TEST REPORT

Report No.:	BCTC2312643303-2E
Applicant:	Raycon Inc.
Product Name:	Raycon Magic Charging Station Pro
Test Model:	RAPSTA700
Tested Date:	2023-12-19 to 2023-12-29
Issued Date:	2023-12-29

Shenzhen BCTC Testing Co., Ltd.

FCC ID: 2AZOV-RAPSTA700

Product Name:	Raycon Magic Charging Station Pro
Trademark:	N/A
Model/Type reference:	RAPSTA700 RAPSTA700 Pro, A70, A70 Pro
Prepared For:	Raycon Inc.
Address:	1115 Broadway, Suite 12, New York, NY 10010, United States
Manufacturer:	Raycon Inc.
Address:	1115 Broadway, Suite 12, New York, NY 10010, United States
Prepared By:	Shenzhen BCTC Testing Co., Ltd.
Address:	1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Sample Received Date:	2023-12-19
Sample tested Date:	2023-12-19 to 2023-12-29
Issue Date:	2023-12-29
Report No.:	BCTC2312643303-2E
Test Standards:	FCC CFR 47 part1, 1.1307(b), 1.1310 KDB 680106 D01 Wireless Power Transfer v04
Test Results:	PASS

Tested by:

Lei Chen

Lei Chen/Project Handler

Approved by:

Zero Zhou/Reviewer

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 BCTC Testing Co., Ltd, this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client.

Table Of Content

(Note: N/A Means Not Applicable)

1. Version

Report No.	Issue Date	Description	Approved
BCTC2312643303-2E	2023-12-29	Original	Valid

2. Product Information

2.1 Product Information

Model/Type reference:	RAPSTA700 RAPSTA700 Pro, A70, A70 Pro
Model differences:	All the model are the same circuit and RF module, except model names and appearance of the color.
Product Description:	Raycon Magic Charging Station Pro
Operation Frequency:	Wireless charging Output (Phone/ Earphone): 115kHz-205kHz, Wireless charging Output (Watch): 300-350kHz
Type of Modulation:	ASK
Antenna installation:	loop coil antenna
Ratings:	Input: DC 9V/2A, 12V/2A Wireless charging Output (Phone): 5W/7.5W/10W/15W Wireless charging Output (Earbuds): 3.5W Wireless charging Output (Watch): 2.5W
Hardware Version:	N/A
Software Version:	N/A

Cable of Product

No.	Cable Type	Quantity	Provider	Length (m)	Shielded	Note
1	--	--	Applicant	---	Yes/No	With a ferrite ring in mid Detachable
2	--	--	BCTC	--	Yes/No	--

2.2 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-1	Raycon Magic Charging Station Pro	N/A	RAPSTA700	More models Ref. the 4.1	EUT
E-2	Adapter	---	CD122	---	Auxiliary
E-3	Dummy load	N/A	DL02	N/A	Auxiliary
E-4	Dummy load	N/A	DL01	N/A	Auxiliary
E-5	Charging case	N/A	E2	N/A	Auxiliary

Notes:
1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

2.3 Test Mode

Test Mode 1	Wireless charger 5W (Phone) + Wireless charger 3.5W (Earphone) + Wireless charger 2.5W (Watch)
Test Mode 2	Wireless charger 7.5W (Phone) + Wireless charger 3.5W (Earphone) + Wireless charger 2.5W (Watch)
Test Mode 3	Wireless charger 10W (Phone) + Wireless charger 3.5W (Earphone) + Wireless charger 2.5W (Watch)
Test Mode 4	Wireless charger 15W (Phone) + Wireless charger 3.5W (Earphone) + Wireless charger 2.5W (Watch)

3. Test Facility And Test Instrument Used

3.1 Test Facility

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address:1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.
FCC Test Firm Registration Number: 712850
A2LA certificate registration number is: CN1212
ISED Registered No.: 23583
ISED CAB identifier: CN0017

3.2 Test Instrument Used

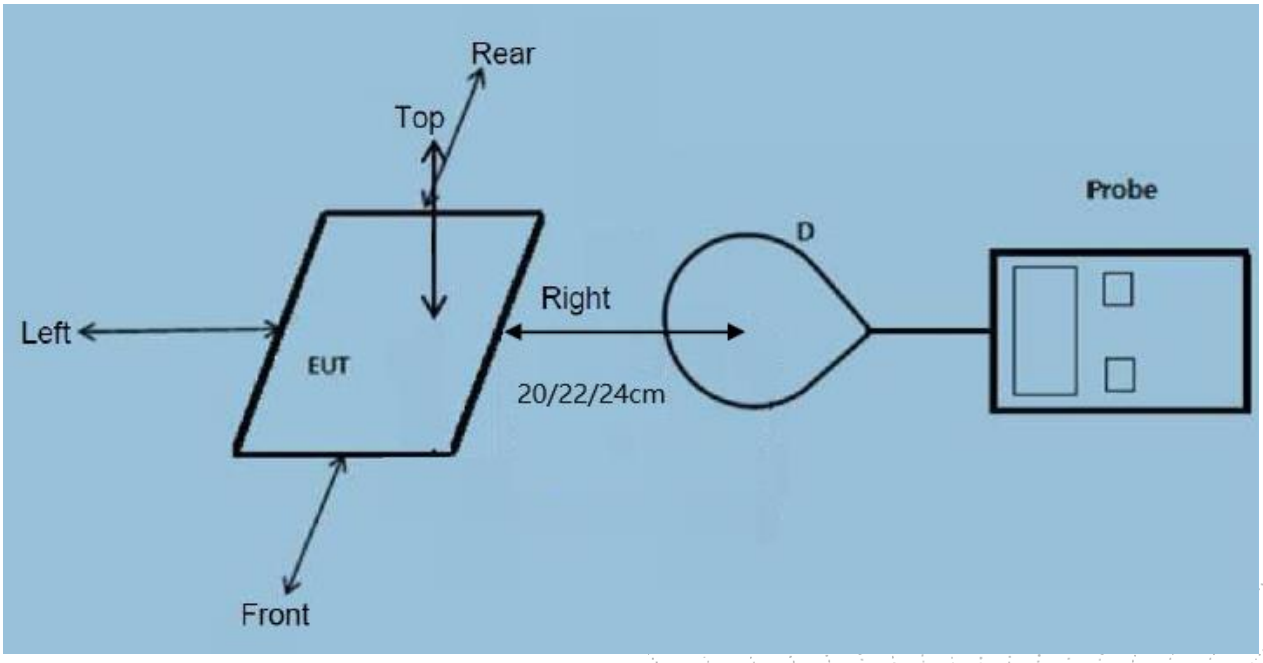
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Electromagnet-ic radiation tester	Wavecontrol	SMP160	19SN0980	May 15, 2023	May 14, 2024
Electromagne-tic field probe	Wavecontrol	WP400-3	20WP120082	Sept. 08, 2023	Sept. 07, 2024
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\

4. Method Of Measurement

4.1 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 §2.1093 RF exposure is calculated. According KDB 680106 D01 v04:

4.2 Block Diagram Of Test Setup



Note: Measurements should be made from all sides and the top of the primary/client pair, with the 20/22/24 cm measured from the center of the probe(s) to the edge of the device

4.3 Limit

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				
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)
0.3-1.34	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

4.4 Test procedure

a) The RF exposure test was performed on 360 degree turn table in anechoic chamber.
b) The measurement probe was placed at test distance (20/22/24cm) which is between the edge of the charger and the geometric centre of probe.
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 (A, B, C, D, E) were completed.
e) The EUT were measured according to the dictates of KDB 680106 D01 v04.

4.5 Equipment Approval Considerations

The EUT does comply with item 5.2 of KDB 680106 D01 v04

1) The power transfer frequency is below 1 MHz.
Yes, the device operate in the frequency range from 115-350KHz.

2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.
Yes, the maximum output power of the primary coil is 15W.

3) A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)
Yes, client device is placed directly in contact with the transmitter.

4) Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).
Yes, the EUT is mobile condition assessment.

5) 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.
Yes, conform to.

6) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.
Yes, the EUT has three source primary coils, the maximum power level of all coils has been tested, and the specific test mode is described in section 2.3 of the report.

4.6 E and H field Strength

Worst Case Operating Mode: Mode 4

E-Field test results the electric field strength at 20cm around the EUT.

Battery level	Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position Top	10% Limits Test (V/m)	Limits Test (V/m)
1%	0.115-0.35	0.287	0.331	0.292	0.287	0.305	0.306	61.4	614
50%	0.115-0.35	0.312	0.270	0.290	0.344	0.289	0.334	61.4	614
99%	0.115-0.35	0.257	0.351	0.251	0.314	0.300	0.345	61.4	614

H-Field test results the electric field strength at 20cm around the EUT.

Battery level	Frequency Range (MHz)	Test Position A(uT)	Test Position B(uT)	Test Position C(uT)	Test Position D(uT)	Test Position E(uT)	Test Position Top(uT)	10% Limits Test (uT)	Limits Test (uT)
1%	0.115-0.35	0.399	0.417	0.320	0.405	0.418	0.411	0.204	2.038
50%	0.115-0.35	0.353	0.304	0.449	0.389	0.341	0.302	0.204	2.038
99%	0.115-0.35	0.401	0.376	0.301	0.364	0.448	0.384	0.204	2.038

Battery level	Frequency Range (MHz)	Test Position A(A/m)	Test Position B(A/m)	Test Position C(A/m)	Test Position D(A/m)	Test Position E(A/m)	Test Position Top(A/m)	10% Limits Test (A/m)	Limits Test (A/m)
1%	0.115-0.35	0.319	0.334	0.256	0.324	0.334	0.329	0.163	1.63
50%	0.115-0.35	0.282	0.243	0.359	0.311	0.273	0.242	0.163	1.63
99%	0.115-0.35	0.321	0.301	0.241	0.291	0.358	0.308	0.163	1.63

Note:A/m=uT÷1.25

E-Field test results the electric field strength at 22cm around the EUT.

Battery level	Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position Top	10% Limits Test (V/m)	Limits Test (V/m)
1%	0.115-0.35	0.310	0.305	0.279	0.244	0.273	0.273	61.4	614
50%	0.115-0.35	0.290	0.356	0.281	0.318	0.289	0.281	61.4	614
99%	0.115-0.35	0.276	0.317	0.327	0.335	0.279	0.271	61.4	614

H-Field test results the electric field strength at 22cm around the EUT.

Battery level	Frequency Range (MHz)	Test Position A(uT)	Test Position B(uT)	Test Position C(uT)	Test Position D(uT)	Test Position E(uT)	Test Position Top(uT)	10% Limits Test (uT)	Limits Test (uT)
1%	0.115-0.35	0.435	0.425	0.429	0.392	0.449	0.447	0.204	2.038
50%	0.115-0.35	0.366	0.328	0.339	0.418	0.317	0.372	0.204	2.038
99%	0.115-0.35	0.374	0.347	0.370	0.337	0.371	0.329	0.204	2.038

Battery level	Frequency Range (MHz)	Test Position A(A/m)	Test Position B(A/m)	Test Position C(A/m)	Test Position D(A/m)	Test Position E(A/m)	Test Position Top(A/m)	10% Limits Test (A/m)	Limits Test (A/m)
1%	0.115-0.35	0.348	0.340	0.343	0.314	0.359	0.358	0.163	1.63
50%	0.115-0.35	0.293	0.262	0.271	0.334	0.254	0.298	0.163	1.63
99%	0.115-0.35	0.299	0.278	0.296	0.270	0.296	0.263	0.163	1.63

Note:A/m=uT÷1.25

E-Field test results the electric field strength at 24cm around the EUT.

Battery level	Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position Top	10% Limits Test (V/m)	Limits Test (V/m)
1%	0.115-0.35	0.276	0.257	0.262	0.345	0.303	0.302	61.4	614
50%	0.115-0.35	0.347	0.303	0.357	0.305	0.297	0.292	61.4	614
99%	0.115-0.35	0.333	0.317	0.358	0.347	0.293	0.275	61.4	614

H-Field test results the electric field strength at 24cm around the EUT.

Battery level	Frequency Range (MHz)	Test Position A(uT)	Test Position B(uT)	Test Position C(uT)	Test Position D(uT)	Test Position E(uT)	Test Position Top(uT)	10% Limits Test (uT)	Limits Test (uT)
1%	0.115-0.35	0.400	0.384	0.411	0.381	0.357	0.445	0.204	2.038
50%	0.115-0.35	0.337	0.440	0.368	0.382	0.430	0.418	0.204	2.038
99%	0.115-0.35	0.375	0.317	0.395	0.303	0.348	0.441	0.204	2.038

Battery level	Frequency Range (MHz)	Test Position A(A/m)	Test Position B(A/m)	Test Position C(A/m)	Test Position D(A/m)	Test Position E(A/m)	Test Position Top(A/m)	10% Limits Test (A/m)	Limits Test (A/m)
1%	0.115-0.35	0.320	0.307	0.329	0.305	0.286	0.356	0.163	1.63
50%	0.115-0.35	0.269	0.352	0.295	0.306	0.344	0.335	0.163	1.63
99%	0.115-0.35	0.300	0.253	0.316	0.242	0.279	0.353	0.163	1.63

Note:A/m=uT÷1.25

5. Photographs Of Test Set-Up

STATEMENT

1. The equipment lists are traceable to the national reference standards.

2. The test report can not be partially copied unless prior written approval is issued from our lab.

3. The test report is invalid without the "special seal for inspection and testing".

4. The test report is invalid without the signature of the approver.

5. The test process and test result is only related to the Unit Under Test.

6. Sample information is provided by the client and the laboratory is not responsible for its authenticity.

7. The quality system of our laboratory is in accordance with ISO/IEC17025.

8. If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

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