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

GA/T 591-2023

Forensic sciences - Specifications for photographic equipment

法庭科学照相设备技术条件

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting.

This document replaces GA/T 591-2006 "Technical Conditions for Criminal Photography Equipment". Compared with GA/T 591-2006, except for structural adjustments and in addition to editorial changes, the main technical changes are as follows.

- Changed the content of the scope (see Chapter 1, Chapter 1 of the 2006 edition);
- Added normative reference documents (see Chapter 2, Chapter 2 of the 2006 edition);
- Added terms and definitions (see Chapter 3);
- Deleted regular camera content (see 3.1 of the 2006 version);
- Changed the title of Chapter 4 (see Chapter 4, Chapter 3 of the 2006 edition);
- Added other imaging equipment content (see 4.2);
- Changed the technical conditions of the lens (see Chapter 5, Chapter 4 of the 2006 edition);
- Deleted the close-up attachment of Chapter 5 (see Chapter 5 of the 2006 edition);
- Deleted the color temperature conversion filter (see 2006 version 6.5);
- Added spectral imaging filter (see 7.6);
- Changed the requirements for optical fiber condenser light sources (see 8.3);
- Deleted the long and short wave UV remake station (see 8.5, 2006 version of 8.5);
- Changed the content of the special background curtain for prisoner photography (see

9.1, 2006 version of 9.1);

---Deleted the content of photosensitive materials (see Chapter 10 of the 2006 edition);

---Deleted the content of printing equipment (see Chapter 11 of the 2006 edition);

---Added output device content (see Chapter 10);

---Changed the content related to remake and projection equipment (see Chapter 11, Chapter 12 of the 2006 edition).

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies imaging equipment, lenses, filters, tripods, light sources, backdrops, output devices, reproduction and projection in the field of forensic science.

technical conditions of the video equipment.

This document applies to photographic equipment involved in the field of forensic science.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations for undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

GB/T 9917.1 Photographic lenses Part 1: Zoom lenses GB/T 9917.2 Photographic lenses Part 2: Fixed focal length lenses GB/T 20733 Digital camera terminology GB/T 29298 General specifications for digital (coded) cameras GB/T 29350-2012 Forensic Science Digital Imaging Technology Rules GA 235 General technical requirements for police multi-band light sources JB/T 12974 General rules for glass filters for photography

3 Terms and definitions

The terms and definitions defined in GB/T 20733 apply to this document.

4.1 Digital camera

4.1.1

Digital cameras used in forensic science photography should comply with the requirements of GB/T 29298.

4.1.2

Choose the imaging device as charge coupled device (CCD) or complementary metal oxide semiconductor device (CMOS) with a frame size equivalent to A small single-lens reflex camera of 36mmx24mm or 60mmx45mm or larger.

4.1.3

The geometric size of the imaging device used should not be less than 23.7mmx15.6mm.

4.1.4

The body and lens are detachable, the lens is replaceable, and close-up accessories can be connected between the two.

4.1.5

The camera body should be equipped with a single-lens reflex viewfinder and a color LCD viewfinder display.

4.1.6

The chromaticity information of the color management system should be no less than 24 bits, and the chromaticity information of each of the three primary colors of red, green and blue should be no less than 12 bits.

4.2 Other imaging equipment

UAVs with camera functions, three-dimensional imaging collectors, spectral imagers, scanners, industrial cameras, mobile phones and other equipment.

The image resolution of the equipment's photographic results should not be less than 800,000 dpi in the ultraviolet, visible, and near-infrared short-wave range, and should not be less than 800,000 dpi in the near-infrared long-wave range.

The circumference should not be less than 300,000 dpi.