FCC TEST REPORT
FCC ID: 2A3X5-HS1-PD

Maximum Permissible Exposure (MPE)

Product Name	:	Bluetooth Speaker with alarm clock and wireless charging function
Model Name	:	HS1-PD
Brand Name	:	Homtime
Report No.	:	PTC24103014802E-FC03

Prepared for

Shanghai Funner Electronic Technology Co., Ltd.

Room 217, No.20, Lane 893 Changta Road SongJiang District Shanghai, China

Prepared by

Precise Testing & Certification Co., Ltd

Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China

1TEST RESULT CERTIFICATION

Applicant's name	:	Shanghai Funner Electronic Technology Co., Ltd.
Address	:	Room 217, No.20, Lane 893 Changta Road SongJiang District Shanghai, China
Manufacture's name	:	ALL BEST TECHNOLOGY LIMITED
Address	:	No.9 Yincheng 1st Road, Changan Town, Dongguan City, Guangdong Province
Product name	:	Bluetooth Speaker with alarm clock and wireless charging function
Model name	:	HS1-PD
Serial model	:	HS1-WC,HS1-qi,HS1qi,S1-PD,D2-PD,HD2-PD, D3,HD3,HD3-PD,S2，HS2，HS2-PD
Standards	:	FCC CRF 47 PART 1,§1.1310
Test procedure	:	KDB 680106 D01 Wireless Power Transfer v04
Test Date	:	Dec. 04, 2024 to Mar. 19, 2025
Date of Issue	:	Mar. 19, 2025
Test Result	:	Pass

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
This report shall not be reproduced except in full, without the written approval of PTC, this document may be altered or revised by PTC, personal only, and shall be noted in the revision of the document.

Test Engineer:

Jack zhou / Engineer

Technical Manager:

Simon Pu / Manager

Contents

Page

2 Test Summary

Test	Test Requirement	Test Method	Limit / Severity	Result
RF Exposure	FCC CRF 47 PART 1, §1.1310	KDB 680106 D01 V04	1.1310	PASS

Remark:

N/A: Not Applicable

RF: In this whole report RF means Radio Frequency.

A.M. Amplitude Modulation.

P.M. Pulse Modulation.

2.1 Instrument list

Name of Equipment	Manufacturer	Model	Characteristics	Calibration Due	interval time
Exposure Level Tester	Narda	ELT-400	Aug. 15, 2024	Aug. 14, 2025	1 year
H-Field probe	Narda	HF-3061	Aug. 15, 2024	Aug. 14, 2025	1 year
E-Field probe	Narda	EF0691	Aug. 15, 2024	Aug. 14, 2025	1 year

2.2 Support Units

Equipment	Model No.	Series No.
Load	Xiaomi 13	N/A

3 TEST FACILITY

Precise Testing & Certification Co., Ltd

Address: Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China

A2LA Certificate No.: 4408.01

FCC Registration Number: 790290

FCC Designation Number：CN1219

IC Registration Number: 12191A

CAB identifier: CN0080

4 General Information

4.1 General Description of E.U.T.

Product Name	:	Bluetooth Speaker with alarm clock and wireless charging function
Model name	:	HS1-PD
Serial model	:	HS1-WC,HS1-qi,HS1qi,S1-PD,D2-PD,HD2-PD, D3,HD3,HD3-PD,S2,HS2, HS2-PD
Differences Description	:	Only the appearance color screen is different from the model name and other is exactly the same
Operating frequency	:	2402-2480MHz 110.5kHz-205kHz
Number of Channel	:	79 channels for BDR+EDR 1 channel for WPT
Antenna installation	:	BT:PCB antenna Wireless charging:Inductive loop coil Antenna
Antenna Gain	:	BT:1.2 dBi wireless charging:0dBi
Type of Modulation	:	GFSK, Π/4-DQPSK,8DPSK For DSS FSK
Power supply	:	Adapter:CW0902000US Input:100-240V~50/60Hz 0.4A MAX Output:9V⎓ 2A 18.0W GMCELL:DC3.6V(AAA*3)
Hardware Version	:	00
Software Version	:	0906

