



RF Exposure Report

Applicant : Protop International Inc.

Address : 10F-8, No.237, Sec.,1, Datong Rd., Xizhi Dist.,
22161New Taipei City, Taiwan

Equipment : OTTERBOX Charging Pad

Model No. : OBFTC-0094-A, 78-80537,78-80563,78-80632,78-80633

Trade Name : OTTERBOX

FCC ID. : 2AAYX0094A

Standard : FCC CFR 47 part1, 1.1310
KDB680106 D01v03

I HEREBY CERTIFY THAT :

The sample was received on May 26, 2021 and the testing was completed on Jun. 21, 2021 at CerpPASS Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of CerpPASS Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Leevin Li / Supervisor



CONTENTS

1. Test Configuration of Equipment under Test..... 3

1.1. Feature of Equipment under Test..... 3

1.2. Test Mode and Test Software..... 3

1.3. Description of Test System..... 4

1.4. General Information of Test..... 5

2. Summary Of Standards And Results 6

2.1. Measuring Standard..... 6

2.2. Requirements..... 6

2.3. Typical test Setup..... 7

2.4. Specification Limits 7

2.5. Test Equipment List and Details..... 8

2.6. Test Result 8

2.7. Photographs of test setup 9



1. Test Configuration of Equipment under Test

1.1. Feature of Equipment under Test

Product	OTTERBOX Charging Pad
Test Model	OBFTC-0094-A, 78-80537,78-80563,78-80632,78-80633
Model Discrepancy	All models are identical to each other except for model name. The tested model: OBFTC-0094-A
Frequency Range	111KHz~147KHz
Antenna Type	Loop antenna
Modulation Type	ASK
Power Rating	Input:5V 3A /9V 2.22A/ 12V 1.67A Input power: 20W Max Output Wireless:15W(Max)

Note: For more details, please refer to the User’s manual of the EUT.

