BS 7081 : Part 2 : 1989

ISO 8063/2-1986

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## British Standard Guide to

# Construction and use of 6.30 mm (0.25 in) magnetic tape cartridge for data interchange, using IMFM recording at 252 ftpmm (6400 ftpi)

## Part 2. Track format and method of recording for data interchange in start/stop mode

[ISO title: Information processing — Data interchange on 6,30 mm (0.25 in) wide magnetic tape cartridge using IMFM recording at 252 ftpmm (6 400 ftpi) — Part 2. Track format and method of recording for data interchange in start-stop mode]

Construction et utilisation des cartouches à bande magnétique de 6,30 mm (0,25 in) utilisant un enregistrement IMFM pour l'échange de données à 252 ftpmm (6400 ftpi)
Partie 2. Guide pour le schéma de piste et la méthode d'enregistrement pour l'échange de données en mode marche/arrêt

Ausführung und Anwendung von 6,30-mm-(0,25 in)-Magnetbandkassetten für den Datenaustausch unter Verwendung von invertierter modifizierter Wechseltaktschrift (IMFM) mit 252 Flußwechseln/mm (6400 ftpi)
Teil 2. Leitfaden für Spurformat und Aufzeichnungsverfahren für den Datenaustausch im Start/Stop-Bereich

# British Standards Institution

## Contents

## National foreword

This Part of BS 7081, prepared under the direction of the Information Systems Technology Standards Policy Committee, is identical with ISO 8063/2-1986 'Information processing — Data interchange on 6,30 mm (0.25 in) wide magnetic tape cartridge using IMFM recording at 252 ftpmm (6 400 ftpi) — Part 2: Track format and method of recording for data interchange in start/stop mode' published by the International Organization for Standardization (ISO).

The purpose of this standard is to define those characteristics necessary for successful data interchange using magnetic tape cartridges. The information contained is intended as a guide to writing complete specifications for manufacture, purchasing and/or testing. The text of the international standard does not accord with the recommendations for drafting product specifications given in the ISO Directives, or in BS 0 : Part 3, but the BSI Technical Committee considers the text is useful as a guide when cartridges are being described or specified. For this reason this British Standard has a different title from the international standard; it is issued as a British Standard guide, and it should only be used as such. It should not be used on its own as a British Standard product specification and, in particular, no claims of compliance with this British Standard should be made.

**Cross-references**

| International standard | Corresponding British Standard |
|---|---|
| ISO 646-1983 | BS 4730 : 1985 Specification for UK 7-bit coded character set (Identical, exercising national options) |
| ISO 2022-1986 | BS 6856 : 1987 Specification for code extension techniques for United Kingdom 7-bit and 8-bit coded character sets (Identical) |
| ISO 4341-1978 | BS 5769 Specification for magnetic tape cassette and cartridge labelling and file structure, for information interchange<br>Part 1 : 1979 Label standard version 1 (Identical) |
| ISO 4873-1986 | BS 6006 : 1987 Specification for structure and rules for implementation of United Kingdom 8-bit coded character set (Identical) |
| ISO 8063/1-1986 | BS 7081 Guide to construction and use of 6.30 mm (0.25 in) magnetic tape cartridge for data interchange, using IMFM recording at 252 ftpmm (6400 ftpi)<br>Part 1 : 1989 Mechanical, physical and magnetic properties (Identical) |

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

British Standard Guide to

# Construction and use of 6.30 mm (0.25 in) magnetic tape cartridge for data interchange, using IMFM recording at 252 ftpmm (6400 ftpi)

Part 2. Track format and method of recording for data interchange in start/stop mode

## 1 Scope and field of application

ISO 8063 specifies the characteristics of a tape cartridge using 6,30 mm (0.25 in) wide magnetic tape for data interchange between data processing systems.

ISO 8063/1 specifies the dimensional, physical and magnetic characteristics of the cartridge, and the track layout.

This part of ISO 8063 specifies the quality of the recorded signals, and the track format to be used on a 6,30 mm (0.25 in) magnetic tape cartridge, recorded at 252 ftpmm (6 400 ftpi) using IMFM recording and the start/stop mode of operation.

Together with the labelling scheme specified in ISO 4341, ISO 8063/1 and ISO 8063/2 provide for full data interchange between data processing systems.

NOTE — Numeric values in the SI and/or Imperial measurement system in this part of ISO 8063 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.

ISO 8063 applies to cartridges used for data interchange. Where it applies for testing only, this is specifically stated.

## 2 Conformance

A 6,30 mm (0.25 in) wide magnetic tape cartridge shall be in conformance with ISO 8063 if it meets all mandatory requirements of both ISO 8063/1 and ISO 8063/2.

## 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 4341, *Information processing — Magnetic tape cassette and cartridge labelling and file structure for information interchange.*

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

## 4 Data representation

Characters shall be represented by means of the ISO 7-bit coded character set (see ISO 646) and, where required, by its 7-bit or 8-bit extensions (see ISO 2022) or by means of the ISO 8-bit coded character set (see ISO 4873).

### 4.1 Recording of 7-bit coded characters

Each 7-bit coded character shall be recorded in bit positions B1 to B7 of an 8-bit byte; bit-position B8 shall always be recorded with ZERO. The relationship shall be as shown in figure 1.

### 4.2 Recording of 8-bit coded characters

Each 8-bit coded character shall be recorded in bit positions B1 to B8 of an 8-bit byte. The relationship shall be as shown in figure 2.

## 5 Recording

### 5.1 Method of recording

The method of recording shall be Inverted Modified Frequency Modulation (IMFM) for which the conditions shall be

| Bits of the 7-bit combination | 0 | b7 | b6 | b5 | b4 | b3 | b2 | b1 |
|---|---|---|---|---|---|---|---|---|
| Bit-positions in the byte | B8 | B7 | B6 | B5 | B4 | B3 | B2 | B1 |

**Figure 1**