Test mode:

Antenna1(charging Mobile phone):

Pretest Mode	Description
Mode 1	Stand charging mode(5W,no load, half load, full load)

5 RF Exposure Evaluation

5.1 Limits

(A) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
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

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
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			1.0	30

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

5.2 Test Procedures

E and H-field measurements should be made with the center of the probe at a distance of 20 cm surrounding the device and 20 cm above the top surface of the primary/client pair. These measurements should be repeated for three different client battery levels, 1%, 50%, and 99%. Record the test results. KDB 680106 D01 Wireless Power Transfer v04 .

(1)The power transfer frequency is below 1 MHz.

(2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.

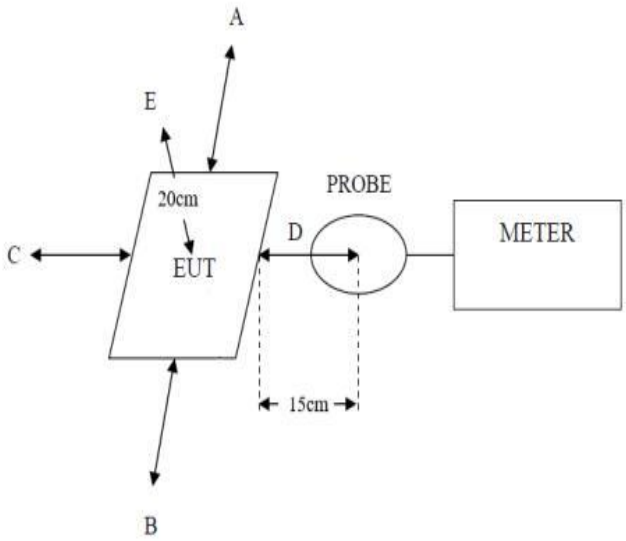
(3)A client device providing the maximum permitted load is placed in physical contact with the transmitter(i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)

(4)Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).

(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.

(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.

5.3 Test Configuration



5.4 MPE Calculation Method

E (V/m) = $\frac{\sqrt{30 \times P \times G}}{d}$ Power Density: Pd (W/m²) = $\frac{E^2}{377}$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

Pd = $\frac{30 \times P \times G}{377 \times d^2}$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

5.5 RF Exposure test result

Temperature: 24℃

Relative Humidity: 53%

EUT was tested with empty load, half load and full load, the full load is the worst case and

we listed the results in the report.

Charging mobile phone:

Test result of Magnetic Field Strength:

Test Position	Test distance (cm)	Reading result (uT)	Test result (A/m)	50% Limit (A/m)	Limit (A/m)	Result
A: Right	15	0.1137	0.0909	0.815	1.63	Passed
B: Left	15	0.0566	0.0453	0.815	1.63	
C: Front	15	0.0634	0.0507	0.815	1.63	
D: Back	15	0.0521	0.0417	0.815	1.63	
E: Top	20	0.1098	0.0878	0.815	1.63	

Note:A/m=uT/1.25

Test result of Electric Field Strength:

Test Position	Test distance (cm)	Test result (V/m)	Limit (V/m)	Result
A: Right	15	2.62	614	Passed
B: Left	15	2.12	614	
C: Front	15	2.28	614	
D: Back	15	2.26	614	
E: Top	20	2.67	614	

Test Mode	Frequency(MHz)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (mW)	Power Density (mW/cm2)	Limit of Power Density (mW/cm2)	Result
BR+EDR	2480	0.87	-1.72	-1.72±1	0.84722741	0.000147476	1	Pass

6 simultaneous MPE Result

BT MPE ratio	Wireless charging MPE ratio	simultaneous MPE ratio	MPE Limits ratio	Test result
0.000147	0.004349	0.004496	1	PASS

6.1 Result appraise

(1) Power transfer frequency is less than 1 MHz

--Yes. it's 110.5-205KHz。

(2) Output power from each primary coil is less than or equal to 15 watts.

the requirement.

