

INTERNATIONAL STANDARD

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Information technology — Data interchange on 12,7 mm, 112-track magnetic tape cartridges — DLT 2 format

*Technologies de l'information — Échange de données sur cartouches de
bande magnétique de 12,7 mm, 112 pistes — Format DLT 2*



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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

International Standard ISO/IEC 13962 was prepared by ECMA (as Standard ECMA-197) and was adopted, under a special “fast-track procedure”, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Annexes A to E form an integral part of this International Standard. Annexes F to J are for information only.

Introduction

ISO/IEC 13421¹⁾ specifies a magnetic tape cartridge in which the 12,7 mm wide magnetic tape is recorded on 48 parallel physical tracks, recorded and read in pairs, which constitute two groups, the first recorded and read in forward direction, the second in reverse direction.

This International Standard constitutes a further development of the cartridge specified in ISO/IEC 13421 in that the number of tracks has been raised from 48 to 112, thus raising the total capacity of the cartridge accordingly. Drives for cartridges according to this International Standard may be able to read from, and write onto, cartridges according to ISO/IEC 13421.

¹⁾ ISO/IEC 13421:1993, *Information technology - Data interchange on 12,7 mm, 48-track magnetic tape cartridges - DLT1 format*.

Information technology - Data interchange on 12,7 mm, 112-track magnetic tape cartridges - DLT 2 format

Section 1 - General

1 Scope

This International Standard specifies the physical and magnetic characteristics of a 12,7 mm wide, 112-track magnetic tape cartridge, to enable interchangeability of such cartridges. It also specifies the quality of the recorded signals, a format - called Digital Linear Tape 2 (DLT 2) - and a recording method. Together with a labelling standard, e.g. ISO 1001, it allows full data interchange by means of such magnetic tape cartridges.

2 Conformance

2.1 Magnetic tape cartridges

A magnetic tape cartridge shall be in conformance with this International Standard if it satisfies all mandatory requirements of this International Standard. The tape requirements shall be satisfied throughout the extent of the tape.

2.2 Generating systems

A system generating a magnetic tape cartridge for interchange shall be entitled to claim conformance with this International Standard if all the recordings that it makes on a tape according to 2.1 meet the mandatory requirements of this International Standard.

2.3 Receiving systems

A system receiving a magnetic tape cartridge for interchange shall be entitled to claim conformance with this International Standard if it is able to handle any recording made on a tape according to 2.1.

3 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1001:1986, *Information processing - File structure and labelling of magnetic tapes for information interchange*.

ISO 1302:1992, *Technical drawings - Method of indicating surface texture*.

4 Definitions

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

4.1 Average Signal Amplitude: The average peak-to-peak value of the output signal from the read head at the physical recording density of 1 674 ftpmm measured over a minimum length of track of 25,4 mm, exclusive of missing pulses.

4.2 azimuth: The angular deviation, in minutes of arc, of the mean flux transition line of the recording made on a track from the line normal to the Reference Edge.

4.3 back surface: The surface of the tape opposite the magnetic coating which is used to record data.

4.4 Beginning-Of-Tape marker (BOT): A hole punched on the centreline of the tape towards the end nearest to the leader.

4.5 byte: An ordered set of bits acted upon as a unit.

Note 1 - In this International Standard, all bytes are 8-bit bytes.