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Information technology — High density digital recording (HDDR) —

Part 1:

Unrecorded magnetic tape for (HDDR)
applications

*Technologies de l'information — Enregistrement numérique à haute
densité (HDDR) —*

Partie 1: Bande magnétique vierge pour les applications HDDR



Reference number
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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 8441-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

ISO/IEC 8441 consists of the following parts, under the general title *Information technology — High density digital recording (HDDR)*:

- Part 1: *Unrecorded magnetic tape for (HDDR) applications*
- Part 2: *Guide for interchange practice*

Annexes A, B, C, D, E, F and G of this part of ISO/IEC 8441 are for information only.

Introduction

This part of ISO/IEC 8441 gives guidance on the performance levels of unrecorded tape suitable for high density digital recording for interchange purposes. It should be noted that the performance levels specified may differ from those attained at the time of purchase of the tape.

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Information technology — High density digital recording (HDDR) —

Part 1:

Unrecorded magnetic tape for (HDDR) applications

1 Scope

This part of ISO/IEC 8441 specifies requirements for unrecorded magnetic tape designed for high density digital recording (HDDR) having the following characteristics:

- a) nominal thickness 25,4 μm (0,001 in);
- b) longitudinal magnetic orientation;
- c) coercivity 72 kA/m (900 Oe) max.

These tapes are suitable for interchange in accordance with ISO/IEC 8441-2.

Requirements for packaging are also included.

NOTE 1 Tapes of coercivity above 32 kA/m (400 Oe) are usually classified as high energy tapes and users should establish compatibility with equipment used for driving them.

Annex A gives guidance on glass and metal-flanged reels. Annex B gives information on the wear of recording heads. Different categories of environmental conditions and their effects on tape are dealt with in annex C. Severe operating conditions are considered in annex D. Surface electrical resistance testing is dealt with in annex E. A tape abrasivity testing technique is described in annex F. A list of bibliographical references is given in annex G.

NOTES

2 It is recognized that archival interchange tapes, or those produced by systems in use prior to the publication of this part of ISO/IEC 8441, may not comply with the requirements and/or recommendations herein.

3 Various tests and procedures herein refer to recording with a.c. HF bias. In practice, certain HDDR systems do not use bias. The use of bias in this part of ISO/IEC 8441 does not imply that the tape so tested is in any way unsuitable for a biasless system.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 8441. 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 8441 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1184:1983, *Plastics — Determination of tensile properties of films*

ISO 1860:1986, *Information processing — Precision reels for magnetic tape used in interchange instrumentation applications*

3 Definitions

For the purpose of this part of ISO/IEC 8441, the following definitions apply.

NOTE 4 Tape speed is taken to be 3 048 m/s (120 in/s), unless otherwise stated.

3.1 abrasivity: The propensity of a magnetic tape to cause wear of a recording head, by the passage of the tape over the head.