INTERNATIONAL STANDARD

ISO/IEC 13481

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Information technology — Data interchange on 130 mm optical disk cartridges — Capacity: 1 gigabyte per cartridge

Technologies de l'information — Échange de données sur cartouches de disque optique de diamètre 130 mm *— Capacité: 1 gigabyte par cartouche*

Reference number
ISO/IEC 13481:1993(E)

Contents

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 13481 was prepared by the European Computer Manufacturers Association (as Standard ECMA-183) and was adopted, under a special "fast-track procedure", by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

Annexes A, B, D, E, F, K, L and N form an integral part of this International Standard. Annexes C, G, H, J, M and P are for information only.

Patents

During the preparation of the ECMA standard, information was gathered on patents upon which application of the standard might depend. Relevant patents were identified as belonging to the MAXOPTIX Corporation. However, neither ECMA nor ISO/IEC can give authoritative or comprehensive information about evidence, validity or scope of patent and like rights. The patent holders have stated that licences will be granted under reasonable and non-discriminatory terms. Communications on this subject should be addressed to

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Introduction

This International Standard specifies the characteristics of 130 mm Optical Disk Cartridges (ODC) with a capacity of 1 Gbyte per cartridge. This International Standard specifies two related but different implementations of such cartridges, viz.

Type R/W Provides for data to be written, read, and erased many times over the whole of both recording surfaces of the disk using the thermo-magnetic and magneto-optical effects.

Type WO Provides write once, read multiple functionality on the whole of both disk surfaces using the thermo-magnetic and magneto-optical effects.

Information technology - Data interchange on 130 mm optical disk cartridges - Capacity: 1 gigabyte per cartridge

Section 1 - General

1 Scope

This International Standard specifies the characteristics of 130 mm optical disk cartridges (ODCs) with a capacity of 1 Gigabyte per cartridge. It specifies two related, but different implementations of such cartridges:

Type R/W Provides for data to be written, read and erased many times over the whole of both recording surfaces of the disk using the thermo-magnetic and magneto-optical effects.

Type WO Provides write once, read multiple functionality on both disk surfaces using the thermo-magnetic and magneto-optical effects.

This International Standard specifies:

- the conditions for conformance testing and the reference drive;
- the environments in which the cartridges are to be operated and stored;
- the mechanical, physical and dimensional characteristics of the case and of the cartridge, so as to provide mechanical interchangeability between data processing systems;
- the format of the information on the disk, both embossed and user-written, including the physical disposition of the tracks and sectors, the error correction codes, and the modulation method used;
- the characteristics of the embossed information on the disk;
- the magneto-optical characteristics of the disk, enabling processing systems to write data onto the disk;
- the minimum quality of user-written data on the disk, enabling data processing systems to read data from the disk.

It also provides for interchange between optical disk drives. Together with a standard for volume and file structure, it provides for full data interchange between data processing systems. Interchange involves the ability to write, read and erase data without introducing any error.

2 Conformance

2.1 Optical disk cartridges

An ODC claiming conformance with this International Standard shall specify its Type. It shall conform to this International Standard if it meets all mandatory requirements specified herein for that Type.

2.2 Generating system

A claim of conformance with this International Standard shall specify which Type(s) is (are) supported. A system generating an ODC for interchange shall be entitled to claim conformance with this Standard if it meets all mandatory requirements of this Standard for the Type(s) specified.

2.3 Receiving system

A claim of conformance with this International Standard shall specify which Type(s) is (are) supported.

A system receiving an ODC for interchange shall be entitled to claim conformance with this International Standard if it is able to handle any recording made on the cartridge according to 2.1 on the Type(s) specified.

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 683-13:1986, *Heat treatable steels, alloy steels and free-cutting steels - Part 13: Wrought stainless steels.*

IEC 950:1991, *Safety of information technology equipment, including electrical business equipment.*