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

GB 17799.3-2023

Replacing GB 17799.3-2012

**Electromagnetic compatibility(EMC) - Generic standards - Part
3: Emission standard for equipment in residential environments
(English Translation)**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1. Structure and drafting rules for standardization documents"

Drafting.

This document is part 3 of the "Generic Standard for Electromagnetic Compatibility". The following parts of the "Generic Standard for Electromagnetic Compatibility" have been published.

--- Immunity in residential, commercial and light industrial environments (GB/T 17799.1);

--- Part 2. Immunity standard for industrial environments (GB/T 17799.2);

--- Part 3. Emissions of equipment in residential environments (GB 17799.3);

--- Part 4. Emissions in industrial environments (GB 17799.4);

--- High altitude electromagnetic pulse (HEMP) immunity for indoor equipment (GB/T 17799.5);

--- Immunity in power plant and substation environment (GB /Z 17799.6);

--- Part 7. Immunity requirements for equipment used to perform safety-related system functions (functional safety) in industrial locations

(GB/T 17799.7);

--- Part 8. Emission of professional equipment for commercial and light industrial locations (GB 17799.8).

This document replaces GB 17799.3-2012 "Generic Electromagnetic Compatibility Standard - Emissions in Residential, Commercial and Light Industrial Environments" and

Compared with GB 17799.3-2012, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

a) Added some terms and their definitions (see 3.1.10 to 3.1.16);

b) Added some abbreviations such as AE, AAN, CATV, CM, DC-AN, DSL, DVR, FSOATS, GCPC, IEC, IEEE,

ISDN, ISM, ITE, LAN, MME, PSTN, RF, TV, UPS, USB, V-AMN, V-AN, xDSL, delta-AN (see Chapter 3);

c) Added equipment classification (see Chapter 4);

d) The measurement and test conditions have been changed (see Chapter 5, Chapter 4 of the 2012 edition);

- e) User documentation has been modified (see Chapter 6, Chapter 5 of the.2012 edition);
- f) Applicability has been changed (see Chapter 7, Chapter 6 of the.2012 edition);
- g) The measurement uncertainty has been changed (see Chapter 9, Chapter 7 of the.2012 edition);
- h) Deleted the application of limit values in mass production consistency testing (see Chapter 9 of the.2012 edition);
- i) Changed the standard compliance (see Chapter 10, Chapter 10 of the.2012 edition);
- j) The launch test has been changed (see Chapter 11, Chapter 11 of the.2012 edition);
- k) Added DC power supply system test (see Appendix B).

This document is equivalent to IEC 61000-6-3:2020 "Electromagnetic compatibility (EMC) Part 6-3. Generic standard for equipment in residential environments

The Launch.

The following minimal editorial changes were made to this document.

--- To be consistent with my country's standard system, the standard name is changed to "General Standard for Electromagnetic Compatibility Part 3. Equipment in Residential Environments"

The Launch.

Introduction

Electromagnetic compatibility refers to the ability of electrical and electronic equipment or systems to work properly in their electromagnetic environment and not cause any adverse effects on anything in the environment.

The electromagnetic compatibility problem is one of the important factors affecting the environment and product quality. Its standardization work has attracted

In this regard, the IEC 61000 series of international standards developed by the International Electrotechnical Commission (IEC) is a key international standard for the manufacturing industry, information technology, and

General standards in the fields of information industry, electrical engineering and energy, transportation industry, social undertakings and health, consumer product quality and safety, etc.

There are six categories. overview, environment, limit, test and measurement technology, installation and mitigation guidelines, and general standards. my country has already formulated six international standards for this series.

Domestic transformation work has been carried out and a corresponding national standard system has been established.

In this standard system, the "General Standard for Electromagnetic Compatibility" is a basic standard on the general aspects of electromagnetic compatibility, which aims to describe

The emission and immunity requirements in the same environment are planned to be composed of 8 parts.

--- Part 1. Immunity in residential, commercial and light industrial environments (GB/T 17799.1). The purpose is to provide

Electrical and electronic equipment used in industrial environments is specified to be resistant to continuous and transient, conducted and radiated disturbances, including electrostatic discharge.

Interference immunity test requirements.

--- Part 2. Immunity test in industrial environment (GB/T 17799.2). It is intended for use in industrial environment and has not yet been

Electrical and electronic equipment that meets product or product class immunity standards specify their resistance to continuous and transient disturbances, including electrostatic discharge.

Immunity test requirements for static, conducted and radiated disturbances.

--- Part 3. Emissions of equipment in residential environments (GB 17799.3). The purpose is to specify the electrical and

Emission test requirements for continuous and transient, conducted and radiated disturbances of electronic equipment.

--- Part 4. Emissions in industrial environments (GB 17799.4). The purpose is to specify electrical and electronic equipment used in industrial environments.

Emission test requirements for equipment for continuous and transient, conducted and radiated disturbances.

--- Part 5. High altitude electromagnetic pulse (HEMP) immunity of indoor equipment (GB/T 17799.5). The purpose is to regulate indoor use

HEMP immunity requirements for electrical and electrical equipment.

--- Part 6. Immunity in power plant and substation environment (GB /Z 17799.6). The purpose is to specify the power generation, transmission and

Immunity requirements for power generation, power distribution equipment and related communication systems.