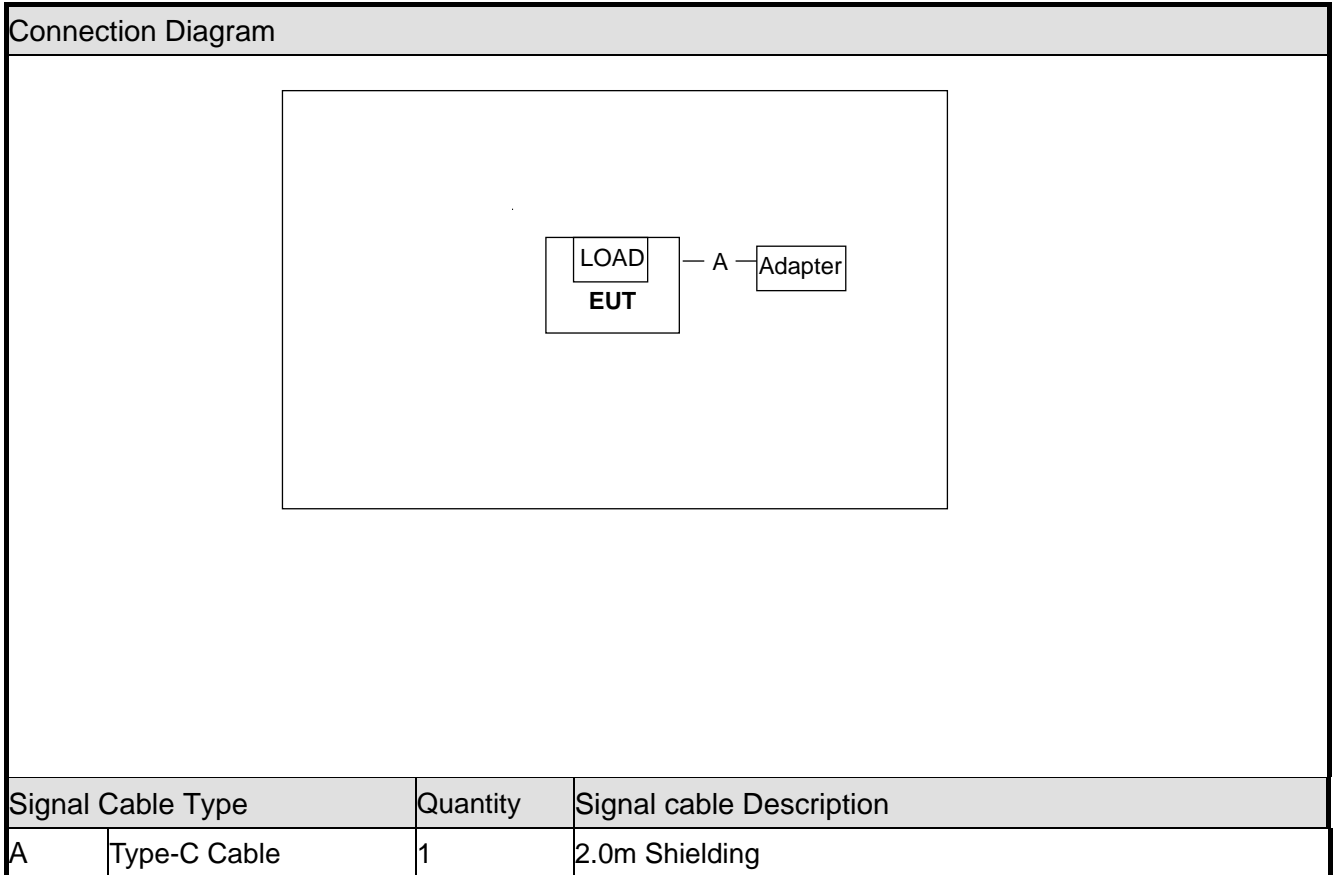
1.2. Test Mode and Test Software

Test Mode	Operating Description
Mode 1	Wireless Charging for 0W
Mode 2	Wireless Charging for 5W
Mode 3	Wireless Charging for 7.5W
Mode 4	Wireless Charging for 10W
Mode 5	Wireless Charging for 15W
caused “Test Mode 5” generated the worst case, it was reported as the final data.	



1.3. Description of Test System

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 Adapter	APPLE	A1718	N/A	N/A
2 Wireless Load	N/A	N/A	N/A	N/A





1.4. General Information of Test

Test Site	Cerpass Technology Corporation(Cerpass Laboratory) Address: Room 102, No. 5, Xing'an Road, Chang'an Town, Dongguan City, Guangdong Province Tel: +86-769-8547-1212 Fax: +86-769-8547-1912
FCC Designation No.:	CN1288

Test Item	Test Site	Test period	Environmental Conditions	Tested By
RF Exposure	3M02-DG	2021/05/26~2021/06/21	22~25°C / 50~60%	Amos Zhang



2. Summary Of Standards And Results

2.1. Measuring Standard

The EUT have been tested according to the applicable standards as referenced below:

Test Item	Normative References	Remarks
RF Exposure	FCC CFR 47 part1, 1.1310 KDB680106 D01v03	PASS

