Product Name:	Wireless Charging Alarm Clock
Product Model No.:	B02
Test Auxiliary:	cellphone
Test Auxiliary Model No.:	Xiaomi 14 Pro
Operation Frequency:	wireless charging Coil :110.5K-205KHz
Modulation type:	MSK
Antenna Type:	Inductive loop coil Antenna
Antenna gain:	0dBi
Transmitting mode	Keep the EUT in continuously wireless charging mode
Power supply:	Input voltage/current：DC12V 2A Wireless Charging Output voltage：5W, 7.5W, 10W, 15W
Test Description:	cellphone Battery > 98%, =50% and < 1% are tested, and the worst is < 1%.

Test Modes:		Description:	
		Mode 1: cellphone charging(15W) Only	Record
		Mode 2 :cellphone charging(10W) Only	
		Mode 3 :cellphone charging(7.5W) Only	
		Mode 4 :cellphone charging(5W) Only	
Note:only worst case Mode 1 Record in this report,and the worst is Battery< 1%			

RF Exposure Evaluation

1 Measuring Standard

KDB 680106 D01 Wireless Power Transfer v04

1.1 KDB 680106 D01 Wireless Power Transfer v04

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainly
1	H-filed	±0.93dB
2	E-filed	±0.51dB

2 Requirements

According to the item 5 of KDB 680106 D01 v04:

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

(1) Power transfer frequency is less than 1MHz.

Yes.The device operates in the frequency 110.5K-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 Max 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 does not have 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.

Yes. Meet the requirement

(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. Meet the requirement

Limits

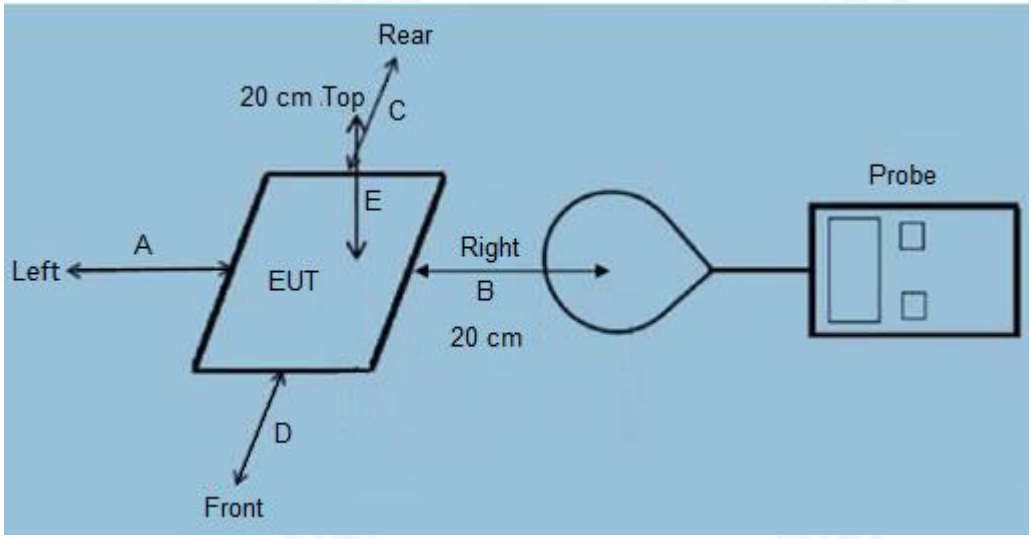
The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

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 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
1500-100,000	/	/	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
300-1500	/	/	f/1500	30
1500-100,000	/	/	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).

3 Test Setup



4 Test Procedure

1) The RF exposure test was performed in anechoic chamber.

2) The measurement probe was placed at test distance (20 cm from all sides) which is between the edge of the charger and the geometric center of probe.

3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.

4) The EUT was measured according to the dictates of KDB 680106 D01 Wireless Power Transfer v04.

Remark：The EUT's test position A, B, C, D and E is valid for the E and H field measurements.

