

FCC ID:2A6IU-TX18A-Q

| | |
|--------------------|--|
| Product Name: | Fast car wireless charger |
| Product Model No.: | TX18A-Q TX18B-Q, X45Q, TX19-Q, TX19B-Q |
| Model Difference: | TX18A-Q is tested model, other models are derivative models .The models are identical in circuit, only different on the model names, size and shape. So the test data of TX18A-Q can represent the remaining models. |
| Test Auxiliary: | AC Adapter and Mobile phone |
| Transmitting mode: | Keep the EUT in continuously wireless charging mode |
| Power supply: | Input: 5 V $\overline{\text{---}}$ 3 A, 9 V $\overline{\text{---}}$ 2.22 A Output: iPhone12-16 15W, iPhone8-11 7.5W |

| Test Modes: | |
|---|---|
| Mode 1 | AC Mains + Wireless charging load (115-205KHz:15W) |
| Mode 2 | AC Mains + Wireless charging load (115-205KHz:10W) |
| Mode 3 | AC Mains + Wireless charging load (115-205KHz:7.5W) |
| Mode 4 | AC Mains + Wireless charging load (115-205KHz:5W) |
| Mode 5 | AC Mains + Wireless charging load (360KHz:15W) |
| Mode 6 | AC Mains + Wireless charging load (360KHz:10W) |
| Mode 7 | AC Mains + Wireless charging load (360KHz:7.5W) |
| Mode 8 | Standby |
| Note: All full load, half load, and no-load tests have been conducted in each mode, only the worst-case was recorded in the report. Mode 1 full load is the worst mode. | |

| Auxiliary equipment | | | | | |
|---------------------|------------------------|---------------------------------------|----------------|------------|------|
| Item | Equipment | Mfr/Brand | Model/Type No. | Series No. | Note |
| E-1 | AC Adapter | Dongguan DaHong Electronics Co., Ltd. | V12060L1H0-CN | / | AE |
| E-2 | Mobile phone | Xiaomi Communications Co., Ltd. | Xiaomi 12S Pro | / | AE |
| E-3 | Wireless charging load | / | EESON | / | AE |

1 Measuring Standard

KDB 680106 D01 Wireless Power Transfer v04 and Part 2.1091

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.

| Requirements of section 3 of KDB 680106 D01 | Yes/ No | Description |
|---|---------|--|
| Mobile Device and Portable Device Configurations | Yes | Mobile Device |
| Equipment Authorization Procedures for Devices Operating at Frequencies Below 4 MHz | Yes | The device operate in the frequency range: 115-205KHz, 360KHz |
| RF Exposure compliance may be ensured only for a minimum conditions at smaller distances can still be considered unlikely.separation distance that is greater than 20 cm, while use | Yes | The EUT H-field and E-field strengths at 20 cm surrounding the device. |

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)

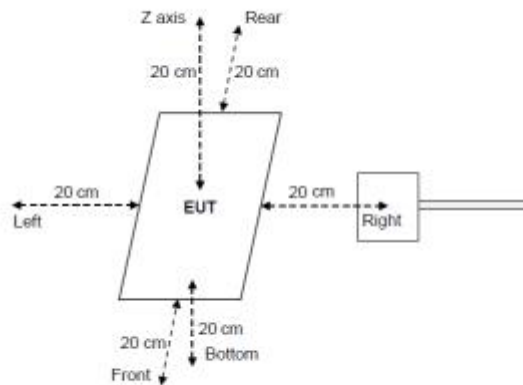
Limits for Maximum Permissible Exposure (MPE)

| 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

For mobile exposure conditions:



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 and 20 cm from the top) 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, F) were completed.
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v04.

