INTERNATIONAL STANDARD

IEC 62122

First edition
2002-03

Methods of measurement for consumer-use digital VTRs – Electronic and mechanical performances

Méthodes de mesure pour les magnétoscopes numériques destinés au grand public – Performances électroniques et mécaniques

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch

Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE X

For price, see current catalogue

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

METHODS OF MEASUREMENT FOR CONSUMER-USE DIGITAL VTRs – ELECTRONIC AND MECHANICAL PERFORMANCES

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62122 has been prepared by TA 7: Moderate data rate storage media and equipment, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this standard is based on the following documents:

FDIS	Report on voting
100/452/FDIS	100/480/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

Annex A is for information only.

The committee has decided that the contents of this publication will remain unchanged until 2007. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

METHODS OF MEASUREMENT FOR CONSUMER-USE DIGITAL VTRs – ELECTRONIC AND MECHANICAL PERFORMANCES

1 Scope and object

This standard specifies the basic methods of measurement for evaluating the electronic and mechanical performances of consumer-use digital VTRs.

The formats of open reel VTRs, Beta, VHS, and 8 mm VTRs have been standardized. Methods of measurement for these analogue VTRs have been standardized in IEC 61041-1, IEC 61041-2, IEC 61041-3, IEC 61041-4, IEC 61041-5, and IEC 61146-3. Digital VTR 6,35 mm DV format and 12,65 mm D-VHS format have now been brought on the market. The methods of measurement for these consumer-use digital VTRs should be specified and standardized.

With these measurement techniques, some items for the evaluation of performances specific to digital VTRs have also been included.

There are two objectives for the proposed methods of measurement. One is to check the interchangeability and characteristics of the equipment under test which are indispensable to manufacturers, and the other is to evaluate the quality of image and sound, which concerns the customer. The latter is a priority for consumer satisfaction.

Since a consumer can use only general-purpose instruments, any test which needs dismantling of apparatus and requires special instruments is in principle not specified. As error rate is important for digital equipment, an example of a method for measuring error rate is given in annex A.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60094-3:1979, *Magnetic tape sound recording and reproducing systems – Part 3: Methods of measuring the characteristics of recording and reproducing equipment for sound on magnetic tape*

IEC 60386:1972, *Method of measurement of speed fluctuations in sound recording and reproducing equipment*

IEC 60883:1987, *Measuring method for chrominance signal-to-random noise ratio for video tape recorders*

IEC 61041-1:1990, *Non-broadcast video tape recorders – Methods of measurement – Part 1: General, video (NTSC/PAL) and audio (longitudinal) characteristics*

IEC 61041-5:1997, *Non-broadcast video tape recorders – Methods of measurement – Part 5: High-band video tape recorders including those equipped with Y/C video connectors (NTSC/PAL)*

IEC 61834 (all parts), *Recording – Helical-scan digital video cassette recording system using 6,35 mm magnetic tape for consumer use (525-60, 625-50, 1125-60 and 1250-50 systems)*

ITU-R BT.471-1:1986, *Nomenclature and description of colour bar signals*

ITU-R BT.500-10:2000, *Methodology for the subjective assessment of the quality of television pictures*

ITU-R BT.1204:1995, *Measuring methods for digital video equipment with analogue input/output*