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

YD/T 983-2013

**Limits and methods of measurement of electromagnetic
compatibility of telecommunicatin power supply equipment
(English Translation)**

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3.No action is required - Full-copy of this standar

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Foreword

This Standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard is developed and mainly referenced to GB 9254 "Limits and methods of measurement of radio interference characteristics of information technology equipment", GB/T 17618 "Information technology equipment - Immunity characteristics - Limits and methods of measurement", GB 19286 "Electromagnetic compatibility requirement and measurement methods for telecommunication network equipment".

This Standard replaces YD/T 983-1998 "Limits and methods of measurement of electromagnetic compatibility for telecommunication Power supply equipment" from the date of implementation.

Compare with YD/T 983-1998, the main changes of this Standard are as follows.

- SPECIFY that the telecommunication power supply equipment in this Standard does not include UPS (see Clause 1);
- ADD the frequency range of 1 GHz ~ 6 GHz for radiation disturbance test (see 8.2).
- MODIFY the classification and limits of harmonic current equipment (see 8.3);
- EXPAND the frequency range of radiated, radio-frequency, electromagnetic field immunity to 2.7 GHz (see Clause 9);
- SPECIFY the immunity level of telecommunication power supply equipment in telecommunication centers and other-than-telecommunication centers (see Clause 9).

Attention is drawn to the possibility that some of the contents of this document may be the subject of patent rights. The issuing agency of this document shall not be held responsible for identifying any or all of such patent rights.

This Standard was proposed by and shall be under the jurisdiction of China Communications Standards Association.

This Standard is drafted by Telecommunication Research Institute of the Ministry of Industry and Information Technology of the People's Republic of China.

Main drafters of this Standard. Tang Weisheng, Zhou Yi, Zhang Yunzhuan, Lu Bingsong.

This Standard was first issued on October 28, 1998. This is the first revision.

Limits and methods of measurement of
electromagnetic compatibility of
telecommunication power supply equipment

1 Scope

This Standard specifies the electromagnetic compatibility requirements for telecommunication power supply equipment (hereinafter referred to as TPE, excluding UPS, generator and battery), including limits, performance criteria and measurement methods, etc.

This Standard applies to the power supply equipment for telecommunication switching equipment, telecommunication transmission equipment and wireless communication equipment.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the dated edition cited applies. For undated references, the latest edition of the referenced document (including all amendments) applies.

GB 9254 Limits and methods of measurement of radio interference characteristics of information technology equipment

GB 17625.1 Electromagnetic compatibility - Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)

GB 17625.2 Electromagnetic compatibility (EMC) - Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection

GB/T 17626.2 Electromagnetic compatibility (EMC) - Testing and measurement

techniques - Electrostatic discharge immunity test

GB/T 17626.3 Electromagnetic compatibility - Testing and measurement techniques

- Radiated, radio-frequency, electromagnetic field immunity test

GB/T 17626.4 Electromagnetic compatibility - Testing and measurement techniques

EMC ElectroMagnetic Compatibility

EUT Equipment Under Test

TPE Telecommunication Power Supply Equipment

UPS Uninterrupted Power Supply

4.1 General conditions

The TPE shall be tested under normal test conditions. The test conditions shall be recorded in the report.

Regardless whether the TPE requires special software or test fixtures to connect to the host equipment, the test layout shall be as close to the normal or typical actual operation state as possible.

The test conditions of the TPE shall be as close to the actual installation conditions as possible, and the wiring shall be consistent with the actual process. If the TPE is to be installed in a rack or an enclosure as specified by the manufacturer, unless otherwise stated, the TPE shall be installed according to the method stated in the instructions or the installation manual.

If the equipment is part of the system or is connected to the ancillary equipment, the equipment shall be connected to the ancillary equipment of the minimum typical configuration during the test, however, the port connected to the ancillary equipment shall be activated.

If the equipment has a large number of ports, it shall select a sufficient number of ports to ensure that the actual situation can be simulated and that different types of ports can be tested.

If the TPE consists of multiple telecommunication power supply modules, each telecommunication power supply module shall be tested.