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

GB/T 22372-2008

Test chart for laser printer

单色黑白激光打印机测试版

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1 Scope

GB/T 22372-2008 is the Chinese national standard on test chart for laser printer, in the field of information technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 1 September 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 February 2009. Classification: ICS 35.060, CCS Y54. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the technical requirements and usage methods of the beta version of the monochrome black and white laser printer, and introduces the use of the beta version in the appendix methods and evaluation methods. This standard applies to the testing and evaluation of the image quality of monochrome laser printers of A3 and A3 size. The laser printer test version consists of 7 parts. comprehensive version, full black version, missing printing version, full white version, grayscale version, ghost version and consumption version.

2 Normative references

The clauses in the following documents become clauses of this standard through reference in this standard. For dated references, all subsequent Amendments (excluding errata content) or revisions do not apply to this standard, however, parties to agreements based on this standard are encouraged to study if the latest version of these files is available. For undated references, the latest edition applies to this standard.

GB/T 10073-2008 Method for evaluating image quality of xerographic copies

GB/T 10992.1-2008 Electrostatic copiers - Part

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 A test layout consisting of text, images, edition names, etc., within the effective printing format of the printer. A comprehensive guide for inspecting printer prints combined effect.

3.2 In the effective printing format of the printer, except for the relevant explanatory text information areas that should exist, the full-frame image exposure method is used to print the test layout. It is used to inspect the maximum printing area and image defects of printed products.

3.3 In the effective printing format of the printer, except for the relevant explanatory text content information area that should exist, the full-frame image is not exposed. way to print the test layout. Used to examine the bottom ash effect of printer prints.

3.4 Within the effective printing format of the printer, the test layout is arranged in an orderly manner with fixed coverage of text or graphics. Used to inspect the printer Consumed developer capacity.

Note. In the case of international trade or special requirements, the version and test methods of ISO 19752 may be used as appropriate.

3.5 Within the effective printing format of the printer, the test layout is composed of fixed and equidistant grid graphics. Used to inspect printer prints that fail to convert the original. The phenomenon that all document images are printed out. GB/T 22372-2008

3.6 In the effective printing format of the printer, a test layout composed of several intermediate-tone color blocks with different densities. Used to inspect the printer pair. Printing effect of blocks of different shades.

3.7 A test layout composed of fixed images within the valid printing format of the printer. It is used to inspect the periodic appearance of the printed products of the printer. The phenomenon in which the upper part of the content shows a residual image in the lower part.

3.8 The area made up of Chinese characters in the beta version of the printer.

3.9 The area in the printer beta that consists of image content.

3.10 The area in the printer beta used to label the beta layout name.

3.11 The area in the printer test version for recording information such as the model to be tested and the printer test environment. 3.12

3.13 The tonal gradation or contrast range of the image.

3.19 A multiple of the printout printout that differs from the original

1.1 relative to the size of the original in the electronic file. GB/T 22372-2008

3.20 The degree to which F-theta corrects for point errors by laser scanning.

3.21 The degree to which a material prevents the transmission of light or other radiation energy.

3.22 The degree of non-uniformity of optical density after printing of images with the same optical density at different positions on the test plate.

3.23 Density of areas without images or text in the print.

Note. Except for local contamination.

3.24 The degree to which the image is fixed on the print.

3.25 The uniformity of the width of lines without tonal gradation in the print.

3.26 The printed product is a uniformly arranged line graphic without tone gradation that is output in a vertical direction to the paper surface.

3.27 Line graphics with no tonal gradation and evenly arranged in the horizontal direction of the printed product and the paper surface.

3.28 The largest area imaged by all laser beam scans in the print.

3.29 It consists of several solid line graphics of the same length that start from the center of the circle and radiate outward at different angles.

3.30 A line graph consisting of two solid lines of the same length and intersecting at 90° at the midpoint.

3.31 A circular black area of a certain area with uniform density.

4 Requirements

4.1 Basic requirements Each test version specified in this standard is printed and generated by the application program "Laser Printer Test Version", which is stored in the CD-ROM and

is attached in the attached The requirements for graphics and images in the beta version are described in Record A.

4.2 Beta version of laser printer

---Comprehensive version

4.2.1 Drawing and structure drawing The drawing of the integrated version (A3) is shown in Figure 1, and its structure is shown in Figure 3. GB/T 22372-2008

4.2.7.2 Density inhomogeneity The area marked D in Figure 3 and Figure 4 is composed of all six solid circles with a diameter of $\Phi 8\text{mm}$.

4.2.7.3 Fastness of fixing The figure marked D in Figure 3 and Figure 4 is composed of two solid circles of $\Phi 8\text{mm}$ in the middle of the figure.

4.2.7.4 Line uniformity The areas marked F and G in Figures 3 and 4 consist of two sets of parallel lines.

4.2.7.5 Text area The area marked L in Figure 3 and Figure 4 is composed of Chinese characters in four fonts. Song, Hei, Imitation Song, and Kai, and the font sizes are Number 1 to Number 8.

4.2.7.6 Image area The area marked M in Figure 3 and Figure 4 consists of an image of 110mmx85mm (A3 version) and 70mmx85mm (A4 version) constitute.

4.2.7.7 Longitudinal uniform line drawing The area marked H in Figure 3 and Figure 4 has a length of 10mm (A3 version) or 7mm (A4 version), and the spatial frequency is 3 line pairs/mm arrangement of lines.

4.2.7.8 Horizontally uniform line drawing The area marked I in Figure 3 and Figure 4 consists of 10mm (A3 version) or 7mm (A4 version) in length and a spatial frequency of 3 line pairs/mm Arrangement of lines.

4.2.7.9 Defects All areas in the total area in Figures 3 and 4.

4.2.8 Other areas

4.2.8.1 Version name area For the area marked A1 in Figure 3 and Figure 4, the font specifications are shown in Table 2. For the area marked A2 in Figure 3 and Figure 4, the font specifications are shown in Table 2.

4.2.8.2 Recording area For the area marked N in Figure 3 and Figure 4, the font specifications are shown in Table 2.

4.2.8.3 Copyright area For the area marked O in Figure 3 and Figure 4, the font specifications are shown in Table 2.