

ICS 37.040.10

CCS N 46



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

GB/T 19893-2025

Replacing GB/T 19893-2005

Digital colour photographic print system

数码彩色扩印系统

Issued on: August 29, 2025

Implemented on: March 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Preface	III
1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Technical Requirements	2
5 Test methods	4
6 General test conditions	9
7 Inspection Rules	9
8 Marking, packaging, transportation and storage	10

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 19893-2005 "Digital Color Printing System". Compared with GB/T 19893-2005, except for the structural adjustment and In addition to editorial changes, the main technical changes are as follows.

- Added the test chart and calculation formula of the test method "color density uniformity" (see 5.3);
- Added the test chart of the test method "enlargement resolution" (see 5.4);
- Changed the calculation formula of the test method "distortion" (see 5.5, 5.5 of the 2005 edition);
- Deleted the relevant technical requirements and test methods for film scanners (see 4.9 and 5.9 of the 2005 edition);
- Added the calculation formula of the test method "density correction" (see 5.10);
- Added the calculation formula of the test method "color correction" (see 5.11);
- Added the test chart of the test method "grayscale reproduction" (see 5.12);
- Added the test chart for the test method "color reproduction" (see 5.13).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Machinery Industry Federation.

This document is under the jurisdiction of the National Technical Committee for Standardization of Photographic Machinery (SAC/TC107).

This document was drafted by: Shanghai Prism 3D Technology Co., Ltd., Hangzhou Photographic Machinery Research Institute Co., Ltd., Beijing Unicolor Technology Co., Ltd.

Technology Development Co., Ltd., Hangzhou Guozhao Testing Technology Co., Ltd., Guangzhou Senyang Electronic Technology Co., Ltd., Shenzhen Baibu Yinshe Technology Co., Ltd. company.

The main drafters of this document are: Hou Feng, Ge Shiqing, Xu Jun, Wang Jun, Chen Zhaohui, and Zhang Zhiguo.

The previous versions of this document and the documents it replaces are as follows.

- First issued in 2005 as GB/T 19893-2005;
- This is the first revision. Digital color printing system

1 Scope

This document specifies the technical requirements for digital color printing systems, describes the corresponding test methods, specifies general test conditions, and inspects Rules, marking, packaging, transportation and storage requirements.

This document applies to the design, manufacture and inspection of digital color printing systems that output silver halide photos.

2 Normative references

GB 4943.1-2022

GB/T 10973

GB/T 13384

GB 22449

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1

An operation key that changes the exposure of three colors simultaneously according to a certain ratio.

3.2 Color correction key

An operation key that changes the exposure of any (specified) color among the three colors according to a certain proportion.

3.3 Standard gray image

In a 24-bit color system with 8 bits per color, the brightness of the three colors R, G, and B is 128 for each data image.

3.4

A standard pattern of brightness steps from black to white.

3.5 Print resolution

The resolution of the enlarged photo.

Note. The unit is dots per inch (dpi) or line pairs per millimeter (lp/mm).