FCC 47 CFR MPE REPORT

ZAGG Inc.

FCC ID: QTG-ZPISWC

Applicant:	ZAGG Inc.
Address:	910 West Legacy Center Way, Midvale, Utah, United States.
Prepared By:	EST Technology Co., Ltd.
	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China
Tel: 86-769-83081888-808	

Report Number:	ESTE-R2412198
Date of Test:	Nov. 13, 2024~ Dec. 24, 2024
Date of Report:	Dec. 26, 2024

Applicant: **Address:**	ZAGG Inc. 910 West Legacy Center Way, Midvale, Utah, United States.		
Manufacturer: **Address:**	ZAGG Inc. 910 West Legacy Center Way, Midvale, Utah, United States.		
E.U.T:	Charge Station Pro Charging Base		
Model Number:	ZWL109CHE35		
Power Supply:	Input: AC 100-240V, 50/60Hz, 1.5A Max Output: 20W*5 Wireless Charging		
Trade Name:	ZAGG	Serial No.:	------
Date of Receipt:	Nov. 13, 2024	Date of Test:	Nov. 13, 2024~ Nov. 30, 2024
Test Specification:	FCC CFR 47 Part 1.1307(b)&1.1310 KDB 680106 D01 RF Exposure Wireless Charging Apps v04r01		
Test Result:	The device described above is tested by EST Technology Co., Ltd. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC CFR 47 Part 1.1307(b)&1.1310 requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd. **Date:** Dec. 26, 2024		

Prepared by:	Reviewed by:	Approved by:
Ring Yang / Assistant	Seven Wang / Engineer	Iceman Hu / Manager

Other Aspects: None.

Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested

1. Summary of test

1.1. Summary of test result

No.	Description of Test Item	FCC Standard Section	Results
1	Maximum Permissible Exposure	Part 1.1307(b)&1.1310	PASS

1.2. Test Mode

Test Item	Test Mode	
Maximum Permissible Exposure	AC Mains: 20W	Charging

1.3. Test Equipment List

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Electric and Magnetic Field Probe-Analyzer	Narda S.T.S./PMM	EHP-200A	EST-E106	June 13,24	1 Year
Test Software	Narda	EHP200-TS	Rel 1.92	N/A	N/A
Note: Test uncertainty: ±1.62 dB (H-field);±1.64 dB (E-field) at a level of confidence of 95%.					

1.4. Assistant equipment used for test

Item	Equipment	Brand	Model Name/Type No.	FCC ID	Series No.
A	iPad *5	-	A2228	-	-
B	Shell	-	ZCAS109WC35	-	-

Item	Shielded Type	Ferrite Core	Length	Model Name/Type No.	Note
1	NO	NO	1.3m	-	AC Cable

2. Maximum Permissible Exposure

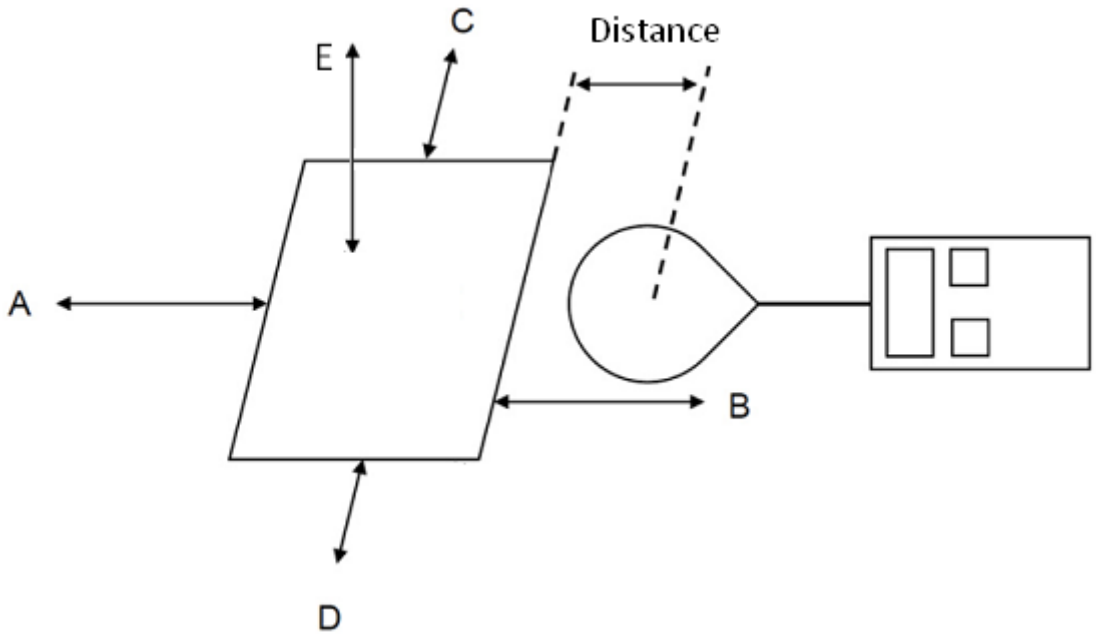
2.1. Limit

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm2)	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:f = frequency in MHz * = Plane-wave equivalent power density.

