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

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**Technical requirement for environmental labeling products.
Servers
(English Translation)**

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Table of Contents

Foreword

1 Scope of application

2 Normative references

3 Terms and definitions

4 Basic requirements

5 Technical content

5.1 Limits for toxic and hazardous substances in products and product parts

5.2 Power Module Efficiency and Product Power Consumption Requirements

Foreword

To implement the Environmental Protection Law of the People's Republic of China, reduce the impact of network servers on the environment and human health, and effectively use and festivals this standard is formulated for resources and energy.

This standard limits the toxic and hazardous substances of network servers, power module efficiency and product power consumption limits, renewable design and production.

Requirements for procedures, packaging materials, recycling and public information.

This standard is the first release.

Appendix A of this standard is an informative annex, and Appendix B is a normative appendix.

This standard applies to China Environmental Labeling Product Certification.

This standard was formulated by the Science and Technology Standards Department of the Ministry of Environmental Protection.

This standard is mainly drafted by. China-Japan Friendship Environmental Protection Center, China Taier Laboratory, Huawei Technologies Co., Ltd., Chengdu Huawei Symantec Technology Co., Ltd., Intel (China) Co., Ltd. and Chengdu Huawei Storage Network Security Co., Ltd.

This standard was approved by the Ministry of Environmental Protection on March 2, 2011.

This standard has been implemented since April 1, 2011.

This standard is explained by the Ministry of Environmental Protection.

Environmental Labeling Product Technical Requirements Web Server

1 Scope of application

This standard specifies the terms and definitions, basic requirements, technical content and testing methods of network server environmental labeling products.

This standard applies to network servers. The structure includes desktop servers, rack servers, and blade servers.

Compute server and storage server.

2 Normative references

The contents of this standard refer to the terms in the following documents. For undated references, the valid version applies to this standard.

GB/T 18455 packaging recycling mark GB/T 16288 logo for plastic products SJ/T 11363 Limitation requirements for toxic and hazardous substances in electronic information products SJ/T 11365 Detection method for toxic and hazardous substances in electronic information products

3 Terms and definitions

The following terms and definitions apply to this standard.

Web server

An important part of an information system is a computer system that provides specific application services to network client computers in an information system.

Hardware system (processor, storage device, network connection device, etc.) and software system (operating system, database management system, application system) composition.

This standard mainly refers to the hardware system part of the network server.

Idle state idle mode an operational state of a server device, which refers to the complete loading of the operating system and other software, and the server has the ability to handle load tasks, but it is not yet submitted to process the status of the application.

Power efficiency

The ratio of the actual output power of the server power supply to the actual input power when it reaches a steady state of operation.

Base configuration

A reference configuration defined to harmonize test benches for efficiency and power requirements.

Extended configuration A configuration proposed to define the power consumption impact of the added components above the baseline configuration.

4 Basic requirements

4.1

Product quality and safety performance should meet the requirements of relevant standards.

4.2

Pollutant emissions from product manufacturing enterprises shall comply with national or local standards for pollutant discharge.

4.3

Product manufacturers should strengthen clean production in the production process.

5.1 Limits for toxic and hazardous substances in products and product parts

Mercury (Hg), cadmium (Cd), hexavalent chromium (Cr6), polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) in products and product components the limits for five categories of toxic and hazardous substances shall comply with the requirements of SJ/T 11363.

5.2 Power Module Efficiency and Product Power Consumption Requirements

5.2.1

The efficiency of the power supply module should meet the requirements of Table 1.

Table 1 Power module efficiency limit requirements

Load condition	limit power efficiency	power factor (PF)
20%	$\geq 82\%$	0.8
50%	$\geq 85\%$	0.9
100%	$\geq 82\%$	0.95

5.2.2 Product Reference Configuration Idle State Power Requirements

5.2.2.1

Single-Slot and Two-Slot Computing Servers Reference Configuration The idle state power consumption should meet the requirements of Table 2.

Table 2 Single-Slot and Two-Slot Computing Servers Baseline Configuration Idle State Power Limits Requirement Unit. W

Type	Type Description	Baseline Configuration	Limit
Single slot	Computing server	Compute server with one processor socket, including desktop service Server, rack server, excluding blade server	Fully equipped processor, one hard drive, 4 GB system memory, service the

minimum number of power modules that can be operated by the server, two Gbit Ethernet port ≤ 65 Double slot Computing server Compute server with two processor sockets, including desktop service Server, rack server, excluding blade server Fully equipped processor, one hard drive, 4 GB system memory, service the minimum number of power modules that can be operated by the server, two Gbit Ethernet port ≤ 150

5.2.2.2

Storage Server Reference Configuration The idle state power consumption shall comply with the requirements of Table 3.

Table 3 Storage Server Baseline Configuration Idle State Power Limits Requirement Unit. W

Type	Type Description	Baseline Configuration	Limit
Disk-controlled integrated storage	Storage server	Server and hard disk are integrated in one frame, minimum storage system Consists of a single box, including desktop servers, rack-mounted services , not including the blade server 1 or 2 servers, full processor, 1 GB or more of memory, 12 hard drives, the smallest number of power modules that can be operated, two Gbit Ethernet port or Fibre Channel port ≤ 450	Disk-controlled separation Storage server the server and the hard disk are respectively configured in different frames, and the minimum the storage system consists of a server chassis and a disk enclosure.

Into, including desktop servers, rack servers, not included Blade server 1 or 2 servers, full processor, 2 GB or more of memory, 16 hard drives, the smallest number of power modules that can be operated, two Gbit Ethernet port or Fibre Channel port ≤ 800

5.2.3 Product Expansion Configuration Idle State Power Requirements

5.2.3.1

Single-Slot and Two-Slot Computing Servers Extended Configuration The idle state power consumption shall comply with Table 4.

Table 4 Single-Slot and Two-Slot Computing Server Extended Configuration Idle State Power Limit Requirement Unit. W

Extended configuration limit	Every additional 1 GB of memory ≤ 2 Every additional hard disk ≤ 8 each additional power supply module ≤ 20 Every additional I/O device
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1 Gbit and 1 Gbit and 6 Test methods

6.1 The detection and calculation in Technical Content 5.2 shall be carried out in accordance with the method specified in Appendix B.

6.2 Other requirements in the technical content shall be verified by means of document review in conjunction with on-site inspection.

Appendix A