
Left Side	0.107	1.63
Right Side	0.162	1.63
Bottom	0.169	1.63

Test Position(4cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Top	0.142	1.63
Front Side	0.154	1.63
Back Side	0.147	1.63
Left Side	0.106	1.63
Right Side	0.157	1.63
Bottom	0.165	1.63

Test Position(5cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Top	0.140	1.63
Front Side	0.150	1.63
Back Side	0.144	1.63
Left Side	0.104	1.63
Right Side	0.151	1.63
Bottom	0.162	1.63

Test Position(6cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Top	0.138	1.63
Front Side	0.148	1.63
Back Side	0.141	1.63
Left Side	0.102	1.63
Right Side	0.145	1.63
Bottom	0.160	1.63

Test Position(7cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Top	0.138	1.63
Front Side	0.146	1.63
Back Side	0.140	1.63
Left Side	0.100	1.63
Right Side	0.140	1.63
Bottom	0.159	1.63

Test Position(8cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Top	0.136	1.63
Front Side	0.142	1.63
Back Side	0.137	1.63
Left Side	0.110	1.63
Right Side	0.135	1.63
Bottom	0.157	1.63

Test Position(9cm)	Probe Measure Results (A/m)	Limit (A/m)
	intermediate charge	
Top	0.134	1.63
Front Side	0.140	1.63
Back Side	0.135	1.63
Left Side	0.100	1.63
Right Side	0.130	1.63
Bottom	0.155	1.63

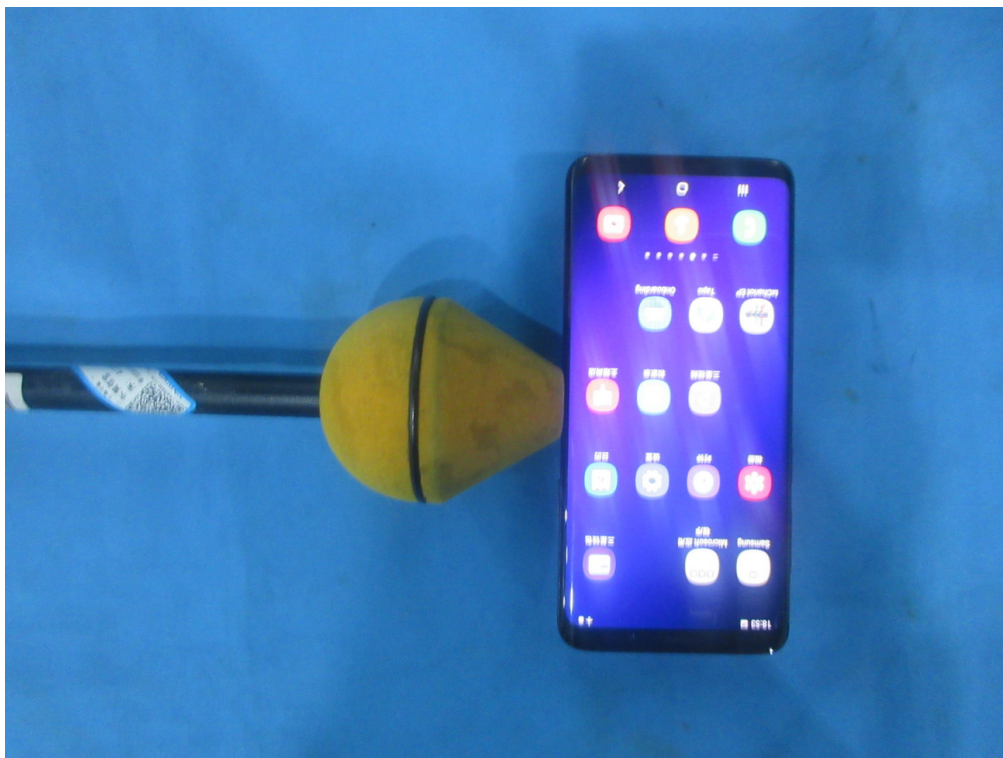
Note: The maximum Probe Measure Results of this EUT is 0.268 A/m, less than 0.815 V/m($1.63 \times 50\%$).

Remark:

