AS 3602—1988

ISO 9661:1988

Australian Standard®

INFORMATION PROCESSING—DATA INTERCHANGE ON 12.7 mm WIDE MAGNETIC TAPE CARTRIDGES—18 TRACKS, 1491 DATA BYTES PER MILLIMETRE

(ISO title: Information processing—Data interchange on 12,7 mm (0.5 in) wide magnetic tape cartridges—18 tracks, 1 491 data bytes per millimetre (37 871 data bytes per inch))

This Australian Standard was prepared by Committee IS/1, Information Processing Systems. It was approved on behalf of the Council of Standards Association of Australia on 12 September 1988 and published on 12 December 1988.

The following interests are represented on Committee IS/1:

Australian Association of Permanent Building Societies
Australian Bankers' Association
Australian Bureau of Statistics
Australian Computer Equipment Manufacturers Association
Australian Computing Services Association
Australian Computer Users Association
Australian Information Industry Association
Canberra College of Advanced Education
CSIRO, Division of Information Technology
Department of Defence
Department of Industry, Technology and Commerce
Latrobe University
Life Insurance Federation of Australia
Public Service Board, N.S.W.
Telecom Australia
University of Technology, Sydney

Australian Standard®

INFORMATION PROCESSING—DATA INTERCHANGE ON 12.7 mm WIDE MAGNETIC TAPE CARTRIDGES— 18 TRACKS, 1491 DATA BYTES PER MILLIMETRE

(ISO Title: Information processing—Data interchange on 12,7 mm (0.5 in) wide magnetic tape cartridges—18 tracks, 1 491 data bytes per millimetre (37 871 data bytes per inch))

First published as AS 3602—1988.

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 5278 6

PREFACE

This Standard was prepared by the Association's Committee on Information Processing Systems. It is part of a ongoing project of review and addition of Input/Output Media Standards. It is identical with and has been prepared from International Standard ISO 9661—1988, drawn up by ISO/TC97, Information Processing Systems.

For the purpose of this Australian Standard, the text of this ISO Standard should be modified as follows:

(a) *Terminology:* The words 'Australian Standard' should replace the words 'International Standard' wherever they appear.

(b) *Substitute* a point (.) for a comma (,) as a decimal marker.

(c) *Cross-reference:* The references to International Standards should be replaced by references to Australian Standards as follows:

Reference to International Standard		*Australian Standard*	
ISO		AS	
646	Information processing—ISO 7-bit coded character set for information interchange	1776	Information processing—ISO 7-bit coded character set for information interchange
1001	Information processing—File structure and labelling of magnetic tapes for information processing interchange	1068	Information processing—File structure and labelling of magnetic tapes for information exchange
1702	Technical drawings—Method indicating surface texture of drawings	1100. 201	Technical drawing—Mechanical drawing
2022	Information processing—ISO 7-bit and 8-bit coded character sets—Code extension techniques	195	Information processing—ISO 7-bit and 8-bit coded character sets—Code extension techniques

Contents

Page

Page

Annexes

Information processing—Data interchange on 12.7 mm wide magnetic tape cartridges—18 tracks, 1491 data bytes per millimetre

Section 1: General

1.1 Scope

This International Standard specifies the physical and magnetic characteristics of a 12,7 mm (0.5 in) wide, 18-track magnetic tape cartridge to enable interchangeability of such cartridges. It also specifies a format and recording method thus allowing, together with ISO 1001 for magnetic tape labelling, full data interchange by means of such magnetic tape cartridges.

NOTE — Numeric values in the SI and/or Imperial measurement system in this International Standard 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.

1.2 Conformance

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

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 646 : 1983, *Information processing — ISO 7-bit coded character set for information interchange.*

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

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

ISO 1302 : 1978, *Technical drawings — Method of indicating surface texture on drawings.*

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.*

1.4 Definitions

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

1.4.1 Average Signal Amplitude: The average peak-to-peak value of the signal output of the read head measured over a minimum of 25,4 mm (1 in) of tape exclusive of missing pulses.

1.4.2 back surface: The surface of the tape opposite the magnetic coating used to record data.

1.4.3 byte: An ordered set of eight bits acted upon as a unit and recorded as a 9-bit pattern.

1.4.4 cartridge: A container holding a supply reel of magnetic tape with an attached leader block.

1.4.5 Cyclic Redundancy Check Character: A character represented by two bytes, placed at the end of a data block and used for error detection.

1.4.6 data density: The number of 8-bit bytes stored per unit length of tape, expressed in bytes per millimetre (bytes per inch).

1.4.7 Error Correcting Code: A mathematical procedure yielding bits used for the detection and correction of errors.

1.4.8 flux transition position: That point which exhibits maximum free-space flux density normal to the tape surface.

1.4.9 flux transition spacing: The distance along a track between successive flux transitions.

1.4.10 magnetic tape: A tape which will accept and retain the magnetic signals intended for input, output and storage purposes on computers and associated equipment.