

INTERNATIONAL STANDARD

ISO
8630-1

First edition
1987-06-15



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

**Information processing — Data interchange on
130 mm (5.25 in) flexible disk cartridges using modified
frequency modulation recording at 13 262 ftprad, on
80 tracks on each side —**

Part 1:

Dimensional, physical and magnetic characteristics

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 8630-1 was prepared by Technical Committee ISO/TC 97, *Information processing systems*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Contents

	Page
0 Introduction	1
1 Scope and field of application	1
2 Conformance	1
3 References	1
4 Definitions	1
4.1 flexible disk	1
4.2 reference flexible disk cartridge	1
4.3 Secondary Amplitude Reference Disk Cartridge	1
4.4 Signal Amplitude Reference Disk Cartridge	2
4.5 Typical Field	2
4.6 Reference Field	2
4.7 Test Recording Current	2
4.8 Standard Reference Amplitude	2
4.9 Average Signal Amplitude	2
4.10 in-contact	2
4.11 formatting	2
4.12 initialization	2
4.13 recording area	2
5 General description	2
5.1 General figures	2
5.2 Main elements	2
5.3 Description	2
5.4 Optional features	2
6 General requirements	2
6.1 Environment and transportation	2
6.2 Materials	3
6.3 Direction of rotation	3

7	Dimensional characteristics	3
7.1	Jacket	4
7.2	Liner	5
7.3	Disk	5
8	Physical characteristics	5
8.1	Flammability	5
8.2	Coefficient of linear thermal expansion of the disk	5
8.3	Coefficient of linear hygroscopic expansion of the disk	5
8.4	Opacity	5
8.5	Torque	5
9	Magnetic characteristics	6
9.1	Track geometry	6
9.2	Functional testing	6
Annexes		
A	Measurement of the cartridge thickness	12
B	Measurement of light transmittance	14
C	Method for measuring the effective track width	16

Information processing — Data interchange on 130 mm (5.25 in) flexible disk cartridges using modified frequency modulation recording at 13 262 ftprad, on 80 tracks on each side —

Part 1: Dimensional, physical and magnetic characteristics

0 Introduction

ISO 8630 specifies the characteristics of 130 mm (5.25 in) flexible disk cartridges recorded at 13 262 ftprad, using modified frequency modulation (MFM) recording, on 80 tracks on each side.

ISO 8630-2 and ISO 8630-3 each specify the quality of recorded signals, the track layout, and a track format to be used on 130 mm (5.25 in), 13 262 ftprad flexible disk cartridges intended for data interchange between data processing systems.

ISO 8630-1 and ISO 8630-2, together with the labelling scheme specified in ISO 7665, provide for full data interchange between data processing systems.

ISO 8630-1 and ISO 8630-3, together with the labelling scheme specified in ISO 9293, provide an alternative method of full data interchange between data processing systems.

1 Scope and field of application

This part of ISO 8630 specifies the dimensional, physical and magnetic characteristics of the cartridge so as to provide physical interchangeability between data processing systems.

NOTE — Numeric values in the SI and/or Imperial measurement system in this part of ISO 8630 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 re-converted. The original design was made using Imperial units and further developments were made using SI units.

2 Conformance

A flexible disk cartridge shall be in conformance with ISO 8630 when it meets all the requirements of this part of ISO 8630 and all those of either ISO 8630-2 or ISO 8630-3.

3 References

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

ISO 2022, *Information processing — ISO 7-bit and 8-bit coded character sets — Code extension techniques.*

ISO 4873, *Information processing — ISO 8-bit code for information interchange — Structure and rules for implementation.*

ISO 6429, *Information processing — ISO 7-bit and 8-bit character sets — Additional control functions for character-mapping devices.*

ISO 7665, *Information processing — File structure and labelling of flexible disk cartridges for information interchange.*

ISO 9293, *Information processing — Volume and file structure of flexible disk cartridges for information interchange.*

4 Definitions

For the purpose of ISO 8630 the following definitions apply.

4.1 flexible disk: A flexible disk which accepts and retains on the specified side or sides magnetic signals intended for input/output and storage purposes of information data processing and associated systems.

4.2 Reference Flexible Disk Cartridge: A flexible disk cartridge arbitrarily selected for a given property for calibrating purposes.

4.3 Secondary Reference Flexible Disk Cartridge: A flexible disk cartridge intended for routine calibrating purposes, the performance of which is known and stated in relation to that of the reference flexible disk cartridge.