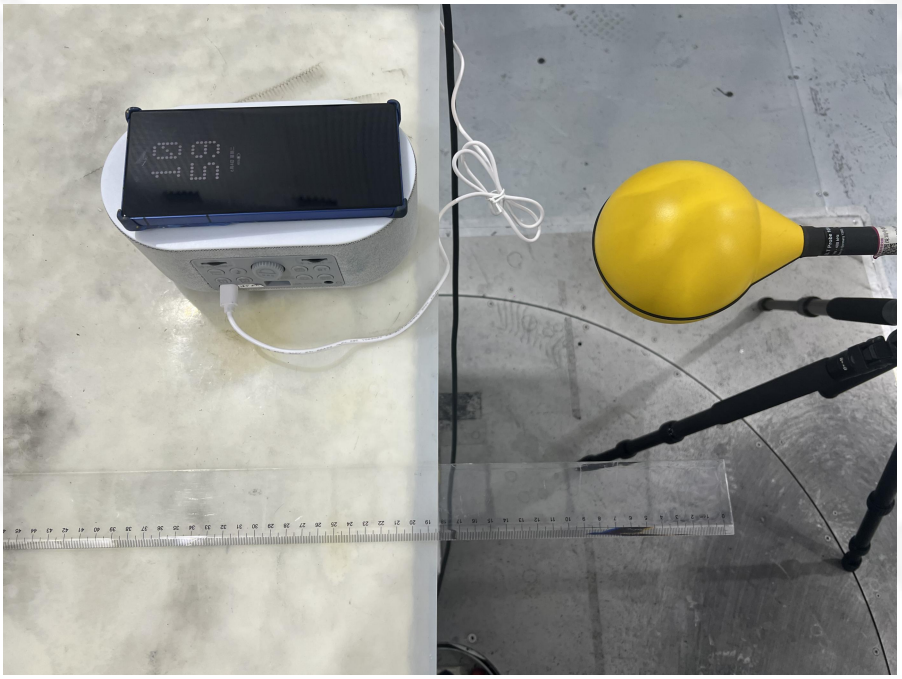
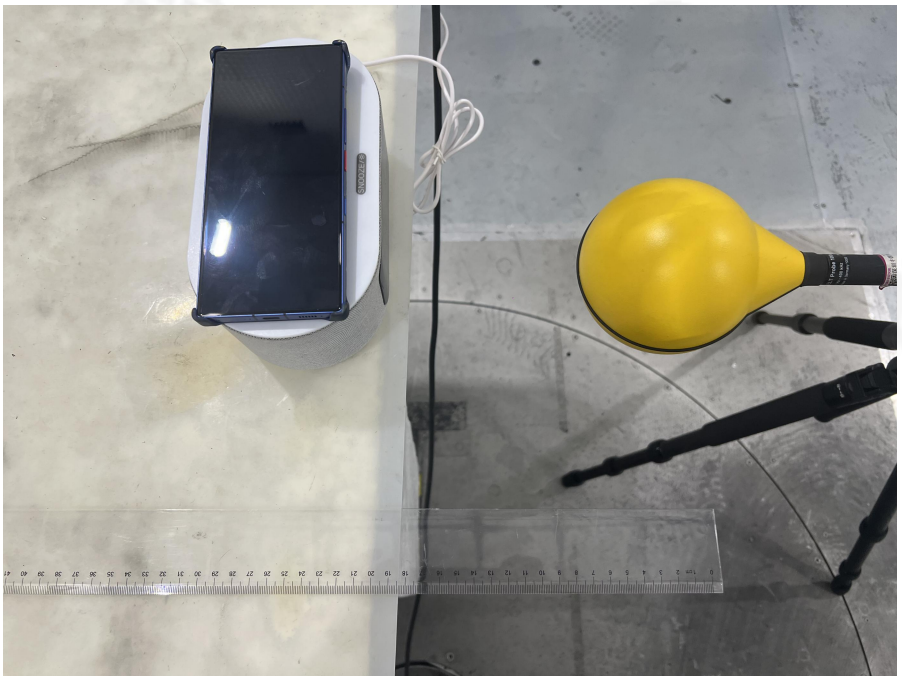
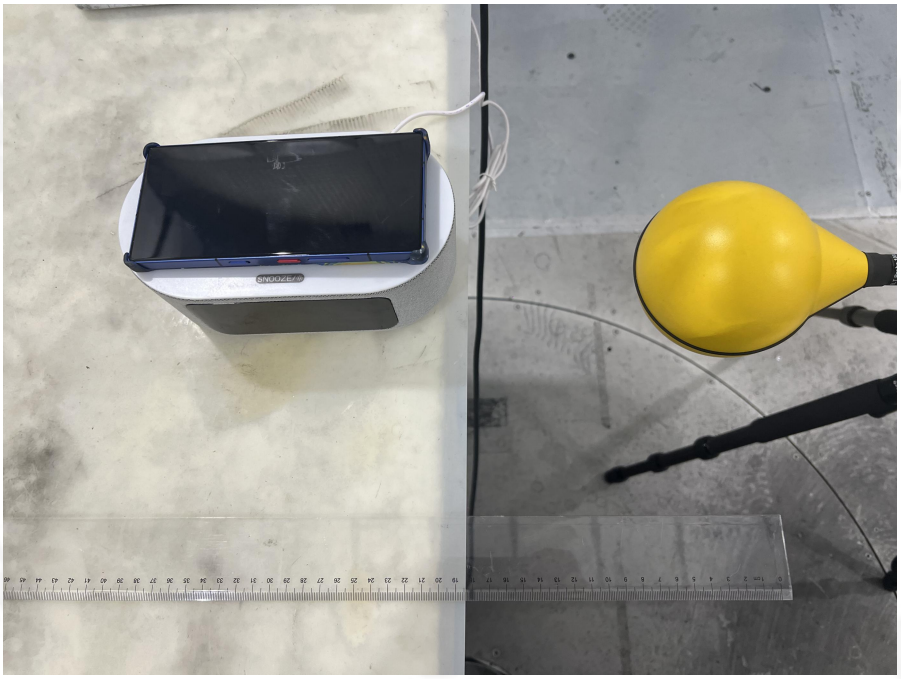
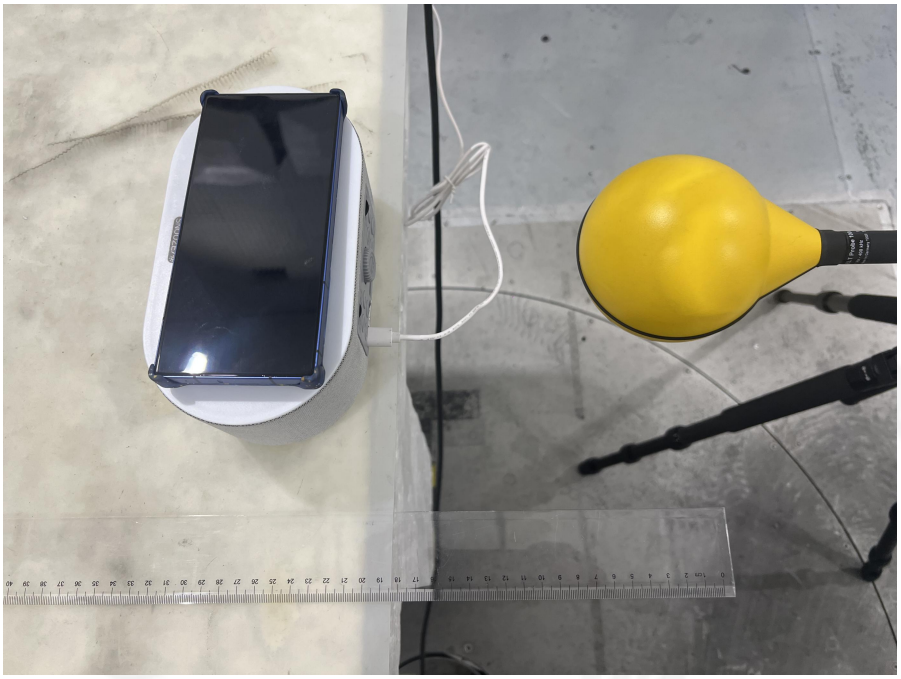
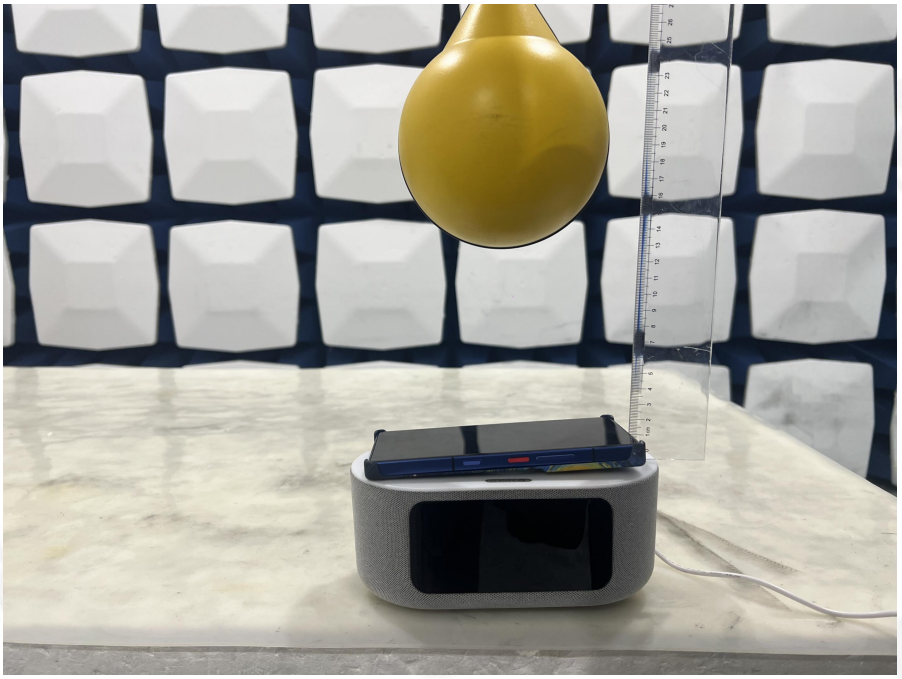
5 Test Instruments list

Test Equipment	Manufacturer	Model No.	SN.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Exposure Level Tester	Narda	ELT-400	180ZX10220	Oct. 25, 2023	Oct. 24 2024
Magnetic field probe 100cm^2	Narda	ELT probe 100cm^2	M0675	Oct. 26, 2023	Oct. 25 2024

6 Test Result

H-Filed Strength at 20cm from the edges surrounding the EUT (A/m), Frequency Range (MHz): 0.1105-0.205

Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits (A/m)
0.47	0.56	0.44	0.59	0.59	1.63

Remark: A/m = uT/1.25
E=377H, E=V/m, H=A/m

7 Test Set-up Photo