2.2. Test Setup



2.3. Test Procedure

a. The test was performed on 360 degree turn table in anechoic chamber.
b. The probe was placed at 20 cm surrounding, for test setup.
c. The highest emission level was recorded and compared with limit as soon as measurement of each point; A, B, C, D, E were completed.

2.4. Equipment Approval Considerations

Inductive wireless power transfer applications with supporting field strength results and meeting all of the following requirements are not required to submit a KDB inquiry for devices approved using SDoC or a PAG for equipment approved using certification to address RF exposure compliance.

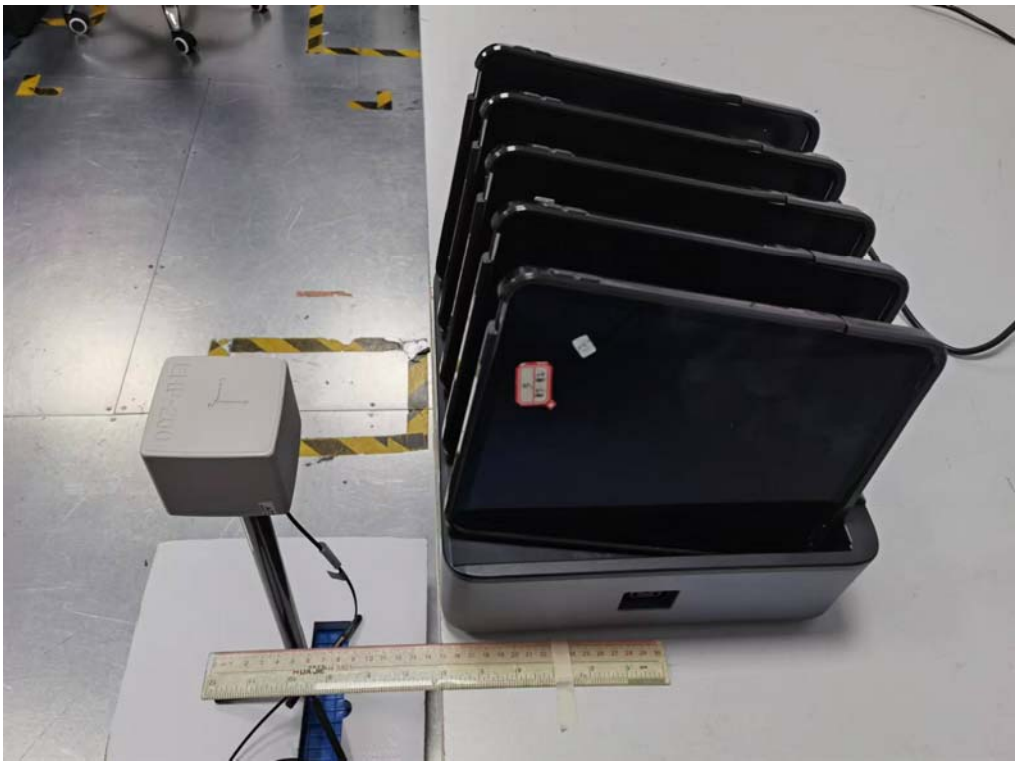
1	Power transfer frequency is less than 4 MHz
	YES; the device operated in the frequency range from 110.5-205KHz.
2	Output power from each primary coil is less than or equal to 15 watts
	YES; the maximum output power of the primary coil is 5W.
3	The system may consist of more than one source primary 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 EUT has three source primary coils
4	Client device is placed directly in contact with the transmitter.
	YES; Client device is placed directly in contact with the transmitter.
5	Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
	YES; Mobile exposure conditions only.
6	The aggregate H-field strengths anywhere at or beyond 20 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.
	YES; The EUT field strength levels are 50% x MPE limts.

2.5. Test Result for Test setup :

E-field strength				
Test Direction	Measuring Distance	Test Frequency		
		110.5 to 205 kHz	425.98 kHz	712.19 kHz
Position A(V/m)	20cm	1.245	3.219	2.946
Position B(V/m)	20cm	1.328	3.121	2.431
Position C(V/m)	20cm	0.989	2.346	1.846
Position D(V/m)	20cm	1.038	2.415	2.154
Position E(V/m)	20cm	0.875	2.038	1.928
Limits (V/m)		614		
50% Limits(V/m)		307		
H-field strength				
Test Direction	Measuring Distance	Test Frequency		
		110.5 to 205 kHz	425.98 kHz	712.19 kHz
Position A(A/m)	20cm	0.054	0.099	0.072
Position B(A/m)	20cm	0.064	0.084	0.074
Position C(A/m)	20cm	0.053	0.072	0.069
Position D(A/m)	20cm	0.047	0.065	0.068
Position E(A/m)	20cm	0.048	0.056	0.054
Limits (A/m)		1.630		
50% Limits (A/m)		0.815		

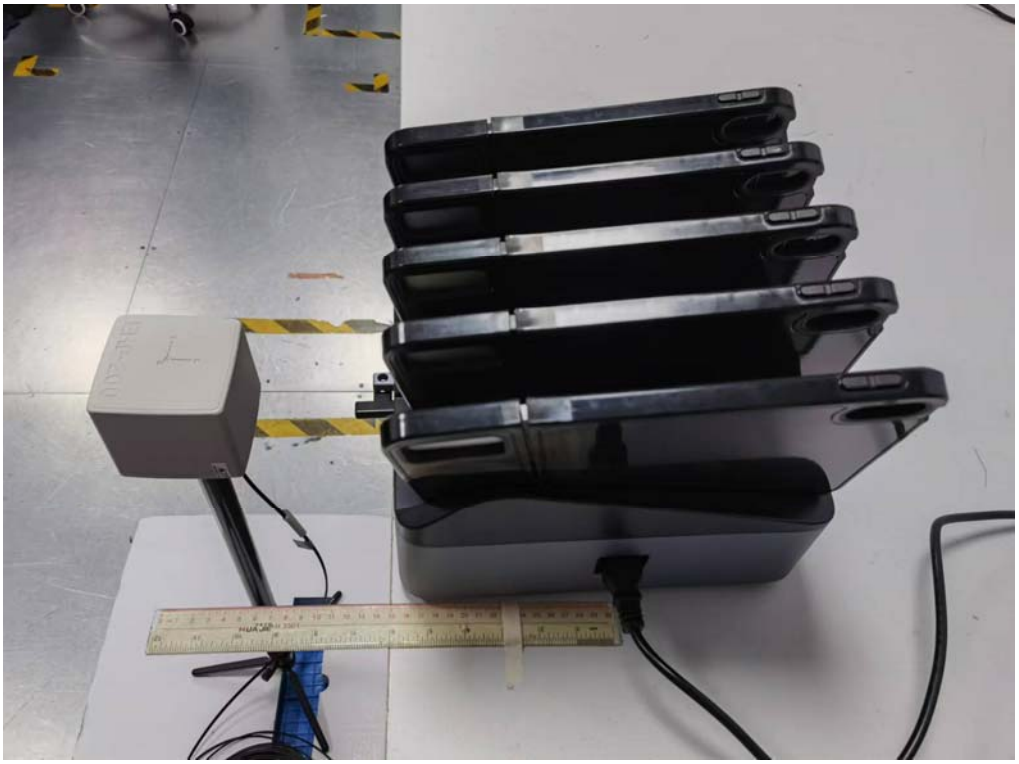
3. Test photo

Position A



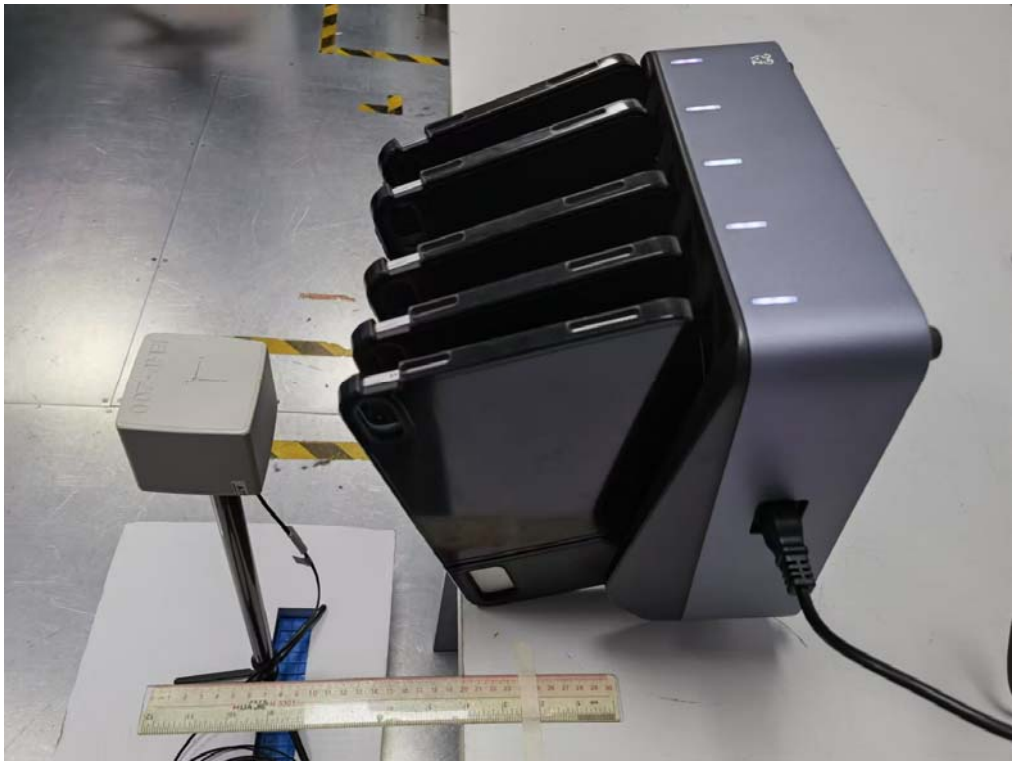
Position B

Position C



Position D

Position E



End of Test Report