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

5 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded 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 | Uncertainty |
|-----|---------|---------------------|
| 1 | H-field | $\pm 0.7\text{dB}$ |
| 2 | E-field | $\pm 1.06\text{dB}$ |

Decision Rule

- ☒ Uncertainty is not included
- ☐ Uncertainty is included

**6 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 | N-0231 | Sep. 29, 2024 | Sep. 28, 2025 |
| Magnetic field probe 100cm2 | Narda | ELT probe 100cm2 | M0675 | Sep. 29, 2024 | Sep. 28, 2025 |

7 Test Result**E-Filed Strength at 20 cm from the edges surrounding the EUT (V/m)**

| Frequency Range (MHz) | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | 50%Limits (V/m) | Limits (V/m) | test result |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|-----------------|----------------|
| 0.115-0.205 | 14.778 | 15.442 | 15.683 | 17.191 | 14.477 | 15.382 | 307 | 614 | PASS |

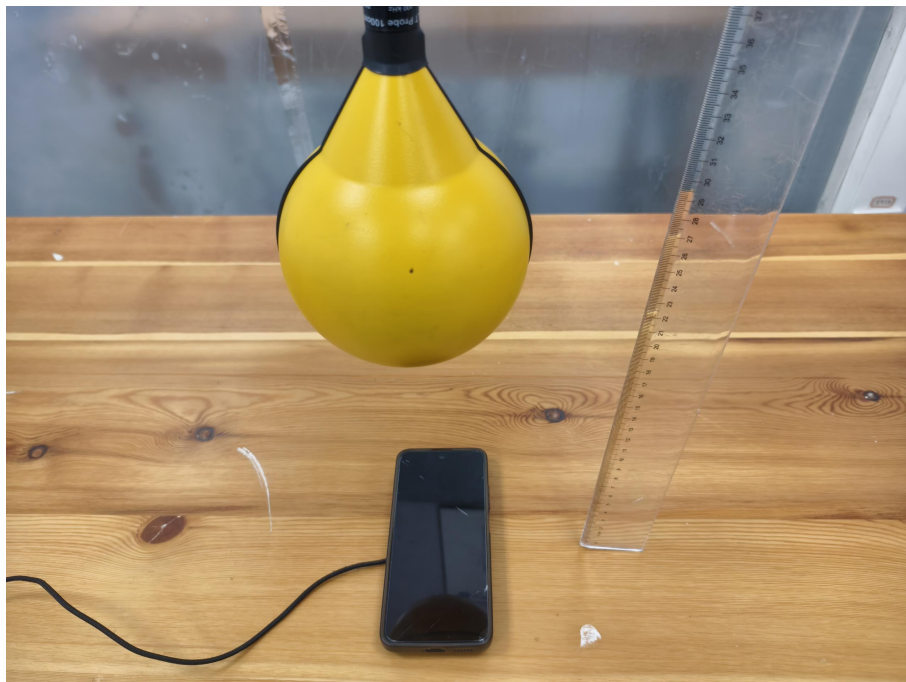
Note: $V/m = A/m \times 377$ **H-Filed Strength at 20 cm from the edges surrounding the EUT (A/m)**