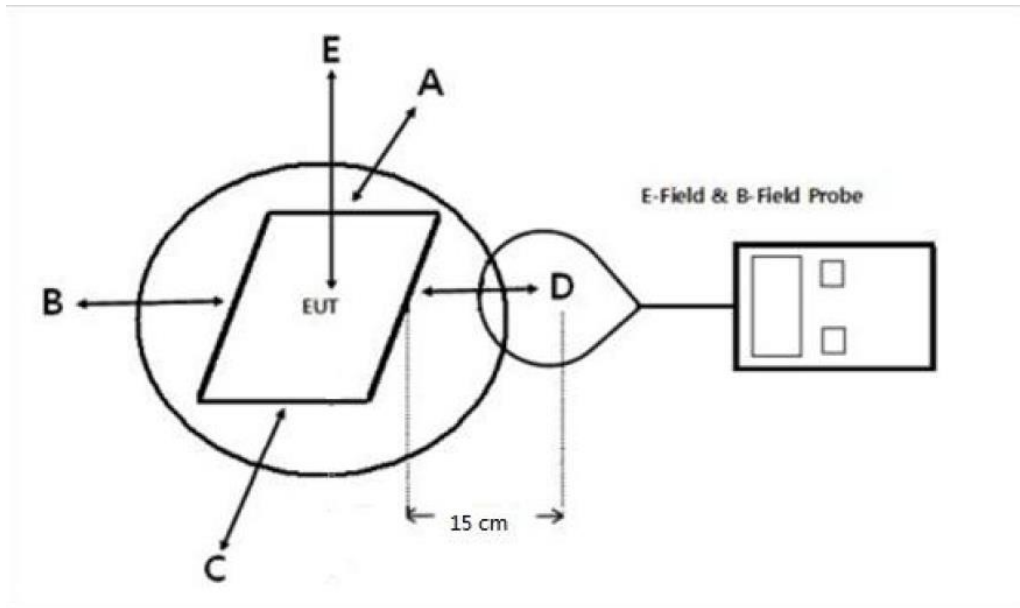
2.2. Requirements

According to the item 5 of KDB 680106 D01v03:

Requirements of KDB 680106 D01 v03r01 section 5b	Yes/No	Description
Power transfer frequency is less than 1 MHz	Yes	The devices operate in the frequency range 111KHz~147KHz
Output power from each primary coil is less than or equal to 15 watts	Yes	The maximum output power for each primary coil is 10W
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 may be powered on at the same time.	Yes	The transfer system includes single coils that is able to detect receiver devices
Client device is inserted in or placed directly in contact with the transmitter	Yes	Client device is inserted in or placed directly in contact with the transmitter
Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion)	Yes	Mobile exposure conditions only
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.	Yes	The EUT 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.



2.3. Typical test Setup



Note: Position A: Front of EUT; Position B: Left of EUT; Position C: back of EUT; Position D: Right of EUT; Position E: Top of EUT(20 cm measure distance);

2.4. Specification Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b) Limits for Maximum Permissible Exposure (MPE)

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 Exposure				
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
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
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
300-1,500			f/1500	30
1,500-100,000			1.0	30

Note 1: f = frequency in MHz ; *Plane-wave equivalent power density

Note 2: For the applicable limit, see FCC 1.1310



2.5. Test Equipment List and Details

Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Electric and Magnetic field analyzer	L3HARRIS	EHP-200AC	180ZX00632	2020.11.04	2021.11.03

2.6. Test Result

a) Electric Field Strength Measurement

Measured Side	Distance(cm)	Measured Value (V/m)	50% of Limit (V/m)	Limit (V/m)
A	15	8.12	307.00	614.00
B	15	7.45	307.00	614.00
C	15	10.08	307.00	614.00
D	15	17.68	307.00	614.00
E	20	5.52	307.00	614.00