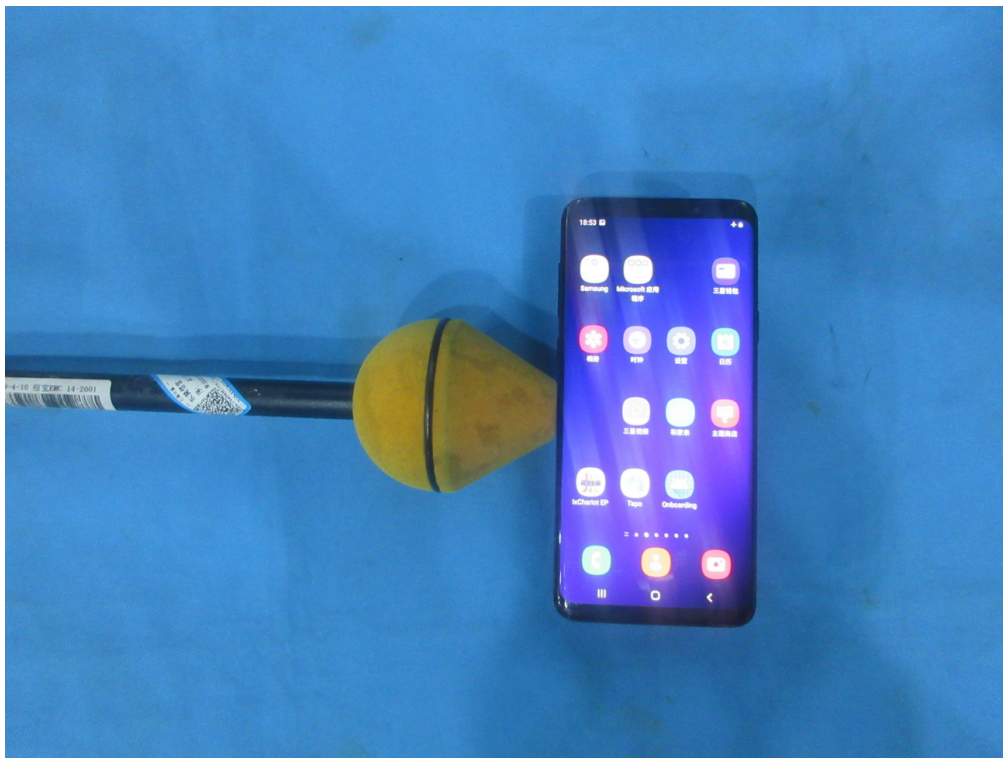
- (1) The EUT has the maximum average output power when the support unit is in low power and being charged by EUT.
- (2) The transfer system includes only single primary. The transfer system designed by Wireless Power Consortium (WPC). The main purpose is Provide convenient and universal wireless charging for mobile phones and other portable electronic devices. Under the Qi standard, the transmission and reception use flat inductors to transmit energy by inductive coupling.

5. TEST PHOTOS

**Front Side
(0 cm)**



**Back Side
(0 cm)**



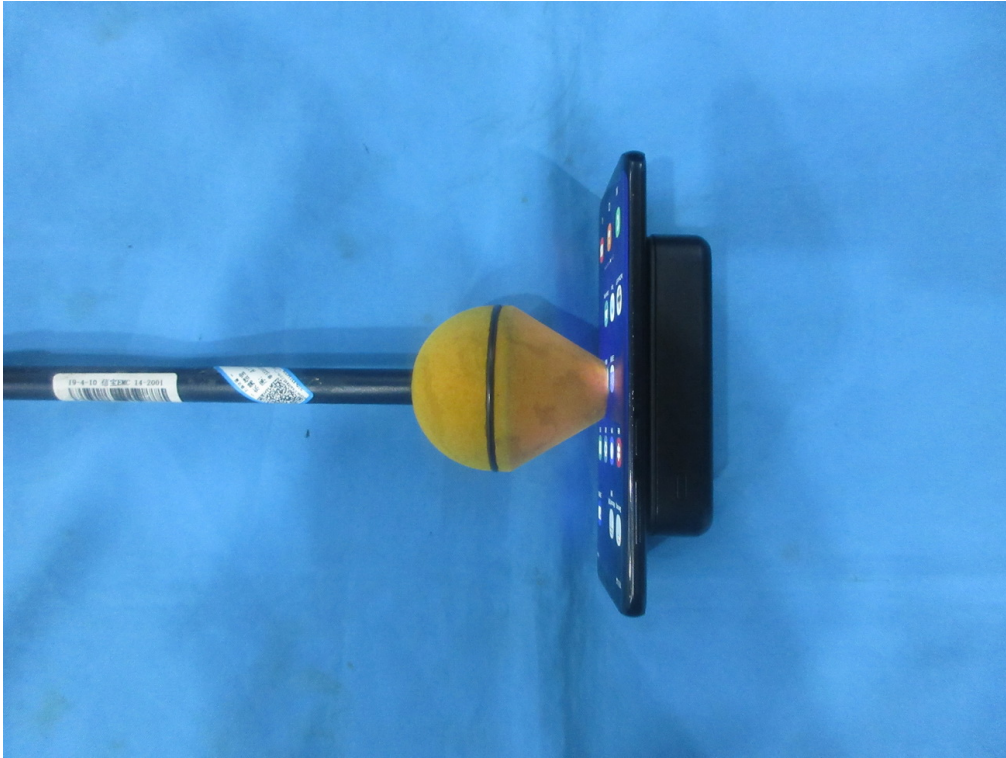
**Left Side
(0 cm)**



**Right Side
(0 cm)**



**Top
(0 cm)**



**Bottom
(0 cm)**



End of Test Report