# FCC§1.1310 &§2.1093 MAXIMUM PERMISSIBLE EXPOSURE (MPE)

### **Applicable Standard**

According to subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

| (B) Limits for General Population/Uncontrolled Exposure |                                  |                                  |  |                             |  |  |
|---|----------------------------------|----------------------------------|--|-----------------------------|--|--|
| Frequency Range<br>(MHz)                                | Electric Field<br>Strength (V/m) | Magnetic Field<br>Strength (A/m) | Power Density<br>(mW/cm <sup>2</sup> ) | Averaging Time<br>(minutes) |  |  |
| 0.3–1.34  | 614                              | 1.63                             | *(100)                                 | 30                          |  |  |
| 1.34–30   | 824/f                            | 2.19/f                           | *(180/f <sup>2</sup> )                 | 30                          |  |  |
| 30-300  | 27.5                             | 0.073                            | 0.2                                    | 30                          |  |  |
| 300-1500  | /                                | /                                | f/1500                                 | 30                          |  |  |
| 1500-100,000  | /                                | /                                | 1.0                                    | 30                          |  |  |

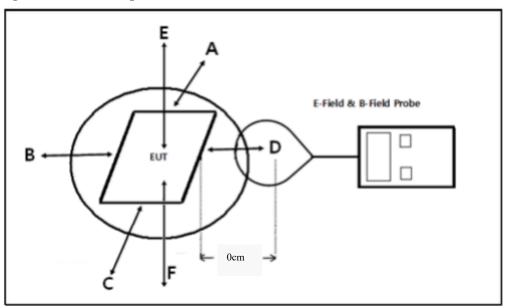
Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1093)

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

According with 680106 D01 Wireless Power Transfer v04 clause 3.2

Accordingly, for § 2.1091-Mobile devices, the MPE limits between 100 kHz to 300 kHz are to be considered the same as those at 300 kHz in Table 1 of § 1.1310, that is, 614 V/m and 1.63 A/m, for the electric field and magnetic field, respectively. For § 2.1093-Portable devices below 4 MHz and down to 100 kHz, the MPE limits in § 1.1310 (with the 300 kHz limit applicable all the way down to 100 kHz) can be used for the purpose of equipment authorization in lieu of SAR evaluations.

#### **Block Diagram of Test Setup**



TR-EM-RF034

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## **Test Procedures**

1) Perform H-field and E-field measurements for each all sides of the EUT at 0cm, along all the principal axes defined with respect to the orientation of the transmitting element (e.g., coil or antenna).

- 2) The highest emission level was recorded and compared with limit.
  3) The EUT was measured according to 680106 D01 Wireless Power Transfer v04.

### **Test Data**

#### **Environmental Conditions**

| Temperature:              | 26 °C     |  |  |
|---------------------------|-----------|--|--|
| <b>Relative Humidity:</b> | 52 %      |  |  |
| ATM Pressure:             | 101.2 kPa |  |  |

The testing was performed by Bamboo Zhan on 2024-03-13.

Test mode: Wireless charging (Maximum output power).

| H-Field Strength           |                     |                     |                     |                     |                     |                     |                |  |
|----------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------|--|
| Test<br>Frequency<br>(MHz) | Position A<br>(A/m) | Position B<br>(A/m) | Position C<br>(A/m) | Position D<br>(A/m) | Position E<br>(A/m) | Position F<br>(A/m) | Limit<br>(A/m) |  |
| 0.1208                     | 0.38                | 0.39                | 1.09                | 1.08                | 1.53                | 0.22                | 1.63           |  |

### **E-Field Strength**

| Test<br>Frequency<br>(MHz) | Position A<br>(V/m) | Position B<br>(V/m) | Position C<br>(V/m) | Position D<br>(V/m) | Position E<br>(V/m) | Position F<br>(V/m) | Limit<br>(V/m) |
|----------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------|
| 0.1208                     | 68.1                | 40.2                | 12.7                | 114                 | 29.1                | 33.4                | 614            |

Note: Test with 0mm distance from all the sides.