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

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Replacing GB/T 13187-1991

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**Magnetic tape sound recording and reproducing systems -  
General conditions and requirements**

磁带录放音系统 一般条件与要求

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## Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms
- 4 Units and symbols
- 5 Rules for drawings
- 6 Scales of characteristic diagrams
- 7 Matching requirements

### 1 Scope

This standard lays down the dimensional, mechanical and electrical performance requirements for unperforated blank and recorded magnetic tape and for reel-to-reel, cassette and cartridge recording and reproducing systems.

It applies to the drafting of the corresponding product standards.

### 2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the edition cited applies; for undated references, the latest edition, including all amendments, applies.

Chinese references: GB/T 1182-2008, Geometrical product specifications, GPS, geometrical tolerancing, tolerancing of form, orientation, location and run-out, an identical adoption of ISO 1101:2004; GB/T 4728.1-2005, Graphical symbols for diagrams, Part 1: General requirements, an identical adoption of the IEC 60617 database of 1985; GB/T 7309-2000, General specification for cassette audio tape; GB/T 9029-2011, Methods of measurement of wow and flutter of recording and reproducing equipment, a modified adoption of IEC 60386:1972; GB/T 12060.2-2011, Sound system equipment, Part 2: Explanation of general terms and calculation methods, an identical adoption of IEC 60268-2:1987; GB/T 12060.11-2012, Sound system equipment, Part 11: Application of connectors for the interconnection of sound system components; GB/T 14197-2012, Preferred matching values for the interconnection of audio, video and audio-visual systems, an identical adoption of IEC 61938:1996; GB/T 15212-1994, Application of connectors for use in broadcasting and similar sound systems, an equivalent adoption of IEC 60268-12:1987.

International references: ISO 128, Technical drawings, general principles of presentation;

ISO 543, on photographic safety film for cinematography, the printed English reading Photography, photographic safety film, specifications for safety film; ISO 1660, Technical drawings, dimensioning and tolerancing of profiles; IEC 60027, Letter symbols to be used in electrical technology; IEC 60050-801, International electrotechnical vocabulary, Chapter 801: Acoustics and electroacoustics; IEC 60050-806, International electrotechnical vocabulary, Chapter 806: Recording and reproduction of audio and video.

Further international references, all from the IEC 60094 series on magnetic tape sound recording and reproducing systems: IEC 60094-2, Part 2: Calibration tapes; IEC 60094-3, Part 3: Methods of measuring the characteristics of recording and reproducing equipment for sound on magnetic tape; IEC 60094-6, Part 6: Reel-to-reel systems; IEC 60094-7, Part 7: Cassette for commercial tape records and domestic use; IEC 60094-10, Part 10: Time and address code; IEC 60094-11, Part 11: Address code for compact cassettes. Also cited are IEC 60263, Scales and sizes for plotting frequency characteristics and polar diagrams, and IEC 60581-1, High fidelity audio equipment and systems, minimum performance requirements, Part 1: General.

### 3 Terms

The terms and definitions given in IEC 60050-801, in IEC 60050-806 and in GB/T 12060.2-2011 apply to this document.

### 4 Units and symbols

The letter symbols for quantities and units shall comply with the relevant provisions of IEC 60027.

### 5 Rules for drawings

Drawings in all parts of this standard shall comply with the relevant IEC and ISO standards, chiefly ISO 128, ISO 1101, ISO 1660 and GB/T 4728.1-2005.

### 6 Scales of characteristic diagrams

6.1 General. A linear or a logarithmic scale is recommended. A linear decibel scale is equivalent to a logarithmic scale. Where a decibel scale is used, the zero reference should as far as possible be the rated value. Other scales, such as log-log, are to be avoided. Where each dimension corresponds directly to a physical unit, combining a linear scale with a logarithmic scale is not recommended. Where the abscissa and the ordinate represent quantities of the same kind, the same unit length is recommended for both. A linear scale should be avoided as far as possible where the characteristic diagram lies far from the zero point. Note: IEC 60263 may be consulted for further information.

6.2 Scales for frequency characteristics. In a curve diagram the abscissa is frequency on a

logarithmic scale and the ordinate is level on a linear decibel scale. The scale ratio is taken so that the length of one decade equals the length corresponding to a level difference of 25 dB or of 50 dB. A decade length of 50 mm is preferred. If the size of the curve diagram is changed, the scale ratio shall be kept unchanged.

## **7 Matching requirements**

The connectors used and the preferred matching values shall follow GB/T 12060.11-2012, GB/T 15212-1994 and GB/T 14197-2012. The clause runs on past the foot of the last page available in the scan and the remainder was not read.