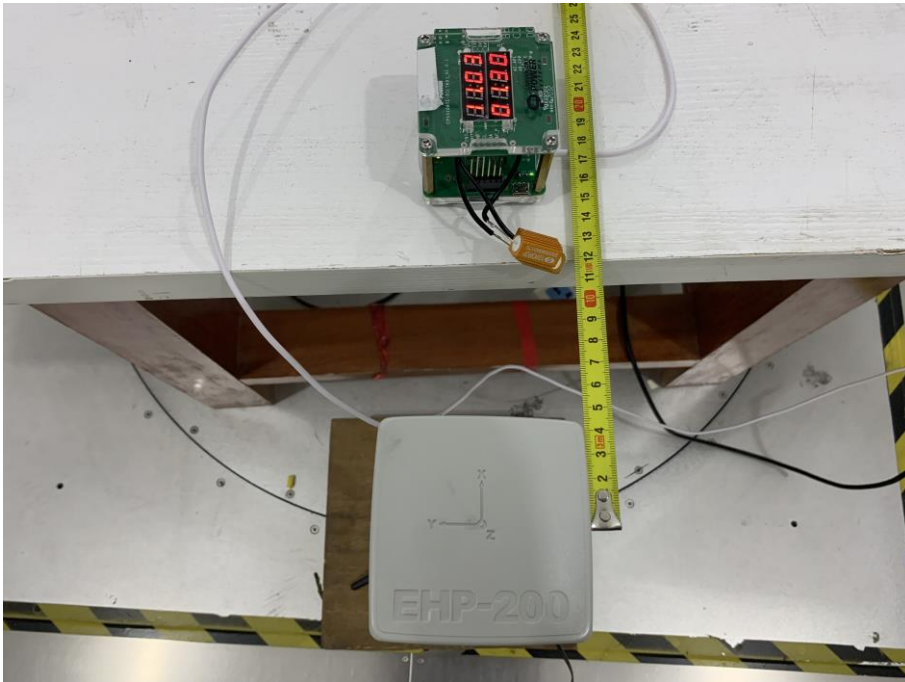
b) Magnetic Field Strength Measurement

Measured Side	Distance(cm)	Measured Value (A/m)	50% of Limit (A/m)	Limit (A/m)
A	15	0.25	0.815	1.63
B	15	0.22	0.815	1.63
C	15	0.24	0.815	1.63
D	15	0.31	0.815	1.63
E	20	0.30	0.815	1.63



