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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 17626.39-2023

**Electromagnetic compatibility - Testing and measurement
techniques - Part 39: Radiated fields in close proximity -
Immunity test**

电磁兼容 试验和测量技术 第39部分：近距离辐射场抗扰度试验

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Foreword

This document complies with the provisions of GB/T 1:1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting: This document is Part 39 of GB/T (Z) 17626 "Electromagnetic Compatibility Testing and Measurement Technology": GB/T (Z)17626 has been released The following sections are included:

---GB/T 17626:1-2006 General introduction to electromagnetic compatibility testing and measurement technology immunity testing;

---GB/T 17626:2-2018 Electromagnetic compatibility testing and measurement technology electrostatic discharge immunity test;

---GB/T 17626:3-2023 Electromagnetic compatibility testing and measurement technology Part 3: Radio frequency electromagnetic field radiation immunity test;

---GB/T 17626:4-2018 Electromagnetic compatibility test and measurement technology Electrical fast transient pulse group immunity test;

---GB/T 17626:5-2019 Electromagnetic compatibility testing and measurement technology surge (impact) immunity test;

---GB/T 17626:6-2017 Electromagnetic compatibility test and measurement technology Conducted disturbance immunity induced by radio frequency fields;

---GB/T 17626:7-2017 Electromagnetic compatibility testing and measurement technology Testing of harmonics and interharmonics of power supply systems and connected equipment Guidelines for quantities and measuring instruments;

---GB/T 17626:8-2006 Electromagnetic compatibility testing and measurement technology

power frequency magnetic field immunity test;

---GB/T 17626:9-2011 Electromagnetic compatibility testing and measurement technology pulse magnetic field immunity test;

---GB/T 17626:10-2017 Electromagnetic compatibility testing and measurement technology damped oscillating magnetic field immunity test;

---GB/T 17626:11-2023 Electromagnetic compatibility testing and measurement technology Part 11: For each phase input current less than or equal to Immunity test for voltage sag, short interruption and voltage change on 16A equipment;

---GB/T 17626:12-2023 Electromagnetic compatibility testing and measurement technology Part 12: Ringing wave immunity test;

---GB/T 17626:13-2006 Electromagnetic compatibility testing and measurement technology AC power port harmonics, interharmonic waves and power grid signals Low-frequency immunity test of the signal;

1 Scope

GB/T 17626.39-2023 specifies the immunity test for radiated fields in close proximity. The established radiated immunity test puts equipment in a chamber and illuminates it with a uniform field from three metres away; that models a distant transmitter and models nothing at all about the case that now dominates, which is somebody holding a mobile phone, a two-way radio, an RFID reader or a wireless charger a few centimetres from the equipment. In that near field the field strength is far higher and the coupling entirely different. This standard tests for it. It specifies the test levels and frequencies, the radiating structures used to produce the near field and their calibration, the positioning of the radiating structure relative to the equipment under test and the points at which it is applied, the modulation, the dwell time and the test procedure, the evaluation of the results, and the test report. It is aligned with IEC 61000-4-39. For a manufacturer of medical, industrial or consumer equipment selling into China, this is an increasingly common requirement.

This document specifies the immunity of electrical and electronic equipment to radiated electromagnetic energy from radio frequency (RF) transmitters used at close range
Require: Test levels and required test procedures are established: The applicable frequency range is 9kHz~6GHz: Considered exposure to portable Fixed installations of transmitting devices, mobile equipment exposed to fixed transmitting devices, and mobile equipment exposed to other mobile transmitting devices: This document aims to establish a common benchmark for the evaluation of electrical and electronic equipment exposed to radio frequency electromagnetic fields from close range radiation sources: Immunity requirements: This document does not replace IEC 61000-4-3 and other parts of IEC 61000 for the protection of electrical and electronic equipment against radiated electricity: General immunity requirements for magnetic energy only apply when the equipment or system is

exposed to close-range disturbance sources: In this document, "close range" generally refers to the distance between the emission source and the affected equipment: When the frequency is higher than 26MHz, the distance is not greater than 200mm: When the frequency is lower than 26MHz, the distance shall not be greater than 500mm: The test methods in this document describe a consistent method for evaluating the immunity of a device or system to specific phenomena in their respective frequency ranges: Produce The Product Committee will consider the applicability of the test and, if necessary, select an applicable test based on the equipment under test (EUT), frequency range, disturbance sources, etc: test method:

Note: This document is the basic electromagnetic compatibility (EMC) standard used by product committees as described in IEC GUIDE107: As IEC GUIDE 107 states that product committees are responsible for determining whether to adopt this document and, if so, they are responsible for determining appropriate test levels and performance criteria: This document covers immunity testing related to RF magnetic fields and electromagnetic fields arising from any source in close proximity to other electrical and electronic equipment: device or system source: This document is an independent test method: When claiming compliance with this document, it is not appropriate to use other test methods in place of those proposed in this document: method:

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document:

GB/T 4365-2003 Electrical Terminology Electromagnetic Compatibility (IEC 60050-161:1990, IDT):

3 Terms, definitions and abbreviations 3: