

International Standard



1864

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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

Traitement de l'information — Bande magnétique vierge de 12,7 mm (0,5 in) de large, pour l'échange d'information — 32 ftpmm (800 ftpi) NRZ1, 126 ftpmm (3 200 ftpi) par codage de phase et 356 ftpmm (9 042 ftpi) NRZ1

Third edition — 1985-03-15

UDC 681.327.64

Ref. No. ISO 1864-1985 (E)

Descriptors : data processing, information interchange, magnetic tapes, half-inch magnetic tapes, virgin medium, bobbins, specifications, dimensions.

Price based on 11 pages

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 ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 1864 was prepared by Technical Committee ISO/TC 97, *Information processing systems*.

ISO 1864 was first published in 1975. This third edition cancels and replaces the second edition, ISO 1864-1984, of which it constitutes a technical revision.

This document is a preview generated by EVS

Contents		Page
1	Scope and field of application	1
2	References	1
3	Definitions	1
4	Environment	2
5	Characteristics of tape	2
6	Reel	5
Annex	— Reels conforming to the first edition of this International Standard	11

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

1 Scope and field of application

This International Standard specifies the characteristics of 12,7 mm (0.5 in) wide magnetic tape with reel, to enable magnetic and mechanical interchangeability of such tape between information processing systems.

This International Standard applies solely to magnetic tape for digital recording using the NRZ1 method of recording at 32 and 356 ftpmm (800 and 9 042 ftpi) or the phase-encoded method of recording at 126 ftpmm (3 200 ftpi) in which the direction of magnetization is nominally longitudinal.

NOTE — Numeric values in the SI and/or Imperial measurement system in this International Standard may have been rounded off 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/R 209, *Composition of wrought products of aluminium and aluminium alloys — Chemical composition (per cent)*.

ISO 468, *Surface roughness — Parameters, their values and general rules for specifying requirements*.

ISO 1863, *Information processing — 9 track, 12,7 mm (0.5 in) wide magnetic tape for information interchange recorded at 32 rpm (800 rpi)*.

ISO 3788, *Information processing — 9 track, 12,7 mm (0.5 in) wide magnetic tape for information interchange recorded at 63 rpm (1 600 rpi) phase encoded*.

ISO 5652, *Information processing — 9 track, 12,7 mm (0.5 in) wide magnetic tape for information interchange — Format and recording using group coding at 246 cpm (6 250 cpi)*.

ISO 6098, *Information processing — Self-loading cartridges for 12,7 mm (0.5 in) wide magnetic tapes*.

ASTM D 2000, *Rubber products in automotive applications, classification system for*.

3 Definitions

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

3.1 magnetic tape : A tape that will accept and retain the magnetic signals intended for input, output and storage purposes on computers and associated equipment.

3.2 reference tape : A tape that 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 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 tape has been established at the US National Bureau of Standards (NBS) for the physical recording densities 32 ftpmm (800 ftpi) and 126 ftpmm (3 200 ftpi). Secondary signal amplitude reference tapes are available from the NBS¹⁾ under the part number SRM 3200.

A further master standard tape has been established at the NBS for the physical recording density of 356 ftpmm (9 042 ftpi). Secondary signal amplitude reference tapes are available from the NBS 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 the specified physical recording density.

3.7 standard reference amplitude : The average peak-to-peak signal amplitude derived from the signal amplitude reference tape on the NBS measurement system, or equivalent, under the recording conditions specified in 5.13.

3.8 reference edge : The edge furthest from an observer when the tape is lying flat with the magnetic surface uppermost and the direction of movement for recording is from left to right.

1) Office of Standard Reference Materials, Room B311, Chemistry Building, National Bureau of Standards (NBS), Gaithersburg, M.D. 20899, USA.