2.7. Photographs of test setup

Measured Side A

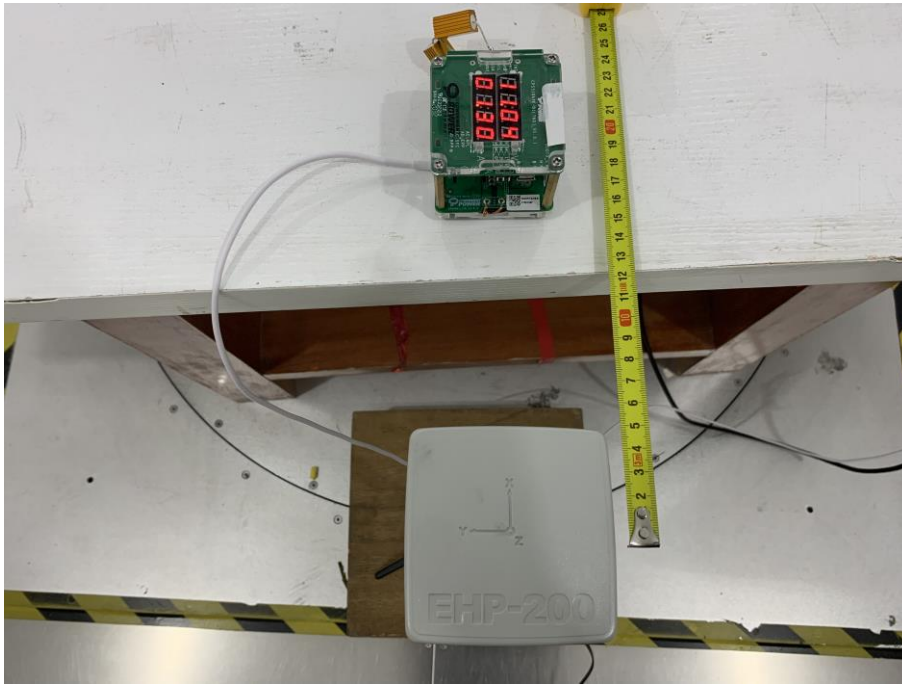


Measured Side B

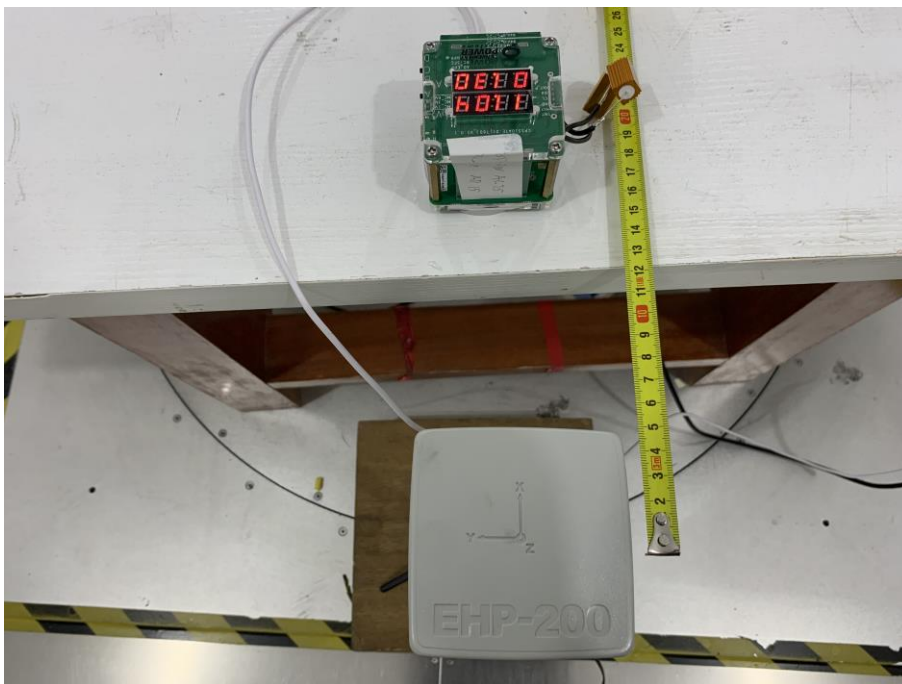




Measured Side C

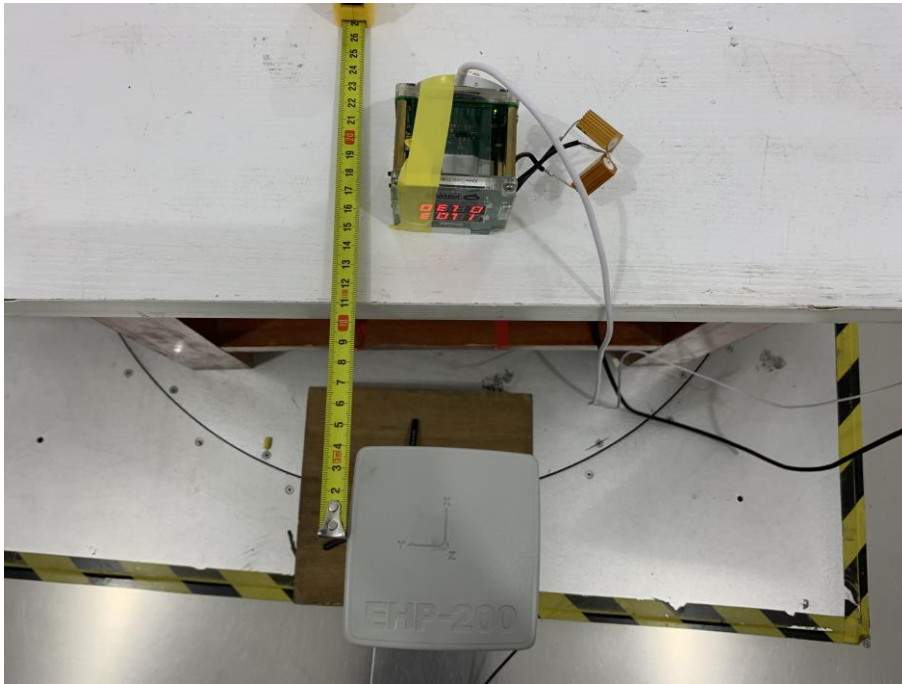


Measured Side D





Measured Side E



-----THE END OF REPORT-----