## International Standard



INTERNATIONAL ORGANIZATION FOR STANDARDIZATION●MEЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ●ORGANISATION INTERNATIONALE DE NORMALISATION

Information processing — 9-Track, 12,7 mm (0.5 in) wide magnetic tape for information interchange — Format and recording, using group coding at 246 cpmm (6 250 cpi)

Traitement de l'information — Bande magnétique à 9 pistes de 12,7 mm (0,5 in) de large pour l'échange d'information — Format et enregistrement utilisant des codages de groupe à 246 cpmm (6 250 cpi)

Descriptors: data processing, information interchange, magnetic tapes, 9-tracks, definitions, operating requirements, magnetic recording, data

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representation, block format, transportation.

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### **Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee international organizations, governmental and non-governmental, in liaison with ISO also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with SO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 5652 was prepared by Technical Committee ISO/TC 97, *Information processing systems*.

ISO 5652 was first published in 1983. This second edition cancels and replaces the first edition, of which sub-clause B.3.2 of annex B has been technically revised.

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# Information processing — 9-Track, 12,7 mm (0.5 in) wide magnetic tape for information interchange — Format and recording as sing group coding at 246 cpmm (6 250 cpi)

## 1 Scope and field of application

This International Standard specifies a format and recording standard for 9-track, 12,7 mm (0.5 in) magnetic tape to be used for data interchange between information processing systems, communication systems, and associated equipment utilizing the 7-bit coded character set (see ISO 646), its extension in ISO 2022 where required, and the 8-bit coded character set (see ISO 4873). Magnetic labelling for use on magnetic tape is the subject of ISO 1001. The magnetic tape and reel to be used shall conform to ISO 1864.

NOTE — Numeric values in the SI and/or Imperial measurement system in this International Standard may have been rounded and therefore are consistent with, but not exactly equal to, each other. Either system may be used, but the two should be neither intermixed nor reconverted. The original design was made using the Imperial measurement system.

#### 2 References

ISO 646, Information processing — ISO 7-bit coded character set for information interchange.

ISO 1001, Information processing — Magnetic tape labelling and file structure for information interchange.

ISO 1864, Information processing — Unrecorded 12,7 mm (0.5 in) wide magnetic tape for information interchange — 32 ftpmm (800 ftpi) NRZ1, 126 ftpmm (3 200 ftpi) phase encoded and 356 ftpmm (9 042 ftpi), NRZ1.

ISO 2022, Information processing — ISO 7-bit and 8-bit coded character sets — Coded extension techniques.  $^{1)}$ 

ISO 4873, Information processing — 8-bit code for information interchange — Structure and rules for implementation. <sup>2)</sup>

### 3 Definitions

For the purpose of this International Standard, the following definitions apply.

- **3.1** magnetic tape: A tape which will accept and retain magnetic signals intended for input, output and storage purposes on computers and associated equipment.
- **3.2** reference tape: A tape which has been selected for given properties for use in calibration.
  - **3.3 Secondary reference tape**: A tape intended for routine calibrating purposes whose performance is known and is stated in relation to that of a reference tape.
- **3.4 signal amplitude reference tape**: A reference tape selected as a standard for signal amplitude.

NOTE — A master standard (computer amplitude reference) has been established at the US National Bureau of Standards (NBS) based on reference tapes and heads. Secondary signal amplitude reference tapes are available from the NBS 3) under the part number SRM 6250.

- **3.5 typical field**: The minimum recording field which, when applied to a magnetic tape, causes a signal output equal to 95 % of the maximum signal amplitude at the specified physical recording density.
- **3.6** reference field: The typical field of the signal amplitude reference tape at 356 ftpmm (9 042 ftpi).

<sup>1)</sup> At present at the stage of draft. (Revision of ISO 2022-1982.)

<sup>2)</sup> At present at the stage of draft. (Revision of ISO 4873-1979.)

<sup>3)</sup> Office of Standard Reference Materials, Room B 311, Chemistry Building, National Bureau of Standards (NBS), Washington, D.C. 20234, USA.