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

GB 12041.1-2010

Replacing GB 12041-2001

**Information technology -- Chinese ideogram coded character
set (basic set). 48 dot matrix font -- Part 1: Song Ti**

信息技术 汉字编码字符集（基本集）48点阵字型 第1部分：宋体
(English Translation)

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Foreword

In addition to all the technical word Table 1 area to 11 GB 12041 area content of this section is mandatory.

GB 12041 "Information technology - Chinese ideogram coded character set (basic set) - 48 dot matrix font" is divided into four parts as follows.

- Part 1. Times New Roman;
- Part 2. blackbody;
- Part 3. italics;
- Part 4. italics.

This is Part 1 GB 12041's.

The provisions of section 48 of the dot matrix Chinese character fonts on a "first VARIANT," and "Simplified summary table", "common Chinese characters printed form" and "Modern Chinese Characters generic word table" (see reference) as the basis, according to the current Chinese Characters consolidation principles and design.

This Part replaces GB 12041-2001 "Information technology - Chinese ideogram coded character set (basic set) - 48 dot matrix", and GB 12041-2001 compared to the main changes are as follows.

- In order to further improve the quality of fonts and ensure harmonization between the standards for mathematical symbols error 01 area is revised;
- On 03 areas, 10-character errors district, lowercase letters from the reference line errors corrected;
- Area of 04, 05 area Japanese kana/katakana character part has been redesigned;

--- Do not meet the Chinese character font specification modified some of the characters have also been amended.

This section of the Appendices A and B are normative appendix.

This part is proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This part of the National Information Technology Standardization Technical Committee (SAC/TC28) centralized.

Introduction

Authorization to use the relevant font data transfer matters, to maintain the standard font data, updating and revision of unity is responsible for the centralized units.

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Information technology - Chinese ideogram coded character set (basic set) 48 dot matrix font - Part 1. Arial

1 Scope

This section provides a graphic character in GB 2312-1980 48 dot matrix font Times New Roman.

This section applies to a variety of electronic information products, all kinds of digital products, can also be used for other related equipment.

2 Normative references

The following documents contain provisions which, through reference in this Part of GB 12041, constitute provisions of this part. Cited documents dated, its all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encourage each agreement under this section are Prescriptions can use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB 2312-1980 exchange of information with Chinese characters coded character set basic set

3 Terms and Definitions

The following terms and definitions apply to this part of GB 12041.

Font glyph

One kind of recognizable abstract graphic symbol, it does not depend on any particular design.

Font font

Glyph image set having the same basic design, such as. Times New Roman.

Bitmap fonts dotmatrixfont in a collection of dots to show the graphic character (type) form.

Word order characterorder Graphic character in the set are arranged according to certain rules of order.

4 Character graphics character

According to the provisions of this part of GB 2312-1980, and accordingly provides.

01 ~ 09 area of foreign letters and other graphic characters 682;

16 to 55 district-level first kanji 3755;

56 to 87 characters zone second stage 3008;

Also in the District 8 27-32 supplemented with 6 characters; 10 District 01-94 supplemented with 94 half-word graphic characters; 11 District 01 to 32 supplemented with 32 half-word character pinyin, see Appendix A.

This section provides a total graphic character 7577.

5 Standard data management

To strengthen the management of information technology products with Chinese characters standard font and font data to ensure consistency in the implementation of this part of the data and n Indeed, authorization to use the relevant font data transfer matters, to maintain the standard font data, updating and revision of unity is responsible for the centralized units.

The method represents bitmap fonts

6.1 Grid

Equidistant grid by a number of vertical and horizontal lines intersect to form.

The provisions of section 48 bitmap fonts, which is a lateral grid 48 grid, 48 longitudinal grid. The center of each square is set at the center position of the point.

Raster Only constituting the lattice points are positioned 48 lattice grid shown in Figure 1.

Figure 148 dot raster

6.2 Points

Point is the smallest unit constituting the lattice-shaped, circular indicated that it is located within the black areas of the parties to the grid.

6.3 Lattice words

Word character dot-matrix font by the number of points placed within the grid set to represent. Chinese character "Yong" word lattice 48 in FIG. 2 FIG.

Figure 2 48 dot matrix Chinese word "never" in

6.4 Font data

48 dot font data representation, see Appendix B.

Table 6.5 bitmap fonts

This section provides 7445 characters/graphic characters and supplementary provisions of GB 2312-1980 132 48 dot matrix graphic character Font.

The lattice-shaped partial list follows.

twenty one

twenty two

Appendix A

(Normative)

Supplementary character description this section is based on the development of GB 2312-1980. Depending on the need, before the revision of GB 2312-1980, in Part Points in the character temporarily supplemented as follows.

10-01 to 10-94 supplement 94 half-word graphic characters, their order and GB 2312-1980 Table 1, a region 03 One correspondence, font width corresponding to the width of the glyph area 03 1/2.

Fu, the order of this Section 8 District 01-32 correspond to 32 characters, font width 8-shaped area corresponding to the width of the first half.

Appendix B

(Normative)

48 Dot matrix font data

Represents B.1 48 dot font data this section, the graphic character font data is represented by a dot. Each dot font data is 48 x 48 (dots x vertical transverse Column points), a total of