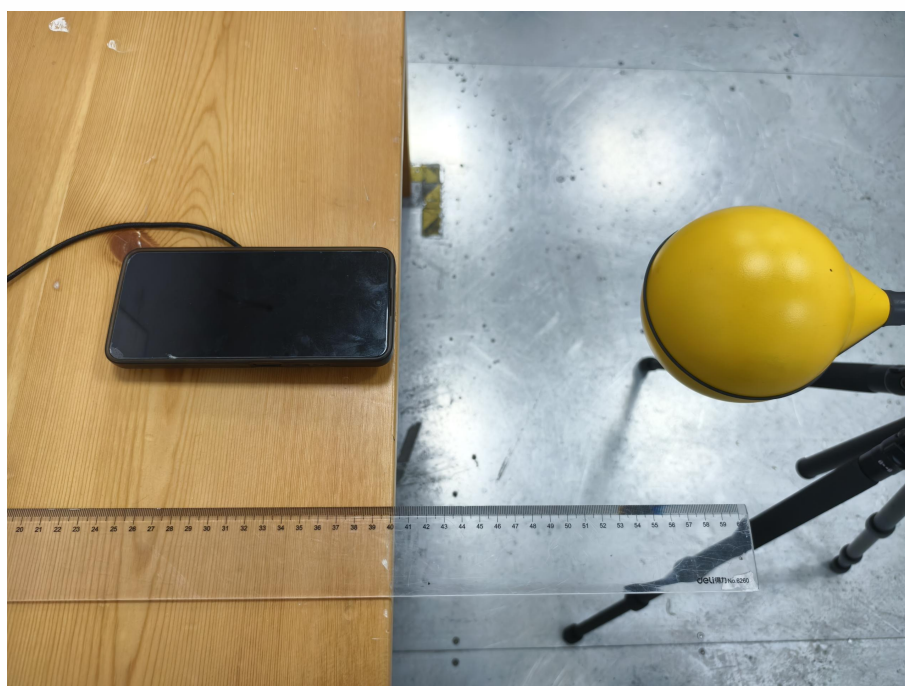
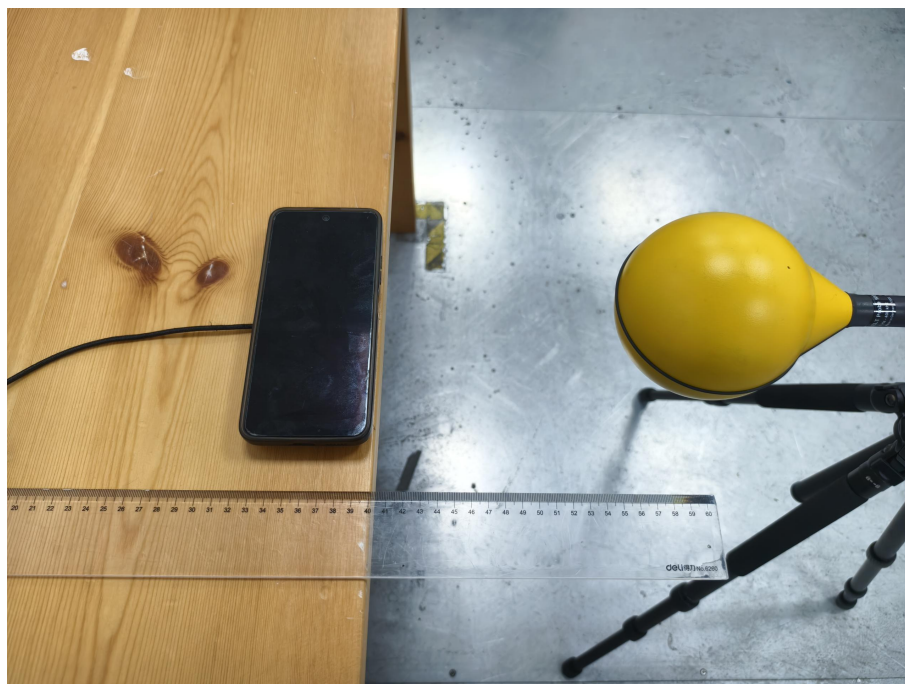
| Frequency Range (MHz) | Unit | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | 50%Limits (A/m) | Limits (A/m) | test result |
|--------------------------|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|-----------------|----------------|
| 0.115-0.205 | A (uT) | 0.049 | 0.051 | 0.052 | 0.057 | 0.048 | 0.051 | 0.815 | 1.63 | PASS |
| | (A/m) | 0.039 | 0.041 | 0.042 | 0.046 | 0.038 | 0.041 | | | |

