INTERNATIONAL STANDARD

IEC 62356-2

First edition
2003-11

Video recording –
12,65 mm type D-11 format –

Part 2:
Picture compression and data stream

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 XA

For price, see current catalogue

SOMMAIRE

INTERNATIONAL ELECTROTECHNICAL COMMISSION

VIDEO RECORDING – 12,65 MM TYPE D-11 FORMAT –

Part 2: Picture compression and data stream

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. 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 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 IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62356-2 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

It was submitted to the national committees for voting under the Fast Track Procedure as the following documents:

CDV	Report on voting
100/630/CDV	100/700/RVC

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.

The committee has decided that the contents of this publication will remain unchanged until 2008-11. At this date, the publication will be

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

VIDEO RECORDING – 12,65 MM TYPE D-11 FORMAT –

Part 2: Picture compression and data stream

1 Scope

This International Standard specifies the compression of a high-definition source format to a dual-channel packetized data stream format which is suitable for recording on disc and tape storage devices including the Type D-11 tape recorder. The specification includes a number of basic packetizing operations including the shuffling of the source data prior to compression, both to aid compression performance and to allow error concealment processing in the decoder. The standard also includes the processes required to decode the compressed Type D-11 packetized data format into a high-definition output signal.

This standard supports high-definition source formats using 1 920 × 1 080 pixels and the sampling structures as specified in SMPTE 274M and RP 211 at the following picture rates:

- 24/1,001/PsF;
- 24/PsF;
- 25/PsF;
- 30/1,001/PsF;
- 50/I;
- 60/1,001/I

where 'PsF' indicates Progressive segmented Frame and 'I' indicates Interlaced.

The data packet format specified by this standard is used as the source data stream for the associated document which maps this Type D-11 packetized data-stream format together with AES3 data over SDTI.

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.

SMPTE 292M:1998, *Television – Bit-Serial Digital Interface for High-Definition Television Systems*

SMPTE 274M:1998, *Television – 1920 × 1080 Scanning and Analog and Parallel Digital Interfaces for Multiple Picture Rates*

SMPTE RP 211:2000, *Implementation of 24P, 25P and 30P Segmented Frames for 1920 × 1080 Production Format*

SMPTE 12M:1999, *Television, Audio and Film-Time and Control Code*

SMPTE RP 188:1999, *Transmission of Time Code and Control Code in the Ancillary Data Space of a Digital Television Data Stream*