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GA

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

GA/T 461-2019

Specifications for Resident Identity Card digital photo

居民身份证制证用数字相片技术要求

(English Translation)

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GA 461-2004 "Technical Requirements for Digital Photos for Resident Identity Cards." under.

-Amended to a recommended standard.

This standard is proposed by the Public Security Administration of the Ministry of Public Security.

This standard is under the jurisdiction of the Computer and Information Processing Standardization Technical Committee of the Ministry of Public Security.

This standard was drafted. First Research Institute of the Ministry of Public Security.

1 Scope

This standard specifies the style specifications, requirements, inspection methods, and inspection rules for digital photos used for residence ID cards.

This standard applies to the development and construction of resident identity card acceptance, certification and application systems.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this document.

For undated references, the latest version (including all amendments) applies to this document.

ISO DIS 10918-1 CCITT Recommendation T.81 Digital Compression and Encoding of Continuous-Tone Still Images Coding of Continuous-tone Still Images (JPEG), CCITT Recommendation T.81)

3 Terms and definitions

The following terms and definitions apply to this document.

Resident Identity Card digital photo A digital image file of the applicant's recent color positive headless avatar, which is used by the resident ID card, is referred to as a digital photo.

Test sample chart

Specially designed charts for detecting technical indicators such as sharpness, color and hue.

Sample chart digital photo Without changing the shooting environment, camera parameters, and operating method steps, place the standard test card as the subject on the subject Position, the photos generated in the same way as usual for people.

4.1.1 Style

The digital photo style is shown in Figure 1.

358 pixels

207 pixels $\pm$ 14 pixels 441 pixels not less than 207 pixels

7 Pixels to 21 pixels

Figure 1 Digital photo style for resident identification card

4.1.2 Specifications 358 pixels (width) x 441 pixels (height), resolution 350dpi.

4.1.3 Color Mode

24-bit RGB true color.

4.1.4 Compression method Adopt JPEG compression technology, compression quality factor 70 (general photo file capacity is between 14k-20k bytes), conform to ISO DIS 10918-1 required.

4.1.5 General requirements Residents who often wear glasses should wear glasses without standard clothing. Requires clear portraits, rich levels, natural looks, and no obvious distortion.

4.1.6 Avatar Size and Position the portrait is horizontally centered in the rectangular frame of the photo, the face is 207 pixels $\pm$ 14 pixels wide, and the top trace is 7 pixels to 21 pixels from the top edge of the photo.

The distance between the eye's position and the bottom edge of the photo is not less than 207 pixels.

If the distance between the bottom edge of the film and the above requirements cannot be met at the same time, the distance between the position of the eye and the bottom edge of the photo should not be less than 207 pixels, under special circumstances can be partially cut off towering hair.

4.1.7 Background, border White background, no border.

4.2 Digital photos of standards

4.2.1 Color deviation Use the standard sample test card specified in Appendix A as the digital photo of the standard sample. The deviations of the three primary color values of R, G, and B on the gray plates 1 to 4 should be no more than 15, the deviation between the 5th color block and the standard value ΔE^*_{ab} is less than 10 (standard value. $A^* = 12.51$, $B^* = 10.39$), the 6th color block and the standard value the deviation ΔE^*_{ab} is less than 10 (standard values. $A^* = 14.88$, $B^* = 12.86$).

4.2.2 Gray deviation the brightness value $[(RGB)/3]$ of the gray plate 1 of the standard digital photo should be less than 60.

The brightness value $[(RGB)/3]$ of the gray plate 2 of the standard digital photo is 100 ± 15 .

The brightness value $[(RGB)/3]$ of the gray plate No. 3 of the standard digital photo is 150 ± 15 .

The brightness value $[(RGB)/3]$ of the gray plate No. 4 of the standard digital photo is 200 ± 15 .

4.2.3 Clarity

The red arcs of the digital photos of the standard should be clear and legible.

5 Inspection method

5.1 General requirements and background frame Open the digital photo file to be tested, and visually inspect to determine whether the results meet the requirements of 4.1.5 and 4.1.7.

5.2 Avatar Size and Position Open the digital photo file under test, read the relevant data, and judge whether the result meets the requirements of 4.1.6.

5.3 Color deviation

Open the standard test card specified in Appendix A as the digital photo file of the standard obtained by the subject, and read the gray plates 1 to 4 and 5 the color value (area average) of the color block No. 6 determines whether the result meets the value range required by 4.2.1.

5.4 Gray deviation

Open the standard test card specified in Appendix A as the digital photo file of the standard obtained by the subject, and read the gray plates 1 to 4 and 5 respectively.

The brightness value (area average) of the color block, and the judgment result is in accordance with the value range specified in 4.2.2.

5.5 Clarity

Open the standard test card specified in Appendix A as the digital photo file of the standard obtained by the subject, and visually observe the fan-shaped radiation pattern Resolution to determine whether the results meet the requirements of 4.2.3.

6 Inspection rules

6.1 Inspection classification Inspection of this standard is divided into type inspection and operation inspection.

6.2 Type inspection

6.2.1 Application

In the following cases, type inspection should be carried out.

- a) When new system, migration or decommissioning is resumed for more than 1 month;
- b) when the digital camera or light is replaced with a brand model or overhauled;