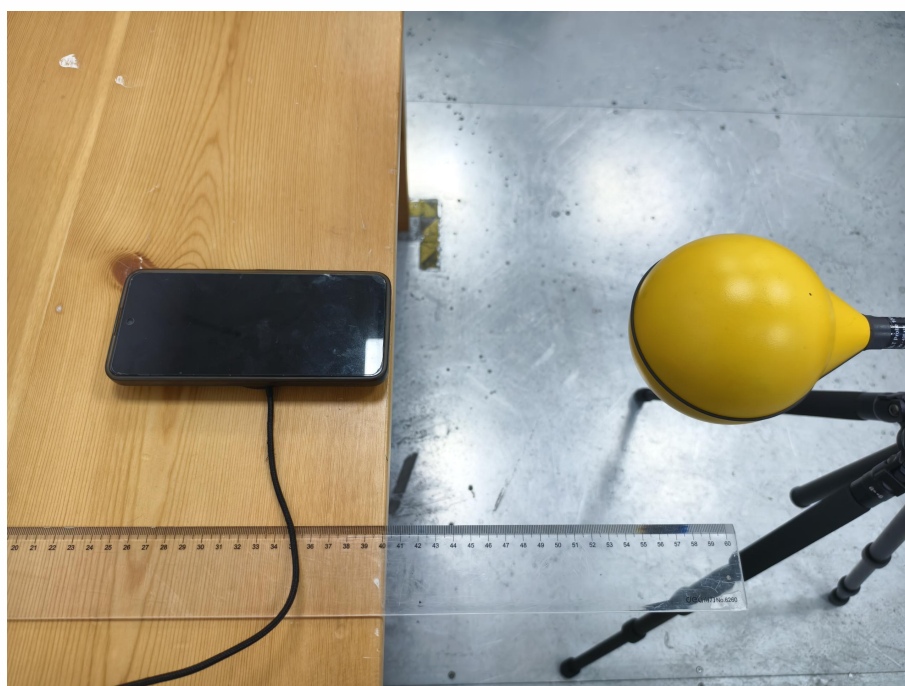
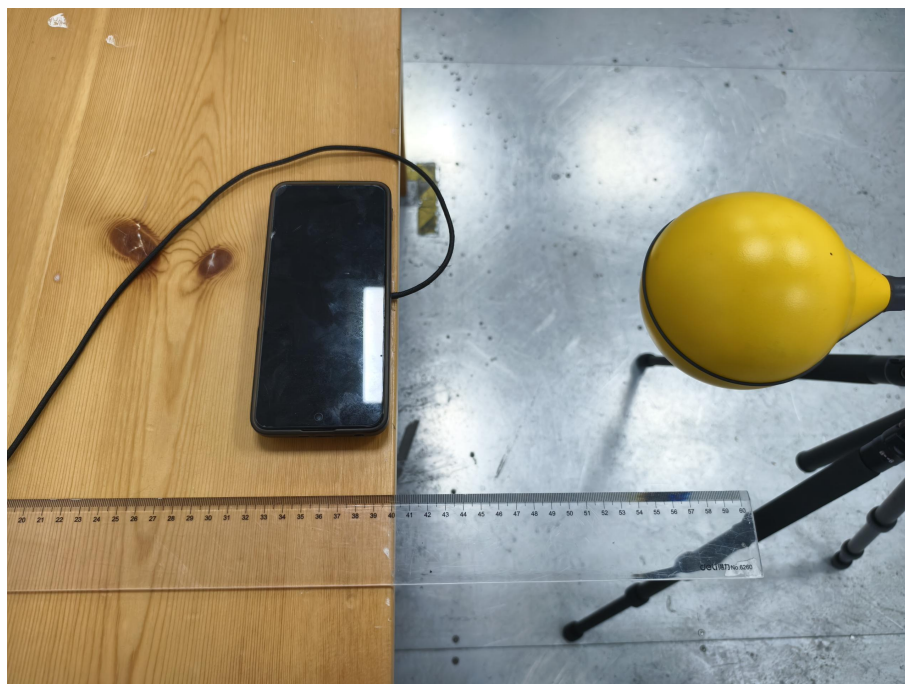
Note: Calculation: $A/m = uT/1.25$



8 Test photos







End of report