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

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**Electromagnetic compatibility (EMC) - Generic standards - Part  
8: Emission standard for professional equipment in commercial  
and light-industrial locations**

**(English Translation)**

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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 8 of the "General Standard for Electromagnetic Compatibility": The "General Standard for Electromagnetic Compatibility" has released the following parts:

- Immunity in residential, commercial and light industrial environments (GB/T 17799:1);
- Part 2: Immunity standards in industrial environments (GB/T 17799:2);
- Part 3: Emissions from equipment in residential environments (GB 17799:3);
- Part 4: Emissions in industrial environments (GB 17799:4);
- Indoor equipment high-altitude electromagnetic pulse (HEMP) immunity (GB/T 17799:5);
- Immunity in power plant and substation environments (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 sites (GB 17799:8):

This document is equivalent to IEC 61000-6-8:2020 "Electromagnetic Compatibility (EMC) Part 6-8: General Standard Commercial and Light Industrial Sites"

Launch of professional equipment:

This document has made the following minimal editorial changes:

---In order to be consistent with my country's standard system, the name of the standard is changed to "General Standard for Electromagnetic Compatibility Part 8: Commercial and Light Industrial Sites"

Launch of professional equipment:

Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents:

## Introduction

Electromagnetic compatibility is the ability of electrical and electronic equipment or systems to function normally in their electromagnetic environment without causing any adverse effects on anything in that environment:

The ability to withstand electromagnetic disturbance: Electromagnetic compatibility is one of the important factors affecting the environment and product quality, and its standardization work has led to

It has attracted widespread attention at home and abroad: In this regard, the IEC 61000 series of international standards formulated by the International Electrotechnical Commission (IEC ) is a

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

It is divided into six categories: overview, environment, limits, testing and measurement technology, installation and mitigation guidelines, and general standards: Our country has targeted this series of international standards

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 for general aspects in the field of electromagnetic compatibility, aiming to describe various

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): It is intended for residential, commercial and light

Electrical and electronic equipment used in industrial environments is specified for continuous and transient, conducted and radiated emissions, including electrostatic discharge:

immunity test requirements:

---Part 2: Immunity standards in industrial environments (GB/T 17799:2): Intended for use in industrial environments and are not yet

Dedicated product or product-type immunity standards for electrical and electronic equipment specify their immunity to continuous and transient discharges, including electrostatic discharges:

Immunity test requirements for state, conducted and radiated disturbances:

---Part 3: Emissions from equipment in residential environments (GB 17799:3): The purpose is to regulate electrical and

Emission test requirements for continuous and transient, conducted and radiated disturbances from electronic equipment:

---Part 4: Emissions in industrial environments (GB 17799:4): The purpose is to regulate electrical and electronic products used in industrial environments:

Equipment emission test requirements for continuous and transient, conducted and radiated disturbances:

---Part 5: Indoor equipment high-altitude electromagnetic pulse (HEMP) immunity (GB/T 17799:5): The aim is to regulate indoor use

HEMP immunity requirements for electrical and electronic equipment:

---Part 6: Immunity in power plant and substation environments (GB /Z 17799:6): The purpose is to stipulate the power generation and transmission of power systems:

Immunity requirements for equipment used in electricity and power distribution and related communication systems:

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

17799:7): The purpose is to determine the immunity of equipment related to continuous and transient, conducted and radiated disturbances including electrostatic discharges:

degree test requirements:

---Part 8: Emission of professional equipment for commercial and light industrial sites (GB 17799:8): The purpose is to provide for commercial and light industrial sites

Emission test requirements for professional equipment used:

This document focuses on stipulating the test requirements for conducted and radiated emissions in the frequency range of 0Hz~400GHz, which is suitable for commercial and light industry applications:

Electrical and electronic equipment used in industrial environments and meeting certain usage restrictions, providing services for receiving equipment used in the above electromagnetic environment

adequate protection:

General standards for electromagnetic compatibility

Part 8: Commercial and light industrial premises

Launch of professional equipment

## 1 Scope

This document serves as a general EMC emission standard and is only applicable when relevant special products or product-type EMC emission standards have not been released:

The emission requirements specified in this document apply to electrical and electronic equipment used in commercial and light industrial premises (see 3:1:3) environments: Book

Documentation is intended for devices that meet the following usage restrictions:

---Defined as professional equipment (see 3:1:13);

---After professional installation and maintenance (see 3:1:14 and Chapter 6);

---Not expected to be used in residential premises (see 3:1:16):

For electrical and electronic equipment that does not meet these restrictions but is used in commercial and light industrial locations, IEC 61000-6-3 applies:

This document has been developed for the purpose of all equipment used in residential, commercial and light industrial environments covered by IEC 61000-6-3 or this document:

build: In case of disagreement, the requirements of IEC 61000-6-3 shall apply:

This document specifies emission requirements for the frequency range 0Hz~400GHz:

This document specifies the test requirements for conducted and radiated emissions in the frequency range up to 400 GHz: Its purpose is to test the electromagnetic environment