--Yes. It is max power 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 sample have one coil to charge .

(4) Client device is placed directly in contact with the transmitter.

--Yes. Client device is placed directly.

(5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

--Yes.it is mobile production.

(6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm

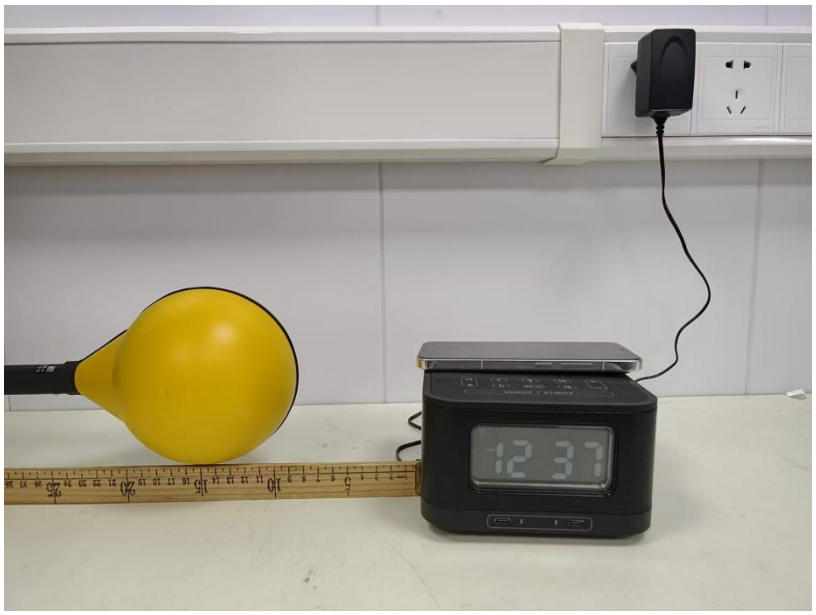
away from the surface from all coils that by design can simultaneously transmit, and while those

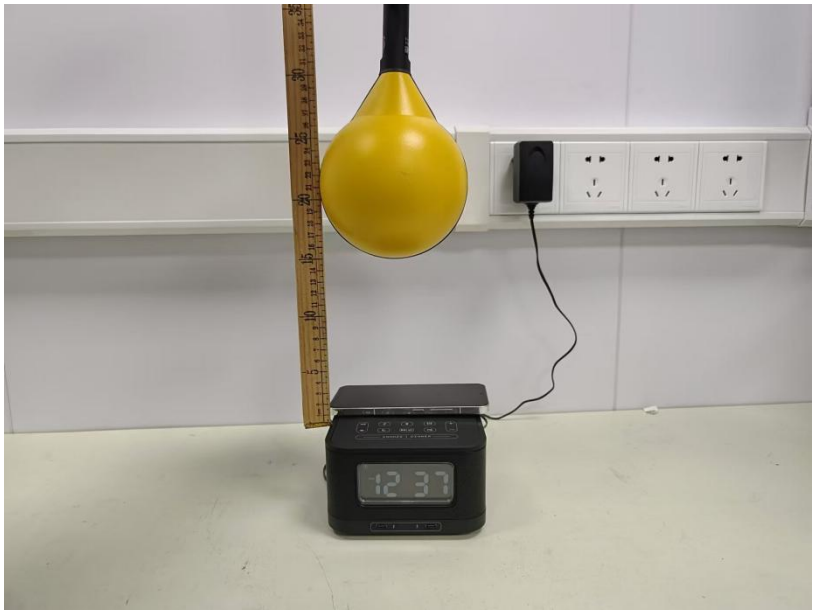
coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE

limit.

--Yes, it is meet Test Photo

7 Test Photo





********THE END REPORT********