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

GB/T 14307-2025

Replacing GB/T 14307-1993

Measuring methods for non-broadcast video tape properties

非广播录像磁带性能测量方法

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Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Test conditions	3
4.1 Test Environment	3
4.2 Measuring Sample	3
5 Measuring instruments	3
5.1 Measuring microscope or projector	3
5.2 Micrometer	3
5.3 Tensile testing machine	3
5.4 Resistance Measuring Instrument	4
5.5 Magnetic parameter measuring instrument	4
5.6 Photometer	4
5.7 High-Frequency Signal Source	4
5.8 High-frequency voltmeter	4
5.9 TV test signal generator	4
5.10 Color Video Clutter Table	4
5.11 Lost Counter	5
5.12 Low-Frequency Signal Generator	5
5.13 RMS Voltmeter	5
5.14 Frequency Selective Voltmeter	5
5.15 Oscilloscope	6
5.16 Test video recorder (or test dedicated tape transport mechanism)	6
6 Mechanical and physical properties	6
6.1 Tape width	6
6.2 Tape Width Fluctuation	6
6.3 Tape thickness	6
6.4 Magnetic layer thickness	6
6.5 Breaking strength	6
6.7 Residual elongation	7
6.8 Longitudinal Shrinkage	7
6.9 Wet elongation coefficient	7

6.10 Interlayer Adhesion	7
6.11 Video Head Wear	8
6.12 Transmittance	8
6.13 Gap between tape and leader/trailer tape	8
6.14 Adhesion between magnetic tape and leader/trailer tape	8
6.15 Effective record length	8
6.16 Leader/Trailer Length	8
7 Electrical and Magnetic Properties	9
7.1 Magnetosphere Resistance	9
7.2 Coercive force H_c and residual magnetic induction B_r	9
7.3 Rectangular ratio K	9
8 Video Features	9
8.1 Optimal Recording Current I_c	9
8.2 RF output (brightness)	10
8.3 Chroma output level	10
8.4 Video signal-to-noise ratio S/N	10
8.5 Weighted Video Signal-to-Noise Ratio	11
8.6 Chroma Signal-to-Noise Ratio	11
8.7 Frequency Response of FM Channel D	13
8.8 Lost	13
8.9 RF Signal Wear WRF	13
8.10 Still image	13
8.11 Tape Life	13
9 Audio Features	14
9.1 Audio Sensitivity SA	14
9.2 Frequency Response DA	14
9.3 Audio output unevenness ΔSA	14
9.4 Audio signal-to-noise ratio	15
18 Appendix C (Normative) Unified Weighted Network for Measuring Continuous Random Clutter in Video	
19 C.1 Definition of a unified weighted network	19
C.2 Structure of the Unified Weighted Network	19
C.3 Parameters of the Unified Weighted Network	19
C.4 Insertion loss of uniformly weighted network A	20
C.5 Properties of Uniformly Weighted Networks	20
C.6 Weighting coefficients of unified weighted network for different types of clutter	20

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 14307-1993 "Videotape Performance Measurement Methods". Compared with GB/T 14307-1993, except for the structural adjustment In addition to the integration and editorial changes, the main technical changes are as follows:

- a) Added a chapter on "Terms and Definitions" (see Chapter 3);
- b) Added the recording method "VHS type 12.65mm spiral scan cassette video system chrominance signal recording" (see Appendix A);
- c) Added the recording method "U-type 19mm spiral scanning cassette tape system chrominance signal recording" (see Appendix B);
- d) Added the measurement method "Uniformly weighted network for measuring continuous random noise in video" (see Appendix C). 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 Petroleum and Chemical Industry Federation. This document is under the jurisdiction of the National Technical Committee for Standardization of Photosensitive Materials (SAC/TC102). This document was drafted by: Aerospace Intelligent Manufacturing Technology Co., Ltd., Lucky Film Co., Ltd., China Banknote Special Anti-Counterfeiting Technology Co., Ltd. company. The main drafters of this document are. Li Renfei, Zang Liheng, Li Na, Zhang Dan, Liu Qian, and Tian Zichun. The previous versions of this document and the documents it replaces are as follows:

---First published in.1993 as GB/T 14307-1993;

---This is the first revision. Methods for measuring the performance of non-broadcast videotapes

1 Scope

GB/T 14307-2025 is the Chinese national standard on measuring methods for non-broadcast video tape properties, 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 August 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 February 2026. Classification: ICS 35.220.20, CCS G82. 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 document describes methods for measuring the performance of non-broadcast videotapes. This document is applicable to the measurement of non-broadcast video tapes and can be used as a basis for identification and acceptance testing.

2 Normative references

This document has no normative references.

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 The thickness of the magnetic layer composed of magnetic powder, adhesive, etc. coated on the tape base.

3.2 Permanent elongation The percentage increase in length of a magnetic tape sample after it is subjected to a specified force for a specified time and the force is removed.

3.3 The change in tape length with temperature and humidity.

3.4 Change in length of a magnetic tape as relative humidity increases.

3.5 interlayer adhesion Adhesion between adjacent layers of a magnetic tape in a wound state.

3.6 The surface resistance of the tape coating over a portion of its length equal to its width.

3.7 coercivity H_c After the magnetic layer on the tape is magnetized to saturation, a reverse magnetic field is applied to reduce the magnetic induction intensity to zero, which corresponds to the magnetic field strength.

3.8 rectangular ratio The ratio of residual magnetic induction intensity to saturation magnetic induction intensity.