

INTERNATIONAL STANDARD

ISO/IEC 9529-2

First edition
1989-09-15

Information processing systems — Data interchange on 90 mm (3,5 in) flexible disk cartridges using modified frequency modulation recording at 15 916 ftprad, on 80 tracks on each side —

Part 2: Track format

*Systèmes de traitement de l'information — Échange de données sur cartouches à
disquette de 90 mm (3,5 in) utilisant un enregistrement à modulation de fréquence
modifiée à 15 916 ftprad sur 80 pistes sur chaque face —*

Partie 2: Schéma de piste



Reference number
ISO/IEC 9529-2 : 1989 (E)

AVA Documents
Document Sharing Hub

Contents

	Page
Foreword	iv
Introduction.....	v
1 Scope	1
2 Conformance.....	1
3 Normative references.....	1
4 General requirements	2
4.1 Mode of recording	2
4.2 Track location tolerance of the recorded flexible disk cartridge	2
4.3 Recording offset angle	2
4.4 Density of recording	3
4.5 Flux transition spacing	3
4.6 Average Signal Amplitude	3
4.7 Byte.....	4
4.8 Sector	4
4.9 Cylinder	4
4.10 Cylinder number	4
4.11 Data capacity of a track	4
4.12 Hexadecimal notation	4
4.13 Error Detection Characters (EDC)	4

5 Track layout..... 5

5.1 Index Gap 5

5.2 Sector Identifier 5

5.2.1 Identifier Mark 5

5.2.2 Address Identifier 6

5.3 Identifier Gap 6

5.4 Data Block 7

5.4.1 Data Mark 7

5.4.2 Data Field 7

5.4.3 EDC 7

5.5 Data Block Gap 7

5.6 Track Gap 7

6 Coded representation of data 8

6.1 Standards 8

6.2 Coding methods 8

Annexes

A - Procedure and equipment for measuring flux transition spacing 9

B - Data separators for decoding MFM recording 12

C - EDC implementation 13

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) together form a system for worldwide standardization as a whole. 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 approval before their acceptance as International Standards. They are approved in accordance with procedures requiring at least 75 % approval by the national bodies voting.

International Standard ISO/IEC 9529-2 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Introduction

ISO/IEC 9529 specifies the characteristics of 90 mm (3,5 in) flexible disk cartridges recorded at 15 916 ftprad using modified frequency modulation recording, on 80 tracks on each side. ISO/IEC 9529-1 specifies the dimensional, physical and magnetic characteristics of the cartridge, so as to provide physical interchangeability between data processing systems.

ISO/IEC 9529-1 and ISO/IEC 9529-2, together with the labelling scheme specified in ISO 9293, provide for full data interchange between data processing systems.

Information processing systems — Data interchange on 90 mm (3,5 in) flexible disk cartridges using modified frequency modulation recording at 15 916 ftprad, on 80 tracks on each side —

Part 2: Track format

1 Scope

This part of ISO/IEC 9529 specifies the track layout, the track format and the characteristics of the recorded signals.

NOTE - Numeric values in the SI and/or Imperial measurement system in this part of ISO/IEC 9529 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 SI units.

2 Conformance

A 90 mm (3,5 in) flexible disk cartridge is in conformance with this Part of ISO/IEC 9529 if it meets all mandatory requirements specified herein.

A prerequisite for conformance with this part of ISO/IEC 9529 is conformance with ISO/IEC 9529-1.

3 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 9529. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 9529 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 646:1983, *Information processing - ISO 7-bit coded character set for information interchange.*
- ISO 2022:1986, *Information processing - ISO 7-bit and 8-bit coded character sets - Code extension techniques.*
- ISO 4873:1986, *Information processing - ISO 8-bit code for information interchange - Structure and rules for implementation.*
- ISO 6429:1988, *Additional control functions for (7-bit and 8-bit coded) character-sets.*
- ISO 8859:1987 *Information processing - 8-bit single-byte coded graphic character sets.*
- ISO 9293:1987 *Information processing - Volume and file structure of flexible disk cartridges for information interchange.*